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9TH EUROPEAN PUBLIC HEALTH CONFERENCE

All for Health, Health for All

Vienna, Austria 9–12 November 2016

ABSTRACT SUPPLEMENT

Guest editors: Thomas Dorner, Walter Ricciardi, Dineke Zeegers Paget

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1. INTRODUCTION

We are delighted to introduce this Abstract Supplement to the European Journal of Public Health which contains the abstracts of papers presented at the 9th European Public Health (EPH) Conference, held 9-12 November 2016 in Vienna, Austria. This supplement includes abstracts for the main part of the conference: plenary sessions, oral sessions, workshops, pitch sessions, poster walks and poster displays.

For Vienna 2016, we received a record number of 1,355 abstracts of which 90 workshop abstracts. Abstracts were received from 62 countries. We saw an increase in abstracts from early career professionals and students (increased to 428). All abstracts and workshops were scored by members of the International Scientific Committee (ISC). The ISC Vienna 2016 consisted of 87 experts from 24 countries and was chaired by Walter Ricciardi from Italy. We are extremely grateful to all ISC members for the hard work this involved. The members of the ISC scoring in 2016 are listed in the Box.

On average, each abstract was scored by 4.7 reviewers, each workshop by 5.2. The average score of single presentations was 4.28. The highest score was 6.250, the lowest 1.500. The average score of workshops was 4.520. The highest score was 6.000, the lowest 1.600. The EPH Conference Executive Board met on 13 June 2016 to decide on cut-off points for workshops, oral presentations, pitch presentations and poster presentations. The following decisions were made:

Workshops 90 minutes	average score of 4.950 or higher were accepted in the programme
Workshops 60 minutes	average score of 4.000 or higher were accepted in the programme
Oral presentations	average score of 5.000 or higher were accepted
Pitch presentations	average score of 4.375 or higher were accepted
E-Poster walks	average score of 4.000 or higher were accepted in the E-poster walks
E-Poster displays	average score of 3.500 or higher were accepted as E-poster displays

Following these decisions, abstracts were grouped in sessions, sessions in tracks and tracks were linked to the contents of the plenary programme. The programme for Vienna 2016 is organised in 16 thematic tracks, that mix workshops, oral sessions and pitch sessions. Poster walks and poster displays are organised separately.

The 16 tracks are:

- A. All for Health
- B. Health for All
- C. European public health
- D. Health promotion
- E. Lifestyles
- F. Chronic and non-communicable diseases
- G. Migrant and ethnic minority health
- H. Child and adolescent public health
- I. Mental health
- K. Health information and infectious diseases
- L. Inequalities and social empowerment
- M. Health services and systems research
- N. Health and care: research, policy and practice
- O. Health data, methodology, monitoring and reporting
- P. Communication in public health
- Q. Workforce development and the work place

As always, we greatly enjoyed reading the submissions, and learned much from them. We hope that you will find this volume equally interesting, and even more so the actual presentations, which promise to be of high quality yet again.

Prof Thomas Dorner, Chair of the 9th European Public Health Conference
 Prof Walter Ricciardi, Chair of the International Scientific Committee
 Dr Dineke Zeegers Paget, Director of the EPH Conference Office

International Scientific Committee, Vienna 2016

- | | | |
|--|---|--|
| - Prof Walter Ricciardi (chair), Italy | - Dr Gabriel Gulis, Denmark | - Dr Brigitte Piso, Austria |
| - Ms Mette Aadahl, Denmark | - Dr Johan Hansen, Netherlands | - Prof Ileana Manoela Prejbeanu, Romania |
| - Prof Roza Adany, Hungary | - Dr Gunnel Hensing, Sweden | - Dr Ossi Rahkonen, Finland |
| - Dr Charles Agyemang, Netherlands | - Dr Marija Jakubauskiene, Lithuania | - Dr Sofia Ribeiro, Portugal |
| - Prof Tit Albrecht, Slovenia | - Ms Danielle Jansen, Netherlands | - Ms Nicole Rosenkötter, Germany |
| - Prof Kristina Alexanderson, Sweden | - Prof Ramune Kalediene, Lithuania | - Dr Maria Rosvall, Sweden |
| - Prof Arja Aro, Denmark | - Prof Ilona Koupil, Czech Republic | - Dr Luís Saboga Nunes, Portugal |
| - Dr Marleen Bekker, Netherlands | - Prof Allan Krasnik, Denmark | - Mr Luca Gino Sbrogiò, Italy |
| - Dr Christopher Birt, United Kingdom | - Dr Margareta Kristenson, Sweden | - Dr Peter Schröder-Bäck, Netherlands |
| - Dr Stefania Boccia, Italy | - Prof Giuseppe La Torre, Italy | - Dr Eva Schwarz, Austria |
| - Dr Helen Bromley, United Kingdom | - Dr Tek-Ang Lim, France | - Dr Mathilde Sengoelge, Sweden |
| - Prof Silvio Brusaferrò, Italy | - Prof Jutta Lindert, Germany | - Dr Sara Sjölund, Sweden |
| - Dr Genc Burazeri, Albania | - Dr Irina Ljungqvist, Sweden | - Dr Diana Sonntag, Germany |
| - Dr Andrea Buron, Spain | - Prof Pierluigi Lopalco, Italy | - Prof Danijela Stimac, Croatia |
| - Dr John M Cachia, Malta | - Dr Anne Lounamaa, Finland | - Dr Christiane Stock, Denmark |
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| - Dr Chiara de Waure, Italy | - Prof Anjum Memon, United Kingdom | - Dr Viviane Van Casteren, Belgium |
| - Prof Thomas Dorner, Austria | - Dr Enni Mertanen, Finland | - Dr Peter Van Den Hazel, Netherlands |
| - Dr Carlo Favaretti, Italy | - Dr Gabriele Messina, Italy | - Prof Arnoud Verhoeff, Netherlands |
| - Dr Silvia Florescu, Romania | - Dr Daniele Mipatrini, Italy | - Dr Arpana Verma, United Kingdom |
| - Dr Maria Eva Foldes, Austria | - Prof Hanns Moshhammer, Austria | - Prof Paolo Villari, Italy |
| - Prof Anders Foldspang, Denmark | - Dr Iveta Nagyova, Slovakia | - Mr Claus Vinther Nielsen, Denmark |
| - Dr Birger Forsberg, Sweden | - Mr Tim Nguyen, Denmark | - Dr Auke Wieggersma, Netherlands |
| - Dr Emilie Friberg, Sweden | - Prof Thomas Niederkrotenthaler, Austria | - Dr Alexandra Ziemann, United Kingdom |
| - Dr Gaasbeek Janzen, Netherlands | - Dr Peter Nowak, Austria | - Dr Nadine Zillmann, Austria |
| - Prof Maria Ganczak, Poland | - Dr Anna Odone, Italy | |
| - Dr Charlotte Glümer, Denmark | - Mr Peter Pachner, Austria | |
| - Prof Peter Groenewegen, Netherlands | - Prof Holger Penz, Austria | |

The Vienna Declaration - summary

The European Public Health Association and the Austrian Public Health Association – together with other important partners meeting at the European Public Health Conference in Vienna, reiterate their commitment to the principles of the Ottawa Charter. These principles are updated in the new Vienna Declaration, taking account of new and emerging threats to public health that have arisen in the three decades since the Ottawa Charter.

The pre-requisites for health

The core principles set out in the Ottawa Charter have stood the test of time. The Ottawa Charter identified five areas for health promotion action, as follows:

1. *Build Healthy Public Policy*

The Ottawa Charter has contributed greatly to the identification of obstacles to the adoption of healthy public policies in non-health sectors and the ways of removing them, with a much greater focus on the upstream, or social, commercial and political determinants of health.

The public health community must map what are often hidden influences on policy, coupled with attention to policies in all sectors, from the domestic, such as welfare reform, to the global, such as climate change and international trade.

2. *Create supportive environments*

In many countries, the environments in which people live and work have deteriorated since the Ottawa Charter. Deindustrialisation and property speculation have made housing unaffordable and, in recent years, led to financial crises.

The public health community must engage actively with those responsible for economic and employment policies as well as for urban planning to better align those sectors with health goals.

3. *Strengthen community actions*

Despite great progress, there have been too many reversals since the Ottawa Charter. In many countries, citizens have lost trust in their governments and have disengaged from the political process, as is apparent from declining voter turnout as well as declining participation in voluntary organisations.

The public health community must now advocate for a process of civic renewal, which supports the empowerment of communities rather than undermining it.

4. *Developing personal skills*

The Ottawa Charter placed a high priority on information, education for health, and enhancing life skills. Those drafting it could not have envisaged the explosion of information provided by the Internet, risking both information overload as well as misinformation.

The public health community needs to promote new kinds of health literacy, particularly for young persons and for those not in employment, education or training, as part of an overall approach to developing health-related life skills.

5. *Reorient health services*

Those providing personal health services increasingly recognise the importance of prevention and health promotion, while the rise in multi-morbidity has made a more holistic approach to the patient essential.

The public health community must engage with those delivering healthcare, not only in respect of collective action such as screening, but also in assessing the effectiveness of interventions, the equity with which they are provided, and the trade-offs that must be made in health systems with limited resources.¹ In the competition for funding of innovative medicines and technologies, it is important to ensure that preventive measures including medicines or vaccines that are shown to avert, delay disease or complications are given priority.

Public health functions

The Ottawa Charter identified a set of core health promotion functions, advocacy, enablement, and mediation, updated, expanded and recast in the World Federation of Public Health Association's Global Charter on the Public's Health as information, advocacy, governance and capacity.²

• *Information, or Using Data to Give Voice to the Weak*

The public health community must base its actions on information about what works, and in what circumstances. Thus, wherever possible, public health interventions should be evaluated, using rigorous research methods, and the results disseminated. The public health community must also argue for safeguards in the use of such data.

The public health community must ensure that advances in the use of data do not further exclude the most vulnerable in society.

• *Advocacy, for change*

The public health community has a duty to advocate for healthy public policies, recognising that this often requires engagement with other sectors, consistent with the concept of Health in All Policies.

The public health community must recognise that advocacy requires specific skills, in framing the narrative and communicating it effectively, and a commitment to act rapidly.

• *Good Governance, for the Protection of Health*

The public health community must promote the concept of Health in all Policies, at all levels of government. The public health community has a key role to play in holding governments, at all levels, to account for the impact on health of their policies and programmes.

• *Capacity, to bring about change*

The public health community can only play an effective part in improving health if it has sufficient numbers of people, with the requisite skills and access to the relevant data. The public health community must call for a sustained and lifelong investment in public health training. There is a particular need to invest in development of the next generation of public health professionals and leaders.

Our commitment to public health

The participants in this conference reiterate their commitment to the principles set out in the Ottawa Charter, including the need to create supportive environments, strengthen community actions, develop personal skills, and reorientate health services. We agree to engage with the public health actions that bring the Ottawa Charter in line with the challenges and opportunities facing public health in the early 21st-century.

For more information: <https://eupha.org/advocacy-by-eupha>

1. Howard SJ, Hopwood S, Davies SC. Antimicrobial resistance: a global challenge. *Science translational medicine* 2014;6(236):236ed10. doi: 10.1126/scitranslmed.3009315 [published Online First: 2014/05/16]
2. Lomazzi M. A Global Charter for the Public's Health-the public health system: role, functions, competencies and education requirements. *European journal of public health* 2016;26(2):210-2. doi: 10.1093/eurpub/ckw011 [published Online First: 2016/03/10]

2. PLENARY SESSIONS

Opening session of the 9th European Public Health Conference

Thursday 10 November 2016 13:00-13:40

Organised by: EPH Conference

Moderator: Thomas Dorner, Chair of the 9th European Public Health Conference

This session is setting the scene for the whole conference. Armin Fidler, eminent expert on health policy, strategy and management, former Lead Advisor for the World Bank and currently Senior Lecturer at the European Masters Programme

for Health Economics and Management at Management Center Innsbruck, Austria, will introduce the main theme.

Welcome to the 9th European Public Health Conference, Vienna 2016

Thomas Dorner, Chair of the 9th EPH Conference

All for Health, Health for All

Armin Fidler, Management Center Innsbruck, Austria

Plenary 1 - From Ottawa to Vienna: 30 years of the Ottawa Charter

Thursday 10 November 2016 15:00-16:00

Organised by: EuroHealthNet, EUPHA

Moderators: Nicoline Tamsma, EuroHealthNet and Julian Mamo, EUPHA

In November 2016 we will celebrate the 30th anniversary of the Ottawa Charter, launched as a series of actions among international health organisations, national governments and local communities to achieve the goal of 'Health for All' through better health promotion. This plenary session, organised by EUPHA and EuroHealthNet focuses on the question 'From Ottawa to Vienna: 30 years of the Ottawa Charter: where are we now and where should we go?'

Speaker

Gauden Galea, WHO Europe

Panelists

Gauden Galea, WHO Europe

Evelyne de Leeuw, Centre for Health Equity Training, Research & Evaluation (CHETRE), Australia

Bosse Pettersson, The National Board of Health and Welfare, Sweden

Young pitchers

Elodie Besnier, United Kingdom

Aida Tanios, Austria

Igor Grabovac, Austria

Lindsay Sullivan, Ireland

Emma Byström, Sweden

Plenary 2 - Achieving health in a fragmented society

Friday 11 November 2016, 09:40 – 10:40

Organised by: Hauptverband für Sozialversicherung (HVB), Austria

Moderator: Stephen Peckham, Professor of Health Policy, University of Kent, UK

This session explores the relation between new forms of work, social solidarity, insurance and health promotion from an international perspective. Questions on the future of solidarity,

occupational health in times of zero hours' contracts, fiscal policies will be addressed.

Panelists

Josef Probst, HVB, Austria

Pamela Rendi-Wagner, Ministry of Health, Austria

Vesna-Kerstin Petric, Ministry of Health, Slovenia

Salome von Greyerz, Ministry of Health, Switzerland

Plenary 3 - All for Health: The contribution of science to Planetary Health

Friday 11 November 2016, 14:00 – 15:00

Organised by: ASPHER

Moderator: Jacqueline Müller-Nordhorn, ASPHER

Planetary health decisions potentially affect all areas of living, ranging from nutrition, physical activity, smoking reduction to socio-economic conditions, environment, changing populations, living circumstances and many more. Science is needed at all stages: to gather reliable data, to develop and evaluate interventions on different levels (individual vs. population-based), to implement interventions on the larger scale, and to promote evidence-based health policy. Public health professionals need to be trained in diverse research skills, whether or not they become researchers themselves. Literacy is needed for different scientific approaches such as quantitative and qualitative methods, knowledge in health economics and health systems or on advocacy and leadership. Expertise may then focus on one area.

Many public health decisions lack the scientific evidence base. Often interventions have been developed and evaluated in specific settings and may not be transferable to other countries or cultures. When assessing public health interventions in systematic reviews, the conclusion is often that studies are too heterogeneous to be compared. Side effects of public health interventions are hardly assessed. Even if the evidence is there and clear, the translation into practice occurs often at chance. A systematic translation of evidence into practice is missing in many countries.

Schools of Public Health play a crucial role in training in research and scientific methods as well as in the implementation of research findings into real life public health.

The plenary will address these issues with speakers with various backgrounds and opinions on the role of scientists in global and public health decision making.

Key questions addressed will be:

- What is the role of scientists in translating their evidence into practice?
- How many scientific skills do public health practitioners need to be trained in and use in daily practice?
- How can effective public health interventions will transferred to other cultural settings?
- What competences are needed to translate the scientific evidence into practice and should they be part of the standard public health curriculum?
- What is the role of Schools of Public Health in promoting the translation of public health evidence?

Each speaker is asked to provide a 5-10-minute reflection on his/her views on the questions asked above. The role of scientists in public health decision making will be discussed from different points of view.

At the end, each speaker is invited to make a suggestion on how best to improve the scientific content of public health interventions.

Speakers/panelists

Richard Horton, The Lancet

Peter Groenewegen, NIVEL, The Netherlands

Matthew Fox, Boston University, USA

Kasia Czabanowska, Maastricht University, The Netherlands

Raquel Lucas, Institute of Public Health, University of Porto (ISPUP), Portugal

Plenary 4 - Health technologies, personalized health and equity: conflict or alignment?

Friday 11 November 2016, 17:50 – 18:50

Organised by: European Commission and European Observatory on Health Systems and Policies

Health technologies, E-health, telemedicine, IT solutions (health apps, smart watches, etc.), ambient assisted technology – ambient assisted living. Where does that lead to? How is it related to health care systems? What are the contributions towards health literacy? What are the implications for health inequalities and for society in general?

Moderator: Josep Figueras, European Observatory on Health Systems and Policies

Speakers/Panelists

Fabrizio Renzi, Italy

Martin McKee, United Kingdom

Rod Collins, United States

Andrej Rys, European Commission

Plenary 5 - Health for All

Saturday 12 November 2016, 13:40 – 14:40

Organised by: EUPHA

In this plenary session we highlight the importance of good health and access to health care for all against the backdrop of international trade, austerity measures and massive migration. Speakers of international standing will discuss in a round table the challenges for Health for All from different perspectives.

Moderator: Jürgen Soffried, Austria

Speakers/Panelists

Natasha Azzopardi Muscat, EUPHA President, Malta

Michael Moore, WFPHA President, Australia

David Stuckler, Oxford University, UK

Allan Krasnik, University of Copenhagen, Denmark

Teodora Krumova, Amalipe NGO, Bulgaria

PARALLEL SESSION 1

Thursday 10 November 2016 13:50 – 14:50

1.A. Round table: Challenges to Ethical Research Conduct: Perspectives, Issues and Implications for Practice and Policy

Organised by: EUPHA section Ethics in public health
Contact: jm04@aub.edu.lb

Chairperson(s): Jihad Makhoul - Lebanon, Els Maeckelberghe - The Netherlands

The workshop is a round table of a 90-minute session with 4 panel discussants and a moderator. Each will make a short presentation and will be discussed between the members and audience.

The global surge in funding for and the corresponding increase in the conduct of public health research have fueled a growing interest in the development of research ethics regulations and human subjects protections. However, ethical clearance is not well established in public health and non-therapeutic research across disciplines, and is further challenged with the variety of research methods, tools and protocols. Empirical research investigating research conduct, regulation and experiences of stakeholders in the research process is timely, and is needed to provide evidence for the understanding of the issues, challenges and gaps in responsible research conduct. The round table aims to present 4 cases from Europe and Lebanon highlighting research findings pertaining to: challenges of ethics review board practices for health and policy research, including multi-methods and digital devices; misconceptions about non-therapeutic research ethics; and human participants' views of their involvement in health research with a focus on recruitment and consenting processes.

The added value of a round table is the critical look at the practice of research ethics in varying health research settings and contexts using empirical research findings to highlight the challenges that may go unnoticed and which have policy/practice implications. Researchers have used desk reviews, content analysis of ethics committee archives, cross-country mapping of ethical clearance practices and in-depth interviews with research participants.

The presentations discuss challenges to research conduct for researchers and reviewers. Research ethics reviews vary in scale of responses and requirements across types of ethics committees, countries and research institutions. The lack of attention to and misconceptions about ethical issues in phone apps and non-therapeutic research increases the risk of research harm and unethical publication practices. Meanwhile, research participants are unduly influenced in recruitment and consenting processes by family members, trust in healthcare providers, and the need for healthcare.

In conclusion, the high level of variations across discipline specific review boards suggests that applied ethics are greatly influenced by reviewers' expertise and training rather than by overarching ethical guidelines and principles. The varying ethics clearance practices and the lack of uniform guidance hamper international and multi-site research using social science methods. Despite the presence of review boards and regulatory guidelines, the conduct of ethical research falls short

of fully protecting research participants' rights in resource poor settings.

Key messages:

- There is a need to develop contextually sensitive and clear ethical guidelines
- There is a pressing need to build research ethics competencies for researchers and reviewers to design, conduct, publish and review ethically sound research

Juggling With Varying Ethics Clearance Practices: Experiences From A 7-Country Policy Study

Arja Aro

A Aro
Unit for Health Promotion Research, Faculty of Health Sciences, University of Southern Denmark, Esbjerg, Denmark
Contact: araro@health.sdu.dk

Ethics clearance in clinical research is well established. In public health research, especially using social science methods, the clearance traditions are less developed or harmonized across countries.

Research into Policy to enhance Physical Activity project (www.repopa.eu) (2011-2016) uses social science methods of document analysis of policies, stakeholder interviews, group interventions for researchers and policymakers, and a Delphi study to develop indicators for evidence-informed policy-making. The REPOPA countries are Canada, Denmark, Finland, Italy, the Netherlands, Romania, and UK. Ethics clearance practices of the countries were mapped using a matrix developed. Further, in the course of the project, using process evaluation approach, ethics clearance steps, questions, problems and updates were collected.

The ethics clearance practices were strictest in Canada, where full clearance was needed for all data gathering and renewed annually. UK's one-entry system was somewhat lighter and similar to the Finnish system. All other countries lacked ethics clearance for social science research; from these an official exemption document was needed though it was hard to find the body granting it. Due to so varying practices and lack of explicit regulation from the project funder, European Commission, the project created its own ethics guidance, accepted by the Consortium. The ethics juggle delayed the start of the data gathering over 6 months. When submitting manuscripts from the project, it has been a challenge to report on ethics since there is no single, uniform ethics clearance for the whole project.

The varying ethics clearance practices and the lack of uniform guidance hamper international research projects using social science methods. Horizon2020 guidance for ethics self-assessment (March 2016) attempts to clarify the situation and provides links to relevant documents. However, harmonization of guidance would enhance research.

The Smartphones Study: An Analysis Of Disciplinary Differences In Research Ethics Committee Responses To Phone App-based Automated Data Collection

Mark McCann

M McCann

Social and Public Health Sciences Unit, University of Glasgow, Glasgow, UK
Contact: Mark.McCann@Glasgow.ac.uk

Digital devices provide a means to collect vast quantities of data relevant to health and social research with minimal respondent burden, but the automated harvesting of data without active participation raises ethical issues.

We aim to present findings from research on ethics committees' opinions of a project that used a smartphone app to collect location, calls and text, leisure activities, illicit drug use and photographic data from schoolchildren. A research protocol for this school based study of substance use and social networks using a phone app for data collection was sent to 13 ethics committees and the research governance office in Queen's University Belfast. The committees were asked to give the protocol scrutiny as if it were being submitted as a research study for approval. The protocol, and the proposal to submit it to other committees, was approved by the Sociology ethics committee. Thematic content analysis was conducted based on the returned comments.

Out of 13 ethics committees invited, five provided responses; five were humanities or physical sciences where the project was of no relevance, and Medical, Nursing, and Geography committees did not respond. All responding committees gave a favourable opinion but requested further information or minor changes. Emergent themes included: providing participant information regarding automated data collection; anonymising geographical and call information; awareness of digitised & online identity; and data security. There were large variations in the scale and content of responses, with the education research ethics committee providing the most varied and largest number of issues.

Phone app based data collection, even with a high level of invasiveness and in relation to sensitive topics is generally viewed favourably. The variation in ethics committee responses suggests that applied ethics are greatly influenced by reviewers' expertise and training rather than by adherence to overarching ethical principles.

Common Misconceptions And Publication Ethics Issues In Non-therapeutic Research

Silviya Yankulovska

S Yankulovska

Faculty of Public Health, Medical University of Pleven, Pleven, Bulgaria
Contact: silviya_aleksandrova@hotmail.com

Non-therapeutic research is usually considered less ethically challenging since it is not related to new drug testing or use of placebo. However, principles of Declaration of Helsinki are not less valid and ethical expertise of researchers is not less important in non-therapeutic protocols. If therapeutic research is the main accelerator of clinical practice, non-therapeutic research is of utmost public health importance providing evidence of causation in epidemiology and contributing to the development of health policies.

The aim of this report is to present and discuss common misconceptions and publication ethics issues related to non-therapeutic research.

Methods included an analytic study based on literature review and content analysis of archival documents of IRB of Medical University of Pleven.

In academic institutions contrary to healthcare establishments non-therapeutic types of research prevail. Since they are not interventional researchers often take for granted that harmful consequences are not inflicted. The analysis of experience of IRB in Medical University of Pleven show little or missing sensitivity to the resulting risks of the reuse of archival biological samples, need of ethical review of application of sociological approaches of investigation, adaption of information for target and control groups (22% of recommendations). Dependent relationships are rarely recognized as ethically nonpermissible in the recruitment of participants (10% of recommendations). Incorrect authorship teams and several other violations of principles of good publication practice have been observed.

Researchers' level of ethical knowledge is generally low. Harmonizing ethical competencies is getting more and more important in the light of international collaboration in multi-centered research projects. Development of a proper form of ethical training for researchers is a long-term area of academic collaboration.

Completing The Picture: Research Participants' Experiences Of Biomedical Research

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The recent rise in research institutes and funding for scientific and medical research involving human subjects in the Arab world raises concerns about ethical research conduct. The empirical literature on participants' perspectives about recruitment, benefits and how they are treated is scarce. Findings from our recent study with academic researchers in Lebanon and Qatar about their research conduct indicate that research regulation and capacity for ethical conduct is weak, and that deviations in the use of consent forms and consent seeking processes are abundant. This has adverse impacts on human subjects protection but may go unnoticed if participants' views of their experiences are not explored.

The aim is to investigate the experiences of adult participants in medical or health research in Lebanon, whose social context is one of social exclusion and inequitable access to healthcare, pertaining to recruitment, consenting and benefits.

Qualitative in-depth interviews were conducted with 30 men and women participants in biomedical research from 5 university-hospital sites. Thematic analysis identified recurring patterns and themes.

Preliminary findings point to possible undue influence in participants' recruitment into research, incomplete informed consent and a blurring of boundaries between research and healthcare provision. Family members and healthcare provider influence, reputation of the research institution and the need for medical care were among the influential factors. Reasons why the basic universal elements of informed consent (voluntariness, comprehension and capacity) are not always met are discussed and linked to the research context.

In conclusion, participants' perspectives of their involvement in research are important to provide a lay view of the research process and to identify weakness in research conduct. Power relations, values and inequitable access to resources have an important role to play in people's decisions to partake in research.

1.B. Pitch presentations: Mental health, stress and behaviour

Trends in suicidal behaviour in Dutch general practice 1983-2013

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Background

The general practitioner (GP) plays an important role in suicide prevention. In many countries, the GP is the first accessible contact for patients with mental health problems, making them important gatekeepers to identify suicidal ideation at an early stage.

Methods

Cases of suicide or attempted suicide were registered by sentinel general practices participating in the NIVEL Primary Care Database during the period 1983-2013.

Results

Join-point analyses revealed a significant rise in male suicides from 2008 ($b=0.32$, $SE=0.1$, $p=0.008$), and an increase in male suicide attempts since 2009 ($b=0.19$, $SE=0.04$, $P<0.001$). Female suicidal behaviour showed a steady decrease from 1989-2013 ($b=-0.03$, $SE=0.007$, $p<0.0001$ for female suicide, $b=-0.02$, $SE=0.002$, $p<0.001$ for female attempts). Before 2007, a history of depression was reported in 65% (168/257) of the suicides. After the start of the recession, a depression was recognized in 44% (22/50) of the patients that died by suicide.

Conclusions

Since 2008, there was a rise in the male suicide rate while female suicide behaviour has continued to decline. GPs less often reported a history of depression within patients that died due to suicide after 2007 than before. Training in the early recognition of suicide ideation in depressive patients might improve suicide prevention in primary care.

Key messages:

- It is difficult for General Practitioners to identify patients at risk for suicide
- We recommend to more proactively discuss suicidal thoughts within depressed patients

Chronic disease risk behaviour care for people with a mental illness: family carer expectations

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Background

People with a mental illness experience an increased morbidity and mortality compared to the general population; a disparity largely due to increased chronic disease burden. Family carers are implicated as key stakeholders in mental health services, and policies outline the need to involve carers at every level of service planning and delivery; however, carer attitudes towards chronic disease risk behaviour care provision for people with a

mental illness within health and community services has not previously been explored.

Methods

Family carers of people with a mental illness ($N=144$), residing in New South Wales, Australia, completed a self-administered questionnaire regarding their expectations of the provision of chronic disease risk behaviour care (for nutrition, physical activity, alcohol, and smoking cessation) by four health and community services: mental health hospitals; community mental health services; general practice; and non-government organisations.

Results

Of participating carers, the majority expected each of the four services to provide care for: nutrition (56.3% - 81.1%); physical activity (65.4% - 85.9%); harmful alcohol consumption (63.0% - 83.1%); and smoking cessation (56.6% - 82.7%). Further, carers also perceived that having adequate nutrition (84.6%), engaging in adequate physical activity (91.6%), decreasing alcohol consumption (74.1%), and quitting smoking (61.9%) would positively impact mental health.

Conclusions

Participating carers perceived that improving chronic disease risk behaviours would positively impact mental health; and the majority expected the four health and community services to provide care for chronic disease risk behaviours; reinforcing the appropriateness and need for services to provide such care to all clients with a mental illness.

Key messages:

- Carers perceived improving risk behaviours would result in a positive impact on mental health for people with a mental illness; suggesting a potential for carers to support behaviour change
- Carers expect health and community services to provide chronic disease risk behaviour care for clients with a mental illness; reinforcing the need for services to provide such care for all clients

Using CRIES-8 to screen for post-traumatic stress disorder in unaccompanied refugee minors

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Background

The dramatic increase in the number of refugees in Europe presents a major public health challenge. The limited existing evidence indicates that the mental health needs of refugees are mainly unmet. Unaccompanied refugee minors (URM) compose a particularly vulnerable group. Previous studies suggest that a high number of URM suffer from post-traumatic stress disorder (PTSD), a disorder that is associated with increased risk for other high-cost mental health problems such as substance misuse and depression, and therefore needs to be diagnosed and treated early. In this study, we investigated whether a short questionnaire (Children's Revised Impact of Event Scale; CRIES-8) could be used as a PTSD screening tool in URM 8- to 18-year-olds. Method: Data were collected at the healthcare center for asylum-seekers in Uppsala, Sweden. In total, 200 URM aged between 9 to 18 years completed the CRIES-8 during their health assessment. Almost all of them were male (98%). The majority (81%) came from Afghanistan.

Results

Children with less than 4 years of education often had difficulties completing the questionnaire by themselves. When we used the suggested cut-off of 17, about 78% of the URM screened positive for PTSD (M=22.8, SD=9.5 for the total score). The proportion of children who screened positive, did not differ based on age, country of origin or current living arrangement.

Conclusions

CRIES-8 is a useful tool in the clinical settings, however, children should be provided with a clear instruction about how to complete the questionnaire. The high number of children who screened positive for PTSD indicates the need for a more thorough mental health assessment as well as early prevention/intervention programs to address URM's mental health issues in general and PTSD in particular.

Key message:

- Number of unaccompanied refugee minors who screen positive for PTSD is very high. Screening for PTSD should be part of the routine health assessment for this vulnerable population

The relationship between social capital and happiness after the Great East Japan Earthquake

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Background

Previous studies reported positive association between social capital (SC) and happiness. However, there are few study that investigate the association between SC generated after natural disaster and happiness. Thus, the purpose of this study is to investigate the association between SC after Great East Japan Earthquake (GEJE) and happiness in 3 years later using prospective longitudinal cohort study.

Methods

We recruited children who experienced GEJE in 2011 at preschool age and their caregivers and followed them for 3 years (from 2012 to 2015) in the affected areas (Iwate, Miyagi, and Fukushima prefectures). We could follow 159 caregivers at 2015 out of 221 original participants (follow-up rate: 72%). SC was assessed with a 4-Likert scale in 2012 and 2013. Happiness was assessed with a 10-Likert scale in 2014. Traumatic experiences related to GEJE was assessed through an interview by a psychiatrist or a psychologist in 2012. Analysis was performed using multivariate linear regression analyses, adjusting for age, sex, household income, and traumatic experiences. First, we analyzed the association between SC in 2013 and happiness. Second, we analyzed the association between change of SC from 2012 to 2013 and happiness. Among both analysis, we adjusted demographic data in Model 1, traumatic experiences in Model 2 additionally, and PTSD symptoms in Model 3 additionally.

Results

Regarding association between SC in 2013 and happiness, SC was significantly associated with happiness in Model 3

(coefficient: 0.99, 95% CI: 0.52-1.45). Further, as for the association between change of SC and happiness, increase of SC was marginally associated with happiness in Model 3 (coefficient: 0.57, 95% CI: -0.10-1.74).

Conclusions

We found a positive association between SC after GEJE and happiness. Further, the association between increase of SC and happiness was marginal positive. Further research to elucidate the mechanism on how SC after natural disaster induce happiness is needed.

Key messages:

- Social capital is associated with happiness after a natural disaster
- Increase of social capital might be beneficial for happiness

Systematic review: Association of occupational information communication technology and stress

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Objective

The growth of technology has affected our work over the past three decades. Although, information communication technology (ICT) improves productivity and communication possibilities, it forces at the same time employees to work and adapt faster and may increase stress. The aim of this systematic review is to summarize quantitative studies in occupational settings looking at the association between ICT and stress considering age as effect modifier.

Methods

A systematic review using PRISMA guideline was done through following bibliographic databases: PubMed, Web of Science, Psycinfo and the Cochrane Library. Inclusion criteria were occupational setting and considering the relevant association between ICT use and stress. Risk of bias analysis was assessed using the Newcastle-Ottawa scale.

Results

In total 189 relevant abstracts were found. Finally, two interventional, two cohorts and 32 cross sectional studies were used for further analysis. Cross sectional studies revealed a very evident positive association between ICT use and stress measured in different dimensions, like stress, stressors, and technostress. However, both interventions clearly present no connection between ICT use and stress.

Conclusions

For a short term as seen in cross sectional studies ICT use in occupational settings is associated with stress. ICT use may create problems which lead to stress on a short run. On the long run such effect might disappear as all intervention studies with longer follow up's cannot confirm the association. Interpreting effect modifications by age in the short term effect of ICT use on stress we concluded that at younger age (< 35) there is only a small or no association between ICT use and stress. The middle age group (35-45) there is a clear positive association between ICT use and stress which disappears once again in the older age group (>45). Training in ICT use should therefore be focussed mostly on middle aged working population.

Key messages:

- Use of information communication technology during work evidently increased in short term stress but not in long term
- The association is most pronounced in middle aged working population

Targeting loneliness and social isolation among the elderly: an update systematic review

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Social isolation and loneliness represent one of the growing public health concerns and it is widely argued that they have detrimental effects on health and well-being of older individuals. Previous studies placed an emphasis on group interventions and highlighted a need for well-designed future interventions. We aimed to perform an update review of the utility of interventions targeted to alleviate loneliness and social isolation among the elderly.

The topic identification and the systematic search of MEDLINE, ISI Web of science, SCOPUS, The Cochrane Library, and CINAHL databases derived from a scoping review performed within the work package 5 of the Prohealth65+ project (<http://www.pro-health65plus.eu/>). The search terminology combined all possible alternatives of following keywords: social isolation, loneliness, old people, intervention and effectiveness. Only English or Italian language studies published in the last five years that regarded implementation of loneliness/social isolation interventions targeted at the elderly were included.

In total, 15 studies were included in the review. Substantial heterogeneity among the interventions was noted. Overall, 8 studies showed significant decrease in loneliness levels and 6 studies reported significant improvements in social health outcomes (social isolation, structural or functional social support). Analysis of mixed-method interventions indicated that community-engaged arts programmes can play a distinctive role in supporting social inclusion for community-dwelling seniors.

Group educational interventions that have a focus on social engagement and support appeared effective in reducing loneliness among the older population. Information technology interventions, as well as physical activity programmes, showed promise. However, a proper evaluation of the efficacy was prevented by flawed study designs and future well-conducted research is needed to support evidence base health promotion.

Key messages:

- Social isolation and loneliness can have a huge impact on health and well-being of the elderly
- Interventions nourishing social engagement or support within a group format could be beneficial

Health behaviours in people with mental illness: prevalence, interest in change, acceptability of care

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Background

People who have a mental illness experience a disproportionately high burden of chronic disease, contributed substantially to by an increased engagement in chronic disease health risk behaviours. Mental health clinicians report a perception of client disinterest in addressing their health behaviours as a barrier to providing risk reduction care. In relation to four health risk behaviours (tobacco smoking, hazardous alcohol consumption, inadequate nutrition and physical inactivity), this paper examines the health behaviour characteristics, interest in change, and acceptability of receiving risk reduction care from mental health service providers among mental health consumers.

Methods

Two surveys were undertaken within one local health district Australia: one amongst 558 clients of community mental health services, and one amongst 2,075 inpatients from psychiatric units.

Results

Risk prevalence was high for all behaviours (35-95%). A substantial proportion of participants (32-71%) were interested in improving their health risk behaviours, and between 80% and 97% reported that it would be acceptable to receive risk reduction care during contact with their mental health service.

Conclusions

Clients of community mental health and inpatient psychiatric services report a high level of interest in improving their health risk behaviours, and in receiving risk reduction care from their mental health service. These findings reinforce the need and the opportunity for mental health services to address health risk behaviours with their clients.

Key messages:

- People with a mental illness report high levels of interest in improving health risk behaviours
- People with a mental illness report the provision of health behaviour care by mental health services to be acceptable

1.C. Workshop: Implementing the European Action Plan for Strengthening Public Health Capacities and Services

Organised by: WHO EURO, Durham University, University of Valencia and IHPA

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Chairperson(s): Anna Cichowska - WHO Euro

Background

In September 2012 all 53 WHO Europe Member States endorsed the European Action Plan for Strengthening Public Health Capacities and Services (2012-2020): (EAP-PHS), a key pillar to implement the European health policy framework, Health2020.

The purpose of the EAP-PHS is to ensure public health services are strengthened to respond to the public health challenges facing the European region today and in the future.

The WHO Regional Office for Europe commissioned two studies to assess the extent of the implementation of the action plan. Two surveys were conducted between January and April 2016: one for all 53 Member States and one for Partner Organisations working with WHO. They were supplemented by key informant interviews. Selected country case studies were undertaken to explore the use of the self-assessment tool,

Essential Public Health Operations (EPHOs), a core part of the EAP-PHS.

Objectives

1. To present findings from 2 WHO-commissioned studies to assess the progress in implementing the European Action Plan for Strengthening Public Health Capacities and Services (EAP-PHS)
2. To provide an opportunity to discuss the implications of the study findings for further work required by the WHO Regional Office for Europe and Member States, to implement the EAP-PHS.

Discussion

Moderator: Richard Alderslade, International Consultant on Public Health

Key messages:

- There was a gap between a stated commitment and the actual means and resources to strengthen capacities and improve services
- The EAP-PHS has been of value to countries and had an impact although much remains to be done to implement the EAP, including raising its profile and provide tools and other means of support

Key findings of survey on the implementation of the EAP-PHS

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Trends in the results of self-assessments of Essential Public Health Operations (EPHOs) in WHO Member States

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The EPHO assessment processes as intervention: impacts and lessons learnt

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Promising practices towards strengthening public health services in Europe

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Implications of the study results for Member States, WHO Regional Office for Europe and Partner Organizations

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1.D. Pitch presentations: Tobacco and e-cigarettes use

Electronic cigarette effectiveness and safety at 24 months: a cohort study

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Background

To evaluate e-cigarette long-term safety and effectiveness, by comparing users of e-cigarettes only (E-CIG), smokers of tobacco cigarettes only (TOB), and dual users (DUAL).

Methods

Prospective cohort study. We update previous findings (NCT01785537) and report the results of the 24-month follow-up. Data were collected through direct contact and questionnaires by phone or via internet. Adults (30-75 years) were classified as: (a) tobacco smokers, if they smoked ≥ 1 tobacco cigarette/day, (b) e-cigarette users, if they inhaled ≥ 50 puffs/week of any type of e-cigarette, (c), dual users, if they smoked tobacco cigarettes and also used e-cigarettes. Carbon monoxide levels were tested in 50% of those declaring tobacco smoking abstinence. Hospital discharge data were used to validate possibly-related serious adverse events in 46.0% of the sample. Main outcome measures were: sustained abstinence

from tobacco cigarettes and/or e-cigarettes after 24 months, reduction in the number of tobacco cigarettes smoked daily, possibly-related serious adverse events.

Results

Data at 24 months were available for 229 E-CIG, 480 TOB, and 223 DUAL. 61.1% of E-CIG remained abstinent from tobacco (while 23.1% and 26.0% of TOB and DUAL achieved tobacco abstinence). Self-rated health, adverse events, and the rate (18.8%) of stopping use of either product (tobacco and/or e-cigarettes) did not differ significantly across all groups. Most DUAL at baseline abandoned e-cigarettes and continued to smoke tobacco. Those who continued dual-using or converted from tobacco smoking to dual-use experienced significant improvements in the 3 outcomes compared to those who continued or switched to only smoking tobacco ($p < 0.001$).

Conclusions

E-cigarette use alone might support tobacco quitters remaining abstinent from smoking. Dual use did not improve the likelihood of quitting tobacco or e-cigarette use, but may be helpful to reduce tobacco consumption. Adverse event data must be considered preliminary.

Key messages:

- After 24 months of a prospective follow-up, most users of e-cigarettes alone were able to remain abstinent from tobacco smoking
- Dual use of e-cigarettes with tobacco cigarettes did not encourage quitting tobacco or e-cigarette use, but may be helpful to reduce tobacco consumption

Marketing messages about electronic cigarettes: an analysis of Italian on-line promotional videos

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Introduction

The use of electronic cigarettes (ECs) is increasing in Europe. Given the potential harm for the health of EC smokers, and the general lack of regulation in some European Countries on ECs advertising, this study aimed to analyse online videos that promote ECs in Italy, in order to assess which are the main marketing messages that could influence consumers' perception of risks and benefits.

Methods

A web search of ECs advertising videos was conducted on YouTube using keywords related to ECs promotion. An evaluation grid, developed after a literature review, was used to analyze the characteristics and the promotional messages of each video. The grid included: name of EC Company; number of viewing; marketing messages; presence in the video of women, men, minors, families, cinema/sport/television celebrities; presence of ECs with shapes similar to traditional cigarettes.

Results

A total of 55 videos of 31 ECs companies were included, with a mean of around 16000 views. The most frequent promotional messages were related to health benefits (61.8%), possibility of quitting smoking (50.9%), technological improvement (43.6%), ability to smoke anywhere (41.8%), and cleanliness (38.2%). Besides, ECs shaped similarly to traditional cigarettes were included in 56.4% of the videos, and appeared more frequently in the most viewed videos than in the less viewed ones (67.6% vs 38.1%; $p < 0.03$).

Conclusions

Italian promotional videos about ECs contain messages addressed to smokers that want to quit or decrease the amount of cigarettes smoked, but also some messages that could be appealing for non smokers, especially young people. This, together with the presence of ECs shaped like tobacco cigarettes, could bring to a potential re-normalization of smoking, with the consequent increase in the amount of new smokers. Therefore, ECs are an important concern for European public health, and it is necessary to implement educational programs and regulatory policies on EC advertising.

Key messages:

- Messages contained in Italian promotional videos about ECs are addressed to smokers that want to quit or decrease the amount of cigarettes smoked, but they could also be appealing for non smokers
- Given that some on-line marketing messages could potentially bring to re-normalization of conventional cigarettes, regulatory policies on e-cigs advertising are needed

Poor knowledge of Austrian general practitioners on e-cigarettes: Implications for public health

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Background

The expanding market for e-cigarettes (EC) has generated much debate about the potential role of EC in smoking cessation and possible adverse effects of EC consumption. The EU Tobacco Products Directive regulated sales and marketing of EC, but little guidance exists for healthcare practitioners and

public health officials. This study's aim is to investigate the knowledge of Austrian general practitioners (GPs), identify current practice regarding the use of EC and describe potential areas for intervention.

Methods

A structured questionnaire was administered by experienced interviewers. Data were collected on participant demographics, knowledge on component materials and harmfulness of a range of nicotine products, attitudes towards EC as a smoking cessation device, current practice and sources of information on the topic.

Results

Data from 237 GPs was analysed. 73.4% rate their knowledge as "poor" or "very poor". 88.7% considered e-cigarettes less harmful than tobacco cigarettes. Most used information sources were media and scientific articles. Those using scientific articles rated their knowledge higher (62.3%). 30.9% considered EC suitable for smoking cessation; 7.2% recommended EC. In subanalysis of ex- or current smoking participants 24.8% thought EC were suitable for cessation, 3.4% recommended EC. 74.3% of participants felt insufficiently informed to discuss the topic with patients.

Conclusions

Austrian GPs do not feel sufficiently informed about EC to accurately answer patients' queries. Few GPs in Austria would recommend EC for smoking cessation. Sources of information regarding EC varied, with one third using scientific articles. Those using scientific articles rated their knowledge more highly. Practice varied if doctors were current or ex-smokers themselves.

Key messages:

- EC are a challenging topic for clinicians and public health officials
- Training and public health guidelines are required to ensure best medical practice

Who says what about e-cigarette regulation? A content analysis of UK newspapers

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Mass media are an important source of influence on public and political awareness of, and attitudes to, health issues, as well as a powerful vessel for policy stakeholders to present their arguments. This research comprises a content analysis of UK newspaper representations of the media debate about e-cigarette regulation in 2013 and 2014, identifying how frequently different categories of stakeholder were cited, the stances towards different types of e-cigarette regulation with which they were associated, and the rationales they employed in justifying those stances. We show that reporting on e-cigarette regulation grew significantly ($p < 0.001$) throughout the sample period, and we identify that governments and regulatory bodies were the most frequently cited stakeholders, and uniformly supportive of regulation, while other stakeholders were less uniform in their positions. Arguments for e-cigarette regulation greatly outnumbered arguments against regulation. Regulating purchasing age, restricting marketing and regulating e-cigarettes as medicine were broadly supported, while stakeholders disagreed about prohibiting e-cigarette use in enclosed public spaces. In rationalising their stances, supporters of regulation cited child protection and concerns about the safety of e-cigarette products, while opponents highlighted the potential of e-cigarettes in tobacco cessation and questioned the evidence base associating e-cigarette use with health harms. We argue that media representations of the debate may exaggerate the extent to which the public health community are divided, and we

present recommendations to avoid this distortion in ongoing and future media debates. We also suggest that the divisions that do exist highlight ideological differences about the remit and goals of public health, and argue that these differences represent a barrier to evidence-based policymaking.

Key messages:

- Divisions within the public health community about e-cigarette regulation have been exaggerated in mass media, and future media engagement strategies could seek to remedy this
- Disagreements about aspects of e-cigarette regulation within the public health community have ideological underpinnings that represent barriers to evidence-based policy

Discrepancy between the situation of active smoking and second-hand tobacco smoke exposure

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Background

The recognition of the significant public health consequences of the well-established serious health damaging effects of tobacco smoke exposure initiated several preventive programmes on national and international level worldwide. As a result, a considerable decrease in the prevalence of active smoking could be observed in Denmark during the last decade. The changes replaced the country from a poor to a favourable position in comparison to other European Union (EU) countries. One would think that the extent of the problem of active smoking and second-hand smoke (SHS) exposure go parallel, that is, societies where smoking rate is low in international comparison have low prevalence of SHS exposure, too.

Methods

The study investigated this phenomenon using secondary data from international and Danish databases on smoking and SHS exposure rates, with special focus on home environments.

Results

In a 2002 Denmark had the 3rd highest smoking rate (42.6%) in the EU after the United Kingdom and France, which considerably decreased by 2012 (26%) placing Denmark in a midfield position. In contrary, smoking was permitted in almost half (49%) of Danish homes in 2010 and in a large part of them (22% in total) smoking was allowed everywhere in the house. According to data from the Capital Region smoking took place indoors in 10.9% of the households with children while the rate was minimal (1%) in Sweden.

Conclusions

Second-hand tobacco smoke exposure, especially in homes, still ranks Denmark among the problematic countries in Europe and even more in Scandinavia. This poorly recognised and studied discrepancy calls for further research and effective targeted interventions on population level.

Key messages:

- The problem of active smoking and SHS exposure may present differently in a population
- Preventing SHS exposure in homes continues to be an important public health goal

Nicotine dependence among physicians in Estonia

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Background

Smoking of physicians affects their enthusiasm in convincing their patients to quit smoking. Aim of this study was to describe nicotine dependence and to analyze association between nicotine dependence and sociodemographic and smoking related factors among Estonian physicians.

Methods

List of working physicians was drawn from the Estonian Registry of Health Professionals and linked with Population Registry to receive home addresses for physicians. Sample was restricted to the working physicians who had full home addresses in Estonia. Data were collected using self-reported questionnaires in 2014. Of 5666 potential respondents 2939 answered. Corrected response rate was 53.8%. Fagerström test (FTND) was used to measure average score (0–10) and level (low, moderate, high, very high) of nicotine dependence. Logistic regression analysis was applied to measure association between nicotine dependence and sociodemographic and smoking related factors. Crude and adjusted ORs and 95% CIs were calculated.

Results

Daily smoking was 12.1% (95% CI 9.4–15.1) among male and 4.9% (95% CI 4.1–5.9) among female physicians. Average FTND score was 4.7 with no difference between males and females. About quarter of physicians (27.4% of male and 25.2% of female) had high or very high nicotine dependence. No associations were found between nicotine dependence and sociodemographic and smoking related factors. Among female physicians only, stronger nicotine dependence was associated with earlier uptake of smoking (OR 0,74; 95% CI 0,57–0,94).

Conclusions

Compared to male physicians, daily smoking was two and half times lower among female physicians, but average FTND score did not differ between males and females. One third of physicians had at least high FTND score. Among female physicians nicotine dependence was associated with earlier uptake of smoking.

Key messages:

- In Estonia, it is necessary to offer counselling services with more intensive treatment for highly dependent physicians to quit smoking
- Medical education should pay more attention to the prevention of smoking to result in a postponement of initiation of smoking

Trends of tobacco consumption and associated socioeconomic factors in the Portuguese population

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Background

Smoking is a risk factor for several diseases. Knowing smoking patterns in the Portuguese population is important for planning preventative strategies. This study aims to describe trends of tobacco consumption and measure the associated socioeconomic factors in Portugal from 1987–2014.

Methods

We used data from National Health Interview Surveys (NHIS) (1987, 1998/99, 1995/96, 2005/06 and 2014). For each NHIS, we estimated sex specific smoking age-standardized prevalence, stratified by education, occupation, marital status and region. We fitted NHIS- and sex-stratified logistic regression models, adjusting for the above mentioned variables. For each sex we describe the evolution of smoking prevalence and associated socioeconomic factors inequalities (using Adjusted Odds Ratio (aOR)) from 1987–2014.

Results

For men smoking prevalence and inequalities generally decreased (1987–2014: 35.2–26.7%). For education, inequalities increased in the 2014 NHIS.

For women inequalities decreased for region, age and occupation. These changes occurred through an increase and convergence in prevalence for all groups. For occupation, marital status and education, inequalities have been stable but there with a generalized increase in smoking prevalence (1987-2014: 6.0-14.6%).

For both sexes unemployed (aOR 2014: Men-2.3; Women-2.8) and divorced (aOR 2014: Men-2.1; Women: 2014-3.2) persistently have the highest prevalence and aOR of smoking. While for 1987/95/99 NHIS we observed higher aOR of smoking among low-educated men and highly-educated women, for 2005/14 NHIS the higher aOR was in low-educated in both.

Conclusions

Smoking trends among men show a positive evolution with decreasing prevalence and inequalities. For women inequalities

were stable but there is a generalized increase in prevalence. Unemployed and divorced remain with high tobacco consumption in both sexes. Smoking prevention and cessation policies in Portugal should consider inequalities and focus on women.

Key messages:

- Smoking trends among Portuguese men show a positive evolution with decreasing prevalence and inequalities. For women inequalities were stable but there is a generalized increase in prevalence
- More vulnerable groups should be targeted when planning smoking prevention and cessation policies

1.E. Pitch presentations: Let's get physical 1

Physical literacy and its measurement as foundation for physical activity-promoting health promotion

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The number of physical inactive people and resulting chronic diseases is one of the major public health problems in Europe. Literature indicates that many inactive people have never learned how to move appropriately and confidently. Physical Literacy (PL) should enable people with basic physical activity skills to move properly and with pleasure so that they can actively contribute to their health throughout their life. The aim of this work was to identify definitions, measurement tools and practical examples regarding PL as foundation for a physical activity-promoting health promotion.

A review using PubMed, ScienceDirect and Medline was conducted. Literature in English or German published in the EU, Canada, USA, Australia and New Zealand from 2000 - 2015 was included. Additionally, a selective search in libraries and on the internet was done.

20 articles and 35 sources of grey literature were identified. After an analysis of various definitions a new definition of PL was generated: PL as a holistic concept contains the motivation, the confidence, fundamental movement skills and the knowledge and understanding that is necessary for moving effectively, creatively, confidently and with enthusiasm in a wide range of situations and environments throughout the life course so that participation in physical activities can be maintained until old age. Other key elements are the ability to make healthy, physical activity-regarding decisions in coordination with the environment, the connection with age, talent and culture, the philosophical background, the benefits as well as the development of PL. Three Canadian tools for assessing PL in children were identified, but no tools for adults. PL-promoting programs could be found in 6 countries, however they were also mostly targeted at young people.

The identified principles of PL should be integrated in the applied health promotion. Furthermore measurement tools and projects in practice should be developed for adults.

Key messages:

- Physical literacy is an important concept in promoting physical activity among people of all ages
- Need for research remains concerning measurement tools and practice projects targeting at adults

Policy "Determinants of Diet and Physical Activity" (DEDIPAC): an umbrella systematic review

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Background

Physical activity (PA) is a health-enhancing behavior: when practiced regularly, it reduces the risks for a range of non-communicable diseases (NCDs) and its promotion is becoming a priority in current public health policies. Within the DEterminants of DIet and Physical ACtivity Knowledge Hub (DEDIPAC-KH), one objective is to identify key environmental and policy determinants that promote or hinder PA behaviors with the final aim to provide opportunities, support, and cues to help individuals to promote PA and to develop healthier behaviors.

Methods

An online systematic search on MEDLINE, ISI Web of Science, Scopus and SPORTDiscus databases has been conducted considering eligible systematic literature reviews (SLRs) and meta analyses (MAs) of observational studies published in English language from 2004 to 2014. SLRs and MAs of observational studies that investigated the association between policy determinants of PA and PA itself were considered eligible. The extracted data were assessed based on the importance of the determinants, the strength of evidence, and the methodological quality.

Results

Thirteen SLRs, mostly of moderate methodological quality, were found to be eligible for this umbrella review. Among children, the evidence to support the association between PA-school related policies and PA is probable. Among adults, work hours were found with limited evidence to be negatively associated with PA. At the population level, street-scale urban design and land use policies, as well as transportation and travel policies, were found with limited evidence to support PA.

Conclusions

The majority of the evidence on the policy determinants of PA is probable and limited, due to the insufficient number of longitudinal studies, the inconsistency of the results among reviews, the quality of the individual studies, and the lack of accuracy in the assessment methods used in the individual studies.

Key message:

- The umbrella SLRs on policy determinants could be a valuable basis for the development of effective approaches and strategies to enhance active lifestyles of European citizens

More than walking: Encouraging seniors to vary their exercise habits

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Background

Physical activity is a vital aspect of healthy ageing. Despite this, activity levels tend to be markedly lower among older people relative to their younger peers. Interventions thus need to encourage greater activity among older people. Such interventions need to take into account existing attitudes to exercise and current patterns of activity. This study investigated seniors' perceptions of the types, frequency, and duration of physical activity that are appropriate for older people. The findings can inform the development of messages that build on their existing beliefs and behaviours.

Methods

The data included in this study are part of a larger project on healthy ageing in Australia. One-on-one interviews were undertaken with 242 individuals aged 60 years and older. Just over half of the interviewees (n=135) were female. The interview recordings were transcribed and imported into NVivo 10 for coding and analysis. A thematic analysis was conducted to explore the issues relating to seniors' accounts of their exercise-related beliefs and behaviours.

Results

Although exercise was generally viewed as important, it was often considered to be a tedious activity that should be endured rather than enjoyed. There was little awareness or understanding of current physical activity guidelines. The primary message that had been assimilated by the interviewees was the need to do regular walking. As such, many reported taking regular walks, but this was often at a low intensity and at an inadequate frequency. Very few were aware of the recommendation to engage in resistance training to preserve muscle and bone mass.

Conclusions

The findings suggest that older people need tailored health communications about the benefits of physical activity in general and specific forms of activity in particular.

Key messages:

- Most seniors do inadequate exercise. Interventions need to encourage more and varied activity
- Messages may focus on encouraging seniors to move beyond regular walking

Assessing GIS based walkability indicators on their suitability for public health reporting

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Background

The walkability of the residential neighbourhood is considered to be one determinant of physical activity for transport. Walkability measured with geographical information systems (GIS) has the potential to be included in public health reporting and to support the implementation of health in all policies. GIS-based walkability indicators were developed for the city of Graz based on a systematic literature review and a cross-sectional study. The aim of this presentation is to assess the suitability of these walkability indicators for public health reporting.

Methods

Based on a literature review criteria to assess public health reporting indicators (conceptual framework, importance and relevance, validity, reliability and objectivity, specificity, sensitivity, feasibility, meaning and understandability, timeliness, comparability, implications) were identified. The walkability indicators that showed the most consistent associations with physical activity for transport were chosen for the assessment. Household unit density, proportion of mixed land use, four-way intersection density and Graz walkability index were assessed against these criteria.

Results

The assessment showed that most assessment criteria were fulfilled for the walkability indicators. Household unit density was assessed to better fulfil the criterion validity, feasibility and comparability than the other indicators, but fulfilled the criterion timeliness and implications only with constraints. Furthermore, the criterion timeliness and implications were assessed to be fulfilled with constraints across all walkability indicators.

Conclusions

The assessment showed that the walkability indicators are suitable for public health reporting, even though some constraints remain. To generate agreement on which walkability indicators are useful and valuable for the decision makers in the city of Graz a consensus exercise should be undertaken with actors from public health, urban and transport planning.

Key messages:

- Public health reporting should include also data on the determinants of health
- GIS-based walkability indicators have the potential to be included in public health reporting

The impact of lifestyle interventions on cardiovascular risk factors in high risk population.

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Background

Cardiovascular diseases (CVD) are still the leading cause of mortality globally. Since unhealthy behaviours and modifiable risk factors account for most of CVD mortality, lifestyle interventions are recommended in both primary and secondary prevention. Nonetheless, literature suggests that lifestyle interventions could be more beneficial in high risk subjects, with a significant impact on the risk for fatal events but not for

non-fatal ones. This study is aimed to investigate the efficacy of multiple lifestyle interventions on modifiable CVD risk factors.

Methods

A systematic review and a meta-analysis of randomized controlled trials (RCTs) with at least 6 months of follow up was performed. PubMed, Web of Science and Cochrane Library were searched until 31st December 2013. RCTs were considered eligible if they explored the effect of multiple lifestyle intervention on CVD risk factors in the population at higher risk for CVD because of an established predisposing condition (i.e. hypertension, diabetes, familial hypercholesterolemia) or of the presence of at least two uncontrolled risk factors. Changes in modifiable risk factors level from baseline were evaluated and data were combined through a random effects model.

Results

Search resulted in 25808 articles of which 27 were finally included. All articles were parallel groups RCTs which compared the intervention to the usual care. The meta-analysis showed that multiple lifestyle interventions determine a significant decrease in total cholesterol (-0.25 mmol/l, 95%CI -0.40, -0.09), systolic (-2.64 mmHg, 95%CI -3.90, -1.38) and diastolic (-1.73 mmHg, 95%CI -2.55, -0.91) blood pressure.

Conclusions

Multiple lifestyle interventions are able to significantly decrease CVD risk factors in high risk groups. Consequently they should be always taken into account in the management of high risk population.

Key message:

- Multiple lifestyle interventions deserve attention also in groups at higher risk for CVD because they are able to significantly reduce modifiable risk factors in comparison to usual care

Characteristics of the lifestyle in Romanian and Serbian teenagers

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It is well-known that a healthy lifestyle (the individual decisions and behaviours that influence human health), promoted since an early age, could prevent most of the later pathologies.

We asked 240 Romanian and 166 Serbian high-school students to answer a 27-item questionnaire regarding four components of the life style: nutritional habits, tobacco use, alcohol consumption, and doing exercises. The teenagers, aged 15-17, live in a 100,000-inhabitant Romanian city, respectively in a 45,000-inhabitant Serbian city; the cities lie on the opposite banks of the Danube which represents the border between the two countries.

Serbian students seem to have healthier nutritional habits comparing to the Romanian ones: most of them have three main meals daily ($p < 0.01$); having breakfast is a usual habit (92.8% vs. 58.2%, $p < 0.001$); the structure of their snacks consists more in fruit and less in sweets ($p < 0.01$).

The prevalence of tobacco use in Serbian students (8.4%) is significantly lower ($p < 0.01$) than in Romanian students (21.6%); boys smoke more frequently than girls ($p < 0.05$) in both groups; the smoking starting average age is lower in Romanian students comparing to the Serbian (14 years vs. 15.3 years).

About a third of the respondents never drink alcohol, about half of them do this occasionally. The prevalence of the daily alcohol consumption seems to be lower in the Romanian students (5.8% vs. 19.2%, $p < 0.001$). Teenagers in both countries prefer beer and wines, but they also ingest spirits. Doing exercises seems to be a characteristic of both groups (94.2% vs. 97.6%), but it consists in performance sport in

Serbian students, respectively recreation sport or walking in Romanian students ($p < 0.001$). Boys in both countries prefer sports, while girls – walking ($p < 0.001$).

Serbian students seem to have a healthier lifestyle comparing to the Romanian ones. Health promotion initiatives should continue in schools, especially as they are the most popular setting for such programmes.

Key messages:

- Lifestyle represents the individual decisions and behaviours that influence human health
- The most important characteristic of an effective health promotion programme is its ability to change behaviour

A 'microsimulation' model for assessing the cost effectiveness of physical activity interventions

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Background

Methods used to consider whether physical activity interventions offer value for money rarely account for characteristics that influence the uptake and sustainability of physical activity (PA) (e.g. age, gender, health status). As individuals can opt in or out of interventions easily, it is important to reflect the diversity in a population to maximise the efficiency gainable from PA interventions. This study explores which points in the life course, of inactive people, it is cost-effective to intervene to increase and maintain PA.

Methods

An individual-level simulation model is used to model the cost-effectiveness and budget impact of PA interventions (exercise referral scheme (ERS) as an exemplar). The model allows individuals' to experience events (e.g. uptake of PA intervention, onset of heart disease, diabetes, depression) at times in their lifetime that are influenced by their characteristics and activity levels. Data used to populate the model parameters were derived from best evidence reviews.

Results

Cost-effectiveness of ERS is summarised as incremental cost per quality adjusted life year and net benefit statistics. The cases of CVD/diabetes/depression avoided; and budget impact of ERS is also reported. Costs are presented separately, for different funders (e.g. health care providers and local authorities) and broken down into three categories: programme-level costs of ERS; patient-level costs of ERS; and savings from avoided treatment. The uncertainty around results is presented using the cost effectiveness: plane and acceptability curve.

Conclusions

An innovative individual level simulation approach to model the cost effectiveness and budget impact of PA interventions. Discussion focuses on extending the model to other sectors and countries.

Key messages:

- Informs policy decision making on efficient ways of increasing PA among different groups of people and at different stages of the life course
- An innovative model usable by other researchers for evaluating interventions

1.F. Oral presentations: Models of chronic care

Integrated care approaches for multimorbidity: lessons learnt from eight European case studies

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Background

The ICARE4EU project (Innovating care for people with multiple chronic conditions in Europe) aims to contribute to the innovation of care for European citizens with multiple chronic conditions by increasing and disseminating knowledge about potentially effective and efficient approaches.

The aim is to systematically compare promising integrated care programmes and draw lessons for policy-makers and professionals.

Methods

Eight innovative care programmes for multimorbid patients were selected from a group of 101 programmes in 24 countries described through a programme level survey. Next site visits were conducted to compare the programmes on (1) care integration and management, (2) financing methods, (3) patient-centredness, and (4) use of eHealth. This data was then used to identify which aspects appear to be facilitators or barriers for a successful implementation.

Results

The programs show different approaches and priorities to improve care for multimorbid persons. However, similarities were identified with respect to the use of individualized care plans and care coordination elements. Almost all programmes use a form of case management, focus on the needs of multimorbid patients and support their self-management. However, large untapped potential remains in terms of innovative financing mechanisms and use of eHealth solutions. Explanations for this lack can be found in unsupportive environments and lacking technical solutions. Lastly, strong variations in the types of evaluations and data collection were identified.

Conclusions

The eight European integrated care programmes often have to overcome existing organizational and structural silos as well as unsupportive national policies. The paper provides lessons on what facilitates successful implementation and how some of these barriers can be overcome. To generate conclusions about the programme's effectiveness continuous evaluation over a long-term period is required.

Key messages:

- To support long-term implementation of care programs for multimorbid persons system level reforms and supportive national policies are required
- More rigorous monitoring and evaluations are needed to obtain insights into effective or ineffective integrated care program components

Promoting physical activity in older adults

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Background

Compared to other population segments, older adults engage in lower levels of physical activity. However, the health benefits associated with physical activity are well known. As the

number of people entering older age groups increases significantly, the promotion of physical activity is an important task, particularly given the effects of ageing on physical health. The present study explored the effectiveness of a series of messages designed to motivate seniors to engage in physical activity.

Methods

Over 300 Australian seniors aged 60+ years were presented with 14 brief messages promoting physical activity. Half of these messages solely advocated engaging in physical activity while the other half promoted physical activity and also noted the potential benefits that can be obtained from being more physically active. Messages also varied according to length (ranging from 3 to 13 words). The extent to which participants liked each message and considered it effective was assessed on the following scales: 1 (do not like the message at all) to 5 (like the message very much) and 1 (not effective at all) to 5 (very effective).

Results

The promotion of physical activity among seniors was considered a worthwhile objective by the study participants. All messages were generally considered likeable and potentially effective, however respondents found messages that were shorter in length and provided information on the potential benefits of physical activity to be significantly more likeable and effective compared to those that were shorter in length or that only promoted physical activity.

Conclusions

Succinct but informative messages were preferred by participants. Providing information on the potential benefits of physical activity may constitute a potential means of increase physical activity in seniors. Further research is needed, however, to investigate the most effective means of promoting these messages to seniors and increasing willingness to comply.

Key messages:

- The promotion of physical activity among seniors was considered a worthwhile objective by the target demographic
- Messages that provided information on the potential benefits of physical activity outperformed those that only advocated engaging in physical activity

Comprehensive information to dialysis patients increase the number that chose home dialysis

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Background

Haemodialysis performed in hospital is an expensive therapy putting pressure on health care budgets worldwide, and demand is increasing. Dialysis performed at home such as peritoneal dialysis and home haemodialysis have shown to be associated with lower costs and higher health-related quality of life compared to hospital dialysis. In Sweden, patients with threatening End Stage Renal Disease should be informed about different dialysis treatment modalities and given the opportunity to choose the type of dialysis that is most suitable to their

situation (if transplantation is not an option). Today, 26% of dialysis patients are receiving dialysis in their homes. The aim of this study was to explore whether information about different dialysis methods impacts on patient's choice of dialysis modality.

Methods

A questionnaire was sent out to the total number of dialysis patients in the Region of Västra Götaland, addressing the information on dialysis modalities before starting their treatment, including various background variables. Response rate was 71.3% (n=434). Statistical analysis was performed using logistic regression on the entire data set and sex disaggregated.

Results

Preliminary results show that dialysis at home was associated with younger age (p=0.008) and longer distance to hospital (p=0.000), greater number of sources of information on dialysis before onset (p=0.012) and own involvement in the decision of dialysis modality (p=0.031). Male respondents living with a partner more often chose home dialysis than female respondents. Moreover, female respondents that received help by relatives were more inclined to choose home dialysis.

Conclusions

This study concludes that the number of patients performing dialysis at home can possibly be increased if the information given to them is structured and comprehensive. A larger proportion of patients using home dialysis ultimately result in lower societal costs and improved health-related quality of life.

Key message:

- Better informed patients before starting dialysis thus promoting home dialysis, which in turn reduces societal costs and improves health related quality of life

Is the task-shifting in self-management support effective? A systematic review and meta-analysis

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Background

Nurses play a key role in primary care, especially in long term care programs for patients with chronic diseases. The task-shifting from medical doctors to appropriately trained nurses could be a possible way to reduce doctors' workload and direct cost of care, keeping quality, health outcomes and patient satisfaction constant. Systematic review and meta-analysis was carried out to assess the effectiveness of nurse-led self-management interventions in community setting.

Methods

Most important biomedical databases were searched for Randomized Control Trials (RCTs) of nurse-led self-management interventions performed in community setting on patients with a diagnosis of chronic disease or multi-morbidity. Primary outcomes of the studies were our outcomes of interest. Pooled mean difference (MD), along with 95% confidence interval (CI) was calculated, as appropriate.

Results

Globally, 29 RCTs were included involving 10,240 participants. Six studies reported as outcomes the levels of HbA1c, 10 the systolic (SBP) and diastolic blood pressure (DBP). The pooled MD showed a reduction in HbA1c and in SBP in the experimental groups. Meta-analyses of subgroups showed a statistically significant effect of the interventions for SBP among diabetic patients (MD -2.56, 95% CI -4.82—-0.31). A reduction of the DBP was found on the overall group (MD -1.42, 95% CI -1.42—-0.49) and in the subgroup of patients with cardiovascular diseases (-2.09, 95% CI -4.11—-0.07).

All-cause mortality was found significantly lower in two studies out of four. Quality of life in the experimental groups was significantly higher than in the control group only in one RCT out of three.

Conclusions

The results support the effectiveness of a nurse-led approach in the management of clinical outcomes in chronic patients. In particular, the nurse-led approach has positive effects on the DBP and SBP control and Hb1AC level in patients with cardiovascular diseases or diabetes.

Key messages:

- Task-shifting from doctors to nurses in educational and self-management programs in community settings can improve clinical outcomes in chronic patients
- Further research to evaluate cost-effectiveness of task-shifting interventions in the management of chronic patients is strongly needed

Economic evaluation of Peek (Portable Eye Examination Kit) for diabetic retinopathy screening

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Diabetic retinopathy (DR) is a common eye complication in diabetes mellitus (DM) and can result in visual impairment and blindness. However, it is preventable and curable if identified and treated early. Nevertheless, the increasing burden of DM, expensive imaging devices and lack of ophthalmologists make implementing DR screening a challenge, especially in developing countries. The International Centre for Eye Health at LSHTM led a collaboration to develop the Portable Eye Examination Kit (Peek), a low-cost mHealth technology enabling retinal imaging, without need for high levels of training or infrastructure. Hence, GPs and nurses can take retinal images anytime and send these via cloud for remote grading.

We developed a questionnaire to explore necessary resources for DR screening (staff, equipment, consumables) and likelihood of using Peek. A trained interviewer administered it to 24 staff facilities in Kilimanjaro region of Tanzania and collected data using Magpi. A cost-effectiveness analysis was performed with provider perspective. Uncertainty was assessed in different scenarios of utilization rate and DR prevalence. Cost per patient screened and per case detected were the outcomes measured.

Since 2010 a hospital in Moshi has provided DR screening with only 1 Topcon retinal camera, delivering outreach service to remote clinics 1 day/month. Staff of 14 facilities (58%) declared to be very likely and 6 (25%) to be likely to use Peek. Known DM patients were 5,730 and the proportion yearly screened with Topcon has been approximately 20%; instead, with Peek, the target is to screen up to 80%. Considering this scenario of utilization rate, the cost per patient screened is \$27 with Topcon against \$5 with Peek, while the cost per case detected is \$145 against \$28 at 20% DR prevalence among DM patients.

Peek demonstrates to be cost-effective and a potential disruptive innovation for DR screening and ophthalmology sector. Further analysis will calculate cost per QALY.

Key messages:

- The cost per patient screened for DR with Peek is 5.73 times less than Topcon retinal camera (gold standard), while the cost per DR case detected is 5.23 times less
- It is widely believed that mHealth technologies may revolutionize the way health services deliver care. Peek is one of these and can be a disruptive innovation for DR screening and Ophthalmology

1.G. Pitch presentations: Deprivation and cultural competence as determinants of health

Welcomed diversity? A comparison of low-threshold health services in an urban context

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Background

Nowadays, healthcare organisations are confronted with highly differentiated, pluralistic societies. They face challenges to respond to diversified needs while dealing with harsh cuts in public expenditures on welfare programmes. This project aims to understand how people make use of healthcare in specific urban contexts and in which manner healthcare services take into account specific needs marked by the intersection of differences such as gender, disability, class, origin, religion, sexual orientation and age.

Methods

This project presents a qualitative comparison of low-threshold healthcare organisations in four European neighbourhoods in Barcelona, London, Paris and Malmö, all characterised by highly diverse populations. The study is based on semi-structured interviews with healthcare professionals (doctors, nurses, receptionists, managers, N=63) and service users (N=63). For the analysis we used content analysis and interpretative methods.

Results

Healthcare organisations have developed different strategies to manage diversified needs and to improve accessibility of care, the client-expert relationship, the institutional environment and user participation. These strategies and the institutional room for manoeuvre are influenced by contextual structural elements such as local economic and regulatory welfare constraints.

Conclusions

Our paper points out that health care practitioners are forced to handle discrepancies within the system as well as the system's difficulties to respond to the new users' needs. These findings enable us to debate about concepts like intersectionality and to determine criteria that favour equity and address multiple discriminations. Our results underline the importance of organizational reflexivity to ensure a good quality of care and the implementation of innovative actions in regular procedures.

Key messages:

- This qualitative comparative study analyses how low-threshold healthcare organisations respond to diversity
- We will present common trends and practices that favour equity and tackle inequalities

Health and wellbeing impact of urban regeneration policy in deprived areas of Northern Ireland

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Where an individual lives can affect their health. Accordingly, improvements to disadvantaged residential areas are hypothesized to enhance health. Holistic regeneration policies have been implemented in the UK, Spain and the Netherlands to address social determinants of health and reduce health inequalities. There is a lack of evidence as to whether spatial policies have improved the health of deprived communities and whether taxpayer's money is effectively utilized. Lessons can be used in future regeneration strategies.

Neighbourhood Renewal was launched in 2003 by the Northern Irish government as a ten year policy, assisting 36 earmarked areas. Using longitudinal secondary data, of 3,500 respondents from 2001-2012, this evaluation investigates health changes:

- in intervention areas before and after the policy;
- between intervention residents and the rest of Northern Ireland;
- between intervention residents and residents of similarly deprived areas which did not receive assistance.

Difference in difference and propensity score matching methods estimate causal effects of the policy. Measures of health and wellbeing are modelled, adjusting for available demographic and socioeconomic information.

A thorough assessment reveals the programme did not have a measurable impact on mental distress, self-rated health, life satisfaction, unemployment, benefit receipt, exercise and smoking. These have neither worsened nor improved relative to policy-off areas. At best, we may assume further widening of inequalities has been prevented. Moreover, a significant reduction in fuel poverty and those who would like to move from their neighbourhood was observed.

The lack of health gains is likely to be due to the small scale of interventions, short time horizon and difficulties in partnership working. An absence of systematic financial recording prevents a robust value for money assessment.

Better evidence of what works must be gathered if policies are to be more effective.

Key messages:

- Improvements in population health are difficult to secure in areas with endemic problems over a decade
- The gap in the literature concerning value for money of urban programmes is not sufficiently considered in extant evidence

Homeless Health-Related Quality of Life

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Background

Homeless are a vulnerable group and have worse physical and mental health as well as higher rates of premature mortality than the general population. The aim of this study is to investigate the health status of homeless in Padova, Northern Italy, using SF-36 and EQ-5D questionnaires to better understand their health needs.

Methods

We had face to face interviews with 73 homeless that live in city of Padova, Italy. We used the SF-36 questionnaire and 5q-5d questionnaire to assess the Health-Related Quality of Life.

Results

Fifty-nine questionnaires were completed. Our population was made by 49 men and 10 women of which 32 were Italian. The mean age of the Italian homeless was 53,3 years, higher than that of the foreigners (42,4 years). Foreigners spent less time in the dormitory (OR=3.06 p=0.0029) and they also used to have a family doctor less frequently than Italian guests (OR=60 p=0.0000). Foreigners had a lower risk to have hypertension (OR=4.8 p=0.04) and they had less disease at

the time of the interview (OR = 1.48 $p = 0.079$). About the use of the emergency department, 30 subjects (50.7%) said they have used it from 2 to 5 times in the last year. There is a statistically significant difference between Italians and foreigners regarding the medians of the General Health domain of the SF-36 questionnaire ($p = 0.03$). The mean value of each domain of the SF-36 questionnaire in our study population was lower than Italian general population. The average value of EQ-VAS in the female population was 50 while 63.2 in men, this difference was statistically significant ($p = 0.02$).

Conclusions

Homeless showed a worse health than the general population and in this group foreigners showed a better health and better questionnaire Results regarding the emotional role and mental health domains foreigners scored less than the Italians. Women showed worse health than men.

Key message:

- This study aimed to describing, for the first time in the Italian reality, the Health-Related Quality of Life of a group of homeless in the city of Padova

Feeling Poor versus Being Poor in Norway—Associations to Adolescent Mental Health

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Background

Socioeconomically determined mental health inequalities are well-documented public health challenges, but appear inconsistently in adolescence. Adolescent socioeconomic status (SES) is often defined by objective parental characteristics, but there is interest in using subjective SES measures in studies of relations to mental health. This may be particularly relevant in wealthy countries such as Norway where inequality, and levels of absolute poverty and deprivation are low. We investigated the association between objective and subjective SES, and their association to symptoms of depression and attention-deficit/hyperactivity disorder (ADHD).

Methods

Data stem from the youth@hordaland study, a population based survey conducted in Norway in 2012. 10254 adolescents (47% male) aged 16-19, provided self-reported information on perceived family finances, ethnicity, family structure and multiple parental SES indicators. Depression was measured using the short form of the Moods and Feelings Questionnaire, and ADHD using the Adult ADHD Self-report scale. Objective household income information was obtained from registry data.

Results

Low income, single parent household and parents outside of the workforce predicted higher odds-ratios for adolescents' perceptions of financial adversity (ORs 2-3.65). Perceived financial adversity, and not objective income, remained as a significant predictor for increased symptoms of depression (Cohen's $d = .5$) and ADHD (Cohen's $d = .4$) in fully adjusted models, but both were significant predictors in crude models.

Conclusions

Several objective SES indicators contributed to adolescent's perceptions of financial adversity. Perceptions of poor finances rather than poor finances in themselves were related to symptoms of mental health problems.

Key messages:

- Several objective indicators of SES contribute to adolescent perceptions of poor family economy

- These perceptions, in turn, are associated with symptoms of mental health problems

Poverty & Obesity: how poverty influences food choices

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Background

Levels of overweight and obesity are higher in individuals from low socioeconomic status (SES). The aim of this research is to investigate what psychological mechanisms can explain this relationship.

Methods

Participants were recruited online ($n = 500$) or at the university site ($n = 100$). In two first studies, individuals of representative samples were told that their current income was relatively lower (poor condition) or higher (rich condition) than others. In a student sample, students were asked to read an article describing the precarious (vs. stable) situation of students in their current city. All participants then completed a money and food discounting task. The data was analysed in regression models in R.

Findings

For the first two studies, significant interactions were found between condition and people's actual income level (e.g. study 1: $B = -1.49$, $t(194) = -3.09$, $p = .002$): people with lower incomes discounted more money and food when they were in the poor (vs. rich) condition. The influence of the poor condition on the increased discounting of money, but not food, was explained by lower levels of perceived control. The data of the student sample is currently being analysed but will be presented at the conference.

Discussion

The above results show that, under conditions of scarcity, poor people react more impulsively towards monetary and food rewards. Health interventions should focus on diminishing cues in the environment that remind people from lower SES of their precarious situation. Interventions aimed at increasing behavioral control, and decreasing impulsive behaviors could improve the situation.

Key messages:

- This research project shows that people with lower incomes are more impulsive towards monetary and food rewards, especially when they are reminded of their lower incomes, or a lower social status
- Interventions aimed at improving health behaviours of individuals with lower incomes should not focus on monetary compensations that can remind these individuals of their precarious situation

Exploring walking activity in South Asian populations to develop culturally acceptable interventions

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Background

There is substantial evidence that South Asians are at higher risk of heart disease, stroke and diabetes compared to the White majority population in the United Kingdom (Sproston et al, 2004). Causes include lifestyle behaviours such as lower

levels of physical activity (PA) than White counterparts, irrespective of generational differences (Bhatnager, 2015). There is a dearth of information about how best to promote walking in South Asians. This study aims to redress this gap by exploring the barriers to, and facilitators of walking in addition to adapting and testing a culturally acceptable pedometer-based walking intervention.

Methods

A community-orientated approach in Scotland resulted in 85 South Asian men and women expressing interest in participation. Purposive sampling ensured maximum variation in ethnicity, gender, age, geographical area and socio-economic deprivation. Focus groups and interviews explored barriers and facilitators towards walking. Specifically, views were gathered on how these would potentially impact on the design and implementation of a culturally acceptable walking programme. Iterative data were translated, transcribed and thematically analysed.

Results

Preliminary results suggest that group or family based activities would facilitate walking. Although there was a preference for same gender groups, ethnic and religious diversity was welcomed. Intervention components that included goal setting, competition between and within groups and reward systems were highlighted. Participants felt the inclusion of community link workers would ensure capacity building by enabling group members to take responsibility for organising walking activities.

Conclusions

Walking interventions that recognise religious, environmental, cultural and personal considerations may be more acceptable and successful in minority populations.

Key message:

- Identifying barriers and facilitators to walking in high risk minority populations can aid the development of culturally acceptable interventions that may increase levels of physical activity

Ethnographic insights into health literacy as social practice in vulnerable families in Switzerland

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Background

Certain migrant groups have been shown to present less favourable health outcomes than autochthonous groups. Studies have also reported less favourable health behaviours of migrants compared to the resident population. Scholars have linked differences in health status to differing health literacy levels. Promoting and improving health literacy, especially in vulnerable populations, has therefore become a key policy goal in public health.

Methods

A literature review on health literacy with a special focus on Switzerland was conducted. Based on its findings, an exploratory project was designed. It aims at obtaining in-depth insights into how health literacy is applied on a daily basis in families from migrant communities in Switzerland. Ethnographic methods like participant observation, ethnographic interviews and focus groups will be used.

Results

Health literacy is often explicitly mentioned in policy papers and recommendations. Although to different extents, many studies show high levels of limited health literacy across various populations. Most studies use a quantitative approach and survey methodology. A clear tendency towards a medically oriented understanding of health literacy can be observed. There is a lack of studies focusing on health literacy in the domain of health promotion and qualitative approaches to

measuring health literacy. Little is known about the health literacy levels of minorities and vulnerable groups.

Conclusions

Health Literacy research would benefit from more diverse perspectives including qualitative approaches to its measurement. A more salutogenic conceptualisation of health literacy as social practice will broaden our understanding of the complexity. Through ethnographic research in the daily lives of migrant families we will gain insights into the cultural, social and individual motives underlying health decisions and practices. These can be used when developing programs promoting health literacy.

Key messages:

- Health literacy is an area of high scholarly and political interest
- Ethnographic research will contribute to a broader understanding of the concept

Capacity building in Danish Medical Education: towards culturally competent medical teachers

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Background

Europe is becoming more social and cultural diverse as a result of the increasing migration, but the physicians are largely unprepared. The education programmes and the teachers have not evolved in line with development of the population. Culturally competent curricula and teachers are needed, to ensure cultural competence (CC) among health professionals and to tackle inequalities in health between different ethnic groups.

Methods

The objective of this EU financed study is to investigate the role of CC in the medical educational programmes. As a part of the project a survey was developed to investigate medical teachers cultural competences and preparedness to teach CC topics. The survey was sent to all medical teachers, clinical teachers and external lectures that teach in the medical programme at the University of Copenhagen. A total of 1430 medical teachers received the survey. The response rate was about 14% (N = 199).

Results

Our results showed that there is a widespread recognition of the need of CC among the medical teachers. About half of the medical teachers find that they have sufficient knowledge to teach CC and 60-90% find that they have qualifications for teaching a diverse student group. About 70% are interested in getting training for various types of CC and about 75% think it is important to incorporate CC elements in the curriculum. Our survey had a low response rate and there is probably a considerable selection among the respondents.

Conclusions

Generally, there is an interest in learning more about and to receive training in CC among the medical teachers. There is also a high acknowledgment of the need and the importance of integrating CC elements in the medical curriculum. Key challenges are how to integrate cultural diversity in health and disease within medical education and how to motivate and engage stakeholders (teachers, management etc.) within the organisation to promote and allocate resources to CC training for teachers.

Key messages:

- A widespread interest for CC training among medical teachers
- It is important to integrate CC in the medical curriculum

1.H. Workshop: Primary care health indicators for children: The MOCHA project

Organised by: MOCHA Project
Contact: d.luzi@irpps.cnr.it

Chairperson(s): Michael Rigby – United Kingdom

The Models of Child Health Appraised project (MOCHA) is a Horizon 2020 project www.childhealthservicemodels.eu, started in June 2015 and involving 30 European countries, which seeks to compare and appraise existing national models of primary care for children, and to bring multi-disciplinary and multi-stakeholder views and approaches, to develop new, or improve on existing, approaches to prevention, primary care and treatment, and their integration into health services. The topics covered include:

1. Identification of Models of Children's Primary Health Care
2. Interfaces of Models of Primary Health Care with Secondary, Social and Complex Care
3. Effective Models of School Health Services and Adolescent Health Services
4. Identification and Application of Innovative Measures of Quality and Outcome
5. Identification and Use of Derivatives of Large Data Sets and Systems to Measure Quality
6. Economic and Skill Set Evaluation and Analysis of Models
7. Ensuring Equity for All Children in all Models
8. The Role of Electronic Records and Data to Support Safe and Efficient Models
9. Validated Optimal Models of Children's Prevention-Orientated Primary Health Care

In the framework of the investigation of alternative models of children's Primary Health Care in Europe, the identification of health care indicators pertaining structures, processes and outcomes represent an important step for the evaluation of the health care services.

The workshop will present results of primary care health indicators for children achieved in the MOCHA EU project so far. The first presentation will introduce the main practical and conceptual challenges in the development of quality indicators specific for children. The other presentations will each focus on indicators of outcomes of specific conditions (asthma, Autism Spectrum Disorders and Immunization and adolescent primary health care) providing measures, which are independent of pattern of service provision, thus enabling international comparison.

Key messages:

- Indicators highlight issues on the measurement of quality of care under a multidimensional perspective; children's health indicators need a special focus
- Use of indicators may improve the knowledge on the organization and delivery of health care, not least across boundaries in primary care

Approaches to Indicators in Child Health

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Considerable work has been done on European indicators of child health. A key example is the Child Health Indicators of Life and Development (CHILD) project, 2002. Other significant projects include measuring the Behavioural

Determinants of Obesity, and Child Safety. The Research Inventory of Child Health in Europe (RICHE) collated details of 461 validated measures of aspects of child health. At national level a prime integrated platform of indicators is England's Child and Maternity Health Information Network (ChiMat), especially its interactive Child Health Profiles by locality. However, since the first CHILD project, there has been little attempt to produce a European balanced holistic set of indicators.

This is a subject which the MOCHA project must address, in order to achieve its appraisal of the potential models of primary health care provision for children in Europe. This workshop is a formative and consultative contribution to that task.

Indicators of child health face a number of practical and conceptual challenges:

1. Childhood is not holistic – some measures need to be specific to defined child life course stages.
2. There are a number of stakeholders with different legitimate interests, requiring in turn:
3. An organizational or provider system view
4. A population view (divided into child, parent, and societal views)
5. A case based view (or aggregated to groups of people with a common interest).
6. Health is more difficult to measure than ill-health; determinants are important, and include both positive and negative determinants.
7. Treatment outcome and disease management are important aspects whose indicators can provide system-wide and cross-organisational measurement.

This workshop addresses in particular the last aspect. Indicators of outcomes of specific conditions enable measurement across the child life course and across organisations, and provide measures which are independent of pattern of service provision, thus enabling international comparison.

Quality of primary care for children: ASTHMA indicators in the EU MOCHA project

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Background

The lack of quality indicators for children certainly biases the identification and implementation of appropriate measures that can drive improvements of child health. One of the main objectives of the MOCHA project is to appraise European health systems identifying key success factors that increase the quality of pediatric healthcare provision. To achieve this aim it is necessary to identify multidimensional indicators that cover different aspects and address the various stakeholder perspectives of quality.

Methods

Quality Indicators on asthma for children over 5 years are considered, as asthma has a high prevalence rate, it is difficult to diagnose and is often associated with other symptoms, moreover it is strictly related with environmental aspects and socio-economic conditions. Therefore, asthma is a suited topic to test multidimensional quality indicators. The selection of

indicators is based first on the already proposed indicators in RICHE as well as on the literature review. The proposed classification based on Mainz (2003) and Tumaini (2013) is then submitted to MOCHA experts' in order to gain consensus on the most important and main locally used indicators.

Results

The proposed classification supported by MOCHA experts' consensus will be the basis to develop a conceptual framework for SEM (Structured Equation Modelling) analysis on asthma to be performed in the next steps of the project.

Conclusions

The proposed approach can contribute to gain a broader view of the quality of children primary care, taking asthma as example. This can also help to improve the health systems' performance assessment taking into account differences in the 30 EU countries of MOCHA project.

Key message:

- The necessity of developing quality indicators specific for children is the basis to highlight and discuss the various issues concerning the measurement of quality of care under a multidimensional perspective that includes the different stakeholders' points of view

Quality of primary care for children: Autism Spectrum Disorders and Immunization indicators in the EU MOCHA project

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Background

The lack of quality indicators for children certainly biases the identification and further implementation of appropriate measures that can drive improvements of child health. One of the main objectives of the MOCHA project is to appraise European health systems identifying key success factors that increase the quality of pediatric healthcare provision. To achieve this aim it is necessary to identify multidimensional indicators that cover different aspects and address the various stakeholder perspectives of quality.

Methods

A literature search was carried out on existing indicators regarding: immunization, Autism Spectrum Disorder (ASD) and Attention Deficit Hyperactivity Disorder (ADHD).

The search focused on the European projects such as RICHE (<http://www.childhealthresearch.eu/>) and CHILD, the WHO and UNICEF websites and documents, the available national guidelines and Google Scholar.

Results

Over 150 and 70 indicators were found for immunization and ASD/ADHD, respectively.

For immunization, almost half of the indicators were categorized as Outcome Indicators, around 25% as Structure Indicators and 11% on the Process Indicators. Most of them regarded coverage, record/archiving activities, regulation/policy and funds.

For ASD and ADHD only two Structure Indicators were found, the remaining ones being equally distributed between Process and Outcome categories. The Process Indicators were mainly focus on provider care while the Outcome Indicators split between Intermediate and Final Outcome.

Conclusions

The investigation on the available indicators can contribute to gain a broader view of the quality of children primary care and highlight potential gaps.

Key message:

- The necessity of developing quality indicators specific for children is the basis to highlight and discuss the various issues concerning the measurement of quality of care under a multidimensional perspective that includes the different stakeholders' points of view

The Primary Care Indicator Set for Adolescents: the EU MOCHA project

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Background

Measuring the functioning of adolescent primary health care (APHC) is important; it enables informed decision making for policy makers, health care providers and patients. Currently there is a lack of a multidimensional overview on the organization and delivery of APHC services in Europe. The aim of the MOCHA project was to develop an indicator set for the different domains of primary care that enables measurement of APHC functioning in all European countries.

Methods

The framework of Kringos et al. (2010) describes seven domains of the functioning of primary care (governance, economic conditions, workforce development, access, comprehensiveness, continuity and coordination) and was used for mapping the features of APHC within each domain. The selection of the features was performed to address the essential issues in APHC. They were identified in two steps: (1) A systematic review of systematic reviews that were published between 2000 and April 2016, (2) Input from the expert team on APHC. To operationalize the features, indicators were developed and evaluated against criteria of relevance, precision, flexibility, discriminating power and suitability for European-wide comparison.

Results

A standardized indicator set has been created with 30 core desirable national indicators on APHC in Europe, addressing the specific health needs of adolescents. It is based on scientific evidence and a consensus among a team of experts in APHC.

Conclusions

This multidimensional set of indicators of APHC in Europe will hopefully represent a useful tool in the future to assist stakeholders in designing and monitoring the APHC system.

Key message:

- The indicator set enables measurement of the functioning of APHC in the European countries. Widespread use of the indicator set has the potential to improve the knowledge on the organization and delivery of APHC in different national context, which creates opportunities for identifying optimal models of APHC

1.I. Pitch presentations: Promoting mental health

Preventing prisoners' suicide and autolesionism in Italy

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Issue

Suicide is a complex phenomenon, and represents the 3rd cause of death in prison. In Italy about 10 suicides per 10,000 inmates and about 150 attempted suicides of 10,000 inmates occur. These data are considerably higher than the general population, and confirm the importance of a project to prevent suicide in prisons.

Description of problem

In 2013 the National Bioethics Committee for Health in Prison published a report and established the necessity to create specific protocols to prevent suicide risk. The Regional Council of Tuscany (Italy) affirmed the necessity of a synergic work between health personnel and operators of prison to adopt this kind of measures. In 2014 a new biphasic protocol was created and a multidisciplinary staff was constituted. In the 1st phase the new prisoner should be observed, clinically evaluated and tested with the "Arboleda-Florez Checklist". The suicide risk profile, calculated through the checklist, let us adopt an individualized therapeutic plan, ensure an adequate surveillance and the best location for the prisoner. In the 2nd phase, the prisoner should be monitored carefully, signaling promptly any changes in his psychological status.

Results

In 2015 the nurses were trained to administer the 'Arboleda Florez' check list. The staff met 19 times and 85 new prisoner were clinically evaluated after a week from their entrance. The 25% of new admitted resulted to be at 'medium risk'. The 46% of the newcomers resulted to be 'adapted' (with a low risk). In 2 cases, the psychiatric examination classified the prisoners at 'high/very high risk' so a great surveillance measure was immediately activated.

Lessons

The protocol tried to develop new useful strategies for the prevention, monitoring and management of suicide risk in prison. The multidisciplinary management of the inmate patient demonstrated that the collaboration between several professional figures is fundamental for an efficient prevention of this serious problem.

Key messages:

- We adopted a new protocol to prevent suicide risk in prison
- The new protocol let us classify the risk suicide of the prisoners, and adopt special measures for the inmates with a high/very high risk

Are there evidences for air pollution effects on suicidal behaviours? A systematic review

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Background

In recent years, the search for environmental risk factors associated with suicidal behaviour has broadened beyond meteorological variables to include air pollutants exposure. We have systematically reviewed published human studies to assess the strength of evidence that air pollution and suicidality might be causally related.

Methods

We analysed primary research studies addressing the association between air pollution and suicidality. We included studies using any research design, with outcomes of interest suicide ideation, suicide attempt and suicide death.

Results

9 studies met the inclusion criteria. Included studies were published between 2004 and 2015 and all of them had an ecological or crossover design based on hospital or institutional records. PM10 resulted positively associated with suicides in 5 studies out of 6; in one study it was positive-ly associated with suicides during desert wind, while it was non associated with suicides during sea breeze. PM2.5 was positively associated in 2 studies out of 3, while in the third no associations were found. SOx were positively associated in all the four studies analysed them. Ozone levels were positively related in 2 out of 3 studies, while in the third it resulted positively associated with completed suicides but no associations were found with suicide attempts. Pb was positively associated in the only study assessed it. Levels of NO2 and CO were found to have different effects: NO2 was positively associated in 2 studies, while it was negatively associated in one study, and no associated in one; CO was negatively associated with suicides in 2 studies out of 3, and positively associated in the third one.

Conclusions

Our study suggests a correlation between air pollutants levels and suicidality, thus representing a warning for the Public Health community. Since the ecological design of the included studies does not allow to assess individual risk, our results strongly encourage further investigations.

Key messages:

- The present review suggests a possible correlation between air pollutants levels and suicidal behaviours, thus representing a warning for the Public Health international community
- Since available data have an ecological or cross-over design, the planning of analytical studies should be encouraged to better define the epidemiological impact and the underlying mechanisms

The public health response during and after the Lac-Mégantic train derailment disaster

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Issue/problem

On July 6th 2013, a train carrying 72 cars of oil derailed in Lac-Mégantic, Quebec, Canada, causing major human, economic and environmental impacts. In response to this unprecedented disaster, the Estrie Public Health Department (EPHD) initially focused on acute consequences (mostly health risks associated with environmental contamination) and on emergency response operations. Three years after the event, EPHD is still involved, supporting the social and psychological recovery of the community.

Description of the problem

Public health organizations need to be prepared to deal with complex disasters. In this case study, we comprehensively describe and analyze actions taken by the EPHD during both the emergency response and the recovery operations phases.

Results

Due to the complexity of the event, public health actions needed to be diversified. These actions targeted chemical (e.g. toxic cloud), physical (e.g. heat wave), biological (e.g. water contamination) and psychosocial (e.g. stress) hazards. Actions initially undertaken were: risk assessment, evacuation and reintegration, coordination with multi-sectoral partners, epidemiological investigation, and risk communication. In the months and years following the disaster, EPHD undertook many actions with different community partners to support the psychological recovery and the resilience process: health surveillance, research, community development, occupational health (including workplace psychosocial interventions), and health impact assessment (related to the downtown reconstruction and bypass train route).

Lessons

Our analyses yielded seven lessons that will improve and inform response to future events. The most important lesson of all is that people should never underestimate the long-term impacts of a tragedy, especially on mental health and psychological well-being. Our lessons could serve as a basis to develop a conceptual framework for public health emergency preparedness.

Key messages:

- Our analysis of the public health response in Lac-Mégantic illustrates the broad spectrum of actions required
- These actions ensure that the short- and long-term impacts of such a disaster are minimized

Youth Empowerment Programme for community betterment through social action

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Background

The WHO European 2020 policy for health has highlighted the fundamental importance of asset based community approaches. Yet youth are often seen as problematic in the “throes of tumultuous physical and emotional change”, with public health professionals often focussing on young people’s lifestyles and risk factors such as smoking, drugs, alcohol, and sexual behaviours. There is growing recognition of the importance of asset based more positive vision of young people, acknowledging their altruism, sense of justice, eagerness to learn about the world they live in and contributing to the their communities.

Objectives

This presentation will outline the background, principles, methods and the learning from the Junior youth Empowerment Programme from various countries across Europe. It will highlight case studies from the materials for development of language and expression, the focus on service projects, engagement in artistic activities, and participation in recreation and sports activities as part of a coherent programme. It will share the narrative from the animators and participants from the early implementation of the programme in various setting in Europe.

Results

The programme enables the youth to focus on issues of personal development (through developing powers of expression and perceptions), as well as practical contributions to the community and society. The training materials aim to build capacity through, understanding of certain concepts, acquiring

knowledge, developing certain attitudes and qualities, and gaining specific skills and abilities.

Conclusions

No attempt at community building can afford to ignore the central importance of youth. The junior youth empowerment programme provides useful insight, materials, learning and experience to support youth become involved in meaningful community social action and individual development.

Key messages:

- Young people are key assets in any community and should not be viewed as problematic whose risk factors need to be controlled
- Youth are key protagonists for betterment of society, who need to be supported to take control of their health, wellbeing and development

Association between family support and psychological distress, as modified by attachment patterns

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Background

The association between living arrangement, family support, and the risk of mental illness are modified by personality. Attachment patterns influence mental well-being. The objective of this study was to describe the modification by attachment patterns of the association between family support or living arrangement, and psychological distress.

Methods

We used a commercial online survey service to collect data from 1648 men and women 30-69 years of age in Japan. Subjects were selected by stratified random sampling from 1.2 million registered monitors. Nonspecific psychological distress was measured by the K6 scale, family support was measured by the JMS-SSS, and global attachment patterns were measured by the ECR-RS scale. Statistical interactions between family support, living with a spouse, or living with a child, and attachment patterns on psychological distress were evaluated by linear regression analyses. Analyses were adjusted for sex, age, education, employment, and household income.

Results

There were significant interactions between family support, cohabitation with a spouse or cohabitation with a child, and attachment-related anxiety (all $P < 0.01$): higher family support, living with a spouse, and living with a child were associated with lower distress in respondents with higher anxiety. These associations disappeared in respondents with lower anxiety. There was no significant interaction between family support, living with a spouse, or living with a child, and attachment-related avoidance: each of family support and living arrangement variables was associated with lower distress.

Conclusions

Higher family support and living with a spouse or child reduce the risk of distress when attachment-related anxiety was high. Attachment patterns modify the association between living arrangement, social support, and psychological distress.

Key messages:

- The study provides an example of modification of the association between living arrangement or family support, and psychological distress by attachment patterns that were formed from infancy
- Consideration of individual characteristics that influence the perception of family support might advance the investigation of the family support in public health

Are smartphones and tablets influencing the quality of your sleep? An Italian survey

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Introduction

Electronic devices use, such as smartphones and tablets, may affect sleep health. The present study aimed to estimate the association between technological devices usage, especially mobile phones, during the evening/night and self-reported sleep disorders.

Methods

A cross-sectional survey was conducted in Italy between June 2015 and September 2015. An anonymous self-reported questionnaire was distributed to a sample of the Italian general population and investigated demographic data, presence of sleep disorders and the use of electronic devices. Univariate and multivariate analysis were conducted to examine associations between technological devices exposure variables (exposure time, length and type of technology) and sleep disorders in order to identify main risk factors.

Results

The analysis was based on 597 questionnaires. In the sample 50.42% of the participants referred difficulty in falling asleep at least once a week, repeated awakenings were reported in 51.27% and waking up too soon in 48% of them. Mobile phone exposure has been associated with increased difficulty falling to sleep ($p=0.018$). The use of mobile phones at bedtime was significantly related to self-reported sleep disturbance ($p<0.001$). Using mobile phone more than 60 minutes before going to sleep, the use of these devices in bed and surfing internet remained statistically significant in the multivariate analysis.

Conclusions

Our results suggest that the use of a mobile phone before going to sleep can have a role in self-reported sleep disturbances. Considering the huge spread of these electronic tools, European public health prevention strategies should promote healthy sleep habits and provide information regarding the effects of an intensive electronic devices use on the sleep status.

Key messages:

- In our sample, half of the participants declared difficulties in maintaining regular sleep habits and mobile phone exposure resulted linked with this kind of disorders
- European public health prevention strategies should promote information regarding the effects of electronic devices use on the sleep status and provide advices on healthy sleep habits

Is the effect of mindfulness on well-being mediated by self-kindness?

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Background

Accumulating research shows the many potential public health benefits of mindfulness interventions. This study will investigate the mechanisms through which a classroom-based mindfulness intervention (b) has its beneficial effects. The study seeks to replicate an earlier cross-sectional study which found self-compassion to mediate the effect between mindfulness and well-being. The mediation analysis in this study employs three waves of measurement (pre-intervention, post-intervention, follow-up at 6 months). Self-kindness is measured as a proxy for self-compassion. We are submitting the abstract with very preliminary results as the study design is unusually robust for the field.

Methods

The study employs an RCT design wherein the mindfulness intervention is compared with an active control group (relaxation intervention) and a passive control group (no treatment). The data pool is from The Healthy Learning Mind Study, with more than 2000 participants (aged 12-15) from schools in the Helsinki and Turku regions. Questionnaire data was obtained with the Child and Adolescent Mindfulness Measure, the self-kindness subscale from the Self-Compassion Scale, Revised Beck Depression Inventory, Stress in Children, Satisfaction with Life Scale, and Positive and Negative Affect Schedule.

Results

Analyses are undergoing. However preliminary evidence of the mindfulness intervention's salutary effects have already surfaced (by lowering depression in the students who practiced the most). The mediation analyses are to be conducted in the immediate future.

Conclusions

Mindfulness enhances well-being in adolescents through lowering depression (and quite possibly other routes and through more specific mechanisms).

Key messages:

- Classroom-based mindfulness intervention has beneficial effects for the students who practice most
- The study sheds light on the question whether mindfulness ought to be taught in Finnish schools as part of the curriculum

Variability in psychosocial correlates of health among the elderly: a comparison of the EU and US

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Background

Because the elderly persons are more likely to cope with various psychosocial difficulties such as loss of control and lack of companionship, it is important to understand how the elderly's outlook and perception are related with their health and activity engagement.

Methods

The current study employed a secondary data analysis using multiple data sets released from the Health and Retirement Study (HRS) in USA and Survey of Health, Ageing, and Retirement in Europe (SHARE). A multiple questionnaire items measuring a wide range of life aspects among the elderly such as ageing perception, activity engagement, social networks, cognitive function, and physical-mental health were deliberately detected. Including basic descriptive analysis and measurement test, I performed a series of multivariate data analysis to examine the relationships between the study variables. Covariates in the analyses included major predictor variables and demographic variables such as gender, age categories (young-old, old-old, and oldest-old), and race/ethnicity across the different regression models.

Results

A number of psychosocial indicators accounted for additional variance for the measures of health status and behaviors across the different ageing categories and cultures: lack of companionship ($p < .001$); motivational force ($p < .01$); perception of ageing ($p < .001$); self-control ($p < .001$); and hopelessness ($p < .001$). This indicates, the more the elderly develop self-control, positive ageing perception, and life motivation, they are more likely to be engaged in activities and maintain better health condition in general. Additionally, there were significant group differences according to gender, race/ethnicity, and age categories.

Conclusions

In the promotion of healthy and active lifestyle among the elderly, we should be better equipped to provide psychotherapeutic intervention and counseling programs that might facilitate proactive mindset and inner potential among the elderly.

Key messages:

- Optimistic attitude is an intangible but key resource for healthy lifestyle among the elderly
- Policies should be subdivided according to the different ageing groups—young, old, and oldest

1.K. Oral presentations: Communicable diseases preparedness and surveillance

Ebola preparedness: the need for co-ordination overarching the public health and curative sector

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Background

During the Ebola outbreak in West-Africa 2014-2015, the curative and public health sector in the Netherlands cooperated more intensely than ever before to be prepared to identify, refer and investigate suspected Ebola cases in a timely and safe way. This 'after action' review studied experiences in preparedness of the main stakeholders of both sectors in order to formulate recommendations to optimize preparedness protocols. Timeliness of referred cases was inventoried as indicator for preparedness.

Methods

In focus group discussions (5) and semi-structured interviews (14), experiences of curative and public health stakeholders were investigated on preparedness processes and coordination at regional and national level. This study involved 48 professionals representing 42 institutions. Timeliness of all 13 referred and admitted possible Ebola cases were analysed, from first date of illness until arrival at the referral hospital.

Results

Ebola preparedness was considered extensive compared to the risk of an actual patient, however necessary. Regional coordination varied between regions. More standardisation of regional preparation and operational guidelines was deemed necessary, as well as standardised contingency criteria. Both the curative and public health sector expect the National Centre of Infectious Disease Control (CIb) to take the lead in coordination of preparedness and the development of guidelines for emerging infectious diseases. The median delay between first day of illness until triage was 2.0 days (range 0-10). The median delay between triage and arrival in the referral hospital was 5.0 hours (range 0-7.5), which is considerable. In none of these patients Ebola infection was confirmed. Bottlenecks and areas of improvement were identified.

Conclusions

Coordination overarching the public health and curative sector is needed to standardize preparedness and response practices and reduce delay in patient management.

Key messages:

- This review of Ebola preparedness revealed the need for overarching coordination involving curative and public health sectors
- The results of this Ebola preparedness review may be applicable to countries with similar organization of health care systems

Imported infectious diseases among newly arrived Eritrean refugees in Switzerland

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Background

A quarter of refugees arriving in Switzerland in 2015 originated from Eritrea. Yet, data on health status of Eritrean immigrants in Switzerland are scarce. We report preliminary data from screening for selected infectious diseases among asymptomatic newly arrived Eritrean refugees in Switzerland.

Methods

The study started in January 2016 with recruitment still ongoing. Asymptomatic Eritrean refugees aged ≥ 16 years who arrived in Switzerland in 2015 are recruited via cantonal refugee registries. Screening for infectious diseases comprises 2 stool samples for protozoa and helminths, serology for HIV, hepatitis B and C, syphilis and schistosomiasis, circulating cathodic antigen (CCA) in urine and malaria PCR in blood. We anticipate having enrolled ≥ 150 participants by November 2016.

Results

At submission of the abstract 62 participants (53 male, 9 female), median age 23 years (inter-quartile range: 19-28), were enrolled. Fourteen (34%) had ≥ 1 pathogenic parasite detected in stool examination (10 *Schistosoma mansoni*, 6 *Giardia lamblia*, 5 *Hymenolepis nana*, 5 others), 27(44%) had a positive CCA test in the urine, indicating active schistosomiasis infection. Among those with schistosomiasis 45% had level D peri-portal fibrosis according to World Health Organization's ultrasound classification. Four (7%) had a positive PCR for *Plasmodium vivax*. All had negative serology for HIV, hepatitis B and C and syphilis.

Conclusion

More than one out of three asymptomatic Eritrean refugees had at least one pathogenic parasite detected in stool examinations, nearly half had evidence of active schistosomiasis, often with substantial pathological lesions - none was aware of it. And 1 out of 15 had a *Plasmodium vivax* infection.

Key messages:

- Routine screening for stool-parasites, schistosomiasis using CCA and malaria using PCR may be considered in refugees arriving from Eritrea
- Such screening may prevent long term sequelae from untreated schistosomiasis or relapsing malaria episodes

Cost-effectiveness of influenza vaccination of elderly in Sweden

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Background

About 5-10% of the adult population are infected with influenza annually in Sweden. For most individuals the infection heals itself, but for individuals in risk groups the infection can be severe and lead to severe complications and death. People 65 years and older are considered as a risk group. The aim of this study was to assess the cost-effectiveness of vaccinating individuals 65 years and older.

Methods

We developed a decision-tree model, in which individuals were either infected with influenza or stayed uninfected. If infected, an individual could be cared for at home or hospitalized. The model was populated with individuals 65 years and older in Sweden 2016 and only influenza related death was considered. The vaccine effect was set to 25% and the vaccine coverage to 75%. Data on number of infected, hospitalization and influenza related death was obtained from national surveillance data from the A(H1N1) 2009 pandemic and from the literature.

In the cost-effectiveness analysis, we applied health effects and costs to each health state, i.e. infected-uninfected, hospitalized-not hospitalized. Costs for vaccination and resource use of treating influenza within the health care sector were included and health effects were measured as quality-adjusted life years (QALY). Indirect costs in the form of production losses were not included in the analysis, since the population was not of working age. The time horizon was set to one year since vaccinating is necessary every new influenza-season.

Results

The analysis shows that vaccinating elderly would cost approximately €14 000 per gained QALY, and is considered a cost-effective strategy. The results are sensitive to assumptions about the vaccine effect, the fraction of infected that seek medical care and that are hospitalized.

Conclusions

It is a cost-effective strategy to vaccinate elderly against influenza.

Key message:

- It is a cost-effective strategy to vaccinate elderly within the framework of a national immunization program in Sweden

Screening for tuberculosis among asylum-seekers in Germany: a systematic review and meta-analysis

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Background

Large numbers of asylum-seekers from high-prevalence tuberculosis (TB) countries seek shelter in Germany. All asylum-seekers undergo upon-entry screening for TB, but comprehensive evidence on the yield is lacking. We synthesised evidence on TB yield and compared the national estimates with those reported in the international literature.

Methods

Systematic review and meta-analysis of studies reporting the yield of TB, defined as the fraction of active TB cases detected among asylum-seekers screened upon-entry in Germany. We searched 11 national/international databases for empirical studies and the internet for grey-literature published in English/German without restrictions in time.

Results

Screening 1253 articles, we identified six articles reporting the yield of active TB ranging from 0.72 [95% confidence interval (CI): 0.45 – 1.10] to 6.41 [95% CI: 4.19 – 9.37] per 1000 asylum-seekers. The pooled estimate for the yield across all studies was 3.47 [95% CI: 1.78 – 5.73; I²=94.9%, *p*<0.0001] per 1000 asylum-seekers. This translates to 288 [175 – 562] asylum-seekers that would need to be screened to detect one case of TB. This estimate was in line with international evidence [I²=0%, *p* for heterogeneity 0.55]. The meta-analysis with available international estimates resulted in a pooled yield of 3.05 [95% CI: 2.02 – 4.61]. Only few studies reported yields stratified by age, sex or country of origin. Two studies compared TB yields by country of origin with WHO estimates on TB prevalence in respective countries of origin and reported both lower and higher yields than expected.

Conclusions

We provide the first supra-regional estimate for the yield of TB screening in asylum-seekers in Germany. The yield concurs with international estimates. Further research is needed to develop more targeted screening programmes. The national TB surveillance systems needs to be improved to allow direct supra-regional estimates of TB yield.

Key messages:

- The yield of TB screening in asylum-seekers in Germany concurs with international estimates
- Studies reporting stratified results are necessary to develop more targeted programmes

1.L. Oral presentations: The costs of health

The Great Recession and Increased Cost Sharing In European Health System

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Background

Due to general constraints on public expenditure, resulting from the 2008 Great Recession, European health systems are

increasingly considering cost-sharing models potentially increasing out-of-pocket-expenditures (OOPE). We examined changes in OOPE among persons aged 50 years and older in eleven European countries between 2006/2007 and 2013.

Methods

We used data from wave two (2006-07) and wave five (2013) of the Survey of Health, Ageing and Retirement in Europe. We considered three outcomes: i) any OOPE in the last 12 months; ii) amount of OOPE (in Euros) in the last 12 months among those who incurred an OOPE; and iii) if respondents incurred a

catastrophic health expenditure (defined as total OOPE exceeding 30% of household income in the last year). Covariates included in our analyses: age, gender, marital status, education attainment, employment status, household income, and number of chronic diseases.

To allow comparison of amount of OOPE between two periods, we adjusted for each country inflation.

Results

The percentage of respondents incurring any OOPE increased from 63.6% in 2006/07 to 80.0% in 2013. Spain and the Netherlands showed the most striking increases (from 32.8% to 75.7% and from 31.1% to 70.3%, respectively).

The mean amount of OOPE of those who incurred any OOPE was 43.6% higher in 2013 than 2006/07 after controlling for demographic and socio-economic factors (CI 37.2%-50.3%). In Austria the mean OOPE was twice as high in 2013 (101.0%, CI 78.6%-126.3%).

The proportion of respondents for all countries incurring catastrophic health expenditure increased from 2.3% (CI 2.0%-2.7%) in 2006/07 to 3.9% (CI 3.5%-4.3%) in 2013 ($p < 0.001$). In Italy it increased from 4.8% to 11.4% ($p < 0.001$).

Conclusions

Older populations across Europe are subjected to greater burden of OOPE. These findings highlight the potential impact of cost-sharing policies and indicate substantial weakening of financial protection in European health systems after the Great Recession.

Key messages:

- Older populations in Europe are subjected to greater burden of OOPE in 2013, in both the likelihood of incurring a payment and the average amount spent when receiving care, as compared to 2006/07
- The financial protection for older European citizens in many European health systems has become weaker after the Great Recession, and continued monitoring of OOPE is warranted

Not cost-effective to vaccinate healthy elderly against pneumococcal disease in a Swedish setting

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Pneumococcus is a common bacteria that causes invasive pneumococcal disease (IPD) and pneumonia. The risk of contracting severe disease increases with age and is higher in people with comorbidities. From previous literature we know that risk group vaccination of elderly with comorbidities is cost-effective, which makes about 50% of elderly in Sweden eligible for vaccination due to risk group affiliation. The aim of this study was instead to assess cost-effectiveness of vaccinating healthy elderly against pneumococcus.

We developed a decision-tree model, in which individuals get infected and develop IPD or pneumonia, or stay uninfected. Depending on severity of disease, patients were either hospitalized or cared for at home. The model was populated with healthy individuals turning 65 years old. Vaccine was given once, thus no booster dose was included. Both PCV and PPV vaccines were considered, but only PCV was assumed to have an effect on pneumonia.

Health effects, measured as QALY, and costs, for vaccination and resource use, were applied to each health state. Indirect costs in the form of production losses were excluded, since the population was not of working age. Base case analysis referred to vaccination with one dose each of PCV and PPV, according to current recommendations for risk groups. However, previous literature suggests that healthy elderlies may only need one dose of PPV. Therefore, we conducted a sensitivity analysis to address this.

Results suggested that the cost per QALY gained was approximately €270 000-630 000 for vaccinating healthy

elderly, depending on which combination of vaccines that were given. The results were, among others, sensitive to what extent pneumococcus vaccinations were given in conjunction with other visits in a health care facility.

Vaccination is a good way to prevent infection and save resources. However, from a health economic perspective it is not cost-effective to vaccinate healthy elderly against pneumococcus.

Key messages:

- Health economic analysis suggests that vaccinating healthy elderly from pneumococcus is not cost-effective in a Swedish context
- Cost-effectiveness depends heavily on the risk of contracting disease. Hence, the risk of pneumococcal disease for healthy elderly is not high enough to justify increased cost for vaccination

Comparing indirect costs of multiple sclerosis in three different years: A population-based study

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Background

Multiple sclerosis (MS) is a progressive disorder often leading to substantial disability, including more than one million disability-adjusted life years lost in 2010, and high costs in society for e.g., lost productivity due to illness. There have been large changes in the treatment of MS in later years, but little is known of how indirect costs among MS patients have changed over time. We thus compared the indirect costs of illness among MS patients and matched controls for three different years.

Methods

Three cross-sectional datasets, including all the MS patients in Sweden aged 20-64 years, during each of the years of 2006, 2009, and 2012, respectively, each with five controls from the general population, matched on age and sex. Individual level information from nationwide registers was used to estimate prevalence-based indirect costs of illness, i.e., productivity loss resulting from sick leave and disability pension, measured by the human capital method.

Results

The analyses were based on 10,531 MS patients and 52,655 matched controls in 2006. Corresponding figures were 11,722/58,610 in 2009, and 12,789/63,945 in 2012, respectively. In 2006, 2009, and 2012, the average unadjusted indirect costs of illness among MS patients were SEK 201,581, SEK 194,915, and SEK 182,658, respectively. Adjusted for inflation, the average difference in indirect costs between MS patients and matched controls were SEK 170,502 (95% confidence interval: SEK 166,478 to 174,525) per MS patient in 2006, and SEK 141,280 (SEK 137,601 to 144,960) in 2012. Disability pension corresponded to approximately 87% of all indirect costs during all studied years.

Conclusions

The average indirect costs of illness of MS patients were lower in 2012 than in 2006. The lower indirect costs among MS patients needs to be further examined in relation to population changes in use of sickness benefits.

Funding provided by Biogen and the Swedish Research Council for Health, Working Life and Welfare.

Key messages:

- The indirect costs of illness of MS patients were lower in 2012 than in 2006
- Although these results are tentative, new therapies may have impacted on work capacity of MS patients

Welfare reform and hunger: A quasi natural experiment in local authorities across the UK, 2012-2015

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Background

Over 2012 to 2016, welfare reforms in the UK have included the gradual introduction of new single benefit payment (Universal Credit) and intensified conditionality and penalties for benefit claimants. There is concern that payment delays and payment stoppages arising from these changes are leading to hunger and destitution. Here, we examine how the implementation of these changes across local authorities has associated with food bank use.

Methods

We obtained quarterly data on the number of people receiving food aid from the Trussell Trust Foodbank Network, corresponding to 392 food banks in 259 UK local authorities over April 2012 to December 2015. We matched these data to government statistics on unemployment, Universal Credit rollout, and the rate that penalties, called sanctions, have been applied to benefit claimants. We used fixed effect regression models, controlling for the number of food banks in local authorities and unemployment, to examine how these welfare changes associated with food aid distribution.

Results

The average quarterly rate of food aid distribution in local authorities rose from feeding 23.6 per 10000 persons (SD=22.4) in 2012 to feeding 66.5 per 10000 persons (SD=44.0) by the end of 2015. After controlling for unemployment and the scale food bank operations in each quarter, the introduction of Universal Credit was associated a rise of 7.56 more persons per 10000 receiving food aid (95% CI: 4.32-10.8). For every 1 percentage point rise in benefit claimants sanctioned, food aid was distributed to 2.82 more persons per 10000 (95% CI: 1.81-3.83).

Conclusions

These findings suggest that recent welfare reforms in the UK have contributed to rising food bank use, supporting calls that assessments of such policy changes take into account their impact on nutrition and health.

Key messages:

- The quarterly rate of food aid distributed from food banks almost tripled from the beginning of 2012 to the end of 2015 across local authorities in the UK
- Welfare reforms, in the form of the introduction of Universal Credit and benefit sanctioning, were associated with the rise of food bank use over this period

Ambulatory care sensitive conditions in Portugal, 2000-2014: socioeconomic inequalities and its costs
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Background

Evidence suggests the persistence of inequality in health across European countries, despite universal coverage. Unequal access to high-quality care may have detrimental consequences on the health gap and on sustainability of health systems. We aimed at measuring socioeconomic (SE) inequalities in ambulatory care sensitive conditions (ACSC), used as a marker of quality in primary prevention, early diagnosis, and appropriate chronic disease management, and its financial consequences.

Methods

We used data on municipality-level ACSC rates per 1,000 inhabitants, and municipality-level average ACSC-related expenditures, from all in-patient stays at all Portuguese hospitals for the years 2000 to 2014 (n=4,170). We modeled these variables as a function of SE indicators - the year-specific quintiles of illiteracy rate and local purchasing power - using fixed effects panel data analysis. We controlled for the proportion of elderly and for the rate of primary care (PC) physicians per 1,000 inhabitants.

Results

The rates of ACSC increased in Portugal from 8.29 per 1,000 inhabitants in 2000 to 10.81 per 1,000 inhabitants in 2014. The rate of ACSC was negatively associated with purchasing power, with a statistically significant decrease of 1.00, 1.14 and 1.10 in the rate of ACSC, for the 3rd, 4th and 5th quintiles, respectively, in comparison to the 1st quintile. The rate of ACSC was also positively associated with illiteracy. The ACSC related expenditures decreased with increasing purchasing power and the rate of PC; and increased with increasing illiteracy. If all municipalities behaved as the most advantaged quintiles, the Portuguese National Health Service would save 46,178,377 € per year, that is, 2.11% of total inpatient expenditures.

Conclusions

These findings confirm the socioeconomic patterning in ACSC, which possibly reflect inequalities in access to early high-quality care. These inequalities represent a relevant burden for the Portuguese NHS.

Key messages:

- The rate of ambulatory care sensitive conditions is significantly associated with purchasing power and illiteracy, which possibly reflect social inequalities in access to early high-quality care
- These inequalities denote a financial burden for the Portuguese NHS, representing about 2.11% of the total yearly inpatient expenditures

1.M. Oral presentations: Efficacy in health care

Evidence on the implication of the contracting-out of cleaning service in 126 English Acute Trusts

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Background

This study evaluates whether contracting out cleaning services in English acute hospital Trusts is associated with risks of hospital-borne MRSA infection and lower economic costs.

Methods

We linked data on MRSA incidence per 100,000 hospital bed-days with patient and staff surveys of cleanliness, for 126 English acute hospital Trusts, covering 2010-2014.

Using as our main outcomes the MRSA incidence rate per 100,000 hospital bed-days and the average cost of cleaning per hospital, we estimate multi-variate regression models adjusting for hospital size, complexity of service provision, patient mix, and other potential confounding factors. As a sensitivity test we also re-estimate our models using propensity score matching.

Results

The MRSA incidence rate was 15.3% higher (95% CI: 8.80% to 19.9%) in acute Trusts which outsourced hospital cleaning services compared to those with in-house cleaning, after adjusting for complexity of service provision and hospital size, and when using propensity score matching. Outsourcing was associated with fewer cleaning-personnel per hospital bed (5.86%; 95% CI: -7.88% to -1.90%), lower percentage of patients reporting excellent cleanliness for both bathrooms (-0.90 percentage points; 95% CI: -1.94 to -0.14 percentage points) and rooms/wards (-1.28 percentage points; 95% CI: -2.08 to -0.43 percentage points), and lower percentage staff reports that hand-washing material is always available (2.27 percentage points; 95% CI: -3.40 to -1.44 percentage points). Yet outsourcing was also associated with lower economic costs of about 6.93% per hospital bed (95% CI: -9.37% to -4.60%), corresponding to savings of £214 per bed-year.

Conclusions

Outsourcing cleaning services was associated with greater risks of MRSA, fewer cleaning staff per hospital bed, worse patient perceptions of cleanliness and staff perceptions of availability of sanitary materials. However, outsourcing was also associated with lower economic costs.

Key messages:

- Trusts which outsource their cleaning services tend to have a higher MRSA incidence rate
- Outsourcing was associated with fewer cleaning staff, lower patient perceptions of cleanliness, and staff reports fewer hand-washing stations, as well with lower economic costs per hospital bed

Can social capital overcome barriers to effective management of hypertension. Study in 17 countries

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Background

Social capital, defined as the features of social interaction that facilitate cooperation for mutual benefit, has been recognised as a positive contributor to health. Several mechanisms may be involved: more social interaction may facilitate access to health information, provide a source of informal care and support, or induce one to adopt healthier behaviours. Consequently, social capital might support chronic disease control. We examine the role of social capital in management of hypertension in countries at different levels of economic development.

Methods

We analysed survey data gathered in 17 countries from 35,000+ hypertensive individuals, their households, and the 650+ communities in which they live. Outcomes include whether a hypertensive participant is aware of their condition, and whether those aware of their condition have their hypertension controlled. Four dimensions of social capital, (i) membership of any social organisation, (ii) trust in social organisations, (iii) trust in other people, and (iv) perceived level of community social capital, were modelled separately in high- and low-income samples. Ordinary least square models were run with individual-level controls, individual- and community-level controls, and community fixed effects.

Results

In low- but not high-income countries, membership of social organisations significantly increased both the likelihood of awareness of hypertension and the likelihood of having it controlled. Trust in social organisations also increased the likelihood of hypertension awareness in low-income countries only.

Discussion

Social capital appears to help management of hypertension in low-income country settings, possibly by compensating for health system weaknesses. Being a member of a social organisation may help individuals increase their knowledge of health issues, access health services or adhere to treatment. Interventions that increase social capital may contribute to NCD control in these contexts.

Key messages:

- Social capital supports improved outcomes of hypertension in low-income country settings
- Social capital seems to offer a means to overcome health system weaknesses

Understanding the role of community hospitals: an analysis of experiences in five countries

Ellen Nolte

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Background

A policy focus on moving healthcare closer to people's homes has led to renewed interest in community hospitals and their

potential role in delivering more integrated care at local level, but models and approaches differ across countries. This study explores the policy drivers behind the implementation or advancement of these models; their function and role within the wider system of service provision; and the degree to which community hospitals contribute to enhanced integration of service delivery and benefit the population.

Methods

A review of the nature, scope and distribution of service delivery models that can be considered to be community hospitals in five high-income countries (Australia, Finland, Italy, Norway, Scotland), using a review of the published and grey literature following a structured data collection template and key informant interviews.

Results

Community hospitals provide a wide spectrum of health services, situating them at the interface between primary, secondary, community and long-term care services. Their roles have to be set in the context of the evolution of the overall hospital service delivery structure in different countries. Evidence from Finland and Norway suggests that community hospitals may lead to reduced acute hospital utilisation. Their greatest benefits are seen to lie in their small size and proximity to people's homes and their flexibility to respond to local need. Challenges include attracting suitable staff and maintaining a diverse skillset.

Conclusions

There is considerable potential for community hospitals to contribute to care integration and to play a more strategic role in shaping the delivery of services locally. As delivery systems evolve, boundaries between services provided by community hospitals and those offered elsewhere locally might blur or overlap and appropriate measures need to be taken to enhance the effectiveness and efficiency of service delivery and optimise the value of community hospitals.

Key messages:

- Local and national contexts have driven the way in which community hospitals have developed and the range of services they provide
- Community hospitals occupy a niche within the local service delivery structure and may serve as a locale for service integration locally

The Day Service as a model to reduce the inappropriateness of care: an Italian experience.

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Issue/problem

Appropriateness of care is an important topic for European Public Health, particularly for countries with a National Health Service. In Italy, Lazio Region established the innovative organizational model of Day Service in order to promote appropriateness of care and defined it as an outpatient care modality, alternative to hospitalization and day hospital, aimed at treatment of patients with complex health problems but that usually do not require medical and nursing continuing surveillance.

Description of the problem

The Clinical Management Staff of the "Regina Elena" National Cancer Institute in Rome (Italy) established that the outpatient management of surgical patients in the hospital would occur by means of Day Service, through the delivery of packages of complex services identified at a regional level or through appropriate diagnostic-therapeutic pathways. Our objective was to describe the experience of the Day Service and compare

results between the last 4 months of 2013 and the first 4 months of 2014, using internal computerized databases.

Results

The introduction of Day Service has led to remarkable reductions in the number of inappropriate pre-admission tests, especially for the most expensive health services (-74.5% for Computerized Tomography, -93% for Magnetic Resonance Imaging, -61.9% for Positron emission scans and scintigraphy). The Day Service has also improved the overall patient experience, especially from an organizational point of view, and this is an important aspect, considering that most of the patients attending the "Regina Elena" Institute are affected by cancer, are often elderly and a considerable number of them reside outside Lazio Region.

Lessons

The implementation of Day Service in our experience showed to have a positive impact in terms of organization, reduction of hospital stay and overall hospitalization-related activities, and from an economic standpoint, with savings useful to improve patients' care and facilities

Key messages:

- The Day Service is an outpatient care modality which allows the improvement of appropriateness of care through the delivery of packages of complex services identified at a regional level
- The promotion and widespread diffusion of this innovative organizational model could lead to better health care services for patients, together with important economic saving

Integrating skill-mix and mobility in regional health workforce monitoring and governance

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Background

Health workforce governance has gained momentum and data sources have significantly improved. Yet monitoring systems often reproduce the 'silo' approaches of professions; they are poorly connected to policymaking and implementation. We introduce a model that systematically connects regional health workforce monitoring to health workforce governance, and integrates skill mix changes and mobility in border regions.

Methods

Using data from a multi-professional regional health workforce monitoring system established in Rhineland Palatinate, a federal state and border region in the southwest of Germany, four cases were selected with a focus on registered nurses (RN) and assistant nurses (AN): (1) matches between supply- and demand development, (2) skill mix changes in sectoral perspective, (3) cross border commuting/mobility, and (4) implementation and evaluation data.

Results

The results reveal that changes in the skill mix are interlinked with demand-side changes and sectoral development. For instance, shifts from acute to long-term care reduce demand for RNs, which is lower in long-term care than in hospitals. In border regions, mobility and commuters are important but there are no uniform flows and effects in professional groups; e.g. mobility from Rhineland Palatinate to Luxembourg is high and primarily driven by RNs, while mobility from France to Rhineland Palatinate is overall lower and focused on ANs. Education and training capacities are defined and adjusted on the basis of complex monitoring data, thus being able to better respond to demand changes.

Conclusions

This contribution shows how monitoring can deliver novel information on health workforce development, and how this information feeds back in the policy process if connected to governance.

Key messages:

- A procedural monitoring approach can integrate skill mix changes and mobility of health workers
- Regional health workforce monitoring can help closing gaps in health workforce governance

1.N. Oral presentations: Research, policy and practice

The intervention level distribution of UK funding allocation in public health research

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Background

Policy responses to major public health problems such as obesity are skewed towards high risk populations and individual level actions, but the biggest public health gains are likely to arise from upstream population level actions. The aim of this paper was to establish the distribution of public health research from upstream to downstream, population- to individual-level, through a case study of The National Institute for Health Research (NIHR), in the UK.

Methods

We analysed all 96 publicly accessible proposals funded and published by NIHR between 2009 and 2016 websites using the modified version of the Health Research Classification system. We conducted semi-structured interviews with key stakeholders in NIHR and the wider public health research community to examine the factors driving the existing and historical distribution of research funding, perceived problems with this, and proposals for future improvements.

Results

Results demonstrated an overwhelming focus on providing funding for individual level, downstream interventions, with very few funded projects addressing population prevention strategies that capture complexity approaches. Stakeholders are aware of these problems and identified a number of key actions to address them.

Conclusions

The current system for funding public health research in the UK is skewed towards the interventions that we know how to evaluate but these may not be the most appropriate types of interventions for which we need evidence. There is a need for changes to the strategic approach to public health research funding.

Key messages:

- Public health research needs to move from measuring things we can measure to answering the questions we need answered
- Public health action must move upstream, and research funding must follow

A public health approach to patient-centredness in embryo research

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Background

Looking at patient-centredness through the lens of public health is needed for responsible governance of human embryo research. This study aimed to explore patients' experiences and perspectives on information about and consent for research with human embryos, to sustain the development of policies and guidelines.

Methods

An observational and longitudinal mixed-methods study was conducted in a Portuguese public fertility centre with 3 evaluation moments: questionnaire with 313 women and 221 men undergoing In Vitro Fertilization (2011-2012); semi-structured interviews with 34 couples, 3 months after; questionnaires 12 months after baseline (114 women; 107 men). Data on willingness and reasons to donate embryos for research and on opinions about embryo storage were collected. Descriptive and inferential statistics and content analysis were used.

Results

Most couples were willing to donate embryos for research (87.3%;95%CI:82.1-91.5), but a significant decrease over time was observed (RR=0.85;95%CI:0.76-0.95). Participants expected benefits for science, health and infertile patients, but reported lack of information about research projects using human embryos. Having experienced at least one previous cycle was associated with agreeing with a duration of storage longer than 5 years, both in women and men (OR=2.94;95%CI:1.51-5.71 and OR=2.44;95%CI:1.17-5.08, respectively). Having children was inversely associated with longer duration of storage among women. There were misconceptions and gaps in knowledge about cryopreservation.

Conclusions

This study points to the need to provide accurate information about embryo storage and expected results from human embryos research more responsively. It also supports the development of guidelines regarding embryo storage limit that consider reproductive trajectories and life conditions of patients. Lastly, it calls for a renewed discussion around the idea of a two/three-stage process to obtain full informed consent.

Key messages:

- Provision of accurate information and a two/three-stage process to obtain consent on embryo donation for research is needed
- Investing in guidelines on embryo storage limit and research focused on public health is crucial to promote patient-centredness in the field embryo donation for research

Bridging research training and the public health system, results from a Training Program in Québec

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Background

The Quebec Research Training Program on Public Health Interventions trained PhD and post-doctoral fellows in applied population health intervention research by using Public Health Organizations (PHO) as training laboratories and by creating University-PHO mentorship and supervisory partnerships. We present an evaluation of the impact of this program from 2003 to 2014.

Methods

Data were collected for trainees who had completed the Program, including administrative program data abstraction, online surveys of former trainees, mentors and unsuccessful applicants to the Program, in-depth interviews of trainees at the end of their training, self-administered questionnaires on program core competencies at program entry and exit, as well as telephone interviews with mentors and trainees by an independent evaluator. Descriptive and univariate analyses as well as thematic analysis were applied.

Results

Sixty-three graduate students from 31 disciplinary backgrounds were trained. Trainees developed a broad transdisciplinary research perspective and acquired competencies in building partnerships and knowledge translation skills. They published 244 peer-reviewed papers, 352 abstracts and 200 reports (including public health and policy documents) related to their research. Program graduates were more likely than unsuccessful applicants to now be conducting their research work in close proximity to public health organizations (58% vs 25%; $p < 0.05$) and to have obtained at least one funded research grant (56% vs 31%). A majority of mentors surveyed (71%) indicated that the University-PHO partnerships continued after the end of the internship.

Conclusions

The training program increased research capacity in population health intervention. Critical components include the strong links between research and practice, applied practice settings, trans-disciplinary focus, and recurrent opportunities for interaction with peers, experts and practitioners from different disciplines.

Key messages:

- This program has led to enhanced research skills in population health intervention, and abilities to navigate the complex interactions between research and practice in the field of public health
- Insuring continuity and sustainability of such training remains the main challenge at building a pertinent research capacity within the public health system

A new approach to inter-disciplinary public health education

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Background

Health professionals are the sine qua non of a health system, and a health professional educational system is a key building block. A Lancet Commission on the Education of Health Professionals noted a mismatch between the problems facing health systems and health professional educational systems. These include health inequities, globalization, aging, climate change, and technologic change overlaid on greater social awareness worldwide. In contrast, educational systems were “fragmented, outdated, and static”.

Objectives

What should be the structure of an MPH program geared to produce future public health leaders? A series of consultations were held with stakeholders both within and without Western University. Core principles on which the new program was to be based included case based learning, being competency driven, interdisciplinary, and team based. Students take 49 credit hours of courses in Fall and Winter semesters and complete a 12 week practicum in Summer. A team based approach is fostered through ‘Learning Team’ activities and sessions.

Results

The inaugural class of 30 students graduated in Fall 2013; 90% were employed 6 months after graduation. More than 60% of the curriculum is delivered using cases; the final deliverable of the program is a teaching case and teaching note developed from the student’s practicum project. Other curricular innovations include two day-long Integrative Workshops per semester, where students work in teams tackling a current public health problem, with the aim of synthesizing and integrating their didactic knowledge acquired till date. Student and employer feedback has been uniformly positive, and we are in the process of getting CEPH accreditation.

Conclusions

It is possible to design an innovative case based MPH program, but evaluation remains a challenge. Case based teaching has great potential in training public health professionals, but we need to expand the pool of public health cases.

Key messages:

- It is possible to design an innovative case based MPH program, but evaluation remains a challenge
- Case based teaching has great potential in training public health professionals, but we need to expand the pool of public health cases

Serious gaming as tool for evidence-informed policy making: VTVIn2Action in the Netherlands

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In the Netherlands, local authorities are responsible for developing and implementing local health policy, based on national priorities as set by the Ministry of Health. Both national and local public health priorities need to be based on epidemiological evidence with regards to the population’s health and main health determinants.

Every four years, the National Institute on Public Health and the Environment (RIVM) produces the Public Health Status and Foresight report (in dutch: VTV) to enhance evidence-informed policy making. This report contains epidemiological and other research evidence on health status and determinants of health. To stimulate the uptake of this evidence in (local) policy making a serious game is developed. This game is meant for stakeholders and public health decision makers on national, regional and local level and multiple disciplines (policymakers, professionals, researchers). The focus is mainly strategically oriented on four societal challenges that can underpin the prioritization of public health policy decisions.

In addition to epidemiological information other sources of information and evidence as well as specific contextual aspects also influence decision making in local public health policy making. To stimulate information-based policy implementation on municipality level networking and collaboration between all relevant stakeholders is a necessary condition. To enhance this, a serious game In2Action was developed in the context of a EU-FP7 project (REPOPA; www.repopa.eu). Both games, that focus on different stages of decision making in policy development, have been integrated into one game.

The game has been piloted in 3 Dutch municipalities where both prioritizing and indicators for integrated policy making are tested among stakeholders involved in the real life policy context. During our session we will be able to present the first results of the analysis from these 3 municipalities.

Key message:

- Serious gaming is supportive in collaboration in development and effectuation of health policy

1.0. Round table: The impact of new and emerging technologies on population health

Organised by: RIVM and EUPHA section on Public health monitoring and reporting
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Chairperson(s): *Maaïke de Vries – The Netherlands*

Technological developments have always been a strong driver of innovations and changes in health care. However, we seem to be on the verge of a new era, in which potentially disruptive new technologies may change the health care landscape completely. Examples of such ‘game changers’ are consumer eHealth/technologies, personalized medicine and artificial intelligence. Also, outside the health care field, new technologies arise that could have a large impact on population health and well-being. For example, self-driving cars may contribute significantly to people’s independence and their ability to organize their own life, having a positive effect on health and well-being and extending the period in which elderly people and/or people with health problems can live in their own homes. Thus, new technologies potentially have a positive effect on health and health care, which may be substantial. On the other hand, new technologies may also have negative side effects, and raise all kinds of complicated ethical and societal questions. Comprehensive outlook studies, taking into account all these various aspects of technology, are important for policy-makers in order to be able to anticipate both wanted and unwanted effects of new technologies, and take appropriate policy-measures. In the framework of the Dutch Public Health Status and Forecast Report 2018, the National Institute for Public Health and the Environment (RIVM) is working on an outlook study, which encompasses the mapping of emerging and anticipated new technologies and their expected impact between now and 2040. In this round table workshop, which is co-organized by RIVM and the EUPHA section on Public health monitoring and reporting, first we will be setting the scene by presenting the outcomes of the ‘technology scan’ performed by RIVM (see abstract for presentation 1). After that, we will have a round table discussion, for which 3-5 experts will be invited as panellists, representing some of the main relevant health technology fields; genomics/personalized medicine, eHealth, nanomedicine and robotics/artificial intelligence. The focus of the discussion will be on exploring the potential impacts of new technologies, both positive and negative, their likelihood, and how they could be enhanced or diminished/prevented. Active contributions of the workshop participants to the discussions will be stimulated. The objective of this workshop is to stimulate a comprehensive discussion on the potential impacts of new technologies on (population) health and health care. The added value of this workshop is that it will result in useful insights for policy-making. Now is a good time for exchanging knowledge and ideas on this topic, given the potential disruptive technologies that are currently emerging or gaining momentum.

Key messages:

- Comprehensive outlook studies are important for policy-makers to anticipate both wanted and unwanted effects of new technologies, and take appropriate policy-measures
- In this workshop we will explore the potential impacts of new technologies, both positive and negative, their likelihood, and how they could be enhanced or diminished/prevented

Setting the scene: outcomes of a technology scan

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Background

The RIVM produces a comprehensive public health forecasting study once every four years. Target audiences are the Ministry of Health, local policy-makers and other stakeholders. In the framework of the 2018 forecasting study, a ‘technology scan’ was performed to identify new and emerging technologies that are likely to have an impact on population health.

Methods

The scan entailed a combination of a literature search (using a snowball method and a wide array of sources (articles, reports, websites/blogs, newsletters)), in depth interviews with key experts, and expert sessions.

Results

The main technological developments that are expected to have a significant impact on population health between now and 2040 are big data/artificial intelligence, regenerative medicine, 3D-printing, genomics/personalized medicine, eHealth/digitalization, robots, nanotechnology, consumer technology, and the internet of things. Relevant related developments/effects include a potential increase of health inequalities, ethical issues (related to e.g. data ownership, the removal of ‘imperfections’ from society, less acceptance for an unhealthy lifestyle as the possibilities for managing one’s own health increase), and shifting roles of patients, health care professionals and health care facilities. According to the experts, the likelihood of these technologies having been implemented and having a substantial effect before 2040 differs. Implementing innovations in health care proves difficult because they are usually added to existing techniques and structures (add-ons rather than replacements).

Conclusions

Predicting the impact of new and emerging technologies is very difficult because their implementation and acceptance is influenced by a variety of complex, inter-related factors. Nevertheless, it seems fair to say that their influence on health and health care will be substantial in the coming decades.

1.P. Skills building seminar: Social Media for Public Health Actions - Maximising the use of Social Media Tools

Organised by: EUPHANxt, Young Forum Gastein, EuroNET MRPH
Contact: info@stefanbuttigieg.com

Chairperson(s): *Christiaan Vis - The Netherlands, Damir Ivankovic - Croatia*

The Internet and Social Media provide ample opportunities for public health professionals to expand their knowledge, collaborate with colleagues and connect with the public.

This workshop aims to provide EPH participants with an overview into the possibilities of Social Media for Public Health in combination with hands-on skills training in applying and using Social Media in the everyday life of a professional. After attending this workshop, participants will be able to:

1. Understand the scope, importance and opportunities offered by Social Media for their professional life and how it can positively affect public health research, advocacy and practice
2. Make effective use of Social Networking Tools and build curated content tailored to different Social Networks and target audiences.

Methods

This 90-minute skills-workshop consists of two highly interactive parts: 1) social media - what's in it for public health, and 2) skills-building in applying social media for public health professionals in everyday life.

Social media - what's in it for public health

The first part provides an overview of current state of the art in what Social Media can do for public health and how individuals, institutions, organizations and networks use it. This will be delivered through three brief presentations and a plenary discussion on the topics of:

- A Practical Case-Study by Dr. Angelo D'Ambrosio who will delve into practical uses of publicly-available Social Media data in predicting disease outbreaks and health behaviour patterns through the raising importance of Digital Epidemiology.
- The Power of Social Media by Stefan Buttigieg. Dr. Buttigieg will provide a technical overview of the current Social Media Landscape including what's hot and what's not, and a deeper look into the major Social Networks to lay down the basis for the practical Skills training in the second part of this workshop.
- Relevance of Social Media within mental health - Prof. Helen Christensen (to be confirmed). She is a chief scientist and director of the Black Dog Institute in Australia and will focus on the development, testing, implementation and dissemination of eHealth applications including social media, aimed at reducing or preventing anxiety, depression and suicide risk.
- The skills training will focus on:
 - Choosing the right Social Media platform for your target audience
 - Building your Social Media presence - Learn how to create an Engaging Social Media Profile/Page
 - The importance of Storytelling when building your Social Media Presence - how to share your story with the right audience

Conclusions

The theme for the 9th EPH Conference is 'All for Health, Health for All'. Social Media and the Internet provide ample opportunities to reach those in need and strengthen population health. The skill-workshop will provide participants with

in depth knowledge on research in social media for public health, as well as practical skills for employing social media in their professional lives.

Key messages:

- Choosing the right Social Media platform for an intended use and target audience
- Building your Social Media presence - Learn how to create an Engaging Social Media Profile (with a focus on Facebook Fan Pages and Twitter Profiles)

The power of social media - how can public health professionals make the best use of social media

Stefan Buttigieg

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Challenge

Public Health Professionals are faced with a bewildering array of social network tools at their disposal, yet they might find it challenging to know where to start from. This presentation will provide them with the opportunity to have an overview of what tools are available for them and some recommended practices to get started or enhance their existing social media presence.

Description of Challenge

Around 40% of the world population has an internet connection today and with the further dissemination of computers and mobile devices, social networks have developed and flourished. This presentation will go over the current existing social networks and provide basic recommendations on which social networks are ideal to implement public health actions. In addition, the author will also be analysing the usefulness of social media in public health and the insights that academic literature provides us in this regard. This presentation will also explore successful case studies of the use of Social Media in Public Health and provide basic take-home messages to implement in day to day situations.

Lessons

- The main objectives of this presentation:
- Provide a basic understanding on what are the offerings of the existing social media tools.
- Delve deeper into the communication aspect of social networks and explore the different possibilities available for European Public Health Professionals
- Provide basic recommendations on how to manage such tools and how to maximise engagement.

Digital epidemiology. Using the internet for population health. How to listen and what can we discover

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Issue

Using the digital traces people all over the world constantly leave on the Internet, Public Health officers can now get insights into population health and their population health needs with unprecedented speed and with a fraction of resources needed by usual epidemiological methods.

Description of problem

The Internet has grown exponentially in the last 30 years and now is a fundamental building block of our societies even in the less developed parts of the world. People use the internet every day, searching for information, producing information, commenting and sharing the information they think is valuable. These actions leaves signals that can be used to track diseases dynamics, enable real-time event-based surveillance, investigate health behaviors, understand health topics relevant or neglected by the people. Furthermore, increasing computational power, smart mobile devices, techniques like Natural Language Processing and Machine Learning give access to new sources of data and allow to extract meaning from unstructured and complex information. These

methodologies fall under the name of Digital Epidemiology; modern Public Health officers need to be aware of how such revolution can improve their everyday work and reveal new horizons.

Results

We aim to deliver a workshop both conceptual and practical, where the discipline of Digital Epidemiology is introduced, new developments in the field are presented and participants are involved in a hands-on simulation of an epidemiological study using the presented techniques. The goal is to provide Public Health officers new to the field a primer on the opportunities provided by the methodology and the assumption and challenges it brings.

1.Q. Pitch presentations: Mental disorders in work and sick leave

Can psychosocial working conditions identify workers at risk of mental sickness absence?

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Background

Mental health problems are a leading cause of long-term sickness absence (LTSA). Previous studies have shown that distress scores identify workers at increased risk of mental LTSA. There is robust evidence that psychosocial working conditions are associated with mental LTSA. This study investigated if psychosocial working conditions contribute to the identification of workers at increased risk of mental LTSA.

Methods

Cohort study with 2-year follow-up of 4877 workers. Distress was measured at baseline with a distress screener including items on worrying, listlessness, and feeling tense. The area under the receiver operating characteristic curve (AUC) was considered as measure for the ability of distress to discriminate between workers with ('cases') and without ('non-cases') mental LTSA during follow-up. Psychosocial working conditions (workpace, workload, task variety, autonomy, participation, professional development, performance feedback, and support from colleagues and supervisor) were measured at baseline with the Questionnaire on the Experience and Evaluation of Work (QEEW). The added value of psychosocial work characteristics to discrimination by distress was assessed with the Integrated Discrimination Improvement (IDI) measure; IDI>0 indicates improved discrimination between cases and non-cases.

Results

73 workers had mental LTSA during 2-year follow-up. Distress discriminated (AUC=0.72; 95% CI 0.62–0.82) between cases and non-cases. Discrimination improved by adding workpace (IDI=0.58; 95% CI 0.00–1.15), workload (IDI=0.22; 95% CI 0.01–0.42), and performance feedback (IDI=0.33; 95% 0.04–0.63). The other psychosocial working conditions did not add to discrimination by distress.

Conclusions

Distress together with workpace, workload and performance feedback better identify workers at risk of future mental LTSA than distress only. These findings contribute to the development of a tool to screen working populations for risk of mental LTSA.

Key messages:

- Distress identifies which non-sicklisted workers have an increased risk of future long-term sickness absence due to mental disorders
- Adding workpace, workload, and performance feedback to distress improved discrimination between workers with and without sickness absence due to mental disorders

A twin study of work-home interference and the risk of future sickness absence with mental diagnoses

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Background

Work-home interference has been proposed as an important explanation for sickness absence (SA). Previous studies show mixed results, and have not accounted for genetics and shared everyday environment (familial factors), or investigated diagnosis specific SA. The aim was to study if work-home interference predicts SA due to stress-related mental diagnoses, or SA due to other mental diagnoses, among women and men, when adjusting for various confounders and familial factors.

Methods

This prospective cohort study included 11,916 twins, 19-47 years (49% women).

Data on work-to-home and home-to-work conflicts and relevant confounders were derived from a 2005 survey, and national register data on SA spells until 2013 were obtained. Odds Ratios (ORs) with 95% Confidence Intervals (CIs) were calculated. Discordant twin pair design was applied to adjust for familial factors.

Results

For women, each one unit increase in work-to-home and home-to-work conflicts was associated with SA due to stress-related mental diagnoses and to SA due to other mental diagnoses, when adjusting for sociodemographic factors (ORs 1.15-1.31). With further adjustments for work, health-related or familial factors, none of the associations remained. For men, each one unit increase in work-to-home conflicts was

associated with SA due to stress-related diagnoses (ORs 1.23-1.35), independently of confounders.

Conclusions

Work-to-home conflict was independently associated with future SA due to stress-related diagnoses among men only. Health and familial factors are important confounders to consider when researching work-home interference and SA, especially among women. Not including such confounders involves risking drawing incorrect conclusions.

Key messages:

- Studies of work-home interference and SA should include gender, work and health factors
- The sex differences found may mirror an unequal division of home duties and/or unequal opportunities at work

Predicting long-term sick leave among sick listed due to depressive episode, a Swedish cohort study

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Background

Sickness absence has increased in Sweden in recent years, especially due to mental diagnoses. There is a need to identify which sick-leave spells are at risk of becoming very long. The aim of this study was to derive a model that can predict long-term sick leave among people sick-listed due to depressive episode (ICD10: F32).

Methods

A prospective cohort study was conducted, including all people aged 16-64, living in Sweden in 2010, who had a new sick-leave spell ≥ 21 days, with main diagnosis F32 in 2010 ($n = 23079$). Sociodemographic, sick-leave and medical data from several nationwide registers were linked at individual level.

A predictive model was derived using logistic regression with outcome to still be on sick leave after 180 days. In the multivariable model, all variables that showed statistical significance ($p < 0.10$) in the univariable analyses were first included, then non-significant ($p < 0.05$) variables were eliminated through backward selection. The final model was validated on a cohort with the same inclusion criteria for 2011 ($n = 23238$).

Results

One third of the spells were >180 days. Fifteen variables regarding sociodemographics, sick leave and medical treatments were in the final model. The factors with highest predictive ability were: previously used maximum allowed sick-leave days ($\beta = 1.56$, $p < 0.001$), previous sick leave (>90 net days within two years) ($\beta = 0.93$, $p < 0.001$), previous disability pension (within 10 years) ($\beta = 0.49$, $p < 0.001$) and being unemployed ($\beta = 0.61$, $p < 0.001$).

The final model was able to correctly predict 72% of the individuals, using the cut-off 0.53. Proportion of false positive was 2% and false negative was 26%. The validation showed similar results for 2011.

Conclusions

A model that can predict long-term sick leave could be derived, suggesting that other more sophisticated methods could result in even better models. The models can be useful for healthcare, insurers, employers and other stakeholders involved in the sick-leave process.

Key messages:

- Previous sick leave or disability pension were the factors with highest predictive ability regarding long-term sick leave among individuals sick listed due to depressive episode since three weeks

- Four out of five of the sickness absentees that were predicted to become long-term sick listed (cut-off 0.53), that is, >180 sick-leave days also became long-term sick listed

Labour-market marginalisation after a mental diagnosis among natives and immigrants living in Sweden

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Background

Sweden has like other European countries experienced an increasing global migration in the last decenniums. Mental disorders have become relatively more common and have been seen to increase the risk of both temporary and permanent work disability. The aim of this study was to investigate if persons with a mental disorder had higher risk of marginalisation on the labour market and if this risk differed between immigrants and native Swedes.

Methods

The study population comprised 1 753 669 non-pensioned individuals between 20 and 35 years of age who were resident in Sweden on the 31st of December in 2004. The follow-up period was from 2005 to 2011. Hazard ratios (HRs) for labour market marginalisation, measured as disability pension, sickness absence and unemployment were calculated by Cox regression analysis with time dependent covariates and competing risk.

Results

A record of mental disorder between 2001 and 2004 quadrupled the risk of being granted disability pension in the follow-up compared to persons without such a record. A mental disorder also more than doubled the risk for a sick leave period of ≥ 90 days and was associated with a 70 percent higher risk of an unemployment period longer than ≥ 180 days. There was a gradient showing that immigrants from outside of Europe with a mental disorder had highest risk estimates for both disability pension and more than ≥ 180 days of unemployment compared to native Swedes with a mental disorder. Immigrants with a mental disorder had, however, lower risk estimates for sickness absence compared to native Swedes with a mental disorder.

Conclusions

A mental disorder was associated with higher risk of subsequent labour market marginalisation. The differences between immigrants and native Swedes with a mental diagnosis regarding subsequent labour market marginalisation were ambiguous concluding that immigrants and native Swedes may end up in different parts of the welfare system when having a mental disorder.

Key messages:

- A mental disorder was associated with higher risk of subsequent labour market marginalisation
- Immigrants and native Swedes may end up in different parts of the welfare system when having a mental disorder

Psychosocial working conditions for predicting long-term sickness absence in workers mental disorders

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Background

A model including age, education, depressive/anxiety symptoms and recovery expectations has been found to predict the duration of sickness absence due to mental disorders. The objective of this study was to examine if psychosocial working conditions contribute to the identification of workers with long-term (i.e., more than three months) sickness absence due to mental disorders.

Methods

Cohort study including 596 workers who reported sick with mental disorders in the period September 2013 to April 2014. Within six weeks of calling-in sick, employees received a questionnaire measuring age, education, depressive/anxiety symptoms, recovery expectations, and psychosocial working conditions (workpace, workload, task variety, autonomy, participation, professional development, performance feedback, and support from colleagues and supervisor) were measured with the Questionnaire on the Experience and Evaluation of Work (QEEW). The ability of the original model to discriminate between workers with ('cases') and without ('non-cases') sickness absence three months after reporting sick was assessed by the area under the receiver operating characteristic curve (AUC). The added value of psychosocial work characteristics to discrimination by the original model was assessed by Integrated Discrimination Improvement (IDI); IDI>0 indicates improved discrimination.

Results

220 workers (37%) agreed to participate. The original model discriminated (AUC=0.69; 95% CI 0.59–0.80) between cases and non-cases; task variety improved discrimination (IDI=4.71; 95% CI 0.61–8.81). When task variety was added to the original model AUC was 0.74 (95% CI 0.63–0.85).

Conclusions

Health care providers can use a prediction model including age, education, depressive/anxiety symptoms, recovery expectations, and task variety as tool to identify workers at risk of long-term sickness absence due to mental disorders and refer them to treatment aimed at recovery and return to work.

Key messages:

- Task variety, but not the other psychosocial working conditions improved discrimination between workers with and without sickness absence duration >3 months
- A prediction model including age, education, depressive/anxiety symptoms, recovery expectations, and task variety identifies workers with long-term sickness absence due to mental disorders

Depression in late adolescence and the risk of future work disability

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Background

Mood disorders are common among adolescents and it is also well known that most common mental disorders diagnosed in adulthood begin already in adolescence. To date little is known about work disability in terms of sickness absence (SA) and disability pension (DP) in young adulthood as a result of mood disorders in adolescence. The aim was to study whether depression in late adolescence is associated with future work disability in early adulthood, also adjusting for familial factors (genetic and shared environmental factors) by using a discordant twin pair design.

Methods

In this prospective cohort study, 1,662 Swedish twins born 1985-1986 (61% women) responding to questionnaire items on depression in 2005 (age 19-20 years) and who were not on SA or DP at baseline were included. Data on SA and DP were obtained from the National Social Insurance Agency until 12/31/2013. Depressive symptoms were measured with the Center for Epidemiologic Studies Depression Scale (CES-D) (range 0-60). The CES-D also provides cutoff scores to identify individuals at risk for clinical depression; hence, a binary variable depression (yes/no) was also created. Cox proportional hazard models with constant time-at-risk were applied to estimate Proportional Ratios (PRs) with 95% Confidence Intervals (CIs). Familial factors were accounted for in discordant twin pair analyses using conditional regression models.

Results

In the sample, 22.4% (15.9% women, 6.5% men) had an incident SA or DP spell during the eight-year follow-up. At baseline 33.8% reported depression (binary) (25.8% women, 8.0% men). Age and sex adjusted models showed each one-unit increase in depressive symptoms (PR 1.02; 1.01-1.03) and depression (binary) (PR 1.37; 1.11- 1.69) were associated with work disability. In discordant twin pair analyses estimates were reduced (PR 1.13; 0.83-1.54).

Conclusions

Depression in late adolescence is associated with future work disability. Familial confounding cannot be ruled out.

Key messages:

- Adolescent depression may pose a risk for future sickness absence
- Prevention and support should be given to adolescents with mood disorders, also with a focus on potential social consequences

Prescribed antidepressants before and after disability pension due to common mental disorders

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Background

Disability pension (DP) due to common mental disorders (CMD) has become very frequent in many European countries. Inadequate treatment including prescribed antidepressants (AD) before DP may play a crucial role in such early retirement. The study aimed to 1) identify and describe different groups of prescribed ADs based on defined daily dosages (DDD) from three years before up to three years after granted DP due to CMD and 2) characterize the groups with regard to socio-demographics and previous healthcare use.

Methods

This is a population-based cohort study of 4642 individuals aged 19-64 years with incident DP due to CMD during 2009-10 in Sweden. Patterns (trajectories) of annual prescribed DDDs of ADs were analysed over a 7-year period by a group-based trajectory method. Associations between socio-demographic factors and previous healthcare use with the different trajectory groups were estimated by chi²-test and multinomial logistic regression.

Results

Three groups comprising 33%, 34%, and 21% had constant AD levels during the period of three years before up to three

years after DP granting with mean annual DDDs of 5, 250 and 600, respectively. One group increased before DP and levelled off at around 1100 DDDs annually (6%). The remaining 6%, the 'increasing low' group, showed a steep increase in prescribed annual DDDs from 5 to 800. Socio-demographics and health care characteristics were significantly associated with different groups ($p < 0.05$). Individuals in the 'increasing low' group were considerably younger and had low levels of education and high levels of specialised health care

Conclusions

Focus should be on the group with lowest AD prescription as this group might lack adequate treatment before DP granting. Public health interventions should also focus on the 'increasing low' group in order to identify individuals at risk for early DP and subsequent worsening mental health in time.

Key messages:

- Dosages of antidepressant treatment before and after granting of disability pension due to common mental disorders vary strongly
- A large group had hardly any such treatment at all

Mutual relationship between workplace violence and stress

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Background

Workplace Violence (WV) is associated with work-related stress in health care workers (HCWs). Our objective was to clarify whether distress facilitates aggression against HCWs or WV is the cause of distress.

Methods

Two longitudinal studies were carried out on HCWs from an infectious disease hospital (IDH) and a local health care unit

(LHC) including two hospitals and other services. Work-related stress and mental health were assessed at baseline in 2003, and re-assessed after 2-4-6 years, along with the assaults that occurred in the previous year.

Results

In the IDH one-year prevalence of 6.2% and 13.9% were reported for physical and verbal aggression, respectively. Perpetrators were almost exclusively patients. Workers distressed at baseline had a significant risk of being subjected to aggression (OR 7.7 CI 95% 3.3-17.9) in the following year. Conversely, experiencing WV was associated with a high risk of job strain and effort-reward imbalance in the following year. The final levels of anxiety and depression were predicted using regression models that included physical aggression among predictive variables. In the LHC a 8.5% rate for physical and 23.5% rate for verbal aggression were reported. Perpetrators were mainly patients and visitors, however colleagues were responsible for more than one third of the episodes of verbal violence. Perceived job strain and lack of social support were predictors of the occurrence of non-physical aggression during the ensuing year. HCWs who experienced WV reported high strain and low support at work in the following year. The experience of non-physical violence and a prolonged state of distress and social isolation were significant predictors of psychological problems and bad health at follow-up.

Conclusions

The relationship between distress and WV is bidirectional. Programs for the prevention of WV should always be accompanied by measures designed to prevent stress and improve welfare.

Key messages:

- WV is the spark that sets off a problematic work situation
- Effective prevention of WV can only be achieved within the framework of an overall improvement in the quality of work

PARALLEL SESSION 2

Thursday 10 November 2016 16:30 – 17:30

2.A. Workshop: Ethical Competence for Public Health Practice and Leadership

Organised by: EUPHA section Ethics in public health
Contact: peter.schroder@maastrichtuniversity.nl

Chairperson(s): Els Maeckelberghe – The Netherlands

Background

Ethics systematically explores moral aspects of human conduct and practice. Public Health Ethics reflects critically the norms and values that underlie and guide Public Health research and practice. The interest in Public Health Ethics and ethical competence to address ethical issues in practice has risen in the last years in the Public Health community. A successful and well attended workshop at the EPH conference 2015 in Milano started to explore the relationship between public health ethics and practice. This workshop provides an opportunity to continue the discussion.

Issue

The need for public health ethics is widely acknowledged, however, ethics in and for public health practice needs further development. Issues such as: understanding how norms and values guide public health practice, which concepts underlie the integration of ethics into public health practice and what role educational methods play in this context. This workshop further explores the necessity and interest in ethical aspects of public health practice. We will share new evidence and experiences in activities to move beyond abstract philosophical debate to putting public health ethics into practice.

Format of the workshop

The first presentation is a case study that demonstrates public health residents' interest in ethics but also the lack of education in their programmes. The second presentation gives another case study on interests, needs and approaches of professionals regarding the integration of ethics into public health. After these two examples, theoretical underpinnings of getting ethics into practice are discussed and the role of ethics in leadership and public health curricula rounds off this workshop. With four presentations, we reserve ample time for discussion and exchange of experiences and mutual learning is reserved.

Objective of the workshop

The workshop offers a forum to exchange views on the development and integration of ethics and ethical education in public health and to discuss with participants of the workshop how best ethics and public health can be effectively integrated in practice and education.

Added value of this workshop: This workshop is organized at the request of participants of last year's workshop. The EUPHA section "Ethics in public health" is also eager to learn from the workshop regarding the evolution and direction of its work.

Key messages:

- The need for ethics education in public health is supported by more and more evidence. Greater effort is needed to integrate ethics education into public health
- A continuous interdisciplinary discourse of ethics and public health is important so that pertinent theories, trainings and tools can be developed

Training in public health ethics: findings of a survey among residents

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Background

In order to legitimate Public Health (PH) interventions, and to face inevitable conflicts in its practice, ethics is needed. But do Schools of Public Health (SPH) train in public health ethics (PHE)? What are the residents' beliefs, knowledge, values, and attitudes about PHE? In 2015, the National Conference of PH Medical Residents of the Italian Society of Hygiene, Preventive Medicine and PH (SITI), started the 'Public Health Ethics' workgroup to explore such topics in the national scenario.

Methods

After a literature review, a survey was emailed, on June 2015, to 691 Italian PH residents. The survey included 7 sections: 'Sample characteristics', 'Beliefs and attitudes about ethics', 'Knowledge', 'Training in ethics', 'Ethics and practice', 'PH values', 'A PH code of ethics'.

Results

Of 178 respondents, few (20%) evaluated their competence above a satisfactory level. Only the 24% thought that ethical judgment is based on justification by principles and rational arguments. A choice is ethical when it is "scientific, evidence-based, and effective" (33%) or when it matches patient/customer's values (24%). However, there is still uncertainty in identifying such values. Residents also believe that training in ethics should be offered during residency. Nonetheless, in Italy only two SPH required a course on bioethics, and one a course in PHE. Trainers are usually physicians with a background in Legal Medicine but, according to residents, a trainer should be a PH professional (23%) or a social scientist (23%).

Conclusions

This is the first survey addressing training in PHE in all the 32 Italian SPH. Also, it is the first collecting residents' perspectives. It confirms that ethics is still a "stranger" in PH curricula.

Key messages:

- Ethical decision-making should be better understood as based on principles and rational arguments
- Trainers should have a competence in both PH and ethics: a 'put-in-context' teaching may help residents to see ethics as a tool for practice

Advancing the discourse and getting public health ethics and values into practice

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Background

There is growing recognition both of ethics as a core public health (PH) competency and the importance of consideration of PH approaches and values to meet such challenges. The UK Faculty of Public Health has been working to further advance the discourse in PH ethics and promoting learning.

Description of the problem

This paper will describe the findings of surveys of the faculty members (3350) around their views on PH ethics and core public health values, and the nature and extent of education and training in various educational establishments. It will highlight the learning and experience from some key activities including development of a PH Ethics Committee, local PH ethics fora, local learning sites, generating learning and experience in implementing skills and knowledge framework.

Results

There is evidence that there is demand, need and appetite to generate learning and more systematic training and education in PH ethics. For example although 88% of the respondents noted that they found ethics very useful/useful in their practice, 54% of the specialists noted that they had not had any training in ethics during their specialist training and 59% had no training since completing training. Solidarity, Justice, knowledge and service are emerging as core PH values with interconnectedness/interdependence as a key underlying issue.

Conclusions/lessons

Public health leaders, practitioners, academics and policy makers are interested in development and application of PH ethics. There is need to explore professional, community and other spaces to generate learning and experience in development of the discourse in PH ethics and getting theory into practice.

Key messages:

- PH ethics is a core practical competency and key to addressing complex public health challenges
- There is need, demand and case to use and develop creative spaces to generate and promote learning, education and training in public health ethics

Ethics for Public Health Practice – Translating norms and values

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Background

Ethics in public health is rightfully receiving more and more attention. However, the development of the field of 'Public Health Ethics' has not yet been well explored. Collaboration is required between experts and stakeholders from philosophical ethics and public health practice. This also means that concepts and ideas need to be explained, translated and perhaps justified.

Methods

A model of 'translational ethics' was developed explaining how different researchers – in the field of philosophy and public

health – and policy makers/practitioners communicate about ethical norms and values. In a series of interviews with experts from philosophy and medical ethics, we explored this model of 'translational ethics' further.

Results

Exploring how ethical norms and values are founded, explained, specified and 'applied' in different contexts helps to understand how ethics can influence public health practice. Conversely, exploring moral issues in practice can help to refine ethical theories. One must not assume that actors in either of the contexts (e.g. philosophers in the ivory tower or public health practitioners) know the 'ethical truths' better. Translating knowledge about normative concepts is and has to be a discursive process among stakeholders in the field of public health ethics.

Conclusions

Giving attention to the fact that public health is a normative enterprise calls for ethical deliberation. Ethical deliberation can and should take place in different contexts and with different stakeholders. Conceiving the communication among them and using ideas of 'translation' can help to facilitate the justification process of public health practice.

Key messages:

- Public Health practice is a normative enterprise that needs explicit reflection and justification
- Translating norms and values between philosophical and practical discourses and contexts can improve communication and collaboration with regard to public health ethics

Value-based leadership an integral part of a public health leadership curriculum

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Leadership is a multilevel construct that involves the leader, follower and relationship between them. The effectiveness of leadership depends on the characteristics of the leaders, the nature of the context and interactions between them. Value Based Leadership (VBL) which involves ethical behaviour of leaders and their values plays a significant role in building trust, setting moral example, and creating organisational culture in public health organisations. Research demonstrates that transformational, authentic and ethical qualities are needed for effective leadership. The leader's task is to integrate behaviour with values to diminish the gap between the values people stand for and their reality.

Our aim is to stir a discussion about teaching VBL in public health programmes and values and their impact on organisational performance, health and wellbeing of served populations using a problem-based approach.

Problem Based Learning and a participant ethics-values self-assessment in conjunction with three challenging case studies, stimulate the participants to learn about:

- An awareness, understanding and importance of how values influence and guide the leader's role, as well as, the translation of moral values into ethical behaviour producing meaningful results.
- The critical connection between ethics and being a competent leader who does the right thing the right way to create an environment of trust and mutual respect.
- How leaders responsibly use power, fulfil their moral obligations to followers, and how they make ethically

moral decisions in service to their organizations and communities.

Leaders guided by moral values produce effective organizational performance by aligning ethical standards.

Key messages:

- Ethical challenges are the unique differences inherent to leadership roles and those who follow leaders
- The core of ethics and effectiveness is the foundation of the values that will guide excellent leaders to produce superior organizational performance

2.B. Workshop: Active mobility - A step towards a healthy lifestyle

Organised by: PASTA

Contact: elisabeth.raser@boku.ac.at

Chairperson(s): Elisabeth Raser - Austria

Sedentary behaviour and physical inactivity raise chronic and overweight related diseases in cities all over the world; as a consequence solutions are searched in various fields of competences. Transport planners develop and implement measures to encourage citizens to walk, bike or use public transport (summarized as active mobility AM) more often – mainly to solve transport problems while the health argument is rarely considered. At the same time, AM comes more and more into focus and gains interest of health experts, as one opportunity to increase physical activity (PA) among citizens. Only 1/3 of the European population is estimated to meet the minimum recommended levels of PA by the WHO of 30 minutes of moderate-intensity activity five times per week. Considering that we spend on average 80 min per day in transit and 50% of all trips are shorter than 5km, AM has a high potential to bring more physical activity into everyday life. Improving PA by AM serves goals of transport planners and health experts equally, but requires collaborations between those disciplines.

Within the 60 min workshop three (10 min) presentations will be given by health and mobility researchers about three European projects:

PASTA (Physical Activity through sustainable transport approaches) will give an insight into framework conditions in European cities to promote walking and cycling, about approaches, visions, needs and barriers. First results of the extensive health and mobility survey will be presented, showing how physically and mobile active citizens of the seven case study cities are.

SWITCH has encouraged people in life change moments to switch from car to active modes explicitly using the health argument. Results of successful campaigning are presented.

GO-ACTIVE randomized trial investigates long term effects of physical exercise performed as active commuting or in the leisure time on cardiorespiratory fitness and total and abdominal fatness.

After those key-note presentations – starting from a general perspective, over an evaluated promotion measure to concrete health impacts on individuals – the discussion is opened. Attractive and save infrastructure is one precondition for people to walk and cycle . . . but it is not enough. What does it take to encourage people to change their habits and behaviour for a healthy and active life? Who are the key players to set the conditions? What is the role of research?

The aim is to recognize those various approaches and to identify links and synergies between health and transport planning actors.

Key messages:

- Active mobility has a huge potential to bring more PA into everyday life tackling health and environmental problems equally
- Initiating a fruitful dialogue between health and planning experts could reveal valuable synergies

Step by step towards healthy cities: How active mobility serves transport and public health

Sandra Wegener

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Active mobility (AM) is becoming increasingly interesting for cities to address both public health and transport-related challenges, including physical inactivity, air pollution and congestion. The PASTA (Physical Activity through Sustainable Transport Approaches) study collects information on policy context, stakeholder views, determinants, transport behaviour and physical activity. The aim of the project is to generate knowledge on the effects of AM in consideration of health effects.

Information is collected through a combination of desk research, stakeholder workshops, expert interviews and an online survey aiming at 2,000 participants per city.

This presentation gives an overview of various measures promoting AM in seven European cities (Antwerp, Barcelona, London, Örebro, Rome, Vienna and Zurich), influencing framework conditions and some factors of success for an active and healthy city. Beside city indicators, like data about population, modal split, transport infrastructure and mobility characteristics, also social influences like the role of politics, culture or informal cooperation between different sectors or decision makers are considered revealing barriers and challenges of promoting AM from the health and the planning perspective. Main barriers identified by stakeholders include a lack of focus on AM in transport planning and insufficient understanding of the benefits of investing in AM across sectors

and by political players. Up to 1,500 participants per city have been recruited to date, providing information on determinants and outcomes of transport behaviour and physical activity over time.

A first sight on individual behaviour is captured and ideas for transport planners and health experts to create livable cities and encourage people to get active are raised.

* PASTA – Physical Activity through sustainable transport approaches. (2013 – 2017)

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SWITCH* a nudging technology to embrace active travel

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Campaigning for active travel seems to be a suitable approach that addresses many challenges: improve individual health and mental well-being by increased physical activity; reduce macroeconomic expenses on medical costs; decrease overall societal costs of the transport system including energy consumption, GHG-emissions, air pollution, noise and land consumption.

The presentation presents the approach of a nudging technology that aims at initiating a mode shift from car to active modes (walking, cycling and walking and cycling stages as part of public transport trips). The approach combines proven elements from personalized travel planning (PTP), strong health arguments and gamification elements, which help making the behavioral change a pleasurable experience. Large scale SWITCH campaigns were run in five European cities with more than 10,000 participants. The campaigns were addressed to target persons in life change moments expecting people to be more responsive and open to rethink daily routines and to test new habits.

After a brief introduction into the methodological approach the presentation discusses the differences of the five campaigns in terms of customizing the approaches to the demand of the target groups. As the five campaigns were guided by a comprehensive evaluation process the results of the campaigns in terms of changes in travel behavior and activity level will be presented. After going into detail with the results of the SWITCH campaign in Vienna, which was integrated in the year of walking 2015, good practices and key lessons from the innovative cooperation between the transport sector and public health will also be discussed.

* “Encouraging a SWITCH from car-based to active mobility using personalised information and communication

technology approaches” Project funded by the EC under Intelligent Energy-Europe (IEE) (2014 – 2016)

Fitness, fatness and waist: distinct effects of different exercise exposures in overweight and obese subjects - preliminary findings from the GO-ACTIVE randomized trial

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Aim

To investigate long term effects of physical exercise performed as active commuting or in the leisure time on cardiorespiratory fitness and total and abdominal fatness, which are independent risk factors for cardiovascular disease and mortality.

Background

The health benefits of exercise interventions are well established, but have almost exclusively targeted leisure time.

Methods

We are performing a 6-month randomized controlled trial in overweight and obese physically inactive men and women aged 20-45 years. Interventions include active commuting (BIKE, n = 16) or leisure time physical exercise of either moderate (50% VO2max, MOD, n=26) or vigorous intensity (70% of VO2max, VIG, n=21) and sedentary controls (CON, n=15). Here we present preliminary per-protocol data. VO2max is determined by an incremental workload test, body composition is measured using DEXA and abdominal fatness is determined by waist circumference. Group-wise comparisons are evaluated using analysis of co-variance adjusted for baseline variation and group allocation using Tukey post-hoc correction. Within group changes are assessed using paired t-test.

Results

Compared to CON 6-month cardiorespiratory fitness was higher across all intervention groups; BIKE increased 5.6 (2.2; 9.0) ml O₂/min/kg (P < 0.001), MOD increased 3.3 (0.2; 6.4) ml O₂/min/kg (P = 0.03) and VIG increased 5.6 (2.4; 8.8) ml O₂/min/kg (P < 0.001). For measures of adiposity there was only a decrease in BIKE and VIG compared to CON. Total fat mass: BIKE vs. CON -4.8 (-8.0; -1.6) kg (P < 0.001) and VIG vs. CON -5.0 (-8.1; 2.0) kg (P < 0.001). Waist circumference: BIKE vs. CON -5.3 (-9.7; -1.0) cm (P < 0.01) and VIG vs. CON -5.4 (-9.4; -1.4) cm (P < 0.01).

Conclusions

Active commuting can convey similar improvements in cardiorespiratory fitness and fatness as compared to leisure time physical exercise of vigorous intensity, whereas no changes are seen with moderate intensity exercise on measures of adiposity.

2.C. Round table: Setting the research agenda on health systems and policy for small states in the European region

Organised by: EUPHA section on Health services research, Islands & Small States Institute, University of Malta, Department of International Health, CAPHRI School of Public Health and Primary Care, Faculty of Health, Medicine and Life Sciences, Maastricht University

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Chairperson(s): *Francesco Zambon - Italy, Peter Groenewegen - The Netherlands*

Reasons for the workshop:

There has been a renewed interest in research on small states in Europe in recent years. Most of this research has focussed on foreign policy and economic issues with particular scholarly interest in the impact of globalisation on small economies. Small states literature suggests that small states are often

exposed to the effects of environmental and economic change earlier and harsher than larger states. They can therefore act as a sentinel for future challenges also in the context of health systems future resilience. A series of opportunities have arisen in the past couple of years to place the topic of health systems in small states at the forefront of the European health policy agenda. Activities such as the launch of the Small countries initiative by the WHO European Region in 2014 to support small states in the implementation of the Health 2020 agenda, the setting up of the Small Countries Health information Network and the establishment of a Jean Monnet network on small states in the area of health are all meant to foster political commitment in small states and exchange information and advance collaboration among them. However, there is a research gap on small states when it comes to health systems and policy and the opportunities and challenges of small states' health systems in the context of European collaboration and integration. This gap emerged clearly in the SPHERE project carried out by EUPHA a few years ago. The round table offers an opportunity to reflect upon and develop a research agenda that addresses the specificities of small state health systems in the coming years.

Key messages:

- A small states' perspective on health research supports small states and international organisations to address the challenges and opportunities facing health systems from an innovative angle
- Potential opportunities to integrate a small state perspective in health systems research do exist therefore the identification of research priorities and capacity building is necessary

Challenges and opportunities for health systems in small states: What do we know to date?

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Background

Although there is neither common definition of "small" nor a typical type of a small state, they share common challenges and opportunities regarding their economies, public sector policies and the role in international affairs. Despite a growing research agenda on small states in general, the health systems domain in the context of small states research and the small states perspective in the context of health system research have both been largely overlooked to date. Recent research efforts have begun to assemble a picture of the challenges and opportunities faced by health systems in small states.

Methods

Initial research activities aimed at mapping and understanding better the small states' challenges and opportunities on health systems and policies and in the context of European integration processes. Literature reviews on international and national level have been conducted to understand the health policy priorities in European small states.

Results

Preliminary results indicate that small state health systems experience common challenges as a result of their lack of human and resource capacity as well as their small market size. This lack of capacity impinges on aspects of health system governance and constrains their ability to achieve self-sufficiency in the provision of highly specialised health services. Lack of capacity also impacts negatively upon implementation of reforms. On the other hand, small states are often agile and flexible and are in a position to link findings from health information to health policy development quite easily.

Conclusions

Small states are exposed to new policy environments more rapidly and more harshly than other states. Early recognition and investment in transnational policy solutions to benefit small states can introduce innovative concepts that can eventually offer benefits to larger states. This concept has important implications as European policy-makers grapple currently to strengthen health system resilience.

Panelists:

Tit Albreht, National Institute of Public Health of Slovenia, Slovenia

Natasha Azzopardi-Muscat, University of Malta, Malta

Hans Kluge, WHO Europe, Denmark

Johan Hansen, NIVEL, The Netherlands

2.D. Pitch presentations: Smoking and pollution issues

Surveillance of acute toxic exposure in young children in Italy

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Background

Poisoning is a major cause of non-fatal injury for young children in Europe (1). Most of toxic exposures occur at home. Poison Control Centres (PCCs) play a key role for appropriate managing of this type of injury and provide a relevant source of data for surveillance and prevention. The present contribu-

tion is aimed at describing the main characteristics of cases of hazardous exposures in young children handled by the Milan PCC in (PCCM) in 2012-13

Methods

MPCC provides a 24-h toxicological assistance service to health care professionals and to the public in Italy. Request for assistance are managed by specialized physicians who use a standard form to collect detailed information on main characteristics of patient and exposure, clinical effects, therapy, outcomes. The MPCC database was searched to identify all cases of exposure to toxic agents aged 0-5 years occurred in 2012-13.

Results

In the examined period, MPCC handled 37.142 cases of interest. Among them about 98% of exposures occurred at

home. The main reasons for exposure were uncontrolled access to the agent (86%) and therapeutic error (8%). About 37% of cases were exposed to pharmaceuticals and 61% to non-pharmaceutical products. The most frequently reported secondary categories of agents included: household cleaning substances (22%), cosmetics/personal care products (9%), analgesics (6%), pesticides and hormones (5%, respectively). About 28% of cases suffered clinical effects.

Conclusions

Surveillance data on hazardous exposure and poisonings are needed in Europe in order to support national plans for prevention, legislative and regulatory actions (1). The analyses here presented allow for preliminary identification of risk factors for poisoning in young children in Italy. The observed frequency of exposure to specific agents and severity of cases can be used as an early contribution to identify national priorities for intervention.

References: 1. Sethi D et al. WHO, 2008.

Key messages:

- Poisoning is a major cause of non-fatal injury for young children in Europe. Most of toxic exposures occur at home
- Poison Control Centres play a key role for surveillance of toxic exposure among children and to support evidence based preventive measures

Adolescent smoking: a systematic review of cost-effectiveness of preventive policies and programs

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Background

Consistent evidence shows the importance of smoking prevention at young ages, when health behaviours are formed with long-term consequences on health and lifestyles. Although strategies to prevent adverse health behaviours among youth are promoted, the cost-effectiveness of such strategies is not systematically documented. We performed a systematic review on the cost-effectiveness of interventions preventing tobacco consumption among adolescents.

Methods

We systematically reviewed literature on the (i) cost and effectiveness of (ii) smoking (iii) prevention policies targeting (iv) adolescents. Pubmed, Web of Science, Cochrane, CEA-TUFTS, Health Economic Evaluations and Google Scholar databases were used and grey literature was reviewed using the Google search engine. Data on the type of policy, costs and effectiveness, models, time horizon, discount rates and final cost-effectiveness were collected from full text primary research articles.

Results

We obtained 785 full-text papers and 19 grey literature documents, from which only 14 studies filled the inclusion criteria. Only two were published in the last 5 years, and 13 were performed in high-income countries. Eight analysed the cost-effectiveness of school-based programs, 4 focused on media campaigns, and 2 focused on legal bans. Costs were measured using an ingredient approach with a short-term horizon. The effectiveness was measured in terms of QALYs in 11 studies, with a long-term horizon in all but one study. All strategies were found to be cost-effective, and half of them were dominant (cost saving and more effective).

Conclusions

Evidence on cost-effectiveness of smoking prevention policies is scarce and relatively obsolete, and rarely focused on the evaluation of legal strategies. Moreover, no comparisons are made between interventions or across different contexts and implementation levels. However, all findings demonstrate that

smoking prevention strategies among adolescents are highly worth it.

Key messages:

- Tobacco prevention strategies among youths are cost-effective, and a cost-saving option in many cases
- The literature on cost-effectiveness is however limited, requiring further evidence comparing different interventions in different specific contexts

Smoking and mental illness: a bibliometric analysis of research output over time

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Introduction

The prevalence of smoking among persons with a mental illness has remained largely unchanged, and is currently 2-3 times higher than the general population in high income countries. Assessment of the amount and characteristics of research output can assist in identifying research priorities to promote progress within a field. The aim of this study was to examine the volume and characteristics of publications in the field of smoking and mental illness over time.

Methods

A descriptive repeat cross sectional study was conducted of peer reviewed publications in Medline and PsycINFO for 1993, 2003 and 2013. Publications were classified as either data or non-data based, with data based publications being further categorised in terms of study type, population and setting.

Results

176 publications were included in the review (1993: 30; 2003: 47; 2013: 99). The proportion of data based publications significantly increased, with 57% in 1993, 72% in 2003 and 81% in 2013 ($p=0.03$). Data based publications remained predominantly descriptive across all three time points (1993: 71%; 2003: 88%; 2013: 88%), with few publications having a measures or intervention focus ($p=0.68$). An increase was suggested in the amount of publications reporting on study populations with multiple diagnostic categories (1993: 12%; 2003: 39%; 2013: 42%), and in research focussed on generalist health care or other settings (1993: 18%; 2003: 35%; 2013: 45%), relative to mental health settings.

Conclusions

Research focussing on the effectiveness and implementation of interventions to reduce smoking among persons with mental illness is needed.

Key message:

- To redress the tobacco-related health inequities experienced by persons with a mental illness increased research effort is required, particularly that focussing on rigorous interventions

The burden of children asthma through the impact on family in Lithuania

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Background

Asthma as one of the most prevalent children chronic disease disturbs everyday life not only of children, but their parents as well. Thus, the aim of our study is to assess disease, its socioeconomic and environmental factors impact on family.

Methods

436 children from 2 to 17 with asthma and their parents were enrolled into study. Study participants were asked to fill in anonymous questionnaires. PedsQL Family Impact Module was used for the assessment of disease impact on family. It consists of 8 dimensions: Physical, Emotional, Social and Cognitive Functioning, Communication, Worry, Daily Activities and Family Relationships. Score for each scale as well as overall score were calculated. It ranged from 0 to 100, where lower score referred to higher disease impact on family life.

Results

Mean age of children was 8.3 (± 4.4) years. 63.3% were boys. Median overall Family Impact score was 76.1 (63.9; 88.9). The highest score was for Communication (91.7 (66.7;100)) and the lowest for Worry (60.0 (45.0; 80.0)) scales. Children with more severe asthma, more frequent symptoms and lower general health had more negative effect on family life ($p < 0.001$). Family Impact score was not associated with gender, age, form of asthma, smoking or pet exposure. Children from more affluent families, who were not hospitalized within last 6 months, had no concomitant allergic diseases, were not exposed to molds and had better asthma control less disturbed life of their parents ($p < 0.05$).

Conclusions

Asthma severity, symptoms and control, presence of allergic diseases, exposure to molds and economic status are major factors important to quality of life of parents who have asthmatic children. Some of these factors can be modified by interventions and can improve everyday life of family.

Key message:

- Quality of life of parents who raise children with asthma can be improved by more effective treatment of asthma and concomitant allergies, better asthma control and prevention of mold exposure

Intended and actual use of cosmetics during pregnancy and risk perception by French women

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Background

Cosmetic products contain various chemical substances (phthalates, parabens, benzophenones, triclosan, heavy metals, etc.) that may be potential carcinogen and endocrine disruptors. Women's changes in cosmetics use during pregnancy and their risk perception of these products have not been extensively investigated. The main objective of this study was to describe the proportion of pregnant women changing cosmetics use and the proportion of non-pregnant women intending to do so if they became pregnant. The secondary objectives were to describe the risk perception of these products and to compare, among the pregnant women, the proportions of those using cosmetics before and during pregnancy.

Methods

A cross-sectional study was carried out in a gynaecology clinic and four community pharmacies in France. One hundred and twenty-eight women (60 non-pregnant and 68 pregnant women) replied to a self-administered questionnaire. Cosmetics use was identified for 28 products.

Results

The proportions of women changing (pregnant women) and intending to change (non-pregnant women) their use of cosmetics were generally low except for body lotion (27% of all women). They were not statistically different between the two groups except for deodorant (7% of pregnant women vs 20% of non-pregnant women; $p = 0.04$). Fifty-five percent of the women considered cosmetics use as a risk during pregnancy and 65% would have appreciated advice about these products. Among the pregnant women, nail polish (and nail polish remover) was used by greater proportion of women before pregnancy (84.6%) compared to during pregnancy (72.3%) ($p < 0.05$). The proportions for the use of 26 other cosmetics were not statistically different.

Conclusions

Our findings indicate that perinatal health professionals should be ready to educate and advise women, even before pregnancy, about the potential risks associated with exposure during pregnancy to chemicals contained in cosmetics.

Key messages:

- The proportions of women intending to change and changing the use of cosmetics during pregnancy are low
- Most women would appreciate to receive advice from health professionals about the use of cosmetics during pregnancy

2.E. Pitch presentations: Let's get physical 2

Physical Activity of Nurse Clinical Practitioners and Managers

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Background

Physical activity (PA) is clearly higher during working than non-working hour for blue-collar workers. As registered nurse (RN) could have either clinical or management roles, or both, depending on the job description of the appointed position; classifying a nurse using the above-mentioned concept is complicated.

Objective

1. To compare nurse PA between working and non-working hour.
2. To compare PA during working hour of RN clinical practitioners with that of RN managers.

Methods

This cross-sectional survey was conducted at a Thai university hospital during October 2015 to March 2016. Stratified random sampling technique was used to ensure a proportionally nurse representatives of three job position levels: clinical practitioner (CP; >80% clinical practice), middle manager (MM; equal clinical and management roles), and senior manager (SM; >80% management). All participants installed an activity tracker (FeeliFit) on their hip all day except bathing and sleeping periods for five days. Step counts, calories, and time points were recorded. Panel data analysis with random effects was performed using StataMP/13.1.

Results

Of 884 RNs, 273 (135 CP, 136 MM, and 2 SM) reported 1,337 (1,170 working and 167 non-working) person-days (response rate 97.95%). The average age was 35.82 years and 97.10% were female. Overall step counts per minute (sc/m) were 13.10 on average with significantly higher counts during non-work (15.92 sc/m) than work period (12.80 sc/m) ($p < 0.001$). Subgroup analysis revealed similar findings (CP: 16.39 vs 13.90 sc/m; MM: 15.49 vs 11.74 sc/m; SM: 13.70 vs 8.57 sc/m, for non-work and work periods, respectively). The step counts during the work period for CP was 13.90 sc/m, compared with 11.74 and 8.58 sc/m of MM and SM, respectively ($p < 0.001$).

Conclusions

Physical activity of a registered nurse during working hour is significantly less than non-working hour, compatible with white-collar work. Clinical practitioners had more physical activity than managers.

Key message:

- Physical activity of a nurse during working hour is less than non-working hour. Clinical practitioners had more physical activity than managers

Assessing community readiness regarding physical activity for older adults in Northwest Germany

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Background

Healthy ageing is a core societal aim in most societies facing the challenges of demographic change. Physical activity (PA) is an important contributor to healthy ageing. Communities can play an important role in delivering public health programs to older adults but they differ in the provision of local structures and resources. The concept of Community Readiness (CR) applies a stage model of change to the community level to analyze structures and the degree of willingness to take action on a health issue. This study aimed to assess the CR regarding PA for older adults in the Metropolitan Region of Northwest Germany.

Methods

A Community Readiness Assessment (CRA) with key respondents in 23 municipalities (11 urban and 12 rural communities) was performed using a semi-structured interview manual. After independent dual analysis of transcripts, CRA scores were awarded per community (scores between 1=no awareness to 9=professionalization). In a content analysis strengths, weaknesses and obstacles of existing PA programs were analyzed.

Results

In total 118 interviews were conducted (response rate 58%). The 23 analyzed communities showed an average CRA score of 4.9 (range 4.3-5.4; ± 0.3). This means that the communities are located in the preplanning or preparation phase according to the CR model. There were only minor differences between

urban and rural communities. Major obstacles were e.g. absence of suitable premises, lack of trainers and a lack of knowledge in the population.

Conclusions

By using the CRA, status and specific obstacles concerning PA for older adults were identified. In the next step, targeted capacity building activities according to the CR phase will be initiated. The CRA approach was well accepted in the participating communities. A strength of the approach lies in the systematic procedure.

Key message:

- The Community Readiness Assessment is a useful instrument to assess local capacities for PA promotion in older adults

Promoting physical activity for people with dementia: a systematic review

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Background

The WHO defined dementia as a public health priority of the 21st century: Worldwide 46.8 million people were concerned from this incurable disease in 2015 and this number doubles every twenty years. Therefore strategies to increase health resources and quality of life for people with dementia became an essential approach in the health care sector. Following this development, physical activity as a non-pharmacological treatment, shows promising results in this target group. Nevertheless the knowledge concerning the effects of physical activity on physical, cognitive and psychological symptoms of dementia is still vague.

Methods

A systematic review was conducted in March 2015. Publications between 2010 and 2015 were identified by searching the databases PubMed, PsychINFO, CINAHL, PsychARTICLES and ERIC. Selected studies required people with the diagnosis of dementia, could have any kind of research design and should present the applied training concept.

Results

44 papers were included in the qualitative synthesis. The training concepts were highly heterogeneous regarding the duration, frequency and the compilation of training components. Nevertheless, exercise seems to have a positive impact on cognition and mobility of people with dementia but the outcomes are inconsistent regarding the effects on activity of daily living (ADL), quality of life and psychological symptoms of dementia. Furthermore, concepts for an appropriate adaption of training to the special needs of people with dementia are mainly missing.

Conclusions

Guidelines and specific recommendations regarding physical activity for people with dementia cannot be derived from current research so far. That implicates more research in this area with special focus on the impact of physical activity on quality of life, ADL and psychological symptoms of dementia as well as on the feasibility and on didactical concepts for exercises for this target group.

Key messages:

- Physical activity is a promising non-pharmacological treatment for people with dementia
- There are still some research gaps regarding the effects and the optimal design of physical activity interventions for people with dementia

Multi-component, physical activity and dietary interventions for primary prevention of dementia

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Background

About 100.000 people in Austria suffer from dementia. The most commonly occurring form of dementia is Alzheimer-Disease, which can also occur in combination with other forms of dementia (mixed dementia). Alzheimer-Disease and mixed dementia make up for 60-80% of all dementia cases.

The aim of this review is to systematically analyse the effectiveness of multi-component, physical activity and dietary interventions for primary prevention of Alzheimer-Disease and mixed dementia.

Methods

A systematic literature search in nine international databases, supplemented by a hand search was conducted. English and German publications between January 2003 and October 2015 were considered. The outcome measures were incidence of dementia, cognitive function and side effects.

Results

Based on predefined selection criteria, 2 systematic reviews and 3 RCTs were identified.

Multi-component interventions (combination of cognitive training, physical activity, dietary intervention, social activities) have shown significantly positive short-term effects on cognitive functioning in elderly people (Strength of evidence: moderate).

No significant effects of physical activity interventions on cognitive function were found in healthy older people. (Strength of evidence: low).

No significant effects of a Mediterranean diet on the incidence of dementia were found.

Long-term improvements on cognitive functions were demonstrated but the strength of evidence is low.

Conclusions

In order to draw conclusions on effectiveness, the standardization of non-pharmacological interventions and the use of standardized instruments are necessary.

Regarding the appropriateness of intensity, frequency and duration of interventions, and to identify relevant patient outcomes, larger studies with long-term follow-up are warranted.

Key messages:

- The interventions show sporadic improvements of some outcomes in healthy older people
- However, standardization of interventions and instruments, and larger long-term studies are warranted

Green exercise is associated with better cell ageing profiles

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Background

Lifestyle factors (e.g. regular exercise) have been shown to impact the health and lifespan of individuals by affecting telomere length. There is also increasing evidence for the health benefits of nature experience, although previous studies often confound the effects of exercise and nature experience. It remains unclear, therefore, whether exercise in nature has effects superseding those of exercise alone. We

investigated the effects of a lifestyle change programme involving exercise outdoors in nature-rich areas compared to exercise inside a built environment and a no-exercise control group in terms of telomere changes and other health parameters.

Methods

Sixty healthy, physically inactive adults (50% female, mean age 25.9 years) took part in a non-randomised 5-months lifestyle change programme involving regular endurance exercise, either in a nature-rich setting (green exercise; n=20) or a fitness centre (gym; n=20). The control group (n=20) stayed inactive. Telomere length and telomerase activity was measured before and after the intervention, in addition to bi-monthly assessments of a range of self-report, behavioural and physiological measures (e.g. cortisol).

Results

We observed a significant increase in telomere length across groups, which was most prominent in the two exercise groups. Paired samples t-tests performed separately on each group revealed that telomere length significantly increased in the gym group (0.11 T/S; p = .011) and in the green exercise group (0.10 T/S; p = .001), but not in the control group (0.04 T/S; p = .074). While telomerase activity significantly decreased in the gym group (0.16 units/10.000 cells; p = .001), there was no change in the nature and control groups.

Conclusions

Green exercise is associated with better cell-ageing profiles. These preliminary findings have important implications for health promotion and public access to nature-rich places in an increasingly urbanized world.

Key messages:

- Lifestyle change involving green exercise is associated with better cell-ageing profiles
- Health promotion should encourage regular green exercise as part of a healthy lifestyle

“Determinants of Diet and Physical Activity” (DEDIPAC): an umbrella systematic literature review

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Background

Physical activity (PA) is a health-enhancing behavior: when practiced regularly, it reduces the risks for a range of non-communicable diseases (NCDs) and its promotion is becoming a priority in current public health policies. Within the Determinants of Diet and Physical Activity Knowledge Hub (DEDIPAC-KH), one objective is to identify key determinants that promote or hinder PA behaviors with the final aim to translate this knowledge into more effective health promotion strategies.

Methods

An online systematic search on MEDLINE, ISI Web of Science, Scopus and SPORTDiscus databases has been conducted considering eligible systematic literature reviews (SLRs) and meta analyses (MAs) of observational studies published in English language from 2004 to 2014. Data extraction considered the relevance of the determinants, the strength of

evidence and the methodological quality. The results were summarized on seven different umbrella reviews on biological, psychological, behavioral, physical, socio-cultural, economic, and policy determinants of PA, respectively.

Results

From the systematic search, 10,953 studies were retrieved. After duplicates removal, 10,314 studies were screened through evaluation of the title, abstract and full text. Then, 49 studies were considered eligible and included in the umbrella SLRs. In particular, 18 publications were included in the biological umbrella SLR, whereas the relative picture for the psychological, behavioral, physical, socio-cultural, economic, and policy umbrella SLRs was 16, 17, 28, 22, 17 and 15 publications, respectively.

Conclusions

The considerable scientific production on PA signifies its relevance in health-enhancing policies of western societies. Based on a multidisciplinary and intersectoral approach, the seven umbrella SLRs provide an exhaustive understanding of the determinants of PA behaviours.

Key message:

- The umbrella SLRs could be a valuable basis for the development of effective approaches and strategies to enhance active lifestyles of European citizens

EHealth interventions for the promotion of physical activity in older adults: a systematic review

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Background

Findings of previous literature reviews suggest that eHealth interventions are effective in promoting physical activity (PA) in adults. However, none of these reviews provided a differentiated picture of intervention engagement and dose-response effects on PA among older adults. The aim of this

systematic review was to compare the effectiveness of eHealth interventions promoting PA in older adults aged ≥ 55 years with either a non-eHealth PA intervention or no intervention.

Methods

Eight electronic databases (MEDLINE, EMBASE, CINAHL, CENTRAL, PEI, PsycINFO, Web of Science, and OpenGrey) were searched to identify experimental and quasi-experimental studies examining the effectiveness of eHealth PA interventions in healthy adults aged 55 years and above. Two authors independently selected and reviewed references, extracted data, and assessed the quality of the included studies.

Results

In the database search 5,079 records were retrieved. After screening titles, abstracts and full-texts, 18 studies examining PA among 6,369 individuals met the inclusion criteria. Interventions examined in these studies were delivered via websites ($n=9$), over phone by a person or using an automated telephone-linked computer ($n=7$), or via text messages ($n=2$). Intervention duration ranged from 6 weeks to 24 months. The majority of the included eHealth interventions were multi-component interventions which included tailored PA advice, goal setting and feedback, tips for overcoming barriers to PA, and information about local offers regarding PA. Overall, web-based and telephone-based interventions were effective in promoting PA in older adults. In regard to text messaging interventions only inconclusive effects were noted.

Conclusions

Web-based and telephone-based interventions are an effective intervention vehicle for the promotion of PA among older adults.

Key messages:

- EHealth interventions delivered via website or phone are effective for PA promotion in older adults
- The majority of the identified interventions include multiple components addressing different aspects of PA in this population

2.F. Pitch presentations: Management of chronic diseases

Participatory development of the Health Literacy intervention “GeWinn” for older adults in Germany.

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Background

A low health literacy level is directly linked to poor health outcomes. Therefore improving health literacy is an important tool in reducing health inequalities. Especially older adults have a high risk of low health literacy. The study (GeWinn) aims at strengthening health literacy through the promotion of self-management competencies (of chronic diseases), community participation and media literacy in people aged 60 years and above through a participatory approach.

Methods

The intervention was developed with the participation of older adults and multipliers. In overall 11 guided focus group

discussions the contents of the intervention were discussed and planned. In 4 Bavarian counties one focus group discussion each were realized in close collaboration with the administrative district offices. Another 2 focus group discussion were performed with multipliers in Bavaria. Further 5 focus group discussions were initiated from the cooperation partners in Magdeburg and Ludwigsburg.

Results

The focus group discussions revealed resources and barriers of older adults concerning the process of accessing, understanding, evaluating and applying health information and also strategies to deal with chronic diseases. Furthermore it was recognized how older adults use the internet to manage difficult health information. Thereby topics in the field of well-being and self-management with regard to the personal environment of older adults were identified.

Conclusions

The participatory proceeding is an important process for an intervention that is adjusted to the needs of the target group. Furthermore the close collaboration with the practice partners

in the communities ensured the successful implementation of the focus group discussions.

Key messages:

- GeWinn uses a participatory approach which is important for the successful planning and the sustainable implementation of the intervention
- The interconnection with the community partners enables an effective acquisition of older adults

Primary healthcare physicians' knowledge, attitude and practice towards smoking cessation in Armenia

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Background

Smoking rate among Armenian men is one of the highest in the European region (63%). Treatments that combine both counseling by physicians and pharmacotherapy increase cessation rates and are cost-effective. The goal of this qualitative research was to identify primary healthcare physicians' knowledge, attitude and practices regarding smoking cessation.

Methods

Study team implemented the qualitative study through focus group discussions (FGDs) with primary healthcare physicians using a semi-structured guide for moderating the FGDs. Purposive sampling was used to recruit participants (n=23) from two Armenian cities (capital city Yerevan and Gyumri). The collected data were transcribed and analyzed by directed deductive content analysis techniques.

Results

Primary healthcare physicians identified themselves as the practitioners who mainly provided preventive services to the general population. They acknowledged their role in advising patients to quit smoking but they did not accept that assistance in smoking cessation is their responsibility. Physicians did not have appropriate skills and knowledge in smoking cessation, particularly pharmacotherapy and rarely prescribed drugs to assist their patients in smoking cessation. Unreasonable paper work, lack of time, no formal training in smoking cessation, high price and low access to smoking cessation drugs were identified as main obstacles for providing comprehensive counseling in smoking cessation.

Conclusions

Physicians are considered as essential to the success of smoking cessation interventions. Still, in Armenia their role in smoking cessation is limited by several factors, including level of knowledge/skills. There is urgent need in enhancing and optimizing physician's practice of smoking cessation counseling through evidence based smoking cessation trainings and implementation of performance-based reimbursement mechanisms to motivate physicians to provide smoking cessation counseling.

Key message:

- There is an urgent need to enhance Armenian physicians' knowledge and skills in smoking cessation and to motivate them to advise and assist smoking patients to quit

The importance of media in framing public and political debates about NCDs

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Background

For the first time in history non-communicable diseases (NCDs) now pose a greater health burden than communicable infectious diseases and the media play a crucial role in framing public and policy debates about the causes of, and solutions to, NCDs. While the literature suggests that media debates should be a key concern for those interested in understanding public health policy processes, as yet there has been only limited research into the role of the media in the development of public opinion, advocacy, and policy in this area. This paper presents the findings from a scoping review which aimed to identify gaps in current research on media representations of industries that contribute to NCD risk and how media representations might be shaping public and political opinion.

Methods

We searched Web of Science, Medline, Embase, and Google Scholar for three NCD debates, considering how alcohol, processed food and tobacco industries have been represented in the media.

Results

Our findings indicate that: (i) limited research that has been undertaken, 61 studies over the last 30 years, mainly dominated by tobacco studies; (ii) comparative research across industries/risk-factors is particularly lacking; and (iii) coverage tends to be dominated by two contrasting frames (market justice and social justice).

Conclusions

Media studies that investigate how media debates on NCD risk and policy are important for having a more nuanced understanding of the complex ways in which media representations of unhealthy commodity industries are shaped by, and contribute to shaping, public, corporate and political discourses. We conclude by identifying future research that would provide a crucial resource for those seeking to develop a common policy agenda to reduce NCD-related harm, and enhance public health advocates' abilities to use the media to promote effective public health policy.

Key messages:

- Media representations play a crucial role in informing public and policy opinion about the causes of NCDs
- We need to develop a common policy agenda to reduce NCD-related harm, and enhance public health advocates' abilities to use the media to promote effective public health policy

What makes the quitline "Rauchfrei Telefon" effective in smoking cessation

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The Austrian quitline "Rauchfrei Telefon" is offering help in smoking cessation nationwide. The offer is free of charge and easy accessible via phone. 73% of callers have one contact, 27% have two or more contacts via phone with the counselling team. Singular contact is about getting first information and help for cessation and connecting smokers to local cessation services. Two or more contacts provide the proactive offer, supporting smokers and ex-smokers with about 6 contacts up to 12 weeks to get and stay smoke free.

For the longitudinal evaluation (October 2012 till December 2014) 210 callers agreed to take part. The results are based on data of 168 clients. The measuring points were three, six and twelve months after the first contact. Questions to be answered were: Are supported smokers successful in quitting or

reducing? Is the amount of contacts relevant for the outcome? Are supported ex-smokers able to keep their smokefree lifestyle? Which factors are reported as helpful?

Quitline counselling is effective in tobacco cessation. Proactive counselling is more effective than single counselling. After three months 37% were smokefree, 25% had reduced their cigarette consumption. After six months 28% were smokefree, 16% reported reduction. After twelve months 30% were smokefree, 17% smoked less.

After twelve months clients who had four or more counseling talks were showing higher quit rates (36%) than those with one single talk (24%). Helpful aspects were the personal contact, specific tips for alternative behavior, the professional competence and the expert knowledge of the counselors.

Proactive counseling with four talks or more is more effective than single counselling. The need of relapse prevention should be focused more clearly. The Austrian quitline is cooperating with many regional quitting-services, which are transferring their clients by fax referral for post care to keep smokefree.

Key messages:

- Quitlines are effective in tobacco cessation and have proven to be well accepted. Cooperations for post care are increasing the efficacy of cessation programs. Quitlines should be promoted
- Proactive is more effective than single counselling. Relapse prevention in tobacco cessation should be focused. Cooperations for post care via phone increase the abstinence rates

Chronic Care Model: experiences in a district of Central Italy

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Background

The Chronic Care Model (CCM) is an integrated care model that aims to improve the quality of care and patient outcomes, overcoming the fragmented management of comorbidities and recognizing conditions of social vulnerability, by a proactive, person-focused approach. Several study have shown the effectiveness of CCM in terms of health outcomes, but few have explored the perception of patients about the fulfillment of their expectations and needs. The aim of this study was to provide a preliminary survey to investigate CCM patients' opinions about the acceptability and satisfaction for the integrated care received.

Methods

This is a cross-sectional study conducted between January and March 2016, administrating a semi-structured questionnaire (18 open and close-ended questions) to a convenience sample of CCM patients attending all four outpatient chronic care centers of a district of Arezzo, Tuscany's province. Descriptive analysis was used for data processing.

Results

A total of 152 CCM patients responded to the questionnaire. The majority of the sample men (51,3%), was aged between 65 and 75 years old (51,7%), with low educational level (83,7%) and not living alone (82,3%). Patients responding that nothing would have to be changed about the received care services were 84,1%. The entirety of patients felt that their own health problems are understood and 98,7% believed they received enough information, but 20% and 9,4% would also receive support by a psychologist or social worker and by medical specialists respectively.

Conclusions

The findings shown that the CCM model met patients' health needs and the level of satisfaction with the care they received was high but also suggested some critical aspects to be tackled for building an effective continuity of care: the pro-active and patient-centered CCM approach was found to be less structured in case of patients with social or psychological needs, or when patients need a specialist check.

Key messages:

- Chronic Care Model, encouraging high-quality chronic disease care by a patient-focused and proactive approach, meet the health needs of patients
- A high level of satisfaction with the integrated care, CCM patients have raised some critical issues related to their social and psychological needs and to the accessibility of specialized care

Deprescribing in elderly patients: new challenges to the Italian National Health System

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Background

Elderly, conventionally defined as ≥ 65 years, are the greatest consumers of drugs in Developed Countries. Polypharmacy, defined as >5 regular prescribed drugs, is associated with increased risk of adverse events and it has been identified as the main determinant of potentially inappropriate prescribing. We aimed to investigate factors associated with polypharmacy in elderly people discharged from an Italian hospital.

Methods

Data on drugs prescribed to patients discharged from the Internal Medicine Ward of the Ovada Hospital (Piedmont-Northern Italy) were collected. Potentially Inappropriate Prescribing (PIP) were identified by using Beers criteria (2012 update). Crude and adjusted Odds Ratios (OR) with their 95% Confidence Intervals (95%CI) were estimated by logistic regression analyses to identify possible correlates of polypharmacy at the discharge.

Results

Globally, medical records of 141 patients were assessed. Elderly people were 117 (83%) with a mean age of 77 years (Standard Deviation (SD) 15). The mean length of hospital stay was 11.9 days (SD 15.5). The median number of drugs prescribed was 6 (Range 1-13) and polipharmacy was recorded for 84 (60%) patients. Thirty-five potentially inappropriate drugs were identified using Beers criteria (6.3% of the drugs prescribed). The drugs more frequently involved in PIPs were typical antipsychotics, digoxin and amiodarone. The adjusted odd of having a polypharmacy discharged from Internal Medicine was significantly related to the length of hospital stay (>21 days OR = 4.0, 95% CI: 1.4-12.2).

Conclusions

Our study found out that a longer length of hospital stay is related to having a polypharmacy at the discharge. Efforts are needed to use the good practice of deprescribing according to the rules of evidence based medicine in order to reduce polypharmacy in frail elderly people.

Key messages:

- Optimization of drug prescribing in older populations is a serious public health concern, needed to be strongly monitored
- Efforts should be made to analyze drug prescription in order to avoid improper polypharmacy

Could Animal Assisted Intervention be implemented in public health programs?

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Background

The therapeutic use of animals was argued for decades, considering different settings and target populations. Moreover, Animal Assisted Intervention (AAI) could be considered a cost effective way to support other treatments worldwide. Our review aims to focus benefits of animal programs for hospitalized patients, considering as well the risks.

Methods

We followed PRISMA guidelines, considering the following databases: PubMed, Scopus, PsychInfo, Ebsco Animals, PROQUEST, Web of Science, CINAHL, and MEDLINE. We included all the papers considering effectiveness or risks of animal use in hospitals.

Results

The conclusive selection returned 36 sources. Five studies focused on the AAI for psychiatric inpatients (four were Randomized Clinical Trials) while eight papers referred to pet therapy in pediatric hospitals. In addition, six articles evaluated the impact of the AAI in elderly inpatients. The animal-intervention programs presented various benefits like reducing

stress, pain and anxiety. Other outcomes considered were: vital signs, hemodynamic measures and nutritional intake. Even if most studies used dogs, other animals were effectively employed such as horses, fishes, cats and cage birds. The major risks outlined were allergies, infections and animal-related accidents. Not only zoonosis could be a risk, but also other common infections as Methicillin-resistant Staphylococcus Aureus. However, the implementation of simple hygiene protocols consented an effective risk minimization; then, literature concluded that benefits overhang by far risks.

Conclusions

The relationship with animals can be useful for inpatients but it is important to select patients in order to minimize risks, particularly those infection-related. Since many European Countries recently produced guidelines on AAI, more efforts are needed to implement such programs in public health interventions in effective and safe ways.

Key messages:

- Interactions with animals seem to influence positively hospitalized patients but more efforts are needed to implement such programs in public health interventions in effective and safe ways
- Since an accurate knowledge is essential to implement effective strategies in hospital, further studies are needed to address this issue

2.G. Workshop: Public health challenges of disadvantaged groups

Organised by: European Patient Forum
Contact: Britta@fischill.at

Chairperson(s): Christian Lackinger - Austria

Background

Chronic non communicable diseases as well as infectious disease remain still a huge public health challenge. Although new life style or medical approaches showed great effects on various health outcomes, there is insufficient access to sustainable prevention programmes or contemporary therapies of many diseases for vulnerable groups.

Aim

Within this symposium, EPF aims to highlight and discuss possibilities to reduce health inequalities for vulnerable groups. Communalities and differences in public health approaches to prevent or treat widespread diseases will be presented.

- Reduced access to the health care system for vulnerable groups
- Access to structures to promote health
- Prevention of infectious diseases
- It's not the disease, it's the human being that should be looked after
- Health promotion as a complex intervention field

There is no reason to suffer from chronic hepatitis

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Introduction

Chronic viral hepatitis is a global epidemic, which affects an estimated 400 million people worldwide. While not always detrimental to affected individuals, it causes a high death toll

through complications of advanced cirrhosis and liver cancer. The global burden of disease (GBD) study recently could confirm cirrhosis as the twelfth most common cause of death and liver cancer as the second most common cancer-related cause of death globally.

WHO has made HBV-childhood vaccination a global health priority some time ago but this has still not been introduced in several countries in the developing world for logistic reasons. More efforts are needed to address this relevant health problem.

Analysis

Good oral drugs for chronic Hepatitis B and breath-taking advances in the development of easy-to-use and highly effective oral drugs for chronic Hepatitis C in the last 4 years have completely changed the way chronic viral Hepatitis could be tackled today. With this in mind, WHO has developed its global health sector strategy to address the viral hepatitis epidemic 2016 – 2021 (1). WHO also has put forward the Global Hepatitis Strategy Targets 2020 and 2030 with ambitious goals. While this will require a substantial effort in less developed areas, Europe should be able to achieve this goals quite readily as long as a comprehensive approach is taken at country level.

In order to facilitate such a comprehensive approach, WHO little later issued a manual on how to develop a National Viral Hepatitis Plan (2) to serve as a guidance or template for countries to develop such plans. The WHO manual as well as already existing National Hepatitis plans and resources like "The Hub" "from DEUSTO Business School (3) specializing on helping governments to develop such plans usually base such a plan on 4 pillars: primary prevention, early diagnosis/linkage to care, treatment, follow-up (collectively termed "continuum of care"). While several pieces of the puzzle usually exist in many European countries, other aspects suffer from lack of national coordination and effort from the side of the ministries of health. Countries like Austria fare reasonably well in

prevention and very good in linkage to care and treatment but suffer from a lack of concerted action in awareness and early diagnosis including (risk group) screening to some extent.

Conclusions

Chronic viral hepatitis today is a preventable and very treatable disease for many patients. Nevertheless, comprehensive viral hepatitis action plans have not been put into place even in many European countries, with the notable exception of Scotland, France, and Spain. In order to achieve the maximum benefit from today's highly effective antiviral drugs, comprehensive Viral Hepatitis Action plans should be developed and implemented in many countries to address all aspects of the continuum of care in the most effective and efficient way.

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Delivering lifestyle intervention at home: Physical training and nutrition optimisation for community dwelling frail people delivered by lay volunteers

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Introduction

In elderly persons frailty is very common and can lead to serious health hazards such as increased mortality, morbidity, dependency, institutionalization and a reduced quality of life. Physical training and adequate nutrition may improve this situation. However, frailty leads to social withdrawal and most

frail people cannot go to a different place for lifestyle intervention easily. In a novel approach, it was the aim to address frail elderly persons where they are, at their own home, and deliver lifestyle intervention on the spot, by lay volunteers, which should ideally profit for their own health as well.

Methods

The project engaged lay, robust subjects minimum aged 50 years, who worked voluntarily as buddies for frail adults, aged 65 years and over. After a comprehensive briefing, visited these buddies the frail subjects at home twice a week, talked about nutrition-related problems and performed strength training together. In the first 12 weeks a control group in which frail subjects together with their buddies were randomly assigned to was established, in which only home visits took place without intervention. Besides of measuring various target variables at 4 different time points, the project was accompanied by regular focus group discussions where buddies expressed their experiences and opinions.

Results

Within the first 12 weeks, frail subjects in the intervention group increased hand grip strength by a mean of 2.1 kg and significantly reduced frailty score and improved nutritional status compared to the control group. Furthermore, they experienced a reduction in fear of falling and improved overall quality of life. Also, in buddies a significant increase of muscle strength in the legs by a mean of 5.7 kg and in the hand grip by 1.6 kg could be shown. According to focus group discussions, the main factors responsible for the success of the project included (1) the visualisation of the success by regular examinations, (2) the small difference in age between the frail subjects and the buddies, and (3) the low threshold to enter this project which was reached through the home visits.

Conclusions

The project showed the feasibility and effectiveness of a home based lifestyle intervention program for a vulnerable group with win-win situations for all involved parties.

2.H. Pitch presentations: Adolescent mental health 1

Mental health in adolescents: validation of an Italian version of the School Wellbeing Scale

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Background

Mental health is one of the leading health concerns for adolescents in Europe (morbidity rate 25%). In the framework of Health Promoting School (HPS) it is a major dimension, but a recent Cochrane review (2015) didn't detect it among significant outcomes of HPS. School wellbeing is clearly part of mental health and several scales have been proposed for measurement.

Methods

In 2010, 16 high schools were enrolled in Abruzzo region (Middle Italy) and 476 students (aged 16.8 ± 0.9 ys; 53.3% females) filled in an Italian version of the Konu & Rimpela's School Well-Being Scale, drawn up by means of translation-back translation method.

Four Likert's scales assess the domains concerning school experience/health: School Conditions, Social Relationships, Means of self-fulfillment, Health Status.

A validation analysis has been performed about: 1) the scales' internal consistency (Cronbach's Alpha) and 2) the

equivalence of the factor structure with the original version (Confirmatory Factor Analysis, CFA).

Results

The Cronbach's Alfa resulted always 'acceptable' (>0.70) except than for the Social Relationships domain (0.661).

Moreover, the CFA highlighted an acceptable goodness-of-fit with the theoretical structure both for the four separate scales and for the entire model: the GFI and AGFI indices are good (>0.90) in 8 comparisons out 10. The RMR index, even below 0.05 only in one domain, is little, so the residual correlation between items unexplained by the model is low.

Conclusions

The Italian version of questionnaire is adherent to the theoretical model used by Konu and Rimpela. Therefore, it will be used to evaluate the impact of HPS network's implementation at local level, in the context of Abruzzo's Regional Prevention Plan 2015-2018.

Key messages:

- Adolescents' mental health is a priority in public health
- It is desirable to standardize a European surveillance system on school wellbeing consistent with HPS's model based on validated tools

Child living arrangements following separation and health of parents in Sweden

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Background

Father involvement and joint physical custody in post-separation families has become increasingly common, in Sweden 35 percent of the children of separated parents live alternately. Since parenthood is strongly gendered and expectations on mothers and fathers are different, the associations between child living arrangement and parental health may vary between women and men. This study analyzes how children's living arrangements after parental separation is associated with health of parents and how this interacts with material and social circumstances.

Methods

Drawing on The Swedish Survey of Living Conditions (ULF, with child supplement) 2007-2011, we analyze how child living arrangements are associated with the self-rated health (SRH) and mental health (worry/anxiety) of parents in four family structures: intact, reconstituted, single with alternate living, and single with sole/main custody. Data on 3455 mothers and fathers with resident children aged 10-18 were analyzed by multivariate logistic regression, reported as Average Marginal Effect (AME showing percentage points difference between categories) adjusting for social and economic factors.

Results

Preliminary results show that sole care mothers reported poorer SRH (AME 5.7) compared to intact (ref) before adjustment for background factors. For fathers family type did not affect SRH, while background and social factors did. Poor mental health was highest among lone mothers with joint physical custody (AME 15.4) and fathers with sole care (AME 7.7) respectively. Fathers in all family types and single mothers (joint and sole care) had poorer mental health compared to intact (ref) following control for background and social factors.

Conclusions

The results indicate that children's living arrangements following separation is important to consider in relation to parental health. The pathways for men and women into different custodial arrangements differ, and so do the associations with parental health.

Key messages:

- For fathers family type did not affect self-rated health
- Fathers in all family types and single mothers (joint and sole care) had poorer mental health compared to intact family

Targeting teachers' abilities to promote health for children of mentally ill parents

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Background

In Germany over 3 million children experience at least one parent with a mental disorder every year. In cause of psychosocial strains, those children are at considerably higher risk of developing serious mental health problems themselves. Different burden patterns often become manifest in their school lives. It's assumed that in every second school class is a child with a parent in outpatient care, in every third one with a

parent in psychiatric inpatient care. School can create risk potentials, but also can have an important protective function. This project explores how teachers deal with burdened children as an essential task of children's health promotion.

Methods

Semi-structured interviews with 28 teachers: 16 interviewed individually and 3 focus groups (n=12) were performed and qualitatively analysed by content analysis. The interview guideline based on results of a systematic literature review.

Results

Teachers are not good at identifying children with mentally ill parents. If they do, they state not to feel sufficiently trained in dealing with those (teaching) situations, leaving them with great uncertainties when encountering those situations. Institutional means and resources were identified as being insufficient for supporting teachers adequately. Poor collaboration with supporters outside school is reported. Teacher report to be high stressed when dealing with burdened children.

Conclusions

The identified support practices are insufficient for the affected children and teachers. Opportunities for intervention: Targeting professionals' abilities for dealing with this high-risk-group and increasing coordination in school can lead to a discharge for teacher themselves and increases school health promotion for those children where they especially accessible for it. As further research is necessary, an online-questionnaire (n=2500) is in preparation for analysing intervention opportunities in everyday school life that lead to a training tool for teachers.

Key messages:

- Supporting practice of children with a mentally ill parent in school is currently insufficient, but show good opportunities for health promotion
- Enhancing teacher's skills is a promising/sustainable health promotion approach for children with mentally ill parents and teachers themselves

Effectiveness of a parenting support to Somali parents on children's mental health

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Background

The Somali immigrants in Sweden have stressed challenges and obstacles they face in relation to their parenthood in their new home country. They expressed a specific need for cultural sensitive parental support to strengthen the relationship between them and their children. The aim of this study was to evaluate a culturally tailored parenting support program for Somali-born parents and its effectiveness on children's mental health.

Methods

The randomized controlled trial was conducted in a city in the middle of Sweden. Somali born parents with children aged 11-16 years, and with self-perceived stress about parenting were included. A total of 120 Somali born parents were randomly allocated either to an intervention group (60 parents) or waiting-list control group (60 parents). The intervention consisted of culturally sensitive Connect© parenting program with tailored societal information. Parents received 12 weeks (16 hours) of intervention, 1-2 hours each week in smaller groups. The primary outcome was reduction of emotional and behavioral problem using Child Behavior Checklist (CBCL). Analyses were conducted according to intention-to-treat.

Results

Our findings showed a significant difference between children in intervention and in control group in the subscales internalizing, externalizing and total problems score $p = < 0.01$ after two months follow-up. A medium effect size 0.62 was detected.

Conclusions

A culturally tailored parenting support program delivered to newly immigrated parents can improve children's emotional and behaviour problems. From a public health perspective it is crucial to reach immigrants to eliminate inequity in health. This culturally tailored parenting intervention contributed to high attendance and low drop-outs of parents.

Key message:

- This study has so far resulted in improving Somali immigrant children's mental health, and provided knowledge for the barriers and facilitators of implementing culturally tailored parental support

Experiencing health: how to understand ethnic disparities in health among Danish youth

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Background

Youth is a transitional life phase and research shows that wellbeing and health is easily challenged during youth. In Denmark, ethnic minority youth shows particular vulnerable (e.g. more stress, lower self-esteem, less physical activities). Socio-economic factors effects ethnic disparities in health but the connections between SES and ethnicity are ambiguous. Thus, we need insight into the social dynamics relating to wellbeing and health in daily life, including young people's own experiences of health. This paper explores how young people (age 11-18) understand and experience health and how ethnicity intersects these experiences, and how Danish school institutions affect these experiences. The paper offers empirical insight and analytical discussion to the field of youth ethnic disparities in health.

Methods

The paper draws on two qualitative Danish studies: Study 1, in a primary public school (5th Grade, age 11-12, and 7th Grade, age 12-14, $n = 55$) and Study 2 in an upper secondary school (2nd year, age 16-18, $n = 40$). Both: equal ethnic minority/majority distribution. The studies used ethnographic fieldwork, interviews, focus groups and visual, participatory research methods (e.g. photographic projects).

Results

Students in both studies experienced health ambiguously: normativity was central in descriptions of health, defined as 'prober' lifestyles building on standards of the morally 'right' body, appearance and behaviour (e.g. eating). Health was also described holistically placing friends and emotional life central. Finally, health was expressed existentially; as empowerment in own life, as a sense of belonging and feeling included.

Conclusions

Ethnic minorities and majorities express similar experiences of health, but ethnic minority students express more stress and feelings of exclusion than ethnic majorities. Often feelings of exclusion relate to feelings of not being able to reach standards of 'normal' appearance and health performance.

Key messages:

- Health plays a central role the young people's self-perceptions and feelings of belonging

- Seeking compliance with normative standards for healthy bodies is experienced stressful by ethnic minorities

Pain and learning in Australian primary school students

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Background

The middle years of childhood represent the crucial phase in development as the foundation years for emotional adjustment. Emotional problems have profound effects on school engagement and performance. However, little is known about the effects of physical pain on learning and school outcomes. The objective of this study was to quantify the association of pain and academic achievement while taking into account the possible presence of emotional symptoms.

Methods

The Childhood to Adolescence Transition Study follows a population-based stratified sample of 1239 children from grade 3 (age 8-9 years) in Melbourne, Australia. In grade 3, children indicated the sites of any pain that had lasted for a day or longer using a pain manikin and reported emotional symptoms using validated questionnaire items. National test results for reading and numeracy were used to measure academic achievement.

Results

65% of children reported pain in at least one body site and 16% reported chronic pain. The number of pain sites was associated with poorer reading scores in a dose-response fashion ($\beta = -2.9$; 95% confidence interval -4.4 to -1.6; $p < 0.001$). The effect remained similar after adjusting for socioeconomic status, gender and emotional symptoms. Children suffering from both chronic pain (>3 months) and emotional symptoms were a year behind their peers in both reading and numeracy. Children who reported headaches or abdominal pain in combination with emotional symptoms were also six months behind symptom-free children.

Conclusions

Among primary school students, increasing number of pain sites was associated with decreasing academic achievement. In addition to the effects of emotional problems, pain should be considered in children with low levels of educational attainment. Given the high prevalence of pain, whole school approaches are warranted to enhance students' well-being and learning outcomes.

Key messages:

- In this population-based study, pain was associated with decreasing academic achievement, with this effect intensified by concurrent reports of emotional symptoms
- Given the high prevalence of pain, whole school approaches are warranted to increase students' well-being and learning outcomes

'Feel Good': an evaluation of public health education for people with learning disabilities

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Background

The health of people with a learning disability is far worse than that of the general population. They face a number of health inequalities including poorer health and lower life expectancy. Good information and understanding of health is key to individuals being empowered to self-care and can prevent avoidable hospital admissions.

'Feel Good' is a new public health education programme devised by Purple Patch Arts for people with learning disabilities. Creative methods such as drama, dance, music and art were used to engage learners in nutrition, exercise and relaxation techniques. The aim of 'Feel Good' is to identify how accessible and effective health education can be delivered to people with learning disabilities. To do this, an evaluation was conducted by researchers at the University of Leeds.

Methods

Three questionnaires were developed including (i) pre-programme personal health survey, (ii) workshop evaluation survey and (iii) post-programme personal health survey. 31 participants were recruited to take part in the 'Feel Good' programme. The evaluation took place in two 'Fulfilling Lives Services' in Leeds, U.K during January to March 2016. As workshop participants had a range of learning disabilities, the

survey could not be self-completed. Instead, a series of creative approaches were devised to collate the survey information.

Results

Participant rates in the workshops was high (81-100%) with 100% satisfaction reported throughout the programme. Overall, the use of a creative targeted intervention has improved health knowledge in participants. Post-programme, results showed a 16% increase in knowledge of annual health checks and a 23% increase in knowledge of relaxation techniques to self-manage 'feeling down'.

Conclusions

The 'Feel Good' programme has demonstrated that creative methods of teaching public health can foster positive change in health behaviours for people with learning disabilities which may reduce avoidable health complications.

Key messages:

- Targeted interventions for people with learning disabilities can empower self-care
- Creative approaches can support understanding of complex subjects

2.I. Workshop: Individuals in need of mental health interventions

Organised by: Public mental health section
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Chairperson(s): Jutta Lindert - Germany, Marija Jakubauskiene - Lithuania

Mental health is fundamental to good health and wellbeing and influences social and economic outcomes across the lifespan. At least half of symptoms of mental disorders in adults start in between 15-25. It is estimated that 10-20% of individuals in this age group worldwide experience mental health problems. Yet, detailed knowledge of mental health of individuals aged 15-25 is still missing. Therefore prevention and mental health promotion strategies are needed.

Presentations will be followed by a panel discussion between speakers and the audience to further elaborate strategies of mental health promotion, intervention and care for this specific age group.

Key messages:

- Individuals aged 15-25 are vulnerable to mental disorders
- New concepts and strategies are needed for this specific group in different settings such as countries and families affected by economic crises

Mental health during an economic crisis in a metropolitan area of Portugal: individual and environmental factors

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Background

The mental health of the population is influenced by characteristics of the individuals and their place of residence.

The study aims to identify the determinants associated with poor self-assessed mental health in the Lisbon Metropolitan Area, Portugal, during an economic crisis.

Methods

A survey conducted in 2014-2015 in 4 counties of the Lisbon Metropolitan Area (a simple random sample of 1,066 adult individuals) collecting individual characteristics (biological, socio-economic, behavioural, health status) and contextual information (satisfaction with residential area, neighborhood social capital). Mental health measured according to the mental health and vitality scales of the SF-36v2. Binomial Logistic Regression Models were applied to identify the risk factors of poor mental health.

Results

33% reported poor mental health. Different individual and environmental factors are associated with poor self-assessed mental health. Biological factors (being a woman [OR=2,50] and over 60 years [OR=1,50]), socioeconomic factors (having low education [OR=1,84] and unskilled manual work [OR=1,52]), behaviour and health status factors (being physically inactive [OR=1,58] and having hypertension [OR=1,45]), financial factors (having low income [OR=2,02] and having difficulties to pay expenses [OR=2,56]) and contextual factors (being less satisfied with the local area characteristics [OR=1,91] and living in places with low neighborhood social capital [OR=2,10]) are risk factors for poor self-assessed mental health. The multiple model incorporating interaction amongst variables showed a good capacity for adjustment.

Conclusions

Individual and environmental factors influence self-assessed mental health. The magnitude of observed results points out a critical situation that can be explained by the current economic crisis in Portugal.

Key message:

- Individual and environmental factors are important determinants of self-assessed mental health in the Metropolitan Area of Lisbon

Children left alone as a public health concern: a case of Lithuania

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Background

Emigration and mental health have complex relations however it is one of the mental health risk factors. According IOM in 2015, 15,9% of all Lithuanians lived outside the country, every second emigrant left children with one of the parents or relatives. Left alone children suffer from mental disorders, leading to the need of public health interventions to improve their mental health state. Systematic approach and solid evidence is needed to evaluate the real burden of parental emigration on mental health of their left alone children.

Methods

Literature review and descriptive analysis of articles in the MEDLINE and Science Direct databases for mental health outcomes of left alone children were conducted.

Results

Most of research report negative outcomes of parental emigration on left alone child's mental health (increased risk of depression, conduct problems, anxiety disorders) including social issues (bullying at school, increased grief and hopelessness). Specifically for young children emigration may lead to shorter periods of breastfeeding, less attentive feeding and insufficient intake, which also affects mental health state. Lithuanian policy needs strategic and more adequate response to this growing public mental health risk. Effective evidence based public health interventions such as caregiver and child social support, more attentive care for health in educational institutions may reduce the risk of mental health problems for left alone children.

Conclusions

Parents emigration leads to negative mental health outcomes for their left alone children. The adequate emigrant policy and evidence based public health interventions are needed to respond mental health challenges of left alone children.

Key messages:

- Parents emigration is a risk factor for left alone children mental health state
- Effective support policy for left alone children should be based on evidence based interventions

Mental health promotion for young people in Lithuania

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Objective

Presentation aims to systematically overview mental health promotion intervention strategies for young people in Lithuania.

Background

Young people are particularly vulnerable to social risks compared to adults, especially in the context of historical and political changes. After 1990s Lithuanian transition economy was aggravated by psychosocial stress in society resulting in high prevalence harmful life experiences. 0.5 million of children and adolescents i.e. 18% of total population are exposed to risk factors such as emigration of parents, substance abuse, bullying, violence, suicide, institutionalization, reluctance to mental health services. 35% of them are yet under the risk of poverty. To strengthen the level of resilience,

mental health and wellbeing of young people effective mental health promotion is needed.

Methods

Systematic analysis of mental health promotion intervention strategies for young people implemented in Lithuania.

Results

An overview of systematic analysis of mental health promotion strategies and interventions in total – over 30 policy documents and nearly 20 interventions implemented from 2000 to 2015 were analyzed. Analysis framework included specific target groups of young people, milieu of implementation, intervention types, professionals included and outcomes reached. Mental health promotion needs more consistency in implementation.

Conclusions

Lithuania is adopting mental health promotion strategies for young people and integrating them into all policies yet practical implementation face barriers related to historical and political experience of the country.

Key messages:

- Children and adolescents in Lithuania are exposed to a substantial number of risk factors for their mental health
- Consistent and effective intervention strategies are in need to promote mental health and wellbeing of young people

A systematic concept analysis of mental health promotion

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Background

The aim of the study was to conduct a theoretical concept analysis to explore what is understood by the concept of mental health promotion in the literature. The analysis involved an in-depth exploration of the different definitions and understandings of mental health promotion, and examined and clarified the features and characteristics of the concept in order to provide greater clarity on the definition upon which well-grounded mental health promotion practice and evaluation research can be based.

Methods

The study employed an evolutionary model of concept analysis provided by Rodgers (1989). This approach provided a methodological approach to explore the nature of the concept of mental health promotion through inductive inquiry and rigorous analysis. A total of 29 scientific articles and policy documents were identified and analysed using Rodgers's method.

Results

The analysis provided information on the attributes, related concepts, antecedents, consequences and references of mental health promotion, indicating that the concept is a distinct concept comprising a unique set of attributes and characteristics. A concept mapping of mental health promotion was subsequently developed.

Conclusions

The evolutionary concept analysis of mental health promotion provided a systematic analysis of the definition and use of the

concept of mental health promotion. The analysis clarified and revealed unique aspects and characteristics of mental health promotion. The analysis and the concept mapping provide health professionals, policymakers and researchers with a context and framework, upon which well-grounded mental health promotion practice and evaluation research can be based.

Key messages:

- Mental health promotion is a distinct concept
- Concept mapping of mental health promotion offers a framework from which to plan, implement and evaluate mental health promotion practice

2.K. Oral presentations: Costs and benefits of infectious diseases control

A microsimulation model forecasting the health care costs associated with increasing MRSA infections

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Background

Antibiotic resistance presents a challenge to modern health care and medical progress as few new treatment options are in the pipe-line. Increasing resistance is likely to cause morbidity, deaths and escalated health care costs. For national policy-making it is important to quantify the incremental costs attributable to resistance so that economic arguments supporting interventions can be formulated.

Methods

We used an individual-based micro-simulation model, SESIM, to forecast economic consequences of antibiotic resistance over ten years. The model contains register data from a representative sample of the Swedish population and operates in annual steps of demographic development including individuals' health and consumption of health care and medicines. In a first analysis of MRSA, we represented the additional health care consumption as increased numbers of hospital days, outpatient visits and contact tracing for individuals becoming asymptomatic carriers or getting clinical infections. The risk to contract MRSA was implemented according to prevalence of cases among age groups and sexes using data from mandatory notifications according to the communicable diseases act. Costs for resource use was based on actual expenses reported by health care providers.

Results

The on top health care cost for 1 800 cases of MRSA in 2014 was estimated to SEK 60 million (€6.5 million). When simulating future trends assuming unchanged infection control practices, the yearly cost was after ten years estimated to SEK 280 million (€30 million) for 8 400 cases.

Conclusions

Micro-simulation can be used for forecasting additional health care costs attributable to antibiotic resistance based on actual health care data. When applying the model to MRSA, costs will have increased almost 5-fold by 2024 if present trends continue as well as infection control practices.

Key messages:

- Assessing future health care costs incurred by antibiotic-resistant bacteria is necessary in order to effectively plan efficient use of health care resources
- A micro-level approach to simulating future costs for health care is useful since it allows for a more realistic

representation of risk factors and outcomes, based on real world data

Cost-effectiveness analysis of hepatitis B vaccination to children in Sweden

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Hepatitis B-virus can be either symptomatic or asymptomatic. Sequelae, such as liver cirrhosis and liver cancer, may occur many years after infection and have a great impact both on the patient's health-related quality of life and on resource use within the health care sector. We assessed cost-effectiveness of vaccinating children against hepatitis B in Sweden, a country with an estimated low prevalence in the general population. We developed a dynamic transmission model to simulate hepatitis B-infection in the Swedish population in a scenario where new-borns were vaccinated with a pentavalent vaccine (pertussis, diphtheria, tetanus, HiB and polio), and in a scenario where they instead were given a hexavalent vaccine, i.e. a vaccine also including hepatitis B. We then compared costs and health effects in both situations. The costs included were treatment for infection and sequelae, production losses, and cost of vaccine. Health effects were measured as quality-adjusted life years (QALY). The time horizon was set at 50 years; both costs and QALY were discounted with 3% annually.

The strategy cannot be considered cost-effective, since the result shows that the cost per gained QALY of vaccinating children against hepatitis B would be about €320 000. The Results were sensitive to assumptions on risk of infection, discount rate, vaccine effect, and the additional cost of the hexavalent vaccine.

Vaccinating children in Sweden against hepatitis B would not be cost-effective due to the high initial costs of vaccine. Savings in the health care sector, mainly in the form of avoided sequelae, will not occur until many years after vaccination. Since hepatitis B is not highly prevalent in the Swedish general population, the effect of the vaccine on the total burden of disease would be rather small. Nevertheless, vaccinating in the childhood immunization program will enhance the possibility to reach individuals in risk groups before they are subject to infection.

Key messages:

- It is not cost-effective to include hepatitis B-vaccine in the childhood immunization program in Sweden, at current prices
- Vaccinating children may be a strategy to reach risk groups before being subject to infection

The effect of the Ebola Virus Disease on Maternal and Infant Healthcare utilization in Guinea

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Background

The recent Ebola Virus Disease (EVD) crisis in West Africa has posed a major threat to the lives of mothers and infants. In Guinea, quantifying changes in uptake of maternal and infant health care during the EVD outbreak and in the year following will inform and support post-EVD programming.

Methods

Using segmented ordinary least-squares regression models, we assessed the effect of the EVD outbreak on the utilization of facility-based maternal (antenatal care & skilled birth attendance) and infant health services (vaccination) in a purposive sample of 10 health districts in Guinea, prior to (January–December 2013), during (January–December 2014) and after the EVD outbreak (January–December 2015).

Results

Prior to the EVD outbreak, the proportion of pregnant women achieving the target of three or more antenatal care (ANC) visits and delivering with a skilled birth attendant (SBA) increased at an average of 1.48 and 0.75 percentage points, respectively, per month. During the EVD outbreak, these trends inverted, showing significant declines in maternal care coverage of 5 and 2.4 percentage points per month respectively for ANC and SBA. Post-EVD outbreak, trends in ANC access continued to decrease slightly, whereas SBA delivery rate reverted to a positive trend. The five infant vaccines reviewed demonstrated a significant positive trend prior to the EVD outbreak (0.96 percentage point increase per month for pentavalent vaccine to 4.11 for BCG). These positive trends inverted with the EVD outbreak, declining by 3.68 to 9.10 percentage points per month. No vaccinations resumed a positive trend post-EVD.

Conclusions

In Guinea, no maternal or infant health indicator had ‘recovered’ to the pre-EVD highest proportions by the end of December 2015. Therefore, additional attention must be paid to improving population access to maternal and infant services, building both facility and community-based capacities.

Key messages:

- Our work emphasizes the need to improving population access to maternal and infant services in countries most affected by the EVD outbreak

- Post-Ebola programmes should strengthen both facility and community-based capacities in order to contribute to building resilient health systems

“Doing the right things right”: Benefits of structured quality improvement (QI) in HIV prevention

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Background

HIV is a major public health concern in Europe. Contextual, programme and implementation-related factors influence the effectiveness of prevention and health promotion. Quality improvement (QI) is a systems-focused and data-driven method to improve health processes and outcomes. The European Joint Action “Quality Action” aimed to build the capacity of HIV prevention organisations in 26 countries to use innovative, HIV-specific QI tools. Five tools were developed for different target groups and implementation levels. We present the main results of the projects’ process and outcome evaluation.

Methods

The evaluation used a mixed method strategy. A logic framework defined QI tool application process, output and outcome indicators (i.e. self-reported changes 6 months after QI tool use), which were assessed using data from anonymous online surveys, 9 focus group discussions and 33 in-depth interviews.

Results

The project trained 105 implementers, 84 QI tool applications were completed. 79 respondents filled in the process, 73 the outcome questionnaire. Respondents reported successful QI applications: improved evidence-based selection of target groups (80%), increased reach of target groups (84%), more participation of priority groups in prevention (84%). Most important benefits of QI were improvements in planning processes (33%), collaboration with external partners (18%) and within project teams (16%). Qualitative findings showed increased self-reflection, participation and collaboration. Resource constraints and missing policy support were perceived barriers to structured QI strongly emphasising the need for enabling policy environments.

Conclusions

QI benefits were reported mainly on the individual and organisational level. Structured QI is new to many in the HIV field. The Quality Action QI approach has shown to be feasible, and to increase prevention quality. However, structural and policy support is needed to sustainably impact on prevention outcomes.

Key messages:

- Using structured QI in HIV prevention is a new approach in the HIV prevention field
- Our evaluation demonstrates the positive effects of QI on quality of HIV prevention

2.L. Oral presentations: Health policy in low and middle income countries

Assessing the determinants for achieving maximum childhood polio immunization coverage in Pakistan

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Background

International spread of polio from Pakistan has been declared a “Public Health Emergency of International Concern” by WHO. Routine immunization coverage in high risk areas remains critically low, creating a serious hindrance in halting polio transmission. Various household level social factors have been linked with low demand and care seeking for vaccination services. We aimed to explore the determinants associated with childhood polio immunization using nationally representative data of Pakistani mothers.

Methods

Pakistan Demographic and Health survey 2012-13 data (n=6982) were used. Polio immunization coverage among children aged up to five years was categorized as full immunization (all four OPV doses), incomplete immunization, and no immunization (zero OPV dose received). Mothers’ empowerment status was assessed using standard “Measure DHS” questions regarding their involvement in decision making related to health, household possessions, and visits among family and friends. Results of Multinomial regression analyses were reported as adjusted OR, with 95% confidence interval (CI). We adjusted for age, mother’s education, wealth index, and urban/rural residence.

Results

Only 56.4% (n=3936) of the children received complete polio immunization. Women with no education had significantly higher odds of not taking their child for any polio immunization (OR=6.86, 95% CI=3.97, 11.84; p-value <0.01); and incomplete immunization (OR=1.57, 95% CI=1.28, 1.93; p-value < 0.01). Further un-empowered women also had significantly higher odds of not taking their child for any polio immunization (OR=2.12, 95% CI=1.80, 2.50; p-value <0.01); and incomplete immunization (OR=1.28, 95% CI=1.15, 1.42; p-value < 0.01).

Conclusions

Illiterate and un-empowered women remain a high risk group not complying with routine polio immunization efforts, resulting in poor overall immunization coverage in the country.

Key messages:

- Children of such women may be targeted in Supplementary immunization activities (SIAs) to achieve better immunization coverage, and achieve polio free country in the longer run
- Further interventions may be planned for improving their healthcare seeking behaviors

Public participation in the definition of health policies in Bahia state, Brazil

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Background

Citizen participation has assumed great relevance in the health systems of many countries. In Brazil, half of the health council

members are social representatives and the other half are government actors and health care professionals. We investigated the power relations established between representatives and what the interference power of the Bahia State Health Council, Brazil on the definition and conduction of health policy.

Methods

Qualitative study through the analysis of normative documents, semi-structured interviews and observation of meetings. We interviewed 20 members, between government and social actors. The Interviews were audio recorded and transcribed. The data were analysed using thematic content analysis.

Results

Asymmetric power relationships were observed. Government actors, despite being in a smaller number, exert a strong power on the discussion agenda and control of deliberations. Although the council keeps a good discursive level in the meetings, it has a low capacity to make proposals for the health policy. The actors see the council as a space for approving decisions made in the main levels of management. Another difficulty identified was the low capacity for follow-up and control of deliberated policies. The interviewees highlight the clash of competencies between the role of the health council and the role of the intergovernmental decision commission in addition to the usurpation of the deliberative power of the council by the commission of managers.

Conclusions

Brazilian Health Councils are important spaces for including social actors in decision-making settings. In Bahia State, social representatives have a low capacity to interfere in the health policies agenda. The difficulties identified do not suggest a failure or little importance of the councils. They are medium-term and long-term instruments to foster participative practice and citizenship education.

Key messages:

- Brazilian Health Councils are important spaces for including social actors in decision-making settings
- Social representatives have a low capacity to interfere in the health policies agenda

Evaluation of culture intervention program for reducing anemia rates among low SES Bedouin toddlers

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Background

Iron deficiency anemia is the most common world nutritional deficiency contributing to childhood morbidity and mortality.

Objective

To assess intervention impact on: toddlers anemia prevention, iron supplementation compliance and Anemia prevention maternal knowledge.

Methods

Communities trial study of 251 toddlers (12-18 months) in Bedouin communities.

Intervention group: 150 toddlers who received iron supplementation for 6 months. Their mothers participated in an anemia prevention cultural nutritional workshop.

Control group: 101 toddlers who did not receive iron supplementation and their mothers did not participate in the workshop.

Results

Hemoglobin (Hb) average level in both groups was 11.8 ± 0.5 mg/dl (mean \pm sd). At the age of 18 months, an Hb decrease was observed: the Hb intervention group was 11.5 ± 0.8 mg/dl compared to 11.0 ± 1.0 mg/dl in the control group ($p < 0.001$). With the increasing amounts of iron supplementation less the decrease in child Hb levels ($p < 0.001$). The number of anemic children was higher in the control group compared to the Intervention group ($p < 0.001$). 87.3% of intervention mothers thought it important to give iron, compared to 73.3% of control mothers ($p = 0.004$). Intervention group children ate more iron-rich foods compared to the control children ($p < 0.05$) examined by a nutritional questionnaire.

Conclusions

Health officials should address study findings and promote iron supplementation to all toddlers at age 1 year on, and even consider supplementation to toddlers with normal Hb levels. Training mothers using a culturally tailored nutritional workshop on anemia prevention increases their awareness of the need of iron supplementation and is essential for anemia prevention in Bedouin communities.

Key messages:

- Health officials should address study findings and promote iron supplementation to all toddlers at age 1 year on, and even consider supplementation to toddlers with normal Hb levels
- Training mothers using a culturally tailored nutritional workshop increases their awareness of the need of iron supplementation and is essential for anemia prevention in Bedouin communities

Malaria treatment seeking behaviour among pregnant women in Ondo West Local Government Oluwatosin Olafusi

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Pregnant women are vulnerable to malaria as pregnancy reduces a woman's immunity to malaria, making her more susceptible to infection and increasing risk of severe anaemia and death especially in first pregnancy. This study was aimed to identify factors associated with different malaria treatment behaviours among pregnant women and explore these factors to gain information to guide the planning of preventive strategies and treatment of malaria among pregnant women in Ondo West LGA.

A descriptive cross-sectional study was conducted among 240 pregnant women who presented with signs and symptoms of malaria. A set of interviewer-administered, semi-structured questionnaire was used to collect data on socio-demographic characteristics, knowledge, practices, and major influencing factors of treatment seeking behaviours for the study.

The mean age of the respondents was 22 ± 1.1 . One hundred and eighty three (76.3%) had high knowledge of malaria transmission, symptoms, and prevention, despite this; only 100 (41.7%) sought early malaria treatment. Those with no formal education were 99.7% less likely than those with post tertiary education to seek early malaria treatment (OR = 0.003, C.I = 0.00-0.07). Pregnant women who made health centres/clinic as their first point of seeking treatment were 44.2 times more likely than those who use local herb to seek for early malaria treatment (OR = 44.2, C.I = 11.6-55.4).

In conclusion, whereas the knowledge of pregnant women about malaria cause, transmission, signs and symptom was good, most of the pregnant women still sought late for malaria treatment. Therefore it is recommended to improve the dissemination of appropriate information on malaria in Ondo West LGA through active education campaigns to encourage early treatment seeking behavior and utilization of health centres especially among younger women and uneducated pregnant women.

Key messages:

- Pregnant women seek for Malaria treatment late
- Consistent awareness and knowledge about Malaria symptoms and treatment among Pregnant women

2.M. Skills building seminar: Sustaining resilient and healthy communities: how can you contribute?

Organised by: Swedish Association of Social Medicine
Contact: birger.forsberg@sil.se

Chairperson(s): Birger Forsberg - Sweden

2.N. Oral presentations: Primary care

The stronger primary care, the lower financially driven postponement of care?

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Background

Previous literature has shown that strong primary care systems are associated with better outcomes in European countries. Europe, Australia, and New Zealand are defined by a wide variation in primary care (PC) organisation, and are therefore, the ideal setting to study the association between various models of PC and equity. More specifically, the aim of this

study is to contribute to the evidence by investigating whether financially driven postponement of a GP visit is associated with strength of the PC systems.

Methods

Data from the QUALICOPC and PHAMEU study were merged. The QUALICOPC database contains data from a cross-sectional multi-country survey (including 31 European countries as well as Australia, and New Zealand) among approximately 7,000 GPs and 70,000 patients. PHAMEU provides data on PC strength (same countries as QUALICOPC). These data were analysed using one-way ANOVA tests and multilevel logistic regression modelling.

Results

The variation between countries in the prevalence of financially driven postponement was large. More than one-third of these cross-country differences can be explained by the healthcare system and GP practice characteristics. Furthermore, PC systems who offer accessible and comprehensive services were associated with lower rates of financially driven delay of care.

Conclusions

This study has confirmed that PC strength is associated with financially driven postponement. More concretely, PC systems with a major focus on accessibility and comprehensiveness do better concerning financially driven postponement.

Key messages:

- More than one-third of the cross-country differences in financially driven postponement can be explained by healthcare system and GP practice characteristics
- PC systems that focus on accessibility and comprehensiveness report lower rates of financially driven postponement

A contingency theory model of primary physicians compensation mix

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Background

There is strong evidence that primary care teams providing services with high accessibility, continuity, and comprehensiveness have a key role to play in improving the health and well-being of populations. The compensation model used to pay primary care physicians is one of the actionable factors affecting clinical practice and primary care delivery performance. We used data from Quebec (Canada) to build a conceptual model aimed at optimizing the correspondence between the compensation model mix and other parameters that influence clinical practice.

Methods

This study is based on the integrated analysis of three data sources. First, we conducted a longitudinal analysis (2006-2015) of available primary care physicians' compensation models and billing rules in Quebec (Canada). Second, we analyzed quantitative data on physicians' compensation expenditures, as well as characteristics of physicians, services, and patients. Finally, we conducted in-depth qualitative interviews with

physicians, experts, and physician billing firms (n=16). The study was conducted in Quebec, where 97% of primary care physicians work within a single-payer public system.

Results

Our results tally with those of other studies in the field suggesting the method used to pay primary care physicians is neither the only nor the most influential factor structuring clinical practice. The conceptual model that we designed belongs to 'contingency theory' approaches, according to which the desirability of a given compensation model is contingent upon the correspondence between influences of the larger practice environment and expected outcomes.

Conclusions

Optimizing primary care physicians' compensation models considering both other determinants of clinical practice and expected outcomes should be part of policy agendas aimed at strengthening primary care delivery.

Key messages:

- This conceptual model show that the desirability of a given compensation model is contingent upon the correspondence between influences of the larger practice environment and expected outcomes
- Optimizing primary care physicians' compensation models considering both other determinants of clinical practice and expected outcomes could strengthen primary care delivery

Communication at the primary-secondary care interface: a cross-sectional survey in 34 countries

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Background

Exchange of relevant patients' information between general practitioners (GPs) and medical specialists is an important aspect of continuity of care. The objective of this study is to assess whether this communication is associated with the organization of primary care in a country, and with characteristics of GPs and primary care practices. This might provide clues for improving continuity of care.

Methods

A cross-sectional survey was conducted among GPs in 34 countries. Odds ratios (OR) and 95% confidence intervals (CI) were calculated for the factors that were expected to be related to higher rates of GPs' perception of communication at the primary-secondary care interface using ordered logistic multi-level models.

Results

A total of 7,183 GPs were surveyed. We observed substantial variations between countries in communication between GPs and medical specialists. Factors associated with higher rates of communication from GPs to medical specialists are gate-keeping system in place (OR 2.72, CI 0.98 - 7.56), presence of a secretary or a nurse in GPs' practice (OR 1.34, CI 1.06 - 1.70), use of health information technologies (OR 1.80, CI 1.54 - 2.10) and job satisfaction of GPs (OR 1.21, CI 1.07 - 1.38). GPs stated to receive more feedback communications from medical specialists in countries where they act as gatekeepers (OR 3.60, CI 1.42 - 9.14) and when they interact more with specialists (OR 1.18, CI 1.06 - 1.30). The models explained a small part of the variance between countries.

Conclusions

There are large differences in communication between GPs and medical specialists, and these differences can partially be

explained by country, GPs' and primary care practices characteristics. Policies aimed at improving the factors associated with higher rates of communication between GPs and medical specialists could contribute to more continuity of care.

Key messages:

- Communication between GPs and medical specialist is an important aspect of continuity of care. Substantial variations between countries in this communication occur
- Communication at the primary-secondary care interface is associated with factors related to the organization of primary care in a country, and with characteristics of GPs and primary care practices

Self-Assessed Health migrants visiting Doctors of the World in 5 European countries

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Self-Assessed Health (SAH) is a key predictor of mortality and morbidity (McCallum et al., 1994). To date, few studies have investigated SAH among migrant populations.

We analyzed standardized medical and social data collected data for migrants from outside the UE visiting MdM free clinics in 2014, in the UK, Germany (DE), Greece (EL), Spain (ES) and Belgium (BE). Patients were consecutively interviewed in the UK, DE, ES, and BE, and randomized for data collection (1/10 or 1/2020) in EL. The data has 1945 observations for 2014.

Data includes socio-economic characteristics (country of origin, gender, age, immigration status, healthcare coverage,

activity, accomodation) experiences of violence, diagnosis of medical conditions coded using the International Classification of Primary Care 2nd edition.

General SAH is analysed in two categories.

Results show that women or elderly migrants have lower SAH status. Migrants from the Middle East are in worse SAH than migrants from other origins, asylum seekers are in worse health than those who are not. Migrants living in the UK are in worse SAH than those in DE, ES and BE. Finally, being active or having an accomodation considered as stable is positively associated to SAH.

To further investigate the influence of local labor conditions on third country migrants' SAH, we will incorporate parameters from Eurostat to measure local labour market conditions. We will also rank countries based on their theoretical health coverage for both the general population and migrants. We will also test whether SAH is linked to income inequality in each country.

As SAH is a recognized indicator of mortality and morbidity, identification and description of the social determinants of SAH among third country migrant populations could provide useful knowledge to health programs and policy aiming to prevent worsening of health in these populations.

Activity and accomodation are key in improving migrants health.

Key messages:

- Identification and description of the social determinants of SAH among migrants could provide useful knowledge to health programs and policy aiming to prevent worsening of health in these populations
- Activity and accomodation are key in improving migrants health

2.0. Pitch presentations: Evidence, data and methodology

Health-related quality of life in mothers with children with cancer: a systematic review

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Background

Studies among parents of children with cancer have focused on anxiety, depression, or post-traumatic stress, and less so on overall measures, such as Health-Related Quality of Life (HRQoL).

Methods

Literature review in Scopus and Cinahl with terms: mothers OR carers etc AND child* OR adolesc* etc AND cancer or oncolog* etc AND quality of life OR HRQoL etc, in 65 combinations. Selection criteria: mothers (or predominately in mixed samples), children aged<18 in active treatment (no palliative), quantitative, some measure of quality of life, comparative (e.g. population norms, or control group) or correlational, or baseline in interventions, English language, prior 2015.

Results

Of 237 studies reviewed in full-text among 2184, 10 fulfilled all criteria: 6 mothers only, 4 mixed with separate results for mothers, and additional 10 with sample of predominately mothers. With the exception of a series of studies from Canada

(N>400), most studies had small sample sizes (N<150). European studies originated from limited number of settings. There were single-sample correlational studies (e.g. coping, anxiety, depression, sleep quality), internal comparisons (e.g. single- vs two-parent families, time since diagnosis, or same group longitudinal, etc) or external (i.e. mothers of healthy children, or other diagnosis, or population norms). SF-36 was commonly used. In studies with external comparison, quality of life was significantly reduced amongst mothers (or parents) of children with cancer. Despite cross-national heterogeneity, in studies that the SF-36 commonly effect sizes were in the range of 0.5-1 SD for mental health and ~0.5 SD for physical health dimension.

Conclusions

Physical health as well as mental health aspects of the quality of life appear affected in this vulnerable group, highlighting the need to monitor and incorporate QoL as an outcome measure in assessing the effectiveness of psychosocial intervention programs.

Key messages:

- Quality of life is compromised in mothers of children with cancer
- Expressing QoL in comparative terms is important in highlighting the needs and assessing the effectiveness of intervention measures

Obstructive sleep apnea and work accidents: analysis of the literature.

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Background

Obstructive sleep apnea (OSA) is associated with metabolic, cardiovascular, respiratory and mental diseases, and is the single most important preventable medical cause of excessive daytime sleepiness (EDS) and driving accidents.

Methods

We performed a systematic review and meta-analysis of the studies concerning the association between OSA and accidents at work. The PubMed, PsycInfo, Scopus, Web of Science, and Cochrane Library were searched. Out of an initial list of 1,099 papers, we selected only studies where a diagnosis of suspect OSA had been made with standardized questionnaires, or confirmed by polygraphy or polysomnography. 10 studies (12,553 participants) were eligible for our review, and 7 of them were included in the meta-analysis. Moderator analysis and funnel plot analysis were used to explore the sources of between-study heterogeneity.

Results

Workers with suspect OSA had a near two-fold increased odds of being involved in occupational accidents compared to non-OSA workers: OR = 2.18; 95% CI: 1.53-3.10. Occupational driving was associated with a higher effect size.

Conclusions

Based on the results, OSA screening may decrease or prevent some accidents in safety-sensitive occupations. The early identification and successful treatment of OSA would probably reduce the number of occupational accidents and improve work performance, with benefits for work processes and business in general. Taking into account the prevalence of OSA and the frequency of accidents at work in Europe, an effective policy of screening for OSA and sleep hygiene promotion can help to avoid up to 1 million of accidents, 1000 deaths and 20,000 cases of disability per year.

Key messages:

- OSA is an underdiagnosed non-occupational disease that has a strong impact on accident rates
- Screening for OSA in the workplace can significantly improve the health and safety of workers

An ecological study on health literacy, its antecedents and consequences

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Background

Health literacy (HL) is a multifaceted concept that deals with the capacities of people to meet the complex demands of health in a modern society. Sørensen's conceptual framework identified the proximal and distal factors which impact on HL (antecedents) and the related outcomes (consequences). The aim of this study was to analyse the ecological relationship between HL, its antecedents and consequences, in the eight Countries included in the first European Health Literacy Survey.

Methods

The study objective was addressed in an ecological design at the Country. Data on HL, measured using the European Health Literacy Survey Questionnaire (HLS-EU-Q47) and the Newest Vital Sign (NVS) (mean values), were obtained by consulting the published results of the HLS-EU. The antecedent and outcome indicator data were extracted from international databases (Eurostat, European Health for All, OECD). Correlation analysis and linear regression analysis were performed.

Results

As regards to the antecedents, the HL is significantly ($p < 0.05$) related with the Gini coefficient (NVS: $r = -0.79$, $\beta = -0.17$), the percentage of households with internet access (HLS-EU-Q47: $r = 0.76$, $\beta = 0.08$; NVS: $r = 0.71$, $\beta = 0.02$) and the Euro Patient Empowerment Index score (NVS: $r = -0.86$, $\beta = -0.01$). For what concerns to the consequences, the HL is significantly ($p < 0.05$) related with the total health expenditure as percentage of GDP (NVS: $r = -0.81$, $\beta = 2.28$), the private expenditure on health as percentage of the total health expenditure (HLS-EU-Q47: $r = -0.75$, $\beta = -3.35$), and the percentage of adults using the internet for seeking health information (NVS: $r = 0.71$, $\beta = 14.32$).

Conclusions

This study provides some preliminary considerations regarding the relationships between HL, and its antecedents and consequences related to macro-level aspects that could guide policy makers in their responds to the needs of citizens.

Key messages:

- Our study highlight the factors that, at the country level, influence the HL and those that are influenced by the HL
- The results provide some preliminary considerations on HL, its antecedents and consequences which could offer a key to empower the relation between the society and the healthcare protection

A cross-sectional study of food insecurity among homeless mentally ill adults in Vancouver, Canada

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Background

A limited number of studies have shown that homeless populations are affected by higher levels of food insecurity, but little is known about food insecurity among homeless adults living with mental illness. Understanding the extent to which food insecurity affects homeless mentally ill adults is crucial to informing relevant policies, intervention and reducing related health consequences. This study is the first to address the question of what is the prevalence and potential factors associated with food insecurity among homeless adults with mental disorders.

Methods

A cross-sectional study design was used to analyse baseline data from participants of the Vancouver At Home Study. Participants were homeless or unstably housed adults with mental illness ($n = 421$) and were recruited by referral from community agencies in Vancouver, BC, Canada. Univariate and multivariable logistic regression models were conducted to identify food insecurity correlates. Stepwise backwards elimination was employed to determine the final adjusted model.

Results

Of 421 participants, 64% were food insecure. Significant variables in the final adjusted model included: self-reported mental health (aOR = 0.97; 95% CI, 0.95-0.98); >\$500 spent on substances in the previous month (aOR = 1.85; 95% CI, 1.01-3.39); HIV/AIDS (aOR = 3.08; 95% CI, 1.11-8.54); and

having visited a drop-in centre/meal program (aOR = 1.70, 95% CI, 1.08-2.69).

Conclusions

The exceptionally high prevalence of food insecurity in this sample of homeless adults living with mental illness indicates the need for consideration and intervention. Screening for the aforementioned correlates may help identify those who are food insecure. The present study supports the notion that current food provision systems to food insecure individuals are insufficient, with a better systematic response needed. Additional implications of covariates are discussed.

Key messages:

- Food insecurity interventions are needed immediately to reduce an already high prevalence of food insecurity among homeless mentally ill adults
- Several correlates were identified and may be used for screening/future research

The case for a new epistemology on global health

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Issue

There is an urgent need to develop a new epistemology on global health. Recent contributors to *Lancet* claim global health is poorly defined but frequently referenced. The articles provide insights into interpretations of terms and their conceptual relevance, suggesting key competencies needed by public health professionals for improved scholarship and practice. While semantic controversies may engage scholars and practitioners in the pursuit of topical research, a new global health paradigm has emerged.

Description

Mass migration into European Union countries offers one example of how global health is evolving. Generated in part by religious conflicts, political disorder and civil war, the plight of millions of refugees challenges relief programs, carrying with it threats to formal and informal public health regimes. The insufficiency of relief structures along migration routes as well as an inability to mobilize adequate public health support poses health hazards of pandemic proportion.

Results

We hypothesize (H:1) that commodification of health services in middle to higher income countries renders the international public health community incapable of effectively supporting global health initiatives. Thirty years of neo-liberal health reforms have reduced the role of the state in securing financing as well as the ability to regulate the quality and range of services rendered. Marketization of health services has removed the notion of health as a public good and thereby willingness to enter into tax financed global health commitments. Closely linked to the first hypothesis follows (H:2) that an incapacity to effectively support global health initiatives results in corporatization of relief programs; a concern expressed by the WHO noting lack of transparency and willingness to work with public health governance systems in recipient countries.

Key messages:

- There is an urgent need to develop a new epistemology on global health
- Discourse on health goods commodification and corporatization is critical to developing a new and effective approach to the promotion of global health

Cancer incidence in Poland – an approach toward ensuring data consistency

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Background

In Poland National Cancer Registry (NCR) is a principal data source for cancer incidence. Although healthcare providers are required by law to provide information to NCR for each case, this obligation is often not fulfilled. To analyse the incidence rate there is a need to complement the incident data from National Health Fund (NHF) database which contains the reported information on the services provided (billing data). Therefore it is necessary to apply the decision rules which structure the way information is used from both these sources.

Methods

The analysis conducted related to cancer diseases defined as solid tumours. Data from NCR were linked with NHF data based via personal identification number (PESEL). This permitted a reliable analysis of patient's pathways and to estimate incidence of particular cancer groups. Tracking treatment pathways was also a solution to information bias caused by up-coding phenomenon.

Results

Empirical data obtained based on the NCR base show that the incidence of malignant neoplasms in Poland was relatively constant at the level of about 120 thousand new cases a year. Supplementation of NCR data with NHF reporting, and taking into account the appropriateness of occurrence of the given treatment path in the given type of cancer has allowed for the determination of the total incidence of solid tumours in Poland which accounts for 164.7 thousand in 2012. The cancer incidence provided by GLOBOCAN is fairly similar to the values obtained after data supplementation.

Conclusions

Even if data from disease specific registries are available, a critical analysis and data linkage is vital to prepare an appropriate set of data to be used. Modelling the disease pathways is an essential element of the health care system analysis. It allows generation of an accurate description of the present epidemiological situation and projection of demand for healthcare services, what is crucial for health policy that should be based on reliable data.

Key messages:

- Data linkage and treatment pathways analysis is a tool to supplement incidence data from disease specific registries
- Health care system analysis need to be based on reliable data to foster evidence based policy

Investigation of the validity of the Townsend index as a measure of material deprivation in Cyprus

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Background

Area-based composite measures of deprivation are frequently used to describe social inequalities in health. Even though deprivation may be context-specific, the Townsend index is often used to validate newly developed indices elsewhere. In Cyprus, there is no established socio-economic deprivation index.

Methods

Based on 2001 census data, three components of the Townsend were available at community level (n=371): unemployed economically active population (standardized based on age), not owner occupied households (standardized by year of construction) and % households with >1 person/room. The fourth component (i.e. no access to a car, which is not recorded in the Cypriot census) was replaced with either age-standardized low educational level (1st model) or households with no access to a personal computer (2nd model). Bayesian hierarchical models with spatially unstructured and structured random effects were used to describe the geographical pattern in each indicator while a spatial factor model was developed to explore the relationship between the components.

Results

Pairwise correlations were generally low (e.g. $r = 0.27$ between unemployment and overcrowding being the highest) while internal consistency between the variables was insufficient. Households with no access to a personal computer, low

educational level and not owner occupied households displayed a striking spatial structure, suggestive of an urban-rural divide. The indicators exhibit a different geography in Cyprus, since the shared component was driven by only one indicator in each model (educational level for the 1st model and no access to a personal computer for the 2nd model) and the total variability explained for the other variables was negligible (<1% for unemployment and over-crowding).

Conclusions

Even after improving the measure by using standardization of the components of the Townsend index, it does not appear to be an adequate measure of material deprivation in Cyprus.

Key message:

- In the context of investigating health inequalities, index of deprivation future efforts should concentrate on developing a national urban- and rural-specific index of material and social deprivation

2.P. Workshop: Health literacy in childhood and adolescence: A public health and health promotion perspective

Organised by: EUPHA section on Health promotion and Bielefeld University

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Chairperson(s): Luis Saboga Nunes - Spain, Orkan Okan - Germany

The framework of this workshop is based upon the premise that health literacy is a significant public health, health promotion, and health education concern. Health literacy can be defined as the knowledge and skills to access, understand, appraise and apply health information, yet, the concept still evolves. Most research focuses on adults and indicates that low levels of health literacy are associated with poorer health outcomes. Children and adolescents have been given scant consideration in research, practice, and policy, and to this day, only little is known about their health literacy. This includes conceptual, methodological, and practical knowledge. The main objective of this workshop is to help closing this gap by addressing recent challenges in health literacy research experiences when facing children and adolescents. We aim at interactively discussing prospective developments with audiences, and to introduce research findings informed by two current European health literacy projects, from Portugal (CrAdLiSa) and Germany (HLCA Research Consortium). It is intended to shed light on the population using a range of methodological and theoretical approaches, and to address the promotion of digital health by adding ehealth literacy to the agenda. Thereby, we will link the current debate with contemporary public health approaches to advance the field of health literacy.

While the workshop is primarily designed for researchers, practitioners and policy-makers interested in discussing and improving health literacy in children and adolescents, it also aims at audiences from the public and private sectors. This will not only allow discussing results with regard to their benefit for improving health literacy research, practice, and policy-making, but support further synergies, breaking down barriers between research infrastructures, and allow cross-national comparison and knowledge exchange on health literacy research.

The workshop encompasses 5 coherent presentations which build up on each other as follows: The first two

communications will approach the theory level by introducing a conceptual health literacy model for children, and link it to the salutogenic framework. The three subsequent methodology driven presentations will present findings from empirical health literacy projects on measurement tools for (a) children 9-10 years, (b) adolescents 14-17 years, and introduce (c) an overview on ehealth literacy assessment tools for children in general.

The workshop will use a regular 90 minutes design including 5 presentations up to 10 minutes input, followed by discussion afterwards. Presentations will be framed by an opening talk and a closing remark. By dialogue and two-way communication among audiences, researchers, and organisers not only lively interaction will be ensured but vivid discussions on health literacy challenges concerning childhood and adolescence will be facilitated.

Key messages:

- Health literacy in childhood and adolescence operates at the intersection between public health, health promotion and health education
- This workshop invites audiences to actively participate in and contribute to the current discussions about health literacy in childhood and adolescence from the perspective of public health

Figuring out the meaning of health literacy during childhood and adolescence

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Background

Given the limited consensus on a shared understanding of health literacy (HL) in children and adolescents, this contribution will take an exploring approach. It aims at synthesizing available concepts for children and adolescents and discusses how these are operationalized and, hence, could enable health promoting actions and interventions.

Methods

(a) Available HL conceptualizations for children and adolescents and their operationalization were systematically reviewed. (b) We synthesised knowledge and evidence from child/youth health surveys, literacy and educational research, and childhood studies to (c) reflect upon available understandings of HL and to develop a preliminary theoretical framework.

Results

The search identified 21 concepts aiming at children/adolescents, with little consensus regarding multidimensional HL components and poor differentiation to available HL concepts for adults. Drawing on evidence from socio-cultural literacy studies, we propose to focus on both the (1) individual skill level, including the capability to derive meaning from information and to actively undergo health promoting actions, and (2) the social practice level, namely the interaction with different agents in daily life, e.g. parents, peers, media.

Conclusions

While all concepts recognize the interrelatedness with cultural and contextual factors, this complexity is mostly neglected when operationalizing and measuring HL, allowing only for an incomplete picture of a child or adolescent's HL. As the target group's specific characteristics were mainly recognized in terms of health care needs and cognitive development issues, our framework considers the socio-cultural dimension, including power relations and underlying sets of (social) dispositions.

The sense of coherence and its impact in the building process of health literacy in adolescents

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Background

The CrAdLiSa project aims to explore the potential of salutogenesis and the sense of coherence (SOC) theory as a backbone to health literacy (HL) development in ChildRen and ADolescents (CrAd LiSa). Evidence sustains the influence of HL on health promotion and quality of life. But the building process of HL has received few investments on theoretical terms and in the adolescence age group - the objective of this research.

Methods

We conducted a quantitative survey in Portugal. Therein we have used Antonovsky's Orientation for Life Questionnaire (OLQ-PT, short version) and the European Health Literacy Scale (HLS-EU-PT, full version) (n = 832) with 9th-12th grade students in the school setting during 2015, with both urban and rural schools. Ten indicators were added to construct the SES index. CAWI and SASI were the methods used to gather data.

Results

The HLS-EU-PT instrument (Cronbach alpha = 0.97; 47 items) when applied to 12th grades reveal they have higher HL levels than the general population (26% and 60% of limited HL, respectively). There are statistically significant associations between HL and SOC measured by the OLQ (Cronbach alpha = 0.87; 13 items). It is noteworthy that when considering the eight predictable types and correspondences with the dimensions of SOC there is a pattern of increase of limited HL from SOC type 1 to type 8 (respectively from 14,6% to 40,9% have limited HL).

Conclusions

The use of validated OLQ-PT and HLS-EU-PT instruments is feasible with such an age group. Salutogenesis seems valuable for use as a framework of HL. However, there is a gap in evidence based intervention studies with respect to salutogenesis, SOC and HL in adolescent populations. The knowledge about the relationship between the effects of HL improvement on increasing SOC is scarce but worthy investigating. More research will be necessary to refine and further elaborate our findings both in terms of common theory development and concept validation.

Development of a health literacy measurement tool for primary school children in Germany

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Background

Lower levels of health literacy (HL) have been found to be associated with poorer health outcomes. Thus, in the last years HL has been increasingly acknowledged as an approach towards health promotion. While there is a large body of studies on adults' HL, only few studies investigate HL of children. To tackle this research gap, we aim to develop a tool to assess HL of 9- to 10-year-old children attending 4th grade in Germany primary schools.

Methods

We performed a systematic literature review on HL measurements in children and adolescents to identify tools applicable or adaptable for our target population. Then, we conducted interviews with children to deepen our understanding of how they perceive their health and factors contributing to it, and consulted HL and childhood experts. Cognitive interviews are currently being conducted before the final instrument will be validated with n = 1000 participants in a field test.

Results

Our review identified N = 15 generic HL assessment tools, of which n = 5 have been used with children aged 9 to 10. None of the instruments met our requirements of being built on a broad definition of health literacy and combining performance-based with self-report assessment. Hence, we developed an instrument assessing HL-related skills, attitudes and knowledge, while taking into account social and cultural backgrounds. For the assessment of skills, an adapted short form of the HLS-EU questionnaire has been developed. We further apply case vignettes/scenarios to assess children's behaviour and practice in everyday health-related situations.

Conclusions

To date, little is known about HL in children, despite its importance for different health outcomes. Thus, the development of a HL measurement tool, specifically tailored for children aged 9 to 10, constitutes a major contribution to informing effective and sustainable interventions promoting HL and health in children.

Measurement of health literacy among adolescents (MOHLAA): results of a qualitative study

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Background

There is a lack of instruments measuring general health literacy (HL) of adolescents in Europe. The project "Measurement of HL Among Adolescents" (MOHLAA) aims to develop an instrument for youth aged 14 - 17 in Germany.

We used the HL Survey Questionnaire (HLS-EU-Q47, German version) as a basis for scale development, due to its broad approach of HL, covering the 3 domains healthcare, disease prevention and health promotion. We tested the applicability of the instrument to adolescents. Based on developmental psychology, we explored how dependency and developmental change influence adolescents' experiences with these domains.

Methods

In a qualitative design, we conducted cognitive interviews (CI) using an interview guide and verbal probing. We complemented the CI with focus groups (FG), using an interview guide including vignettes. Sample: 2 FG's (n = 5, n = 7), 20 CI, both included females and males, aged 14-17 with different educational background. CI were analysed theory-driven, based on the Framework approach, FG per content analysis (Mayring).

Results

Data show that youth lack experience with the 3 domains. Findings suggest that as a result adolescents overestimate their HL skills. Data indicate that adolescents turn to family members, friends or mentors – "significant others" for advice before making a health decision. However, the use of health measures (e.g. vaccination) is controlled by parents rather than autonomously decided by youth. Moreover youth ability of abstraction is limited, e.g. understanding the impact of laws on health.

Conclusions

For HL scale development, items should reflect youth experiences with the 3 domains to prevent biased data. Moreover adolescents need of "significant others" to make health decisions ought to be considered. Items need to be simplified according to youth cognitive abilities.

Current approaches to measure ehealth literacy with special attention to children and adolescents

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Background

EHealth Literacy (eHL) as part of general Health Literacy (HL) is defined as the ability to seek, find, understand, and appraise health information from electronic resources and applying the knowledge to address or solve health problems (Norman & Skinner, 2006). Newer concepts expand this definition with capabilities of knowledge about one's own health, interacting and experiences with information and technology (Kayser, 2015). Children and adolescents are active users of media and media is an essential part of their daily life. Misuse can result in several health and developmental problems. Valid measurement of eHL in children and adolescence is desirable, i.e. to assess the effectiveness of interventions to enhance eHL in this target group.

Methods

We searched in PubMed on reviews about HL and eHL measurement instruments.

Results

We identified 31 systematic reviews on HL measurement. HL is understood as a life-long learning process, starting in early childhood (Bröder, 2016). However, the majority of instruments have been developed for adults, only. Ngyuen (2015) identified 109 instruments comprising perceived HL and performance based measures, only a few targeted at adolescents. eHL assessments are scarce and instruments measuring eHL in childhood are missing. These reviews did not mention instruments that assess (e)HL in parents.

Conclusions

Parents act as role models for children and influence, as part of the social environment, their eHL skills. Instruments for children measuring eHL, should focus on the one hand on assessments for parents addressing scales for using media and for not using media, like skills limiting screen time, content and dysfunctional use and on the other hand performance orientated eHL should be assessed, like using scenarios.

2.Q. Pitch presentations: Specific exposures in work and sick leave

Night work and disability pensions due to musculoskeletal diagnoses

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Background

Every fifth of the EU workforce reported night time working at least once per month in 2015. Long-term effects of night work, including work incapacity, are therefore important to be recognized. Disability pension (DP) is a permanent incapacity to work due to disease or injury, implying severe consequences both at individual and societal level. Among the largest diagnoses groups in DP are musculoskeletal disorders (MSD). We investigated the impact of night work for DP due to MSD after taking several confounding factors and familial influence (genetics and shared family background) into account.

Methods

Our study sample consisted of 27 165 Swedish twins born between 1925 and 1958. Baseline interview data included sociodemographic, health and lifestyle factors. Night work was assessed as years of working hours at night at least every now and then and categorized into not at all, 1–10 years and >10 years. Data on DP with MSD diagnosis (ICD-codes M00–M99) were obtained from the National Social Insurance Agency. Follow-up was from the time of the interview in 1998–2003 until 2013. The association between night work and DP due to MSD was analyzed by Cox regression models to calculate Hazard Ratios (HR) with 95% Confidence Intervals (CI).

Results

During the follow-up, 1338 (5%) participants were granted DP due to MSD. Both night work of 1–10 years and night work >10 years were associated with increased risk of DP due to MSD (HRs 1.33–1.39, 95% CI 1.17–1.64). The associations remained in the multivariate model accounting for health and lifestyle factors (HRs 1.23–1.33; 95% CI 1.06–1.59). In the discordant twin pair analysis, the associations between night work and DP due to MSD attenuated to non-significance.

Conclusions

Work at night indicated increased risk for DP due to MSD independent from health and lifestyle factors. Familial

confounding could not be ruled out. Regular health monitoring in occupational health care is recommended to reduce the risk of future DP.

Key message:

- Night work indicated increased risk of DP due to MSD independently from health and lifestyle factors. To reduce the risk of future DP regular monitoring in occupational health care is recommended

Sickness absence and disability pension after breast cancer: a five-year nationwide cohort study

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Background

Breast cancer is a major health problem affecting many women of working ages and knowledge is needed on sickness absence (SA) and disability pension (DP) before and after the diagnosis for a whole population, not a sample.

Purpose: To explore the rate of SA and DP among women diagnosed with breast cancer, before and after diagnosis, and possible associations between disease-related and socio-demographic factors with future SA and DP.

Methods

A prospective cohort study of SA and DP among all 3547 women in Sweden aged 20-65 with a first breast cancer diagnosis in 2005. Logistic regression models were used to estimate odds ratios (OR) with 95% confidence intervals (CI) for SA and DP during a five-year follow-up period.

Results

During the first 12 months post-diagnosis, 71% of the women had at least some SA reimbursed from the Social Insurance Agency. In the second year post-diagnosis, this proportion was 40% and in the third year it was 30%. At five years post-diagnosis the proportion of women with SA had decreased to pre-diagnosis level (19%). Proportion with DP was approximately the same throughout follow up. Women with more advanced cancer had higher likelihood of SA (OR SA year 3, stage III-IV: 4.29, 95% CI: 2.84, 6.50; OR SA year 5, stage III-IV: 4.76, 95% CI: 2.73, 8.31) and DP (OR DP: 3.69, 95% CI: 2.02, 6.74) compared to those with early stage breast cancer. Women with high level of pre-diagnosis SA (>90 days) were more likely to be on SA or DP as compared to women with no pre-diagnosis SA. Women with low educational level and those not born in Sweden had higher odds of DP and of SA.

Conclusions

Despite the often extensive medical treatments following a breast cancer diagnosis, not all women of working ages with breast cancer are on SA or are granted DP. The proportion with SA decreased much in the 2-3 years after diagnosis. Those with advanced cancer stage and long-term pre-diagnosis SA have substantially higher risk of long-term SA and DP.

Key messages:

- Not all women of working ages with breast cancer are on SA or are granted DP and the proportion with SA decreases to a large extent in 2-3 years after breast cancer diagnosis
- More advanced cancer stage at diagnosis and previous long-term sickness absence are strong predictors of long-term SA and DP among women diagnosed with breast cancer

What do employers need to support return-to-work of employees who survived cancer?

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Background

Knowledge on the employer perspective is a missing link in developing RTW interventions for employees with cancer. Scarce research has shown that employers experience RTW of cancer survivors difficult to manage and that they express an urgent need for support. Employers in the Netherlands are legally obliged to support return-to-work (RTW). The aim was to explore a) Dutch employers' experiences with RTW of cancer survivors and 2) their needs.

Methods

Dutch employer representatives (N=20) from diverse public, private and non-profit sectors (medium and large enterprises) were interviewed on their experience with supporting the RTW of employees who survived cancer, and on their needs regarding this. A Grounded Theory analysis was used.

Results

Employers explained that when their employees have cancer, they put more effort in supporting them and offered more trust compared to other medical conditions. Communication and decision-making was regarded demanding due to diverse dilemmas along the way but also satisfying when solutions were found. Three types of approaches to RTW were distinguished: 1) a procedural approach (using the law as convenient route planner), 2) a caring and/or coaching approach (focus on employee needs) or 3) an ethical approach (focus on being a good employer). Differences in experiences related to differences in organizational cultures, employer characteristics and employee characteristics. Employers expressed a need for information, communication skills and decision-making skills in relation to employees with cancer.

Conclusions

Even in the context of Dutch RTW legislation, employers experienced supporting employees with cancer as intense and specific and used three different approaches to RTW. This research warrants cancer-specific employer support taking into account employer and employee variety.

Key messages:

- Employers experienced supporting the RTW of employees with cancer as intense and specific
- Employers themselves are in need of cancer-specific support to better support their employees with cancer

Changes in prevalence of being victim of bullying at work among doctors in Norway from 1993 to 2014

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Background

Bullying among doctors is a public health issue. It has an impact on doctors' health, job satisfaction and treatment outcome in patient. The study describes changes in the prevalence of being victim of bullying at work among

Norwegian doctors in different job positions and hospital-based specialties from 1993 to 2014, and analyses the associations between being victim of bullying and self-rated health, sickness absence and satisfaction with different aspects of work among hospital doctors in 2014.

Methods

Nation-wide postal surveys based on representative samples of Norwegian doctors in 1993, 2004 and 2014. Mean outcome measure was self-reported experiences of being victim of bullying at work within the last year. Response rates were 72.8% in 1993 (N=2,628), 67% (N=1,004) in 2004 and 78.2% (N=1,261) in 2014.

Results

The prevalence among Norwegian doctors of being victim of bullying at work was 6.6% in 1993, 7.1% in 2004 and 6.9% in 2014. At all three time points, doctors in research position and hospital doctors reported higher prevalence of bullying than GPs, private practice specialists, doctors in administrative position, district and county medical officers. In hospital-based medical specialties, bullying increased significantly among surgeons (4.9%, 11.4%, 10.2%) and psychiatrists (5.2%, 5.1%, 10.6%), and decreased non-significantly among doctors in laboratory medicine (11.1%, 8.6%, 8.5%) and internal medicine (7.9%, 7.2%, 6.1%). Multivariately being a victim of bullying was significantly associated with lower levels of self-rated health and lower satisfaction with colleagues, opportunities to use skills and positive feed-back for good achievements, but not with gender, age or sickness absence.

Conclusions

The prevalence for Norwegian doctors of being a victim of bullying remained stable around 7% over a 20-year period. Preventive actions at the workplace should be considered.

Key messages:

- Self-reported prevalence of bullying among Norwegian doctors has remained stable around 7% for the last decades
- Special attention should be directed to doctors in research positions and in hospitals

Determinants of high blood pressure among overweight employees in a large public company in France

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Background

Workplace is an ideal setting to target individuals that may not attend primary care services. Indeed, routine employees' check-ups may facilitate screening programmes. The French National Railways Company (SNCF) conducted a workplace health promotion programme (2011-2015) for all its employees including an overweight screening. The aim of this work was to study the determinants of high blood pressure among overweight employees.

Methods

Body mass index (BMI) was calculated for the 155 000 employees during their occupational health check-up. Employees with a BMI ≥ 25 kg/m² were invited to a complementary screening. Overweight volunteers (n=7724) were referred to a multidisciplinary intervention. A questionnaire on dietary, physical activity, sleeping behaviours, and working conditions, was administered. Multivariate logistic regression was used to identify predictors of high blood pressure.

Results

Overall, 30.1% of overweight employees presented a high blood pressure. We focused our analysis on job position that translates a social gradient. Compared to employees with an intermediate job position, those with higher position were less likely to present high blood pressure (univariate OR=0.7 [0.6-0.8]). Employees with lower job position were less likely to present high blood pressure compared to intermediate position employees (univariate OR=0.8 [0.7-0.9]). In multivariate analysis, this association remained high and statistically significant for employees with higher job position (fully adjusted OR=0.6 [0.5-0.8]). However, this association decreased and became non-significant for employees with lower job position compared with employees with intermediate job position (age adjusted OR=1 [0.8-1.1]; fully adjusted OR=1.1 [0.9-1.3]).

Conclusions

High blood pressure was associated with job position with a U shaped phenomenon. Greater attention is needed to identify determinants of risk factors at work to target high risk populations and prevent chronic diseases.

Key message:

- Social determinants including job position may be predictors of high blood pressure
- Health screening in the workplace is a promising strategy for early detection of established risk factors with the aim to prevent chronic diseases

Occupational class differences in sickness absence: a register study of 2.3 million Finns, 1995-2013

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Background

Sickness absence should be given high priority since it predicts permanent work disability and incurs notable costs for the society. Low occupational class is consistently related to higher sickness absence. However, attempts to analyse changes in socioeconomic differences are scarce. We examined changes in occupational class differences in long medically certified sickness absence in the Finnish population.

Methods

A 70% random sample of the Finnish population aged 25-63 years in 1994-2012 was obtained from the register of the Social Insurance Institution of Finland (Kela), and linked to data on occupational classes obtained from the registers of Statistics Finland (n=2 263 046). Sickness absence (12 days or more) was measured by sickness allowance obtained from Kela's registers. We calculated the age-adjusted prevalence of sickness allowance by occupational class from 1995 to 2013. The Relative Index of Inequality (RII) was estimated to assess changes in the magnitude of the relative occupational class differences in sickness allowance.

Results

The prevalence of sickness absence was higher in lower occupational classes than in other classes during the study period. Changes in the prevalence were moderate from the mid-1990s to the early 2000s after which an increase took place until 2005/2006 in all occupational classes, especially in lower non-manuals. The prevalence decreased modestly towards the end of the study period. Occupational class differences declined slightly from 1995 to 2013 in both men and women, and were greater among men throughout the period.

Conclusions

Clear hierarchical occupational class differences in sickness absence were found, with class differences slightly declining over time. Ill health and poor working conditions especially in

the lower occupational classes should be targeted to be able to lengthen the work careers among the working age population.

Key messages:

- Occupational class differences in sickness absence have remained among the Finnish population during the last two decades
- The magnitude of the differences slightly declined towards the end of the 2010s

Sick leave before and after the age of 65 in 2000 and 2005: a Swedish register-based cohort study

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Background

With political pressure to extend working lives at older ages, knowledge is needed on possible implications of this for use of sickness benefits. Nevertheless, we have not found any studies on this.

Aim: The aim was to investigate whether sick-leave patterns in Sweden changed among those who continue to work after the age of 65 and if this differs when rate of people working after 65 increases.

Methods

Information about number of sick-leave days for all individuals in Sweden who turned 65 in 2000 (n = 76,999) or in 2005 (n = 88,038), was obtained for each of the years 1995-2010. The

average number of sick-leave days per year was computed for various sociodemographic and socioeconomic groups and compared both before and after turning 65 and between the two cohorts.

Results

Those still in paid work after 65 had few sick-leave days per year, and they had fewer sick-leave days after the age of 65 than they had before (11 days/year 5 years before age 65 and 2 days/year 5 years after age 65 in the 2000 cohort, 20 days/year 5 years before age 65 and 4 days/year 5 years after age 65 in the 2005 cohort). They also had fewer sick-leave days before the age of 65 than those who did not remain in paid work (average 25 days/year in the 2000 cohort and 40 days in the 2005 cohort among those who did not stay in work). Socioeconomic differences were smaller after the age of 65 than before, but were higher in the 2005 than in the 2000 cohort.

Conclusions

Although more people remained in paid work after the age of 65, they had few sick-leave days and socioeconomic differences in sick leave were small. However, both average number of sick-leave days per year and socioeconomic differences in sick leave were higher in the later cohort.

Key messages:

- The sick-leave rates among those who work after age 65 are lower after age 65 than their sick-leave rates in the years before
- Socioeconomic differences in sick-leave rates after age 65 increased somewhat between 2000 and 2005

PARALLEL SESSION 3

Thursday 10 November 2016 17:40-18:40

3.A. Pitch presentations: Health across the life course

Family Planning needs and induced abortion in China: two cross-sectional studies

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Background

In China, the official estimated annual number of induced abortion ranged from 7 million to 13 million in recent year. The Chinese family planning (FP) services with a major concern on the birth control among married couples have been a political priority in China for more than thirty years until to the two child policy implemented from January 2016. Abortion is commonly used to end unintended pregnancy. This study aimed to describe the characteristics of abortion seekers in two time periods of studies in China.

Methods

Two cross-sectional surveys were conducted in 2005 and 2013 respectively and similar methods were used for collecting data. A questionnaire filled by the abortion service providers for all women seeking abortion within 12 weeks of pregnancy during a period of two months, the information included self-reported demographic & economic characteristics, history of induced abortion and practices regarding contraception. Twenty-four hospitals from 3 cities in 2005 and 295 hospitals from 30 provinces in 2013 participated in the studies, respectively.

Results

Total of participants consisted 7291 in 2005 and 79,174 in 2013 were included in the analysis. The higher repeated induced abortion were reported in 2013 (65%) than in 2005 (35%). The main reason of current unintended pregnancy was non-use of any contraception (65.1%) in 2005 and failure of contraception (50.3%) in 2013. Condom was most used as contraceptive method among married and unmarried women in both periods of studies, but the proportions of consistent and correct utilisation of condom were low in two time periods.

Conclusions

The large numbers of induced abortions are primarily due to contraceptive failure or no use of contraception. PAFP services are often lacking in hospital settings where majority induced abortion were performed. Integrating post-abortion family planning into existing health system is urgent needed, which is an opportunity and a challenge in China.

Key messages:

- A large numbers of induced abortions and repeat abortion in China are primarily due to contraceptive failure or no use of contraception
- PAFP services are often lacking in hospital settings where majority induced abortion were performed

Early disability pension among school dropouts: the matter of municipality characteristics

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Background

School dropout and early work life exit is a great public health challenge in many western countries. Long-term dependence on welfare benefits has severe individual lifetime consequences in terms of health and quality of life and is clearly a high socioeconomic burden on the society. The present study aim to investigate how medically based disability pension (DP) varies between Norwegian municipalities and whether the individual risk of early DP among school dropouts is influenced by municipality characteristics.

Methods

The study includes a nationally representative sample of 30% of all Norwegians (N=395,514) aged 21-40 in 2010 from Statistic Norway's event database. Having both individual level data and data on the municipality level we employ a multilevel approach in our analysis. We also apply STATA's spmapproach to analyse the spatial patterns of school dropout and DP rates across the 430 Norwegian municipalities.

Results

The prevalence of early DP differs in the Norwegian municipalities (lowest 0% to highest 8.3%), with an average of 1.82% for the total country. The study finds strong support for the relevance of individual factors, but also find that a number of municipality characteristics impact the risk of early DP among school dropouts. Especially variables related to the local socioeconomic situation such as education, income, unemployment and DP prevalence seem to be important.

Conclusions

DP's among young adults (<40 years) occur almost exclusively among non-completers of secondary education. Measures to avoid early DP must therefore be targeted at this disadvantaged group in the population. However, a municipality with dropout-issues does not necessarily imply a relatively high prevalence of early DP. Future research should emphasize how the community can facilitate young dropouts to complete their education. Additionally, we need more knowledge about health promotion and work inclusion particularly among the school dropouts.

Key messages:

- 85% of young adults entitled a DP has not completed secondary education
- the risk of early DP is influenced by the local socioeconomic situation

Does intergenerational social mobility affect health, oral health and function among British adults?

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Background

Socioeconomic position (SEP) influences adult health. People who experienced material disadvantages in childhood or adulthood tend to have higher adult disease levels than their peers from more advantaged backgrounds. Even so, life is a dynamic process and contains a series of transitions that could lead people through different socioeconomic paths. Research on social mobility takes this into account by adopting a trajectory approach, providing a long-term view of the effect of SEP on health.

The aim is examine the effects of intergenerational social mobility on adult general health, oral health and functioning in a population aged 50 and over in England.

Methods

This study is based on the secondary analysis of data from the English Longitudinal Study of Ageing. Using cross-sectional data, nine social trajectories were created based on parental and adult occupational SEP. Regression models were used to estimate the associations between social trajectories and the following outcomes: adult self-rated health, self-rated oral health, oral health related quality of life, total tooth loss and grip strength; while controlling for socio-economic background and health related behaviours.

Results

Associations with adult SEP were generally stronger than with childhood SEP. For adult self-rated health and edentulousness, graded associations with social mobility trajectories were observed. While, for grip strength a graded association was observed only among women. Finally, compared to the stable high group, being in the stable low SEP groups in childhood and adulthood was associated with poorer health for all examined outcome measures.

Conclusions

Intergenerational social mobility was associated with self-rated health, total tooth loss, and grip strength measurements. Compared to only those who remained in a low SEP group over time reported worse self-rated oral health and oral health related quality of life.

Key messages:

- Overall, this study suggested that intergenerational social mobility affects self-rated health, edentulousness and grip strength
- Also suggests that intergenerational social mobility might counteracts, to varying degrees, the effect of childhood SEP on health

Labor trajectory and mortality in a nested case-control study from the Spanish WORKss cohort

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Methods

This was a nested case-control study of workers from the Spanish WORKing life Social Security (WORKss) cohort. Cases were all deaths that occurred during 2004-2013 and

controls were living persons, matched on sex and age at the time the case occurred. We had access to employment information from 1981 to 2013. We used logistic regression to measure associations between the 3 labor trajectory states and case or control status for women and men separately.

Results

In 2004-2013, there were 42,550 and 11,439 cases in men and women, respectively. With controls, the study sample consisted of 107,978 individuals. Time employed showed a significant protective effect for mortality in both women (OR, 0.88; 95% CI 0.81-0.94) and men (OR, 0.76; 95% CI, 0.70-0.79). The number of episodes and time spent in unemployment (OR, 1.16; 95% CI 1.12-1.20) and inactivity (OR, 1.17; 95% CI 1.14-1.21) were significantly related to mortality in men, but not women. Sensitivity analyses by labor relationship showed stronger effects of unemployment (OR, 1.42; 95% CI 1.13-1.78) and inactivity (OR, 1.34; 95% CI 1.09-1.65) for temporary workers.

Conclusions

Working longer protects against premature and overall mortality. Unemployment and inactivity are associated with higher risk of mortality in men and had a stronger effect on temporary workers. No effect or trends were observed in women. These results may help plan labor and social policies that protect workers against employment gaps created by new contract arrangements.

Key messages:

- Working longer is a protective factor against premature and overall mortality
- Unemployment and inactivity in the social security system are related to mortality risk in men but not in women

Predictors of survival in the Swedish 60 to 96 years old population

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Background

Longevity is multi-determined. In this study, biological, social and psychological factors were included in a multivariate model in order to investigate their predictive ability of survival in a nine year follow up period.

Methods

The sample was drawn from the Swedish National study on Aging and Care (SNAC), including a representative database of Swedish inhabitants aged 60 to 96 years. The participants (N = 6986) were followed during the years 2002 to 2011. Data was collected including age, physical activity, body mass index (BMI), muscle strength, living alone or not, household economy, functional status, smoking habits and education. These variables were used as predictors in multiple logistic regression analyses in order to estimate the odds ratios of survival during the follow up period.

Results

During the nine year period, 4447 participants (64%) survived. Education was the strongest predictor of survival with 57% higher odds to survive for higher educated participants (P<.001. 95%CI = 1.38 – 1.78), followed by not living alone, which increased the odds of survival with 37% (P<.001. 95%CI = .65 - .83). Light physical activity increased the odds of survival with 18% (P<.001. 95%CI = 1.12 – 1.24) and not smoking was significant related to survival but the odds ratio was as low as 10% (P<.01. 95%CI = 1.03 – 1.71).

Conclusions

Social aspects such as education and not living alone are strong predictors of survival in older populations and must be considered in the understanding of differences in longevity. In

addition, life habits such as physical activity and smoking behaviors should be taken into account.

Key message:

- Both social and behavioral factors contribute to the understanding of differences in longevity in the Swedish population of 60 to 96 years old people in Sweden

Self-rated health and related factors among persons 85 years or older

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Background

Health promotion and prevention activities throughout life, even in advanced age, have shown positive effects on health of older people. The proportion of elderly who assess their general health as good has increased in Sweden, but it is in particular the younger pensioners who report better health. There are few studies on the health status of people older than 85 years. The aim was to study self-rated health and its association with living conditions, lifestyle factors, the most common health problems and functional ability, among the elderly.

Methods

This cross-sectional study was based on a population survey conducted in 2012. 249 persons, 85 years of age or older, answered a questionnaire in the county of Västmanland, Sweden (participation rate 57%). The mean age was 88 years for both genders. Multivariate logistic regression analyses were performed for self-rated health and related factors.

Results

The prevalence of good self-rated health was 41 and 27% for men and women, respectively. The prevalence of fair self-rated health was 47 and 61%, and of poor self-rated health 12 and 12%, respectively. The statistical analyses showed that female gender, impaired physical mobility, pain and anxiety/depression were strongly associated with poorer than good self-rated health, while educational level, living alone, safety, accidents, physical inactivity, obesity and impaired vision/hearing were not statistically significantly associated with self-rated health.

Conclusions

A majority of the participants had at least fair self-rated health, but the number of respondents was limited and the survey did probably not reach the most ill or disabled persons. Impaired physical mobility and health problems were strongly associated with self-rated health in this age group.

Key messages:

- A majority of the participants, 85 years or older, had at least fair self-rated health
- Impaired physical mobility and health problems were strongly associated with self-rated health in this age group

Health literacy among paid caregivers of elderly people: preliminary Results of a Tuscan study

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Background

Many elderly depend on paid non-familial caregivers to maintain their independence at home, specifically as regards to health care tasks and activities of daily living. Due to such a pivotal role, knowing the health literacy (HL) levels of caregivers is fundamental. The aim of this study is to assess the HL levels of a sample paid non-familial caregivers in the province of Pistoia (Italy).

Methods

The sample was enrolled among those caregivers who assist patients included in a Regional social support program aimed at giving money to help hire a caregiver. An ad hoc questionnaire was performed to acquire socio-demographic data of the caregivers, and information about the physical (BADL) and cognitive impairment (Pfeiffer test) of the elderly they assist. HL levels was measured through the Italian version of the Newest Vital Sign (NVS-IT). To date the study is ongoing.

Results

Data refer to 37 caregivers, with a mean age of 48.5±9.3 ys. Only one is Italian and most of them is Romanian (78.4%). Regarding the foreign caregivers, 94% presents a good level of understanding Italian language and the mean length of time they have been staying in Italy is 9.5±4.1 ys. 37.8% have attended the school for less than 12 ys. For all of them, responsibilities involve caregiving tasks, personal care, household and food preparation. As regards to assisted elderly, the mean age is 85.5±7 ys, 65% has a moderate/severe cognitive impairment and 40.5% a severe physical impairment. 32.4% of the caregivers presents adequate literacy, 48.6% possibility of limited literacy, and 18.9% high likelihood of limited literacy. The level of HL is not statistically associated with the other collected data.

Conclusions

Our preliminary results indicate that many caregivers present high likelihood or possibility of limited literacy. It is important that these caregivers could be identified prior to assigning roles involving health care, so as to tailor interventions and responsibilities.

Key messages:

- Inadequate health literacy is an under-recognized problem among paid non-familial caregivers of elderly
- Our results indicate that many caregivers present high likelihood or possibility of limited literacy, although they are asked to provide health-related activities for the elderly they assist

3.B. Pitch presentations: Health related lifestyles in various settings

Risk behaviors among young people: the role of social support

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Background

Adolescence is often associated with high prevalence of risk behaviors. Peer influence has been observed as a strong predictor, while social support from significant adults has been found to be a protective factor. Because risk behaviors tend to impede optimal development, examining how different forms

of support can protect against these behaviors is essential. The present study assessed how high school students' experiences of support from adults in different contexts are related to engagement in alcohol misuse.

Methods

A cross-sectional data was collected from over 500 high school students from the Bergen Municipality, Norway. About 55% were females. The age range of the participants was 15-23 years (mean = 16.74). Logistic regression analysis was used to examine the relationship between drunkenness (whether or not participants have been drunk once or more in the last 30 days) and support from significant others at home, neighborhood and school.

Results

Preliminary findings suggest that while several of the support variables had negative correlation with drunkenness among young people, only the support variable that assessed how parents were actively involved in helping young people succeed at school remained statistically significant when all the variables were examined together (OR=0.74, 95% CI: 0.55 – 0.99), and even after controlling for age and sex (OR=0.78, 95% CI: 0.62 – 0.98). Parents' active involvement as a buffer against the negative influence of friends was not clear.

Conclusions

Parental support may serve as a protective factor against risk behaviors even during adolescence and young adulthood when peer influence tends to be strong. Intervention strategies that involve parents in an active way especially in the academic work of young people can be effective in preventing risk behaviors such as alcohol misuse.

Key messages:

- Support from significant adults can protect against risk behaviors among young people
- This may be even more so when the support is active involvement of parents in the academic work of young people

Clinical setting based smoking cessation program and the quality of life in people living with HIV

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Background

In Austria and Germany there is a striking disparity in smoking prevalence of people living with HIV (PLWHIV) and the general public, where the prevalence of smoking in PLWHIV is almost double. Smoking influences many aspects of health in PLWHIV and has a deteriorating impact on quality of life (QoL). A survey for QoL in PLWHIV before and after a smoking cessation program has not been conducted in these countries.

Methods

Using a multicentre cross-sectional design participants were approached during regular visits to their HIV treatment outpatient clinic and asked to aid by filling out a questionnaire consisting of sociodemographic and general health data and the WHOQOL-HIV-Bref.

Results

Overall 447 (Mean age=45.5) participants took part with 221 classified as smokers. A total of 165 (74.6%) participants received a short intervention about the benefits of smoking cessation and 63 (29.4%) agreed to participate in the full 5 session program. At baseline, differences in QoL have been observed, where smokers had lower QoL in domains of physical (M=16.1 v. 15.3; p=0.009) and psychological (M=15.3 v. 14.6; p=0.021) wellbeing, independency level (16.1 v. 15.2; p=0.003) and environment (16.5 v.16.0; p=0.036). Eight months after baseline, 27 (12.2%)

participants have quit smoking; 12 (19.0%) program participants and 15 (14.7%) that received a short intervention. There were no significant differences in QoL between smokers and non-smokers at follow-up.

Conclusions

QoL results may be used to better understand the underlying motivation of PLWHIV who start cessation programs. In order to reduce the steep prevalence and health burden that smoking causes in PLWHIV it is necessary to introduce effective interventions that can be used in the clinical setting, while keeping in mind the heterogeneity of the PLWHIV population.

Key messages:

- Smoking negatively influences QoL of PLWHIV
- More thought needs to be given to design and implementation of smoking cessation programs aimed at PLWHIV

Cardiovascular disease knowledge and health information sources in ultra-Orthodox Jewish women

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Background

Women in low socio-economic, religious, cloistered communities often have lower levels of health knowledge and preventive health behaviors (PHB). Ultra-Orthodox Jewish (UOJ) women in particular engage in fewer PHBs and are not exposed to traditional media as a health information source (HIS). Barriers are likely cultural, religious and socio-economic. Research in this population is scant. This study explored cardiovascular disease (CVD) knowledge, HIS, and PHBs in UOJ women - informing public health initiatives in this and other low socio-economic, religious, cloistered populations.

Methods

Through a health promotion program, 239 UOJ women in a homogeneous Hasidic community in Israel were randomly sampled and completed surveys. Questions included demographics, knowledge (identification of heart attack symptoms and CVD risk factors) and self-reported PHB (including physical activity (PA) and fruit and vegetable consumption).

Results

Women's age range was 17-74, 50% completed high school only, mean number of children was 6.5, 54% were below poverty level, and 54% were overweight or obese. 58% reported engaging in at least 150 minutes of PA weekly; 23% eat at least 2 fruits a day; and 15% eat at least 3 vegetables a day. Only 2% correctly identified all heart attack symptoms and 33% all CVD risk factors. Doctors were the primary HIS and 59% reported that doctors don't discuss PHBs. Women whose doctors discussed more PHBs ate more vegetables (p=.013) and fruit (p=.002).

Conclusions

This is the first study of PHBs, CVD knowledge and HIS in UOJ women. UOJ women reported higher than expected levels of PA, low levels of fruit and vegetable consumption, limited CVD knowledge and reliance on their doctors for health information. Programs targeting PHB discussion at doctor visits may increase PHBs in these and other women in low socio-economic, religious, cloistered populations.

Key messages:

- UOJ women, an unexplored population, report lower PHB levels, limited CVD knowledge, and doctors as main HIS
- Doctor's discussion of PHB may improve PHB in women in religious, cloistered populations

eHealth for obesity prevention among low-income populations: Is research is promoting health for all?

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Background

Obesity affects low and high-income populations in industrialized and non-industrialized countries. Mobile and Web 2.0 technologies can increase the reach of interventions preventing obesity, enhancing inclusion of neglected segments. Little is known about the use, adoption, and impact of these technologies among low-income populations. This paper aims to evaluate whether existing eHealth research for obesity prevention has catered for these segments of the population.

Methods

Secondary data analysis of 457 articles included in a published scoping review on the topic. Two reviewers independently selected studies discussing the use of technologies for promoting physical activity or diet and targeting ethnic minorities, low-income, or underprivileged populations. Using a validated coding tool, authors extracted study type, population, and outcomes information. Narrative synthesis was conducted.

Results

12 articles (3%) about 9 studies (one protocol) were included. Studies were conducted either in Australia or USA and included: qualitative evaluations (n=3), RCTs (n=4); systems design (n=2). Studies examined the use of technologies among low-income teens (n=4), pregnant or postpartum women (n=3) and older adults (n=2). Qualitative evaluations showed good acceptability. Trials showed mixed results positive effects on physical activity, but not on diet nor body composition among teens; positive weight loss among postpartum women.

Conclusions

Little eHealth research on obesity prevention has targeted low-income populations. Despite appearing acceptable, trials showed mixed results on behaviors and weight loss. These results cannot be generalized due to the limited number of studies and the fact that these were conducted in industrialized countries. More research is needed to understand whether technology-based initiatives can really provide a cost-effective, equitable and socially inclusive solution to promote health for all.

Key messages:

- Little eHealth research has focused on low-income, under-represented populations, only in developed countries
- More research is needed to test the use, applicability, feasibility of eHealth for larger segments of the population and low-income populations

Health related lifestyles among university students. Having the time of their lives?

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Background

Two thirds of the global mortality is caused by NCDs. Studies suggest that transition to university life poses a high risk for adoption of unhealthy routines. This study aimed at strengthening the evidence on health related lifestyles (physical

activity, nutrition, smoking, drugs and alcohol use) and mental health among UK UG students.

Methods

Mixed methods study comprising a cross-sectional online survey, two focus groups, and three in-depth interviews. The surveyed population was UG students of Middlesex University London. A proportionate to School's size stratified random sampling strategy was used (n=359). Two focus groups were conducted to investigate students' perceptions and three in-depth interviews with university stakeholders.

Results

60% of respondents were insufficiently physically active, 47% had an unbalanced diet and 30% low mental wellbeing. Statistically significant risk factors for suboptimal physical activity: Been a woman (OR=2.3; 95%CI=1.4-3.9), not use of university gym (OR=2.8; 95%CI=1.2-6.2), and smoking (OR=2.1; 95%CI=1.0-4.3). For unbalanced diet: low mental wellbeing (OR=1.7; 95%CI=1.1-2.7), drug use (OR=0.4; 95%CI=0.1-0.9) and school of study (Science & Technology: OR=3.5; 95%CI=1.5-8.2. Business: OR=2.8; 95%CI=1.1-6.9). For mental wellbeing: unbalanced diet (OR=1.7; 95%CI=1.0-2.7), not feeling like shopping for/and cooking (OR=2.3; 95%CI=1.1-4.8), and a lack of help-seeking behaviour in case of distress (OR=3.7; 95%CI=2.0-6.9). Qualitative analysis revealed seven thematic categories: transition to new life, university environment and systems, finances, academic pressure and health promotion in campus and recommendations.

Conclusions

The prevalence of unhealthy behaviours among university students is high, and unlikely to change over time. Determinants for these behaviours are varied and can be interrelated. Universities need to include the protection and promotion of health in their core values.

Key message:

- University students' health related lifestyles are likely to compromise their future health. Universities should incorporate the promotion of students' health in their core values and strategies

Fish doctor and beauty center: a possible marriage in respect of public health

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Background

The use of small fish *Garra rufa* in aesthetic practices, is more and more increasingly mostly in touristic place. The lack of guide lines for the correct management and control do not permit to evaluate, the possible risk for public health. This study represents the first approach on this topic that will allow a risk assessment and of biosecurity practices.

Methods

After the development of protocols regarding sampling, control of environmental parameters and laboratory analysis, a sampling was conducted during summer 2015 in North Italian beauty centers by collecting fish and tank biofilm. A total of 36 fish (3/tank/sampling) and 60 swabs (5/tank/sampling) were collected. Were analyzed for the presence of fish pathogens together with a count of total mesophilic bacteria *E. coli* β -glucuronidase, *Listeria monocytogenes*, *Salmonella* spp. (ELFA methods), *Vibrio parahaemolyticus*, *V. cholerae* (PCR methods) and a Norovirus and viral hepatitis A (RT-PCR methods) analyses.

Results

The results did not show any healthy problems. Bacteriological, parasitological and mycobacteria analysis were negative for all samples. The biomolecular analysis from swabs were negative for HAV, Norovirus GGI and GGII, *V. cholerae* and *V. parahaemolyticus* nucleic acid presence. The ELFA methods for the detection of *Salmonella* spp. and *Listeria monocytogenes* resulted negative. The count of mesophilic bacteria showed a range from 330 to 6500 CFU/cm², whereas the *E. coli* β -glucuronidase showed a value < 10 CFU/cm².

Conclusions

To write a protocol for management permit to obtain: 1) an easy sampling method and a risk assessment; 2) a correct sampling management by dividing the operations during the whole interval of the study. The use of guide lines is useful for an official control. The evaluations during the present study, gave positive results and important data for risk assessment. This preliminary study should be used by sanitary authorities to increase the control activities.

Key messages:

- The lack of specific measures and guide lines for the correct management and control of the use of *Garra rufa* in aesthetic practices
- This study represents the first approach on this topic that will allow a risk assessment and evaluation of biosecurity practices

Tailoring methods of stakeholder involvement - does one size fit all?

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Background

INTEGRATE-HTA is a European collaborative project developing methods for more integrated, patient-centred approaches to Health Technology Assessment in relation to complex interventions. The protocol included establishing stakeholder panels in seven countries so that a case study, could be informed by patients, carers, practitioners and commissioners of health care.

Methods

The initial plan was to set up combined lay and professional panels and use consistent methods across all countries and stages of the project. This proved not to be feasible. We therefore adapted approaches to address the differences in context, usual practice, and ethical requirements between countries and different stages of the project.

Results

132 stakeholders (82 professionals and 50 lay people) in seven European countries (England, Germany, Italy, Lithuania, the Netherlands, Norway and Poland) were consulted. Coordinators in each country implemented as deemed appropriate locally, either using a qualitative research approach or working with patients as research partners. In some settings, individual, face-to-face patient interviews were conducted and analysed thematically. In others, participatory methods used patient group meetings and panel discussions. Input from professionals was obtained using a wide range of methods, including face-to-face, telephone and Skype interactions, either using a formal topic guide or a less structured discussion.

Conclusions

All methods of stakeholder engagement have advantages and limitations which must be considered in light of local needs

and culture and whilst stakeholder involvement in research may require some core standards and some common principles, careful tailoring of approaches and flexibility, particularly if initial approaches are not successful, are also required.

Key messages:

- All methods of stakeholder engagement have advantages and limitations which must be considered in light of local needs and culture
- Careful tailoring of approaches and flexibility to adapt to different settings and purposes is vital to success

Workplace health promotion through health coaching on styrian farms: outcomes from project evaluation

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Farmers and their families are at risk for health stressors related to working and living conditions on farms. Since Ottawa 1986, Workplace Health Promotion (WHP) aims to enhance health and well-being at work by improving the working environment. WHP is less implemented and evaluated on farms in Austria.

In 2015 health coaching as a method of WHP was conducted and evaluated on 13 farms (49 participants; time period of coaching: 1 year) in Styria to facilitate the initiation of WHP on farms. Questions were: What are health topics for farmers? Does health coaching support sustainable integration of WHP on farms? A mixed-methods approach was used for qualitative and quantitative evaluation.

67 reflection sheets of health coaching sessions, two focus group discussions with project team members, 10 interviews and 58 Recovery-Stress-Questionnaires (31 at project start; 27 at project end) with farmers were analysed. Main health topics are: structure of farming families, conflicts between generations, time management, organisation of work and recovery-time, working environment and equipment, financial pressure, qualification and future perspectives. Farmers and health coaches report positive impact of health coaching related to raised awareness, changed mind-sets and gained methods on how to shape working environment. Results from Recovery-Stress-Questionnaire show no differences between stress figures at project start and end. Recovery figures are slight better after project duration.

Health coaching is solution-oriented, if participants are able to think innovative and appreciate each other. Negative impacts on coaching are lack of time and calm as well as conflicts within the family and financial pressure. Participating farmers can be seen as role models for future approaches and need to be advised further on. Sustainable WHP on farms requires a strategy, supporting structures in public insurance companies and allocation of financial and personal resources.

Key messages:

- Health coaching is a method to raise awareness, change mind-sets of farmers and show up ways to improve the working environment on farms
- Workplace health promotion on farms requires a strategy for holistic health promotion, supporting structures in public insurance companies and allocation of financial and personal resources

3.C. Round table: The Facets of Public Health Leadership in 21st century and its translational outreach

Organised by: EUPHA Working group on PH Leadership
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Chairperson(s): Katarzyna Czabanowska - The Netherlands, Kenneth Rethmeier - United States

In order to address critical challenges in public health of the 21st century, public health leadership needs to be concerned with expanding the transformational leadership behaviours among public health professionals. This requires focused assessment and development not only of public health leadership competencies in different system and cultural contexts but also research skills to facilitate the translation of evidence into practice. Recently, Richard Horton has stated in the Lancet that “leaders of public health have become divorced from the science that should be shaping public health policy and advocacy”. The field of public health necessitates the translation of research into programs to improve and promote population health.

The discipline of public health leadership is expanding and draws upon the a widening number of professional groups and their current research fields. It lies at the intersection of a variety of disciplines and areas where public health leadership is needed including for example such themes as: women leadership in health care and leadership skills of people with disabilities. The complementarity and the added value of the research findings related to the multifaceted public health leadership can promote successful public health education and training by transforming current approaches and practices by including relevant content, research, implementation and dissemination skills to facilitate behavioural change and benefit the societal health and wellbeing. The goal of the workshop is to raise the awareness and stir discussion about the various areas of public health leadership and the development of research and translational skills for public health leaders who want to effectively facilitate sustainable change.

Participants will contribute by: 1) sharing the research findings about public health leadership competencies in two different system and cultural settings, 2) addressing the challenges of women leadership and public health leadership across health and social care systems, 3) stimulating the discussion around the development of the necessary and greatly lacking research, translational and dissemination skills in public health leaders. The workshop will be interactive, allowing participants to take part in a vigorous debate about the key issues represented by five abstracts.

Key messages:

- Findings from leadership skills assessments in different system contexts can support public health leadership training
- Research translation can support introducing participatory leadership across public health practice and policy

The need for leadership skills development among health sector executives in Lithuania

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The EU LEPHIE project has developed a competency framework for an effective leadership in public health area (Czabanowska, 2013). The framework consists of 52 competencies organized into eight domains. The aim of this study was to evaluate the need for leadership skills among health care sector based on proposed framework.

The data was collected in a cross-sectional study, in 2015. Questionnaires were distributed to all executives of Lithuanian public health institutions and heads of municipality health administrations (N = 180). Response rate -55%. Respondents were asked to evaluate competencies from two perspectives – “current level of leadership competencies” and “the required level of leadership competencies for your current job position”. Competencies were evaluated using Likert scale from 1 (minimal competencies) to 5 (maximum competencies).

Findings suggest that respondents evaluated their competencies positively, but estimated that they required a higher level of competence than they currently possessed. Maximum, mean and standard deviation scores for the current and required level of competencies are as follows: systems thinking (35; 24.75±4.85 vs. 30.88±4.51); political leadership (40; 27.46±60.5 vs. 35.62±5.02); collaborative leadership - building and leading interdisciplinary teams (25; 17.73±3.87 vs. 22.00±3.47); leadership and communication (35; 26.03±5.14 vs. 31.19±4.89); leading change (30; 21.48±4.50 vs. 26.43±4.77); emotional intelligence and leadership in team-based organizations (30; 23.29±4.25 vs. 26.74±4.26); leadership, organizational learning and development (35; 26.37±5.71 vs. 30.85±5.77) and ethics and professionalism (30; 24.09±3.97 vs. 27.33±4.11).

Findings suggested that executives see a gap between their current and required leadership competencies. This suggests the need of further leadership development. This competency framework can be a blueprint for organizing capacity building training for health leaders in Lithuania and beyond.

European Public Health Leadership Competency Framework: What does it say about Indian public health professionals?

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In India, public health professionals engage in program implementation and inform policy in challenging, resource constrained settings. Good mix of leadership skills is needed, but formal leadership training is often unavailable. Our study aims to find the gaps between the current and the required leadership competencies among public health professionals in India. Results will inform needs-based leadership curricula for these professionals using a recently established international

instrument (European Public Health Leadership Competency Framework).

A countrywide cross-sectional study was carried out between June 2015 and January 2016 on more than 175 health professionals using a structured questionnaire aiming at self-assessing the current and the desired level of leadership competencies for their current positions. The questionnaire included 52 items scored on a 5-point scale grouped into eight subscales. An overall summary score and subscale summary scores for each domain were calculated for both the current and the required leadership competency levels. Gaps in competencies for each subscale were calculated as percentage decrease between the current and required levels as perceived by the respondents.

Mean value of the overall summary score of the instrument was significantly lower for the current leadership competency level compared to the required one (175.1 ± 40.9 vs. 223.5 ± 44 , respectively; $P < 0.001$). Overall perceived leadership gap was 27%. Highest gaps were observed in: political leadership (32%), leading change (32%), leadership & communications (28%) and systems thinking (28%) respectively. Overall Cronbach's alpha was > 0.90 for both the current and required level of leadership competencies.

Our study provides useful evidence about gaps in leadership competencies among health professionals. It can guide leadership continuing professional development for public health professionals in India.

Women's leadership in healthcare - the three faceted quest

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The increased entry of women into medical schools since 1970s has not filled in accordingly the deficit of women's leadership in healthcare. Professional leadership is mainly deployed in three facets in healthcare delivery: medical leadership in terms of medical politics and leading professional organizations, academic professorship and clinical practice. Women's low representation in senior roles does not translate accurately into the high percentage of women in healthcare workforce. The evidence proved the male-dominated leadership in the field and identified gender barriers preventing women from entering three faceted healthcare leadership roles.

Our goal was to map the gender gaps and imbalances in the field, identify the causes and suggest effective, proactive strategies to address the gap in the leadership literacy in the healthcare workforce. Through a literature review and critically appraised statistical data officially published from healthcare organizations, the authors identified: capability, credibility and capacity on personal, organizational, structural and cultural level as the main constraints affecting women's leadership in healthcare.

There is a need for a three faceted female leadership and the value women bring to healthcare organizations. Women leaders may yield more inclusive decisions and better organizational performance if the invisible barriers are translated into practical terms and addressed by a range of educational strategies and other value driven initiatives to critically support the integration of female leaders in healthcare higher echelons. The results of the studies on causes of the gender leadership gap should be used to develop leadership literate healthcare workforce through adopting relevant courses in the medical schools curricula and through continuous professional development.

Exploring participatory leadership through designing training for leaders of Disabled Persons Organizations (DPOs)

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Participatory leadership is an example of a 'double-bind' or a paradoxical injunction. (Bateson) Is it possible to combine participation, a transfer of power AND leadership traditionally associated with wielding power and taking decisions? This apparent paradox is especially present in the disability sector and health promotion. The very idea of a disabled leader may be seen to mirror such a paradox. Many attempts to promote the social participation of disabled people within civil society and DPOs fail for 2 main reasons. 1) Leaders may be charismatic and very capable of pleading their cause. But all too often they may not take into consideration the aspirations of organization's grass roots members. Indeed they may privilege the professional workforce rather than the disabled people under their responsibility. There may be structural tensions between providing care and assistance and promoting the autonomy of their disabled residents. 2) Disabled activists may be aware of their members' aspirations but may lack the necessary skills to translate these into policy and advocacy action within decision making forums. In order to promote the inclusion of disabled people current and potential leaders must possess both sets of competencies. GIFFOCH have designed an inclusive training project entitled ParticipaTIC fostering the co-construction of knowledge of the participants, particularly disabled people. The aim is to strengthen the ability of DPO leaders to plead their cause and defend the rights of disabled people while at the same time developing collaborative participation of all their members. Through dynamic interaction between the stakeholders during the development of the initial training modules and through the empowerment of disabled people and their leaders we aim to develop an on line learning community furthering social inclusion.

Through exploring the case of the 'disabled leader' we aim to analyse and overcome the tensions within participatory leadership.

Research skills for health leaders: What's needed today?

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The Association of Schools and Programs of Public Health (ASPPH) in the U.S. has recently completed an extensive and comprehensive review of the competencies required of public health practitioners at all levels. The "Framing the Future" initiative presents a new vision for public health education for modern times. It was initiated to better prepare emerging public health professionals for success in improving the public's health, acknowledging the changing world and global marketplace for careers in practice. Building on existing public health competency models and after an extended series of discussions and debates among stakeholders, an updated set of recommendations has been finalized and shared with North American professional audiences. These recommendations are being used to inform North American accreditation standards for public health programming.

The aim of this session is to share these findings and discuss and debate their validity on the global scale. Particular emphasis in this session is placed on requirements for applied research and translational skills.

The report describes and defines the range of research skills needed for health leaders practicing in real-world, field conditions (<http://www.aspph.org/educate/framing-the-future/>) It serves as a call to action for the discipline.

Key messages:

- Global health leaders need sound research and translational skills to support effective and sustainable solutions to the world's most complex and challenging health problems
- Teaching applied research and translational skills requires modern approaches that emphasize real-world, applied skills and experiential approaches to learning

3.D. Oral presentations: What works in smoking cessation?

Dyadic efficacy for smoking cessation in a sample of Romanian couples

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Background

Maternal smoking is one of the most modifiable factors with clear adverse effects for the fetus and the entire family. The objective was to explore the promise of dyadic efficacy as an emphasis for couple-focused postnatal relapse prevention interventions.

Methods

228 women who quit smoking during or before pregnancy were recruited after giving birth in two large maternity clinics in Romania. Dyadic efficacy for smoking cessation, intention to relapse, smoking abstinence self-efficacy, partner's smoking status, partner interactions, teamwork standards, heaviness of smoking and other characteristics were assessed. We describe dyadic efficacy and its components in this sample of Romanian recent mothers and partners and explore relapse-relevant correlates of dyadic efficacy.

Results

The average score on the 0-100 dyadic efficacy scale was 69.78 (SD = 26.54), with significantly lower mean scores among women living with a smoker partner ($p < .01$) and women with a lower education ($p = .04$). The strongest predictors of dyadic efficacy were partner's smoking ($\beta = -.30$, $p < .01$), teamwork standards ($\beta = .20$, $p < .01$), smoking abstinence self-efficacy ($\beta = .152$, $p = .046$) and agreement with the statement that light cigarettes are less harmful ($\beta = -.23$, $p < .01$). Intention to relapse in the next 6 months was negatively associated with dyadic efficacy for smoking cessation ($\beta = -.17$, $p = .02$).

Conclusions

The results of this study lend support to couple-focused smoking relapse prevention interventions that specifically target the enhancement of the dyadic efficacy for smoking cessation. Proactive counseling for couples referred by prenatal health providers has great potential as an addition to existing quitlines.

Key messages:

- Enhancing the dyadic efficacy for smoking cessation may be a promising approach in couple-focused postpartum smoking relapse prevention interventions
- Proactive counseling for couples referred by prenatal health providers has great potential as an addition to existing quitlines

Challenges in supporting pregnant women to stop smoking

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Background

The risks of smoking for fertility are well documented. However, the perception of pregnant smokers did not get enough attention so far. Finding and counselling pregnant smokers, and finally supporting their process of quitting are highly challenging. There are no evidence based guidelines or best practices that would guide such an endeavour.

Methods

A variety of quantitative and qualitative research approaches are applied, including literature reviews, online surveys, in-depth interviews with experts and pregnant smokers. Furthermore, the user-centred iterative design of game-based technologies strives different aspects of the complex problem. Questions we dealt with are: How can new media and social networks support the cessation process for pregnant women? What factors do pregnant smokers make use of existing cessation services? What helps to make smoking cessation in pregnancy a topic without shame and guilt? How can smoking cessation be addressed even before pregnancy starts?

Results

It is most likely that anonymous offers within new media and social networks are accepted better than face-to-face offers. Tangible mobile games help distract pregnant smokers any time anywhere in a non-stigmatising way.

Conclusions

Smoking in pregnancy is a field, which is highly stigmatised and not yet sufficiently addressed by the health system. It presents a burden for the individual smoker, being confronted with the feelings of own failures, guilt, prejudices, degradation and a lack of specialised cessation services. A holistic approach – as we developed – is needed to provide multidimensional effective mechanisms to accompany pregnant smokers in their attempt to quit smoking.

Key messages:

- The specifics of pregnancy like feeling of shame and guilt present a different starting point for smoking cessation. Tangible mobile games help pregnant smokers quit smoking in a non-stigmatising way
- It is most likely that anonymous offers within new media and social networks are accepted better than face-to-face offers

Postpartum smoking abstinence self-efficacy and partner supportive behaviors

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A limited number of couple-based smoking cessation programs focusing on pregnant or postpartum women have been found effective. This study aims to explore the association between women's smoking abstinence self-efficacy and their partners' supportive behaviors.

Preliminary data was collected between November 2013 and December 2015 from 133 couples in the first week following delivery as a part of a Romanian, postpartum, couple-based randomized controlled trial on preventing smoking relapse. Variables of interest include women's smoking abstinence self-efficacy, partner interaction, importance of staying quit, and teamwork standards. We used descriptive statistics and correlations to address the study's aim.

Relationship length for the 133 couples ranged between 1 and 20 years (mean=7.98, SD=4.48). There was no correlations between the importance women assigned to staying quit or working together as a team to resolve issues related to smoking cessation and the importance their partners ascribed to the same behaviors ($r=.15$, $p=.10$; $r=0.84$, $p=.37$). When the life partners were daily smokers, there were positive, significant correlations between women's and partners' responses in terms of importance of staying quit ($r=.51$, $p=.01$) and working together as a team for women's smoking cessation ($r=.29$, $p=.06$). When the life partners were daily smokers, there was a significant correlation between women's smoking abstinence self-efficacy and partners' positive supporting behaviors ($r=.31$, $p<.01$).

Our findings suggest that daily smoking partners may offer superior positive smoking abstinence support for their spouses than non-smoking or occasional smoking partners. This information may be useful to health practitioners and policy makers to improve the effectiveness of smoking cessation programs.

Key messages:

- Daily smoking partners may offer superior positive smoking abstinence support for their spouses than non-smoking or occasional smoking partners
- To improve the effectiveness of maternal smoking cessation programs during pregnancy, health practitioners and policy makers may need to focus on both spouses

The use of e-cigarettes and its link to smoking in the German general population

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Background

Electronic nicotine delivery systems (ENDS), of which electronic cigarettes are the most common, have been discussed as a gateway to smoking as well as a measure to quit smoking. In order to assess the relationship between the use of ENDS and tobacco products, information on patterns of (dual) use as well as motivation for ENDS use are required. We aim at i) estimating the prevalence of ENDS use; ii) identifying risk factors; and iii) assessing the role of ENDS in starting or quitting smoking.

Methods

Analyses are based on data of the 2015 Epidemiological Survey of Substance Abuse (ESA), a general population survey among

18 to 64 years olds living in Germany. At a response rate of 52.2%, the sample size was $n=9,204$. ENDS use, motivation for use, and smoking behavior were assessed. Prevalences were estimated and logistic regressions were conducted.

Results

Preliminary results show that 2.9% of respondents had used ENDS in the past 30 days, and another 11.3% had used ENDS, but longer ago. Risk factors for current use were younger age ($OR=0.9$; $SE=0.0$), and being a smoker ($OR=12.2$; $SE=2.3$) or ex-smoker ($OR=4.1$; $SE=1.2$) of conventional tobacco products. Curiosity was the most frequent reason to use ENDS (70.0%). The attempt to quit or reduce smoking was reported by 25.8% and 33.5%, respectively. Of those who had used ENDS for dishabituation, the majority (59.5%) continued smoking, but quit using ENDS. A similar share of 10.2 and 12.3%, respectively, succeeded in quitting smoking while continuing to use/stopping to use ENDS. Of those who have ever smoked, 0.2% had used ENDS prior to the use of tobacco products. The prevalence was 2.1% among those aged 18 to 20.

Conclusions

ENDS are mostly used by current and former tobacco smokers. Their risk as a gateway to smoking is humble, but should be surveilled among younger age groups. The use of ENDS in supporting quit smoking attempts is of limited success and cannot be recommended.

Key messages:

- ENDS are mainly used by individuals who had smoked tobacco products beforehand
- The use of ENDS as a support to quit smoking is of limited success

Time discounting and tobacco smoking: a systematic review and network analysis

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Tobacco smoking harms health, so why do people smoke and fail to quit? An explanation originating in behavioural economics suggests a role for time-discounting, which describes how the value of a reward, such as better health, decreases with delay to its receipt. A large number of studies test the relationship of time-discounting with tobacco outcomes but there is substantial variation in study methodologies and the temporal patterns being studied. We review the association between time-discounting and smoking i) across the life-course, from initiation to cessation, and ii) across diverse discount measures. We identified 69 relevant studies in Web of Science and Pub Med. We synthesised findings across methodologies, and evaluated discount measures, study quality, and cross-disciplinary fertilisation. In 44 out of 54 studies smokers more greatly discounted the future than non-smokers, and in longitudinal studies higher discounting predicted future smoking. Smokers with lower time-discount rates achieved higher quit rates. Findings were consistent across studies measuring discount rates using hypothetical monetary or cigarette reward scenarios. The methodological quality of the majority of studies was rated as 'moderate', and co-citation analysis revealed an isolation of economics journals and a dearth of studies in public health. Overall, there is moderate yet consistent evidence that high time-discounting is a risk factor for smoking and unsuccessful cessation. Policy scenarios assuming a flat rate of population discounting may inadequately capture smokers' perceptions of costs and benefits.

Key messages:

- There is moderate yet consistent evidence that high time-discounting is a risk factor for smoking and unsuccessful cessation

- Policy scenarios assuming a flat rate of population discounting may inadequately capture smokers' perceptions of costs and benefits

3.E. Oral presentations: Physical activity and lifestyle in later life

Effects of physical & nutritional interventions on chronic inflammation in prefrail/frail persons

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Background

Aging and especially frailty is associated with an increase in chronic inflammation markers. As high inflammatory markers are associated with a decrease in muscle mass, strength and performance and predict mortality, it is important to stop or prevent a further increase. The aim of the study was to assess the effects of home visits with physical training and nutritional support conducted by non-professionals on chronic inflammation markers.

Methods

In this randomized controlled trial, community-dwelling persons assessed as prefrail or frail, received home visits from volunteers twice a week. While the physical training and nutritional group (PTN, n=38) performed six strength exercises and discussed nutrition-related aspects, the social support group (SoSu, n=36) only received home visits. At baseline and after 12 weeks, leucocytes, TNF- α , IL-6 and CRP were analyzed; physical performance was assessed with the Short Physical Performance Battery. Within-group differences were analyzed with paired t-test, between-group differences with ANCOVA for repeated measure, adjusted for baseline values, sex, intake of anti-inflammatory drugs and rheumatism. To examine the association between changes in inflammation markers and changes in physical performance, linear regression analyses were performed.

Results

Mean age was 83 years (SD 8). Log-transformed IL-6 and CRP of the PTN group did not change significantly, whereas in the SoSu group log-IL-6 increased by 0.21 pg/ml (95%CI: 0.06, 0.36) and log-CRP by 0.32 mg/l (95%CI: 0.05, 0.59). In these parameters a significant difference between groups was determined. Leucocytes and TNF- α did not change neither in the PTN nor in the SoSu group. An increase in physical performance was associated with a decrease in log-CRP (β =-0.237; p=0.034).

Conclusions

Strength training with nutritional support provided by volunteers might effectively contribute to prevent further increase in chronic inflammation in prefrail and frail adults.

Key messages:

- Physical training and nutritional support might influence chronic inflammation in frail and prefrail individuals
- An increase in physical performance is associated with a decrease in CRP

The effects of age, adiposity, and physical activity on the risk of 7 site-specific fractures

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Background

Risk factors for neck of femur fracture are relatively well known, but those for fracture at other sites are little studied. We explore the role of age, body mass index (BMI), and physical activity on the risk of fracture at 7 sites in postmenopausal women.

Methods

A total of 1,154,821 postmenopausal women in the United Kingdom, with a mean age of 56.0 (SD 4.8) years, provided health and lifestyle data at recruitment in 1996-2001. All participants were linked to National Health Service hospital records for day-case or overnight admissions. Adjusted absolute and relative risks for incident fractures at 7 sites were calculated using Cox regression models.

Results

During an average follow-up of 11 years, numbers with site-specific fractures were: humerus (4931), forearm (2926), wrist (15,883), neck of the femur (9887), femur (not neck) (1166), lower leg (3199), and ankle (10,092). Age-specific incidence rates increased gradually for fracture of forearm, lower leg, ankle and femur (not neck), and steeply for fracture of neck of femur, wrist, and humerus. Compared to women with a desirable BMI (20.0-24.9 kg/m²), having a higher BMI was associated with a lower risk of fracture of the neck of femur, forearm and wrist, but an higher risk of humerus, femur (not neck), lower leg and ankle fracture (p<0.001 for all). Strenuous activity was associated with a lower risk of fracture of the humerus and femur (both neck and rest of femur) (p<0.001).

Conclusions

Postmenopausal women are at a high lifetime risk of fracture. BMI and physical activity are modifiable risk factors, but their associations with fracture risk differ substantially across site. Postmenopausal women should be informed of these risk associations by healthcare personnel when considering their lifestyle choices.

Key message:

- Fracture risk remains high in postmenopausal women. Improved understanding of how fracture risk relates to lifestyle factors may help to inform decisions regarding lifestyle choices

Community-based healthy lifestyle and diabetes prevention program for women in East Jerusalem

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Development and evaluation of a program to prevent diabetes and promote healthy lifestyle adapted to Palestinian women in East Jerusalem. The prevalence of diabetes in Arab women in Israel is 21.8%, compared to 12.4% in Jewish women, and 25% of Arabs have diabetes by age 57. There are high rates of obesity (32.9%) high level sedentary behavior, and frequency of high energy density diet. We sought to develop, adapt and implement a healthy lifestyle/Diabetes Prevention Program (DPP) appropriate to this population.

A pilot study was conducted in 3 phases: pre-intervention needs assessment and baseline measurements, intervention, and post-intervention evaluation study after 12 weeks. Anthropometric measurements, blood tests and self administered questionnaires on determinants of behavioral change, eating and physical activity habits were completed by the women at baseline and post intervention. Women underwent 12 sessions of lectures and workshops that were based on the original DPP.

30 women participated in the trial, 20 women completed the intervention. Women in post intervention reporting being physically active for at least 3 times/week increased from 78.6% to 100% ($p=0.081$), with an overall increase in the frequency and strength of the performance. Participants reported an increase in consuming daily breakfast from 56.2% to 76.3% ($p=0.141$), eating the recommended daily servings of fruits and vegetables increased to 23.5% for both from 13.3% and 6.2% respectively with no significant difference between the pre and post intervention. There was an increase in drinking at least 8 cups of water per day from 31.2% to 60.0% ($p=0.056$). Recognition of the signs and symptoms of heart attack increased from 12.5 to 52.9% ($p=0.044$). There were no changes in the mean weight between pre and post intervention (81.34).

A 12-week culturally-adapted pilot intervention program based on the DPP, led to increased health behaviors in participants, but did not lead to weight loss.

Key messages:

- Promoting women on improving their health proved success
- Educating women increased their knowledge regarding their health

Weather, day length and physical activity in older adults: Results from the EPIC Norfolk cohort

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Background

There has been particular interest in the potential for the environment to support active ageing but few studies have explored the impact of weather on physical activity in older adults. This study investigates the association between weather conditions, day length and activity in English older adults.

Methods

The analysis was based on a population-based cohort in England, the European Prospective Investigation into Cancer and Nutrition (EPIC) Norfolk study. Physical activity was measured objectively over 7 days using an accelerometer. The data was used to calculate daily total physical activity (counts per minute), daily minutes of sedentary behaviour and light, moderate and vigorous physical activity (LMVPA). Day length and daily weather conditions (rainfall and minimum/maximum temperature) were obtained from a local weather

station. Their associations with physical activity were examined by multilevel first-order autoregressive modelling.

Results

Among the 4162 participants with valid physical activity data (mean age: 68.3yrs), the mean of daily counts per minute was 250.7 (SD: 153.3). Average minutes of daily sedentary behaviour was 675 mins (SD: 138.4) and the mean LMVPA time per day was 72 mins (SD: 44.2). After adjusting for age, sex, education and self-rated health, short day length and poor weather conditions, including heavy rain and low temperatures, were associated with up to 10% lower average physical activity ($p < 0.01$) and 8 minutes less time spent in LMVPA but 15 minutes greater sedentary time, compared to the best conditions.

Conclusions

Day length and weather conditions appear to be an important factor related to active ageing. Future work may focus on developing potential interventions to enhance individual and environmental resilience to them.

Key messages:

- Day length and weather conditions are related to physical activity in English older adults
- Public health interventions may focus on increasing resilience to poor weather conditions

Objective and self-reported neighbourhood risk factors for sedentary behaviour in older adults

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Background

There is increasing recognition that sedentary behaviour (defined as any waking activity with an energy expenditure <1.5 METs in a seated or reclining posture) is a risk factor for poor health. However, neighbourhood influences on sedentary behaviour are poorly understood.

Methods

Participants were drawn from 1930s and 1950s birth cohorts of the West of Scotland Twenty-07 study and the Lothian Birth Cohort 1936. Data are available for around 300 people in their mid-60s, 300 in their late 70s and 150 in their mid-80s. Activity data is recorded over a week using an activPAL accelerometer which is worn fixed to the participant's mid-thigh. Activity measures include percentage waking time spent sedentary, number of bouts of sedentary behaviour greater than 30 minutes, sit to stand transitions and metabolic equivalent hours. Objective neighbourhood measures include green space, population density and Scottish Index of Multiple Deprivation (SIMD). Self-report neighbourhood measures include social cohesion, access to services, incivilities and fear of crime.

Results

Preliminary results from the Twenty-07 study would suggest that a 1 SD increase in SIMD is associated with a 2.5 percent (95% CI 0.01 to 0.04) increase in time spent sedentary, an increase of 0.23 (95% CI: 0.03 to 0.43) bouts of sedentary behaviour and reduced physical activity by 0.25 (0.08 to 4.3) MET hours, but was not associated with sit to stand transitions. There was little evidence that other objective neighbourhood measures, including the SIMD access to services sub-scale, were associated with sedentary behaviour. Participants who self-reported poor access to services spent

7.7% (95% CI 3.4 to 12%) more of their time sedentary than those with the best access. There was limited evidence of a relationship between sedentary behaviour and other self-report measures.

Conclusions

Socioeconomic deprivation and self-reported access to services were associated with increased sedentary behaviour.

Key messages:

- Social deprivation appears more important than other aspects of neighbourhood environment for sedentary behaviour in older people
- Improving older people's perceptions of their neighbourhoods may reduce sedentary behaviour and increase physical activity

3.F. Pitch presentations: Risk factors in chronic diseases

Contribution of tobacco use and dietary risks to Cardiovascular Disease deaths in Ireland:1990-2013 Shelly Chakraborty

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Background

Cardiovascular disease(CVD) accounts for 33% of deaths and is the most common cause of death in Ireland.The major risk factors being tobacco smoking and improper diet.

Methods

We accessed the publicly available data from the Institute of Health metrics and evaluation (IHME), United States.Irish data extracted were:CVD and risk factors for two calendar periods 1990 and 2013.CVD deaths were grouped into three groups:Ischemic heart disease (IHD), stroke, other cardiovascular and circulatory disease.The risk factors were tobacco smoking and dietary risks(five subgroups: diet high in processed meat, diet high in sodium, diet high in trans-fatty acids, diet low in fruits, diet low in vegetables).The absolute number of CVD deaths, the population-attributable-risk % (PAR) of risk factors and CVD deaths attributable to these risk factors were calculated.Individual PAR% may add up to more than 100% .

Results

Total CVD deaths in 1990 and 2013 were 11446 (IHD=9232, Stroke=1891 and other cardiovascular and circulatory=322) and 8352(6447,1463 and 442) respectively.The respective CVD deaths attributable (PAR%) to the risk factors for 1990 and 2013 were:smoking-attributable deaths declined from 2407(56.3%) to 991(23%), deaths attributable to diet high in processed meat increased from 1016(11%) to 1024(15.9%), deaths attributable to diet high in sodium declined from 1233(29.1%) to 780(25%), deaths attributable to diet high in trans-fatty acids declined from 499(5.4%) to 188(2.9%), deaths attributable to diet low in fruits declined from 1770(39%) to 1037(32.6%), deaths attributable to diet low in vegetables declined from 1655(36.4%) to 1018.(31.7%).Approximately 3550 CVD deaths were averted between 1990 and 2013 attributable to two major risk factors (tobacco use and improper diet).

Conclusions

CVD deaths have declined in Ireland and improvements in population risk factors are crucial. However, aggressive tobacco and food policies can further accelerate the observed decline in CVD deaths.

Key messages:

- We have estimated the cardiovascular disease deaths attributed to tobacco-use and dietary risks employing the Global Burden of Disease study methodology in Ireland between 1990 and 2013

- Policy makers need accurate estimates to rank health problems, thus using appropriate methodology to calculate estimates is crucial

Neighbourhood deprivation and biomarkers of health in the UK: the role of the physical environment M. Pia Chaparro

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Background

The mechanisms linking neighbourhood socioeconomic status (SES) and individuals' health are not well understood. We aim to: 1) investigate if the neighbourhood physical environment partly explains the association between neighbourhood SES and health in the UK, and 2) to develop appropriate methodologies to adequately assess these associations.

Methods

Data comes from Understanding Society: the UK Household Longitudinal Study, waves 2 and 3 (2010-2012; N = 11,815 - 17,894 depending on the outcome). Our independent variable was neighbourhood SES, measured by the Carstairs index. Our dependent variables were biomarkers of health, including: lung function (percent predicted forced expiratory volume, FEV1%), body mass index (BMI), systolic blood pressure (SBP), and C - reactive protein (CRP). Our mediators were the individual components of the Multiple Environmental Deprivation Index (MEDIX) measured at the neighbourhood level, including: air pollution, proximity to industrial facilities, climate, UV radiation, and green space. Multilevel mediation models were carried out adjusting for age, sex, and household equivalised income. Next steps include investigating the associations by region and developing multilevel structure equation modelling approaches.

Results

Preliminary results show that air pollution partly mediates the association between neighbourhood SES and FEV1% (Sobel (S)=-2.86; p<.05) as well as BMI (S=-3.74; p<.05), whereas climate partly mediates the association between neighbourhood SES and FEV1% (S=-2.35; p<.05), and neighbourhood SES and SBP (S = 2.96; p<.05). The association between neighbourhood SES and CRP was partly mediated by neighbourhood UV exposure (S=-2.14; p<.05).

Conclusions

Neighbourhood SES is strongly related to biomarkers of health in the UK, with some components of the physical environment partly mediating this association. Improving the physical environment may improve population health and possibly address health inequalities.

Key messages:

- The physical environment partially mediates the association between neighbourhood SES and lung function, body mass index, blood pressure, and C-reactive protein
- Addressing the physical environment may improve population's health and reduce social inequalities in health outcomes

Livestock density and comorbid conditions in patients with Asthma and COPD Overlap Syndrome (ACOS)

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Background

Epidemiological research on health effects of livestock exposure in population subgroups with compromised respiratory health is still limited. The objective of this study was to explore the association between livestock exposure and comorbid/concurrent conditions in patients with Asthma and COPD Overlap Syndrome (ACOS).

Methods

Data were collected from 425 COPD patients registered in general practices, living in a rural area with high livestock density. Prevalence of comorbid disorders and co-occurring symptoms and infections were based on electronic health record data from 2012. Several indicators of individual exposure to livestock were estimated based on residential addresses, using a geographic information system (GIS).

Results

At least one comorbidity was present in 69% of the patients, while 54% had at least one co-occurring symptom and/or infection. Statistically significant associations were observed between presence of mink within 1000m and coronary heart disease (OR 2.87, 95% CI 1.21 – 6.8, $p < 0.05$), while presence of goats within 1000m was positively associated with anxiety (OR 8.18, 95% 2.24 – 29.8, $p < 0.01$).

A higher risk for pneumonia was associated with living ≤ 500 m from the nearest farm (OR 2.14, 95% CI 1.11 – 4.15, $p < 0.05$), presence of cattle within 500m (OR 2.48, 95% CI 1.29 – 4.76, $p < 0.01$) and presence of goats within 1000m (OR 3.65, 95% CI 1.32 – 10.1, $p < 0.05$). The latter was also associated with allergic rhinitis (OR 5.71, 95% CI 1.65 – 19.8, $p < 0.01$) and number of co-occurring symptoms (IRR 1.62, 95% CI 1.16 – 2.46, $p < 0.01$). Associations were also found between presence of poultry within 1000m and respiratory symptoms and dizziness. A number of Inverse exposure-outcome associations were also observed.

Conclusions

Livestock exposure might be a risk factor of some comorbid conditions in ACOS patients. More research, especially longitudinal, is needed focusing on potentially vulnerable population subgroups.

Key messages:

- The present investigation belongs to a small group of epidemiological studies examining the association between livestock and morbidity in patients with respiratory problems
- Livestock exposure might be a determinant of co-occurring symptoms and infections in ACOS patients

The Italian Health Examination Survey: differences in measured and self-reported anthropometric data

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Background

Health Interview Survey collects self-reported (SR) height and weight to estimate obesity prevalence, then obesity prevalence could be underestimated. Differences in measured (M) and SR anthropometric measures from the Italian Health Examination Survey/Osservatorio Epidemiologico Cardiovascolare (2008-2012), are described.

Methods

General population random samples stratified by age and sex were examined in all regions by the Health National Institute and the Hospital Cardiologists Association. SR height and weight were requested to participants just after welcome at the screening, then measured using standardized procedures. BMI was categorized in 3 groups: normal-BMI < 25 kg/m², overweight-25 ≤ BMI < 30, obesity-BMI ≥ 30. Tests for paired samples were used for comparisons.

Results

Data from 2,583 men and 2,575 women aged 35-79 years were analysed (participation rate 56%). In men M height was lower (-2.1 cm) and M weight higher (+0.3 kg) than SR; consequently BMI calculated on M data resulted higher than that based on SR data (+0.8 kg/m²). Obesity prevalence resulted higher from M data than from SR (+7.1%). Difference between M and SR data resulted higher in obese category than in overweight/normal (height -2.6 cm, weight +1.6 kg). In women M height was lower (-3.6 cm) and M weight higher (+0.8 kg) than SR; BMI calculated on M data resulted higher than that based on SR data (+1.6 kg/m²). Obesity was higher for M data than for SR (+9.2%). Difference between M and SR data resulted higher in obese category than in overweight/normal (height -5.0 cm, weight +1.8 kg). All differences increased by age-group.

Conclusions

Results confirm how important is to produce standardised measures, also to adjust and correct SR height and weight, in order to have a reliable picture of obesity in the population. At present obesity is still a priority in public health and is one of the main indicator to plan community actions for chronic disease prevention in the population.

Key messages:

- Measured and self-reported health and weight measures from the Italian Health Examination Survey/OEC (2008-2012) show significant differences reflecting in BMI and obesity estimates
- To collect standardised measures of height and weight is important to have a reliable picture of obesity in the population in order to plan community actions for chronic disease prevention

The Association between Socio-economic and Lifestyle Factors and Oral Hygiene among Serbian Adults

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Background

According to the data of the relevant World Health Organization Collaborating Centres dental caries and periodontal breakdown still represent a major public health problem. Regular tooth brushing is considered the best preventive measure for oral plaque control.

Methods

The research represents a cross-sectional study of the representative sample of adult population in Serbia, as a part of "National Health Survey in Serbia 2013". The study involved 13690 respondents aged 20 years and over (53.8% female and 46.2% male). Survey instrument was interview-

administered questionnaire. Socio-economic state was assessed through education level, employment and DHS Wealth Index (WI) according to which respondents were divided into five categories (quintiles): from the first (the poorest) to the fifth quintile (the richest). Smokers were defined as those who have smoked 100 cigarettes in their lifetime and currently smoke cigarettes every day or some days.

Results

The least percentage of respondents had higher education (16.2%), unemployed was 23.0% while according to the WI the highest percentage of respondents was identified as the poorest (22.6%). The majority of respondents (44.8%) declared as non-smoker but 36.5% were smokers. Respondents with lower level of education had 5.70 respectively greater odds to brush their teeth occasionally compared to highly educated (OR=5.70; 95% CI=(4.35-7.48); $p=0.000$). Respondents who belonged to the poorest class had 4.15 and poorer 2.32 greater odds to brush their teeth occasionally compared to the richest (OR=4.15; 95% CI=(3.10-5.54); $p=0.000$) (OR=2.32; 95% CI=(1.78-3.04); $p=0.000$). Smokers had 1.68 greater odds to brush their teeth occasionally compared to non-smokers (OR=1.68; 95% CI=(1.44-1.97); $p=0.000$).

Conclusions

The degree of oral hygiene was found to be significantly associated with education level, employment, respondents from the poorest to middle class and smoking.

Key messages:

- It is necessary to improve the knowledge of importance of increasing frequency of tooth brushing in the population through educational and promotional activities in the community
- To increase the awareness of the harmful effects of smoking on oral and general health, having in mind that non-smokers have a significantly lower risk of tooth loss comparing to smokers

Self-rated health among elderly in Italy and Serbia: Socio-demographics, health status and behavior

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Background

Self-rated health (SRH) is a widely adopted tool to compare health across countries. Relationships of socio-demographics (i.e., age, gender, education level) with SRH in later life have been extensively observed cross-nationally. However, cross-comparisons of the effects of health behaviors (i.e., eating habits, smoking and alcohol consumption, body mass index) and health status (i.e., presence of chronic diseases, daily life limitations) on SRH are less frequent. Our aim was to examine SRH differences between older adults in Italy and Serbia and to observe the role of predictors of SRH particularly referring to health behaviors in both countries.

Methods

Two samples of 4406 Italians and 3539 Serbians aged 65 and older were extracted from national health surveys conducted in 2013. Post-hoc cross-standardization was carried out to ensure that the data from both countries were comparable. For this secondary analysis, SRH, socio-demographics, health status variables, and health behavior factors were selected.

Results

30.3% of the Italians and 22.3% of the Serbians reported good- or very good-SRH. Univariate and multivariate multinomial logistic regressions showed that Serbians reported poor-SRH significantly more often than Italians. Moreover, gender,

education level, chronic diseases, and daily life limitations resulted as significant predictors of SRH in both national samples. In addition, vegetable intake was positively associated to SRH among Italians, while among Serbians an adequate fruits intake was positively associated to SRH.

Conclusions

Factors correlated to SRH could guide health promotion interventions and multi-national prevention strategies for older populations in Southern Europe.

Key messages:

- The present study confirmed that socio-demographics, health status, and health behavior factors are major factors affecting SRH in late life
- Improving self-perception of health status among elderly could also drive the promotion of well-being

Risk factors of mortality in pulmonary TB patients in Yerevan, Armenia

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Background

TB is one of the ten leading causes of death worldwide. Comorbidities significantly contribute to TB related mortality. In many countries, including Armenia, the successful treatment rate among pulmonary TB (PTB) patients is below the WHO target of 85%. The mortality rate among TB patients was 5.7/100 000 people in 2013 in Armenia. The objective of the study was to identify the risk factors for death among PTB patients in Yerevan, Armenia.

Methods

We used a retrospective cohort study design. The study population included all adult patients registered in Yerevan outpatient TB facilities whose treatment outcomes were recorded in the database of the Armenian National Tuberculosis Control Center for the period January 1, 2013 to December 31, 2014. The electronic database and medical records were reviewed to obtain information on all the necessary variables. To identify risk factors associated with death outcome we used multiple logistic regression models to compare the variables between TB patients who died and those who survived.

Results

The study included 621 patients. After adjusting for potential confounders for each risk factor, the odds of death outcome was statistically significantly associated with having CVDs (OR=14.74; CI:5.02-43.23; $P<0.001$), cancer (OR=9.29; CI:2.17-39.7; $P=0.003$), hepatitis C (OR=6.27; CI:1.88-20.91; $P=0.003$), age (OR=1.03; CI:1.00-1.06; $P=0.029$), having DR TB (OR=2.88; CI:1.05-7.92; $P=0.041$) and combined form of TB (pulmonary and extrapulmonary) (OR=4.57; CI: 1.05-7.92; $p=0.041$). Higher weight was a protective factor from death (OR=0.95 (0.92-0.99) 0.016).

Conclusions

Our study demonstrated that comorbidities, such as hepatitis C, CVD and cancer, as well as, higher age, DR type of TB and combined form of TB are risk factors for mortality in patients with TB.

Key messages:

- TB patients with serious comorbidities are more likely to have a death outcome during the treatment
- TB treatment should be more carefully managed among older patients

A 'High Risk' lifestyle pattern is associated with metabolic syndrome among Qatari women

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Background

Recently, in nutritional epidemiology, the synergy between lifestyle factors such as diet, physical activity and smoking has been increasingly recognized, particularly in association with diseases of multifactorial etiologies such as the Metabolic Syndrome (MetS). This study investigated the effect of lifestyle patterns, as a combination of diet, physical activity and smoking, on Metabolic Syndrome (MetS) among Qatari women of childbearing age (n=418), a population group particularly vulnerable to the health sequela of this syndrome.

Methods

Using data from the National WHO STEPwise survey conducted in Qatar in 2012, Principal Component Factor Analysis was performed to derive lifestyle patterns with survey variables related to the frequency of consumption of 13 foods/food groups, physical activity levels, and smoking status in order. MetS was diagnosed using ATPIII criteria.

Results

Three lifestyle patterns were identified: 'High Risk' pattern, characterized by intakes of fast foods, sweets and sugar

sweetened beverages, in addition to lower levels of physical activity and higher smoking prevalence; 'Prudent' pattern, driven mainly by higher intakes of fruits, vegetables, fish, and whole grains; and 'Traditional' pattern which included beans, meat, dairy products, and a low prevalence of smoking. Among these three lifestyle patterns, only the 'High Risk' pattern was associated with higher odds of MetS, whereby subjects belonging to the third tertile of this pattern's scores had 2.47 times the odds of MetS (95% CI: 1.04-5.39) compared to those in the first tertile.

Conclusions

These findings support the combined effect of lifestyle behaviors in relation to diseases with complex and multifactorial etiologies such as the MetS. It also provided evidence for health authorities in Qatar to target 'holistic' lifestyle patterns modifications in the development of culturally sensitive interventions targeted at disease prevention among women of childbearing age

Key messages:

- High Risk lifestyle pattern, consisting of 'unhealthy' diet, low physical activity and smoking, increases the odds of metabolic syndrome among women of childbearing age in Qatar
- The findings of this study demonstrated the synergy among high risk behaviors in increasing the odds of MetS among Qatari women; the latter being a major risk factor for cardiovascular diseases

3.G. Skills building seminar: Understanding and addressing health disparities for sex workers in Europe

Organised by: Open Society Foundations

Contact: sebastian.kohn@opensocietyfoundations.org

Chairperson(s): Sebastian Kohn - United States

Realizing health for all requires thoughtful strategies to address the health disparities of marginalized populations. In Europe, sex workers' health is under threat due to pervasive stigma, discrimination, and criminalization. Despite mounting evidence that decriminalization of sex work affords the best environment in which to improve sex workers' health and access to health services, several European countries have recently moved in the opposite direction by further criminalizing sex work.

This panel brings researchers and practitioners together to explore recent research and programs around sex workers' health. The panel will look at:

- A new systematic review of the impact of criminalization on sex workers' health;

- Peer approaches to knowledge sharing and research in sex work;
- Sex workers' health and safety in Norway;
- Sex worker-led training programs on HIV/STIs and human rights.

Key messages:

- Sex workers in Europe face complex barriers to health, exacerbated by a deteriorating policy environment
- The inclusion of sex workers in the design of targeted health delivery is critical in order to realize good health for all

Panelists:

Lucy Platt, UK

Luca Stevenson, UK

Contact:

Andre's Lekanger, Norway

Paola Gioia Maciotti, Italy

3.H. Oral presentations: Child and adolescent mental health

Childhood mental health problems and adolescent alcohol and drug use. The Bergen Child Study

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Background

Alcohol and drug use and mental health problems often co-occur and constitute a large burden of disease. The aim of this study was to investigate early-life externalizing and internalizing mental health problems and the longitudinal associations with alcohol and illicit drug use in adolescence. In addition, we aimed to explore how this association is impacted by gender.

Methods

A longitudinal design was employed in this study using data from three waves of the large population-based Bergen Child Study, Norway. The current study presents data from N = 3718 individuals. The main independent variables were externalizing and internalizing mental health problems measured by the Strengths and Difficulties Questionnaire (SDQ) at age 8-10, and 12-14. The dependent variables were alcohol- and drug-related problems measured by CRAFFT at age 16-18, as well as alcohol and drug use. Statistical analyses included regression analyses.

Results

Externalizing problems in childhood was positively associated with all measures of adolescent alcohol and drug use (ORs ranging 1.58 to 1.94, p-values ranging <0.05 to 0.001). Internalizing problems was not associated with subsequent alcohol and drug use, with the exception of a negative association between internalizing problems and alcohol debut, which was only present among boys (OR 0.55, p < 0.01).

Conclusions

The results from this study suggest that early externalizing, and not internalizing, problems are associated with elevated levels of substance use during adolescence. Internalizing problems had a small protective effect for alcohol debut among boys, but were otherwise not associated with neither increased nor decreased risk for substance use during adolescence.

Key messages:

- Childhood externalizing problems, and not internalizing problems, predict elevated levels of adolescent alcohol and drug use
- Childhood internalizing problems have a weak protective effect on alcohol debut among boys only

Divorce and family structure in Norway – Associations to adolescent mental health

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Background

Impairment in mental health is more common among youth who have experienced parental divorce, but are not equally distributed across different post-divorce family structures. Children living in joint physical custody (JPC) seem to be better adjusted compared to those living in single-parent or stepparent families. Still, some fear that the lack of stability of

this arrangement may stress the children. We investigated the association between family structure and mental health among Norwegian adolescents, contributing to the limited knowledge about adjustment in current post-divorce families in Norway.

Methods

Data stem from the youth@hordaland study, a population based survey conducted in Norway in 2012. 8068 adolescents (47% male) aged 16-19 provided self-reported information about divorce, family structure, and perceived family finances (SES). The adolescents were classified into six family structures. Mental health was measured using the total, externalizing and internalizing-scales of the Strengths and Difficulties Questionnaire (SDQ).

Results

We found a significant difference between the divorced and non-divorced group on the three SDQ-scales (Cohen's d .18 - .25). Using family structure as a dummy coded predictor, there was no significant differences between non-divorced families (reference) and JPC, adjusting for gender and SES (SDQ-tot: B = -.36, p = .19, SDQ-int: B = -.16, p = .33, SDQ-ext: B = -.18, p = .25). Adolescents from single-parent and stepfather families scored significantly higher on all three SDQ-scales, while adolescents from stepmother families scored significantly higher on the SDQ-externalizing scale.

Conclusions

Divorce is associated with mental health problems among adolescents, but the magnitude differs in relation to post-divorce family structures.

Key messages:

- Divorce is still associated with mental health problems
- Adolescents living in joint physical custody are not at higher risk of mental health problems compared to their peers living in non-divorced families

Deterioration in educational attainment as a predictor of suicidal behaviour in young adulthood

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Background

Behavioural changes in young people, such as deterioration in educational attainment, may indicate an increased risk of suicidal behaviour. Due to potentially greater academic expectations, the effect of deterioration in attainment may be greater in those from more affluent backgrounds. We investigate whether deterioration in attainment is associated with attempted and completed suicide in a population of school leavers in Scotland and whether any effect varies by socio-economic position (SEP).

Methods

Education data for school-leavers in 2007-11 were linked with mortality and acute hospital records from birth. Educational attainment was measured using tariff points. Tariff points range from 1 to 120 per subject. Total scores were calculated separately for middle (~15/16 years) and upper secondary (~16/17 years) by summing all points accumulated during these stages. SEP was measured using maternal socioeconomic group. Linear regression was used to predict attainment in upper secondary based on prior attainment. Deterioration referred to those for who predicted exceeded actual attainment. Logistic regression modelled effect of deterioration

on odds of attempted or completed suicide between date of leaving school and September 2012. Individuals with known suicide attempts prior to school-leaving were excluded.

Results

In the population of 163,247 leavers who continued from middle to upper secondary, 987 (0.6%) attempted or completed suicide after school-leaving. After accounting for prior attainment, underperforming ($n = 78,460$) was significantly associated with increased odds of event when compared to those who performed as or better than expected, odds ratio $OR = 1.62$ (95% $CI = 1.42-1.85$). However, these effects did not differ by SEP ($p = 0.958$).

Conclusions

Deterioration in educational attainment is a means of identifying young people at increased risk of suicidal behaviour. Offering support to such individuals could contribute to a reduction in suicidal behaviour in young people.

Key messages:

- Deterioration in educational attainment is associated with an increased risk of suicidal behaviour in young adults in Scotland
- Offering support to those with deteriorating attainment may contribute to a reduction in rates of attempted and completed suicide in young people

Psychosocial health and academic performance – a multilevel longitudinal study

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Background

Low academic performance has been associated with poor health but less so in longitudinal studies. We examined whether psychosocial health and health complaints at the beginning of lower secondary school predicts academic performance when leaving basic education. Our research hypothesis included micro and macro level contributions of psychosocial health and health complaints on academic performance.

Methods

Seventh-grade students (12-13 years, $N = 7894$, 127 schools, 611 classes) answered a Health survey (SDQ; health complaints; long-term illness; academic performance measured by grade point average, GPA-7). Grade point average (GPA-9) was obtained from the national register of basic education certificates (9th grade, age 16). Three-level regression analyses were executed to examine the independent student, class and school level effects. Additionally, the moderated effect of class-level predictors on the strength of a student level relationship between GPA-7 and GPA-9 was studied.

Results

Psychosocial health (internalizing and externalizing problems) in the 7th grade predicted GPA-9 in the basic education certificate even after adjusting for GPA-7, gender and parents' education ($p < .001$). The effect of class-level psychosocial health on GPA-9 was as strong as the effect of student-level psychosocial health. Class-level health complaints explained differences in the extent that student's GPA-7 predicted student's GPA-9 ($p = .001$).

Conclusions

Psychosocial problems and health complaints seems to be independent predictors of students' academic performance during lower secondary school. In order to enhance the academic performance students' psychosocial problems and health complaints should be taken into consideration both at the student and class levels. Co-operation of educational and health personnel in schools is needed to observe and intervene

in students' psychosocial problems and health complaints at the beginning of lower secondary school.

Key messages:

- Psychosocial problems and health complaints should be taken into consideration both at the student and class levels in order to enhance students' academic performance in lower secondary school
- Co-operation of educational and health personnel in schools is needed to observe and intervene in students' early psychosocial problems and health complaints

Children left alone as a public health concern: a case of Lithuania

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Background

Emigration and mental health have complex relations however it is considered as one of the public mental health risk factors. In this perspective Lithuania is a country at high risk. According to IOM, in 2015, 15.9% of all Lithuanians lived outside the country, every second emigrant left children with one of the parents or relatives. Left alone children suffer from depression, anxiety, behavior disorders and other mental health problems, leading to the need of evidence based public health interventions to improve their mental health state. Systematic approach and solid evidence is needed to evaluate the real burden of parental emigration on mental health of their left alone children.

Methods

Literature review and descriptive analysis of articles in the MEDLINE and Science Direct databases for mental health outcomes of left alone children were conducted.

Results

Most of research report negative outcomes of parental emigration on left alone child's mental health (increased risk of depression, conduct problems, anxiety disorders) including social issues (bullying at school, increased grief and hopelessness). Specifically for young children emigration may lead to shorter periods of breastfeeding, less attentive feeding and insufficient intake, which also affects mental health state. Lithuanian policy needs strategic and more adequate response to this growing public mental health risk. Effective evidence based public health interventions such as caregiver and child social support, more attentive care for health in educational institutions may reduce the risk of mental health problems for left alone children.

Conclusions

Parents emigration leads to negative mental health outcomes for their left alone children. The adequate emigrant policy and evidence based public health interventions are needed to respond mental health challenges of left alone children.

Key messages:

- Parents emigration is a risk factor for left alone children mental health state
- Effective support policy for left alone children should be based on evidence based interventions

Association between personal and perceived peer alcohol drinking among Danish adolescents

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Background

Research on social norm theory suggests that adolescents often overestimate peer risk behaviour such as alcohol misuse. When adolescents experience a misperception on alcohol norms they tend to adjust their own consumption pattern to align with that of the believed peer consumption leading to higher rates of personal use. This study aims to investigate misperceptions of peer alcohol consumption among Danish adolescents, and specifically if (mis)perceptions are associated with personal drunkenness.

Methods

Data on personal and perceived peer substance use were collected among 1.447 pupils in 8th and 9th grade from the Region of Southern Denmark participating in the cluster randomized controlled trial The GOOD life. The pupils were asked to report personal drunkenness and perceived percentage of peers who have ever been drunk. Personal experience of ever been drunk was analysed as dependent variable with socio-demographic factors and perceived peer drinking behaviour as independent variables.

Results

All pupils provided significantly higher estimates of the percentage of peers who have ever been drunk compared with the actual percentage of pupils who have ever been drunk (t-test $p < 0.001$). Pupils who have ever been drunk estimated that 62% (SD 25.8%) of their peers' have done the same, while pupils who never have been drunk estimated that only 37% (SD 26.4%) of their peers have done the same. Hence the higher the pupils perceived peer drunkenness to be, the more likely they were to be drunk themselves (OR= 1.03 per 1% increase in perception, $p < 0.001$). In addition older age and higher grade were significantly associated with ever been drunk, while gender and family affluence were not associated.

Conclusion

Estimated peer behaviour regarding drunkenness is positively associated with personal drinking experience.

Key message:

- We suggest normative feedback to correct misperception of peer alcohol behaviour as a promising preventive strategy for Danish adolescents.

3.I. Oral presentations: Family in mental health

Association of parental somatic illnesses in childhood to later psychiatric diagnoses of offspring

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Background

Earlier studies on the association between parental somatic illnesses and children's psychological well-being are focused on the most common somatic illnesses or some specific groups of illnesses. This study is aimed to identify comprehensively the parental somatic illnesses during childhood that associate to later psychiatric diagnoses of children up to early adulthood in the 1987 Finnish Birth Cohort.

Methods

The 1987 Finnish Birth Cohort is a longitudinal nationwide follow-up data including a complete census of children born in a single year 1987. Children have been followed over time from the prenatal period through the year 2012, using official registers collected by Finnish authorities.

Parental ICD-9 diagnoses of specialized hospital inpatient care were gathered from Finnish Hospital Discharge Register after children's birth until 1996. Children's psychiatric diagnoses of specialized hospital out- and inpatient were collected from same register in 1996–2012.

Logistic regression analyses were used to calculate gender-specific odds ratios for psychiatric diagnoses of offspring in association to maternal and paternal somatic illnesses. Models were adjusted by parental highest education up to 2008, parental social assistance and parental psychiatric mental health diagnoses after the birth of cohort member up to 2012 for somatic illnesses.

Results

Several somatic parental illnesses, not reported earlier, were found to associate significantly with offspring's later psychiatric diagnoses.

Conclusions

A wider range of parental somatic illnesses during offspring's childhood seem to be risk factor for later offspring's psychiatric disorders than previously known. Therefore

parental somatic illnesses should be considered more widely as adverse childhood life event, needing for preventive actions and child-centered support in adult healthcare.

Key message:

- More focus on well-being of children's with parental somatic illnesses is called for

Parental risk factors related to circumstances of childhood for psychiatric disability pension

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Background

In some cases mental health problem can affect work capacity leading to exit from the labour market via disability pension. Previous research has documented several early social determinants of mental health disorders, but evidence is scarce when it comes to understanding how risk factors for disability pension compare of those of most common mental health disorders.

Methods

This study aimed to identify childhood risk factors for disability pension of different diagnostic groups and compare them to risk factors associated with mental health problems of the same category. The 1987 Finnish Birth Cohort, a longitudinal nationwide follow-up data including a complete census of children born in 1987 was used. Children have been followed over time up to 2012, using official registers collected by Finnish authorities.

Logistic regression analyses were used to examine whether parental social assistance and divorce, mother's and father's psychiatric care, highest education, psychiatric and somatic disability pension and mother's age predicted disability pension retirement in various groups of mental disorders. Children having diagnosis related to intellectual disability were excluded.

Results

Only few associations between parental risk factors in childhood and disability were found. Mother's psychiatric disability pension (OR 2.44 (95% CI 1.36–4.40)) increased risk for disability pension due to schizophrenia. Mother's (1.54 (1.02–2.34) and father's (2.05 (1.39–3.02) psychiatric care and parental social assistance (2.09 (1.59–2.73)) were also risk factors for disability pension due to schizophrenia.

Conclusions

Parental risk factors for children's psychiatric disability pension were not similar as determinants for psychiatric hospitalization or outpatient care. This knowledge is needed for comprehensive preventative and supporting efforts.

Key message:

- Parental psychiatric care and social assistance are risk factors for children's disability pension due to schizophrenia

Somatic symptoms in adolescence as a predictor of in-patient care for mental disorders in adulthood

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Background

Somatic symptoms such as headache, abdominal pain and dizziness, are common among young people and often associated with poor everyday functioning and concurrent mental disorders. Yet, relatively few studies have examined the long-term consequences of such symptoms. The aim of the study was to investigate if somatic symptoms in adolescence predict adulthood hospital based care for mental disorders.

Methods

The total school population of 16-17-year olds, in the city of Uppsala, Sweden, was screened for depression in 1991-1993. Adolescents with positive screening and the same number of healthy controls took part in a semi-structured diagnostic interview of mental disorders. In addition, 21 different self-rated functional somatic symptoms were assessed. The participants were followed up in the national patients register about 20 years later (n=337). The associations between somatic symptoms in adolescence and in-patient care and out-patient hospital based mental health care in adulthood were analysed using binary logistic regression analysis.

Results

Adolescents with somatic symptoms had an excess risk of later psychiatric hospital based health care. The presence of multiple somatic symptoms (≥ 5) in adolescence was associated with psychiatric hospital based care in adulthood also when controlling for depression and anxiety in adolescence as well as sex and potential psychosocial confounders (OR 3.29, $p = 0.046$). The presence of just any somatic symptom (≥ 1) in adolescence predicted later hospital based mental health care for mood disorders (OR 8.49, $p = 0.041$) whereas adolescent depression, anxiety and sex did not, when mutually adjusted for.

Conclusions

Somatic symptoms in adolescence are a strong independent predictor of severe mental health problems in adulthood. The

link between adolescent somatic symptoms and adult mood disorders are particularly strong even when somatic symptoms are compared head to head with concurrent depression and anxiety.

Key message:

- Somatic complaints in adolescence predict psychiatric in-patient care in adulthood. The finding is robust when adjusting for adolescent depression and anxiety and other potential confounders

Intimate partner violence and its association with depression: a population-based study in Sweden

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Background

Exposure to Intimate Partner Violence (IPV) is associated with adverse mental health outcomes such as depression and depressive symptoms. Research about the specific contribution of different types of IPV (physical-, sexual- and psychological violence, including isolating control tactics) to women's depressive symptoms in population based samples is scarce. Earlier studies performed in Sweden on this matter have mainly been conducted on clinical samples or women from shelters, thus this study is important since it uses data from a general population. It also includes isolating control as an independent variable, which is an under-researched area when it comes to studies on IPV and its association with mental health in women.

The aim of this study was to investigate how physical, sexual violence and isolating control were associated with self-reported symptoms of depression in a female population based sample in Sweden.

Methods

A cross-sectional study based on survey data from 573 women was performed in 2009. Self-reported symptoms of depression were measured with five items according to symptoms defined in DSM-IV. To measure IPV, the WHO's 'Violence against women instrument' and the 'Controlling behavior scale' were used. Bi- and multivariable analyses were performed, using crude and adjusted odds ratios (OR) and 95% confidence intervals (CI) to examine the association between IPV and symptoms of depression.

Results

There was an association with self-reported symptoms of depression for all forms of IPV, i.e. isolating control (OR 2.43; CI 1.56 – 3.79), physical- (OR 3.06; CI 1.50-6.24) and sexual violence (OR 3.06; 1.50 – 6.24) during past 12 months. These associations were statistically significant even after adjustments for psycho-social and socio-demographic factors.

Conclusions

This study shows that all forms of IPV are prominent risk-factors for women's mental health and that controlling acts cannot be considered as a less damaging type of IPV.

Key messages:

- The study adds knowledge about the specific contribution of different types of IPV to women's mental health
- Health care professionals should be trained in asking routinely about IPV

3.K. Pitch presentations: Evidence and public health practice in infectious diseases control

Increasing subnational commitment for measles and rubella elimination: the role of regional reports

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Issue/problem

To assess the progress towards measles and rubella elimination in the WHO European Region, the National Verification Committee of each Member State is requested to submit an annual status report (ASR) to the WHO Verification Commission for review and evaluation. Documentation required for Italian ASR are provided by the Ministry of Health, the National Institute of Health, and the 21 Regions. However, these ASR do not allow Regions to understand deeply their situation in the elimination process.

Description of the problem

The aim of this project is to produce regional synthetic annual reports, using the same data sources of the national ASR, that are sent to Regions to give them feedback about their progress towards elimination. A set of indicators has been identified within the framework of the national ASR. A green or red flag has been assigned to each indicator when regional data are better or worse than the national average, respectively. Where available, international targets were provided.

Results

In 2014 the incidence of measles and rubella in Italy was respectively 27 and 0.4 per million population. For all Regions coverage for both 1st and 2nd doses of routine measles and rubella vaccines was below the target of 95%. Analyzing those Regions with a percentage of red flags higher than the average percentage of red flags of the country, it emerged that 6/8 Regions were in the South of Italy (75%), 4/9 in the North (44.4%) and 1/4 in the Centre (25%).

Lessons

Regional reports are a valid tool to enhance the verification process at the sub-national level and may encourage regional and local authorities to implement appropriate strategies to remove barriers to the elimination goals. Southern Regions of Italy need to increase their efforts compared to other Regions.

Key messages:

- In line with WHO recommendations to reinforce the commitment of the 21 Italian Regions, regional reports are able to provide Regions with detailed information about their progress and critical issues
- Regions of South Italy should mobilize better their financial, technical and human resources to achieve the elimination goals

Available data on immunogenicity and safety of meningococcal B vaccine in children and adolescents

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Background

Neisseria meningitidis serogroup B is the most common etiological agent of meningococcal invasive disease in Europe. A multicomponent vaccine against meningococcal serogroup B

(4CMenB) has been licensed since 2013 in different European countries, with various immunization schedules. We are conducting a meta-analysis aimed to assess the immunogenicity and safety of 4CMenB on children and adolescents.

Methods

We searched MEDLINE, Scopus and Clinicaltrials.gov databases for all published and unpublished randomized clinical trials (RCTs) comparing the immunogenicity and safety of 4CMenB against controls. We plan to perform head-to-head and proportion meta-analyses.

Results

We retrieved a total of 22 RCTs published between 2010 and 2016. 16 trials met the inclusion criteria: 12 included healthy children aged 2-60 months, 4 focused on adolescents aged 11-17 years. 2 out of 16 studies compared the immunogenicity and safety of 4CMenB against placebo, one against placebo followed by the MenACWY vaccine, one against MenC vaccine, two against routine vaccinations, two studies were lot-to-lot comparisons and all the others compared 4CMenB with the previously developed recombinant Meningococcal B vaccine (rMenB). In all studies, immunogenicity data were based on the analysis of bactericidal antibody titers against meningococcal serogroup B strains, performed 1 month after the final dose. 5 studies evaluated the persistence of bactericidal antibodies in preschool children. The strains used by all authors to assess immunogenicity were 44/76-SL, 5/99 and NZ 98/254.

Conclusions

Several studies have been published on the immunogenicity and safety of 4CMenB on children and adolescents, but they are heterogeneous in terms of populations and schedules. Data on the persistence of bactericidal antibodies are scarce.

Key messages:

- Available studies on meningococcal B vaccine are extremely heterogeneous and a quantitative synthesis of available evidence is challenging
- Additional studies are needed to address the persistence of immunogenicity in vaccinated children, including trials sponsored by non-industry agencies

Fostering flu vaccination among health workers; Forum Theatre and On Site Vaccination in Hospital

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Background

Influenza affects approximately 10% of the general population leading to high morbidity and mortality especially in elderly and frail people.

For this reason flu vaccination is recommended among health care workers (HCWs) in order to protect immunocompromised patients.

The low vaccination rate, registered among Gemelli Teaching Hospital HCWs during the last years, called for new engaging approaches to improve flu vaccination coverage.

This study aims to evaluate the efficacy of two complementary new strategies: Forum Theatre (FT) and On Site Vaccination (OSV).

Methods

FT, a theatrical methodology of social and political change promotion, has recently been used in health care settings to foster HCWs engagement and empowerment.

The Hospital Health Management of Gemelli Teaching Hospital organized FT sessions inviting participants by means of posters and e-mail remind whereas OSV was proposed directly during the daily activity, by Preventive Medicine Service.

The intervention was promoted only in some Clinical Units (CU) which were compared with others matched for patient's risk profile and considered as control.

Chi Squared test was used to assess differences in vaccination coverage between groups; statistical significance was set at p value = 0.05. Analyses were performed using IBM SPSS 22 for windows.

Results

FT sessions and OSV were realized between October and December 2015 in 9 CU considered at risk for the immunological status of patients, involving overall 412 HCWs. Matched control CU accounted for a total of 399 HCWs.

The vaccination coverage in HCWs belonging to CU that received the interventions was 13,6% compared to 4,8% among controls ($p < 0.001$).

Conclusions

This new additional strategies were effective in achieving an higher vaccination coverage among HCWs and therefore can be considered as a valuable intervention in health care settings.

Key message:

- Participative strategies, such as FT and OSV, are important to foster flu vaccination in order to improve the coverage among HCWs and to protect the whole hospital community

Vaccination status and acceptance of medical students. Results of a multicenter study

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Background

Current outbreaks of vaccine-preventable infectious diseases (vpid) show the insufficient vaccination coverage in Europe. Vaccination recommendations vary between EU member states and beyond while outbreaks of vpid cross country borders through increasing migration, travel and also due to political crisis. Because of increasing migration, exploring medical students' vaccination status and acceptance is necessary, especially since their health also affects patient health.

Methods

An cross-sectional survey focusing health behavior was conducted among medical students in their 1st/3rd/5th academic years in Dresden, Munich, Budapest and Pécs in 2014. 56.2% of 5223 registered medical students participated. This analysis focuses vaccination status and acceptance on German and Hungarian students ($n = 2354$).

Results

Comparable vaccination acceptance rates were observed between students in Dresden and Hungarian students (>80%), while German students in Munich, Budapest and Pécs reported approximately 10 percent lower acceptance (χ^2 -tests/ $p \leq 0.01$). 2% of all students reported no vaccination regarding measles, mumps and rubella (MMR), irrespective of

nationality; >20% reported not knowing their own vaccination status. Regarding diphtheria and pertussis (DP, periodic boosters recommended in both countries), significantly more Germans reported sufficient vaccination status. More Hungarians than Germans ($\geq 14\%$ vs. $\geq 5\%$ / χ^2 -test, $p \leq 0.001$) reported not knowing their own vaccination status regarding DP.

Conclusions

Regardless of a high vaccination acceptance, the reported vaccination rates are partly inadequate in German and Hungarian students and do not secure the herd immunity. Concerning PD vaccination status, obligatory vaccination seems to lead to a lower awareness regarding vaccination among Hungarian students. Regarding vaccinations that need periodic boosters, adequate vaccination coverage does not seem to be guaranteed with obligatory vaccination.

Key messages:

- Regardless of a high vaccination acceptance, the reported vaccination rates are partly inadequate in German and Hungarian students
- Regarding vaccinations that need periodic boosters, adequate vaccination coverage does not seem to be guaranteed with obligatory vaccination

A meta-analysis of Hepatitis B, Hepatitis C and HIV prevalence in prisons of high-income countries

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Background

Several studies outlined the higher prevalence of infectious diseases among prisoners. In particular, HIV, Hepatitis B and Hepatitis C prevalence resulted alarmingly high in both female and male inmates. We aimed to perform a meta-analysis regarding HIV, HBV and HCV prevalence among prisoners in high-income OECD countries.

Methods

We followed the PRISMA statements. We considered two databases (PubMed and Scopus), selecting all the works regarding blood-borne viruses' prevalence in prison published from 2000. We conducted proportion meta-analyses regarding these prevalences.

Results

The final selection included 40 studies. Nineteen studies were conducted in Europe and twenty-one in extra-European countries. The heterogeneity appeared high for all the considered prevalence ($I^2 > 90\%$). The summary anti-HCV antibodies prevalence among adult inmates resulted 24% (CI 21-27). In the injecting drugs users (IDUs) subpopulation, the HCV prevalence was 67% (CI: 60-74). The summary HCV prevalence of incarcerated women (30% CI: 25-36) was higher than that of men (24% CI: 20-27). The summary HIV prevalence resulted 4% (CI: 2-5) among general inmates and 6% (CI: 3-10) for IDUs. The HIV prevalence was higher in female than in male inmates. Finally, the summary anti-HBc prevalence among inmates was 18% (CI 12-24) and 36% (CI 24-48) among IDUs. The HBV prevalence appeared similar in male and female inmates.

Conclusions

Our review highlighted the high prevalence of blood-borne viruses among inmates. All the retrieved prevalence resulted higher than those in general population. The IDUs appeared as the group at higher risk, especially regarding HCV infection. Incarcerated women seemed at higher risk of infectious diseases. Finally, an accurate knowledge of the infectious disease burden in prison is essential to implement effective preventive strategies in this setting. Nevertheless, in many countries, data of systematic surveillance lacked.

Key messages:

- The summary prevalence of HCV, HBV and HIV among inmates resulted higher than in general population. Injecting drug users and women appeared at higher risk for these infectious diseases
- The detainees' infectious profile is an important concern of public health. An accurate knowledge of this disease burden is essential. Nevertheless, in many countries, prevalence data lacked

A novel method for a quick detection of legionella in water samples

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Contact: daniele.rosadini@student.unisi.it**Background**

The presence of Legionella in the water systems of health-care settings is a worldwide problem particularly in critical wards. Gold standard for the detection of Legionella in water samples is the culture method, which needs about 10-13 days for the results. Gene probes marked with fluorochromes (GPM), can detect the presence of Legionella spp. and *L. pneumophila* in about 75 hours. The aim of the study was to compare the validity of standard method versus GPM preparation with acid and warm treatment.

Methods

The study was conducted in the Siena's hospital, Italy in April 2015. 38 samples of pre-flush water were collected after removing water tap end-filter. Proper aliquots of water were studied following guideline/standards. Samples of water, with/without hot treatments, were used as gold standards and compared with samples which were analyzed with GPM, made by VermiconTM, using acid or warm preparation methods. Petri dishes were inoculated and incubated at 37 °C for 10 days (standard method) and GPM for 72±4 hours. Areas (AUCs) under the ROC curves for Legionella were used for displaying the discrimination accuracy of the GPM methods when compared to gold standards. Threshold of detection for positive sample was set at 1000 CFU/L following standards.

Results

A good accuracy was reached (AUCs 0.91-0.97) for the detection of *L. pneumophila*, both for hot and acid GPM treatments (sensitivity ranged from 80-90%; specificity 68-75%). AUC of 0.81 (sensitivity 50%, specificity 81%) resulted for Legionella spp., using GPM acid treatment compared with culture method without hot treatment.

Conclusions

Both two GPM methods are acceptable and predictive in the detection of *L. pneumophila*, while for *L. spp.* emerged that acid treatment is preferable. An advantage to other method such as PCR is that only alive *L.* are counted. GPM methods seem a reliable method whenever a quick response is needed to ensure the safety of healthcare setting and so for the patients

Key messages:

- The gold standard on detecting Legionella needs about 10-13 days to have results; the innovative GPM method could be helpful for a quick response
- Gene probes marked with fluorochromes are based only on live colony, unlike other tests such as PCR which could identify also false positive

Risk factors of Cutaneous Leishmaniasis (CL) caused by *L. tropica*: a case-control study in Palestine

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Background

Leishmaniasis is still considered as a neglected disease by the World Health Organization. This study applies an eco-health approach that integrates public health measures, epidemiology, and disease ecology to study CL caused by *Leishmania tropica* in the West Bank.

Methods

The study was conducted in Tubas district (northeast of the West Bank). The district was divided to three different sites according to their urbanization and socio-economic status. A matched Case-Control study was conducted in the endemic sites. Questionnaires were used to determine the epidemiological risk factors.

Results

There was a significant difference in age distribution ($p=0.022$) of cases between the three sites. The city and villages cases were males in majority, while Bedouin cases were mostly females. The peak temporal distribution of cases was in December-January months. In the urban setting controls tend to use insect repellents ($p=0.044$), and spraying inside their houses ($p=0.022$) more than cases. Houses of cases were significantly closer to the village's edge than controls ($p=0.0001$). Other risk factors include: living closer to farms ($p=0.0001$), raising domestic animals ($p=0.017$), seeing hyraxes in vicinity of houses ($p=0.0001$), and the distance of hyrax colony from houses ($p=0.0001$). In the rural setting risk factors include living closer to the village edge ($p=0.05$). In the Bedouin area risk factor includes living closer to hyrax colonies ($p=0.037$).

Conclusions

In more urbanized sites, the effect of living next to the site's edges, facing the wadies and open green areas, increase the exposure to vector (sand-fly), and proximity to the reservoir (hyrax) colonies. In addition high density of reservoir, proximity to human houses, as well as high density of vector, with the absence of personal protection against the vector, increased the risk of disease transmission. These risk factors must be included in future interventions to reduce CL incidence.

Key messages:

- The information about CL caused by *Leishmania tropica* in the Palestine is largely lacking. Therefore, this study will provide data and information to better understand the disease dynamic
- Understanding of risk factors relevant to vectors and humans will provide better understanding of disease transmission and open the way for better control and for better public health practices

Prevention of STI among medical students in Germany and Hungary. Results of a multicenter study

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Background

Sexually transmitted infections (STI) are a global health problem that increases in Europe since the middle of 1990s especially among young, sexually active people. STI incidence rates are higher in Eastern than in Western Europe. Condom using and STI-testing are important methods to prevent STI and HIV. Since there is an association between health behavior and patient consulting, medical students should be sensitized to STI prevention. Since no published data regarding STI prevention among medical students exists, we examined this among medical students in Germany and Hungary.

Methods

An anonymous and voluntary cross-sectional multicenter survey was conducted among 1st 3rd, 5th academic year medical students in Dresden, Munich, Budapest and Pécs in 2014. 56.2% of 5223 registered medical students participated in the study. This analysis focuses on German and Hungarian students (n=2354) with a special focus on a risk-group of students with ≥ 2 sexual partners in the last 12 months.

Results

Response rate regarding number of sexual partners in the last 12 months was significantly lower among Hungarian than German medical students (65.8% vs. 83.5%, χ^2 -test/ $p \leq 0.001$). 26.3% of respondents (n=467) reported ≥ 2

sexual partners/12 months; there were no differences between nationalities but between gender (M: 32.7% vs. F: 22.3%, χ^2 -test/ $p \leq 0.001$). 28.0% of students with ≥ 2 partners reported using condoms never/seldom, females more often (M: 21.8% vs. F: 33.5%, χ^2 -test/ $p \leq 0.05$). More than 50% of students with ≥ 2 partners reported testing for STI never/seldom. Regularly testing was reported by 17.4% male and 27.8% female students (χ^2 -test/ $p \leq 0.01$).

Conclusions

Sensitizing for prevention of STI is important for (future) physicians to protect their own and their partner's health but also to consult and treat patients. Specialists as well as general practitioners must be familiar with prevention, diagnostic and therapy of STI.

Key messages:

- 28% of medical students with ≥ 2 sexual partners/12 months report using condoms "never/seldom" and more than a half testing for STI "never/seldom"
- Sensitizing for prevention of STI is important for future physicians to protect their own and their partner's health, but also to consult and treat patients

3.L. Oral presentations: Social inequalities and their influence on health

Educational inequality in alcohol-attributable events: A Danish register-based cohort study

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Background

Alcohol-related mortality is more pronounced in lower than higher socioeconomic groups in Western countries. Differential vulnerability to health effects of alcohol consumption across socioeconomic groups may be a possible explanation.

Methods

In a pooled cohort study of 74 278 Danish men and women aged 30-70 years, we investigated interaction between educational level and alcohol consumption on the rate of alcohol-related events using the additive hazards model.

Results

During follow-up (1981-2009) a total of 1718 alcohol-related events occurred. While high alcohol consumption was more prevalent among those with high educational level, higher rates of alcohol-related events were observed among those with medium or low educational level. We observed interaction ($P < 0.001$) between educational level and alcohol consumption on alcohol-related events for men and women. The joint effect of low educational level and very high alcohol consumption ($> 21/28$ drinks per week) on alcohol-attributable events was more than expected by the sum of their separate effects: among men, we observed 290 (95% confidence

interval, 125,454) extra events per 100 000 person-years due to interaction between education and alcohol. Correspondingly, among women we observed 239 (88,391) extra events per 100 000 person-years due to interaction.

Conclusions

A risk factor with a partly "reversed" gradient can play an important role as determinant of health inequalities. The differential vulnerability to high alcohol consumption illustrates that reducing very high consumption will have a particular strong effect on morbidity and mortality among low educated.

Key messages:

- Alcohol-attributable morbidity and mortality has higher incidence among those with low educational level
- Reducing the prevalence of a very high alcohol consumption across socioeconomic groups might have a particularly strong effect on morbidity and mortality among those with a low education

The role of financial strain and self-control in explaining income inequalities in health behaviors

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Background

Lower income group's unhealthy behaviors can only partly be explained by direct costs of behaving healthily. We hypothesize that low income increases the risk of facing financial strain, which takes up cognitive 'bandwidth' and leads to less self-control, and subsequently **Results** in more unhealthy behavior.

Methods

Cross-sectional survey data were obtained from participants (25-75 years) in the 5th wave of the Dutch GLOBE study

(N = 2812). The association between income, financial strain, self-control and health behaviors (leisure time physical inactivity, obesity, smoking, excessive alcohol intake, and fruit and vegetable (F&V) intake (in 100 grams/week)) was analyzed by linear regression and generalized linear models (log link). Models adjust for education, age, sex, country of birth, living together with a partner, children living at home and employment status.

Results

Income inequalities in health behavior were greatly reduced after adjustment for other socioeconomic indicators. Having great compared to no financial strain increased the risk of physical inactivity (RR:1.48, 95%CI:1.02;2.14), obesity (RR:1.64, 95%CI:1.17;2.31), smoking (RR:1.94, 95%CI:1.41;2.66), excessive alcohol intake (RR:1.42, 95%CI:1.00;2.02) and less F&V intake (β :-3.09, 95%CI:-4.77;-1.41), independent of income. Low self-control increased the risk of physical inactivity (RR:1.74, 95%CI:1.23;2.46), obesity (RR:2.82, 95%CI:2.03;3.93), smoking (RR:1.97, 95%CI:1.43;2.71), excessive alcohol intake (RR:2.18, 95%CI:1.68;2.82) and less F&V intake (β :-3.63, 95%CI:-4.84;-2.41) compared to high self-control. Self-control attenuated the association between financial strain and unhealthy behaviors.

Conclusions

Great financial strain and low self-control are consistently associated with unhealthy behaviors. Self-control may partly mediate between financial strain and unhealthy behavior. Interventions that relieve financial strain may free up cognitive bandwidth and improve health behavior.

Key messages:

- Financial strain is more important than income in its relation with health behaviors
- Impeded self-control is associated with unhealthy behaviors and may partially explain the association between financial strain and unhealthy behaviors

Multiple health-risk behaviors in women and men with different socio-economic trajectories

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Background

Previous research shows that health-risk behaviors are more prevalent among people who attain or have their origin in a low socio-economic position. Few studies have investigated the co-occurrence and clustering of health-risk behaviors in people with different socio-economic trajectories from childhood to adulthood.

Methods

This study was based on data collected through the Stockholm County Council's public health surveys. We selected the 24,241 participants aged 30 to 65 years, who responded to a postal questionnaire in 2010. Information on parents' and participants' educational levels was used for classification of four socio-economic trajectories, from childhood to adulthood: the 'stable high', the 'upwardly mobile', the 'downwardly mobile', and the 'stable low'. Information on daily smoking, risky drinking, physical inactivity, and poor diet was used for assessment of health-risk behaviors: their prevalence, co-occurrence, and potential clustering.

Results

All health-risk behaviors were found to be more prevalent among women and men with a downwardly mobile or stable low socio-economic trajectory. Accordingly, the probabilities

of having three or four co-occurring health-risk behaviors were much higher (up to 4 times, in terms of odds ratios) in these groups as compared to the groups of women and men with an upwardly mobile or a stable high socio-economic trajectory. However, clustering of the health-risk behaviors were not found to be stronger within the people with a downwardly mobile or stable low socio-economic trajectory.

Conclusions

Women and men with a disadvantageous socio-economic career were found to have co-occurring health-risk behaviors more often than people with an advantageous socio-economic career. This pattern seemed to be generated by differences between the socio-economic trajectory groups in prevalence of the health-risk behaviors, not by differences in the clustering of the behaviors.

Key messages:

- Women and men with downwardly or stable low socio-economic trajectories are much more likely to have multiple health-risk behaviors than women and men with upwardly or stable high trajectories
- Higher prevalence, and therefore more co-occurrence, of the various health-risk behaviors generate this pattern, not differences in how the behaviors cluster in individuals

Relationship between socioeconomic status and measures of infectious intestinal disease severity

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Introduction

The burden of infectious intestinal disease (IID) in the UK is substantial with around 17 million cases occurring annually. Important consequences including sickness absence, hospitalisation and clinical complications can result, but little is known about the social patterning of these outcomes, and the extent to which these consequences relate to disease severity. We therefore explored the association between socioeconomic status (SES) and measures of IID severity and sickness absence using data collected in a large representative study of infectious intestinal disease in the UK (IID2 study).

Methods

Analysis of IID cases identified from the IID2 study was performed. We assessed the association between SES (measured on the basis of the National Statistics Socioeconomic Classification) and self-reported IID symptom severity score, and absence from work, school or daily activities. Regression modelling was used to investigate these associations, whilst controlling for potential confounding factors such as age, sex, ethnicity, urban/rural residency and recent foreign travel.

Results

Preliminary results indicate that among 1,915 IID cases, those of lower SES compared to high had twice the odds of experiencing severe symptoms (OR 2.2 95%CI 1.71-2.95). Lower SES was associated with higher odds of sickness absence (OR 1.8 95%CI 1.26-2.69) and the duration of absence (IRR 1.2 95%CI 1.04-1.40). When symptom severity was added to these models, the effect estimates for the association of SES with sickness absence were attenuated and no longer significant.

Conclusions

In a large sample of IID cases lower SES was associated with more severe IID symptoms. Lower SES was also associated

with sickness absence, but this relationship was attenuated when accounting for symptom severity. Further research is needed to understand if these findings relate to real differences in disease severity, or to social differences in reporting of symptoms and absence.

Key message:

- This study sheds new light into an under-researched area and indicates the burden due to IID may be unequally shared across socioeconomic groups

History, politics and vulnerability: explaining excess mortality in a post-industrial Scottish city

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Background

High levels of excess mortality (i.e. that not explained by deprivation) have been observed for Glasgow (Scotland) in comparison with similar post-industrial cities such as Liverpool and Manchester (England). Many potential explanations have been suggested. Based on an assessment of these, the aim was to develop an understanding of the most likely underlying causes.

Methods

40 hypotheses were examined. The relevance of each was assessed by means of Bradford Hill's criteria for causality. Where gaps in the evidence base were identified, new research was undertaken. Causal chains of relevant hypotheses were

created, each tested in terms of their ability to explain the excess. The models were further tested with key informants from public health and other disciplines.

Results

Glasgow was made more vulnerable to important socio-economic (deprivation, deindustrialisation) and political (detrimental economic policies) exposures, resulting in worse outcomes. This vulnerability was generated by a series of historical factors: the lagged effects of historical overcrowding; post-war regional policy including the socially-selective relocation of population to outside the city; more detrimental processes of urban change which impacted on living conditions; and differences in local government responses to UK economic policy in the 1980s. Protective factors were identified e.g. greater social capital in Liverpool. Other contributory factors include the inadequate measurement of deprivation.

Conclusions

The work has helped to further understanding of the underlying causes of Glasgow's excess mortality. The implications for policy include the need to address three issues simultaneously: to protect against key exposures (e.g. poverty) which impact detrimentally across all UK cities; to address the existing consequences of Glasgow's vulnerability; and to mitigate against the effects of future vulnerabilities which are likely to emerge from UK Government 'welfare reform' policies.

Key messages:

- Politics matters for population health
- Glasgow's excess mortality is best explained by a greater vulnerability to detrimental exposures, created in large part by historical political factors

3.M. Skills building seminar: All for e-health and e-health for all: How to develop digital innovations for public health?

Organised by: EUPHA section on Infectious diseases control and RIVM
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Chairperson(s): *Desiree Beaujean - The Netherlands*

E-health is quickly becoming a pervasive presence in Europe. E-health-tools like apps and devices have become available to patients and consumers allowing them to acquire information in order to make decision regarding own health, but also to interact with the health provider. Health providers can interlink through telemedicine and teleconferencing, in order to provide a better integrated care to their patients. But for public health organizations to design and use e-health tools without any experience in this field is a problem that needs to be overcome by adequate training.

In this skills building seminar, we will equip public health professionals with the knowledge and tools to guide such a development without needing to do any programming themselves. Specifically, we will focus on three aspects: developing solid public health content for e-health, choosing the right technology for your intervention, and developing a sound model to cover all costs during development and after. Participants of the workshop will leave the room relieved, as they will have a clue where to start with their e-health project. We will offer them a roadmap for development that covers all aspects that make or break an e-health intervention. Such knowledge is present in technology companies, but is a novel field for public health organizations, their policy makers, and

clinical professionals. This international and multidisciplinary workshop will allow them to coordinate such a development process themselves, or to be a strong partner in a collaboration with a technology company. Ultimately, being able to offer e-health tools will provide public health organizations to reach an extremely large and diverse audience with their interventions. The multidisciplinary collaboration that precedes this, is truly All for health, and health for all.

Key messages:

- Focus on 3 aspects: developing solid content for e-health, choosing the right technology, and developing a sound model to cover all costs. during development and after
- Being able to offer e-health tools will provide public health organizations to reach an extremely large and diverse audience with their interventions

Introduction seminar

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This skills building seminar does not consist of presentations, but it is an interactive workshop which will enable the participants to learn how to start with their e-health project. After a short introduction, we start a collaborative skills building seminar. This will consist of 3 steps:

Introduction

We will start with a helicopter view over the e-health world. We will give the participants insight in the background of e-health, and examples of successful and un-successful e-health projects. We will discuss pan-European innovation projects from various fields (e.g. infectious disease control and rehabilitation care).

Collaborative design session

We will ask the participants to bring in the challenges they face in their daily public health practice. Then, we will select one that they deem suitable for solving via e-health which we will work out in plenary. Via a step-by-step roadmap we will challenge the participants to really find out what lies at the core of the challenge, and how e-health can

solve this. Next, we will discuss with them the procedural steps they need to take to create the e-health intervention. Finally, we will devote time to highlight the need for a business model that covers development costs, but also costs that come with keeping the e-health technology alive over time. By jointly working out one public health challenge of the participants, they will get a grip on the process on how to develop a proper intervention tool. They will know which e-health tool might be applicable in a certain situation, given the public health problem and the needs of the patients/consumers/health providers.

Conclusion

We will round of the seminar by discussing 10 pitfalls that we have fallen into in the last years, and we will offer them a package with information on the technology landscape and practical how-to instructions for developing e-health for use at a later moment in time and for further dissemination within their organization.

3.N. Pitch presentations: Health policy

Building Excellence into Health Impact Assessment (HIA)

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Welsh Government (WG) has placed improving the health and wellbeing of its people firmly within its core priorities. This has been reflected by the increased advocacy for and use of Health Impact Assessment (HIA). HIA is a key tool used by WG as part of its strategy to prevent rising ill health and reduce health inequalities which continue to persist in Wales by promoting an integrated approach to policy making ('Health in All Policies' (HiAP)) to address the social determinants of health. In 2004, WG established the Wales HIA Support Unit. Its role is to develop the use of HIA and provide advice, guidance, training and support to policy makers/practitioners from a wide range of sectors. Training and education is a key element of advocating and building capacity for HIA in health and 'non-health' domains. It ensures that high quality HIAs are commissioned, completed and appraised.

In Wales, this training is delivered through several mechanisms - including tailored formal training sessions; informal 'learning by doing' methods; a web based course; and mentoring. It is underpinned by a HIA Training Strategy, guidance (WHIASU, 2012) and other resources.

This paper discusses the evolution of WHIASU's methods, its successes and the issues it has faced in striving for quality in HIA. It describes this through the lens of the first ever accredited competency based HIA courses delivered to Environmental Health professionals through the Chartered Institute of Environmental Health (Wales). It shares knowledge and learning from the experience; details who has been trained and methods; and how continued feedback has refined them. 64 practitioners have been accredited to date and it describes how the approach can be translated by others.

Finally, the paper demonstrates how the attendees have successfully utilised the training - either through advocacy for HIAs in other sectors or undertaking a range of HIAs for their organisations to promote HiAP.

Key messages:

- HIA is a key tool to support Health in All Policies
- High quality, robust training in HIA will ensure standards in HIA are met in Wales

An inter-sectoral map of UK policy promoting community engagement and empowerment in health

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Issue

Strengthening community action, as proposed in the Ottawa Charter, is key to achieving public health goals within a whole-of-society approach to health. Community engagement is not a simple intervention as it is shaped by community contexts and policy agendas that can either constrain or enable local action. This has implications for developing an evidence base.

Description of problem

Changes in UK policy and programme funding have led to a fragmented evidence base and many participatory models not achieving sustainability. To inform an update of public health guidance, the National Institute for Health and Care Excellence commissioned an independent, systematic scoping review to understand UK community engagement policy and practice. This paper presents findings from the documentary analysis of policy themes and concepts.

Results

After systematic searching and screening, 40 policy and 30 conceptual publications were included and extracted data then mapped onto a matrix. We found that UK policy interest in community engagement in health threads through multiple sectors including health, local government and volunteering. Policy focus was not static; new concepts (eg social action) have emerged since 2000, while others (eg health inequalities) have less prominence. Local government was identified as a key policy actor. Community empowerment was a common theme but concepts were not used consistently.

Lessons

Community engagement in health has policy significance but can lack visibility because it is applied across multiple policy areas and is cross referenced to different concepts. This is important for promoting intersectoral action involving communities and for building healthy public policy. Our conclusions are that community engagement is best used as a broad organising concept as it covers a range of policy areas and terms. This needs to be accounted for in building an evidence base for participatory methods within and between countries.

Key messages:

- A mapping of UK policy since 2000 shows that community engagement in health can be promoted through a range of policy initiatives and sectors; however there is change through policy cycles
- The evidence base on community engagement can appear fragmented, results from this policy analysis help identify related concepts and terms

What do political parties in Croatia talk about when they talk about health?

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Background

Between the last two parliamentary elections in Croatia (2011-2015), health care politics were characterized by diverse rhetoric and actions. Among them some had strong influence: separation of social welfare into separate Ministry, new National strategy of health care (2012-2020) and mid-term change of the Minister of Health. The aim of this study was to systematically and objectively assess areas and comprehensiveness of health policies (HPs) included in the 2015 pre-election political programmes.

Methods

We used the Walt-Gilson policy analysis model for the content analysis of pre-election HPs. Each of five evaluators independently reviewed HPs of included parties through four dimensions: content, actors, processes and context. HPs proposed by at least two parties were included in the final analysis and by referring to any of four dimensions for specific HP parties scored one point (maximum of four points per HP).

Results

Seven out of the 11 included parties incorporated health care topics in their programmes, six discussed the accessibility of health care and the hospital system organisation while five included financing of the health care system - the most comprehensively approached HP across all parties. HPs of the least interest were prevention, waiting lists, vaccination and public procurement in the health system. Parties earned 35% of all points for describing the content, 28% for the processes, 21% for the actors and 16% for the context of HPs.

Conclusions

Parties' pre-election programmes were mostly focused on the topics of accessibility and financing of health care (especially hospitals) while prevention and financial resources needed for the implementation of the HPs were rarely discussed. Our analysis showed that in describing HPs parties mostly focus on the content while they less frequently address the role of processes, actors, and the context needed for successful implementation of the recommended HPs.

Key messages:

- There is a lack of interest among parties to include HPs targeting prevention of major public health problems in Croatia such as obesity, cancer, tobacco and alcohol use in their programmes
- There is a need for a more comprehensive approach in planning HPs in which parties will in addition to content

discuss actors, processes and context required for the policy implementation

Developing a Survey to Establish a Baseline of Country Capacity for Evidence-Informed Policy - Making

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Background

Scientific evidence has increasingly become a policy-making input in health sectors across Europe and beyond. However, capacities in evidence-informed policy-making (EIP) remain low and/or uneven, and wide variation in implementation remains a problem. One potential solution has been the rise of knowledge translation networks to diffuse innovations and share good practice. A leading example is the World Health Organisation's (WHO) Evidence-Informed Policy Network (EVIPNet). A survey was developed to support the work of EVIPNet Europe by gathering intelligence on the use of research evidence across the region, in order to identify gaps and highlight areas in need of capacity-building.

Methods

A rapid review of published and grey literature (English only) was conducted. A draft survey was developed based on the review findings, with input from the EVIPNet team and participants in the first technical expert meeting to enhance EIP in the WHO European Region. The survey was distributed by email to this group and also discussed with national EIP champions during the third EVIPNet multi-country meeting on using research evidence for policy-making.

Results

Of the 18 studies included in the review, very few concerned EIP, particularly in an international setting. Topics incorporated into the draft survey included individual, organisational, contextual and evidence factors, as well as drivers, barriers and strategies. Feedback highlighted that the intended survey population would determine the most appropriate format and content for the survey, and vice versa. Participants also identified potential issues relating to language, which will be considered in refining the survey.

Conclusions

The final survey will enable each country in the WHO European region to establish a baseline level of evidence use in policy and practice. It will support the work of EVIPNet Europe in promoting the systematic use of research evidence in policy-making to improve health.

Key messages:

- There is need for further research which evaluates decision-makers' capacity to access, understand and use research evidence
- The survey findings will be used by WHO Europe to identify gaps and highlight areas in need of capacity building in relation to evidence-informed policy-making

Public health policy making in Stockholm County Council

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European regions and cities need to learn more from each other's experiences with implementing public health policies. Administrative set-ups and organisational responsibilities may look different but many public health problems in European regions are similar.

The Stockholm county comprise 2.2 million inhabitants with the overwhelming majority living in urban areas. Socioeconomic differences in health are wide with life expectancy being almost five years shorter in the worst of municipalities as compared to the best. Employment status, social integration and life style factors are important determinants of premature mortality.

Public health policies are developed and reviewed regularly with the help of data from many sources, in particular large-scale public health surveys that are conducted every fourth year. The latest public health survey in 2014 showed continued progress in life expectancy (currently 85 years for women and 81 years for men) for the population as a whole but it also pointed to the inability of the system to narrow the health gaps among different socio-economic groups and geographic regions. It also documented growing mental health problems among certain groups, especially younger women.

Based on the survey results the current health policy is being revised to make provision for reallocation of resources to those most in need of support for improved living conditions and reduction of risk behaviour for ill health. The organisational set-up in the region with divided responsibilities for drug and alcohol policies, health services, schools and social services represents a particular challenge in public health implementation.

The presentation will provide examples of how the different actors in the public sector seek to come together to improve public health practice in the Stockholm county. This may provide ideas and support to other organisations in Europe facing similar problems and implementation challenges.

Key messages:

- Positive health achievements in Stockholm challenged by inequities in health
- Public health policies in Stockholm seek to build bridges between different public sector actors to ensure coherent work to reduce the health gaps

Implementation of the public health policy at the local community level in Serbia

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Issue

According to the legislative framework, local municipalities in Serbia are responsible for primary health care, monitoring the population health status, protection of patients' rights and developing programs for environmental protection and public health. The Local Health Councils (LHC) are intersectorial (health, education, social protection, NGOs, institutes and departments of public health) and advisory bodies of executive government of the municipal/city assembly. LHCs deal with health in all policies, with emphasis on the needs of vulnerable population groups. Of the 12 measures proposed by MoH in the process of EU accession for chapter 12, in four the LHCs are listed as implementing agencies.

Problem

Until 2015, the transfer of responsibility for health to the local level was not accompanied by transfers of funds from the central level. The funds that local governments were spending on health were not directed to health promotion and disease prevention.

Results

LHCs became the mandatory pursuant to the Law on Patients' Rights, which entered into force in May 2013. Local program

budgets were introduced in 2015, which made the budget for the functioning of the LHCs and health patients' rights advisors clearly visible. All local governments in Serbia (145 units), have established LHCs. The evaluation of the LHCs indicated the various levels of functioning, from those that exist but are inactive (nearly 30%), to few very active. The active Councils saw themselves as generators of public health improvement, with the role in the improvement of the quality of health care. Nevertheless, only 3% of LHCs have prepared the local public health strategies. Also, the procedures and lines of responsibilities in relation to patients' rights advisors remained unclear.

Lesson

It requires sustainable support of local governments, new national Public Health Strategy and regulations and continuing education to strengthen the capacity of the newly established councils.

Key messages:

- Intersectorial and participatory approach is crucial for the implementation of the concept of health in all policies
- Strategic planning trainings would develop capacities of teams to define objectives, activities and indicators, to monitor progress towards achieving the set goals and to perform their evaluation

Survey of Health in All Policies-Interventions (HiAP) in Austria in 2012

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Issue/problem

Until the end of 2013, an overview of government-funded health promotion and prevention interventions in Austria was lacking. This was the case not only for interventions where health promotion or prevention was the primary motive, but also for interventions where health promotion and prevention objectives were addressed within the context of other objectives ("HiAP-interventions").

Description of the problem

Within the context of an investigation of public expenditure on health promotion and prevention interventions, for the first time attempts were made to collect data on "HiAP-interventions". Hereby, the intention was to provide a comprehensive overview of all interventions facilitating health promotion and prevention, and to depict the extent to which the HiAP approach is currently being employed.

Results

We found that the provision of information on the HiAP-associated component of the survey was coupled with high workload for the data providers. Hence, this part was made optional during data collection. Consequently, the resulting survey data do not provide a comprehensive overview on all "HiAP-interventions".

Drawing conclusions on whether and to what extent the health promotion and prevention objectives were considered while developing the interventions, or whether the reference to health determinants was established only in the course of providing information on the topic, is not possible.

Nevertheless, inquiries and feedback on "HiAP-interventions" indicate that the level of knowledge on HiAP differs considerably between the involved institutions and persons.

Lessons

In order to achieve consistent and comprehensive information on "HiAP-interventions", appropriate dissemination of information and the formulation of clear definitions, including examples are necessary.

Key messages:

- A future survey of “HiAP-interventions” could build on existing initiatives and working groups targeted towards advancing the field of HiAP

- Should the “HiAP-interventions” be monetarily assessed, we recommend to develop in first step a methodological concept for individual policy areas and/or existing relevant projects

3.0. Pitch presentations: Health methodology

Faster outbreak detection when phone calls are monitored

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Early detection of local outbreaks is crucial for delimiting burden of disease. Local outbreaks are typically caused by contaminated food or water, and often last only a couple of days. Public Health Agency of Sweden (PHA) has previously investigated the potential of using data from phone calls to the Swedish national health advice line, Healthcare Guide 1177, for earlier detection of outbreaks and increased situational awareness. Based on those studies PHA has developed a syndromic surveillance system, “Hälsoläge”, using that data source. Similar systems exists in other countries, and these experiences could be valuable in other settings. From January 2016, Hälsoläge is part of the national routine disease surveillance.

Hälsoläge is daily fed with new data on number of telephone calls per region and symptom. Symptoms are assigned by the medical staff receiving the calls. A detection algorithm runs daily, and whenever the number of calls for predefined syndromes in a certain region is higher than expected in comparison to the surrounding regions, an alarm is triggered. The alarm is then assessed by epidemiologists at PHA. If deemed relevant, PHA contacts the regional infectious disease authority as well as other relevant actors, such as drinking water producers. Since health care and infectious disease control is decentralized in Sweden, PHA offers Hälsoläge to local actors who run it locally to strengthen their own surveillance. Hälsoläge is interactive and present the data in multiple ways; graphs showing trends over time for different syndromes, grouped by age or sex, or visualized on maps. Users can also tailor the thresholds for outbreak alarms to a desired level of sensitivity.

Hälsoläge is used as a complement to the traditional epidemiological surveillance at PHA. It has proven to be especially valuable in early detection of local food and waterborne infections. The system is relatively inexpensive and imposes no additional burden on the data providers.

Key message:

- A new syndromic surveillance system based on calls to a national health advice line has been developed and deployed. It has proven to be especially valuable in early detection of local outbreaks

Mass Gathering surveillance system, a new approach

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Issue

Mass gatherings are of great importance in Public Health since increased population, high crowd density, risk behavior and temporary facilities (food, sanitary and accommodation) are all key factors that increase the risk of communicable disease, therefore increasing the need for adequate planning and surveillance. Mass gatherings can involve many international

participants with the health impact for the returning participants being quite relevant.

Description of the problem

The expertise on this field is limited and most mass gatherings have no disease surveillance systems in place. Even local health authorities have limited experience in handling these type of events with health impacts. We developed a surveillance system that could provide real time reporting and detection of public health threats.

Results

Andanças Festival is a traditional dance and music festival, gathering more than 15.000 participants for a week in Portugal. We implemented an electronic record for all health episodes registered by the health provider at the venue and at primary care centers and hospital in the region. Over the 7 days of festival (and 3 days before and after) a total of 1024 episodes were registered, from 842 unique participants (67,5% were female and 59,0% were between 20 and 39 years old, 19,6% came from abroad). Most episodes (58,1%) were small trauma (cuts, bruises or osteo-articular complaints). A report was issued and presented daily at a meeting with all the stakeholders. No major health problems with Public Health relevance were detected.

Lessons

The surveillance system enabled all the stakeholders to be up to date with health events at the Festival. Data was useful to describe both the demographics of participants and the most prevalent health problems, enabling better planning of future editions.

The next steps include developing a “ready to deploy” tool that can be used by health providers in other festivals/mass gatherings.

Key messages:

- Epidemiological Surveillance Systems at mass gatherings provide an adequate tool to monitor health status of participants and enables early detection of outbreaks
- A ready to deploy epidemiological surveillance system tool would be very helpful, providing ease of implementation in different settings

The Barber-Johnson technique for assessing hospitals efficiency: The case of the Republic of Albania

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Background

Studies on capacity utilization using the Barber and Johnson technique (BJT) have not been conducted in Albania before. The aim of the study is to analyze the technical efficiency of the Albanian public hospitals system through the BJT.

Methods

Data on hospitals activities of 2013 were provided by the National Insurance Institute and by the Ministry of Health of Albania. All the district and regional hospitals were analyzed (24 district and 11 regional hospitals). BJT was used to compare

simultaneously the four traditional performance indicators: average length of stay (ALS), occupancy rate (OR), turnover interval (TI) and turnover rate (TO). Efficient area was determined considering the reference values recommended in international guidelines (TI = 1.0-3.0 days and OR \geq 75%).

Results

A total of 5,764 available beds, 150,068 hospital admissions and 740,821 days of stay were registered in the hospital system. None of the hospitals were located in the efficiency area and only 1 hospital was located in the sub-optimal area. All the remaining hospitals were located in the left region of the diagram, characterized by a low value of OR and TO and by a high value of TI. Regional hospitals resulted to have higher efficiency levels with lower variability in all of the 4 indicators compared to district hospitals (regional and district hospitals ALS = 4.8 and 5.3 days; OR = 39% and 28.8%; IT = 7.5 and 13.2 days; TO = 29.6 and 19.7).

Conclusions

Overall the BJT has shown low and heterogeneous efficiency levels of the hospitals system in all the analyzed indicators. The findings clearly indicate the presence of excess bed capacity given the current level of utilization. However, this does not imply the presence of excess capacity relative to need as the bed density in Albania is far lower than that recommended for the size of the population. Further researches are needed to identify potential demand-side barriers that affect the utilization of hospitals.

Key messages:

- The Barber and Johnson technique has revealed an inadequate efficiency levels of the Albanian Hospitals
- An apparent paradox of low hospital bed density and low hospital bed utilization is present in Albania

Forecasting Mortality: North Portugal

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Background

Forecasting techniques are key instruments for the identification of priority areas of intervention in health, especially on policy definition and designing health promotion programs so that a timely intervention can be settled. Lee Carter method is one of the most consensual techniques of forecasting mortality. In Portugal there is a lack of rate mortality forecasts for the national and regional level.

Methods

Lee Carter method was used to forecast Portuguese mortality for all causes of death at the North Region of Portugal. We used population data from 2001-2012 to forecast for the period 2013-2024. A global model and sex/cause of death specific models were adjusted. Model fitting was analysed using explained variance and MAPE (Mean Absolute Percentage Error) and IAPE (Integrated Absolute Percentage Error). Life expectancy forecast was also determined for the same time period. Statistical analysis was performed on R software v3.0.2

Results

A population of 3,5 million residents and 65.000 annual deaths was used. The forecasted log mortality rate for all ages exhibits a global decreasing patterns, having however a bottleneck effect specially for the ages 40 – 60. This reduction is more severe on the first age groups 0-30. This model explains 85% of the variance, with 0,89% of MAPE and 0,64 of IAPE. Models for each gender present similar tendencies. A clear increase in life expectancy was determined for both genders increasing from

81 years in 2012 to 84,2[83,1-86,49 95% CI] in 2024. Models adjusted for death from cardiovascular and oncological diseases show an overall mortality reduction for all ages and a slight increase mortality, respectively. The models present explained variance 55,1 and 78,0%; MAPE 7,0% and 1,3%; IAPE 3,28 and 0,69.

Conclusions

Lee-Carter method is an adequate model for forecasting Portuguese overall mortality or sex and cause specific mortality.

Key messages:

- Lee-Carter presents adequate model fitting when forecasting cardiovascular or cancer mortality
- Lee-Carter adequate forecasting mortality method for Portuguese population

Health examination survey measurements can be standardized – experiences from the EHES Pilot Project

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Background

European Health Examination Survey (EHES) is an initiative to set up a system of standardized health examination surveys (HES) in Europe. During the EHES pilot project (2009-2012), 12 European countries conducted a pilot survey. The standardized protocols for physical measurements were prepared and published in the EHES Manuals (<http://www.ehes.info>) and European level training was organized.

Methods

Local teams conducted the surveys in each country. The staff of the EHES Reference Centre evaluated the level of standardization by comparing local manuals with the EHES Manual and observing the measurements during site visits.

Results

For blood pressure measurement, the most common deviations were: too short resting time before the measurement (4 surveys); differences in the sitting position (4 surveys); missing measurement of arm circumference to confirm cuff size (3 surveys); and incorrect cuff placement (3 surveys).

For height measurement, the biggest deviations were in calibration of equipment (3 surveys) and that the reading of height was not taken from the eye level (3 surveys). In 4 surveys, weight was not measured in underwear and the calibration of the weight scale was not done properly.

For waist measurement, right measurement place was not palpated in 4 surveys and in 3 surveys the measurement was not done on bare skin.

In 3 surveys, the blood samples were not centrifuged within one hour, and in 4 surveys, the tourniquet was not released right after blood flow. In 3 surveys, same arm was using for blood drawing than for blood pressure measurement.

Conclusions

Deviations from the standardized protocol may affect the comparability of the results between countries. However, they can be prevented by proper training of the survey personnel and quality control during the survey. Site visits effectively revealed deviations in the protocol. Some of the observed deviations were corrected to match the EHES protocol already during these site visits.

Key messages:

- Training of the personnel and observations during the fieldwork are essential.
- The measurement protocols should be documented in detail

Accounting for model uncertainty due to deprivation in the study of air pollution and health effects

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Background

Air pollution has repeatedly been shown to have a detrimental impact on human health. It remains a serious public health problem in many countries including the UK, where nitrogen dioxide (NO₂) concentrations currently do not meet EU targets. The long-term impact can be estimated from small area ecological studies in which health is regressed on air pollution concentrations and other covariates, such as socio-economic deprivation. Socio-economic deprivation is multifactorial and difficult to measure, and includes aspects of income, education, and housing as well as others. Although these variables may be highly correlated, the estimated effect of air pollution may depend on the deprivation measure selected.

Methods

We analyse NO₂ concentrations and 55 846 cardio-respiratory deaths between 2006 and 2012 in West Central Scotland (population 1.1 million), in which we quantify how robust the estimated pollution-health effect sizes are to the deprivation measures, and present a Bayesian model averaging (BMA) approach to estimating the overall effect size whilst accounting for model uncertainty.

Results

The estimated pollution effects (in terms of relative risk) range between 0.980 (for housing) to 1.053 (for geographical access to services) for a 5 µg/m³ increase in NO₂ concentrations, highlighting the importance of the choice of deprivation measure. The combined pollution effect using BMA is 1.011 (95% Credible Interval: 0.993, 1.029).

Conclusions

Different pollution-health effects can be estimated depending on the modelling choices made. We show how to combine the results from different models, removing potential bias due to the use of a single deprivation measure and providing robust evidence of the effects of air pollution on the human population.

Key messages:

- Different pollution-health effects can be estimated depending on the modelling choices made in terms of covariate choice, spatial autocorrelation model, and pollution estimation
- Acknowledging, and accounting for these modelling choices are vital for providing robust evidence on the detrimental effects of air pollution on the human population

Using linkage and pseudo-cohorts for comparing US survey and general population mortality 1990-2011

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Introduction

The health and wellbeing of many populations worldwide are monitored routinely using surveys designed to be nationally representative. However, the extent to which participants in such studies are not representative of the population from which they are drawn threatens the validity of their inference. We examine the representativeness of a series of major United States (US) population health surveys.

Methods

Data from National Health Interview Surveys (NHIS) conducted 1990-2009 have been linked to the National Death Index through to the end of 2011. Those aged 20 to 79 years at the time of the surveys were included, with 146,297 (12.1%) deaths among 1,212,920 NHIS participants, ranging from 18,273 (23.2%) deaths for the 1990 cohort to 812 (1.4%) deaths for the 2009 cohort. Contemporaneous pseudo-cohorts of the general population were constructed based on US census and deaths records over the same follow-up time. There were 42,645,440 (25.0%) to 4,132,269 (1.9%) deaths occurring among the age-equivalent pseudo-cohorts. These data were combined to compare directly age-standardized mortality rates between survey participants (weighted) and the contemporaneous general population.

Results

Mortality rates during follow-up were consistently lower for NHIS participants than for the general population and differentials increased over time, with rate ratios ranging from 0.78, with 95 confidence interval (CI) 0.73 to 0.83 among those surveyed in 2009 to 0.91 (95% CI 0.89 to 0.92) for those in the 1995 survey.

Conclusions

NHIS survey participants have increasingly lower mortality rates relative to the general population suggesting that inference from national surveys designed to monitor health behaviours and disease prevalence may be mis-quantified. Dedicated techniques to adjust health survey estimates using linked administrative data are being developed with reference to population data and are becoming increasingly necessary as response levels continue to decline.

Key messages:

- NHIS survey participants have ever-lowering mortality rates indicating increasingly biased survey inference
- Application of corrective techniques becomes more important as response levels decline

Enhancing European cross-country comparisons with Qualitative Comparative Analysis-A worked example

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Much evidence in European projects comes from case studies. Cross-country comparisons of such small-N evidence often follow a qualitative, narrative approach. The mixed method Qualitative Comparative Analysis (QCA) can enhance cross-country comparisons by applying an additional structured analysis converting small-N, mixed and qualitative data into binary numerical form using Boolean logic. We tested QCA to identify generalizable key performance factors of syndromic public health surveillance systems.

We compared case reports of syndromic surveillance system performance from nine European countries applying crisp-set QCA. We collected data from scientific and grey literature and from site-visits. We analysed the performance for two surveillance applications: timely detection of influenza outbreaks and timely and flexible situational awareness during various types of infectious and non-infectious events. We compared syndromic surveillance system characteristics across countries to identify key performance factors. For influenza surveillance, these were the analysis of non-clinical and acute care data sources, subnational data and age groups. For situational awareness, these were the analysis of multiple

syndromes, multiple data sources, and automation and existence of a system before a monitored event.

We identified the analysis of non-clinical data sources as sufficient factor for timely influenza detection (low coverage = 0.57). We found the combination of an automated system capable of analysing multiple syndromes to be a necessary factor for timely and flexible situational awareness (high coverage = 1.0).

The identified key factors, especially for situational awareness, can inform the process of designing or further development of syndromic surveillance systems by prioritising certain system characteristics to improve performance. QCA allowed distilling

new and practically relevant knowledge from a structured cross-country comparison of small-N, case-based data.

Key messages:

- Qualitative Comparative Analysis enhanced the benefit of cross-country comparisons by analysing complex, small-N and mixed data from case studies in the area of public health surveillance
- Qualitative Comparative Analysis distilled new and practically relevant knowledge to improve syndromic public health surveillance systems that would otherwise have remained undiscovered

3.P. Skills building seminar: Scientific speed networking: expand your personal scientific network

Organised by: EUPHANxt and Austrian Public Health Association
Contact: t.funk@alumni.maastrichtuniversity.nl

Chairperson(s): Tjede Funk - EUPHANxt, Christian Lackinger - Austria

Background

Many public health issues can be better targeted on international level than on national level alone. To become “part of the international game” it is important for young scientists to create a personal network. On account of this, the EPH conference does not only provide recent public health research, moreover it aims to stimulate interaction between people and prepare new cooperations.

Purpose

Within this session, young scientist can get in touch with other conference participants. They can:

- meet other public health professionals,
- learn about current research ideas or projects,
- find a partner university,

- explore new career opportunities or
- possibly find a financial support for a PhD thesis.

How to do it?

Just come to the session, you need not to register for it before. After a short introduction, participants will be allocated to small groups of 6 people. Each person has one minute time to present herself/himself. Participants can present their research, career goals or it is also allowed to talk about hobbies, sports or pets. After 6 minutes, 4 more minutes are provided for discussing. Consequently, each group spends 10 minutes together. Afterwards, new groups with different participants are created – and the speed dating continues.

What should happen?

The personal network of the participants will expand enormously.

Conclusion

Enjoy, have fun and meet new people.

3.Q. Oral presentations: Work and sick leave risk factors

Early physical exposures at work and low back pain: The Cardiovascular Risk in Young Finns Study

Tea Lallukka

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Background

Low back pain (LBP) is a highly prevalent, persistent, and disabling problem among employees, and its work-related determinants have been widely examined. However, early exposure to the physically heavy work and its consequences for

the low back are poorly understood. Thus, our aim was to examine whether early physical workload in young adulthood increases the risk of local and radiating low back pain in midlife.

Methods

Longitudinal nationally representative Young Finns Study data among women (n = 414) and men (n = 324) aged 18-24 years in 1986 (baseline) were used. Physical heaviness of work was reported at baseline and follow-up (2007), and local and radiating LBP at follow-up. Covariates were age, smoking and body mass index. Logistic regression was used to examine the associations between physical heaviness of work and LBP. Additionally, the mediating effect of back pain at baseline was examined (the Sobel test).

Results

After adjustment for the covariates, and as compared to sedentary/light physical workload, heavy physical workload was associated with radiating LBP among women (OR 4.09, 95% CI 1.62 -10.31) and men (OR 2.01, 95% CI 1.06 -3.82). Among men, early back pain mediated the association (p-value from the Sobel test=0.006). Among women, early exposure to

physically heavy work showed the most consistent associations, while both early and late exposures were associated with radiating and local LBP among men. Persistently heavy physical work was associated with radiating LBP among both women and men.

Conclusions

Physically heavy work at a young age can have a long-lasting effect on the risk of low back pain, radiating low back pain in particular. These results highlight the need to consider both early and persistent exposures to prevent the adverse consequences of physical workload for the low back.

Key messages:

- Early exposure to heavy physical work is associated with a higher risk of radiating low back pain in midlife particularly among women, while early back pain mediated the associations among men
- In order to better prevent low back pain, early occupational exposures should be considered, and care should be taken among young people placed in jobs with physically heavy tasks

Night work as a risk factor for disability pension due to cardiovascular diagnoses

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Background

In Europe, about every fifth employee work night time. Night work is related to impaired sleep, fatigue, depressed mood and several diseases including breast cancer, diabetes and cardiovascular diseases (CVD). The association between night work and disability pension (DP) is still unclear. Hence the aim was to investigate the associations between night work and future DP due to CVD taking several covariates, including familial factors (genetics and shared family environment), into account.

Methods

A population-based sample of 27165 Swedish twins born 1925-1958 was followed from interview date in 1998-2003 to the end of 2013 via national registries of DP together with survey data. Night work was evaluated with: "For how many years have you had working hours that meant that you worked nights at least now and then" with three classes of exposure: not at all, 1-10 years, and >10 years. Data on sleep disturbances was available for a subsample of 1677 individuals. Cox proportional hazard regressions models were used to calculate Hazard Ratios (HR) with 95% Confidence Intervals (CI).

Results

During the mean follow-up of 8 years, DP due to CVD was granted to 683 individuals. Those with >10 years of night work had HR 1.48 (95%CI 1.11-1.98) for DP due to CVD while adjusted for age and sex, but the risk attenuated, although remaining in the same direction when adjusting for various covariates (HR 1.18 95%CI 0.86-1.61). Adjusting for sleep disturbances confirmed the association between night work >10 years and DP due to CVD (HR 2.64, 95%CI 1.04-6.67). Instead adjusting for familial factors indicated no association between night work and DP due to CVD.

Conclusions

Night work seems to increase the risk for DP due to CVD, however further research is needed on larger samples to draw firm conclusions. Those having night work should be screened

for sleep disturbances and other conditions potentially affecting work capacity already at early stages of work career.

Key messages:

- Night work poses a risk for DP due to CVD
- Screening of sleep disturbances and conditions for those entering night work or working at nights is warranted to prevent long-term loss of work capacity

Occupational mortality rates in the UK: Geographical comparisons using linked administrative data

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Background

Health inequalities are routinely monitored in many European countries, commonly using educational level, social class and area-based deprivation. Mortality rates by specific occupation were historically published in the UK and could be an important additional focus for monitoring, allowing for targeting of prevention to those most in need. For the first time in 25 years, we describe occupational mortality rates in the UK and assess whether rates vary across different parts of the UK.

Methods

Self-reported main occupation was identified for a random sample from the censuses in England/Wales, Scotland and Northern Ireland conducted in 2001. Occupation was coded into 60+ groups according to the SOC2000 classification, with aggregation to ensure results are not disclosive. Deaths were identified from administrative records, with follow-up until the end of 2011. Age-standardised rates, stratified by sex, were calculated.

Results

In men, health professionals, managers and teachers had particularly low mortality rates while those working in elementary agricultural, construction and housekeeping jobs had high mortality rates. In women, teachers and business professionals experienced low mortality, with factory workers and those working in the garment trade having high mortality rates. In both sexes, the magnitude of variation between low-mortality and high-mortality jobs was high – for example, over three-fold differences in mortality rates in men in England. Comparisons across the different parts of the UK showed mortality rates were higher in Scotland than England/Wales, particularly for those in jobs with high death rates.

Conclusions

Occupational mortality rates show large differences for both men and women in the UK. These variations are large and provide additional information beyond reporting mortality by social class. Scotland's 'sick man of Europe' status is confirmed using this more refined analytical approach and requires further investigation.

Key messages:

- Occupational mortality rates have been calculated for the first time in 25 years for the UK. They reveal large differences and provide additional information to analyses based on social class
- Scottish people experience higher mortality rates when working in the same jobs as people in England/Wales, with excess deaths highest for more disadvantaged occupations

Application of latent growth modeling to identify different working life trajectories in Spain

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Background

Latent growth modeling (LGM) represents a flexible statistical approach for longitudinal data to represent unobserved heterogeneity in the development of an outcome over time which is captured by categorical and continuous latent variables. Our objective is to describe the application of LGM, and its strength and weaknesses, to construct working life trajectories using the Spanish WORKing life Social Security (WORKss) cohort.

Methods

The study is based on a subsample of the Spanish WORKss cohort, limited to persons born between 1956 and 1965 (n = 247,475).

The dataset contains repeated measures of several variables over time. We used LGM to classify individuals by different working life trajectories using the number of days employed per year as a repeated measure across 32 time points (from 1981 to 2013).

Results

According to the model fit results, the four-trajectory model was established as the optimal approach. Next, each trajectory is described according to variables of interest (sex, average age, number of worked years, occupational category and permanent disability) in order to better understand the different profiles assigned to each individual.

The identified trajectories then become a new categorical variable (where each trajectory is a category) that can be incorporated into future studies.

Conclusions

We show how to apply LGM to longitudinal data to distinguish different patterns of working life. This is not intended to be an exhaustive review of the entire LGM approach, but instead an example of how it can be useful in our particular field.

Key messages:

- LGM is a useful, sophisticated modelling approach to examine longitudinal data applied in an occupational health framework
- LGM techniques are able to identify how different risk factors shape patterns of working life in a population

Institutional analysis of workplace health promotion for elderly in 10 Countries: Pro-Health65+

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Background

Longevity and low birth-rate have become a new challenge in European Public Health. A systematic approach to the issue includes the analysis of workplace health promotion for elderly (WHP4E). This study, conducted within the European project “Pro-Health65+”, reviewed the programs of WHP4E and analyzed the institutions involved in them.

Methods

The review of activities of WHP4E performed in 10 European countries was conducted on Medline, on major online search engines and on the website of the major European Agencies of worker health promotion (ENWHP, Euro Fund, ILO, EU-OSHA). Institutions involved in programs were divided in 9 categories: Supra-governmental organization; Governmental Institution; Employers’ representative; Enterprise; Occupational physician; Health insurance company; Non-profit organization; Research organization; Other organization. Finally, for each program, the involvement of institutions was classified in: Setting; Promoter; Organizer; Financing; Expertise source; Regulation.

Results

Four hundred twenty-five programs of WHP4E were identified in the selected countries. Most of the programs were carried out in Germany (87) and The Netherlands (79). Enterprise, as financing, promoter, organizer and setting, was the institution most involved in programs (148). The Supra-governmental and Governmental institutions were engaged mainly as financing of the programs (107), especially in Southern and Eastern Europe countries (Italy, Portugal, Greece, Poland, Hungary, Bulgaria and Lithuania) respect to northern countries (Germany and The Netherlands). The Research organizations were involved mainly as expertise source (85 programs).

Conclusions

Despite many institutions in Europe are active in the field of WHP4E, their efforts are still isolated and random distributed. A strengthen cooperation between Governmental institutions and enterprise sector could be useful to facilitate and endorse the adoption of WHP4E policies and programs.

Key message:

- Considering the rapid increase of the employment rate of older workers, a systematic and integrated approach to WHP4E policies and programs would be appropriate

PARALLEL SESSION 4

FRIDAY 11 November 2016 8:30-9:30

4.A. Pitch presentations: Type 2 diabetes and cardiometabolic diseases**Primary prevention of cardiometabolic disease – is everybody receiving quality care?**

Ronit Calderon-Margalit

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Background

Low cardiometabolic risk profiles in younger adults increase longevity, reduce morbidity, and lower the burden of healthcare in the long-term. A healthy cardiometabolic risk profile includes controlled blood pressure and cholesterol levels, a normal body mass index (BMI), and a non-smoking status. The study aims to characterize the quality of preventive healthcare for cardiometabolic disease in the adult population in Israel (2012-2014).

Methods

Data from the Israel National Program for Quality Indicators in Community Healthcare (QICH) (2012-2014) were examined for the adult population, aged 20-54 years. QICH data comprises electronic patient records collected for the entire Israeli population from all four health plans in Israel. Data were aggregated to create the national indicator set. Data were stratified by year, gender, age, and socio-economic position (SEP).

Results

In 2014, rates of primary prevention of cardiometabolic disease in community healthcare were: 85% controlled blood pressure, 64% controlled cholesterol levels, 76% had non-obese BMI, and 80% were non-smokers. Subgroup analyses revealed higher rates of cardiometabolic prevention with increasing age, among women, and among low-SEP individuals. During the study period absolute rate differences for blood pressure documentation were 7% lower for adults 20-34 years compared with 45-54 years, for cholesterol documentation was 6% lower among adults aged 35-44 years than 45-54 years, and for BMI documentation was 7% lower among adults aged 20-34 years than 45-54 years. Rates among women were higher than for men with marked differences among young adults. In 2014, documentation rates of cholesterol levels for women were 91% and only 83% for men, and 93% among individuals of low-SEP in comparison to 87% in the general population.

Conclusions

High rates of primary prevention for cardiometabolic disease are achieved in Israel but with lower rates among young adults and men.

Key messages:

- Young adults and men are identified as requiring improved basic preventive care
- Targeting primary prevention of cardiometabolic disease among young adults and men will have substantial direct and indirect effects on healthcare costs

Is blood glucose control in women with gestational diabetes associated with fruit and veg intake?

Michelle Morris

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Background

Measuring diet effectively is essential in women with gestational diabetes mellitus in order to assist with maintaining adequate blood glucose control. This is typically completed using a paper diary in conjunction with advice from dietitians. Methods to make it easier for patients and dietitians to monitor their diets could improve outcomes.

Methods

This is a prospective observational study. All newly-diagnosed pregnant women referred to the gestational diabetes mellitus clinic at a large NHS Trust during the study period in 2015 were invited to participate in the study. Diet was assessed using myfood24, an online 24h dietary recall tool, in addition to the usual NHS care which involved the women recording their post meal maternal blood glucose levels. Adequate post meal blood glucose control was determined as <7.8mmol/L. Consumption of >=400 grams/day of fruit and vegetables met the UK 5-a-day guidelines.

Results

200 women were recruited into the study of which 121 provided complete dietary records for multiple days. 20% of these women met the 5-a-day fruit and vegetable recommendations. 45%, 63% and 68% women achieved adequate control of their blood glucose after breakfast, lunch and dinner respectively, each day of the study. There was no significant difference ($p=0.05$) between achieving adequate post meal blood glucose control in those meeting recommendation compared to those who didn't. When considering quintiles of fruit and vegetable intake no significant difference in blood glucose control was observed.

Conclusions

Meeting the 5-a-day recommendation for fruit and vegetables is not associated with better blood glucose control in women with gestational diabetes mellitus. No difference between those meeting the recommendation and those who don't was observed. Further work is required to investigate the influence of other key dietary components in achieving adequate blood glucose in women with gestational diabetes mellitus.

Key messages:

- Fruit and vegetable consumption is not associated with post meal maternal blood glucose control in women with gestational diabetes
- Women with gestational diabetes mellitus are willing to engage with online dietary assessment methods

Assessing baby boomers' diabetes prevalence of today and tomorrow

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The rising number of patients with diabetes mellitus (DM) presents a current and future major public health issue for the German federal state of North Rhine-Westphalia (NRW). In particular, the emerging increase in DM incidence among the baby boomer generation (*1955-1970) is cause of growing concern. Health prevention policies and health care service planning require reliable data on DM outcome measures and their future progress. But existing prevalence data from different sources vary, depending on population basis and survey method. Are projections based on these data realistic, since quantitative estimates of undetected cases or high future risks of hitherto undiagnosed individuals are not considered? This study examined up-to-date DM prevalence data of different sources. NRW Health Surveys from 2000-2013, NRW ambulatory treatment diagnoses from 2005-2013, and the German Health Interview and Examination Survey (RKI) were analysed. Moreover, 2 evaluated risk score tools were applied on a representative sample of baby boomers to estimate their present and future risk for undetected (pre-) DM. Based on these estimations, future DM prevalence rates in NRW baby boomers were assessed by using a dynamic Markov-modelling approach with DYNAMO-HIA.

Ambulatory DM treatment diagnoses rose continuously between 2005 and 2013 to approx. 6%. NRW Health Surveys report 8% of adults with diagnosed DM in 2013; among baby boomers 5.5%. It must be assumed that actually 15% of this birth cohort are affected from detected or undetected (pre-) DM. Accordingly, the prognostic modelling results in significantly higher estimates in 20 years time than previously thought.

The awareness of possible deviations in reported DM prevalence rates, due to e.g. different measurement instruments or population bases used, and their derived tendency to underestimate actual occurrences of diabetes, is crucial to classify DM data properly. Risk scores support the estimation of unreported cases.

Key messages:

- Depending on data source and basis, prevalence and incidence estimates on diabetes mellitus among the NRW population vary, complicating the planning of prevention policies and health care service
- More realistic figures of diabetes occurrence, esp. for the baby boomer generation, can be achieved by applying risk score tools to estimate the percentage of undetected (pre-diabetes)

Interaction of socioeconomic position and type 2 diabetes family history

Sander Van Zon

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Background

Low socioeconomic position may, through adverse health behaviors and clinical risk factors, exacerbate people's familial predisposition for type 2 diabetes, but evidence is currently lacking. This study examines the main and interaction effects of low socioeconomic position and type 2 diabetes family history on type 2 diabetes and whether behavioral and clinical risk factors explain these effects.

Methods

This cross-sectional study was conducted using data on 51,725 participants from the population-based Lifelines Cohort Study. Socioeconomic position was measured as educational level. Type 2 diabetes family history was based on self-reported data. Participants with self-reported type 2 diabetes and medication use, a fasting plasma glucose ≥ 7.0 mmol/L, a glycated hemoglobin $\geq 6.5\%$, or recorded type 2 diabetes medication use were categorized as having type 2 diabetes. The relative excess risk due to interaction was calculated to examine interaction on the additive scale.

Results

The odds ratios of type 2 diabetes were highest for males and females with low socioeconomic position and type 2 diabetes family history. The relative excess risk due to interaction of low socioeconomic position and type 2 diabetes family history was 0.64 (95% confidence interval: -0.33, 1.62) for males and 3.07 (1.53 – 4.60) for females. Adjustment for behavioral and clinical risk factors attenuated main and interaction effects but increased risks remained.

Conclusions

Low socioeconomic position and type 2 diabetes family history exacerbate each other's effect on type 2 diabetes in females but not in males. Behavioral and clinical risk factors partly explain these effects. Targeting lifestyle interventions at this high-risk group may result in more effective type 2 diabetes prevention.

Key messages:

- Low socioeconomic position and type 2 diabetes family history exacerbate each other's effect on type 2 diabetes in females but not in males
- Interventions aimed at this high-risk group may aid type 2 diabetes prevention

Diabetes and diabetes risk estimation among Russian, Somali, and Kurdish migrants in Finland

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Introduction

Some migrant groups, especially those with refugee background, appear to be at a higher risk for diabetes. Life-style factors play a significant role in the development of type 2 diabetes. Identification of those at higher risk for developing future diabetes is an important aspect for health promotion.

Methods

Cross-sectional data from 30 to 64 year-old participants (n = 921) of the Migrant Health and Wellbeing Study (2010-2012) were used. Data for comparison with the general Finnish population were obtained from the Health 2011 Survey (n = 892). Probable diabetes was defined as self-reported diabetes, register-based diabetes, glycated haemoglobin ≥ 48 mmol/mol or fasting glucose ≥ 7.0 mmol/l. Finnish diabetes risk score (FINDRISC) was calculated based on age, body mass index, waist circumference, physical activity, fruit and vegetable intake, hypertension medication, raised fasting glucose, and glycated haemoglobin. Prevalence and their 95% CI were calculated using SAS 9.3 software. Missing data were handled using multiple imputation.

Results

Prevalence of probable diabetes was 6.0% for Russian, 13.4% for Somali, 12.1% for Kurdish men, and 7.7% for men from the general population. Respective prevalences for women were: 7.2%, 18.5%, 11.3%, and 5.1%. Among individuals without diabetes, 5.8% of Russian, 3.8% of Somali, 9.2% of Kurdish and 10.5% of men from the general population were

identified at high risk of developing future diabetes (FINDRISC ≥ 12 points). Respective rates for women were 10.5%, 21.4%, 7.9%, and 13.4%.

Conclusions

A greater emphasis on diabetes prevention among migrants of Somali and Kurdish origin is needed in health promotion and healthcare. Components of the FINDRISC risk estimation tool appear to not have the same level of correlation with future diabetes risk among migrants than among the general population.

Key messages:

- Prevalence of diabetes was notably higher among Somali and Kurdish migrants compared with the general Finnish population
- Diabetes risk estimation tools designed for the general population are not directly applicable to all migrant groups. Appropriate risk assessment tools applicable to migrant populations are needed

Diabetes care in Austria and England: what causes the fivefold higher hospital admission rates?

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Background

This study tries to identify differences in the structure and processes of primary care related to diabetes care in Graz (Austria) and Tower Hamlets (London, United Kingdom). It tries to assess if these observed differences can explain the fivefold higher hospital admission rates due to diabetes in Austria compared with England.

Methods

The study implemented a mixed-method research approach based on a “rapid health system appraisal” focusing on Graz and Tower Hamlets. Quantitative data derived from routine health data on diabetes prevalence, diabetes morbidity and mortality, hospital admissions due to diabetes and human resource data. Qualitative data derived from semi-structured interviews each with twelve policy maker, health professions and academic researchers in both settings.

Results

The preliminary results show largely different structures and processes related to diabetes care which could potentially explain the observed difference in hospital admission rate. Diabetes management in England moved in the last decades from the hospital to the primary care setting, from medical doctors to nurses and receives technical support and financial incentives by the Quality Outcomes Framework.

Diabetes management in Graz spreads between primary care, outpatient specialist care and hospital based care, mainly performed by medical doctors, technically supported by those GPs who joined the Disease Management Program and lacks financial incentives.

Conclusions

The large differences in hospital admissions due to diabetes are associated with a stronger, long-term focus on quality improvement initiatives in the primary care sector and the conscious decision to move diabetes management from the hospital sector to the primary care sector and from medical care to nurse-led care.

Key messages:

- Austria experiences five-fold higher hospital admission rates due to diabetes than England
- From a healthcare system perspective, diabetes is very differently managed in those two countries

Does chronicity necessarily lead to patient policy participation? Diabetes & HIV/AIDS cases in Mali

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Background

According to the Ottawa charter, individuals and communities are key partners for questions related to their health. Patients' participation is particularly stressed in strategies targeting chronic diseases. We analyse which factors shape patients' participation in policy-making about diabetes and HIV/AIDS in Mali, West Africa. In the context of Southern countries, most studies concern HIV/AIDS, while few exist on non-communicable diseases. As the burden of chronic diseases is rapidly increasing in the South, we aim to improve the implementation of patients' participation.

Methods

We collected our data between 2008 and 2014 at two-year intervals by means of semi-structured interviews, non-participant observations and a literature search. In Bamako, we met 79 representatives of public authorities, patient associations, NGOs, caregivers and donors who fight against diabetes and HIV/AIDS. From an historical approach, we retraced patients' mobilisation since the 1980s.

Results

The place and roles given to patients, individually and collectively, vary over time according to several intertwining factors. Among them: the political context, as patients mobilise in reaction to state commitment; the medical history of the disease, which shapes the relations between ordinary patients and experts; cultural and social elements, particularly how decision-makers, caregivers and donors view both the disease and patients; donors' impact on patients' capacity to mobilise and on the public space architecture.

Conclusions

Thirty years later, we are still far from the Ottawa spirit. Chronicity is not a sufficient condition to build patient's political legitimacy, and we question the image of an active chronic patient. The cases of diabetes and HIV/AIDS in Bamako reveal how chronic patients are in fact intermittent partners for policy-makers. Patient's participation is a social construction linked to many factors which need to be considered to improve health democracy.

Key messages:

- This is the first comparative study on diabetes and HIV/AIDS in Bamako, Mali and among the few analyses targeting patients' participation in policy decision-making in Southern countries
- Patient's participation is a social construction linked to many factors. Chronicity is not a sufficient condition to build patient's legitimacy, and we question the image of an active patient

Diabetes care pathway: an analysis of self-management

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Background

Diabetes type 2 is an illness which affects not only the individual and the family but also the health care system as it causes impaired quality of life, premature mortality and significant economic costs to the individual and healthcare system. However, there is very little evidence examining the effects and scope of diabetes patient's self-management. This work has examined current evidence examining the

effectiveness of self-management along with the influencing factors and role of education in the implementation of self-management for the management of diabetes mellitus.

Methods

A systematic review was conducted of all primary studies published from January 2006 - January 2016 located through the following data bases: PubMed, PubMed central, EMBASE, MEDLINE, BioMed central, Directory of Open Access Journals (DOAJ) and electronic libraries of the authors' institutions. Data extraction and quality appraisal of included studies was done independently by two authors and findings were synthesized in a narrative manner.

Findings

The finding revealed that self-management of diabetes is effective in helping patients to stay healthy, improve their quality of life and overall self-efficacy. The review also throws light to the factors influencing the self-management such as medical advice, ethnicity, gender, insulin treatment regimen,

patient education with great emphasis on self-management education.

Conclusions

This review provides evidence of key contributors to the increasing burden of diabetes and demonstrates the efficacy of self-management. Self-management of diabetes mellitus is an inevitable part of the diabetes care pathway, which enables the individual to participate actively in the decision making and treatment process. The findings have implications for policy, practice and the development of interventions at various levels to promote healthy lifestyle.

Key message:

- Self-management of diabetes is effective in helping patients to stay healthy, improve their quality of life and overall self-efficacy

4.B. Pitch presentations: Trauma, alcohol use and inequalities among youth

Being exposed to intimate partner violence in university students: Turkey- 2015

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Background

Recent studies indicate that partner violence is a major public health problem in Turkey (physical and/or sexual violence by partner rate is 11% for women in last 12 months). We aimed to examine the frequency of intimate partner violence and the affecting factors for school of health students.

Methods

The universe of this cross-sectional study was students of a health school in a university and 384 of them participated to the study. Data was collected using a questionnaire including two scales developed in Turkey (Gender Perception Scale-GPS; Gender Roles Attitude Scale-GRAS). Two logistic regression modelling (respectively for male and female participants) were used to analyze data. Written permissions were taken from the school administration and from the Ethics Committee of the University.

Results

The mean age was 20.2 (2.1) years and 70% of the students have been in a relationship. GPS and GRAS scores indicates that almost all of the participants have egalitarian perceptions and attitudes on the gender issues. 36.1% of them was exposed to intimate partner violence and 5.1% of this were sexual and/or physical abuse (there is no statistically significant difference between male and female in both conditions $p > 0.05$). It was found that the groups that evaluate their own economic situation as bad were more exposed to intimate partner violence regarding to the group that evaluate as good in both male ($p = 0.08$) and female modellings ($p < 0.05$) in the logistic regression analysis.

Conclusions

Male students can be exposed to intimate partner violence as female and this result is astonishing according to the customs and traditions of this country. In terms of exposure to partner violence the perception of the economic situation was important in both sexes.

Recommendations

1. using qualitative research techniques to determine the causes of exposure partner violence

2. developing preventive and protective measures for groups at risk of intimate partner violence

Key messages:

- Male students can be exposed to intimate partner violence as much as female students
- Economic status perception is an important factor for both male and female students

Adverse Childhood Experiences (ACEs) in Wales and their Impact on Health in the Adult Population

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Background

Adverse childhood experiences (ACEs) can have long term detrimental effects on an individuals' mental and physical health across their life course. ACEs include direct abuse, child neglect, and other factors in the child's household while growing up, for example alcohol or drug misuse. Understanding the prevalence of ACEs and their association with health outcomes is vital to informing effective prevention and early intervention.

Methods

In 2015 Public Health Wales undertook a face-to-face national cross-sectional survey of adults (aged 16-65 years) in Wales. Respondents completed an ACE validated questionnaire and were asked about their experiences in childhood and their current health. Overall prevalence of ACEs was calculated and rates were applied to the Welsh population to estimated reduction in levels of adverse health outcomes in adults.

Results

Achieving a compliance rate of 49.1%, the study found that for every 100 adults in Wales, 47 suffered at least one ACE during their childhood and 14 suffered 4 or more. Compared to individuals who had suffered no ACEs, those who had experienced four or more were more likely to have been a victim of violence (AOR 14.240(95%CI 9.1-22.1; $p < 0.001$) and were more likely to be high-risk drinkers (AOR 4.4(95%CI 3.1-6.4; $p < 0.001$). Results also suggest that preventing ACEs in

future generations could reduce the prevalence of health-harming behaviours, for example unintended teenage pregnancies by 41%, and incarceration by 65% in Wales.

Conclusions

ACEs have a major impact on the development of health-harming behaviours. Primary prevention of ACEs is essential to improve the health of populations across the life course. In Wales, policies such as the Well-Being and Future Generations Act (Wales) 2015 provide the legitimacy for collective targeted activity towards primary prevention of ACEs in the early years, thus providing the opportunity for a healthy future for all.

Key messages:

- Adverse Childhood Experiences have a major impact on the development of health-harming behaviours
- Primary prevention of Adverse Childhood Experiences is essential to improve the health of populations across the life course

Gender difference in the association between childhood trauma and depression in Chinese adolescents

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Childhood trauma and adolescent depression are major public health problems. Studies focusing on the gender differences of the association between trauma and depression are very limited among adolescents, especially in China. The aim of this study was to examine this association across genders. A school-based cross-sectional survey with stratified cluster sampling was applied. Self-administered anonymous questionnaire was applied to collect information. Childhood trauma was assessed by The Childhood Trauma Questionnaire-Short Form (CTQ-SF) and depressive disorder was assessed by Depression Self-Rating Scale for Children (DSRSC). A total of 21,774 middle and high school students in Guangdong Province were surveyed in 2014. The mean score of the CTQ-SF for boys (33.0±9.3) was significantly higher than for girls (31.8±8.5) ($P < 0.01$). The mean score of the DSRSC for boys (10.6±5.2) was significantly lower than for girls (11.4±5.1) ($P < 0.01$). The correlation between trauma and depression was stronger among girls ($r = 0.46$) than boys ($r = 0.43$) ($P < 0.01$). After controlling for confounders, the multiple linear regression model showed two significant interactions between emotional abuse (EA)/physical neglect (PN) and gender ($P < 0.05$ for both). The regression coefficient between EA and depression for boys (0.33, 95%CI=0.29-0.37) was lower than for girls (0.44, 95%CI=0.39-0.48). And the coefficient between PN and depression for boys (0.18, 95%CI=0.13-0.22) was also lower than for girls (0.22, 95%CI=0.17-0.26). In conclusion, the trauma was more common in boys but the association with depression was stronger in girls. This finding may provide a basis for the early identification and prevention for individuals at high risk for childhood trauma and adolescent depression. And gender specific measures should be taken by policy makers.

Key messages:

- Our study showed that childhood trauma was more common in boys and the association between trauma and depression was stronger in girls. This finding is an important addition to existing literature
- This finding may provide a basis for the early identification and prevention for individuals at high risk for trauma and depression. And gender specific measures should be taken by policy makers

The attitude toward violent punishment of children in three countries of the Western Balkan

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Background

Three transitional countries of the Western Balkan, Serbia (RS), Bosnia Herzegovina (BH) and the Former Yugoslav Republic of Macedonia (RM) are recently putting efforts to improve regulations toward protection of child rights and health.

Study objective was to assess the prevalence of the attitude toward physical punishment among adults in households with children aged 2-14 years, and to identify potential predictors for that attitude by analyzing separately Roma and non-Roma households in Bosnia and Herzegovina, Republic of Macedonia and Serbia, and Roma living in Roma settlements in these three countries.

Methods

Data collected from 9,973 respondents from the Multiple Indicator Cluster Survey (MICS4) conducted in Bosnia and Herzegovina, Republic of Macedonia and Serbia (non-Roma and Roma households) during 2010-2012, were analyzed using multivariate logistic regression analysis.

Results

The attitude toward physical punishment had one-quarter of Serbian Roma sample. It is by 78,1% more likely among Roma adults if the child is a boy than if it is a girl (in BH). It will also more likely increase if Roma adults are settled in urban than in rural areas (by 97.3% in BH and by 61,5% in RS). However, their attitude towards physical punishment will decrease (by 26,9% in the RM and by 23,1% in RS) with growth of household wealth index. In addition, for each year in child's life the probability of the attitude towards physical punishment among Serbian Roma adults decreases by 3,7%. In non-Roma households, the likelihood of the attitude towards physical punishment decreases with growth of wealth index (by 28,7% in the RM and by 19,9% in BH), but it increases by 55,6% if the child is a boy than if it is a girl.

Conclusions

Study provided evidences that significant predictive value for the attitude toward violent disciplining were child sex and age, type of settlement and wealth index.

Key messages:

- Unless being persistently confronted by legal reform and public health interventions, the attitude toward physical punishment of a child may remain common
- Collaborative effort of governmental institutions, public health professionals, civic societies and media is needed to change the adults' attitude toward use of physical punishment against children

Impacts of Canadian drinking age laws on sexual assault victimization of young women, 2009-2013

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Background

Minimum legal drinking age (MLDA) laws are a widely used and effective strategy for reducing alcohol-related harms among youth. In Canada, the MLDA is 18 years in Alberta,

Manitoba, and Québec (MLDA-18), and 19 years in the rest of the country (MLDA-19). Recently, experts have called for a national increase in the MLDA to 21 years. Few studies have examined the potential impacts of drinking-age laws on patterns of violent sexual victimization. The current study addresses this gap.

Methods

Regression discontinuity analyses utilizing data on police-reported sexual assault victimization incidents from Canada's national Uniform Crime Reporting Survey (UCR), 2009-2013.

Results

For women just older than the MLDA, sexual assault victimization at any location increased in MLDA-19 provinces [22.5% (1.2%-43.4%) $P=0.039$], compared to women just younger. Sexual victimization of women at bars and restaurants also increased in MLDA-18 provinces by 107.5% (95% CI 16.2%-201.1%; $P=0.021$), and nationally by 69.2% (95% CI 1.1%-139.2%; $P=0.046$), as well as at open air settings in MLDA-19 provinces by 35.4% (95% CI 5.9%-64.9%; $P=0.019$) and nationally by 23.2% (95% CI 3.7%-42.7%; $P=0.020$). Sexual assault victimizations by strangers also increased at bars/restaurants in MLDA-18 provinces [356.9% (95% CI 89.8%-631.2%; $P=0.009$)] and nationally [189.0% (95% CI 63.3%-320.0%; $P=0.003$)]; and in open air settings in MLDA-19 provinces [41.4% (95% CI 12.0%-71.3%; $P=0.006$)].

Conclusions

Immediately after the drinking age, young women experienced significant and immediate increases in sexual assault victimization. Increases were observed specifically at public settings associated with drinking venues. The results are supportive of the potential for MLDA laws to reduce harms related to sexual violence experienced by young women, and also highlight the importance of drinking context for informing interventions to reduce alcohol-related sexual assault.

Key messages:

- This study provides the first evidence of the impact of drinking age laws on police reported sexual assault victimization among young women.
- Exit from Canadian legal drinking age laws was associated with increases in police-reported sexual assault victimization of young women, especially at public drinking settings

Alcohol availability and alcohol-related health among adults exposed in utero: natural experiment

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Background

Evidence suggests that increased alcohol availability is associated with increased alcohol consumption and alcohol-related harm in the general population. However little is known about the long-term health consequences of exposure in utero to an alcohol policy change. The present study examines if increased alcohol availability is associated with alcohol-related health problems later in life among those exposed in utero.

Methods

A natural experiment, register linked population-based longitudinal study was conducted, including 235 408 subjects born 1965 -1969. A 8.5 months experimental policy change in 1967-68 increased access to strong beer for 16-20 year-olds in two regions of Sweden. The main analysis focused on the children conceived before the policy change but exposed in utero. The children exposed to the policy change (N=14 951) were

compared to the children born in the rest of Sweden (N=97 488), excluding a border area. The outcome was obtained from the National Patient Register using the Swedish index of alcohol-related inpatient care. Hazard ratios (HR) with 95% confidence intervals (CI) were estimated by Cox proportional hazards regression analysis, stratified by maternal age at birth (<21, ≥ 21).

Preliminary Results

Compared to the unexposed cohort, children of young mothers exposed to the policy change had a slight increased risk of alcohol-related health problems later in life (HR 1.26, 95% CI 0.94-1.68). Tendency of an inverse association was found among the children of older mothers (HR 0.88, 95% CI 0.73-1.05).

Conclusions

This study suggests that increasing alcohol availability to young adults may have long-term health consequences among children exposed in utero.

Key messages:

- Increased alcohol availability influences the long-term health consequences of those exposed in utero
- This study provides additional support for a restrictive alcohol policy to decrease alcohol-related harm

Interventions to reduce inequalities in health and early child development in Europe

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Background

When families face daily challenges due to their socioeconomic circumstances they are less likely to be able to offer children a nurturing environment. Early years interventions may help interrupt intergenerational transmission of inequalities. The literature suggested the most effective approaches were those that addressed both child and parenting issues.

Methods

The study formed part of the DRIVERS Project. Qualitative research methods investigations were carried out. Data collection was performed by collaborating partner institutions included in the project. Twenty-five individual interviews and six focus groups were carried out with staff and with beneficiaries; children, their family or both. A thematic content analysis was performed.

Results

Beneficiaries were reached using a variety of methods. Their programmes aimed to provide activities to stimulate children's learning through structured play and provided support and assistance for parents. In these, parents were actively involved in activities. No long term evaluation or comparison with a control group had been carried out except for the Toybox programme.

Conclusions

Programmes described by staff as being successful, delivered services tailored to parents and their children. Adapting to and understanding the families' circumstances and involving parents was seen by staff as important. Staff also described establishing trust based relationships as a key enabler in programme delivery. Staff perceptions were that parents should be empowered to develop their own capacities thus strengthening their abilities to assist in their children's learning. This had a positive effect on children according to staff.

Key messages:

- The establishment of trust based relationships is a key enabler in programme delivery

- Parents should be empowered to develop their own capacities thus strengthening their ability to assist in their children's learning

Inequalities in subjective health complaints in Swedish adolescents: an intersectional approach

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Background

Health inequality has been defined as the association between individuals' health and their position in societal hierarchies. Such associations can be used as a starting-point in the search for social determinants of health. With regard to subjective health complaints among adolescents the evidence of socio-economic inequalities has been inconclusive. Inequalities by gender are, in contrast, clear and a female excess emerge or increase during adolescence. The aim of this study is to apply an intersectional approach and analyse differences in health complaints by parental education among girls and boys, taking age into account. Furthermore, data with information from both adolescents and their parents will be used which is ideal since adolescents seldom have correct information on parental education.

Methods

The data was obtained from a Swedish nationally representative survey (ULF) and its child supplement (Child-ULF) from the years 2007-2011 (n = 5280). Subjective health complaints were reported by adolescents (aged 10-18) and measures indicating psychological (e.g. feeling sad) and somatic complaints (i.e. head- and stomach ache) calculated. Information on education was obtained for one parent and five educational groups distinguished. Binary logistic regression was used and odds ratios with 95% confidence limits computed.

Results

Among girls, a clear gradient was found. From higher to lower level of parental education the odds ratios for psychological complaints were; 1.00 (ref); 1.07 (0.7-1.6); 1.38 (1.0-2.0); 1.73 (1.3-2.4); 2.05 (1.3-3.3); and for somatic complaints; 1.00 (ref); 1.27 (0.8-1.9); 1.55 (1.1-2.3); 1.69 (1.2-2.4); 2.82 (1.8-4.5). No association was found among boys. Gender differences per se were pervasive and, in ages where female excess is present, substantial within all educational groups.

Conclusions

The higher burden of subjective health complaints in adolescent girls is unequally distributed by the level of parental education.

Key message:

- The increased reporting of girls, makes efforts to identify social determinants vital. Among Swedish girls such determinants are tied to parental education

4.C. Workshop: Indicators for evidence-informed policy making: development, validation, contextualization

Organised by: National Research Council of Italy, Rome, Italy and the REPOPA Project, Esbjerg, Denmark
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Chairperson(s): *Adriana Valente - Italy, Arja Aro - Denmark*

In public health policy making, research evidence is seldom the primary driver. For this reason the term evidence-informed policy making (EIPM) instead of evidence-based policy making is used in REPOPA project (Research into Policy to enhance Physical Activity, www.repopa.eu).

EIPM needs tools to measure to which extent the policies are evidence-informed. Indicators can help in the processes of using evidence, in different policy phases, i.e. agenda setting, policy formulation, policy implementation and policy evaluation. In REPOPA, a two-rounds international Delphi panel with 76 policy makers and researchers from six European countries developed and validated a list of 25 specific and measurable indicators for EIPM, and a set of eight general indicators which describe relevant issues to foster EIPM. REPOPA measurable indicators were developed as a tool for assessing the presence and extent of EIPM.

The aim of this workshop is to present the development, validation, including contextualization, of the REPOPA measurable indicators for EIPM in physical activity and to set up a debate on the contents, development methodologies and further implementation of the indicators.

The strength of the workshop is in fostering debate on innovative measurable and objective EIPM indicators, involving the EUPHA community in further exploring the implementation and usability of these indicators.

The workshop includes three presentations of 15 minutes each, with 45 minutes for discussion.

The three presentations introduce key phases and results in the process of EIPM indicators development, validation and contextualization: a) the frameworks and the participatory processes of knowledge building for developing the indicators; b) the main results from the international two rounds online validation Delphi and the list of measurable EIPM indicators; c) the contextualization and further validation of the indicators by means of six National Conferences which took place at the beginning of 2016 and main insights from the SWOT analysis of the indicators carried out in the six countries.

Key messages:

- The workshop will be an important step towards the implementation of measurable indicators for EIPM at European level, involving the EUPHA community in the debate
- The workshop will foster the debate on the use of participatory methodologies in the process of developing, validating and contextualising indicators at international, national and local level

Frameworks and participatory processes for developing indicators for evidence-informed policy making

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The process of building indicators for EIPM was a long way from literature and policy analysis to involvement of policy makers and scientific community in participatory methodologies. First, literature and theoretical frameworks for EIPM were used, including Evidence-Based Public Health, Knowledge-to Action Cycle, Stages-of Knowledge Use, systems approach and Organizational Change theories.

From the previous project phases, results of policy analysis and stakeholder interviews as well as two sets of interventions, both in three countries - policy game interventions in Denmark, the Netherlands and Romania and stewardship interventions in Denmark, Italy and the Netherlands – were used to identify needs for indicators.

After that, the process of developing and validating indicators was based on the following phases:

1. Defining a draft of measurable indicators
2. Inputs from REPOPA partners
3. Internal procedure for consensus within REPOPA consortium
4. International validation and enrichment of the indicators
5. Mapping indicators to policy phases
6. Contextualisation and further validation in six National Conferences
7. Production of guidance resources and policy briefs

In three of the mentioned phases reaching consensus or sharing scenarios was crucial, therefore the following participatory methodologies were used:

- online consultation, focus group and a final follow up online session for the internal consensus procedure
- two internet-based Delphi rounds for the international validation of indicators
- a third face-to face Delphi round with working tables involving researchers and policy makers in performing SWOT analysis (Strengths, Weaknesses, Opportunities, Threats) and guidance for using indicators for the contextualization and further validation of indicators in National Conferences.

Key message:

- REPOPA project provided the development of EIPM indicators by means of a process based on relevant frameworks and participatory and contextual process of knowledge-building

REPOPA indicators for evidence-informed policy making validated by an international Delphi study

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A total number of 23 measurable REPOPA indicators were organised in four thematic sets - 1) Human resources-Competences & Networking, 2) Documentation-Retrieval/Production, 3) Communication & Participation, 4) Monitoring & Evaluation - and evaluated by means of an international Delphi study.

76 panelists from six European countries (Romania, Italy, Denmark, UK, the Netherlands, Finland) and international organizations, chosen for being researchers or policy makers in

public health and across sectors, had to rate relevance and feasibility for each indicator, comment their ratings and propose new indicators by means of two internet-based Delphi rounds.

Most indicators were directly validated in the first round, reaching immediately consensus on their high feasibility and relevance; remaining indicators were rated again in the second round, where panelists considered first round scores and comments. Finally 19 out of 23 initial indicators and six out of eight newly suggested indicators were accepted, with a validated list of 25 indicators for EIPM as the final output.

Insights emerged as a result of panelists' ratings and comments, e.g. involvement of researchers was considered essential in all policy phases, while the role of other stakeholders in policy, although considered crucial, raised more discussion, leading to their final exclusion from the policy evaluation phase; allocating budget for EIPM was considered not feasible in most cases, except when devoted to methodologies to engage and consult stakeholders; acquiring evidence from documents was easily welcomed, but citing results from peer reviewed journals and producing evidence on the policy raised more perplexities because of policy makers' lack of time and familiarity with this kind of literature.

Key message:

- The international Delphi process helped to validate 25 measurable REPOPA indicators aimed at fostering EIPM and produced collective knowledge by means of interaction among policy makers and researchers

Contextualization of indicators for evidence-informed policy making: results from Denmark and Italy

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Policy making is highly contextual. The 25 measurable EIPM indicators validated by a two-round online international Delphi panel thus needed further testing in different country contexts. Moreover, country-specific feedback was sought to prepare tailored policy briefs and guidance resources for the use of the indicators.

In early 2016 the six European REPOPA project countries (Romania, Italy, Denmark, UK, the Netherlands, Finland) organized each a national conference of national and local experts (n=98; 8-33 per country) in e.g. physical activity, health promotion, social and health sectors. Here results of the SWOT analysis of the REPOPA EIPM indicators from the Danish and Italian national conferences (n=11 and 23 participants respectively) are presented.

While early involvement of stakeholders in policy making was considered strength in both Denmark and Italy, leadership involvement and concrete communication strategy were seen as strengths in Denmark, maintaining networks among researchers and stakeholders was strength in Italy. Lack of time and resources as well as of a common language were weaknesses in both countries. Using research evidence in setting the agenda and formulating policy was seen as an opportunity to increase policy impact especially in Denmark; resistance to change was a threat in Italy, while competing agendas across governmental sectors was a threat in Denmark.

The analysis process continues to use the SWOT results in developing locally salient policy briefs and checklists to support indicators' use in policymaking. Contextualization process proved to be a valuable test to give information for tailored guidance development to support the use of indicators.

4.D. Oral presentations: Addiction

Incentives to support smoking cessation - Results from an overview of reviews

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Background

Health politicians have envisaged introducing incentives to support smokers to quit tobacco consumption and to use incentives in the context of smoking prevention. Against this backdrop, this contribution asks about the evidence regarding the effectiveness of incentives.

Methods

The results are based on an overview of systematic reviews. The systematic literature search in 8 multiple databases and hand search resulted in a total of 260 sources. 54 full-text articles were assessed for eligibility according to the inclusion criteria. The quality of relevant systematic reviews was rated using the Quality Assessment Tool by Oxman & Guyatt.

Results

17 systematic reviews met the inclusion criteria. 15 reviews targeted adults and 2 reviews focused on primary smoking prevention for children and adolescents. All systematic reviews dealt with economic incentives (financial benefits). 12 out of 17 reviews also analysed co-interventions (e.g. smoking counselling). Regarding the effectiveness of incentives, this overview showed that pregnant women and women post partum (in 5 out of 17 reviews) could benefit most of smoking cessation accompanied by incentive schemes. For instance, a comparison of 9 single anti-smoking strategies (Likis 2014) showed that in the intervention groups (with incentives) the number of smokers reaching a non-smoking status was three times higher than in the control groups (OR 3.23; 95% CI: 1.98-4.59). Moreover, we found significant effects in 9 other systematic reviews. In essence, medium effects of incentives could be detected (usually ≥ 6 months), however, effects decreased once incentives were suspended.

Conclusions

Incentives do have positive effects on smoking cessation. This mainly applies for adult smokers. Insufficient evidence could be found regarding the (preventive) effects of incentives. Incentives are to be considered primarily as part of a comprehensive policy strategy (including disincentives such as tax increases).

Key messages:

- Incentives do have the potential to support smoking cessation. Concerted actions, combining incentives with interventions on the policy-level (e.g. smoking bans) are more effective, though
- Pregnant women and women with newborns benefit most from incentives supporting non-smoking. There is insufficient evidence for incentives used as preventive smoking strategies

Key messages:

- In public health action context matters; international indicators for evidence-informed policy making need to be tested across contexts
- National conferences as the third phase of the international Delphi process in indicator validation served well the contextualization goal

Factors that influence support and enforcement of the Smoke-Free Law in Turkey

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Introduction

Turkey enacted smoke-free legislation (SFL) in 2008 that was extended to hospitality venues in 2009. Our previous research showed that compliance was low in some hospitality venues, particularly in bars, nightclubs and traditional coffee houses (TCH). We aimed to identify factors associated with knowledge of health effects from secondhand smoke (SHS) exposure, support for SFL, and enforcement of SFL.

Methods

Between May and September 2014, we conducted a cross-sectional survey of hospitality venue owners and employees in 7 cities in Turkey. A total of 400 interviews were conducted in 262 restaurants and modern cafes, 41 TCHs and 88 bars and nightclubs. Generalized estimating equations clustering by city were performed to estimate odds ratios for knowledge of the health effects of SHS; support for SFL and enforcement of SFL.

Results

Only 37.3% had adequate knowledge of the health effects of SHS, support for the SFL was 71.3% and enforcement behavior was 19.5%. Older individuals, women, those working in bars and nightclubs, venue owners who were fined, and current smokers were less likely to support SFL with adjusted odds ratios (aOR) ranging between 0.19-0.30). Participants working 70+ hours/week were more likely to support the ban (aOR:1.3). Those working in TCH, former smokers, and those with a high school education or higher were more likely to enforce the ban (aOR range:2.00-3.86). Although current smokers were less likely to support and enforce SFL, those quitting smoking or those smoking less after SFL were more likely to support (aOR:4.39) and enforce (aOR:2.15) it.

Conclusions

Although support for the smoke-free law is relatively high, positive interventions are needed to increase knowledge on the health effects of SHS and to facilitate behavior to enforce the law among owners and employees of hospitality venues in Turkey. Former smokers and current smokers who have been influenced by the law can help to better implement the SFL in Turkey.

Key messages:

- Interventions are needed to increase knowledge on health effects of SHS
- Individuals who started smoking less or quit smoking after the law can help to better implement the smoke-free law

Social class, social mobility and alcohol-related disorders in four generations of Swedish families

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Contact: anna.sidorchuk@ki.se**Background**

The mechanisms of intergenerational social causation in alcohol-related disorders (ARD) remain unclear. We investigated whether and how social class and social mobility in grandparents and parents predict ARD in male and female offspring aged 12+ years and whether intergenerational social prediction of ARD varies across time.

Methods

We studied four generations (G) of Swedish families from the Uppsala Birth Cohort Multigenerational Study: "G0" born 1851-1912; "G1" born 1915-1929; "G2" born 1940-1964 and "G3" born 1965-1989. Two study populations were created, each consisting of grandparents, parents and offspring: population I (G0-G1-G2) and population II (G1-G2-G3). Routine registers and archives provided data on ancestors' socio-demographic factors and ARD history as well as on offspring's ARDs. We analysed the hazard of ARD developing in offspring in 1964-2008 by ancestors' social class and social trajectories in Cox regression models.

Results

Disadvantaged grandparental social class predicted increased ARD risk in population I, with higher hazard ratio (HR) observed among women [HR 1.80 (95% CI=1.07-3.03)]. In population II, no such associations were evident. In both populations, men were at the highest risk of ARD if both their parents and grandparents belonged to disadvantaged social class [population I: 1.82 (1.22-2.72); population II: 1.68 (1.02-2.76)] compared to counterparts from highly advantaged families. The ARD risk was reduced for those with upwardly mobile trajectories.

Conclusions

Intergenerational social patterning of ARD appears to be time contextual and gender-specific. The role of grandparental social class in developing ARD in grandchildren is declining over time, while parental social disadvantages and grandparental-to-parental persistent social adversity remain to be associated with higher ARD risk in men. When targeting the risk groups, continuity of familial social adversity, particularly among men, should be addressed.

Key messages:

- The role of grandparental social class in developing alcohol-related disorders (ARDs) in offspring is declining over time, but parental social adversity remains to be associated with higher ARD risk
- Men are at the highest risk of ARDs if both their parents and grandparents belong to disadvantaged social class, but grandparental-to-parental upward social trajectory may offset health inequality

Illicit drug use is increasing among prescription drug misusers

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Misuse of prescription drugs is a growing public health concern. However, thus far it is rather scarcely studied phenomenon, at least when compared to alcohol or illicit drugs. We aimed to examine 1) the trends of prescription drug misuse among Finnish adult population during the 2000s and 2) illicit drug use among prescription drug misusers.

Methods

The data consist of population-based (aged 15-69 years) Drug Surveys conducted in Finland in 2002, 2006, 2010 and 2014. The response rates varied between 63% and 48%. Respondents were classified as 'prescription drug misusers' if they reported using prescription drugs non-medically (e.g. without doctor's prescription, in larger doses or for different purposes that they were prescribed). A logistic regression analysis was used.

Results

The preliminary results show that there was a slight decrease in the trends of prescription drug misuse among the general Finnish population between 2002 and 2014: lifetime prevalence from 7.1% to 5.4%, p for trend=0.005; last year prevalence from 2.8% to 1.6%, p for trend=0.001; and last month prevalence from 1.4% to 0.5%, p for trend=0.001. However, the proportion of prescription drug misusers who have also tried or used some illicit drugs has increased notably. In 2002, 21% of those who had misused prescription drugs during last year had also used illicit drugs, whereas in 2014 the corresponding proportion was already 70% (p for trend<0.001). Although the use of illicit drugs has increased among the population not misusing prescription drugs (last year prevalence from 2% to 4% between 2002 and 2014), too, it has remained on a notably lower level when compared to prescription drug misusers.

Conclusions

The misuse of prescription drugs is increasingly polydrug use. This may bring on more severe harms and worse health outcomes for prescription drug misusers and more challenges for treatment, irrespective of the slight decrease of prescription drug misuse in general.

Key messages:

- Illicit drug use has increased substantially among Finnish prescription drug misusers during the 2000s
- Increasing polydrug use among prescription drug misusers may cause more harms and complicate the treatment

Drug detection in keratin matrix: forensic toxicology and epidemiology perspectives

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Background

Hair testing is an alternative and complementary method to evaluate the phenomenon of drugs abuse. Drugs and their metabolites are incorporated into hair through several mechanisms, offering the possibility of detecting drugs for a wider time (which ranges from a week to several months). The aim of our study was to analyze hair samples collected from hair salons to estimate the use of illegal and psychoactive drugs in the general population of Perugia (Umbria Region, Center of Italy).

Methods

We conducted a cross-sectional study from May to July 2012 asking hairdressers of Perugia to collect hair samples and to

compile a worksheet for each one reporting, in a totally anonymous way, the date of the sample collection, gender, age, treatment undergone from the hair, location, hair characteristics, length, type of hairdresser (for man, woman or unisex). The samples were analyzed in laboratory using gas chromatography/mass spectrometry.

Results

We collected 238 samples. The most detected drugs were: THC-TMS identified in 15 samples, MDMA in 9, Beg-TMS in 8. A statistically significant difference in drug use was observed between the city center (23,36%) and the suburbs (5,34%), especially for THC-TMS, BZP, 6-MAM, morphine, MDMA and the group “psychiatric drugs”, including BZP and sertraline. Age and sex didn’t represent influencing factors. Women tend to use especially THC-TMS, BZP and beg-TMS. Men instead, tend to use principally THC-TMS; Beg-TMS and MDMA and Mde-Methamphetamine. The substance with the

highest concentration in the keratin matrix was ketamine (9834,86 ng/100 mg of hair).

Conclusions

The use of keratin matrix let us rebuild the epidemiology of drug abuse in Perugia where the increased market of drugs caused constant rise of drug addiction. However, because of the limits of this method, only the simultaneous use of keratin matrix and other traditional indicators, could furnish more precise information.

Key messages:

- We analyzed the spread of drug abuse phenomenon in Perugia, using the keratin matrix. We showed a statistically significant difference between city center and suburbs
- Keratin matrix analysis represented an innovative method to analyze the epidemiology of drug abuse

4.E. Pitch presentations: Risk and risk behaviours

Health problems and health related behavior of homeless people in Hungary

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Background

Homelessness is a complex public health issue worldwide. Although promoting the health of homeless people requires identification of their health problems in the first place, no study has previously described the health status of homeless people in Hungary.

Methods

We conducted a study of 453 individuals, who use the homeless shelter system in three major Hungarian cities, by applying questionnaires and routine blood tests to determine the participants’ morbidity, use of health services and use of substance. Statistics were performed in SPSS software using logistic regression, Chi-square-, Mann-Whitney-, Kruskal-Wallis tests.

Results

Based on self-reported data, cardiovascular diseases (30,2%), gastrointestinal diseases (15,7%), fractures (18,9%) pulmonary disease (9,8%) and psychiatric disorders (8%) were commonly present. Despite these diseases, the majority of participants (67,3%) gave positive ratings to their own health. With regards to the use of health services, 10,4% of the participants never visited the GP, 86% of them never visited a dentist and only 5,7% of them had a screening test (except for the mandatory chest X-ray) during the last five years. Those living in public places take less medications ($p = 0,035$), and visit less frequently the GP ($p = 0,049$) compared to those who use the shelters. The majority of the participants (81,9%) are smokers, 17,7% of them smoke more than 20 cigarettes per day. Based on their self-report, 43% of the participants never drink alcohol, while 18,6% of them drink alcohol daily, which was associated with increased blood levels of GOT, GPT and Gamma GT ($p < 0,001$).

Conclusions

This vulnerable population has many health problems, most of which can be prevented by outreaching and education.

Key message:

- This study highlights the urgent need for health promotion programs for homeless people to maximize attainable health for all

Educating parents on childhood fever: a focus group study among well-child clinic professionals

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Background

Fever in children aged 0-4 years old is common and often leads to parental worries. Educating parents may have beneficial effects on their sense of coping and fever management. Most parents receive information when their child is ill but it might be more desirable to educate parents in preventive youth healthcare settings, e.g. well-child clinics, prior illness episodes, in order to better prepare parents for future illness management. This study aims to explore experiences of well-child clinic professionals with educating parents on childhood fever and to identify starting points for future interventions in the setting of well-child clinics.

Methods

We held four focus group discussions based on naturalistic inquiry among 22 well-child clinic professionals. Data was analysed inductively using the constant comparative technique.

Results

Well-child clinic professionals regularly received questions from parents about childhood fever and felt that parental worries were the major driving factor behind these contacts. In turn, parental worries are driven by parental level of knowledge, experience, educational level and social network, and inconsistencies in paracetamol advices among healthcare providers.

Well-child clinic professionals perceive current information provision as limited and stated a need for improvement. They stated that information provision on fever should be consistent among healthcare professionals, easy to find and easy to understand.

Conclusions

Fever-related questions are common in well-child care and professionals perceive that most of the workload is driven by parental worries. The focus group discussions revealed a desire to optimise the current childhood fever education. Future education on fever in well-child clinics should consider parental level of knowledge, experience, educational level and social network, and inconsistencies in paracetamol advices among healthcare providers.

Key messages:

- Parental worries drive fever-related contacts in well-child clinics. Worries are caused by parental knowledge, experience, educational level, social network, and inconsistency in paracetamol advices
- Future fever education should consider parental level of knowledge, experience, educational level and social network, and inconsistencies in paracetamol advices among health-care providers

1986-2016: 30 years of pregnancy outcomes surveillance in HIV-Positive women in Luxembourg

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Background

The National Service of Infectious Diseases (NSID) follows a cohort of all HIV infected persons in Luxembourg. In this context, the NSID also ensures the surveillance of all pregnancies in HIV positive women in the country. The main objective of our study was to describe the use of AntiRetroviral Therapy (ART) and the maternal and foetal outcomes in HIV-positive pregnant women.

Methods

Our retrospective cohort study included all pregnancies in HIV positive women between 1986 and 2016. Detailed information regarding obstetrical and virological management for both mothers and babies were reviewed from the patient files.

Results

Overall, 116 pregnancies from 79 different women were included (52% natives from sub-Saharan Africa, 37% from Western Europe and 11% from Asia). Among them, 90 resulted in the birth of 93 babies (3 twin pregnancies). 55 women were followed for 1 pregnancy, 14 for 2, 7 for 3 and 3 for 4 pregnancies. 66.6% of the deliveries were by cesarean and preterm birth < 37 weeks of gestation occurred for 14% of the babies (3% < 32 weeks). 74 women were under ART, of which 42 initiated their treatment during their first pregnancy. Viral load close to delivery was undetectable (< 50 copies/ml) for 58.8% and < 1000 copies/ml for 80% of the pregnancies. 70 babies received an early ARV treatment.

There was no HIV transmission among the babies born to women on ART during their pregnancy but 2 transmissions occurred from mothers who arrived in Luxembourg few days before delivery and could not be treated.

Conclusions

Pregnancy represents a privileged opportunity to initiate an antiretroviral therapy in HIV-positive women and to keep them under treatment. ART were prescribed according to the guidelines and allowed to avoid mother-to-child transmission with very low risks for the children.

Key messages:

- The management of pregnancies in HIV infected women, including ART in Luxembourg is efficient to prevent mother-to-child transmission
- Surveillance needs to be maintained to further evaluate the safety of ART in their offspring

Sexual risk behavior and risk perception among Swedish men who have sex with men in Berlin

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Background

Berlin is a common destination for Swedish MSM, offering a variety of venues catering specifically to MSM. HIV prevalence and incidence is higher among MSM in Germany than in Sweden and Swedish MSM may contract HIV/STIs while having sex in Germany. The aim of the study was to gain deeper understanding of risk perception and sexual behavior abroad compared with at home among Swedish MSM travelling to Berlin.

Methods

This was a qualitative study among 14 cis MSM 25-44 years old, recruited via respondent-driven sampling, from January to April 2016. Data were collected through in-depth interviews and analysed with content analysis.

Results

A variety of push and pull factors contribute to Swedish MSM going to Berlin. For some, sex it was the main reason for choosing Berlin. Berlin was perceived as a 'sexual and homosexual city' providing venues where MSM do not have to care about social position as is the case at home. Darkrooms, sex clubs and mobile apps facilitate new sexual experiences and more sexual partners than when being in Sweden. Notably, the drug use was associated with, but not limited to, the Berlin party scene for the men who also experienced drug use in Sweden. All participants had been tested for HIV and STIs and the vast majority had been diagnosed with STIs. The participants describe either a static or dynamic risk reduction approach, sometimes beyond condom usage including reversed sero-sorting and PrEP. These strategies consist of a complex matrix of knowledge, attitude, ethics, ideology and level of ambition and willingness to compromise between pleasure and risk.

Conclusions

The Swedish MSM travelling to Berlin and interviewed in this study constitute a highly sexually active group of MSM who experience and enjoy multiple partners and/or high-risk sexual behavior. Berlin provides a space for sexual liberation and norm breaking behavior but also increased vulnerability.

Key messages:

- This study suggests that Swedish MSM travelling to Berlin constitute a high-risk behavior subgroup of MSM at risk of HIV/STI
- Healthcare professionals should be alert to identify high-risk MSM in order to tailor preventive measures to their needs

Lost life years due to chronic liver diseases in Poland in 1999-2013

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Background

Due to socio-economic changes that begun in 1989, Poland became the first from the Soviet bloc countries that underwent the systemic transformation. With many positive changes in health behaviour of Poles, the constant increase in alcohol consumption during last years is of a concern. From 2007 the amount of alcohol intake substantially exceeded the average for EU countries. As a consequence, both morbidity and mortality due to alcohol-related diseases is in Poland elevated. In 2013 mortality rate due to chronic liver diseases calculated per 10,000 inhabitants was in Polish population 20.8 in men and 7.7 in women, while in EU it was 17.1. and 6.7 respectively. The aim of the study was to assess lost life years due to chronic liver diseases in Polish population in 1999-2013.

Methods

The study was based on dataset containing information from 5,606,516 death certificates of Poles who died between 1999 and 2013. Data on deaths caused by liver diseases (K70-K77 by ICD-10) were used in the study. Lost life years were assessed with the measures: SEYLL (Standard Expected Years of Life Lost), SEYLLp (Standard Expected Years of Life Lost per person), SEYLLd (Standard Expected Years of Life Lost per death).

Results

In 2013 there were 4,676 deaths caused by chronic liver diseases (1.8% of all the deaths). The number of lost life years amounted to 89,081.0. It was 23.1 years per 10,000 inhabitants. The highest share in lost life years had alcoholic liver disease (K70) and fibrosis and cirrhosis of the liver (K74), accounting for 57.3% and 32.9% of lost life years respectively. Comparing to 1999, in 2013 there was observed 6.5% increase in lost life years.

Conclusions

Chronic liver diseases have an important contribution to the loss of life-time potential in Polish population. The dominant role played alcohol-related diseases, i.e. alcoholic liver disease and fibrosis and cirrhosis of the liver.

Key messages:

- The effects of alcohol abuse in Polish population are an important health, social and economic problem
- It is reflected in high values of SEYLL measure caused by chronic liver diseases

Analysis of availability to health care for the population of Kazakhstan at the Primary health care Zarina Sagyndykova

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Background

A foundation of health development frame work is build in the Republic of Kazakhstan. The health care system in the path of perfection, and in this way plays an important role providing the population with a fair and equal access to health care. We investigated the availability of care at Primary health care level among urban and rural population.

Methods

We implemented questionnaire (approved by local ethics board). The survey was conducted in among 1200 urban, 1200 rural respondents, 18 years and older. All the data were processed using the computer program SPSS. The analysis was conducted to determine the geographical and time availability.

Results

As a result, we conducted a poll revealed that 19.1% of urban respondents spend on the road for over an hour to the nearest Primary health care, while only 0.4% of rural respondents require the same amount of time to the nearest primary health care ($p < 0.001$). In a survey of how long it takes to wait to get an appointment with a general doctor only 6.8% of urban respondents said that they expect up to 10 minutes in the queue, while 40.3% of rural respondents are waiting up to 10 minutes to see doctor ($p < 0.001$).

Conclusions

There are some problems with the availability of the urban population, those are the remoteness of the Primary health care center than for the rural population. For a full analysis of the accessibility of health it is necessary to analyze the question in all categories, such as: affordability, availability of highly specialized medical personnel, etc.

Key messages:

- Now there is the reform of primary health care system, it is directed firstly on the access to health resources
- and secondly on the improvement of the primary health care centers on the approach to the population and the division into small primary care centers to cover the entire population

4.F. Oral presentations: Inequality, hypertension and diabetes research

Wealth-related inequalities in the awareness, treatment and control of hypertension in 21 countries

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Background

Effective policies to control hypertension require an understanding of its distribution in the population and the barriers people face along the pathway from detection through to treatment and control. This study describes the scale and patterns of wealth-related inequalities in awareness, treatment and control of hypertension in 21 countries using data from the Prospective Urban and Rural Epidemiology study.

Methods

163,397 adults aged 35 to 70 years were recruited from 661 urban and rural communities in selected low-, middle- and high-income countries. Using blood pressure measurements, self-reported health and household data, the magnitude of wealth-related inequalities in levels of hypertension awareness,

treatment, and control are examined, with concentration indices estimated after adjusting for age and sex.

Results

Overall, the magnitude of wealth-related inequalities in hypertension awareness, treatment, and control is higher in poor than rich countries. Levels of hypertension awareness and treatment tended to be higher among wealthier households in poorer countries; while a similar pro-rich distribution was observed for hypertension control in countries at all levels of economic development. In some countries, hypertension awareness is greater among the poor (Sweden, Argentina, Poland), as is treatment (Sweden, Poland) and control (Sweden).

Discussion

Inequality in hypertension management outcomes decreased as countries became richer but the considerable diversity of patterns of wealth-related inequality even among countries at similar levels of economic development shows the importance of specific aspects of health systems in improving hypertension management. These findings show that some, but not all, countries, including those with limited resources, have been able to achieve equitable management of hypertension but strategies must be tailored national contexts.

Key messages:

- Wealth-related inequalities in hypertension control vary greatly among countries
- While inequalities are less in richer countries, some poor countries also perform well

Increased type 2 diabetes risk in migrants to Sweden from Asia, Africa and the Middle East

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Background

The recent migration wave of people from Africa, Asia and the Middle East to Europe represents a challenge for many sectors of society and for public health. In 2015, one in four individuals in Stockholm County was foreign-born. As type 2 diabetes has both genetic and environmental causes, we investigated if global region of birth was associated with type 2 diabetes risk in Stockholm.

Methods

Cross-sectional data from the population-based Stockholm Public Health Survey 2010 (N=69,115) was combined with registry-based information on country of birth grouped into eight global geographical regions. Cases of type 2 diabetes were identified through self-reported physician-diagnosed diabetes and age at diagnosis. Multivariable logistic regression analysis was performed with region of birth as the independent risk factor, adjusting for age, sex, weight status, educational level, multiple dietary factors, tobacco, alcohol and physical activity.

Results

Type 2 diabetes prevalence was 5.1%. Relative to Swedish-born participants, higher OR were found in those born in Asia (OR 3.2, 95% CI 2.2-4.7), Sub-Saharan Africa (OR 2.5, 95% CI 1.5-4.1) and North Africa/the Middle East (OR 2.1, 95% CI 1.6-2.8), after adjustment for established risk factors. Participants from Eastern Europe and Latin America had an elevated risk but this did not remain after adjustment for other risk factors. Adjustment for time spent in Sweden did not affect the results.

Conclusions

Participants born in Asia, Africa and the Middle East were found to have an increased risk of type 2 diabetes. This increased risk is of particular concern in light of the current migrant situation, as most of the asylum seekers come from these regions. This knowledge should be taken into consideration when allocating resources for type 2 diabetes prevention, surveillance and care.

Key messages:

- Immigrants from Asia, Africa and the Middle East have a 2-3 fold elevated risk of type 2 diabetes compared to Swedish-born adults
- This has implications for prevention, surveillance and care

Health literacy and hypertension outcomes in a large multi-ethnic population: The HELIUS study

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Background

Hypertension is a global health burden, which disproportionately affects ethnic minority groups. Furthermore, despite higher hypertension awareness and treatment levels, blood pressure (BP) control remains low amongst ethnic minority groups compared to the European origin population. Health literacy (HL) may play a role in these observed ethnic inequalities. However, little is known about the extent to which HL affects hypertension outcomes. We assessed the association between HL and the prevalence, awareness, treatment, and control of hypertension amongst a multi-ethnic population in Amsterdam, The Netherlands.

Methods

Cross-sectional data from HELIUS study were used including 9,428 respondents (1948 Dutch, 2054 South-Asian Surinamese, 1932 African Surinamese, 512 Ghanaian, 1503 Turkish, and 1479 Moroccan), aged 18-70 years. Respondents completed questionnaires and underwent physical examination. The Rapid Estimate of Adult Literacy in Medicine – Dutch (REALM-D) was used to assess HL.

Results

After adjusting for age, sex, and education, only Dutch (Odds Ratio 1.99; 95% confidence interval, 1.10-3.60) and African Surinamese (1.35; 1.02-1.78) with low HL (REALM-D < 60) were more likely than those with adequate HL (REALM-D > 60) to have hypertension. Amongst hypertensives, only Turkish with low HL had lower hypertension awareness than Turkish with adequate HL (0.45; 0.25-0.82). No significant association was found between HL and hypertension treatment in all ethnic groups. However, hypertensive Ghanaians with low HL were less likely to achieve BP control than Ghanaians with adequate HL (0.32; 0.12-0.84).

Conclusions

Findings indicate that the associations between HL and the prevalence, awareness, and control of hypertension vary amongst ethnic groups. Efforts to improve HL may therefore reduce the prevalence and improve the awareness and control of hypertension in some ethnic groups.

Key messages:

- Influence of HL on hypertension and management outcomes varies across ethnic groups
- Improvement in HL may reduce hypertension prevalence, and improve management outcomes in some ethnic groups

Area of residence and incidence risk of myocardial infarction among adults with type 1 diabetes

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Background

Despite emphasis on equity in the Swedish health care system, health is still unequally distributed within different residential areas. Myocardial Infarction (MI) among subjects with type 1 diabetes (T1DM) seems to be more common in disadvantaged areas compared to more affluent areas, but these associations have rarely been assessed. Optimal metabolic control of T1DM could postpone the onset of MI. The study aimed to examine whether the incidence risk of MI among adults with T1DM differed with respect to area of residence in Stockholm County.

Methods

The cohort consisted of 7544 individuals aged 40-80 years old with diagnosis of T1DM living in Stockholm County during

2006. Area of residence in 2006 was the exposure of interest. Individuals with a diagnosis of T1DM during 2006 were followed up in the inpatient and cause of death register until 2011 with regard to first event of MI. Cox proportional hazard regression was employed to calculate crude and adjusted hazard ratios (HR) for first event of MI.

Results

In the whole cohort of 7544 individuals with diagnosis of T1DM, we identified 93 individuals (1.1%) with a first diagnosis of MI during the follow-up period. The adjusted hazard ratios for MI among adults with T1DM living in disadvantaged areas compared to other areas was 1.9 (95% CI 1.1-3.6) after adjusting for age, sex, country of origin, social assistance, disability pension, and individual income and education.

Conclusion

The increased risk of first event of myocardial infarction among individuals with T1DM living in disadvantaged areas reflects the higher burden of disease and need for additional resources for health care service in disadvantaged areas.

Key messages:

- There is an increased risk of first event of myocardial infarction among individuals with T1DM living in disadvantaged areas
- The higher burden of disease reflects a need for additional health care resources in disadvantaged areas

Bradford beating diabetes through an intensive lifestyle change programme

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Issue

Type 2 diabetes is a major public health issue across Europe. It is preventable - yet it is estimated that in the UK, prevalence will increase from 3.5 to 5 million by 2025. This paper reports on an evaluation of a preventative programme for those at high risk in Bradford, England.

Practice

The innovative Intensive Lifestyle Change Programme (ILCP) was piloted during 2014/15 with disadvantaged and minority

ethnic communities. The year-long ILCP consists of 9 group sessions, run in people's first languages by trained health champions recruited from local communities. Participants are referred by their GP after clinical tests identify that they are at risk. On the ILCP they find out about diabetes and practical ways of improving their health plus they set their own behaviour change goals.

Results

In 57 participants included in the evaluation, statistically significant decreases in blood sugar levels were found plus statistically significant increases in:

- Knowledge about diabetes
- Physical activity
- Consumption of fruit and vegetables
- Self-rated health

The ILCP was positively appraised by participants who liked the referral process, lay people facilitating the group and explaining the condition, the group support and cultural appropriateness.

Lessons Learnt

Those at risk often need to make major lifestyle changes, yet doing this alone is hard and clinicians lack the time to provide intensive support. This evaluation shows that the ILCP is effective in supporting people from disadvantaged communities to change behaviours and is appreciated by them. The programme has been extended across the city and Bradford is now one of 7 national demonstrator sites. The ILCP could be replicated in other contexts across Europe, provided it was adapted to the needs of the particular communities. This paper shows that the ILCP impacts on type 2 diabetes risk factors and suggests a way to address this serious and growing threat to public health.

Key messages:

- Those at risk of developing Type 2 diabetes can be supported to make lifestyle change and reduce their risk factors, by trained lay champions working intensively with them over a period of one year
- Effective programmes working with disadvantaged and minority ethnic communities to change behaviour can be delivered in first languages by lay champions in groups where members can support each other

4.G. Workshop: The refugee crises – implications for health and healthcare systems in the EU

Organised by: Maastricht University

Contact: Helmut.Brand@MaastrichtUniversity

Chairperson(s): Helmut Brand - The Netherlands, Phillip Höhne - The Netherlands

Background

The high number of current incoming refugees and migrants form a vulnerable group regarding health. Currently, we are dealing with short-term consequences such as the physical and mental health threats refugees have when entering the EU. Besides, there are worries about long-term health consequences consisting of chronically and severe ill patients. These health implications might impact societies through the extended use of resources which put a burden on health systems during the refugee's stay.

In case refugees apply for permanent residence, it is very likely their short- and long-term health consequences remain if they

do not improve their level of health literacy. Immigrants are expected to meet the same complex demands of society concerning health care as the host country's population. However, they often have a lower, which is causing severe health inequalities between them and the native-born. By having interventions which improve their level of health literacy, they can be reached by health promotion and disease prevention efforts just like anyone else.

At the same moment, there is a health workforce shortage present throughout the majority of EU member states. Demographic change will expand the need for health care professionals during the next decades. Therefore, the integration of immigrant workers is and will be crucial to secure the functioning of healthcare systems. Within the EU member states, unregulated health workforce mobility causes brain drain and increases health inequities. Mitigating these adverse consequences can be achieved through the integration and education of refugees with high immigration chance.

Objective of this workshop

The workshop aims to inform and discuss the challenge the refugee population puts on the European health systems by three examples: The burden of disease in the refugee population, their level of health literacy and intervention to increase it and to debate the chance of integrating part of them into the health workforce.

Layout of this workshop

Three presentations about the burden of disease in the refugee population, their health literacy status and possible workforce integration as input for an interactive panel discussion with the audience. The panel includes Professor Ragnar Westerling (Uppsala University, Sweden) and Peter Schröder Bäck (University of Bremen, Germany) who offer their expertise in the public health domains of service, ethics and policy.

Added value of this workshop

A lack of knowledge about the exact implications of the refugee crisis on health and healthcare systems in the EU exists. This workshop summarizes what we do already know about the situation by means of using three topics as an example. The outcomes of the workshop can be used for intervention- and policy making in the EU.

Key messages:

- Information about the health status of refugees is limited. Mental health problems seem to be the most important long-term challenge for the European health systems
- A comprehensive strategy to improve health literacy and investments in the education of immigrants can help to reduce health inequalities and mitigates healthcare workforce shortages in the EU

Disease burden of refugees in the EU: what do we know?

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Background

Since the start of the conflicts in the Middle East and North Africa in 2011, the European refugee problem has increased rapidly. Asylum seekers that are coming to Europe are in need of medical aid, but only limited research is available about the health status of refugees. This research intends to find recent information about the disease burden of refugees in the EU.

Methods

A narrative literature review was conducted to get evidence for creating an overview of the health status of refugees in the EU.

Results

At the moment there have been only a limited number of epidemiological studies conducted to determine the exact health status of refugees. The current disease burden among refugees is diverse depending on an acute, medium-, or long-term view: respiratory, gastrointestinal, skin and musculoskeletal diseases are common. Infectious diseases occur too, but to a lesser extent. Cases of tuberculosis and hepatitis B are also mentioned occasionally. Moreover, mental illnesses are very frequently reported: refugees have an increased risk of schizophrenia and other psychotic disorders. In addition, post-traumatic stress disorder is very common among (young) refugees, as well as psychosocial crisis, depression and anxiety disorder. As a consequence of war, most mental health problems will result in long-term health consequences, leading to long-lasting health and social difficulties. Moreover, the health status of a refugee is determined by his/her experiences and circumstances, such as duration and gravity of the flight, current living condition, sex, age and background.

Conclusions

The burden of disease among refugees is high. Mental health problems need extra attention, since this can result in long-term health consequences.

Key messages:

- Information about the health status of refugees is limited
- Mental health problems seem to be the most important long-term challenge for the European health systems

Health literacy in EU immigrants: A systematic review and integration of interventions for a comprehensive health literacy strategy

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Background

With over one million migrants entering Europe in 2015, the WHO European Region currently inhabits 77 million migrants. Migrants who come as refugees, for labour, education or family reunification are most likely to apply for permanent residence. Research demonstrates that these immigrants, often have significant lower health literacy. As this is causing severe health inequalities between immigrants and native-born, research intends to achieve recommendations for a strategy to improve health literacy in immigrants.

Methods

A narrative literature review was conducted to acquire an overview of the determinants which hinder immigrants in developing basic health literacy skills. Moreover, it acquired existing interventions to improve the level of health literacy in (im)migrants.

Results

Social determinants such as poverty, low reading level, low level of education, culture and communication negatively impact the health literacy levels of immigrants. Interventions which include health information in language courses or present multicultural information on the Internet counterpart this problem, and achieve an increase in the immigrant's health literacy levels. Other interventions such as an organized community information session and a multicultural training for GP's combined with a multicultural video instruction in the patient's waiting room do not increase health literacy levels.

Conclusions

In order to reduce health inequalities between immigrants and native-born, EU countries should develop comprehensive health literacy strategies. However, there is a lack of evidence based interventions in general.

Key message:

- A comprehensive strategy to improve health literacy in immigrants can help to reduce health inequalities

The integration of immigrants in the EU healthcare workforce

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Background

Healthcare workforce (HCW) shortages are present throughout the majority of EU member states. Demographic change will rapidly expand the need for additional Healthcare (HC)

professionals throughout the following decades. Within the EU member states, unregulated HCW mobility causes brain drain and increases health inequities. One possible way to mitigate adverse consequences of the shortage and unregulated mobility of HC professionals is the integration and education of refugees with high immigration chance.

Methods

A narrative literature review about the healthcare workforce in the EU with focus on migrants and mobility within EU member states was conducted. The qualification structure of refugees in Germany and integration of migrant healthcare workers on a micro level were additional subject of research.

Results

Migrant HC workers play a crucial role in the functioning of HC systems in the EU. Representative data of the demographics and qualification structure of refugees is not present yet, but samples offer first insights about the heterogeneity of their qualification and (young) age. Working potential of

refugees often remained unused in the past. Long bureaucratic asylum- and recognition of qualification processes, language and cultural differences as well as variations in education offer obstacles for successful integration in the HCW. Diversity management, occupational language education and mentoring techniques foster integration.

Conclusions

In order to prevent growing shortages in HC professionals and increased health inequities within EU member states, investments in education and integration of refugees in the HC sector are needed. There is a lack of representative data concerning refugee and migrant matters that makes HCW planning extremely difficult.

Key message:

- Investment in the education of refugees is likely to mitigate health workforce shortages and health inequities in the EU

4.H. Workshop: To be or not to be vulnerable: ethical challenges in taking children and young people seriously

Organised by: EUPHA section Ethics in public health
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Chairperson(s): Peter Schröder-Bäck - *The Netherlands*, Auke Wiegiersma - *The Netherlands*

Background

There is a general acceptance that children and young adults (YA) should be heard about their health needs. Internationally codes and guidelines have been drafted encouraging the development of autonomy of children/YA and protecting them in their vulnerabilities. However, many policies and discussions about health decisions and health management struggle granting children and YA their proper place. De Vries¹ for example identifies three pervasive dogmas: 1. Children/YA are a vulnerable population; 2. Children/YA are not able to give true consent; 3. Children/YA are genuinely heard and their opinions are taken into account. She argues we are still insufficiently clear about what children and YA can and cannot do.

Purpose

In this workshop we will explore the ethical challenges set to us. We need to address an agenda that includes the following issues: developing autonomy and its relation to dependency and vulnerability; development of life skills and assertiveness, as protective factors for health; involvement of young people in health programmes; dependency of disabled children on helpers, carers, but of course on their parents too.

Methods

We (a mother of an adolescent from the autistic spectrum and MA in psychology, the Head of Training for French school physicians, public health researchers and ethicists) will address the questions about vulnerability, dependency and autonomy of children and YA from a variety of areas: collaboration between children, families, educationalists and health professionals; participation of children/YA in trials; the necessity of statutory regulations for protection of children from food advertising. All presentations will critically address the so-called pervasive dogmas about the place and position of children and young adults.

Results

At the end of this workshop, a clearer understanding and framework for addressing ethical challenges regarding children and YA in (public) health will be presented.

Key messages:

- Public health researchers and professionals need to focus on a better understanding of children's and young adults' autonomy
- A serious collaboration between children/YA, families, researchers, and other professionals will provide an enriched notion of autonomy

The ethics of true collaboration between children with ASD, their families and education and health professionals

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Background

The UN Convention on the Rights of Persons with Disabilities (2006) upholds 'the development by persons with disabilities of their personality, talents and creativity, as well as their mental and physical abilities, to their fullest potential'. Health may be defined as the capacity to carryout one's vital goals (Nordenfelt) and is related to educational achievement and development of autonomy. Achieving health for children thus is a shared responsibility by the school in partnership with families, school doctors, teachers and school assistants. Development of child autonomy occurs within a contradictory context. Adults' perceived responsibility to protect the child, contrasts with the child's desire to assume responsibility for developing their own autonomy. Every child deserves the right to develop autonomy in their own way, matching the degree of responsibility they feel ready to assume. This is particularly important for children with a disability or a health issue, who

need compensatory measures to offer them greater equality of opportunity to develop such capacity.

Methods

We will narrate the case of an adolescent with an Autistic Spectrum Disorder (ASD) within the French school system, from a family perspective, and how, in spite of substantial reform, the drafting of guidelines, allocation of resources and much goodwill, such compensatory measures fail to be applied.

Discussion

To respect ethically based decisions, it is necessary to achieve full investment of partners responsible for implementing the educational decisions. Insights gained from this case may promote understanding, discussion, investigation, research, and theoretical frameworks for policy revision. We must facilitate optimum development of all students. This involves transforming students with disabilities from being 'victims' of an imperfect system in which decisions are imposed upon them by others, into autonomous actors participating actively in their present and future.

Why young people participate in clinical trials

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Background

Given the lack of knowledge about safety and efficacy of many treatments for children, pediatric clinical trials are important, but recruitment for pediatric research is difficult. Little is known about children's perspective on participating in trials. Purpose: To understand the experiences and motivations of young people who took part in clinical trials.

Methods

Qualitative interview study of 25 young people aged 10-23 invited to take part in clinical trials. Interviews were audio or video recorded and analyzed using framework analysis.

Results

Young peoples' motivations were both personal benefit and helping others. Both incentives appeared to be more complex than expected. We introduce the terms 'network of exchange' (a feeling of moral duty to others, i.e. other patients, parents, and doctors) and 'intergenerational solidarity' (acknowledgment of the contribution made by past generations) to describe these motivations.

Conclusions

To improve recruitment, professionals should be more open about research opportunities, provide better information, and give young people feedback after the trial has ended.

Discussion points for the workshop: The current information procedure (informed consent/informed assent) does not address the information needed for children participating in clinical trials. Information more directed at what children themselves value would be more adequate. In order to improve the assent procedure, we need to use the information young people themselves value. We want to discuss the much debated concepts of 'altruism' and 'benefits' from the perspective of 'networks of exchange' and 'intergenerational solidarity'.

A proposed European statutory regulation of unhealthy food advertising to protect children

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Background

Food advertising targeted at children is associated with the development of unhealthy eating habits and childhood obesity. Children are an easily influenced and highly vulnerable population group vis-à-vis advertising. Until the age of 5-6, when eating habits are acquired, children are unable to identify advertising on television, until the age of 7-8 they are unable to discern the commercial aim of such advertising, and at the age of 12 the majority of them are still unaware of its persuasive intent.

Analysis

Up to this age, children lack the necessary cognitive maturity to be sceptical about commercial messages and the claims that these contain, which they judge to be true, fair, accurate and balanced, when in reality this is not always the case. Consequently, all advertising targeted at children under the 12 can be considered misleading per se. However, most European countries have opted for self-regulation of food advertising targeted at children, which many studies have shown to be ineffective.

Discussion points for the workshop

From this standpoint, it could be argued that the a statutory regulation to ban unhealthy food advertising targeted to children is not only legitimate but also constitutes a measure which the authorities are duty-bound to take, in order to protect children, a vulnerable segment of the population, from undue influence that affects their eating habits, with pernicious consequences for their present and future health.

4.I. Oral presentations: Mental health and vulnerabilities

Cultural participation and health-related behavior: a matter of social distinction

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Background

In current obesogenic environments, it requires more effort and restraint to act healthy than to act unhealthy. This may provide higher status groups with new opportunities for 'distinction', a well-known mechanism underlying socioeco-

omic inequalities as described by Bourdieu. To find support for this hypothesis, we examined whether cultural participation, a well-known indicator of distinction, is associated with different types of health behaviors, independent of education and income.

Methods

Data from participants (25-75 years) of the 5th wave of the Dutch GLOBE study were used (N = 2812). Multivariable regression models were used to analyze the association between cultural participation (e.g. frequency of visits to museums, concerts, theater, architecture) and health behaviors (sports participation, walking and cycling in leisure time, fruit and vegetable intake and obesity), adjusting for education, income and potential confounders.

Results

Cultural participation was strongly associated with all health behaviors. These associations showed a clear dose-response pattern even when adjusted for education and income. Compared to participants in the lowest quintile of cultural participation, those in the highest quintile were more likely to participate in sports (OR = 2.19, 95% CI = 1.53;3.12), walk and cycle in leisure time (OR = 3.36, 95% CI = 2.25;5.04), had a higher level of fruit and vegetable intake ($\beta = 5.16$, 95% CI = 3.68;6.63) and were less likely to be obese (OR = 2.06, 95% CI = 1.21;3.52).

Conclusions

Our findings suggest that healthy behaviors are adopted as an expression of social distinction, similar to cultural participation. This distinction mechanism, which is often unconsciously developed, reflects a long lasting process of socialization in socio-cultural environments which provide the tastes, attitudes and skills for maintaining a healthy lifestyle. Health promotion strategies should be aware of these mechanisms in order to tackle health behavior disparities.

Key messages:

- Cultural participation is, independent of education and income, associated with health behavior, which provides interesting entry points for health promotion strategies
- Socioeconomic inequalities in health behaviors should be explained by more than the resources associated with higher education or income alone

Developing health information by ethnic status in Europe: a pilot data linkage study in Scotland

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Background

Reducing health inequalities is a priority for Europe. Quantifying ethnic inequalities and the contribution of established risk factors is key to developing policy and targeting interventions. We examined the feasibility, validity and value of linking risk factor data from primary care records to health, mortality and Census records as part of the Scottish Health and Ethnicity Linkage Study, specifically exploring ethnic variations in cardiovascular disease (CVD) and mortality.

Methods

Primary care practices with significant ethnic minority populations provided anonymised data. Encrypted identifiers were used to link to 2001 Census records, CVD hospitalisations and all-cause mortality.

Linkage rates were calculated; reasons for non-linkage and validity of risk factors were examined. Risk ratios (RR) for hospitalisation or death were calculated using Poisson regression, adjusting for age, socio-economic status and two selected CVD risk factors: smoking and diabetes.

Results

Primary care records from 10 (of 17) practices for 52, 975 (50.5%) individuals (16.0% from non-White ethnic groups) were linked to Census data. Data completeness for smoking and diabetes were similar across ethnic groups; 91% (48,325) of patients had smoking status and 5.5% (2900) diabetes diagnosis recorded.

Adjusting for smoking and diabetes resulted in plausible changes to CVD RRs. Pakistani individuals had a higher risk of first CVD event compared with the White Scottish population (men: RR 139, 95% CI 111-175), increased by adjusting for smoking, but reduced by adjusting for diabetes. All-cause mortality for Pakistani men was reduced compared with White Scottish men (RR 70 (55-89), though the RR increased after adjustment for smoking.

Conclusions

Valid risk factor data can be extracted from primary care records and linked to health records and Census data. The insights derived from such analyses can be used to inform intervention development and so reduce ethnic inequalities.

Key messages:

- Data linkage allowed use of information from the Census, primary and secondary care to examine ethnic health variations
- Changes in risk ratios by ethnic group were observed when adjusted using risk factor data from primary care

Mental healthcare use in immigrants granted disability pension due to common mental disorders

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Background

Despite global immigration and high rates of disability pension (DP) due to common mental disorders (CMD) in a number of European countries, there is sparse knowledge regarding mental healthcare use around the time of granting such DP and possible differences for immigrants. The aim was to study specialised mental healthcare use before and after being granted DP due to CMD and whether these patterns differed on the basis of migration status.

Methods

All 28,354 individuals living in Sweden, aged 19-64 years who had incident DP due to CMD during 2005-2006 or 2009-2010 were included. Trajectories of mental healthcare use during a 7-year window (t-3 to t+3) around the year of granted DP (=t0) were assessed by Generalized Estimating Equations estimating prevalence rates and multivariate adjusted odds ratios (OR) and 95% confidence intervals (CI).

Results

The prevalence rates of mental inpatient care were comparable among immigrants from Europe/Nordic countries and non-European countries in comparison to those born in Sweden in the years before, during, and after being granted DP (t-3: 3.5%, 2.8%, 3.7%; t0: 3.8%, 4.1%, 4.5%; t+3: 3.9%, 2.1%, 3.5%, respectively); somewhat lower in non-European immigrants. For specialized outpatient mental care, rates tended to be somewhat higher for immigrants. In- and specialized outpatient mental healthcare increased before DP, while inpatient use decreased and outpatient use increased after DP in all groups. Patterns were similar in the different migrant groups before t0. After DP granting, non-European immigrants had a stronger decrease in inpatient mental healthcare than natives and immigrants from Europe/Nordic countries: t+3 vs. t0: OR 0.49 (CI 0.38-0.62), 0.76 (0.70-0.83), 1.01 (0.75-1.32), respectively.

Conclusions

Public health investigations should be implemented in order to elucidate reasons for the decrease in mental inpatient healthcare in Non-European immigrants after granted DP.

Key messages:

- Non-European immigrants showed the lowest prevalence of mental inpatient care before and after granting DP due to CMD, compared to other immigrants and Swedish born people
- After being granted DP, there was a considerable decrease in inpatient mental care among non-European immigrants

4.K. Pitch presentations: Anti Microbial Resistance and other burning topics in infectious diseases

Prevalence of livestock associated methicillin-resistant *Staphylococcus aureus* in farms workers

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Background

Methicillin-resistant *Staphylococcus aureus* (MRSA) carriage has been reported not only in the healthcare facilities and in the community, but also amongst livestock (LA-MRSA). We conducted a study to measure the prevalence of LA-MRSA in workers in the swine livestock in two regions of Central and Southern Italy, to examine antimicrobial resistance profile of isolates and to verify whether carriage state is associated with characteristics of the working activities.

Methods

An interview was conducted using a questionnaire to collect information on demographic data, current and past occupational history and contact with animals. A swab sample was then collected from both nares and/or from oro-pharynx of each participant. All samples were tested for the isolation and identification of *S. aureus*. Isolates were then examined for antimicrobial susceptibility and subjected to a Real-Time PCR analysis for ST398 sequence type detection.

Results

We enrolled 390 participants working in swine livestock. The overall prevalence of *S. aureus* carriage among the study population was 57.1%. Tests for antimicrobial susceptibility showed that the prevalence of MRSA phenotype was 32.5%. Moreover, nonsusceptibility to Clindamycin (resistant or intermediate) was the most common observed phenotype (58.7%), followed by Tetracycline (56.7%). 28 of MRSA isolates have already been subjected to Real-Time PCR analysis and 82.1% of them have been assigned to sequence type ST398 and have therefore been categorized as LA-MRSA. Multivariate analysis showed that MRSA carriage was associated with a prolonged working activity with livestock, in terms of days in a week (OR = 2.54, 95%CI=1.52-4.25).

Conclusions

Initial findings have demonstrated that LA-MRSA is very spread among swine farm workers. Further analyses will allow better genetic characterization of isolates by molecular typing methods, and a more in depth definition of determinants of LA-MRSA colonization.

Key messages:

- Our findings reveal a substantial presence of MRSA ST398 strains among workers in the swine livestock in two Italian regions
- The study also adds knowledge on other antimicrobial resistance patterns of *S. aureus*, different from Methicillin

Highly resistant microorganisms in the community

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Background

In the EU, over 400,000 inhabitants are infected with highly resistant microorganisms (HRMO) per year. The Dutch

HRMO-guideline provides measures regarding infection prevention for professionals in public health who are faced with patients infected with HRMO. Insight in guideline adherence is essential to reduce the spread of HRMO. We investigated the use of the HRMO-guideline and underlying components that affect guideline adherence.

Methods

We designed a questionnaire to investigate knowledge and attitudes, and capture barriers to optimal adherence based on Cabana's model. Interviews (n=7) were held to incorporate the perspective of healthcare professionals. The survey was sent to GP's (n=39), and employees of public health services (PHS) (n=65) and of home care organisations (HCO) (n=66). Barriers to guideline adherence were determined on a 5-point Likert Scale. For data analysis, descriptive statistics and univariate analysis by means of Pearson Chi-Square Tests and Fisher's Exact Tests were conducted.

Results

59.4% of the participants was familiar with the HRMO guideline, varying between HCO (30.3%), GP's (46.2%) and PHS (96.9%). The guideline was used by 61.0% of the participants who were faced with HRMO in the daily practice, the most in PHS (80.0%), followed by HCO (76.9%) and the lowest amongst GP's (20.8%). Whether healthcare professionals used the HRMO guideline was associated with: knowledge about the HRMO-guideline, motivation, self-efficacy, outcome expectancy, and embedment of the HRMO guideline in a local protocol.

Conclusions

This study provided insight in the knowledge and attitude of healthcare professionals towards the HRMO-guideline. Moreover, insight is gained in barriers related to the implementation of the guideline for three groups of professionals. As HRMO emerge all over Europe, other countries might benefit from the knowledge generated in this study when designing and implementing their guideline.

Key message:

- To enhance the implementation of the HRMO-guideline, barriers towards the implementation should be opposed by strategies tailored to the user's group which address their specific barriers

Surveillance of resistant bacteria in a French Hospital in 2010-2015 using cumulative control charts

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Background

For several decades, infection control units and specific coordination centers (Centres de coordination de la lutte

contre les infections nosocomiales, CCLIN) have implemented in France the surveillance and monitoring of colonization with antibiotic-resistant bacteria (ARB) in hospitalized patients. This allows prompt acting in case of increase in ARB incidence. To identify (and quantify) emerging data trends quickly and thus to minimize the delay in reacting to a specific shift in the incidence rate, we applied cumulative sum (CUSUM) control chart, a sequential analysis method originally proposed and applied in industrial quality control.

Methods

In a retrospective analysis based on 220,342 consecutive patients, hospitalized from January 2010 to December 2015, for at least 24 hours in Lariboisière hospital, a 654-bed Teaching Hospital in Paris, monthly ARB colonizations stratified by microorganism (extended spectrum beta-lactamase (ESBL) producing *Escherichia coli*, *Enterobacter cloacae* and *Klebsiella pneumoniae* and methicillin-resistant *Staphylococcus aureus* (MRSA)) were monitored and tested by the CUSUM method. The test was calibrated by 10,000 simulations, with the control-state reference value set at the average; any deviation greater than 1 SD was considered as unacceptable.

Results

Over the 72-month study period, the mean number of monthly ARB colonizations ranged from 11.6 (ESBL *E. cloacae*) up to 34.5 (ESBL *E. coli*). The test raised several alarms for ESBL *E. coli* at months 58 and 66, for ESBL *E. cloacae* at month 62, for *K. pneumoniae* at months 47 and 58, and for MRSA at month 58. All (but one) alerts were also detected by using CUSUM method on incidence rates rather than on colonization counts.

Conclusions

The CUSUM test is a dynamic, precise monitoring tool for hospital infection control purposes. Implementation of a prospective surveillance for each bacterium, separately, could be useful for CCLINs.

Key messages:

- Surveillance of antibiotic resistant bacteria in hospitalized patients is mandatory
- The availability of sequential process control charts could be helpful in managing timely antibiotic-resistant bacteria colonizations and in enhancing public health surveillance

Public's knowledge, behavior, beliefs and risk perception related to antibiotic resistance

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Antibiotic resistance is a big threat to health worldwide. Apart from surveillance, control of antibiotic resistance consists of infection prevention and prudent use of antibiotics. The role of the general public should be considered in both aspects. The aim of this study was to examine beliefs, behavior, knowledge and risk perception related to antibiotics and antibiotic resistance in the Dutch population. The results could provide important information needed for targeted interventions.

This was a quantitative cross-sectional study conducted among a stratified sample of the general Dutch population. Of the 2034 individuals that received an internet-based questionnaire, 1076 individuals completed the questionnaire. The questionnaire included questions on knowledge, beliefs, behavior an risk perception related to antibiotics and antibiotic resistance.

43% of the respondents did know that antibiotics are effective against bacteria, but not against viruses. 59% had good knowledge of antibiotic resistance and 37% had good knowledge of possible transmission routes of resistant bacteria. 89% of the respondents (strongly) agreed that their GP knows best when antibiotics are needed, but 40% would ask their GP when they think they need antibiotics. According to 66% of the respondents the doctor has a responsibility in the combat against antibiotic resistance and 53% sees a role for themselves. This study shows that the overall knowledge of antibiotic resistance is fairly good, but knowledge of transmission routes of resistant bacteria is poor. 4 out of 10 respondents would ask their GP for antibiotics, which could influence the prescribing behavior of the GP.

Public campaigns should not only focus on correct antibiotic use but also on hygiene measures to prevent spreading of resistant bacteria. The GP plays a major role in explaining the reasons for restricted use of antibiotics.

Key messages:

- Public campaigns in the Netherlands and possibly also abroad should not only focus on correct antibiotic use but also on hygiene measures to prevent spreading of resistant bacteria
- The GP plays an important role in educating patients about antibiotic resistance and in reflecting on their own responsibility in this

Key recommendations for first responders considered essential in outbreak preparedness

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Background

Preparedness is considered essential for healthcare organizations to respond quickly and effectively to outbreaks. It is important that preparedness activities actually contribute to a better response. In the current study we aim to capture the views of first responders on what they consider key recommendations for high quality preparedness. Furthermore, we identified key recommendations that have the highest urgency from the perspective of first responders.

Methods

We chose a multistep approach using a systematic RAND modified Delphi procedure to select a set of key recommendations representing high quality infectious disease preparedness, from a first responder's perspective. Recommendations were systematically extracted from scientific literature (n = 80) and prepared for the questionnaire round. The recommendations were presented to two international expert panels.

Results

The representatives of 14 European countries (group 1) and four continents (group 2) were included in our expert groups. Both groups selected over 50 recommendations representing high quality preparedness. The recommendations were divided into six domains, namely 'construction and maintenance of the outbreak preparedness plan', 'support for health professionals, patients and families', 'surge capacity', 'communication to the public, patients and families', 'coordination and collaboration', and 'facilitators for implementation of plans'. Between both groups there is a high concordance in selecting relevant key recommendations, but large differences were found in the selection of the ten most urgent recommendations.

Conclusions

Over 50 key recommendations representing high quality preparedness were selected by two international expert panels. These key recommendations can be used to assess the level of preparedness of first responders and can guide them in improving their preparedness.

Key message:

- When assessing the level of preparedness of a region, it is very important to be aware of the perspective of the healthcare professionals due to differences in the sense of urgency of recommendations

Creating a toolkit for critically appraised, evidence-based information on Ebola Virus Disease

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Background

In the context of an infectious disease outbreak it is crucial to have easy access to the best available information in order to prepare for and respond to such an event. OutbreakHelp is a repository of the best available evidence on Ebola Virus Disease. It is a toolkit to support evidence informed decision-making (EIDM) in infectious disease policy and practice.

Methods

OutbreakHelp conducted a comprehensive systematic search of five electronic databases from inception to February 29th 2016. This search returned over 7800 articles that were identified for relevance screening. Articles were screened using inclusion/exclusion criteria such as: must be specific to the topic of Ebola Virus Disease, must be a study published in a peer-reviewed journal, must be published in English or French, and must include information that has real-world applicability. Quality assessments were conducted on all articles that met inclusion criteria; appropriate critical appraisal tools were selected based on study design. Two raters independently screened and performed quality assessments for all included articles. Disagreements were resolved through discussion; if consensus could not be reached a third party was consulted.

Results

In total, 939 articles were identified as relevant and added to the toolkit. All articles were tagged with priority topic areas identified by leading infectious disease experts to facilitate easy searching and a 5-star common rating scheme was developed and, where appropriate, applied to quality assessments.

Conclusions

The final tagged results set allows for the development of new knowledge products known as 'Evidence Briefs' to help synthesize the best available evidence on priority topic areas.

Key messages:

- Easy access to quality-assessed research can help support EIDM in policy and practice
- An Ebola toolkit can help facilitate easy access to information for emergency preparedness and response

Determinants of patient and health-care system delay in the diagnosis of tuberculosis in Sicily

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Background

Barriers limiting access to tuberculosis (TB) services occur at the individual and provider/system levels and contribute to diagnosis and treatment delay. The aim of our study was to assess determinants of delay in TB patients living in Sicily, Italy.

Methods

A web-based questionnaire investigating demographic and clinical aspects, attitudes towards TB, stigma, integration level, delay in diagnosis and treatment, was administered to patients with active pulmonary TB admitted to the participating hospitals. The total delay (TD) was categorized into patient delay (PD, from symptoms onset to first contact with healthcare services) and health system delay (HSD, from first contact to diagnosis).

Results

During the period October 2014-February 2016, 118 patients were enrolled (male 66.1%; mean age 42.2 ± 20 ys; foreign-born 50%). Median PD, HSD and TD were 30, 19.5 and 63 days, respectively. The median HSD was lower in foreign-born patients (10 vs. 31 days; p 0.003). Using logistic regression analysis, factors associated with longer delay were: for PD, chronic comorbidities and stigma; for HSD being foreign-born, prior unspecific antibiotic treatment and consultations with multiple health care providers.

Conclusions

The pillar of the post-2015 End TB Strategy (WHO) focuses on timely TB diagnosis and therapy to prevent transmission and universal, easy access to TB care and services. Our Results confirm stigma, antibiotic treatment and number of health care contacts as determinants of TB delay. A strong emphasis on patients education and healthcare providers training is recommended to provide basic knowledge about the disease and to reduce TB transmission in the community.

Project realized with a financial support by Ministry of Health – CCM

Key messages:

- TB delay in Sicily is substantial, especially among autochthonous patients
- Strategies to increase awareness about TB in patients and healthcare providers, such as general practitioners, should be urgently addressed

Access without cooperation, legality without legitimacy: challenges of field work in prisons context

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About 10 million people live confined in prisons around the world and Brazil ranks fourth among the countries with the highest prison population. The stay for long periods in overcrowded cells, poor ventilation and unhealthy, are favorable conditions for the occurrence and illness, for example, tuberculosis. There are few studies on knowledge of tuberculosis among inmates and employees, and those carried out with other people, point to the lack of knowledge about the disease as a major obstacle to prevention, awareness of symptoms, early diagnosis and treatment adherence. The goal of this study was to discuss the field work experience, imposed by the research context in a closed prison system in São Paulo, Brazil. A cross-sectional study was conducted with application of questionnaire KAP (knowledge, attitudes and practices) on tuberculosis and HIV/AIDS. The investigation unit was interviewed 115 workers of the 145 active and 141 of the

1,153 inmates. For security reasons, the data collection of the prisoners was broken. The constant hostility and tension at the site were clearly perceived and any reasons that might endanger the discipline and security meant that the interviews were suspended without notice. The researcher had access to the site, with the authorization of the management of the institution, but did not get cooperation for the research that had legitimate powers in place. The difficulties described in

this study bring the urgent need to approach and expansion of dialogue between universities and prisons.

Key message:

- The recognition of daily prisons through academic research, can collaborate in the control of contagious infectious diseases that affect prison populations

4.L. Oral presentations: Empowering the community and individuals

The evaluation of collective prevention actions from the 2014-2015 call for projects, France

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In Languedoc Roussillon, 6 structures of social protection agencies (all retirement schemes and the Regional Health agency) join to co-finance, through a call for projects, collective prevention actions targeting elderly living at home and at risk of frailty. 150 actions are proposed each year by over 40 actors targeting around 2000 seniors.

The challenge is for financiers to evaluate the impact of the preventive actions on people's behaviours and health, and to achieve efficient budget allocation.

The main point is to measure the relevance of those actions through a simple but strict methodology, while taking into account the diversity of the topics involved (nutrition, physical activity, social bond...) and the heterogeneity of operators.

The evaluation is carried out with 3 tools:

- The EPICES auto-administered questionnaire, used in French Health Centres, is composed of 11 validated questions to assess social and financial difficulties.
- A questionnaire is administered during the action, and another one after 3 months in order to assess changes in behaviours after the workshops.

Actions held from September 2014 to September 2015 show that 48% of attending seniors were frail according to the EPICES score.

78% of participants intended to participate to sportive, cultural or leisure activities, with an actual 68% of participation at 3 months. 73% intended to keep in touch with group members and 71% actually did so at 3 months. 76.5% intended to change their lifestyle, with 38% modifying their habits at 3 months.

To sustain changes in lifestyle behaviours, actors are invited to develop a 6 months global and individual support, in addition to the collective workshops.

The evaluation of these actions will be enhanced by a multidimensional dynamic tool, the « Frailty Star », tested on a sample of beneficiaries.

Key messages:

- The Social Protection Agencies from Languedoc-Roussillon evaluate the impact of collective prevention actions on frail seniors' health and behaviour

- The evaluation approach relies on the EPICES questionnaire to identify frailty in beneficiaries and on other questionnaires to measure the impact of these actions on people's behaviour

Can we reach men who have sex with men with HIV testing at gay venues in Stockholm?

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Men who have sex with men (MSM) is a key group for HIV transmission in the European Union, with 33% increase of new cases in 2013 compared to 2004. To approach MSM at risk for HIV and to encourage them to regularly test for HIV are cornerstones of prevention. In 2013 Stockholm took part in SIALON II, a bio-behavioral HIV study among MSM in 13 European cities. We aimed to identify factors associated with not having recently tested for HIV among MSM visiting gay venues.

Between May-August 2013 MSM were recruited at gay venues in Stockholm using time location sampling. Participants answered anonymously a questionnaire and provided an oral fluid sample for HIV antibody testing. Exclusion criteria for this analysis were self-reported HIV positive status and missing answer on question about HIV testing in the last 12 months. A multivariable logistic regression model was fitted to not have tested in the last 12 months. Weighted estimates are presented with 95% confidence intervals.

Out of 366 participants, 291 MSM were included into analysis. Mean age was 32 years, and 39% (95% CI: 29.3–48.1) had not tested for HIV in the last 12 months. Those who had a higher risk for not had tested in the last 12 months: did not know where to test (OR 13.01; 95% CI: 2.02–84.64); had not received free condoms (OR 2.44; 95% CI: 1.25–4.77); and had been recruited to the study at gay bars (OR 2.27; 95% CI: 1.40–3.68) and porn cinemas (OR 1.86; 95% CI: 1.02–3.40) compared with recruited at night clubs. As opposed to respondents living in Stockholm tourists from abroad had tested in the last 12 months more often (OR 0.13; 95% CI: 0.06–0.29).

Among MSM visiting gay venues, a substantial proportion had not tested for HIV in the last 12 months. This was especially prevalent among MSM in porn cinemas and gay bars. Outreach confidential HIV testing in gay venues, as in this study, is a feasible prevention strategy and can overcome individual barriers for testing, such as not knowing where to test.

Key messages:

- Not knowing where to test for HIV is a common barrier among MSM who have not recently tested

- MSM not tested for HIV recently can be reached in gay venues and thus encouraged to test regularly

Experiences with peer and professional support for breastfeeding in Beirut, Lebanon

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Background

Despite the beneficial effects of peer support in improving breastfeeding continuation and exclusive breastfeeding, research on the process of peer support is scarce. In Lebanon, rates of breastfeeding initiation range from 63.8% to 96%, but exclusive breastfeeding drops to 58.3% by one month and to 4.1% by 6 months. A multi-disciplinary group of researchers have launched a complex breastfeeding promotion intervention, including peer support, to target this gap.

Methods

We conducted a study nested within a breastfeeding intervention providing peer support in two hospitals in Beirut, Lebanon. This study aims at understanding the process of peer support through the breastfeeding and support mothers' perspectives and the influence of the intervention on their social network and social support systems. Using a qualitative methodology, a purposive sample of breastfeeding and support mothers was accessed from among those who completed their 6 months interview in the trial. Data was collected from 43 subjects using in-depth interviews. Data collection stopped when saturation was reached. All interviews were audio recorded and transcribed verbatim. Thematic analysis was conducted to identify emerging themes.

Results

Findings show that women enrolled in the breastfeeding support trial were very satisfied of their experience and extremely appreciative of the support provided by their peers and especially by the professional lactation consultant. Women experienced these forms of support differently. Support received from the professional consultant was perceived to be influential in problem solving and the peer support to be important in encouraging breastfeeding continuation.

Conclusions

These findings can improve our understanding of the peer support process in breastfeeding within the social context and the realities of women and can facilitate the scaling up of interventions in similar contexts.

Key message:

- Understanding the process through which professional and peer support are effective in promoting breastfeeding is important in informing programs and tailoring of interventions

Tobacco control and smoking cessation among the elderly: a longitudinal analysis

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Introduction

Comprehensive tobacco control policies have been introduced in many European countries in the last 10 to 15 years. Previous studies suggested an important effect on smoking cessation. However, in only a few countries such evidence is based on longitudinal studies. Using longitudinal data from 10 countries, we aim at measuring the impact of tobacco control policies on smoking cessation among the elderly.

Methods

We used data from the SHARE survey, carried out on people older than 50. We selected the sample of smokers at first wave (2004), who we followed until the fourth wave (2011), for the ten countries for which all waves were available (n=9,554). We constructed a cohort using retrospective information from wave 4 on the year of smoking cessation.

We modeled the probability of smoking cessation as a function of a Tobacco Control Scale (TCS). TCS is calculated on the basis of tobacco control policies and ranges from 0 to 100. More points are allocated to more restrictive policies. We used a panel data fixed effect model. Age and sex were used as confounders; we also included a linear time trend. We then stratified the analysis by educational level, gender, and smoking intensity (based on the daily number of cigarettes at baseline).

Results

A one-point higher TCS was associated with a significant 0.5 percentage points increase in smoking cessation. The association was similar across education levels and sex. By contrast, the association with TCS was stronger among low-intensity smokers than among high-intensity smokers.

Discussion

Tobacco control policies have been effective in promoting smoking cessation among the elderly, but did not reduce the smoking gap between education categories. Also, they were more effective among low-intensity smokers than among high-intensity smokers. New intervention models should be considered to tackle inequalities and high-intensity smoking.

Key messages:

- Tobacco control policies have been effective in promoting smoking cessation among the elderly, but did not reduce the smoking gap between education categories
- Tobacco control policies were especially effective among low-intensity smokers but new intervention models should be considered to tackle inequalities and high-intensity smoking

4.M. Pitch presentations: Health care workforce

How many medical doctors do we need?

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Problem

European countries have much diversity at cultural, economic and social level and health systems operate independently in each country and even within the European Union (EU) health

remains responsibility of member states and only recently circulation of health goods is coming on agenda.

Description of the problem

Migration of medical doctors (MDs) and nurses from south-east to northwest of Europe was present for decades and became greater than before with the EU enlargement in 2004. Croatia is faced with an exodus of its workforce: since the accession to EU in July 2013, more than 1300 MDs (almost 10%) requested and were handed out certificates in order to

work abroad and 400 of them already left their workplaces while many students are ready to work abroad in future.

Results

Due to overproduction during 1980-ties and surplus of MDs in Croatia, simulation modelling approach was employed within an operational research project started in 1989 with the task to predict needs and supply by the year 2006 and to inform decision making on enrolment policy. It resulted in drop of enrolment quotas in early 1990-ties from about 620 to less than 500 first-year students altogether at all four medical schools. It led to the relative shortage in comparison with EU countries 15 years later when the quotas were reconsidered and elevated to 600 students per year in 2009.

Lessons

Simulation modelling proved to be useful tool for projection of needs, demands and supply and planning of human resources for health (HRH). Long-term but also flexible policies are necessary in HRH planning at national as well as at the EU and wider European region. The exchange of information between national HRH registries and even the establishment of an EU registry would certainly improve our understanding of pull and push factors and motivation for migration and permit more equity among countries together with better quality of services and improved satisfaction of both, MDs and patients.

Key messages:

- Use of predictive simulation models can help to inform policy makers about future needs and demands in health care provision and support health manpower planning at national and EU level
- Careful planning of human resources for health and long-term policy adaptable to future challenges is needed along with information interchange and cooperation within EU and wider European Region

Circular migration of the health workforce - an overview

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Background

The increasing demand for health workers in high income countries is producing a net migration loss of these workers from low income countries, many of whom also experience an increase in demand for healthcare. This situation weakens the sustainability of health systems. Circular migration - a form of migration that allows migrants some degree of mobility back and forth between two countries - is advocated as a potential 'triple win' solution, bringing benefits to source and destination countries and migrant workers. Yet, no overview exists of circular migration of the health workforce, its formal and informal cooperation mechanisms, and effects on all parties involved.

Methods

An explorative review of the literature and analysis of evidence produced in the framework of the Joint Action on Health Workforce Planning & Forecasting on circular migration of the health workforce was undertaken, focusing on circulation migration from non-EU countries and intra-EU circular migration. The five main health professions were covered, but it is acknowledged that most data available relate to nurses and doctors.

Results

There is a lack of data and research on (cooperation in) circular migration of health workers, its prevalence and health workforce impacts in sending and receiving countries. Immigration policies are still the traditional mechanism for

managing international migration flows. Mobility partnerships, specifically focused on circular migration, are rarely used. Many initiatives and collaborations take place outside the realm of formal mechanisms, are temporary and often involve NGOs to help execute them. Evidence on the impact and effects of the various cooperation forms is limited.

Conclusions

Based on good practices identified, the following preliminary guidance on circular migration is presented:

- Consider it as one option among others
- Base it on the principles of the WHO Global Code
- Aim for a 'triple win' outcome
- Involve all relevant parties

Key messages:

- Circular migration can be a 'triple win' solution with benefits for countries and health workers
- Cooperation structures for circular migration should be adapted to this envisioned goal

Physicians Migration from Western Balkan

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Background

Migration of health workforce personnel is a global phenomenon and it is important to investigate the reasons that motivate healthcare workers from Western Balkan countries to seek employment abroad. We analyzed the causes behind the increasing trend of physician migration in four Western Balkan countries - Macedonia, Serbia, Kosovo and Albania, and incentives to return to their home country.

Methods

Both qualitative and quantitative research techniques were utilized. The questionnaire assessed economic, professional, political, and social reasons behind migration, and was emailed to a sample of physicians identified from the medical chambers in each country. In total, 1227 physicians responded, including 145 who migrated abroad over the past three years. Focus group discussions were conducted with younger and older physicians to determine attitudes towards migration. Representatives of embassies of recipient countries were interviewed about physicians' recruitment policies in their countries.

Results

We estimate that between the years 2012 and 2014 some 1700 physicians, predominantly younger bellow age of 30, from Serbia, Macedonia, Albania and Kosovo have left to work abroad. The key reasons behind the migration are opportunities for professional development, higher economic standards, unstable political situation and influence in home countries. Motivators to return are limited, and mainly related to higher salaries and better working conditions.

Conclusions

Our research reveals that certain western countries have carefully planned policies and mechanisms that aim to recruit and integrate physicians from Western Balkan countries (or elsewhere), in order to compensate for local shortages. Donor countries lack specific human resources policies for health personnel. The impact of a global code of ethical recruitment of healthcare personnel remains limited and has yet to reduce migration of the healthcare personnel.

Key messages:

- The migration of physicians is mainly focused among younger doctors, posing a potential problem for the replacement rate of physicians over the next 10 years
- Improved coordination and planning between the health-care and health-education sectors is vital, as is national policy development and implementation

Degree of coordination across care levels and associated factors in Latin American health networks

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Background

The aim is to determine the degree of care coordination across levels of care perceived by doctors and to explore influencing factors in public healthcare networks of six countries: Argentina, Brazil, Chile, Colombia, Mexico and Uruguay.

Methods

A cross-sectional study was carried out based on a questionnaire survey to a sample of primary and secondary care doctors working in the study healthcare networks (348 doctors per country). Outcome variables: general perception of care coordination across levels of care; coordination of information and, of clinical management across levels of care. Explanatory variables: sociodemographic, labor conditions and attitudes. Bivariate analyses to describe the outcomes by level of care and a logistic regression model to assess factors associated to perception of care coordination.

Results

The results show relatively low levels of care coordination across levels of care, particularly in information transfer and communication between professionals regarding patient follow-up, lower in Brazil, Chile y México. Care coherence was better rated. However, they also perceived shortcomings, mainly the secondary care doctors: duplication of tests in Chile and Colombia and inappropriate referrals in Chile and Mexico. Factors associated with the perception of higher levels of general care coordination were: being a secondary care doctor, knowledge of doctors from the other care level and trust in their skills, be satisfied with the work and salary and perceiving sufficient time to coordinate.

Conclusions

Limited transfer of information and presence of inconsistencies in care, indicate insufficient coordination between levels of care and deficiencies in the quality of primary care, with differences between countries. Together with the associated factors, indicate the need to implement mechanisms to promote mutual knowledge and direct communication between professionals and reforms to improve their working conditions and motivation.

Key message:

- This is the first survey conducted among doctors in Latin America on coordination between care levels and reveals

major flaws affecting the quality and efficiency of health systems

Attitudes and misconceptions of Occupational Physicians towards vaccinations of Health Care Workers

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Background

The present study aims to characterize personal attitudes and knowledge of a sample of Italian Occupational Physicians (OPh) towards immunizations practice in healthcare workers (HCWs).

Methods

A total of 90 OPh (42.2% males, 57.8% females, mean age of 50.1±8.3 years) compiled a structured questionnaire through a telephonic interview. They were asked about the official Italian recommendations for HCWs, their general knowledge of vaccine practice, their propensity towards vaccines (both in general and about specific immunizations), their risk perception about the vaccine-preventable infectious diseases. Eventually, a regression analysis was performed in order to identify factors predictive for vaccine propensity.

Results

Only 12/90 subjects correctly identified all the seven recommended immunizations. The HBV vaccine was correctly identified by 95.6% of the sample, and was also associated with the more positive attitude and the more accurate risk perception. Influenza vaccine had the lowest acceptance (75.9%). Eventually, pertussis, measles, parotitis and varicella vaccines were insufficiently recognized as recommended ones (all cases <50% of the sample). General knowledge of vaccine and knowledge of official recommendations were significantly correlated with attitude towards immunization practice ($r=0.259$; $p=0.014$ and $r=0.438$; $p<0.0001$). In regression analysis general knowledge ($B=0.300$, 95%CI 0.090-0.510; $p=0.006$) and risk perception ($B=0.579$, 95%CI 0.155-1.003; $p=0.008$) were significant predictors of the propensity to vaccinate.

Conclusions

Vaccinations gaps in HCWs may found their roots in OPh incomplete knowledge of evidence-based recommendations. Specific training programs and formations courses should then be planned.

Key messages:

- Vaccinations gaps in HCWs may found their roots in OPh incomplete knowledge of evidence-based recommendations
- Specific training programs and formations courses for OPh may contribute to address vaccine hesitancy

Reforms in the Dutch health care system: changes in the demand of Out-of-Hours Primary Care in 2012-2015

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Background

In 2014 and 2015 the healthcare system in the Netherlands has been majorly reformed. The motivation for these reforms is to

yield sustainable long-term care provision. Individuals are expected to be more self-reliant. We expect that these healthcare system reforms might have an adverse impact on socioeconomically disadvantaged people, and that healthcare demand shifts to general practice as easily accessible healthcare provider. In that respect, we also expect an increasing demand of acute primary care in out-of-hours (OOH). Consequently, the aim of the present study is to gain insight in whether the demand of primary OOH care provisioned by Primary Care Cooperatives (PCCs) has changed after the healthcare reforms, and evaluate whether changes turn out different between patient groups and PCCs.

Methods

Data are derived from routine electronic health records from patients that attended 21 (in 2012) to 28 (in 2015) PCCs participating in the NIVEL Primary Care Database. Data concerning health problems and urgency of these health problems from 2012-2013 were used as baseline to compare with data from 2014-2015 after the reforms have been effectuated. Patient characteristics (age and gender), patients' living area characteristics (e.g. proportion of low income households), and characteristics of PCCs (e.g. proximity of an emergency department) are explored to establish their association with changes in demand. Multilevel linear regression analysis will be conducted to assess associations between demand and living area and PCC characteristics.

Results

Preliminary results based on data of approximately 2.3 million contacts (in 2012), and 2.5 million contacts (in 2014), show a moderate increase in contacts for injuries, somatic health problems and psychosocial problems. The urgency assigned to the contacts shifted to more high-urgency contacts during the years. For the highest urgency level, the number of contacts per 1000 inhabitants doubled. The distribution of urgency-levels varies greatly between PCCs.

Conclusions

Clearly there is a shift to more high-urgency contacts in the demand of primary OOH care. Insight in changing demand of primary OOH care is required in order to evaluate whether the healthcare reforms affect patient groups and PCCs differently.

Key messages:

- Between 2012-2014 there has been a shift to more high-urgency health problems in the demand for primary out-of-hours care in the Netherlands
- The distribution of assigned urgency-levels varies between Primary Care Cooperatives

Organisation of and payment for emergency care services in five high-income countries

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Background

Increasing numbers of emergency department (ED) visits in Europe have led to several governments reviewing the organisation of emergency care provision and the impact of payment incentives. This study aimed at comparing the organization of and payment systems for emergency care services in five countries based on a predefined framework in order to identify promising approaches for a reform of the Belgian emergency care system.

Methods

Based on a scoping review, five countries (Australia, Denmark, England, France, and the Netherlands) were selected for analysis. A survey was designed to collect information from national experts on (1) organization and planning of

emergency and urgent primary care services, (2) payment systems for EDs and urgent primary care providers, and (3) recent reform initiatives to improve care coordination or to rationalize emergency care provision.

Results

The proportion of acute hospitals with EDs ranges from 70% in the Netherlands to about 40% in Australia. Urgent primary care is increasingly coordinated with emergency care provision through joint call centres (e.g. in France) and co-located urgent primary care centres at hospitals (e.g. in the Netherlands and England). Denmark, England, France, and the Netherlands have concentrated care for life-threatening conditions (e.g. stroke, myocardial infarction, major trauma) at centres with specialised facilities and expertise. Payment systems for EDs usually consist of a mix of global budgets and payments per case but the size of each component varies considerably.

Conclusions

Recent reforms in several countries show that it is possible to improve coordination of urgent primary care and emergency care and to rationalize emergency care provision. Experiences from the reviewed countries have provided inspiration for a proposal to reform the organisation of and payment for emergency care services in Belgium.

Key messages:

- Recent reforms in several countries show that it is possible to improve coordination of urgent primary care and emergency care and to rationalize emergency care provision
- Differences across countries in the organisation of and payment for emergency care services can motivate change by providing inspiration for reforms

Reasons for emergency department visits – Results of a patient survey

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Background

Internationally, the number of patients in emergency departments is steadily increasing. The reasons for patients to visit emergency departments (ED) instead of statutory health insurance (SHI) office-based physicians, in particular in Germany, are little examined and predominantly based on assumptions so far.

Methods

During a period of four weeks in 2015, 2,010 walk-in patients have been anonymously surveyed in two major emergency departments in Berlin hospitals using a standardized questionnaire. Descriptive statistics have been used for data analysis.

Results

More than 90% of patients assessed themselves as an emergency and three-quarters of patients indicated pain. The majority of patients (57%) tried to contact SHI office-based physicians in advance and 59% of patients would make use of ambulatory emergency facilities if they were available and well established. However, 55% of patients had been unaware of the emergency service of the association of SHI physicians.

Conclusions

The results indicate that centralized ambulatory emergency facilities should be available 24/7 at hospitals with EDs. Therefore, the future planning of emergency services should integrate providers of the ambulatory and inpatient sector. International experience suggests that different instruments

aiming at better coordination of care, such as integrated call centres, extended ambulatory services and facilities for less urgent cases within or nearby hospitals should also be implemented in Germany.

Key messages:

- Ambulatory emergency facilities have to be closely related with emergency departments and available 24/7
- Future emergency planning has to be cross-sectional and coordinated centrally

4.N. Pitch presentations: Health systems

How do policy-makers deal with missing price information when they apply External Price Referencing?

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Background

External price referencing (EPR) – a policy to determine prices of pharmaceuticals based on medicine prices in other countries – is the most commonly applied pricing policy in European countries. A major prerequisite for doing EPR properly is the availability of price data. The aim of this study is to explore how pricing authorities in European countries deal with missing price information in reference countries when they apply EPR.

Methodology

In spring 2015, a survey about the use and practice of EPR was conducted with competent authorities for pharmaceutical pricing and reimbursement from 32 countries (28 EU Member States, Iceland, Norway, Switzerland and Turkey).

Results

The surveyed countries reported different approaches how to deal with the non-availability of price data: (1) The use of back-up strategies including consideration of prices from defined alternative countries instead of the reference countries, a pharmaco-economic analysis or an algorithm which adjusts for the missing prices. (2) Definition of a minimum number of countries for which price information must be available as a prerequisite before setting prices. (3) Omitting missing countries and simply using the available prices for calculation.

Conclusions

Countries that include lower-priced countries as reference countries in their basket will likely encounter data gaps since pharmaceutical industry first launch medicine in higher-priced countries. Therefore it is necessary to develop a strategy of how to deal with such situations, particularly those countries that base their pricing decisions solely or predominantly on EPR.

Key messages:

- Missing price information from other countries is a challenge when doing EPR
- Policy-makers of EPR applying countries are advised to develop a methodological approach

Digitisation of health care – consequences for public and private health systems

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In our qualitative analysis, we characterise the opportunities and challenges of digitisation in health care systems and assess whether there is need for governmental intervention.

Digitisation holds great potential for improving health care provision. Major challenges, such as providing access to medical care in undersupplied areas can be addressed by innovative technologies that allow patients to receive professional help without physically seeing a doctor. Moreover, faster and more reliable exchange of information between different care providers could allow for more efficient treatments.

However, in the market for health insurance, digitisation can conflict with other social objectives. We focus on the German health insurance market, which has the particularity of being divided into two full insurance systems, a public and a private one (which only certain groups have access to). By focusing on the German market, we can therefore derive lessons for both privately and publicly run systems.

For each system, we analyse the consequences of insurers making use of technological innovations such as mobile applications to control their customers' behaviour and adjust contributions/premiums accordingly. Recently, German insurers have started offering bonuses for those who would regularly share their health data from mobile applications with the insurer. As we show in our article, such selective tariffs are likely to induce adverse selection and risk selection, thus conflicting with redistribution goals of the public system. In the private market, offering those contracts seems more conform with the system. However, we argue that due to the current regulatory framework of the German private insurance there are also pitfalls that should be taken into account when assessing the need for governmental interventions.

In the last part of the article, we discuss further challenges such as data security and ethical concerns.

Key messages:

- Digital innovations are likely to make health care provision more efficient by reducing cost and improving care
- In health insurance markets, the use of digital innovation in designing contracts is however likely to impair the functioning of the system by inducing adverse selection and risk selection

Comparing features of the professional midwives in United Kingdom and Italy

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Background

The aim of this study is to identify the distinctive professional features of midwife (MW) in Italy and comparing it with British reality.

Methods

A questionnaire was administered from September to October 2015 to Italian and British Midwives sample. The first part of the questionnaire included questions about the type of training, work and reality in which the obstetric work. The second part of the questionnaire sought to define the attitudes of care and the type of approach to birth and degree of

professional autonomy reached. The questions were grouped into five groups: obstetric care, professional culture, autonomy and accountability, ethics and professional representation, social recognition and each group was considered as an indicator. To each response to each question was assigned a score from 0 to 1. Results were analyzed using the nonparametric Mann-Whitney test. Data were analyzed using STATA version 12.0 software.

Results

183 MW, 100 Italian and 83 British, completed the questionnaire. 72% of Italian MW were employees of the Italian National Healthcare service compared to 81% of the British midwives; unemployed MW were 10% among Italian and 6% among the British. 96% of the British referred to manage independently low-risk pregnancies compared to 33% of the Italian MW. In addition, 96% of British MW referred to manage independently both labor and delivery in low risk pregnancies compared to 32% of the Italian. 77% of Italian MW reported that assistance to pregnancy and delivery was structured on a medical model comparing the 52% of British MW. Concerning the indicator obstetric care there wasn't statistically significant difference between Italian and English data ($p = 0.39$) while for all other indicators the difference is statistically significant.

Conclusions

MW of the two countries had the same conception of their profession but differ greatly in these indicators: professional culture, autonomy and responsibility, ethics and representation and social recognition.

Key message:

- This study aims to highlight the professional differences between British and Italian midwives

The impact of informal payments on patient satisfaction with hospital care

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Background

It is believed that informal payments for medical services contribute to health worker motivation and retention. Our study aims to assess whether informal payments are associated with patient's satisfaction with hospital care.

Methods

We conducted a cross-sectional study among adult population in Almaty region, Kazakhstan. Face-to-face interviews were used to collect data. 680 respondents who received hospital care in past 12 months were asked about informal payment, buying medicines for hospital treatment, physician's attitude to patients, quality of his/her work and general satisfaction with hospital care.

Results

Around 23% of respondents made informal payments to health workers during the last hospital stay.

(a) Informal payments were less prevalent among rural respondents than urban ones (18.4% and 28.9% respectively, $p = 0.001$); and among persons aged 40-59 years as compared to other respondents ($p < 0.05$). Gender, education and socio-economic status were not associated with informal payments. (b) The patients who gave informal payment to health workers during a hospital stay were less likely to report that health workers treated them friendly (68.1% vs 83.3%, $p < 0.001$), respected their personal interests (45.3% vs 64.3%, $p < 0.001$), provided recommendations on health behavior and disease prevention (61.2% vs 83.7%, $p < 0.001$)

(c) The patients who gave informal payments were less satisfied with the received hospital care (69.8% vs 92.5%, $p < 0.001$) in general

(d) The only aspect of hospital care that was assessed better by informal payers was provision of medicines: 41.2% of those who gave and 23.6% of those who didn't give informal payments didn't buy medicine in hospitals ($p = 0.015$).

Conclusions

The patients making informal payments estimated almost all aspects of the hospital care worse than other patients.

Key message:

- To improve the patient satisfaction with medical care it is necessary to use patient-oriented approach: respecting people's values and taking into account people's preferences and expressed needs

The distance between home and examination clinic affects the participation rates in Finland

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Background

In health examination surveys (HES), people are usually invited to the examination clinic for physical examinations and collection of biological samples. For practical reasons, the number of these examination clinics has to be limited, which also affects their location relative to the homes of the invitees. How long distances people are willing to travel for such survey is unknown, and are there differences between sub-populations.

Methods

The data from two national HESs in Finland; the FINRISK 2012 (FR2012) and Health 2011 (H2011) surveys, among adult population were used. Association of the shortest street network distances from invitees' homes to examination clinics and the invitees' willingness to participate was tested by multiple logistic regression models.

Results

In FR2012 survey, the distance between home and examination clinic ranged between 30 m to 81.6 km. The average distance for survey participants was 7.69 km, and 7.98 km for non-participants. In H2011, the distance ranged between 10 m and 174.4 km. The average distances were 12.9 km and 13.2 km, respectively.

In both surveys the distances had bigger impact on participation in urban than in rural areas and among the youngest age group (24-54 year old invitees). In FR2012 survey the distance was also more important predictor among women than in men. Distance is also a moderately significant predictor in FR2012 among the whole sample but not in H2011.

Conclusions

When planning the location of the examination clinics for a HES, optimization of the distance between invitees' homes and the clinics can increase the participation rates. The optimization can be implemented, for example, by calculating the distances of selected sample members to the potential examination clinic locations, and then calculating the predicted participation rates for these locations.

Key messages:

- Distance to the examination clinic affects participation rates
- Women and younger age groups are more sensitive the effects of distance in relation to participation rates

Impacts of tendering for off-patent medicines on access and costs

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Background

Tendering for off-patent medicines is expected to contribute to savings for public payers and to enhance competition. The study aims to explore impacts of tendering for off-patent medicines on access to medicines, and savings for public payers.

Methods

Experience with tendering for off-patent medicines was assessed through three case studies (Belgium, Denmark and the Netherlands). Information was collected through literature review, written requests and a total of 15 interviews with stakeholders.

Results

Belgium tendered for two substances in 2007 and then abolished the system. Denmark has been applying a tendering-like system in the out-patient reimbursement market for two decades where pharmaceutical companies submit price bids every two weeks. Dutch health insurers have been tendering for off-patent medicines for a decade.

All three countries reported savings for public payers due to tendering.

In Denmark, the system is highly appreciated by all stakeholders, including patients, whereas it was met by opposition in Belgium and the Netherlands. After improved information Dutch patients appeared to accept the policy.

In Belgium, a second tender was withdrawn when the winner had no capacity to procure. The Netherlands have frequently been experiencing medicine shortages for tendered and non-tendering medicines. Despite biweekly changes regarding the reimbursed medicines, access has not been limited in Denmark thanks to back-up mechanisms to prevent shortages.

Conclusions

Evidence suggests that tendering for off-patent medicines is able to enhance efficiency via increased competition and to contribute to cost-containment. However, precautions have to be taken to avoid medicine shortages and irritation of patients due to frequent changes of medicines dispensed in pharmacies.

Key messages:

- The design of the tendering policy is highly relevant in order to achieve intended outcomes
- Good communication to patients before the launch of tendering is key

Patterns of emergency contraceptive use in Albania

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Background

In contrast to many European countries, emergency contraceptives (EMCs) are still not freely available in Albania, and data on EMC use in Albania are very limited. This study aims at analysing patterns of EMC use and assessing EMC sales figures in Albania.

Methods

Data on EMC use were assessed in March 2016 using a self-administered questionnaire offered at universities or collected online. Women were invited to report knowledge of emergency contraception, use of EMCs, and socioeconomic background. Associations of EMC use with socioeconomic factors

were tested with Chi² test. In addition, Albanian pharmacies were asked to provide data on EMC sales since January 2015.

Results

205 women (57% online) and 55 pharmacies participated at the survey. Exactly 80.5% of the women knew about EMCs, especially those residing in larger cities (e.g. Tirana (83.4%) vs. rural areas (58.3%); $p=0.038$) and those with higher education (e.g. highest (85.0%) vs. lowest (62.5%) education level; $p=0.031$). The 1-year prevalence of EMC use was 15.1%, and 46.8% of the women used EMCs at least once in their lifetime. Women aged 25–34 years ($p=0.043$) and those with a lower financial background used EMCs most ($p=0.008$). Higher lifetime use of EMCs was also positively associated ($p=0.022$) with living in Tirana (49.0%), while in rural areas only 8.3% of women used EMCs at least once in life. From the women who used EMCs, 95.8% reported having received it in Albania without a prescription. In 2015, Albanian pharmacies sold increasingly more EMCs and, compared with January 2015, dispensed 17% more EMCs in February 2016.

Conclusions

Prevalence of EMC use is high among the surveyed women and depends from socioeconomic factors. Despite prescription-only status, supply without prescription may be widespread.

Key messages:

- Many women from rural areas (41.7%) or with lowest education level (37.5%) do not know about EMCs
- It may be evaluated if EMCs should be switched to non-prescription status in Albania

How to do External Reference Pricing by avoiding negative impact for patient access to medicines

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With the growing use of External Reference Pricing (ERP) - a policy to compare the prices of medicines in a country with those in other countries - some stakeholders in the field of public health claimed that this policy has negative effects on the affordability and accessibility of medicines to patients in Europe. One claimed reason was, for instance the delay of product launches in some countries. National competent authorities in charge of medicines pricing and reimbursement (P+R authorities) took these claims seriously and promised to investigate the issue.

One reaction by the European Commission was a call for proposal on 1) how to achieve a better coordination at the EU level and 2) how to avoid/mitigate possible negative impacts on patient access to medicines. The tender was awarded to a consortium, led by Hungary, that represented the Member State funded EURIPID database that contains information on medicines, and especially their prices, in currently 26 countries. First results of a comprehensive - Delphi style - survey yielded that P+R authorities had different policies regarding the actual application of ERP, ranging from extremely detailed regulations and ideas for exceptional circumstances to rather intransparent methodologies. Furthermore the impact of the results of ERP on the actual price setting also ranged from "the sole tool for price setting" to "one aspect that is considered". It seems that, despite the policy is very commonly used in Europe; there is a need for a better common understanding of the benefits and potential pitfalls of the use of this policy to avoid potential negative effects on the access to medicines.

Following the project managers of the EURIPID database will further improve the data-sets contained and will optimize the layout of the website to minimise misinterpretation of data and will develop a "Do's and Don't's" operational policy paper. This document shall be endorsed by the countries using ERP as national policy.

Key messages:

- ERP impacts the pricing strategies of both, national P+R authorities and pharmaceutical industry, but is just one policy out of several used that has influence on patients' access to medicines

- A Guidance Document on a coordinated approach of national P+R authorities regarding the use of ERP will be developed to improve transparency in this field

4.O. Oral presentations: Mortality data as a public health data source

Trends in contributions to amenable mortality in Finland, Scotland and England, 1992-2013

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Intro

Amenable mortality is used to compare health systems across countries. If the causes that contribute to amenable mortality differ across countries it could be due to different health care systems or differences in performance or quality. The aim is to compare distributions of causes and trends in amenable mortality between Finland, Scotland and England.

Methods

Age-standardised mortality rates by sex for 1992-2013, ages 1-74 were calculated. Causes of death were grouped into: Early Detection and Intervention (EDI), Improved Treatment & Medical Care (ITMC), Ischaemic Heart Disease (IHD), Other Non-Amenable (OthNA). The contribution of these groups to overall mortality was calculated for each country and year. The relationship between groups and OthNA was assessed using R-squared from linear regressions.

Result

There were 1,755,657 amenable deaths in England, Finland 164,778, Scotland 236,175 from 1992-13. The rates per 100,000 in 2013 were 240 England, 237 Finland, 320 Scotland. In all countries most deaths were in OthNA and fewest in ITMC. The proportion in each cause group was similar for Scotland and England. In Finland the distribution was different: ITMC 6% (Scotland 10% & England 11%) and OthNA 58% (Scotland & England 54%). The trends over time in these proportions differed across countries: EDI decreased by 0.25% per year for Scotland, 0.24% for England, 0.05% for Finland. IHD decreased across all countries and OthNA increased. There were relationships between EDI & ITMC and OthNA. R-squared EDI & OthNA: Finland=0.86, England=0.91, Scotland=0.61; ITMC & OthNA: Finland=0.87, England=0.72, Scotland=0.60.

Conclusions

Differences in composition of amenable mortality between Scotland, England and Finland indicate the healthcare systems differ; perhaps due to performance or quality. The strong relationship between amenable groups and non-amenable causes may indicate the definition of amenable mortality includes diseases which are not amenable to medical intervention.

Key messages:

- Amenable mortality needs to be robust if it is used to compare health systems across countries

- Differences between countries may reflect differences in performance or quality of the health systems

Inequalities in premature mortality in Scotland 1981 to 2011

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Background

Similar to the rest of the UK and Europe, all-cause mortality rates in Scotland have consistently decreased in recent decades. Scotland however has the highest rate of premature deaths in the UK and the reduction in death rates in the most deprived areas has been slower than in the least deprived areas

Methods

Age-standardised mortality rates for males and females aged 0-64 were calculated over a 3-year period around each census in 1981, 1991, 2001 and 2011 using the European Standard Population. Area deprivation at the time of each census was assessed using Carstairs scores (divided into population quintiles)

Results

All-cause mortality rates, for all people aged 0-64, decreased by 46% from 383 (per 100,000 population) in 1981 to 207 in 2011. There was a deprivation gradient in terms of the overall reduction in mortality rates. The largest decrease was for those in the least deprived quintile (rate reduced by 54% from 284 in 1981 to 130 in 2011). In the most deprived quintile the reduction was just 36% (from 498 in 1981 to 320 in 2011). Similar patterns emerged for males and females separately, and were largely driven by the reduction in rates, across quintiles, of deaths from ischaemic heart disease, chronic respiratory disease, stroke and cancer. Remarkably, all-cause mortality rates in the most deprived quintile in 2011 (320 per 100,000 population) were still 11% higher than in the least deprived quintile 30 years earlier (284 per 100,000 population)

Conclusions

Although mortality rates have fallen across Scotland, the faster decrease in less deprived areas has led to increasing inequalities in premature mortality. Greater reductions in death rates in deprived areas for causes such as those mentioned will go some way to reducing inequalities in premature mortality and ensure that rates in deprived areas fall well below 1981 rates for less deprived areas

Key messages:

- Premature mortality rates continue to decline but at a slower rate in the most deprived areas
- Rates in 2011 in the most deprived areas were still higher than in the least deprived 30 years earlier

The turn of the gradient? Educational differences in breast cancer mortality in Europe in the 2000s

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Background

This study aims to investigate the association between educational level and breast cancer mortality in Europe in the 2000s. Social inequalities in breast cancer mortality are of particular interest. Unlike most other causes of death, breast cancer mortality tends to be positively related to education, with higher educated women showing higher mortality rates. Research has however shown that the association is changing from being positive over non-existent to negative in some countries.

Methods

To investigate these patterns, data from national mortality registers and censuses were included for 18 European populations. The study population included all women aged 30-74. Age-standardized mortality rates, mortality rate ratios, slope and relative indexes of inequality were computed by education. The population was stratified according to age (women aged 30-49 and women aged 50-74).

Results

The relation between educational level and breast cancer mortality was predominantly negative in women aged 30-49, mortality rates being lower among highly educated women and higher among lower educated women, although few outcomes were statistically significant. Among women aged 50-74, the association was mostly positive and statistically significant in some countries. A comparison with earlier research in the 1990s revealed a changing pattern of breast cancer mortality. Positive educational differences that used to be significant in the 1990s were no longer significant in the 2000s, indicating that inequalities have decreased or disappeared.

Conclusion

This evolution is in line with the fundamental causes theory which stipulates that whenever medical insights and treatment become available to combat a disease, a negative association with socio-economic position will arise, independently of the underlying risk factors

Key messages:

- The changes in the knowledge and technology to treat breast cancer during the 1990s may have contributed to the disappearance of the positive relation between breast cancer mortality and education
- The appearance of higher BC mortality among lower educated calls for specific policies enlarging the scope of programs in order to prevent or combat socio-economic inequalities

Childhood IQ and mortality during 53 years of follow up among Swedish men and women

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Background

An association between childhood cognitive ability, measured with intelligence quotient (IQ)-tests, and mortality has been established, but large studies on various causes of death have been made only on men. Furthermore, the mechanisms underlying the associations are not fully understood; mediation by social factors in adulthood is a prominent hypothesis. We have addressed both issues in a longitudinal follow up of a cohort of school children.

Methods

Data on cognitive ability/IQ was collected at school at age 13 among 19 873 men and women born in 1948 and 1953. Information on father's education, the individuals' socio-economic and social circumstances in middle age and mortality up to 2013, was collected through national registers.

Results

Lower IQ was associated with an increased risk of all cause mortality among men (1070 cases, adjusted hazard ratio [HR] 1.33 95% confidence interval [CI] 1.25-1.41 for one standard deviation decrease in IQ) and among women an (703 cases, adjusted HR 1.18, 95% CI 1.10-1.28). IQ was associated with mortality from most causes of death, but among women there was no evidence of a higher risk for e.g. suicide with lower IQ. Adjustment for socioeconomic and social factors in adulthood, but not father's education, attenuated the associations considerably in men, and almost completely in women.

Conclusions

Lower IQ was associated with an increased risk of mortality from various causes among men and women. The explanatory effects of social factors in adulthood suggest that they constitute an important pathway in the association between IQ and mortality, especially in women.

Key messages:

- Lower cognitive ability is associated with mortality from various causes in men and women
- Social factors in adulthood is an important pathway in the associations, especially in women

Gender inequity in heart failure treatment affects mortality in a Swedish total population cohort

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Background

Despite medical advances, not all eligible patients receive evidence-based guideline-recommended treatment. Heart failure (HF) is among the most prevalent chronic diseases in ageing western populations. Although clinical trials have proven efficacy and mortality reductions from Renin-Angiotensin system (RAS) blockade, guideline adherence is poor, notably in women. Moreover, there is a lack of knowledge as to effectiveness in women; inferior or even harmful effects have been suggested. The study aimed to determine whether effects of RAS blockade on heart failure (HF) mortality differ between women and men, in a real world population.

Methods

In a retrospective cohort, total population hospital discharge data was linked with drug dispensations and cause of death data for all patients >20 years (n = 73 666) hospitalized for HF in Sweden 2006-2010. Patients were followed from an index hospitalization for up to 4.5 years. Death from HF was the outcome variable. Stratified and multivariate cox models were used to produce hazard ratios (HR) for HF death according to

sex, lack of RAS blockade, and interactions. The additive interaction measure Relative Excess Risk due to Interaction; (RERI) was calculated for lack of RAS blockade and sex.

Results

48% were women. Median age was 82 years. 51% received RAS blockade, men more frequently (56%) than women (47%). Lack of RAS blockade was associated with a higher risk of death from HF; overall adjusted HR 1.76 (95% confidence interval 1.66 to 1.87). The increased HF death risk was found in both women and men. There were no interaction effects between sex and lack of RAS blockade.

Conclusions

We confirmed effectiveness of RAS blockade on HF mortality in women as well as men in a real-world cohort of HF patients. Access to RAS blockade was low in general, and lowest in women. In this unselected HF cohort, there were no sex differences that motivate differential treatment; hence gender inequity was present.

Key messages:

- RAS blockade is effective in both women and men in a real-world population
- There is reason to improve adherence to HF treatment guidelines in general, and particularly for female patients

4.P. Workshop: Approaches towards health literacy: experiences from German speaking countries

Organised by: OGPB, SGPH, DGPB

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Chairperson(s): Julia Dratva - Switzerland, Thomas Dorner - Austria

Health literacy, defined as “the cognitive and social skills which determine the motivation and ability of individuals to gain access to, understand and use information in ways which promote and maintain good health”, is a personal and public health prerequisite to maintain and promote health, and prevent adverse outcomes. Health literacy leads to greater autonomy and personal empowerment in health-related decision making. Global societal, cultural, ecological and economic developments challenge the ability of individuals and societies to make healthy decisions, and therefore high health literacy is required more than ever. In this workshop, organised by public health organisations of the German speaking countries, we want to approach health literacy from different perspectives, especially from directions where the connection to health literacy does not seem so clear at the first glimpse. We also want to discuss and share experiences with health literacy in the Switzerland, Germany and Austria and discuss the European dimension.

Social networks and life course approach

L Suzanne Suggs

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Social networks and social media continue to provide both opportunities and challenges in promoting health adolescent and child health. Public health practitioners and researchers are faced with many questions about how to use, react to, and design appropriate interventions. This talk focuses on the role social networks play in promoting critical literacy as well as the role health literacy plays in effectively communicating and improving health. Evidence based strategies for how to use social networks to promoting adolescent and child health will be discussed.

Health Literacy: The Public Health Service – approach

Manfred Wildner

M Wildner, J Biermann, A Neumann

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Health literacy comprises the skill to understand health care information and be able to make an informed decision. This ability of an informed decision making may influence the health related outcome. There is evidence, that limited health literacy is associated with impaired health outcomes. In addition health literacy has an impact on the use of health care services. Therefore limited health care skills could lower the use of preventive care measures like vaccination and preventive medical check-ups. In contrast greater use of emergency care as well as a higher rate of hospitalizations has been observed. The evidence for these relationship and its consequences in terms of related costs for the health care systems is heterogeneous with findings of no differences in costs up to increased costs related to lower health literacy. In the last decades numerous interventions have been developed with the intention to improve health literacy focused on special indications. In some extend these interventions show a positive influence on health outcome and more adequate use of health care services. This presentation will give a short summary of the finding of health literacy and the use of health care services, the related health outcomes and costs. One of the principal actors in the field of health literacy and the public health sector is the public health service (“Öffentlicher Gesundheitsdienst”) with its special duties and competencies in health protection, health promotion and disease prevention and health systems stewardship. Health literacy as a public health service goal will be presented with a special focus on the role of the public health service in public health governance and its public accountability.

Health literacy – a topic for health reporting?

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Health literacy (HL) is a rising star on the conceptual heaven of health sciences and public health. Data demonstrate: Every second European has limited HL. There exists a social gradient not just for health, but also for HL. HL still is an “evolving concept” with observable trends to broaden the underlying meaning of “health” and of “literacy” The broadening of concept and definition corresponds an internal differentiation into many specific sub-dimensions of HL. As the relational character of HL is more and more accepted this opens a window for developing models, standards and indicators for “health literate health care organizations”.

The European HL survey (HLS-EU) was not only important for bringing the concept to Europe and the DACH-countries, but a big step forward by offering a comprehensive and

integrative model and definition of HL, based on existing definitions and models. An instrument for measuring comprehensive HL in general populations has been developed and validated and data have been collected first in eight European member states, later followed by other countries in Europe and Asia. There are some underlying common trends, but also considerable differences of HL measures and

associations between countries. The comprehensive measure of HL the HLS_EU-Q 47 is too extensive for easy inclusion into ongoing regular national surveys and work has started to develop short-forms of the measure.

The input in the workshop will summarize some of the existing results and discuss necessary steps for including HL in national health reporting.

4.Q. Oral presentations: Work and sick leave trajectories

Multimorbidity matters: The effect on specific sickness absence diagnosis-groups

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Background

As the world's population ages, the prevalence of multiple chronic health-related conditions is increasing. Research on multimorbidity, the co-occurrence of two or more health-related conditions, has mainly focused on patient and older populations. Studies on the workforce, presumably younger and healthier, are scarce. The effect of multimorbidity in working populations is not well known, but could conceivably have a negative impact on the ability to perform at work or delay return to work after a sickness absence (SA). We examined the effect of multimorbidity on the incidence and duration of SA episodes by frequent diagnoses.

Methods

Prospective study of 372,370 workers in Spain. Information on health-related conditions collected with a standardized questionnaire was used to construct a sex-specific multidimensional multimorbidity score (MDMS). We fit Cox models adjusted for age, occupational social class and number of prior SA episodes, to estimate the effect of MDMS on incidence and duration of SA episodes due to cardiovascular diseases, musculoskeletal and mental health disorders for both sexes.

Results

Men with high MDMS showed a trend towards higher incidence risk for SA due to cardiovascular diseases and musculoskeletal disorders ([adjusted hazard ratio (aHR) =2.03; 95%CI: 1.48-2.78] and [aHR=1.20; 95%CI: 1.01-1.43], respectively. Women showed a similar trend for musculoskeletal disorders, but mental health episodes had the strongest association [aHR=4.78; 95%CI: 1.97-11.62] for high MDMS. In both sexes, the effect of MDMS persisted and was stronger among those without a prior SA. No consistent associations with duration were observed.

Conclusions

High multimorbidity was associated with greater risk of diagnosis-specific SA but not with duration. More tailored workplace interventions could make use of measuring multimorbidity to identify workers who may need especial attention and to prevent future SA.

Key messages:

- Increasing multimorbidity is associated with future sickness absence episodes but not with their duration
- Measuring multimorbidity may help to design tailored workplace interventions to prevent SA

Trajectories of adolescent anxiety and depressive symptoms prior to work incapacity in adulthood

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Background

Adolescent anxiety and depressive symptoms have been shown to continue into adult years and have impact on adult socioeconomic outcomes. However, research is scarce on developmental patterns (such as stability and change) of anxiety and depressive symptoms during adolescence in association with future work incapacity. The aim was to investigate trajectories of anxiety and depressive symptoms during adolescence in association to sickness absence (SA) and/or disability pension (DP) in young adulthood.

Methods

The study sample included 2,690 twins born 1985-1986 in Sweden who participated in the Twin Study of CHild and Adolescent Development (TCHAD). The twins were followed repeatedly at ages of 8-9, 13-14, 16-17, and 19-20 years. Anxiety and depressive symptoms were evaluated by Child Behavior Checklist. Data on SA/DP were obtained from the Swedish National Social Insurance Agency for years 2001-2013. A group-based trajectory method was applied to identify groups of individuals following distinct trajectories of anxiety and depressive symptoms during adolescence in association with work incapacity in young adulthood.

Results

Twenty-five percent of the individuals had at least one SA/DP spell during the follow-up. Preliminary, four groups of anxiety symptoms and three groups of depressive symptoms were identified in association with SA/DP in young adulthood. For depressive symptoms, 8% of the individuals had sharply increasing, 52% had stable-moderate and 40% had stable-low levels of the symptoms. For anxiety symptoms, 1% of the individuals had stable-high, 58% had stable-moderate, 14% had low-increasing, and 27% had stable-low levels of the symptoms.

Conclusions

A majority of the young adults on SA/DP showed stable-low or stable-moderate levels of anxiety or depressive symptoms during adolescence. The impact of anxiety and depressive symptoms in adolescence on work incapacity in young adulthood merits further investigations.

Key messages:

- The majority of young adults on SA/DP showed stable low/moderate levels of anxiety or depressive symptoms during adolescence
- Interventions including a broad-range of factors are needed

Occupational and educational inequalities in health-related exits from employment at older ages

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Background

Past studies have identified socio-economic differences in the timing and type of labour market exit at older ages. However, few studies have compared these trends cross-nationally. Policy responses to population ageing will be shaped by the societal context in which it occurs. This paper compares the labour market trajectories of older workers (50+) in five countries. We examine differences by sex, education and occupation in the likelihood of exiting work due to poor health or disability.

Methods

Longitudinal data were drawn from the British Household Panel Survey (N=2,812), the English Longitudinal Study of Ageing (N=5,729), the Finnish Public Sector Study (N=73,670), the French GAZEL occupational cohort (N=19,702), the Health and Retirement Study (N=2,430), the National Survey of Health and Development, and the Whitehall II study (N=7,913). The sample included employees who were in work between ages 45-55. Age at labour market exit was derived based on the reduction in working hours over follow-up (from >0 to 0). Health-related retirement was defined as exit from work with disability pension or for reasons of poor health. Cox regression models were estimated for each study, adjusted for self-rated health and birth cohort.

Results

In all studies, low education and low occupational grade were associated with increased likelihood of exit from work due to poor health or disability (HR = 1.58 to 3.81). After adjustment for self-rated health, these associations were fully attenuated in two studies, and partially attenuated in the others. For men but not women, low education and occupational grade were also associated with increased likelihood of exit from work into unemployment (HR = 1.66 to 3.38).

Conclusions

There were substantial occupational and educational inequalities in the opportunities for employment at older ages, and the subsequent health outcomes. Policy interventions to extend working life should avoid exacerbating these differences.

Key messages:

- Low education and low occupational grade were predictive of exit from work due to poor health or disability
- The opportunities for employment at older ages, and the subsequent health outcomes, vary by socio-economic status. Policy interventions should avoid exacerbating these differences

Does contextual unemployment matter for health status across the life course?

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Background

Individual health is affected by one's individual life conditions and by the context in which individuals live, interact and develop. Research shows that living in a neighbourhood with high levels of unemployment might affect residents' health, at least partially independent of own labour market status. However, how such contextual-individual transactions play out across the life course is unknown. The present study aims: (i) to examine whether neighbourhood unemployment is related to health status across the life course independently of the individual employment from adolescence to middle age (age 16 to 42); and (ii) to analyse whether this relationship is observable at four specific life course periods from adolescence to middle age (age 16, 21, 30 and 42).

Methods

A 26-year prospective Swedish cohort (n=1010), linked to register data on neighbourhood unemployment. Individual employment and functional somatic symptoms were measured by self-reported questionnaire data. Two models of hierarchical linear regressions were built: a longitudinal analysis, and a set of age-specific cross-sectional analyses at each age.

Results

The longitudinal analysis showed an independent contribution of neighbourhood unemployment and individual employment on FSS across the life course. The cross-sectional analysis showed an association at age 30, when accounting for individual employment, but no association was found at age 21 and 42.

Conclusions

Neighbourhood unemployment has a significant relationship with functional somatic symptoms across the life course. There seems to be an age-specific pattern where neighbourhood unemployment may have stronger implications in early adulthood than in other phases of the life course.

Key messages:

- High neighbourhood unemployment predicts higher levels of individual FSS across the life course, independently of own labour market position, socioeconomic status and education
- These findings stress the importance of neighbourhood unemployment for current health status as well as development of health status across the life course, particularly during early adulthood

PARALLEL SESSION 5

FRIDAY 11 November 2016 11:10-12:40

5.A. Workshop: Healthy public policy: a way to promote health equity

Organised by: Fonds Gesundes Österreich
Contact: joy.ladurner@goeeg.at

Chairperson(s): Joy Ladurner - Austria

Health Equity and HiAP are fundamental principles of the work of GÖG, whose core task is to contribute to a healthy life of all Austrian residents. GÖG - the national Public Health Institute - is located in Vienna and employs 170 researchers from different disciplines (medicine, economics, sociology, psychology, policy, communication, public health, etc.). Main activities involve health care planning, health care system development, health promotion and prevention as well supporting the Ministry of Health and the Federal Agency on Health in their work. Examples of recent activities to promote healthy public policy are the National Centre for Early Childhood Interventions, the National Coordination Point for Rare Diseases, the information centre for alcohol and drug addiction and reports and studies concerning migrant health as well as child and adolescent health.

Setting the Scene

Pamela Rendi-Wagner

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The existing health gaps between but also within countries have increasingly drawn attention to the importance of promoting health equity as an essential part of healthy public policy. In line with recommendations from supranational organizations like the WHO, these principles are also strongly reflected in the Austrian public health policy.

To foster healthy public policy and health equity, the Austrian MoH is committed to a Health in All Policies (HiAP) approach, since the potential impact of the “classical” health sector on major health and equity determinants such as living, learning and working environments, or public safety, is quite limited. The MoH uses several specific tools to promote HiAP and health equity. A specific model of success are the ten Austrian health targets which were adopted by the Austrian council of ministers in 2012. The targets follow a life course approach and aim at strengthening health resources and health determinants in all societal sectors and policy fields.

Health equity was a guiding principle for the development of all ten targets, but there is also a specific target that is explicitly focused on improving health equity. One of the interventions to support the implementation of the health targets along the HiAP approach was the establishment of an executive committee for health impact assessment (HIA). The committee consists of representatives of diverse ministries and other important stakeholders. The aim is to increasingly promote the use of HIA, and by that, to raise awareness of the health and health equity impacts of all political and societal sectors, and to gradually improve these impacts in a longer-term perspective. Another tool to support the HiAP and health equity approach is the Austrian health promotion strategy which regulates the use of health promotion funds on national and regional level in Austria. One of the criteria that projects need to fulfil in order to receive funding under the strategy is an orientation towards HiAP and health equity. A specific example for a project funded under the strategy is “Early childhood interventions” (Frühe Hilfen) that aims at supporting parents

with young children in difficult life situations in order to improve chances for a good start into life.

All these developments are fairly recent so that is not yet possible to measure whether they have actual effects on the improvement of health equity. But it is already possible to identify some of the success factors that have enabled Austrian public health policy to follow a HiAP and health equity approach. First of all, a broad understanding of health and its determinants is needed. And, in order to win partners from other sectors to engage in HiAP, it is not only necessary to raise awareness about their impact on health determinants, but it is crucial to showcase examples of how other sectors can benefit themselves from their involvement in HiAP. Broadly speaking, since health is essential for societal development at large, all sectors will benefit from a healthier society. One of the key success factors is to foster partnership and cooperation, and to maintain a strong commitment of major stakeholders over longer periods of time. In the implementation process for the Austrian Health Targets, this is a.o. pursued via the Plenary of the Austrian Health Targets which meets several times a year and which engages decision makers and stakeholders from diverse sectors and policy fields in a continuous dialogue. This structure has proven effective to support the shift of paradigm a HiAP approach implies. Acknowledging that cultural change takes time, it can also be recommended to be patient and to have realistic expectations whose fulfilment can be proved by accompanying monitoring and evaluation processes.

In light of international and Austrian experiences, this session will, amongst others, discuss

- Furthering and hindering factors to promote healthy public policy and health equity – what works and what does not? Why? What challenges need to be overcome?
- Factors supporting the adoption of political frameworks and strategies to promote healthy public policy and health equity
- Ways to transfer research findings into (political) practice
- Requirements for political forecasting, planning and decision making

Investing in health literacy to promote health equity in existing European Union policies

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Many reasons for inequity in health lie outside the health sector. Employment, income, education, consumer habits and housing, have a strong influence on health and sickness of any given population. These determinants of health are very often unequally distributed. All too often the same population group is affected at the same time from unemployed, low income, bad habits and poor housing resulting in severe health inequities. The remedy would be full-employment, fair salaries and wages, good education for all and adequate housing.

Inequities and poor health comes at a price: higher healthcare spending, a stagnant economy and a loss to the wealth of the nations. Therefore, many ministries of health in Europe want to tackle the social determinants of health. They have made commitments to curb the growing inequities in health. They formulated policies and action plans. But making decisions and implementing them is very hard, because most of the

social determinants of health lie outside the remit of the ministry of health. It is also a serious question of capacity. How many programmes, projects and interventions in other sectors can a ministry of health manage?

This is why ministries need to work with other ministries (which have other priorities) and civil society organizations (which have different constituencies). And they need to establish framework that clarify the contribution of the other sectors including their responsibilities.

To illustrate this we will discuss current examples from Germany, Iceland, Estonia, Finland, France, Latvia, Lithuania, Norway and Slovenia how they have improved transparency, accountability and capacity between sectors to tackle the social determinants of health.

These examples differ in sectoral coverage, budgetary implications and the use of legal instruments. But they are good examples to show that working across ministries and sectors for health and health equity is possible.

Health Inequalities and Policies in England

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The UK has a long history of recognizing socio-economic differences and reacting to them. However while improvements in life expectancy and healthy life expectancy have occurred, inequalities persist. The Marmot review (2010) set out six clear policy objectives to improve the social determinants of health, and reduce health inequalities.

At least 75% of local authorities had considered the social determinants of health in needs assessments by 2013 and the Public Health Outcomes Framework in England measures progress against most of these policy objectives. Legislation is also now in force that puts a duty on the Secretary of State for Health to reduce inequalities in health outcomes. Further to setting out the factors that have an independent effect on health, Public Health England have requested that the UCL Institute of Health Equity (IHE) produce a number of briefing papers for decision makers in Local Authorities to help them implement improvements in the social determinants of health (SDH).

This presentation provides some examples of effective practice. IHE publish the Marmot Indicators that measure progress on improving the social determinants of health. The latest figures show that, for the majority of indicators, there was an improvement on the previous year, with the exception of income and fuel poverty.

A Health in All Policies approach would facilitate cross-departmental working, which is critical if tax, welfare and minimum wage policies are to support health and well-being.

How HIAP can contribute to Health Equity in Finland

Meri Koivusalo

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Health in All Policies has been a long-term aim and practice in Finland. I would like to emphasise the importance of issue-based/problem-based/substantive cooperation, but also that HIAP needs to be seen as strategic approach, where options are shaped by broader government priorities. In the end not only knowing where problems are or skills in negotiation, but as well power and framing of issues in broader policy-making bear major relevance.

In Finland broader public policies in nutrition were implemented very early when Finland was a much poorer country. While reduction of health inequalities was not explicitly high on the government agenda, broad and comprehensive public policies and reduction of social inequalities contributed also to improvement of health and reduction of health inequalities especially for maternal and child health. The focus on nutrition

through child-care, schools and work-places provided ground for broader change.

However, despite great past, we are faced now with substantial challenges. In Finland health inequalities remain a challenge as health in the lowest income group has not improved and changes in health system are likely to work against equity. While reduction of health inequalities is formally on government agenda, public policy priorities focus now on individual freedoms, responsibility, economic growth and opportunity. HIAP as means for improving equity requires strategic thinking in terms of where and how it can be applied.

One common challenge for HIAP is to maintain policy space for health through effective public policies, including through taxation or restricting commercial policy interests. This is not helped by increasing interest in assessment of trade, competitiveness and innovation impacts of all policies, including health systems, rather than ensuring health in all policies. Finally, scope of policy space for health is not only a matter of national policies, but relates also to European Union policy policies and what is negotiated as part of international trade and investment agreements and partnerships, such as TTIP, as these will have an impact on position of stakeholders and how governments can regulate for health in future.

Intersectoral cooperation in health promotion programs and activities to strengthen health equity in Austria

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GÖG's activities to promote health equity in Austria takes a number of forms. Besides supporting the Ministry of Health in the development and implementation of the national health targets or being the focal point for mother and child support in early childhood we started a number of initiatives in the field of intersectoral capacity building. In the session three of our flagship projects – one in the field of funding, one in networking/research and one in education - are briefly introduced.

Healthy neighbourhood programme

The programme targets two population groups for which social relationships in the neighbourhood are important: elderly people and pregnant women resp. families with toddlers. The target is to strengthen social support and social participation of the target groups in communities and urban districts. The Austrian Health Promotion Foundation FGÖ launched a call for health promotion projects for this topic in 2014 and started to fund pilot projects in all over Austria in 2015. Two or more organisations (health promotion-, communal- and social service or health service organisations) had to team up as a collaboration to apply for funding. In this way expertise about the setting and target groups should be interchanged and families/elderly people in need could be addressed more easily.

The pilot projects work with different methods like community organizing, training seminars for multipliers, networking etc. The Austrian Health Promotion provides capacity building activities for all the projects by offering information activities like websites, newsletters, meetings and conferences, etc.). To foster intersectoral cooperation peer meetings for the mixed project-teams are offered. Two teams (one for each target group) conduct a scientific evaluation of the pilot projects, one of the products will be a handbook. Most of the 11 pilot projects started in 2015 and will be finished in 2017.

Taskforce Social Determinants of Health

In 2012 scientific staff of all three business units of the Austrian Public Health Institute commenced a new research network with the objective to contribute in knowledge building on health equity in Austria. The network is operated by the Austrian Health Promotion Foundation and links up Austrian

academics (e.g. Department of Migration and Globalisation at Danube University Krems, Public Health Centre of the Medical University Vienna) NGOs (e.g. Evangelische Diakonie, Caritas), public payers (e.g. regional sickness funds), decision makers in the field of health care, long term care and social care (e.g. Ministry of Health, Ministry of Social Affairs, representatives from provinces) and further institution such as the “Band”.

Besides regular exchange meetings (eleven so far) the taskforce organises an annual conference with international experts (in 2015, for instance, we investigated the impact of the economic crisis on health equity).

Our research activities cover a variety of topics, from contributions to the Austrian “White Book” on Poverty to an assessment of specific health challenges of the LGBT community. In addition, we organised two information sessions for persons working in this field (e.g. social workers, volunteers) the latest on health care needs of refugees and migrants. We concluded that currently mental health issues are the biggest challenge for the Austrian health care system.

Health Promotion Programme for apprentices

The main target group are adolescents which left school early and have no regular job and NEETs (Persons Not in Education, Employment or Training). A survey we made showed that the addressed adolescents have a worse health status than other adolescents and they have a more risk affine behaviour. We define professional education as a determinant of health for adolescents (age 14-19) with low school education. The organisations involved (so called “cross-corporate training centres for apprentices) offer job training and education for these adolescents. These organisations are financed by labour offices, resp. the Ministry for Social Affairs. The objective is to strengthen these special group of young people and bring health promotion in training organisations for apprentices. Target groups are the trainees as well as expert staff.

Therefore the activities take place at different levels: at individual level, at organisational level and at cross-corporate level. Topics are e.g. promoting resilience, self-confidence or prevention of violence. Approx. 1,300 adolescents and 150 staff members are included in these projects. Accompanying measures are capacity building, lobbying and a scientific evaluation.

How to make Health in All Policies work – an example of Bulgaria

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D Dimitrova

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Context

Eastern Europe’s health policy is guided by the Health 2020 strategy unanimously adopted at the European Regional Committee in 2010

Health equity is a major challenge in Europe. The lowest and highest life expectancies at birth in the WHO European Region differ by 16 years, with differences between the life expectancies of men and women; and maternal mortality rates are up to 43 times higher in some countries in the Region than in others. This difference is mainly due to the health outcomes in Eastern European Countries.

This situation is exacerbated by the resurgence of communicable diseases in the region, which coupled with the NCD burden of disease and increased threat of AMR pose huge public health challenges

Furthermore, access to care is reduced due to lack of properly implemented health insurance schemes. For example, even though there is universal health coverage in Bulgaria, over 60% of health spending is out of pocket. Research illustrates that over 30% of populations in the Eastern European region delay treatment due to lack of funds. This financial inequality has great implication for health outcomes.

Solutions

Eastern European countries have undertaken a number of reforms mostly in the area of health system strengthening and health financing in line with the HiAP vision. In Bulgaria the structure of primary care was revamped to create incentives for group practices that can increase collaboration among different specialties. In addition, hospital financing was changed to introduce capped annual budgets and free up resources for primary care. These policies, although focused on the health system itself were a necessary step in designing cross-sectorial HiAP programs (e.g., the health and healthcare sector needed to address some of its major challenges before it could address the ones above and beyond it).

In addition, the transformation of the health system has been done by addressing the common social and environmental determinants of health. As Health 2020 highlights, effective interventions require a policy environment that overcomes sectoral boundaries and enables integrated programmes. For example, evidence clearly indicates that integrated approaches to child well-being and early childhood development produce better and fairer outcomes in both health and education. In this spirit, Bulgaria created a central unit out of the Prime Minister’s office with an ordinance from the Prime Minister himself mandating the deputy ministers responsible for some aspect of child development to work together – this included deputy ministers of Finance, Social Affairs, Education, Urban Development, Sport of course alongside with health to work together.

This cross-sectorial program had a huge impact (i) on changing mind-sets that some issues are truly cross-sectorial and that when responsibilities are clear, programs with multiple-stakeholders can actually work, (ii) on the funding stream which was greater with a greater number of stakeholders contributing; (iii) on the scale of the interventions – addressing large scale problems, not piece-meal ones. It is too early to see the impact in terms of health outcomes but it has definitely had an impact in improving the process of policy implementation and including the vulnerable populations (namely Roma).

Going forward, to continue with this type of cross-sectorial HiAP interventions, the issue of governance of such programs needs to be addressed from the highest level with each country as the major success factor of the child development program was the fact that it was designed and managed from the Prime-Ministers’ office and each sector had clearly mandated responsibilities and accountabilities. Without such a mandate, the ministries would not have come together to collaborate. The success of the program was also driven by a very powerful communications campaign in the media which stressed the value of the cross-sectorial program and even praised the contributions of each sector involved in it.

5.B. Skills building seminar: Skills building for a successful HTA team: the value of HTA in the Public Health agenda

Organised by: EUPHA section on Health technology assessment together with EUPHANxt
Contact: chiara.dewaure@unicatt.it

Chairperson(s): Chiara de Waure - Italy, Giacomo Scaioli - Italy

The EUPHA 2014-2020 strategy plan clearly calls upon capacity building with the aim of strengthening evidence-informed policy and practice. In particular, information exchange is mentioned as a tool to build skills and knowledge of both present and future public health professionals. Health Assessments and, among them, Health Technology Assessment (HTA) are topics which mostly need skill building initiatives. In fact, HTA is increasingly used in European countries to inform decision- and policy-making in the health sector. HTA should be understood by all public health professionals because health technologies are the building blocks of health care and health care matters to everyone as it is a major determinant of health. However, a relatively small number of experts are currently active in the field of HTA, in contrast with the large number of new and existing technologies to be evaluated. Key success factors for HTA implementation encompass building human resources and financial capacities and implementing robust HTA methodology. Owing to the multidisciplinary nature of HTA, public health practitioners should have a broad training and understanding of several topics and methods. This skills building seminar is therefore an opportunity to start building HTA capacity and debating the actions required for this purpose. Present and future public health professionals using HTA need skills in three basic areas: a) finding appropriate HTA; b) appraising what they find; c) and adapting it to local use. Public health professionals doing HTA should be able to: a) translate policy questions into research questions, b) perform literature searches, c) appraise and synthesize the evidence, d) consult real time data, e) generate and feed decision models; f) perform economic evaluations; g) consider the wider organizational, ethical, legal and social implications; h) write a report. This seminar will start with an overview presentation of methods and application of HTA, followed by a case study on a specific public health problem which will be used to promote an interactive discussion of the audience on several questions/issues.

Key messages:

- HTA is a fundamental background knowledge for public health practitioners and skills building initiatives are needed
- A case study will help attendants acquiring skills in the use and development of HTA reports

Assessing health technologies through the HTA approach: the basic methodology to be used

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Issue

More and more health technologies are challenging policy-makers and health managers. In this light, evaluation is inevitably demanded and Health Technology Assessment (HTA) represents an important instrument.

Description of the problem

HTA is a multidisciplinary process which examines epidemiological, clinical, social, organizational, ethical, and economic

implications and safety, diffusion, and use of health technologies. HTA is strictly based on sound methodology but the understanding of methodological tools used in the assessment is essential for performing scientifically robust analyses. This presentation aims to provide the basic knowledge of methods used in HTA in order to inform members of the public health community.

Results

The first step in doing HTA is framing research questions which means dealing with the policy issue in terms of health problem, safety, efficacy, effectiveness, economic, social, ethical and organizational aspects. In general the HTA approach contemplates the following phases: a) the elaboration of the protocol, based on the definition of the research question(s), b) the collection of background information, c) the collection, analysis and synthesis of evidence through appropriate methods, d) the processing of the final report. The methodological tools used for the appraisal of the research question(s) are generally relied on the literature search, from simple search of individual databases to the systematic review of the literature. The presentation will encompass all the methodological aspects of HTA stressing its importance in the field of public health for population benefits.

Lessons

HTA represents an important tool to tackle public health topics at national, regional and local level. Since every HTA is based on an interdisciplinary approach, it is highly important to have public health practitioners trained to use and produce HTA reports useful for informing evidence-based policies.

How can health services allow early identification of people at risk of chronic pain? A case study

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Issue

The aim of this speech is to present a case study and to promote an interactive discussion with the audience about how it can be tackled in an HTA perspective. The presentation will start with a short introduction of the health problem including the background for initiating an HTA in Denmark.

Description of the problem

Pain is the most common reason patients consult general practice, and long-term disability and sick leave due to pain are associated with huge negative consequences for individuals and society. Early identification of patients at high risk of developing long-term problems would offer a great opportunity for reducing cost and suffering because optimal care could be initiated at an early stage. The background for initiating this HTA in Denmark was to study if prognostic factors for disability could be identified across pain locations to initiate a targeted intervention with the goal to avoid unnecessary diagnostic procedures and treatment.

Results

The case study will engage the audience in a debate on how the specific health problem can be addressed in an HTA perspective. The following questions will be discussed with the audience with examples from the Danish HTA: a) what kind of human resources are required for conducting this HTA?; b) who are the relevant stakeholders and how should they be involved in the process?; c) how can the policy question be translated into research questions?; d) which methods are suitable for answering the research questions?; e)

how can data be synthesized?; f) how can the results from this HTA be applied in clinical practice?

5.C. Workshop: EU Health Information and System Analysis reloaded

Organised by: BRIDGE Health
Contact: maria.hofmarcher@healthsystemintelligence.eu

Chairperson(s): Peter Smith - United Kingdom, Herman Van Oyen - Belgium

Better health information is needed to improve the health of Europeans, to strengthen the effectiveness of health systems, to increase the accessibility of healthcare and to ensure the resilience of health systems. These priorities in concert with the need to improve efficiency and financial sustainability of European health systems require greater efforts to ensure the comparability of indicators and underlying data by i) streamlining the health and health system indicator landscape and ii) focusing efforts to make indicators better comparable through ongoing improvements of the quality of underlying data.

The use of comparative information to develop health policies is increasing in EU Member States and the European Commission. For example, health information initiatives on the level of Member States have put forward sets of indicators of their health system and compare them to European level data. To foster smart structural reforms in health care systems methodically available knowledge and evidence on resource use and health outcomes is needed through improved understanding of the mechanisms of how health policies affect health outcomes. This requires informed intelligence of indicator concepts, quality requirements of underlying data and frameworks of health system performance assessment.

Health information and system analysis are a fundamental role for the EU level, in setting standards, collating and spreading experience, and disseminating standardized information. Such endeavours are a public good that can only be done effectively and comprehensively at EU level, and can contribute new resources for guiding policy and practice in individual Member States.

BRIDGE Health brought together important activities which are concerned with improving the comparability and usability of health and health system data across Europe. The strategic objective of BRIDGE Health is to create a blue-print for European health information system and infrastructure by assembling important European research. This Workshop aims at featuring progress of key work streams such as (1) determinants of health in the area of injuries, (2) data quality pertaining to standards in disease registers, (3) analysis of measured and self-assessed risk factors, (4) performance assessment on provider and regional level for selected high burden diseases, and (5) structured monitoring of performance on the system level.

Key messages:

- Progress is made in many important areas of data collection to ensure high quality data for improved comparative assessment of health system performance
- Health information is a public good and developing standards for system analysis is a fundamental role for the EU

Lessons

The discussion of the case study aims at giving public health practitioners insight into the practices of producing HTA aimed at informing policy makers at different levels in health care.

The European injury data base: supporting injury research and policy across Europe

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Background

Although various injury data sources exist in Europe; many lack sufficient size, scope, detail or comparability, to support injury prevention research or policy development. Emergency department (ED) records offer one of the most comprehensive sources of injury data.

Methods

BRIDGE-Health supports the continued development of the standardised European Injury Data Base (IDB). The IDB comprises two datasets: Full Data Set (FDS) and Minimum Data Set (MDS). Although the MDS collects less detail than the FDS; it is simpler for countries to adopt, and still sufficient to allow enumeration of injuries in key areas such as the home, leisure, work, road, falls, sports, and self-harm. Training, guides and rigorous quality checks, ensure consistency across participating countries.

Results

26 countries have submitted 7M ED records (years 2009-2014) to the IDB in MDS format, and 20 countries have provided reference population data, enabling the calculation of incidence rates. As an exemplar, in 2013, incidence rates for all injuries varied between 11.43% in Luxembourg to 3.98% in Finland. Some variation is due to differences in calculation of denominator populations which is being addressed by the development of standardized methodologies to account for sampling strategies.

Conclusions

The MDS provides Europe with a valuable source of comparable injury data. Work is underway creating a number of injury indicators, including European Core Health Indicator (29b) 'home, leisure and school accidents', indicators based on long bone or hip fractures and those used by each country in order to maximize comparability and utility in supporting local, national and international preventive efforts.

Key message:

- Standardised comparable information on injury incidence across Europe supports local, national and international policy development and preventive activities

The experience of the BRIDGE-Health - Platform for population-based registries: need of harmonized procedures and Methods

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Background

Health information are widely used for evidence-based policy making, planning and evaluating research and preventive actions. An integrated effort to collect, process and communicate health information is needed. Objectives of 'Platform for population based registries' of BRIDGE Health Project are to improve and guarantee quality of data collection by population-based registries, facilitate their implementation, sustainability and maintenance.

Methods

A questionnaire was submitted to Principal Investigators (PI) of population-based registers in different health areas: cardiovascular diseases, cancers, congenital hypothyroidism, rare diseases, joint prostheses-arthroplasty, organ and tissue transplants, injuries, twins; an overview of main characteristics and methods used in the different registries have been created.

Results

10 PIs answered the interview: 4 registries have national coverage, regional the others; 6 perform record linkage among different sources of information (e.g. hospital discharge records, death certificates, GPs, autopsy, clinical records, diagnostic and treatment services); 7 validate events (3 on a sample only) according to international diagnostic criteria; 5 produce ECHIM indicators; 9 evaluate completeness of events/outcomes, perform external validity, consider personnel training; 10 check internal validity.

Conclusions

Population-based registries show methodologic similarities, even though maintaining specific disease/condition characteristics. Results enforce need of recommendations for standardization and quality control in order to provide reliable and comparable data among European countries.

Key message:

- Population-based registries to be sustainable may use same methods in selecting areas and population under surveillance, sources of information and record linkage procedures, but recommendations for standardization and quality control are needed

The health examination survey/osservatorio epidemiologico cardiovascolare, Italy 2008-2012: health indicators by self-reported versus measured information

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Background

Health information at population level may be obtained by health interview (HIS) and health examination surveys (HES). Potential difference between HIS and HES estimates of health indicators is given reporting results of awareness of risk conditions assessed by the Italian HES.

Methods

Data from 4048 men and 4093 women aged 35-74 years examined in 2008-2012 were used. Persons with hypertension, hypercholesterolemia and diabetes were defined on the basis of blood pressure measurement, serum total cholesterol and glycaemia, and self-reported use of specific treatments, and were divided into groups of 'not aware' and 'aware treated/not treated'. Persons not aware were those have not been told to

have high levels of blood pressure, total cholesterol or glycaemia but their measurements were found high. All data are age-adjusted considering the 2013 European population.

Results

Prevalence of hypertension was 52.4% in men and 37.8% in women, among those, 39.3% in men and 33.8% in women were unaware. Basing hypertension prevalence only on self-reports of the respondents as in a HIS, prevalence of hypertension would be 31.8% in men and 25.0% in women. Prevalence of hypercholesterolemia was 34.7% in men and 36.8% in women (unaware 38.0% and 41.5% respectively), meaning a potential HIS prevalence of 21.5% and 21.5% respectively. Prevalence of diabetes was 11.7% in men and 7.7 in women, (unaware 38.8% and 28.6% respectively), meaning a potential HIS prevalence of 7.2% and 5.5% respectively.

Conclusions

Potential under-estimation of prevalence of hypertension, hypercholesterolemia and diabetes by HIS could influence health policy decisions and compromise efficacy of preventive programs. This underlines the importance of HES, despite costs and time consuming.

Key messages:

- HES assess health information which cannot be otherwise obtained objectively
- The consolidation of health information is a key issue to plan and evaluate health policies and preventive actions

European-level health system performance assessment to a new level

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Background

EuroHOPE (European Health Care Outcomes, Performance, and Efficiency) aims at facilitating knowledge-based health policy by making efficiency comparisons with available administrative register data. We have developed methods and indicators for international health care performance measurement and comparison with the purpose of implementing European-wide health care benchmarking. Based on the proposed approach, we describe variations between and within European countries and to explore the reasons for the performance differences between countries, regions and providers.

Methods

With register data we have as a part of BRIDGE HEALTH project updated and further developed the earlier work with acute myocardial infarction, stroke and hip fracture, and produced national, regional and hospital level indicators from Denmark, Finland, Hungary, Italy, Norway and Sweden to cover the years 2006-2014 (see <http://www.eurohope.info>). The episode-based approach has been extended to include primary health care and social services using data from capital areas of five countries.

Results

The results indicate that great national, regional and hospital level performance differences are lasting. In all included countries there appears to be much room for improving health system performance.

Conclusions

Our project indicates that performance measurement based on individual-level data with standardized data collection is feasible and can be routinely carried out. Based on our findings, future analyses should focus on extending our research on explaining the variation in utilization and outcomes from a population or provider perspective.

Message: EuroHOPE has contributed with new insights into international benchmarking by disentangling variations in performance at different levels of health systems and by developing procedures for data handling.

Indicators for structured monitoring of health system performance

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Background

Health system performance is measured against multiple objectives, such as access, equity, efficiency and quality. Enhanced data collection combined with available information to underpin the improvement of the performance of health systems is crucial to enhance returns on health investments. Even though progress was made to monitor health and the performance of health systems, methodological challenges remain to unify reporting standards of relevant indicators, and to establish coherent health system performance assessment (HSPA) frameworks for cross-country comparisons. The EuroREACH framework is a starting point in this context. Clear evidence is needed why specific health system indicators are important and which are the necessary – and

suitable – core indicators for different types of policy-use, e.g. monitoring/forecasting, benchmarking, target-setting, cross-country comparison etc.

Objective

to develop a blueprint of a platform to feature a set of headline indicators and relevant meta-information for HSPA across EU Member States.

Methods

First, we compile a list of currently available and widely accepted health system indicators derived from existing health information initiatives at EU, OECD, WHO and Member States level. Secondly, we invite an expert group to give their opinion on i) the relevance of selected indicators for health system performance, ii) to map these indicators to defined HSPA domains, and iii) request experts to decide the level of indicator hierarchy, e.g. headline, explanatory or operational. This will be done through a survey instrument. Survey results will be circulated and in a follow-up consensus meeting experts are requested to re-assess the grouping of indicators and give opinion on their level of aggregation.

Key message:

- A minimum basic set of broadly agreed robust indicators of HSPA for Europe enables consistent and reliable comparison of key indicators which are relevant and suitable for policy and decision making

5.D. Workshop: Meeting in Vienna 30 years after Ottawa: where do we plan to go from here?

Organised by: EUPHA Section on Health Promotion

Contact: saboga@ensp.unl.pt

Chairperson(s): *Christiane Stock - Denmark, Luís Saboga Nunes - Portugal*

This workshop is based upon the premise that health promotion (HP) has been one of the most significant advancements in public health. The 30th anniversary of the Ottawa Charter sets the tone for not only celebrating the successes of HP, but critically discussing the challenges in promoting greater wellbeing and quality of life. The complementary approach brought to the health field by the Ottawa declaration emphasized that curative, palliative and preventive discourses needed to work hand in hand with HP to have emphasis on societal terms. In this context, strengths, weaknesses, opportunities and threats have emerged in the path of HP. EUPHA Health Promotion Section initiated an open discussion about these four perspectives. Our vision is that the voices of those involved in the thinking and *modus faciendi* of HP today can be brought to a new light, reflecting the refined experiences of health professionals and experts. This is achieved with the first presentation of the workshop which illustrates the debate on HP, while presenting results of an international survey. Conceptual, methodological, and practical knowledge about HP will be explored further with four additional presentations. The second and third focus on a European peripheral country and the impact of HP on preventable mortality in life expectancy at birth. The intention is to shed light on the tensions, hopes and future avenues, while considering the new challenges of HP in a globalized & digital world. Thereby, we will link the current debate with contemporary public health approaches as necessary to move the field of HP forward. Consequently the fourth and fifth are dynamic examples of a grass-roots HP agenda implementation (e.g. with the increment of health literacy) moving from the same peripheral country (Portugal) to Germany. This will highlight the transnational call to deepen HP

operationalization by route of empowerment - one of HP's five principles achievable by the means of health literacy. While the workshop is primarily designed for researchers, practitioners and policy-makers interested in learning, improving and discussing HP perspectives, it also aims at audiences from the public and private sectors. Not only does this allow for discussing results that have potential to improve HP research, practice, and policy-making, but it supports further synergies, breaking down barriers between infrastructures and sectors, and allows for cross-national comparison on HP research. We aim at interactively discussing prospective developments with audiences. The workshop will use dialogue and two-way communication methods on a regular 90 minute design. This includes 5 presentations with up to 10 minutes input followed by a discussion, framed by an opening talk and a closing remark. Purposeful interaction will be ensured as audiences, researchers and organizers will have numerous opportunities to engage in vivid discussions on pressing health promotion challenges.

Key messages:

- The participants will get an overview to the state of science in health promotion concepts
- This workshop invites audiences to actively participate in and contribute to the current discussions about health promotion from the perspective of public health

Is the Ottawa Charter still relevant? A survey among health promotion practitioners and researchers

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Background

The Ottawa Charter for Health Promotion is celebrating its thirtieth anniversary this year stimulating discussion regarding the guiding principles of the Ottawa Charter and the progress of health promotion. This study explores the opinions of health promotion researchers and practitioners on the current relevance and application of health promotion principles based on the Ottawa Charter.

Methods

An invitation to survey participation was sent to members of the EUPHA Health Promotion Section. A total of 86 members (63% females) from 26 European countries plus Israel, Australia and USA responded. Demographic and professional information was collected and responses addressed the relevance, strengths and weaknesses of health promotion. Respondents rated the use of the five action areas of the Ottawa Charter in their country and open questions explored the reasons for various ratings.

Results

47% of respondents stated that health promotion is well developed in their country and 56% of participants declared the same for Europe. 76% of respondents felt that overall knowledge of health promotion has somewhat progressed, but 83% felt that health promotion is due for a deeper reflection. The percentage of use (regularly/very often) of the five action areas in one's country was rated highest for "Developing Personal Skills and Knowledge" at 62%, followed by "Developing Healthy Public Policy" at 47%, and lowest for "Reorientation of Health Services" with 26%. Health promotion was rated as a necessary field by 89% of respondents.

Conclusions

Though the majority of respondents believed health promotion is a necessary field, a similarly high amount felt that health promotion is in need of deeper reflection. Strategies to apply the five action areas in various countries may be beneficial.

Meeting in Vienna 30 years after Ottawa: QuoVadis health promotion?

Luís Saboga Nunes

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Background

The complementary approach brought by the Ottawa declaration 30 years ago, emphasized that curative, palliative and preventive discourses and practices needed to work hand in hand with Health Promotion (HP). This study explores experts and practitioners opinions on the current trends that HP faces in Portugal, a European peripheral country.

Methods

The invitation to participate in a survey followed by a focus group was sent to several health stakeholders (e.g. community intervention (Healthy Cities Network), policy making

(DGS-Health Directorate of Portugal)). A mix of qualitative and quantitative methods screened data provided by a total of 32 participants (81% females). Demographic information, experiences or professional domain, questions related to the relevance, strengths and weaknesses of HP, and open questions explored the reasons for several ratings.

Results

Only 22% of respondents stated that HP is well developed (with 6% fully agreeing). 31% of respondents (25% fully agreeing) felt that overall knowledge of HP has progressed, and the majority (80% fully agreeing) felt that health promotion needs a deeper reflection since Ottawa. Regarding the five HP action areas, the percentage of use (regularly/very often) was rated highest for "Developing Healthy Public Policy" at 28%, "Reorientation of Health Services" with a total of 25%. "Developing Personal Skills and Knowledge" with 25%, followed by "Supportive Environments" with 19% and "Community Action", 12%.

Conclusions

Strong emphasis is given to the fact that HP is not well developed and needs a deeper reflection. Strategies to apply the five action areas may be beneficial.

The impact of preventable mortality on life expectancy at birth in Portugal: changes in the last 25 years and need for health promotion complementary insight

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Background

This study was undertaken as part of GeoHealthS project aimed to evaluate Portuguese population health in the last two decades. Life expectancy at birth (LEB) offers a concise population measure which allows assessing not only the population health status of a country or region, but also its development. However, gains in terms of years of life do not solely indicate the specific actions needed to improve the population's health. Preventable mortality (PM) is a more suitable indicator to target priority interventions. PM provides some indication for the quality and performance of wider public health policies and the need for health promotion initiatives in a country.

Methods

Multiple decrement life tables were constructed to evaluate the impact of PM on the changes in life expectancy at birth. We considered the resident population and deaths occurred on Portugal mainland (1989-93; 1999-2003; 2008-2012) by cause of death, sex and age group.

Results

Over the last 25 years, PM decreased considerably in Portugal, particularly the reduction of deaths due to ischemic heart disease (-52% in men and -62% in women). In the last period (2008-2012) PM represents 11% of all deaths. Between the first and last period, LEB increased 5.7 and 5 years respectively for men and women (77.1 and 83.4 years in 2008-2012). Estimating the total elimination of PM in the last period, it is found that there would be a potential LEB gain of 1.7 years in men and 0.6 years in women.

Conclusions

Despite the relevant decrease of PM in Portugal, the burden of such causes of death in LEB is still significant. Actions and policy measures should perform interventions in health determinants that affect (positively or negatively) lifestyle and behavior by promoting environments that encourage healthy practices. Consequently, health promotion could play a more relevant role to ease the burden of these causes of death.

From Ottawa to Nairobi: adolescent's wellbeing and the health promotion trigger of health literacy

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Background

Time trends in mortality from cerebrovascular accidents in Portugal have decreased from 273 (%000) in 1976, to 72 (%000) by 2010. These results are consequences of several stakeholders' interventions such as CINDI (Countrywide Noncommunicable Disease Intervention) which were carried out in Portugal by the Fundação Professor Fernando Padua (FPFP). These health gains are at risk today (e.g. increase on smoking rates, weight gain). To face these aggravations, the FPFP launched a program to foster health promotion among adolescents by the increase of health literacy (HL). Presentation of preliminary results help define a base line for intervention.

Methods

A quantitative explanatory cross-correlated study based on a sample of 110 adolescents from the Portalegre region of Portugal was collected in a school setting, after ethical procedures were followed with CAWI and SASI methods. Measurement of adolescents' HL was implemented with the HLS-EU-PT[®] survey, the Portuguese version of the European Health Literacy Survey instrument adapted to adolescents (www.literacia-saude.info).

Results

Reliability analysis of HLS-EU-PT dimensions shows an internal consistency (Cronbach's alpha coefficient) of 0.93 (Health Care), 0.92 (Disease Prevention) and 0.95 (Health Promotion), while the global instrument presents a value of 0.94. Inadequate HL (7.5%) and problematic HL (29.3%) show that about 36% of respondents have limited HL. Participants were more likely to adopt measures to promote health if they had higher levels of HL.

Conclusions

The results enhance the reliability of the Portuguese translation and validation process of the HLS-EU survey when applied to evaluate adolescents' HL. HL seems to play a role in health promotion. Further research must investigate HL potential at this age range and how it should be developed in the school curricula.

Health literacy under the health promotion framework: a German study case

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Background

During the last 30 years the operationalization of health promotion has been an important focus for researchers and practitioners. The Nairobi declaration in 2009 navigates a step forward with the introduction of health literacy (HL). In line with this, the Health Literacy in Childhood and Adolescence Research Consortium (HLCA) is conducting evidence-based research on HL.

Main objectives of HLCA include developing and evaluating strategies for effective child health promotion and analyzing the extent to which HL drives the Ottawa Charters' action area of developing personal skills and knowledge.

Methods

The framework of HLCA is informed by health promotion and comprises nine subprojects committed to three work blocks on (1) basic research on HL including conceptual and methodological projects and (2) applied research on mental HL and (3) eHL. We apply collaborative team science and a mixed method approach combining quantitative research, e.g. questionnaires, online surveys, systematic reviews, and qualitative methods, e.g. ethnographic studies and observations, focus groups, cognitive interviews.

Results

After the first project year and critically analysing research studies on the subject, we approached ethics committees and obtained positive approvals. Currently, most projects are performing field research by applying interviews and focus groups using questionnaires (pen&paper, online survey) or implementing an HL intervention for parent-child dyads on media use.

Conclusions

From a public health perspective, HL is a multidimensional content and context specific concept. It applies to both an individual and a system level. HL is affected by social structures, health inequalities, risk factors, and effectiveness and sustainability of health promoting efforts. In the next two years, we will analyse our models and data and refine our approaches. Findings will be translated into policy and practice recommendations for child health promotion.

5.E. Workshop: Complex public health interventions to increase Health Enhancing Physical Activity (HEPA)

Organised by: Sport Union Austria, Vienna, Austria
Contact: c.lackinger@sportunion.at

Chairperson(s): Christian Lackinger - Austria

Background

A sedentary lifestyle is linked to the increasing prevalence of various non-communicable chronic diseases. While on individual level patients lose healthy life years, on governmental level health care systems have to handle with enormous direct and indirect costs. Thus the collective effort of several institutions is needed to implement effective lifestyle programmes on regional level. Within this symposium speakers from different health sectors will present and discuss their

policies, strategies, programmes, outcomes, achievements and failures.

Overview of Austrian health promotion and preventive healthcare program "selbständig gesund"

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Background

In 2011 the Federal Health Commission and the Austrian Council of Ministers requested the development of health targets at federal level, with the aim to prolong the healthy life years of all people living in Austria in the upcoming 20 years.

A lot of stakeholders – for the purpose of “health in all policies” - are involved in the development process of the ten health targets. One of the targets is called “enhance health literacy”. This target is very important to enable the population for making responsible decisions, which support their health in everyday life. Measures for enhancing health literacy have to involve the individual lifestyle, the social system and respective organisations.

The SVA prevention strategy is to inform and educate people to help them to develop their own healthy lifestyle. In 2012 a preventive healthcare program was rolled out by SVA entitled “selbständig gesund”. One goal is to strengthen the individual’s responsibility towards their health and to motivate people to kick-start a healthy lifestyle. Every SVA insured person has the opportunity to make an initial health check by his/her family doctor. Due to this measure participants have the possibility to gain more information about their current health status, health behaviour/lifestyle and to receive suitable health offers. Moreover they agree on individual health targets in the following five categories: blood pressure, weight, movement, smoking and alcohol. After six months a follow-up health examination takes place, during this meeting the doctor checks the set of targets. If the targets have been achieved, the insured person can make an application for reducing the deductibles for healthcare services in the outpatient sector from 20% to 10%. So there is also a financial incentive for SVA insured by achieving agreed goals.

Results

This program has been evaluated and represents some important results: a significant increase in health checks; successful participants: reach better health indicators regarding blood pressure, body weight, exercising, smoking and alcohol consumption; savings: €65.6 per year in deductibles, etc.

Conclusion

To sum up this program shows that especially financial incentives are useful keys to motivate people to take part in this program and to keep an eye on his/her health.

Intention and action: changing lifestyle needs specific requirements and support

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Background

Since the beginning of the human history, people face difficulties with coordinating their intentions and real actions. Especially in complex health care systems, promoting behaviour changes is not trivial. Therefore, communication skills are essential, as well as techniques to overcome barriers. Health insurance companies provide stationary stays in health resorts to promote healthy lifestyle for adult people who suffer from minor health impairments. Health resorts present a promising setting to examine behaviour change.

Methods

Discharge-management of health resorts were linked to regional sport clubs to enable long-term sustainability. Thus, after a stationary stay, patients can continue with a supervised standardised exercise programme near to their place of residence. These programmes were called the “JACKPOT-programme”.

Results

Although the accesses to regional structures that promote an active lifestyle were enabled within the cooperation between health insurance companies, health resorts and regional sport clubs, behaviour change needs further requirements to be potentially successful.

Discussion

Communication between patients and local exercise trainers promote or hinder successful changes in lifestyle. Additionally to the human components, infrastructural challenges are given.

Already little changes in established processes need time and can cause pitfalls. Consequently, behaviour changes can only be successfully delivered, if several components of a complex system interact in a standardised manner. Unfortunately some interventions fail, although the concept of the intervention promises success. Thus, these interventions do not fail because for their design, more often they are delivered inaccurate. Behaviour change interventions should not only target the individual, they also should consider (and if necessary modify) environmental factors. The cooperation between health insurance companies, health resorts and regional sports clubs showed, that complex management conditions between different sectors could be modified, so that people are accurate informed, motivated and supported to change their behaviour.

Football Fans in Training: what process evaluation told us about how the programme really worked and what that means for delivery

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Background

Sporting organisations are increasingly seen as vehicles for health promotion but what makes a club-based programme successful in engaging men and supporting behaviour change?

Methods

We conducted a randomised controlled trial and process evaluation of Football Fans in Training (FFIT), an evidence-based, gender-sensitised, weight-management and healthy-living programme delivered to groups of men by community coaches in 13 Scottish professional football clubs. The process evaluation included focus group discussion with participants about their reasons for engagement and how they maintained changes.

Results

FFIT was effective. Gender-sensitisation worked in relation to context, content and style of delivery. Men engaged in the programme because it was based in their football club; scientific information presented simply and behaviour change techniques were useful; and interaction with others in a supportive environment facilitated long-term changes including in how men saw themselves.

Discussion

Process evaluation enabled deepened understanding of how FFIT worked in context. Group-based programmes which structure learning through interaction in contexts that work with rather than against existing social identities have potential to support public health.

HEPA Steiermark project - steps in the process evaluation

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Background

In order to reach a whole population more than just a single intervention is required. The interventions of the HEPA Steiermark project include face-to-face and telephone information as well as a standardized physical activity intervention in sports clubs - named JACKPOT. The aim of this presentation is to provide evaluation strategies and results about the acceptance of the intervention and the reach of the target group.

Methods

In terms of the acceptance of the standardized physical activity intervention all JACKPOT programme participants were asked to fill in a questionnaire. Of 262 participants 70% agreed to answer the questions. With regard to the documentation how well the target group is reached a complex procedure is needed

before we know whether a person attends the JACKPOT programme or not.

Results

Participants are 54 years (SD=4), 50% are women, 80% perceive themselves as fit or fitter compared to people with the same age and gender, and have a BMI of 26 (SD=3). All participants valued the content and delivery of the JACKPOT programme very much as well as its closeness to their living environment.

Discussion

For each intervention type it is important to select the appropriate evaluation strategy. Until now we use questionnaires, telephone calls, make tables about the flow of the people, run structured interviews, and do participatory observations. These strategies are important to recognize in time when the interventions are not implemented as planned and are the basis for understanding which components of the project make it work.

A decade of experience of a sports federation that aims to become a partner for health insurance companies in Austria

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Background

Currently the Austrian population reaches more than 8 million people; approximately 10% of the population are inscribed in a regional sports clubs. There are more than 12.000 clubs that cover both – elite sports and leisure sports activities. In 2006, the Austrian ministry of sports aimed to establish regional sports clubs as a partner in the health sector. In this contribution the efforts of a national sports umbrella organisation in becoming a partner in the health system are described.

History

In 2006, the federal ministry of sports encouraged capacity building in several sports organisations and established 30 full time employees that should empower regional sports clubs to provide health enhancing physical activity classes. Within the leisure sport federations, most resources were used to promote already existing types of fitness classes like yoga, pilates, nordic walking, aerobic, zumba, or different muscle strengthening work outs. The Austrian certificate “Fit für Österreich” which

was similar to the German quality seal called “Sport pro Gesundheit” was introduced.

New standardised exercise programmes that were delivered from sports clubs were started in 2007. These programmes were designed in accordance with national and international guidelines and recommendations. After the evidence based description, the feasibility of these programmes was tested as well as health related outcomes were evaluated in scientific studies.

Achievements

Since 2006, more than 8,000 fitness programmes were certified with the Austrian quality sign. Most of them were already existing regional programmes. There was one project in cooperation with a health insurance company from 2011 to 2013 that aimed to promote these programmes through general practitioners. Due to the fail in enrolling an acceptable number of participants the health insurance company stopped these activities.

In 2007, the implementation of new standardised programmes was started with a programme for patients suffering from obesity or type 2 diabetes mellitus. As a result cooperation with a national wide health care insurance company was launched in 2012. In 2015, a cooperation covering 5 health insurance companies and 3 sports federations was started, the so called “JACKPOT” programme, which will be also presented in this symposium.

Expect the standardised exercise programmes, most sport club based programmes did not become an accepted partner in the health system in Austria so far.

Discussion

It was controversy discussed in the sports federation, which was the right way to become a partner in the health sector, in the last decade. The “evidence based way” of standardised programmes was always criticised within the organisation. They lacked from internal support within the organisation and were not well accepted from a large number of clubs. Projects and studies in this field of activities were only accepted, if they were financed through funds that were not used for traditional sports-funding. Although standardised programmes are attractive for the health sector, they are more difficult to be provided from sports clubs compared to fitness classes.

Currently, there is consensus within the sports federation, that both types of programmes are needed. However, adequate resources can only be provided for common fitness classes.

5.F. Skills building seminar: Comprehensive strategies to tackle diabetes and chronic diseases: The Joint Action CHRODIS

Organised by: JA-CHRODIS consortium and EUPHA section on Chronic diseases

Contact: marina.maggini@iss.it

Chairperson(s): Jelka Zaletel - Slovenia, Iveta Nagyova - Slovakia

Diabetes is a common and serious disease associated with a high individual, social and economic burden. In 2015 there were 415 million adults (aged 20-79 years) with diabetes worldwide, according to the most recent estimates of the International Diabetes Federation. This represents about 9% of the population of this age group. If left unchecked, some 642 million people are expected to have diabetes by 2040. In the European Union, the frequency of diabetes vary from around 4.0 to 4.5% in Lithuania, Estonia and Ireland to just under 10% in Cyprus, Malta and Portugal.

The launch, in 2014, of the European Joint Action on Chronic Diseases and Promoting Healthy Ageing across the Life Cycle (JA-CHRODIS) is a response to the European Commission's encouragement to join forces towards prevention and care of major chronic diseases. Diabetes was selected as a case study to strengthen health care for people with chronic diseases.

A mapping of national diabetes plans (NDPs) in Europe was undertaken as part of JA-CHRODIS, and formed the basis for a policy brief aimed at the identification of factors that can facilitate development, implementation, and sustainability of national diabetes plans. The policy brief identified a range of factors that appear to facilitate the development, implementation and sustainability of national diabetes plans. These include national (or regional) leadership, multiple stakeholder involvement, patient representation in plan development and implementation, and dedicated resources. The identified key

challenges include the need for countries to move towards a more comprehensive, inter-sectoral approach, to put in place effective mechanisms for research and the implementation, monitoring and evaluation of NDPs.

Moreover, a Strengths-Weaknesses-Threats-Opportunities (SWOT) analysis was conducted across Europe, to give a qualitative overview of the current policies and programs on diabetes prevention and care.

The aim of this workshop is to share with the audience, in a participatory way, the main messages from the policy brief on NDPs and from the SWOT analysis. The lessons learnt from these experiences may support countries' efforts to build a successful and comprehensive strategy for the prevention and care of diabetes and, more broadly, chronic diseases.

The workshop will include two short presentations of the principal results of the mapping of NDPs, and of the SWOT analysis (approximately 30 minutes for presentations and discussion), followed by a seminar (approximately 60 minutes) around the theme: What lessons are there for the prevention and control of chronic disease in Europe? The seminar will be led for participants in pairs or in small groups (depending on the number of participants) aiming to create an inspired meeting and to kindle energies to establish a marketplace of inquiries and reflections.

The seminar will be led by Milivoj Piletic, National Institute of Public Health, Ljubljana, Slovenia, mpmilpil2@gmail.com.

Key messages:

- Although countries in Europe have made progress towards developing a systematic policy response to diabetes burden, overall investment in and implementation of comprehensive strategies has varied
- A better understanding of the key enablers and barriers is of utmost importance to support countries' efforts to build a successful response to diabetes, and chronic diseases at the national level

National diabetes plans in Europe

Jelka Zaletel

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Many countries in Europe have introduced national plans addressing diabetes specifically (national diabetes plans, NDPs)

or as part of broader non-communicable disease (NCD) strategies. Data on national diabetes plans in 22 European countries was collected as part of JA-CHRODIS. National diabetes plans typically take a broad approach, capturing prevention and treatment and seeking to place the patient at the centre. Most of the NDPs focused on diabetes broadly, covering type 1 and 2 diabetes, along with gestational diabetes. Most countries with a dedicated NDP in place target the whole population. NDPs typically include prevention, early diagnosis, routine care and services, and patient education in all countries although respondents in some countries noted that specific aspects might be covered under other national-level plans or strategies.

Making diabetes or NCDs more broadly a political priority was critical to the development and implementation of NDPs, and learning from experience through monitoring and evaluation as well as transnational learning was found to help inform NDP development and implementation.

SWOT analysis of policies and programs on prevention and management of diabetes across Europe

Angela Giusti

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SWOT analysis is a strategic planning tool used to analyse a policy, program, project or intervention. The aim, in the frame of JA-CHRODIS was to offer insights on what makes a policy/program applicable, sustainable, and effective from a public health and from the stakeholders' perspectives. A total of 53 stakeholders in 12 countries contributed to the analysis of 39 policies/programs. In order to be a success, a policy or a program need to be built on a bottom up approach and the process should be flexible and dynamic, being adapted on a regular basis, with the constant input and feedback by the stakeholders and involved organizations. An intersectoral approach, enhances the networking and the concerted action, supports shared commitment and ownership, reducing the solo-thinking that is distinctive of the mono-sectoral approach. A binding transectoral approach (e.g. transport, urban planning, agriculture, marketing and trade) is however necessary to battle the underlying risk factors of poverty, lack of education and unhealthy environmental conditions.

5.G. Workshop: Health for All: Health policy making for refugees and other migrants: context, capacity, competences

Organised by: EUPHA section on Migrant and ethnic minority health, EUPHA section on Public mental Health and EUPHA section on Public health practice and policy
Contact: m.bekker@fm.ru.nl

Chairperson(s): Allan Krasnik - Denmark, Marleen Bekkers - The Netherlands

Objectives

Increase the capacity and knowledge of delegates around the latest scientific research, relevant policies or innovative programmes to implement and advocate for better public health and health systems in their countries

What shapes policies on the health of refugees and other migrants? This workshop brings together findings from the Migrant Integration Policy Index (MIPEX) study and practice

experience in two countries, Norway and the Netherlands, investigating the relations between refugee and migrant health policies, other migration related policies and wider socio-political trends; experiences and recommendations regarding policy development involving the identification and inclusion of health needs of vulnerable groups will be presented. The aim is to increase understanding and management of enabling and constraining factors for exerting policy influence within the public health academic, professional or policymaker range of influence as well as the wider and less controllable context. It might be of vital importance that more policy analysts, political scientists and policymakers get involved. The workshop evolves towards formulating an agenda for research and action at the level of public health services and policymakers at municipal, national and European levels.

Key messages:

- Health policy for migrants are shaped by societal and political factors rather than health needs
- Appropriate healthcare for migrants require broad support for development of national policies

Access to health service for migrants: what are the policy challenges? Lessons from the MIPEX study

David Ingleby

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The MIPEX Health strand study is a collaborative project carried out from 2013-2016 by three partner organisations: the International Organization for Migration (EQUI-HEALTH project), COST Action IS1103 ADAPT (Adapting European Health Services to Diversity), and the Migrant Policy Group, publishers of the Migrant Integration Policy Index (MIPEX). MIPEX measures seven 'strands' of a country's integration policy, such as access to the labour market, education, etc. The aim of the project was to add an eighth strand on Health. Many studies of migrant health policy have been carried out, but all make different selections of countries, policy issues and categories of migrant. Because of this, it is difficult to make systematic comparisons and carry out quantitative analyses. To overcome this problem, a questionnaire measuring 38 indicators of policy concerning migrant health was constructed on the basis of the Council of Europe's 2011 Recommendations on mobility, migration and access to healthcare.

Analyses of the structure of the MIPEX Health strand showed a high degree of homogeneity (Cronbach's alpha = .86), but three factors could be distinguished within it: (1) legal entitlements to health care coverage, (2) other factors affecting access, and (3) a factor which combined the responsiveness of services to diversity and the measures taken to achieve change. Results from the MIPEX Health strand are still being analysed. There are large differences between the legal entitlements of different categories of migrants. The percentage of migrants in a country is related to GDP per capita, and both are correlated with MIPEX Health strand scores. The 13 countries which joined the EU after 2000 are much less wealthy than the EU15, but their scores are even lower than would be expected purely on the basis of wealth. Tax-based systems did not appear to be more inclusive than insurance-based ones, but they seem to make more effort to adapt services to diversity.

Influencing strategies and trends on health policy for refugees and other migrants in Norway

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Migration to Norway from Non-European countries is a relatively new phenomenon dating back 40 years. Migrants to Norway have increased from 1% in 1970 to over 15% in 2015, numbers doubled in the last decade. While rapidly increasing migration could result in opportunities such as improved demography, increased labor and innovation it could challenge the welfare state universalism and its resilience.

In Norway, health policies are explicit about equity in terms of availability, utilization and results. In The White paper - Report to the Parliament nr.17 (1996-97) 'on immigration and the multicultural Norway', the Government stated that 'a multicultural society means that services must be adapted in order to provide equitable health care to a more diverse user group' and that there is a need for adapting services and public health to immigrant groups. In 2013, the Norwegian Immigrant Health Strategy was launched and in 2015 Norway ranked fourth in the MIPEX score.

Research should inform evidence-based policy, but this is not always the case for migrant health. Migrant health policies are often fragmented and concentrate on particular areas such as female genital circumcision or on groups, such as asylum seekers or undocumented migrants.

This presentation will examine

- If the research generated on the public health challenges of immigrants in Norway has translated into concrete actions in the national health policies, strategies and plans. Margaret Whitehead's framework (1998) of the action spectrum on inequalities of health will be used to illustrate this point.
- To what extent the use of law and policy has been enabling for achieving progress in the field of migrant health in Norway.
- If and how the health care system in Norway has adapted to the challenges and whether the recommendations from researchers and stakeholders in particular users have influenced these actions
- If rights and entitlements to health care guarantee access to quality care.

National strategies and trends for refugee and migrant health in the Netherlands

Simone Goosen

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This presentation will address the main experiences and challenges with respect to (public) health policies and practice for asylum seekers and refugees in the Netherlands. Asylum seekers in the Netherlands are housed in asylum seekers centres. The costs for all services, including health care, are covered by the Ministry of Justice. Public health services for refugees with a residence permit, though, are the responsibility of the municipality and at national level the Ministry of Health.

In 2015 the number of asylum requests increased rapidly in 2015. This increase in combination with societal and political developments and a major process of decentralisation in the social domain resulted in interesting challenges and opportunities. How did and do these changes affect health care policies and practice at the national and local levels? What roles did the different stakeholders play? What was the influence of scientific studies? How does this relate to general migrant and undocumented migrant health policies? What are the remaining challenges?

Dr. Simone Goosen will briefly present the organisation of the health system for asylum seekers and refugees in the Netherlands and address abovementioned questions. Dr. Goosen has been involved in research on the health of asylum seekers and refugees as well as in public health policy development and implementation as from 2001.

Development of policies to address health needs of migrants- how do we identify vulnerable groups

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This talk will address the identification of vulnerable refugee and asylum seeker groups in relation to their health related needs, and how these needs should be addressed. The European Council Directive 2003/9/EC from 2003 laying down minimum standards for the reception of refugees and asylum seekers, addresses the protection of migrants with special needs. Member States should "take into account the specific situation of vulnerable persons such as minors, unaccompanied minors, disabled people, pregnant women, single persons with minor children and persons who have been subjected to torture, rape or other serious forms of

psychological, physical or sexual violence” by implementing the healthcare needed. The International Rehabilitation Council for Torture Victims has published a position paper based on a comparative study in 10 EU countries demonstrating that torture survivors are more difficult to identify than other vulnerable refugee and asylum seeker groups. It appears necessary to prescribe in more depth and detail the ways in which the special needs of the most vulnerable groups can be identified and addressed in all stages of the asylum process. This talk therefore aims 1) to review minimum criteria for health care of vulnerable refugee groups, especially for torture

survivors; 2) propose standards for identification of vulnerable refugee groups across Europe and 3) to set a benchmark for good practice in dealing with these groups. Standards are required for regulating what constitutes adequate medical and psychological assistance and counselling and a proper identification and response to the needs of vulnerable groups among refugees and asylum-seekers; and for the development of appropriate techniques to identify the groups and their specific health needs in order to offer proper health care, based on cultural, age and gender awareness and inter-cultural skills and use of specialized staff.

5.H. Workshop: Making mothers and children count: health information, health and quality of life

Organised by: Bridge-Health and Dublin City University, Dublin, Ireland

Contact: anthony.staines@dcu.ie

Chairperson(s): Anthony Staines - Ireland

One of the stranger things about Europe is that many countries, and certainly many EU member states, have better, more accessible, and more reliable data on young cattle, than children and young people (CYP). Given the demographic challenges facing Europe, and a sluggish economy, supporting parents, pregnant women, and children across Europe to achieve the best possible outcomes in their lives should be a high priority for the EU, and member state governments.

One problem is that they can be hard to pick out in routine data. To take two examples, few states present data on children in the age groups most relevant to child development; many states report most census data mainly from the perspective of the adults in the household, making simple questions about the experiences of children hard to answer.

A second problem is that data on mothers and CYP among the most marginalised groups, for example, Roma, migrants, people in insecure accommodation or homelessness, and refugees, is often inaccessible or non-existent. These are the groups with the worst average outcomes.

Healthy Ageing is one of the Commission’s stated priorities, both for research, and implementation, driven by concerns over the perceived difficulty of meeting the needs of the larger elderly populations expected in Europe in the future. However, it has been known for more than 20 years that health in adult life is strongly affected by the health of the mother prior to and during pregnancy, (and indeed the grandmother), as well as by health in early life.

Much is also known about such issues as the impact of educational achievement, identity formation, separation from parents, positive engagements with authority figures, relationship formation, and success in seeking and finding employment and housing, on later life social, economic and health outcomes. All of these are hard to monitor in ways that are timely, and usable for policy, and service delivery. In particular many states provide some data at national level, but little or no data at local level, where many of the most critical policy and implementation decisions affecting the lives of CYP are taken. Our group are part of Bridge-Health (<http://www.bridge-health.eu/>), a DG-SANTÉ funded project which aims to prepare the transition towards a sustainable and integrated EU health information system for both public health and research purposes. After consultation, our scope is women, before and during pregnancy, babies, children, adolescents, and young people up to age 24. This is an age at which transition to economic independence should be well under way. Our role is

to examine information on the health of mothers, and CYP, and to study the uses, and users, of this information, and ways to bridge the gaps we identify.

This workshop will explore both the overall strategic questions, what information is needed, for whom, about whom, and where, and illustrate state-of-the-art work on filling the gaps, and making data accessible.

Key messages:

- There are useful and valuable data on mothers, and CYP available. Work is needed to make them comparable, accessible, comprehensible, and usable by policy makers, managers, and front-line staff
- Data must be timely, relevant, and available for the right geography, which is often local authority level, and come with enough context to be reliably used. This is feasible, and can be sustainable

Invisibility: The Health Information gaps affecting women, children and adolescents in Europe

Frederik Frøen

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Background/Objective

The BRIDGE-Health project is developing a conceptual framework for sustainable monitoring of health and health care systems in Europe. Women’s, children’s and adolescents’ health must be considered and incorporated throughout. Simultaneously, European countries have committed to monitoring progress toward the Sustainable Development Goals (SDGs). An assessment of the availability of and gaps in European level information about the health and quality of life of women, children and adolescents is needed to support these tasks

Methods

Health information sources available at the European level, including Eurostat, WHO-EURO, ECDC, and OECD, and projects involved in BRIDGE-Health, such as EURO-Peristat, CHICOS and RICHE, were assessed. Other health domains within the BRIDGE-Health project were evaluated for availability of relevant information: health examination surveys; environmental data; population based disease registries; injury surveillance; administrative health care data. Data were 1)

considered against indicators for the SDGs related to health and wellbeing and 2) mapped to an expanded monitoring and evaluation framework including: Health determinants of health; Non-health determinants of health; Health system design and content; Policies (both health and non-health); Outputs (i.e., access); and Outcomes (i.e., coverage); and Health status. We also attempted to identify inequities in data availability across countries and subpopulations as well as sustainability in data collection.

Conclusions

The results show significant gaps and inequities in ready availability of information to support health care decision making at European level and globally related to women, children and adolescents. In general, indicators around child-birth and newborn health are more available than preventive indicators, community-based indicators or those requiring longitudinal information.

Linking health and administrative data for maternal, child and young adult health

Anita Burgun

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Background

Medical administrative data repositories, e.g., administrative claims databases, contain information regarding diverse aspects of population health. At the national level, record linkage and data integration are needed to provide comprehensive views of health information from pregnancy to childhood and then adulthood. Platforms to access health data for research have been implemented in only few countries, other new national initiatives promote the development of such platforms. At the European level, a Research Infrastructure (RI) for this type of data sharing would facilitate large-scale analyses and European-level public health projects.

Objective

We propose to realise a Public Health Research Infrastructure for Sharing of health and Medical administrative data (PHRIMA) that will enable and facilitate the efficient and secure sharing of data.

Methods

Aspects of data sensitivity, data heterogeneity, legal and ethical issues of data sharing, data quality and semantic interoperability as well as data security need to be considered. PHRIMA will strive to harmonize data through metadata definitions and semantic interoperability measures. It will propose technical solutions for data sharing, building on national solutions and the work of other European projects. It will support collaborative research in record linkage and data anonymization.

Conclusions

The authors propose a RI of interoperable data nodes that implement global data security solutions and provide services

to research communities, building on the experience of other ESRIs [1], such as ELIXIR. The RI could combine a distributed network (where the data stays with the data providers and only access for analysis is provided) and a centralized platform (where access rights are granted through a central node). PHRIMA will require a joint effort of the epidemiological and medical informatics research community in Europe to solve technical issues and to propose durable and efficient solutions.

The availability of individual-level data on child health in European birth cohorts

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Background

Many pregnancy and birth cohorts in Europe are studying mothers, fathers and children at repeated time points and over long time periods. They are gathering important, policy relevant, individual-level information on childhood diseases and their determinants and are contributing increasingly to Europe-wide research and results. To fully exploit the available resources and to support cross-cohort collaboration, it is necessary to have accessible information on each cohort.

Methods

The CHICOS project inventorised data from 70 pregnancy and birth cohorts in 19 European countries through a comprehensive inventory of birth cohorts (www.birthcohorts.net), by a review of existing data on child health outcomes and risk factors, and by an assessment the contribution of cohorts to policy. Case studies on topics of policy interest such as social class, alcohol consumption during pregnancy, and obesity, were done to study data harmonisation and pooling.

Results

In total, over 50 cohorts were identified, encompassing more than 500,000 live-born European children in 19 European countries. Most cohorts are in Northern or Western Europe. In the oldest cohorts, participants have reached adulthood, whereas the youngest have just started enrolment of pregnant women. Most have collected information on lifestyle exposures during pregnancy and post-natally. Information on a wide range of pregnancy outcomes and child health was collected by all cohorts. The case studies carried out by CHICOS show that data from many birth cohorts can be successfully combined to give larger analysis populations and thus more conclusive findings than those based on single cohorts.

Conclusions

Ongoing birth cohort research in Europe, with over 500,000 mother-child pairs can lead to science of great relevance to European child health policy making. However, there is a lack of data from minority groups, southern and eastern European countries, and older children and adolescents.

Going beyond mortality: evaluating maternal and neonatal morbidity using routine data in Europe

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Background

As maternal and neonatal deaths become increasingly rare events - around 1 and 20 per 10,000 live births for maternal and neonatal mortality, respectively - indicators of morbidity are needed to evaluate maternal and newborn health and assess health service performance.

Objective

To describe the feasibility of producing valid and comparable indicators of severe maternal and neonatal morbidity using existing routine data systems in Europe.

Methods

Two studies are on-going to validate Euro-Peristat indicators of severe acute maternal morbidity (SAMM): including eclampsia, ICU admission, hysterectomy, arterial embolization and transfusion defined by hospital discharge diagnoses and procedures and neonatal morbidity: Apgar score at 5 minutes less than 4 and less than 7.

Results

Hospital discharge data including ICD codes and procedure codes needed for the SAMM indicator exist in almost all EU countries and birth registers, quality improvement databases or vital statistics include the Apgar score in many countries (provided in 20 out of 29 European countries in 2010). However, for maternal morbidity, preliminary results suggest that there are substantial differences in the validity of coding for the components of the SAMM indicator and only a few countries link records across hospitals to report on ICU admissions. For Apgar, there is wide variation in the distribution of scores suggesting that Apgar is not assigned in the same way across countries. Whether these differences affect the identification of the highest risk infants and whether post-hoc harmonization is possible needs to be assessed further.

Conclusions

While data are collected in routine sources to compute the Euro-Peristat indicators of maternal and newborn morbidity, further harmonisation work is needed before these data can be used for surveillance and evaluation in a European health information system.

Information on the health and well-being of children and young people: the needs of practitioners across Europe

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Background

Children and young people (CYP) (from conception to the age of 24) are often invisible in routine data systems. Information is key for healthy public policy and service management. It is important for Member States (MS), policy makers, professionals, citizens and CYP to have good usable relevant and accessible data, at the right geographical level and a relevant context e.g. comparable data from other MS.

Objective

Identify the extent and value of possible sources of information on the health and well-being of CYP across Europe; identify the needs of health professionals to make more effective use of data.

Methods

An online questionnaire was disseminated across Europe, aimed at health professionals who work on the health and well-being of CYP.

Results

There were 297 replies from 43 countries. Most were researchers (44%), clinicians (22%), epidemiologists (9%) or health policy advisors (7%). 57% of countries have a specific children and young people's health and well-being database, of which, 67% of which held national level data, and only 9.6% held local data. The commonest type of routine data used was on vaccines/immunisation (31.3%), followed by education enrolment (11.5%) and birth/death records (10.7%). 89% of respondents use research studies as a source of information, whilst 60.5% usually access this information via the internet/web. 10.3% report not having 'easy' access to data in their day-to-day work, and give reasons including no up-to date data, lack of information governance structures, incomplete data and subscription/fee barriers to access.

Conclusions

Most issues affecting the health and well-being of CYP are local. However, there is little access to local information, so policy making is seldom driven by local data. More sharing of information within and between MSs is key, and governance of access to this data needs to be resolved. In addition, information structures need to be more sustainable in order to compare data across Europe.

5.I. Workshop: Extending working lives: socio-economic and health inequalities in transitions to retirement

Organised by: Ewan Carr

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Chairperson(s): Ewan Carr - United Kingdom

Population ageing has made extended working life a policy priority across Europe. Faced with growing old-age dependency ratios, many governments are seeking to increase retirement ages. Understanding the determinants of early labour market exit is therefore of critical importance. Such trends raise important questions about the determinants of extended labour market engagement, as well as the subsequent impacts, in terms of health and well-being. For some, extended working may represent a positive choice, motivated by high work engagement, job satisfaction and a supportive work environment. Others may have to continue working due to a lack of financial resources or pension ineligibility.

This workshop highlights health and work as key determinants of labour market participation beyond age 50. All five papers address relationships between health status, work

characteristics, and transitions out of paid employment. They further emphasise how the timing and type of labour market exits (e.g. disability vs. old age pension) are related to socio-economic position. The papers by Head et al. and Clark et al. consider the influence of mental health upon work status at older ages. Head et al. find poor mental health in mid-life to be predictive of earlier exit from paid employment, while Clark et al. show psychological ill-health across the life course to be associated with not being in paid work at age 55. Carr et al. and Virtanen et al. highlight occupational inequalities in the likelihood of working beyond pensionable age, and of leaving work due to ill health or disability. The results by Carr et al. show low education and low occupational grade to be predictive of health-related exit from work. Virtanen et al. find that manual workers also tend to exit work earlier than those in higher occupational grades, with work and health characteristics explaining some of these differences. Finally, Stenholm et al. show how work and health characteristics influence changes in physical activity over the retirement transition.

The workshop explores these issues from a cross-national perspective, investigating how the challenges of an ageing population play out in contrasting societal contexts. The papers draw together longitudinal evidence from eight studies in three European countries. These studies differ in design and context, yet highlight remarkable consistency in the inter-relationships between work and health at older ages. This workshop, therefore, provides an opportunity to synthesise and discuss recent evidence on extended working across Europe.

The workshop will consist of 5 talks of 15 minutes each (including time for questions). There will be 15 minutes at the end for general discussion with a panel of speakers.

Key messages:

- To present evidence on the inter-relationships between health status, work characteristics and labour market participation beyond age 50
- To provide a forum to discuss these issues, and the available policy responses, from a cross-national perspective

The impact of childhood psychological health on labour force participation in later life

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Background

The Extending Working Lives agenda brings focus onto lifecourse predictors of economic activity. By their mid-fifties, many individuals have already exited the workplace, placing expectations on those remaining in the workplace to extend their working lives. Studies have examined the associations of adulthood psychological ill-health with sickness absence and disability pensions but little consideration has been given to other types of labour force participation or to the role of childhood psychological ill-health in these associations. This paper examines associations of childhood and adulthood psychological health with labour force participation at 55 years.

Methods

Data were from the 1958 British Birth cohort, a 55-year study of 98% of births in one week. Labour force participation was self-reported at 55 years as full-time employed, part-time employed, unemployed, permanently sick, retired, and other (including homemakers). Teacher reported internalizing and externalizing problems at 7, 11 and 16 years, along with psychological distress assessed using the Malaise Inventory at 23, 33, 42 and 50 years were examined, taking socioeconomic status into account.

Results

After adjustment, childhood internalizing and externalizing problems were associated with elevated odds of being permanently sick at 55 years: internalizing problems were also associated with elevated odds of being unemployed at 55 years. These childhood associations were attenuated but not explained by adjustment for adulthood psychological health. Adulthood psychological ill-health at all ages was associated with elevated odds of being unemployed, permanently sick, or having other labour force participation at 55 years. Associations did not differ by gender.

Conclusions

Childhood psychological ill-health may be an important independent distal influence on labour force participation. Mediation by education, partnership and family status, and work history in adulthood will be explored.

Mid-life psychosocial working conditions and mental health as predictors of transitions out of paid employment: a 20-year follow-up of the Whitehall II study

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Background

In response to population ageing, many governments are seeking to raise retirement ages. We investigated associations of cumulative mid-life working conditions and mental health with transitions out of paid employment.

Methods

Participants were 7587 men and women with work measures on at least 2 out of 3 occasions from phases 1 to 3 of the Whitehall II study (mean age 50). Transitions out of paid employment from ages 40 to 75 were related to mental health and to mid-life cumulative working conditions, defined as the number of times (0,1, 2-3) a person experienced adverse working conditions.

Results

After adjustment for socio-demographic factors, increased likelihood of exiting paid employment between ages 40 and 75 was associated with poor mental health (OR 1.35; 95% CI 1.23-1.48), low decision latitude (OR 1.33; 1.21-1.47) and low social support at work (OR 1.13; 1.04-1.22). For low decision latitude, the association was stronger for transition out of work between ages 40 and 55 (OR 1.60) but also found in older age groups (ORs 1.30 to 1.44). Similarly, poor mental health was related to higher odds of transition out of paid work at all ages but showed a stronger association in people under the age of 60 (OR 1.60). Working conditions did not modify the influence of poor mental health on transition out of work in either younger or older workers.

Conclusions

Poor mental health and low decision latitude predict early exit from employment between ages 45 and 70. Our findings suggest that both work environment and promotion of good mental health are key factors that may contribute to extending working life.

Key messages:

- Poor mental health and low decision latitude are associated with exit from paid work
- These associations are independent of one another, thus policies to extend working lives should consider both

Occupational and educational inequalities in health-related exits from employment at older ages: evidence from 6 prospective cohorts

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Background

Past studies have identified socio-economic differences in the timing and type of labour market exit at older ages. However, few studies have compared these trends cross-nationally. Policy responses to population ageing will be shaped by the societal context in which it occurs. This paper compares the labour market trajectories of older workers (50+) in five countries.

We examine differences by education and occupation in the likelihood of exiting work due to poor health or disability.

Methods

Longitudinal data were drawn from the British Household Panel Survey (N = 2,812), the English Longitudinal Study of Ageing (N = 5,729), the Finnish Public Sector Study (N = 73,670), the French GAZEL occupational cohort (N = 19,702), the Health and Retirement Study (N = 2,430), the National Survey of Health and Development, and the Whitehall II study (N = 7,913). The sample included employees who were in work between ages 45-55. Age at labour market exit was derived based on the reduction in working hours over follow-up (from >0 to 0). Health-related retirement was defined as exit from work with disability pension or for reasons of poor health. Cox regression models were estimated for each study, adjusted for self-rated health and birth cohort.

Results

In all studies, low education and low occupational grade were independently associated with increased likelihood of exit from work due to poor health or disability (HR = 1.58 to 3.81). After adjustment for self-rated health, these associations were fully attenuated in two studies, and partially attenuated in the others. For men but not women, low education and occupational grade were also associated with increased likelihood of exit from work into unemployment (HR = 1.66 to 3.38).

Conclusions

There were substantial occupational and educational inequalities in the opportunities for employment at older ages, and the subsequent health outcomes. Policy interventions to extend working life should avoid exacerbating these differences.

Why do people with high occupational class extend their work career beyond the pensionable age?

Findings from the Finnish Public Sector study

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Background

Although high occupational class is associated with lower work disability, little is known about the reasons to extend employment beyond mandatory retirement. We examined the contribution of work-related and individual factors to occupational class differences in the length of work career among non-disabled employees.

Methods

This prospective study included a total of 7897 Finnish public sector employees who were not on work disability pension and reached their old-age pensionable date between 2005-2011 (mean pensionable age 63 years, 77% women). Their most recent occupational well-being and health survey responses were linked to national health and pension registers. Occupational class was classified as: managers and special experts; experts; office and customer service staff; service, sales and lower grade nursing staff; skilled manual workers; and semi-skilled and unskilled manual workers. Outcome was voluntary extension of employment by more than 6 months.

Results

Compared with semi-skilled and unskilled manual workers, skilled manual workers and service and lower grade nursing staff had a similar probability of extending their work career while office and customer staff had a 1.96-fold (95% CI 1.54-2.49), experts had a 1.68-fold (95% CI 1.36-2.08) and managers and special experts had 2.01-fold (95% CI 1.64-2.45) probability of extending their work career more than 6 months beyond the pensionable date. The association was particularly strong among men. Work-related factors explained 12.5%, 5.9%, and 16.8% of these differences, health-related factors explained 27.1%, 23.5%, and 42.6%, and together these factors explained 27.1%, 23.5% and 42.6% of these differences.

Conclusions

Higher occupational class is associated with approximately a 2-fold higher probability of extended employment beyond the mandatory pensionable age, particularly among men. Health-related and work related factors explain about a third of these socioeconomic differences.

5.K. Workshop: How can institutional preparedness for public health emergencies contribute to 'health for all'?

Organised by: EUPHA section on Infectious diseases control, ECDC and EUPHA section on Public health economics

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Chairperson(s): Aura Timen - The Netherlands, Karl Ekdahl - ECDC

Strengthening health institutions' capacity for preparedness is vital for emergency risk response. Ideally preparedness aims to build the infrastructure for anticipation, early recognition, mitigation, and response to outbreaks and threats. And, last but not least, recovery from an outbreak and implementation of sustainable lessons learned to be able to face the next crisis. Institutional preparedness (i.e. preparedness of healthcare organization) is not a "stand alone" activity, but needs to be seen in the overall context of a health system's preparedness. The legacy of recent crises such as SARS, H1N1 pandemic or Ebola and the current experiences with Zika show that preparedness is not optimal and that there is a large variability that needs to be addressed. There are considerable gaps in

preparedness for public health emergencies, as well as in preparedness training and incorporation of preparedness in institutional activities. Furthermore, preparedness has often been an activity rather confined exclusively to a single healthcare facility, while a public health emergency requires strategies and effective coordination of resources allocation and expertise across all local response agencies.

This workshop aims to present the state-of-the-art with respect to institutional preparedness, (economic impact) assessment tools and frameworks and discuss current open issues. We bring together scientists and experts from various countries and with various backgrounds of expertise in order to identify priorities for strengthening institutional preparedness. Five speakers will present their point of view with regard to priorities to strengthen preparedness and will engage in a discussion with the audience (moderated by the chairs), to deepen the understanding of the elements that need to be addressed with the highest level of urgency and to which EUPHA and ECDC can be of added value.

Key messages:

- Institutional preparedness requires optimal allocation of resources within a multidisciplinary approach including both frontline health institutions and institutions outside the health sector
- Efforts must be directed to understand the role of the private sector and of NGOs and to align their activities with those of public entities while preparing for crises

From SARS to H1N1 to Ebola and beyond: learning from experience with institutional responses to public health emergencies**Michael Stoto***M Stoto*

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One challenge to improving institutional preparedness is that health emergencies seem like one-off events; unique epidemiologic characteristics and circumstances require ad hoc responses. As a result, lessons learned from one event do not seem to apply to the next. To overcome this challenge, global, national, and subnational institutions charged with protecting the public must develop and employ rigorous research tools for root cause analysis to learn from actual events. A logic model including capabilities and capacities defined at a high enough level so that experience can be translated to prepare for the unknown in other settings is also needed. Building on these tools, public health institutions can develop preparedness competencies for staff training.

Analysis of health emergencies including H1N1 and Ebola has identified 3 primary capabilities: (1) assessment, including incident recognition, risk characterization, epidemiological investigation, surveillance and epidemiological monitoring, laboratory analysis, and environmental monitoring; (2) policy development and implementation, including for infection control and treatment guidance, for population-based disease control, and enforcing laws and regulations; and (3) healthcare services, including preventive services, medical surge, management of medical countermeasures and supplies, and care for healthcare workers and emergency responders. Equally important are 2 capabilities describing social capital – institutions' ability to (4) coordinate the efforts of public and private entities to manage crises, including communication with healthcare providers; with emergency management, public safety, and other sectors; and with public health agencies at the global, European, national, and subnational levels; and (5) to conduct emergency risk communication including identifying of public information needs and developing message content and delivering through appropriate channels.

ECDC support for strengthening capacity for preparedness in the Member States**Karl Ekdahl***K Ekdahl*

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European Centre for Disease Prevention and Control (ECDC) is the EU agency with role in identifying, assessing and communicating threats from infectious disease to human health. ECDC has several approaches towards providing support in the area of preparedness to crises such as the influenza pandemic, Ebola, and ongoing Zika. They include various activities driven by countries' needs including peer review country visits related to preparedness, concrete support through training courses and simulation exercises, as well as providing evidence in preparedness.

Examples will be presented around the peer review country visits on Ebola preparedness where ECDC staff and preparedness experts visited several countries. Opportunities for

collaboration with visiting colleagues from other MS were identified.

Another example includes the design and organization of a training course and a simulation exercise on mosquito-borne outbreak for a group of 31 countries – EU MS, enlargement and ENP countries, carried out while preparedness for Zika infection was still ongoing.

Finally ECDC developed a logic model on the preparedness of a health system, on the basis of which assessment can be done. Competencies for staff will be developed and competency-based training curricula will be developed so that we ensure a professionally trained group of experts working in preparedness in Europe.

Two elements are key when providing support to countries: be country-driven and be transparent. It is important to identify key institutions with role in preparedness and especially the frontline one – emergency rooms at hospitals or primary healthcare, as these are the ones firstly affected in case of emergencies and quite frequently are not included in preparedness efforts. In case of emergencies it is also often the case that institutions outside the health system are either on lead or involved, so inter-sectoral collaboration needs to be taken into account.

Priorities in preparedness: a strategic approach**Michael Edelstein***M Edelstein*

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The recent Ebola outbreak in West Africa has highlighted two important points: first, the consequences of an absence of preparedness at the local level; second, how a local outbreak in a remote part of the world can rapidly become a global crisis. Preparedness should therefore be seen through a global perspective, and is as strong as its weakest link. This is a particular concern as emerging infectious diseases are increasing in terms of frequency and impact as a result of globalization. Until every country has the capacity to prevent, detect and respond to infectious disease threat, there is a global risk. The revised International Health Regulations, enacted in 2007, provide a legally-binding framework through which countries can assess their surveillance, response and preparedness capacity against required standards. However, these assessments are currently self-administered, and the IHR lack an enforcement mechanism. As a result, the world remains ill prepared. Since the Ebola outbreak, the World Health Organization has vowed to give the IHR "more teeth" and several global initiatives have been implemented to assess and improve global preparedness and global health security as a result. Preparedness against infectious disease threats should not be seen as an addition to healthcare systems, but as an integral part. Therefore issues such as healthcare workforce, laboratory capacity, or immunization are essential aspects of global health security. In order to be prepared, we must also recognize the importance of collaborating outside of the health sector to prepare ourselves. The role of non-traditional actors such as the private sector, or NGOs needs to be better understood.

Preparedness issues related to leadership**Erik Baekkeskov***E Baekkeskov*

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Why do different European states use different interventions against the same public health threats? In a time of globalization, shared information and biomedical scientific progress, such questions are increasingly urgent for researchers and policy-makers alike. Political science and related policy studies specialize in such questions and offer various answers. My research tests several rival explanations. It uses the 2009

H1N1 flu pandemic context and quasi-experimental ('most-similar systems') case research designs to control variations. Specifically, many countries' major intervention against pandemic flu in 2009 was mass vaccination. But even rich and mature democracies opted for very different vaccination policies in terms of how many vaccines they made available to their populations and which population groups were offered vaccination. Though otherwise very similar, the Netherlands, Sweden and Denmark are cases in point. Using in-depth case studies of how these countries made their vaccination policy decisions, my study shows that differences between the countries in how their leading government-appointed public health experts had anticipated pandemic flu mortality and morbidity, and how they thought about vaccination in response, made all the difference when it came to making interventions against H1N1 during 2009. Politics and pharmaceutical business pressures also played parts, but as causal mechanisms rather than drivers. Hence, how national public health systems imagine and prepare for pandemic influenza can be pivotal to how they actually respond, and can strongly differentiate how even very similar and neighboring states manage such crises. Sharing and debating planning assumptions across borders thus becomes a way to preventing future surprises and potential conflicts over "correct" courses of action, and is even a potential source for multi-tracked rather than single scenarios and preparations

How can economic evaluations contribute to institutional preparedness?

Tek-Ang Lim

TA Lim

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There have been a number of epidemics across the world these past years (Ebola virus, Zika virus etc.). Most of the new infections in the population could not have been avoided as there was no prevention treatment such as vaccines for instance and/or the information about the virus was limited (Zika virus for instance). There has been a growing concern to define a preparedness plan in order to respond effectively to new and emerging threats across the world. Since the mid-20th century, economic evaluations have been used to determine the optimal allocation of resources in different fields (education, road traffic safety, etc.), the use of economic evaluations have also been extended to the health sector. This presentation will focus on how economic evaluations can complement traditional epidemiological studies and contribute to facilitate the decision regarding the definition of institutional preparedness plans.

There are different methodologies for economic evaluations (cost-benefit analyses, cost-effectiveness analyses, cost-saving, etc.); there is a growing literature that successfully addresses the monetary quantification of the overall impacts of adverse health risk factors and public health interventions. The presentation will focus on how no matter which methodology is adopted, the economic evaluation relies on evidence and data and should be adapted in order to be useful to determine the best allocation of resources in the preparedness plan.

Economic evaluations may contribute to enhance the effectiveness of defining institutional preparedness plans by providing information on optimal allocation of resources. In times of emergency risk response, economic evaluations help to determine the most cost-effective strategies and as such set priorities. However, it is essential to adopt a multidisciplinary approach in order to develop a more robust and comprehensive framework for health threat assessment in institutional preparedness plans.

5.L. Round table: Empowering All For Health. Engaging citizens in Health Policy Development: Experience From the Field

Organised by: EUPHA Section on Public health practice and policy; WHO Regions for Health Network
Contact: zambonf@who.int

Chairperson(s): Piroška Ostlin - WHO Europe, Kai Michelsen - The Netherlands

Rationale

Participatory approaches applied to health policy development helps reach sustainable societal health goals. But what does participation mean and why should it be applied to health policy making? Participation means involvement of the people concerned in analysis, decision-making, planning, and programme implementation. Such processes are key for achieving the Whole-of-government (WoG) and Whole-of-society (WoS) approaches promoted by Health 2020 and shed reality to the often cloudy process of policymaking by involving civil society and empowering them to take part in decisions affecting their own health. Participation calls for dialogue and an understanding of what each parties' needs and concerns are. These dialogues provide opportunities for finding innovative solutions to today's public health problems. It also brings sustainability to policymaking; when citizen's voices are heard and their input integrated into health policies, political changes have less impact on what has been agreed through the participatory process.

Objectives

This workshop contributes to the EUPHA Practice Pillar on increasing the dissemination of best practice examples in and between different countries and translation of relevant research outcomes into practice. It will share evidence of good practice and increase networking amongst local and regional public health practitioners. Participants will get in-depth technical knowledge on what participation for health means, entails and its application.

Added value

The round-table offers a forum to discuss how theory can be moved to practice with sharing of lessons learned, challenges and discussion on transferability to other contexts.

Coherence between presentations:

The presentations are complementary. Presentation 1 offers a theoretical framework on participatory approaches, application to health research, lessons learnt, facilitating factors and challenges. Presentation 2 will share how participatory processes were applied in a region. The panel discussion will gather experts from regions using participatory approaches.

Layout of the roundtable workshop:

1. Introduction by the chairs
2. Presentations 1 and 2
3. Panel interventions
4. Discussion

5. Workshop key messages

6. Conclusions

Panelists:

- Solvejg Wallyn, Flemish Agency Care and Health, Flanders, Belgium
- Thomas Claßen, North Rhine-Westphalia, Centre for Health, Bielefeld, Germany
- Gabriele Gruber, Gesundheit Österreich GmbH, Wien, Austria
- Marina Kuzman, Department of Health Promotion, Prevention and Early Disease Detection, Zagreb, Croatia
- Alberto Fernandez Ajuria, Andalusian School of Public Health, Spain
- Beate Wimmer-Puchinger, Klinische und Gesundheitspsychologie, Wien, Austria

Key messages:

- Participatory approaches empower people to impact their health. Healthy choices are natural when citizens are engaged in health policy design and can access knowledge for informed decision-making
- Involving citizens in health policy design contributes to increasing community resilience. Resilient communities respond proactively to health challenges, economic, social and environmental change

Application of a participatory approach to health policy development: What it means and the how to do it

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This presentation provides an overview of what participatory approaches are and how they can be applied to health policy development. It builds upon the discussion on how citizens and regions can join forces for better health that took place at the 2015 EUPHA conference in Milan, Italy. A special focus on why and how participatory processes bring out an understanding of the social determinants of health and how the concept of “sense of coherence” can foster ownership, well-being and its application will also be discussed.

A theoretical framework for a participatory approach highlighting key characteristics and their application in the field is presented. Information on motivations for adopting participatory approaches and applications to public health are provided as well as advantages and challenges.

The examples of Region Skåne (Sweden), the Trentino Province (Italy) and Wales (UK) are shared to illustrate different ways of applying participatory approaches. The open Skåne 2030 is the regional development strategy created by

Region Skåne. The strategy is the result of an extensive participatory process with citizens, civil society, business and the public sector that now work together to achieve an open Skåne by 2030 that welcomes pluralism, more people and new ideas. The strategy also promotes high tolerance and wide participation in common social issues; encompasses an open landscape, as well as urbanization; while offering everyone the opportunity for a good life. The Trentino Province in Italy and Wales examples are also highlighted as using participation to improve health and well-being and shape health policymaking. The presentation will highlight the internal and external processes followed, implementation, evaluation, strengths, weaknesses, lessons learnt and generalisability to other contexts.

Shifting focus from health services to health promotion and from a expert-driven a more participatory approach

Pirous Fateh-Moghadam

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For a number of years the need for a shift from the concept of health as curative to a broader concept of health and well-being has been acknowledged. Health today faces a ‘triple burden of disease’ marked by communicable diseases, newly emerging and re-emerging diseases as well as the unprecedented rise of noncommunicable chronic diseases. Health is also influenced by factors outside the domain of the health sector alone such as social, economic and political forces which shape circumstances in which people grow, live, work and age. To trigger a change and attain optimum health, a comprehensive, holistic approach going beyond the traditional curative care and involving communities, health providers and other stakeholders is warranted. Such an approach results in empowerment of individuals and communities to take actions for their own health, fosters leadership for public health, promotes intersectoral action to build healthy public policies and creates sustainable health systems in the society. The Trentino Province (Italy) adopted a broader approach to health for their 10 year regional health plan by applying a participatory approach. The participatory approach provided all stakeholders, including civil society, an opportunity to make constructive and creative contributions to the health plan. Two consultation phases over a 5 month period (2014 to 2015) received approximately 1200 comments, opinions and proposals. The participatory approach also featured a web platform, “I Participate”, face to face meetings, assemblies, a “World Cafe” to encourage participation of foreign born residents using cultural mediators and open space technology. This was the first time such an approach had been applied to health. Both plan itself and process enabled a shift to be made from health service provision alone to a broader concept of health.

5.M. Workshop: How professional groups can contribute to health services innovation in European health systems

Organised by: DEFACTUM - Public Health & Health Services Research, Central Denmark Region

Contact: viola.bureau@stab.rm.dk

Chairperson(s): Viola Bureau - Denmark, Ellen Kuhlmann - Sweden

Professions are key to the delivery of health services and their innovation; they translate political programmes and objectives into concrete services for citizens. In this process, they draw on

different forms of expert knowledge to define the substance of health services and to shape the organisation of the health system. This turns professional groups into important switchboards between macro level health policies and the meso level provision of health services. However, more applied studies of the organisation and change of health services do not fully acknowledge the potentially influential role professional groups can play. Studies tend to be more concerned with individual members of professional groups, and the relative fit between their personal characteristics and attitudes on the one hand and service changes on the other. This often goes hand in hand with a view of organisational change as a linear process of translating best practices into service innovation. The applied perspective thus fails to acknowledge the importance of professions as collective actors in the provision of services for citizens and the benefits of self-regulation and professional ethics.

The potential contribution of professional groups to health care is echoed by recent contributions to the literature that draw on the organisation studies of the professions perspective and which highlight the close interplay between professional and organisational projects. However, there is little knowledge of new innovative approaches and strategies emerging across European countries. How can professional groups use their unique positional and substantive resources to contribute to processes of reforming health policies and to changing the organisation of health services? How can professional groups exploit their roles as vertical boundary spanners and help adapt health policies and organisational innovations to specific (local) contexts and thereby make changes in the health system more sustainable?

The layout of this workshop is to bring together researchers from different European countries with an interest in connecting: theory, policy and practice; health services provision and providers; and organisations/management and professions; as well as to exchange and learn about innovative approaches and strategies to organising professional groups in health care. As health services innovation is high on the agenda of many health systems and as countries are struggling with similar barriers to changing existing policies and services in health care, this seems to be the right moment to organise the present workshop. The need for mutual exchange is high considering that knowledge is limited about what is going on at the cutting edge of strategies of how professional groups can be used as a resource in processes of innovating health services.

Key messages:

- Setting focus on professional groups as critical factor for innovation in health services
- Offering insights into innovative strategies for involving professional groups in health service change

Health system transformation: engaging professions to make it happen

David Hunter

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Background

Health systems globally face unprecedented challenges including: moving to a more proactive and preventative model, giving more voice to citizens, addressing inequalities, improving population health, and ensuring sustainability. Professional engagement is central to meeting these challenges and to successful large scale transformation (LST). There is knowledge on what policies to implement. However, there are concerns about how to achieve successful LST and what role professions can play in this.

Methods

The study is based on a synthesis of literature on LST and a case study of a project by WHO Europe.

Results

Given the complexity of LST, there is merit in learning from those in top positions to capture their experience. Common lessons can be distilled from the accumulated experience of past and ongoing reforms. Adopting the 'receptive contexts for change' framework which includes the important role of professionals in LST, and the study suggests that successful LST requires: long-term vision, systems perspective, compelling change narrative, knowledge-based health policies and management, engagement of key stakeholders especially professionals.

Conclusions

Themes central to the WHO project provide a robust foundation to transform health systems through engaging professions, and build integrated platforms for comparative learning opportunities to include: creation of a network of system transformers, development of a health system assessment tool to measure readiness for change at the policy level, development of tools for tracking (and guiding) progress in LST, development of case studies for synthesizing knowledge on LST, including successes and failures.

Key messages:

- Identify lessons learnt in the implementation of LST in health systems and the role of professions
- Provide advice on how to initiate reforms and improve implementation with the help of professions

Supporting health service innovation through health workforce governance

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Background

The workforce is at the core of any delivery system. It determines patients' experiences to a significant extent and accounts for a large proportion of countries' spending on health. In Europe, up to 10 per cent of a country's workforce is employed in the health and care sectors, constituting an important sector of the economy. Ageing populations and rising demand will ensure that the health care sector remains a key driver for jobs in the future but the sector faces major challenges.

Methods

The study is based on a synthesis of the international literature on health workforce governance and skills mix.

Results

The study identifies some of the key challenges facing health systems in preparing and developing sustainable and appropriate health workforce governance and sets this in the context of required changes to provide more integrated care. The challenges include an aging workforce and shortage of new recruits to replace retirees, significant staff turnover in some fields due to demanding working conditions and relatively low pay, and rapid change in the organisation and delivery of health care due to advances in technology and in response to the changing burden of disease. A major factor influencing how well systems perform is an appropriately skilled workforce with the right mix of skills and roles. This is at the centre of a health system's capacity to respond to the population's changing health and care needs.

Conclusions

There is a need to better meet the diverse needs created by the changing demography and disease burden, and to move away from a focus on service delivery to optimise chronic care and on the redesign of delivery systems. The role of workforce governance and the need for a workforce that is adequately prepared to work in these systems need to be centre stage.

Key messages:

- Health workforce governance is key to the capacity for health innovation
- Skill mixes require tailoring to a greater diversity of needs

Health care professionals' trust in health insurers

Peter Groenewegen

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Contact: P.Groenewegen@nivel.nl**Background**

The Netherlands has seen a big reform of the health care system in general and the health insurance system in particular. The legal basis for this reform was the 2006 Health insurance act and the Health care market regulation act. Since then, the Dutch health care system is based on regulated competition with a strong role for health insurance organizations as purchasers of care for their insured. This role is still developing and is at times opposed by health care professionals and their organizations, reflecting lack of trust in the activities and motives of health insurers. In this study we focus on the trust that professionals place in health insurers, as a pre-condition for reaching the aims of the reform.

Methods

We collected data on trust in health insurers among five professional groups (general practitioners, medical specialists, physiotherapists, pharmacists and dentists) at two points in time: 2006 and 2014. Trust was measured on a 5 point scale (very low, low, neither low nor high, high, very high).

Results

Trust in the good intentions of health insurers was low in 2006 varying from 59% of pharmacists that ticked the (very) low boxes to 76% among medical specialists. In 2014 trust in the good intentions of health insurers was even lower among each of the five professional groups. At the same time also the influence of health insurers on the work of professionals as perceived by the latter increased.

Conclusions

The Dutch health insurance reform gave a stronger role to health insurers. This seems to have affected trust placed by health care professionals negatively. Low trust might have consequences for negotiations between professionals and insurers and leads to higher administrative costs of monitoring contracts.

Key messages:

- Smooth reform of complex health systems requires mutual trust between parties involved
- Trust of health care professionals in health insurance organizations in the Netherlands is very low

Occupational groups driving innovation in interprofessional working: stroke rehabilitation in Denmark

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Contact: Viola.Burau@stab.rm.dk**Background**

Health services are increasingly moving away from hospitals and towards community settings. These are more fluid organisationally and open up for interprofessional working. Interprofessional teams are innovative as a new form of professionalism becomes explicitly inscribed in organisational projects. This raises the question, what kind of strategies occupational groups use to drive interprofessional innovation.

Methods

The study was based on a case study of introducing interprofessional teams in stroke rehabilitation in Denmark.

The focus was on day-to-day coordination of care tasks and the underlying interests and strategies occupational groups pursued. The study included 5 stroke teams and a total of 17 interviews with different groups conducted in 2015.

Results

Occupational groups expressed strongly positive professional interests in reorganised stroke rehabilitation. These related to patients, professional practice and intersectoral relations, professional and collective interprofessional interests strongly intermingled. This was reflected in the strategies pursued, centring around needs-based care and health workforce governance. Individual professionals worked at the same time independently and on behalf of the team, when in the homes of stroke patients. There was also a degree of skills transfer as individual team members screened patients on behalf of other occupational groups.

Conclusions

Occupational groups with their specific professional interests and strategies emerged as key drivers of interprofessional innovation. This built on an intermingling of individual professional and collective interprofessional perspectives. It was also fostered by the community setting, which created a functional as well as financial imperative.

Key messages:

- Professional interests may drive interprofessional teams and innovation in health care organisation
- Interprofessional innovation needs support by community settings and governance incentives

When doctors lead organizational innovation: lessons from a clinical directorate in Portugal

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The need of improving health services has brought professional leaders into management positions as hybrid managers (HMs). There is much discussion about the relative autonomy of HMs and if they effectively improve health services. We focus on health care service controlled by HMs to provide evidence on if and how HMs contribute to organizational innovation.

Methods

The case study focused on a public hospital in Portugal, which was in the process of establishing a clinical directorate, in which doctors had managerial duties. Data collection comprised one year of observations complemented with 18 semi-structured interviews with all general managers in the hospital's board of directors and surgeons in the clinical directorate.

Results

Specific, medical-based work models were found where professionals enjoyed advantageous conditions: the HM was given full autonomy over clinical and financial procedures, also benefitting practicing surgeons. The HM was key to understanding practicing surgeons' performance, accountability and commitment through trust-based relations that sheltered from external scrutiny. General managers supported this as clinical performance and quality had improved. Emergent risks were linked to fragmentation among medical wards and growing stratification in medicine.

Conclusions

Policies concerned with the governance of health services have to consider professionals' interference at the workplace level. HM are key to understanding organizational innovation and other professionals' commitment and accountability; this calls for more policies oriented towards these players. Organizational innovation was achieved through professional-based interests combined with managerial criteria, which ultimately reinforced medical autonomy and authority.

Key messages:

- Increasing medical autonomy in connection with management may drive organizational innovation

- More policy attention on professional leadership can promote organization innovation

5.N. Workshop: Patient safety in Europe: the problem, proposals for action, experiences from national programs

Organised by: EUPHA section on Injury prevention and safety promotion and EUPHA Practice Pillar
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Chairperson(s): Anne Lounamaa - Finland, Johan Lund - Norway

Patient safety is a serious global public health issue. Estimates show that as many as one in 10 patients is harmed while receiving hospital care (WHO 2004), and that one in 500-1000 patients will die. That means that more lives are lost from adverse events in hospitals than from all accidents.

Adverse events in hospitals occur due to many reasons: error of planning, moral failures, human errors, technical errors, system errors. System errors are probably more frequent than human errors. The reporting systems are always incomplete. The safety culture should be changed into opening up for acceptance that errors happen, going from a silent and blaming culture to a learning culture.

Our aims with this workshop are to: 1) give an overview of the patient safety problem in Europe, 2) give proposals for actions based on given European and international recommendations, 3) report from ongoing patient safety program across Europe to inspire for learning for practise. The workshop will consist of four presentations and end up in a plenary discussion. Our hope is that this workshop will give inspiration towards increasing the work across Europe for improving this important public health issue.

The first presentation gives an overview of the size of medical treatment errors in Europe, both mortality and morbidity. There will be referred to a lot of European and international initiatives and recommendations the last years about how to improve patient safety. The most important proposals for action from these recommendations will be given.

The next presentation describes a national program for patient safety in Norway which started in 2014 and will last until 2019. By means of a Global Trigger Tool, the amount of adverse events for all severities in hospitals has been estimated, also fatalities. The patient safety culture is studied by an international Safety Attitude Questionnaire. This comprehensive program has several aims, as: 1) the incidences of harm in hospitals shall be reduced by 25% from 2012 until 2019, and 2) at least 80% of respondents from health units will report a ripe safety climate.

The third presentation describes a program for patient safety in Friuli Venezia Giulia, a region in North Eastern Italy. Important aspects of the program are: commitment of the regional government, establish alliances with professionals and citizens associations, establish professional networks, develop rules and standards for all citizens, monitor, coordinate and report the results. Some results of the program will be given.

The last presentation gives an overview of how the patient safety issue has been transferred from the hospital to home-care settings in Finland. This transfer was based on a national survey of social and health care service unit's directors, which indicated a need to expand patient safety into home-care and social welfare settings. A national guideline for that purpose has been proposed and will be presented.

Key messages:

- Adverse events in hospitals in Europe take more lives than all accidents; more than half of them can be prevented
- Patient safety can be improved by learning from European and international recommendations, and by recent European experiences

Patient Safety in Europe – the size of the problem and proposals for action

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The size of the problem

During the last 15 years there are indications that occurrence of medical treatment errors is increasing due to the rapid growth of complexity in medical care. Different studies in Europe show a mortality of preventable errors of about 1-2 % of hospital admissions. This mortality is comparable with the mortality of the largest widespread diseases, and is higher than the mortality of accidents. An expert group estimated the incidence of errors in medical treatment to 2 - 4%. However, others are estimating this to be the tip of the iceberg. In a report from WHO (2004) 10% is mentioned.

European and international recommendations

In their Council Recommendation for Patient Safety 2009 the European Commission confirmed the high preventable mortality and morbidity, and invited the member states to include Patient Safety in their priority health political strategies. A lot of measures, activities and reports across Europe have followed this initiative. Very important are the joint project PaSQ on the European level and the High 5's project on the international. Another important international initiative was the Global Patient Safety Action Summit in London in 2016. The experts emphasized that a global collaboration for patient safety is needed and a tool box for the next 15 years was recommended.

What to do?

From these reports and initiatives, the most important measures to carry out should be:

- The errors to be monitored and analyzed for identifying prevention measures
- Patient involvement is essential for data collection, error discussion, and for training and education
- The safety culture to be changed by open up for accepting that errors happen, to break the “culture of silence and blaming”
- National experiences and “best practices” to be made more visible, used cross-national with local adjustments
- An overarching system-approach across health sectors is needed
- Some problems have to be handled internationally, as antibiotic resistance.

A national program for patient safety in Norway

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It started with a campaign in 2011

A national patient safety campaign was commissioned by the Ministry of Health. The aims were to: 1) reduce patient harm, 2) build sustainable structures for patient safety and 3) improve patient safety culture. Targets areas were: falls, urinary tract infections, central line infections, pressure ulcer, prevent overdose and suicide, stroke treatment, safe surgery/postoperative infections, medication reconciliations, drug review in home care and in nursing homes. A secretariat was established.

Status of patient safety in Norway 2010-14

In each of the five years 2010-14, ab. 10.000 medical records randomly selected from ab. 590.000 admissions for all hospital trusts across Norway were reviewed by using the Global Trigger Tool. In 2010 at least one incident of harm occurred at 15.9% of all somatic admissions. The estimates for the next years 2011-14 were: 16.1%, 13.7%, 13.0% and 13.9%. For 2012 and 2013 same levels are found in Sweden. Adverse events that contributed to a fatal outcome were for the years 2010-14: 0.65%, 0.37%, 0.37%, 0.30% and 0.25%.

The patient safety culture was studied in 2014 by an international Safety Attitude Questionnaire to 77.457 health personnel in 2.372 units. Response rate was 62%. Results show that 56% of the units report a ripe safety climate. International experience tells that units without a ripe climate have higher risk for adverse events.

A national program for patient safety was launched in 2014 Based on the experiences from the campaign, a national program 2014-18 was launched. It continues with a secretariat in the Directorate of Health, a steering group and expert groups, same target areas and goals. It will also focus on involvement of patients and of the municipalities. Examples of national targets:

- Reduce incidents of harm by 25% from 2012 until 2019
- Increase 30-days survival after hip fracture by 2%
- At least 80% of respondents from health units will report a ripe patient safety climate.

A regional program for patient safety in Italy

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Background

Friuli Venezia Giulia (FVG) is a North Eastern Italian region. It manages the regional healthcare system (RHS) and guarantees quality and safety standards according to Italian National Health System rules. It covers 1.200.000 inhabitants; has 5 trusts including 17 hospitals (5 private) with 4.000 acute care beds, long term care facilities, and primary care. A patient safety program started in 2011. It includes both public and private HealthCare Organizations (HCO) providing to citizens services supported by RHS.

Keystones of the program

1. Commitment of the regional government which, supported by a technical team, on yearly basis: set up goals and incentives/penalties; coordinate, evaluate and report the results; celebrate the successes (quality day); promote alliances with professionals and citizens associations.
2. Network of professionals: a regional board of trust and hospital patient safety managers, professionals

responsible in each HCO for the different topics of the program, link professionals for each topic working in the line teams.

3. Rules are included: guarantee to all citizens for same standards; use of data and indicators; focus on improvement of the “weaker rings of the chain”; continuous quality improvement; benchmark the performance; transparency of the program and its results.
4. Current topics: incident reporting, Healthcare Associated Infections, patient falls, pressure ulcer prevention and control, safety in clinical documentation, safe and prudent use of drugs and blood, patient identification, safety in continuity of care, communication among professionals and with citizens, management of litigations.

Results

All hospitals have a standardized organization and workforce on patient safety. Some measurable RHS indicators include: 98% and 87% compliance to patient identification and surgical check list procedures respectively, a reduction of prescribed antibiotics in acute hospital inpatients from a 41% in 2011 to 36% in 2015 ($p < 0.05$).

Transitioning patient safety from the hospital to the home-care setting in Finland

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Background

Following the first national patient safety strategy of Finland (2009) and enactment of supporting legislation (2011), healthcare service providers engaged in actively monitoring and promoting patient safety. Tertiary level care led the way, gradually expanding to primary care. In parallel, social welfare activities have increasingly shifted away from establishments into small service units or clients' homes. Finnish home-care is also transformed, with home help (social welfare) and home nursing (healthcare) forming an integrated service.

Home-care safety

A national on-line survey of social and health care service units' directors was performed in 2013 to monitor implementation of legal requirements regarding fire safety ($N = 1370$, response rate 55%). Results indicated a need to expand promotion of client/patient safety in home-care and social welfare settings. Commitment to patient safety improvement as denoted by a written client/patient safety plan and appointment of dedicated staff was markedly weaker in home care. Written plans were available in 55% of community-owned home care units (vs. 76% of institutional and 77% of housing service units) and responsible staff present in 41% (vs. 65% and 72%). Trends were similar among privately owned service providers.

Guidelines development

An expert working group under the Ministry of Social Affairs and Health has drafted guidance to enhance safety of social and home-care clients, as well as service-providing employees. The aim is to ensure that both employees and management will receive the necessary knowledge and skills to identify and prevent safety risks, as well as cope with emergency situations in their work environments.

Conclusions

Patient safety promotion in home-care settings requires re-focusing of priority areas. For the clients these are: self-determination, living alone and physical surroundings' impact on accessibility and fire safety; and for the employees: ergonomics and safety when working alone.

5.0. Workshop: The Role Of The Joint Research Centre In Supporting and Harmonizing Cancer Data Collection

Organised by: Public Health Policy Support Unit, IHCP, JRC-Ispira
Contact: manola.bettio@ec.europa.eu

Chairperson(s): Paolo Guglielmetti - Italy

The European Commission's Joint Research Centre (JRC), in close collaboration with DG Health and Food Safety (SANTE), since 2012 is providing supports to European cancer registries (CRs) for harmonised data collection to measure cancer burden across Europe.

To the purpose, an intensive collaboration is going on between the JRC and the European Network of Cancer Registries (ENCR) to support the cancer registries along the entire process of data gathering, quality control, management, analysis, diffusion and access, with the overall aim of setting up an integrated and comprehensive cancer information system for Europe.

The workshop proposed is finalized to report on current activities and overall aims of the project, as well as provide deeper insight on specific initiatives finalized to harmonization and quality assessment of European collected data. More specifically, the contributions proposed are the following:

1. Assessing Cancer Burden Across Europe: Towards an Harmonised Cancer Information System (M Bettio) - as an introductory overview on aims and current JRC activities in support and harmonization of cancer registries data collection;
2. The ENCR-JRC project on Incidence and Mortality in Europe (G Randi) – new project on incidence and mortality in Europe following the 2015 call, for estimating cancer burden and identifying gaps in European cancer registration coverage;
3. Improving cancer data comparability in Europe: a common data quality-checking software tool (C Martos) - on the scientific coordination of an ENCR-endorsed recommendations document addressing the quality standards required by major European and international projects, as an example of a ENCR-JRC key initiative towards harmonisation;
4. Evaluation of European Cancer Registries' Data Quality within the ENCR-JRC Project (F Giusti) - on quality assessment of data collected from CRs adhering to the ENCR-JRC project, as a further example of ENCR-JRC key initiative towards harmonisation of cancer registries' databases;
5. The morphologic verification of cancers in population-based cancer registries: proposal for improving a quality index (E Crocetti) – the JRC supports the comparability and reliability of cancer information in Europe through an active role of evaluation, training, harmonization, research and development on data quality;
6. Developing statistical and software tools to assess the future cancer burden across Europe (T Dyba) – on cancer incidence predictions.

Key messages:

- The JRC provides support to European cancer registries along the entire process of data gathering, quality control, management, analysis, diffusion and access
- Several ongoing ENCR-JRC initiatives are finalized to harmonization and quality assessment of European collected data

Assessing Cancer Burden across Europe: Towards a Comprehensive and Harmonised Cancer Information System

Manola Bettio

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Issue

The European Commission has a long-term commitment to reducing cancer rates in Europe. Evaluation of the effectiveness of measures implemented to achieve this goal is critically dependent on accurate and comparable European cancer data allowing derivation of incidence, prevalence, cure, survival and mortality statistics. The Joint Research Centre (JRC), in its function as the European Commission's in-house science service, and in close collaboration with DG Health and Food Safety (SANTE), is supporting the creation of a cancer information system for further development and harmonisation of cancer data in Europe.

Description of the problem

Data from population-based cancer registries (CRs) are essential to evaluate the effects of health policy and to compare practices across regional and national boundaries. In 2012, the European Network of Cancer Registries (ENCR) endorsed the JRC's role in hosting its secretariat, paving the way towards further coordination and harmonisation of cancer data in Europe.

Results

Serving as the ENCR secretariat, the JRC provides an active information-exchange infrastructure to the CRs and coordinates ENCR scientific activities aimed at supporting CRs and converging towards harmonised processes. Moreover, in 2015 the JRC organised and launched the first ENCR-JRC data call, and is currently processing data received from around 100 registries all over Europe.

Lessons

The JRC offers the European cancer registry community a sustainable platform for coordinating the entire process of data gathering, quality control, management, analysis, distribution and access, and, at the same time, raising political awareness about the importance of CRs in steering evidence-based health policies. A more comprehensive cancer information system will result in better coordination and integration of different stakeholders' initiatives and activities, extending the use of collected information and facilitating inter-linkage with other data sources.

The ENCR-JRC project on Incidence and Mortality in Europe

Giorgia Randi

G Randi¹, E Crocetti¹, C Martos¹, T Dyba¹, L Voti¹, F Giusti¹, R Rooney¹, R Carvalho¹, M Bettio¹, A Katalinic², (on behalf of the ENCR-SC)

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Background

The European Network of Cancer Registries (ENCR) and the Joint Research Centre (JRC) are proposing, for the first time, the ENCR-JRC project 'Incidence and Mortality in Europe' that aims to assess and monitor the cancer burden in Europe and identify gaps in European cancer registration coverage.

Methods

An ENCR-JRC call was launched, in 2015, to collect data from European population-based cancer registries (CRs) through a newly developed ENCR-JRC portal designed as a unique gateway for European cancer data collection. More than 200 population-based CRs, operating in Europe, were invited to the call and were given access to the portal.

Results

So far, a total of 99 population-based CRs (85 general, 8 site-specific, and 6 paediatric CRs), from 26 European countries, responded to the call, and 94 of those CRs (81 general, 8 site-specific, and 5 paediatric CRs), from 25 countries, expressed their interest in participating in the ENCR-JRC project. The population covered by the general CRs participating in the ENCR-JRC project is almost 40% of the total population in the European Union. A comprehensive process of data quality evaluation has been developed and will be applied in collaboration with the CRs.

Conclusions

The ENCR-JRC project reached a good level of participation from several European CRs, with some geographic differences across Europe. The project will be able to provide estimates of the cancer burden in Europe both in terms of cancer incidence and mortality. Specific analysis will be provided by sex, age, time period, and cancer sites. The outputs of the project will include on-line material, a European cancer atlas, and peer-reviewed papers.

Improving cancer data comparability in Europe: a common data quality-checking software tool

Carmen Martos

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Background

Information provided by population-based cancer registries (CRs) contributes to evaluating the cancer impact and effectiveness of policy implementation. The reliability and utility of this information depends on the collected data quality. In 2013 the Joint Research Centre (JRC) and the European Network of Cancer Registries (ENCR) launched an initiative to establish a standardised list of cancer data quality checks to be adopted by European CRs. A Working Group was established and the JRC Technical report 'A proposal on Cancer Data Quality Checks: one common procedure for European cancer registries' was published in 2014. The report served as the basis for a data quality-check software developed by the JRC. The objective of this study was to evaluate on real data the inclusiveness of the reference tables and to make the software comprehensive and robust enough.

Methods

An ENCR-JRC call for data was launched in 2015 to collect data from European CRs. Data from general (all cancer and all ages) CRs that had applied to the ENCR-JRC project and sent the data call questionnaire were included in the analysis. The JRC software was used to check the internal consistency of the CR data.

Results

A total of 67 CRs across Europe were included in this study and 13,174,359 cases were analysed. The data were checked and only 0.8% of the cases needed an additional check (range: 1.9 CRs of Northern Europe and 0.2 CRs of Western). A low proportion of warning messages were due to missing values for demographic data and tumour site, and a higher proportion for the variables related to the survival analysis (e.g. 12% for date of follow-up). A greater variability was found among CRs for tumour grade and cancer stage.

Conclusions

The JRC software is currently in the test phase and could be used by European CRs for checking internal consistency of

their data. New international rules and the feed-back of the CRs should be taken in account in future versions of the software.

Populationbased cancer registries data: improve the morphologic verification as quality index

Emanuele Crocetti

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Background

Population-based cancer registries (CRs) collect information on newly diagnosed cancers in populations of well-defined geographical areas. The availability of a morphologic verification (MV) strengthens the validity of the diagnosis. In fact, the percentage of morphological verification (MV%) is one of the parameters for CR data quality evaluation. However, the quality of MV may vary considerably.

Methods

We retrieved data for lung cancer diagnoses among men during 2003-2007 from the 424 populations from CRs which contributed to the Cancer Incidence in 5 Continents-X. Morphological groups included also 'unspecified malignant neoplasms' (UMN) (ICDO-3 morphology codes: 8000-8005). We computed the proportion of MV diagnoses both including and excluding UMN for each CR and each continent (South and North America separately).

Results

Worldwide, information on MV diagnosis was available for 84.1% of lung cancers (3,078,437 MV on 3,660,404 total cases), ranging from 10.6% to 98.3% among CRs. The mean proportion of UMN was 3.5% (standard deviation 11.2), ranging from 0 to 100%. This percentage is particularly low for Australia (0.7%) and North America (0.8%), a little bit higher in Europe (3.2%), it increases for Africa (5.6%) and South America (6.3%) and ranks highest for Asia (10.3%).

Conclusions

This example on lung cancer cases collected by CRs showed that the exclusion of UMN could considerably decrease the MV%. UMN may be due to different reasons: the quality of the specimens – depending also upon cytology and histology, pathologists' accuracy in coding, CRs choice to adopt only generic codes, etc. The evaluation of the MV parameter in the CR data quality assessment should also take into account the quality of its morphology definition, leading to the adoption of an indicator which excludes unspecified codes. This might increase collaboration between cancer registrars and pathologists, and contribute to make CR data to reflect closer the real clinical picture.

Evaluation of European Cancer Registries' Data Quality within the ENCR-JRC Project

Francesco Giusti

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Background

The new project 'Incidence and Mortality in Europe' from the European Network of Cancer Registries-Joint Research Centre (ENCR-JRC) was launched in 2015 with data collection from population-based European Cancer Registries (CRs). The goal of this study was a first evaluation of data quality from CRs who adhered to the project through the ENCR-JRC portal.

Methods

Data from 67 CRs out of 94 that expressed their interest in participating in the ENCR-JRC project was included in the study. The 67 CRs were based in 17 European Countries - 4

from Northern Europe (NE), 5 from Western Europe (WE), 4 from Eastern Europe (EE) and 4 from Southern Europe (SE). The following indicators were used for the data quality evaluation: % of cancer cases with morphological verification (MV), % with Death Certificate Only (DCO), mortality-to-incidence ratio (MI).

Results

The total number of cancer cases was 13,174,359; 24% from NE, 33% from WE, 21% from EE, 22% from SE. The quality of the data was generally good, even if heterogeneous among countries.

The indicators varied also among cancer sites. The proportion of DCO varied from 6% in NE to 16% in EE for liver cancer, from 3% in NE to 8% in WE for lung cancer, from 2% in NE to 4% in WE for colorectal cancer.

The proportion of cases with MV varied from 65% in NE to 42% in EE for liver cancer, from 84% in WE to 72% in EE for lung cancer, from 92% in SE to 82% in EE for colorectal cancer.

MI ratio varied from 0.85 in NE to 1.34 in EE for liver cancer, 0.85 in SE to 1.01 in EE for lung cancer, and from 0.38 in WE to 0.64 in EE for colorectal cancer.

Conclusions

We observed a good data quality among European CRs, and between European regions. The participation of CRs to the ENCR-JRC Project will allow extensive comparisons on data quality at the European level. The use of JRC-ENCR Quality Check Software and the participation to collaborative studies will improve cancer data quality and the validity and comparability of the results.

5.P. Workshop: E-health and m-health: current trends, uses, expectations and methodological challenges

Organised by: EUPHA section on Health technology assessment, in collaboration with EUPHA section on Health services research, EUPHA section on Ethics in public health and EUPHA section on Public mental health

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Chairperson(s): Carlo Favaretti - Italy

Today the field of telehealth is rapidly evolving. It was originally implemented as a way to treat patients who were located far away from local health facilities or in areas with shortages of medical professionals. Nowadays, it is increasingly used to monitor and track health because of the spread of a wide variety of mobile health apps and consumer-friendly mobile medical devices. A recent survey revealed that about 97,000 health mobile apps are available; about 70% of these are related to consumer's health and well-being, while 30% are dedicated to consultation and patient monitoring, diagnostic imaging, drug information, etc. More and more citizens are using apps in order to promote their health, regardless if they are ill, and some statistics predict that, in 2017, about 3.4 billion people in the world will be monitored with such technologies.

Evaluation is needed how to integrate e-health and m-health applications into the health and social care system and this represents an essential critical topic for public health practitioners. Nonetheless, evaluations carried out in this field are often criticized for the poor quality of evidence and the lack of common outcome indicators. Furthermore, it is not clear how "good for health" are some applications intended to promote some aspects of health and wellbeing. In this light, Health Technology Assessment (HTA) could offer a sound methodological basis for a thorough evaluation of e-health and m-health technologies.

Following these arguments, this workshop is aimed at: a) describing the current state of implementation of e-health and m-health in Europe; b) addressing consumers' and practitioners' expectations; c) understanding how to deal with ethical issues in the field of e-health and m-health; d) addressing HTA aspects related to the evaluation of e-health and m-health interventions or devices.

Key messages:

- E-health and m-health are more and more used for monitoring and controlling people's health status but they deserve to be carefully assessed before implementation

- Expectations on e-health and m-health are high but they should be supported by sound evidence and initiatives aimed at increasing awareness and bringing relevant challenges into focus

The state of e-health and m-health in Europe - the eHealth Week 2016 Experience

Stefan Buttigieg

S Buttigieg

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Issue

E-health and m-health are growing at a rapid pace in Europe and its potential for playing a pivotal role within the delivery of healthcare is limitless.

Description of the problem

The role of public health professionals within such a transition is crucial and it is of utmost importance that there is a high-level of understanding of what are the current developments in Europe and how European public health can benefit from such actions.

Results

The EHealth Week 2016 is one of the highlight annual events in the field European e-health and m-health, which will be taking place in Amsterdam this year. The author aims to deliver a session which provides the participants who are attending the workshop with an overview of what is happening in e-health and m-health in Europe through his experience at the eHealth Week 2016.

Lessons

The author has two main objectives from this session. The first is to outline the current state of affairs of e-health and m-health within the European Union. Secondly, the author would also like to highlight the different opportunities available for European public health professionals and, as a result, provide recommendations on how to make the best out of them.

Consumers' and doctors' expectations and use of e-health

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Background

Expectations of e-health are high. Policymakers promote its uptake and use to widen access to health care services and to improve the quality and safety of care. Nevertheless, the uptake and use of e-health in practice does not reach its potential yet. In this presentation we will show the differences in expectations and use of e-health between doctors and consumers.

Methods

A cross sectional survey of a sample of Dutch General Practitioners (GPs), medical specialists and members of the Dutch Health Care Consumer Panel was conducted in April 2015. A structured questionnaire was completed by 396 GPs (response rate 32%), by 379 medical specialists (27%) and by 728 consumers (response 49%).

Results

The use of e-health is still low. Consumers see the advantages of the option to look up information about care and health on a website, request prescriptions or make appointments online, or ask questions via e-mail or a website. Between 47% and 71% does not know whether these options are available with their doctor. More than 50% of doctors say that one or more of the options are available. One third of consumers would like to have online access to their own medical information. Only 1% had insight into their own medical information, and many do not know if it is available (>50%). Doctors put more priority on the possibility of exchanging information with colleagues. Around two fifths doctors are proponents of online access. They think that it can for instance increase the responsibility and involvement of the patient. But roughly half of doctors have concerns such as patients worrying unnecessarily, misunderstandings, and security leaks.

Conclusions

Although expectations of e-health are high, use and uptake by consumers and doctors is low. Awareness of the possibilities seems to be one of the problems. For online access to electronic records there are differences in opinions between consumers and doctors, but also within the group of doctors.

Ethical issues in using and assessing m-health within health promotion

William Sherlaw

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Issue

In 2015, a WHO mHealth code of ethics has been proposed. This draws upon the 4 bioethical principles - autonomy, beneficence, non-maleficence and justice - but also on confidentiality, transparency and use of data with respect to marketing, personal use and research.

Description of the problem

While the previous aspects remain crucial to all assessments, fundamentally in health promotion it is vital to consider ends before proposing, analyzing or assessing any m-health intervention or device. Does it really match the end? Is it effective and appropriate for the person concerned? On what values is it built?

Results

In line with Morozov's internet critique, we may pose preliminary questions in tackling ethical implications of the use of m-health: 1) Is there a real problem? 2) Is the solution proposed being driven by the technology and the funds available or profit to be gained? Is the technology seeking a problem to solve, rather than offering a real solution? What other strategies could be employed to achieve outcomes? In the ever-expanding m-health market, is not the individualistic chimera of self-monitoring a way to avoid difficult (collective and) political questions? New technologies may offer new solutions to promote health and have the potential to empower individuals and increase social solidarity. It may be greatly useful to self-monitor chronic health conditions and

collect and aggregate data with reduced biases. Intelligently using social media can improve environments for disabled people and provide greater patient empowerment. However, mere data without sound interpretation may induce an impoverished even dangerous idea of what health is about.

Lessons

M-health impacts on how we do and promote health and prevent disease and its consequences. Nevertheless it is wise to pose critical questions when it is proposed as a solution. Any assessment must look at benefits and harms but also consider how the innovation may reconfigure health itself.

E-Mental Health

Jutta Lindert

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Background

Mental health care and mental health interventions for refugees and survivors of violence are lacking in many countries. Especially, language and cultural appropriate interventions are missing.

Methods

A scoping review of available interventions for refugees and traumatized persons is being carried out in four databases, including PUBMED, PSYCHINFO, EMBASE and CINAHL.

Results

A preliminary search yielded 2498 results. These results will be analyzed according to use, language, and effectiveness. Mainly used applications will be presented and discussed in the workshop. In resource poor settings e-mental health might be an important step towards tailored intervention and mental health care programs.

Conclusions

Although possibilities for e-mental health are available, use and uptake by refugees is still low. Yet, use of social networks may be an important step to meet mental health care needs of refugees and asylum seekers.

The HTA evidence on e-health/m-health: which challenges?

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Background

E-health/m-health technologies need a sound methodological evaluation before being introduced into practice and HTA could serve to this scope. The aim of this study was to look for HTA reports on e-health/m-health technologies and to describe their characteristics with the goal to detect fields of improvements.

Methods

A literature search was performed on PubMed, ISI Web of Science and NIHR databases in order to identify HTA reports that evaluated e-health/m-health technologies published until 2016 April 1st. We used the INAHTA 14 items checklist to evaluate transparency and consistency of reports. We also assessed the thoroughness of HTA reports by checking the presence of the evaluation of the 9 HTA domains suggested by the EUnetHTA core model. A narrative review was used for describing the results.

Results

Twenty-eight reports published between 1999 and 2015 were included. The most of reports (71.4%) were delivered by non-European countries and only 35.7% were classified as full reports. A wide variety of technologies were evaluated, mainly tele-cardiology and tele-stroke. The policy question was clearly defined in only 32.1% of reports whereas research questions were described in 53.6%. Nevertheless, only 50% of reports reported the details of literature search. With respect to the

core model domains, over 80% of reports dealt with effectiveness and costs. More than 50% tackled organizational aspects and around 40% social implications. On the contrary, the remaining domains were evaluated in very few reports.

Conclusions

e-health/m-health technologies are increasingly present in the field of HTA. Yet, our evaluation identified several elements

not being included in the available HTA report. Furthermore, several reports missed to respond to relevant assessment elements such as ethical implications. Subsequently there is the need for strengthening and standardizing methods used for the evaluation of these technologies.

5.Q. Skills building seminar: Social security disability programs: interactive policy learning of Australia, the UK and US

Organised by: Karolinska Institutet, Stockholm, Sweden and National Institutes of Health, Rehabilitation Medicine Department, Bethesda, USA

Contact: brandtdi@cc.nih.gov

Chairperson(s): Ashley McAllister - Sweden, Diane Brandt - United States

Income is a major determinant of health (Marmot and Wilkinson 2005) and social security disability programs are essential to providing resources to those unable to work due to disability. However escalating demand, limited resources and the dynamic labor market require social security disability programs seek innovative approaches to benefit decision-making. This workshop will develop knowledge of three social security disability programs and facilitates attendee examination and presentation of policy solutions as a means to employ policy learning.

Research has demonstrated that while countries adopt varied definitions and criteria for the approval or denial of social security disability benefits, the “gatekeeper” must interpret these criteria and render a decision (McAllister 2015). This policy decision must appreciate two issues—functional capacity and occupational demand. Social security programs possess the opportunity to learn from each other, using policy learning as a means to inform programmatic change.

In addition to knowledge development, workshop attendees will build capacity in synthesizing evidence for presentation to ‘policy-makers’ through engaging in an interactive policy learning exercise. Seminal work on policy diffusion (Walker 1969) contends that social learning provides an expedient, rational means of policy-making. First, we will introduce approaches to functional assessment in Australia (lauded by the OECD for their early adoption of a capacity approach to disability assessment) and the US (one of the largest disability programs in the world). The US presentation will introduce an innovative, functional assessment battery that covers eight functional domains and may help address key issues raised in McAllister’s Gatekeeping Model. Next, we introduce the current challenges facing the UK, where the functional assessment has been widely criticized (and even linked with suicide rates; Barr et al 2015), partly for failing to link functional capacity with demands of the work place environment (work capacity).

Following the three presentations (~50 minutes), audience members will be divided into small groups to discuss the approaches considering the crucial link between functioning and occupational demand. Each group will include a moderator from the presentation team and a handout summarizing the presentations. Groups will have 20 minutes to identify a strength and weakness of the Australian and US approach for the ‘UK Government’ and deliver an ‘elevator pitch’ (90 seconds) to workshop attendees. This workshop will provide an experiential policy learning opportunity by: i)

enhancing knowledge of work disability assessment in three countries ii) facilitating a cross-national comparison by workshop attendees and iii) building skills in synthesizing evidence in ‘sound bites’ for policy-makers. Each presenter possesses expertise in work disability assessment and policy-making, and is well-suited to support this interactive capacity-building workshop.

Key messages:

- National social security programs vary relative to determination processes yet all confront examining and measuring work disability within the context of resource constraint and changing labor markets
- Determining work disability requires social security decision makers, “gatekeepers,” consistently and efficiently assess functioning and occupational demand

Understanding the Australian approach to assessing capacity: A detailed case study of the Disability Support Pension

Ashley McAllister

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Background

Australia has been lauded by the OECD for moving away from a medicalised model of assessment towards a work capacity model of assessment making it a case for policy learning. However limited knowledge exists about how this process actually works. To address this gap, we generated a detailed case study of the Australian disability determination process.

Methods

We use a single-case study approach drawing on data from 20 Australian informants who are or were involved in designing the DSP and policy documents to learn about how the DSP disability determination process works. McAllister’s (2015) Gatekeeping Model was used as the framework for this descriptive case study.

Results

We found that Job Capacity Assessors (JCAs) are the gatekeepers for the DSP and use the Impairment Tables and the Job Capacity Assessment to assess whole person functioning. The former is a legislative instrument consisting of 15 tables, each relating to a certain bodily function (e.g. visual function). The latter is a standard form that each JCA is required to complete addressing questions related to determining if a person has a condition that is diagnosed, treated and stabilised and less than 15 hours work capacity. Both tools seem to be limited in their capacity to adequately capture mental illnesses. Furthermore, the Impairment Tables are widely criticised for not being evidence-based. Occupational demand is excluded from the assessment process.

Conclusions

The DSP disability determination process uses capacity focused language but the process for determining a person's capacity is opaque. Jurisdictions wanting to move away from the medical model towards the Australian capacity-focused model should proceed with caution.

Assessing work disability in the US Social Security Administration (SSA) Disability Programs: Novel methods to assess function

Diane Brandt

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Background

The SSA administers the two largest disability programs in the U.S.: 1) Disability Insurance (DI), for disabled workers and their families, and 2) Supplemental Security Income (SSI), an income safety net for the aged, blind and individuals with disability. These programs provide benefits to over 18 million individuals at a cost of more than 180 billion dollars/year. Disability examiners are challenged with adjudicating nearly 3 million new applications per year and conducting periodic reviews of existing beneficiaries. Approaches to efficiently, comprehensively and consistently assess function may further inform decisions made by disability examiners.

Methods

The ICF activity domains served as theoretical framework for instrument development. A scientifically rigorous process was informed by literature, content experts, existing instruments; and, fielding testing instrument questions with more than 5000 claimants and more than 4000 normative sample participants. Exploratory factor analyses were used to empirically identify sub-domains from the hypothesized ICF framework. Confirmatory factor analyses established unidimensionality of the subdomains. Finally, item response theory (IRT) was used to hierarchically arrange items in each subdomain according to difficulty. Computer adaptive testing (CAT) tailors instrument questions to each respondent.

Results

The instrument covers 8 domains of whole person functioning demonstrating high reliability and minimal ceiling and floor effects. Although there are more than 300 questions, use of

CAT administration allows completion of the instrument in 15-20 minutes.

Conclusions

The dynamic nature of IRT/CAT supports enhancement over time as content changes. The self-report functional assessment instrument provides a comprehensive functional profile to inform work disability decision-making.

The UK's social security incapacity assessment

Ben Baumberg Geiger

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The UK's social security incapacity assessment – the 'Work Capability Assessment' (WCA) – has been widely regarded as one of the greatest social policy failures of the past decade. Not only has it failed to match the Government's hopes for managing access to benefits, but it has also been widely criticized in the media, and with recent academic research estimating that it has been associated with 590 additional suicides (Barr et al 2015). The Government has said that it wants to overhaul the WCA, although detailed plans have been delayed from the planned publication in early 2016.

This presentation will describe the main features of the WCA, together with the different issues (some internal to the assessment, and some contextual factors) that have led to these failures. The main 'gatekeeper' is a healthcare professional working for a private firm subcontracted from the Government (formerly 'Atos', now 'Maximus' under the public-facing name 'Centre for Health and Disability Assessments'), based on criteria set out in legislation. Most claimants are assessed face-to-face by the healthcare professional, who produces an assessment report that is sent to a Government 'decision-maker' who formally decides on the benefit.

The WCA itself is a functional capacity assessment that includes no direct assessment of incapacity or consideration of the workplace. The functional capacity descriptors themselves have been revised in the light of a series of independent reviews, with particular criticism for the descriptors around mental health, pain and fatigue. The assessment also allows for more discretionary 'exceptional' circumstances, which have recently become so widespread that they are one of the main criteria on which the benefit is granted. Both the process and the criteria offer many salutary lessons to other social security systems as to how the best intentions of experts can nonetheless produce poor outcomes in practice.

PARALLEL SESSION 6

FRIDAY 11 November 2016 15:10-16:10

6.A. Oral session: Late breaker

The results of the US presidential elections and public health in Europe and in the world

David Stuckler - United Kingdom

Terrorism as a public health problem

Yves Charpak - France

6.B. Oral presentations: Prevention of chronic diseases

Examining the unanticipated effects of public-private partnerships for preventing chronic disease

Cameron Willis

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Background

Despite their potential value, the application of public-private partnerships to chronic disease prevention (CDP) is relatively new and also contested. In 2013, the Public Health Agency of Canada (PHAC) launched a Multi-sectoral Partnerships initiative, engaging organizations from public and private sectors in CDP activities. This study was completed as part of the initiative's Learning and Improvement Strategy, and aimed to examine the unanticipated effects (both positive and negative) of public-private partnerships for CDP.

Methods

PHAC's Multi-sectoral Partnerships initiative supports more than 30 partnership projects, each engaging 3-15 organizations, with matched funding from private sector partners (project budgets vary between CAD\$0.3 to 9 million). Using a multiple case study design, 13 semi-structured interviews were conducted with staff from each organization in 3 diverse partnership projects. Projects were selected to ensure variability in the number of partners, area of focus, and stage of partnership development. Transcribed interviews were analyzed thematically.

Results

Multiple unanticipated effects were identified and organized into 4 themes: (1) increased flexibility and responsiveness of government; (2) accessibility of new resources (people, skills, expertise); (3) building new capacities; and (4) delays in project timelines. These effects were influenced by many factors, such as historical interactions, organizational accountabilities, and differing partner expectations.

Conclusions

The majority of unanticipated effects identified by those in this study were considered positive, such as building new capacities and accessing new resources. Other effects suggest potential areas for exploration, such as reviewing procedures related to monitoring and approval processes. Findings from this work are informing the Agency's planning related to partnership brokering, monitoring, evaluation and continuous improvement practices.

Key messages:

- Public-private partnerships in public health may unexpectedly influence the actions of partners, their access to

resources, build capacities in unanticipated domains, and surface unexpected tensions

- Understanding these unanticipated effects may assist various stakeholders in improving partnership evaluation strategies, partnership brokering procedures or continuous quality improvement practices

Interim evaluation of an integrated approach to improving health and wellbeing in County Durham, UK

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Background

The County Durham Wellbeing for Life (WFL) service was developed in recognition that the previous 'silo' approach to provision of single-issue lifestyle services had made little impact on inequalities. It involves targeting the most disadvantaged communities locally, as well as specialist populations at increased risk of poor health. The model draws on evidence relating to the clustering of unhealthy behaviours, coupled with calls for behaviour change to be addressed in a more integrated and holistic manner. The service launched on 1st April 2015 and this paper reports interim findings from the academic evaluation.

Methods

The impact of the WFL service is being evaluated via secondary analysis of routinely collected monitoring data, which includes EQ-5DTM and the short Warwick Edinburgh Mental Wellbeing Scale (SWEMWBS). Data have been analysed descriptively to examine key characteristics of the WFL user population (n=1345). Appropriate statistical analyses have been performed to assess changes amongst those with data available at pre- and post-intervention periods (n=224).

Results

WFL users are predominantly female (73.4%), white British (97.6%) and living in the least affluent areas (80.4%). Mean BMI at baseline was 32.9kg/m² (s.d. 7.7). Pre/post analysis of the intervention data revealed significant improvements across all outcome measures. These were: BMI, physical activity, alcohol intake, self-efficacy, self-rated health, quality of life and mental wellbeing. Furthermore, the largest changes were observed in those with the least positive results at baseline.

Conclusions

The interim evaluation findings are being used to inform commissioning decisions and future WFL service delivery in County Durham. They also add to the evidence base around complex, community-based interventions that aim to tackle multiple health-related behaviours using an integrated well-being approach.

Key messages:

- An integrated wellbeing approach can be used to reach those living in disadvantaged areas
- Improvements in health, quality of life and wellbeing were observed amongst service users

Systematic review on users' values and preferences concerning breast cancer screening services

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Background

Although breast cancer (BC) screening is widely implemented, there is no clear consensus on the risk-benefit balance. While the avoidance of BC related morbidity and mortality is of high importance, there are significant undesirable effects, e.g. the burden of a false positive result and overdiagnosis.

The aim of this study is to evaluate the values and preferences of service users in BC screening.

Methods

A systematic review using standard Cochrane Collaboration Methods was undertaken. Both systematic reviews and primary studies (e.g. qualitative studies, surveys, utility elicitation studies) assessing evidence on users' values and preferences in BC screening were eligible.

The search was performed in PubMed and studies published in English were included. For primary studies, only those published from 2006 onwards were eligible. The quality of evidence was rated using GRADE methodology and qualitative studies were assessed by CERQual approach.

Results

The most studied themes in the included studies (n = 11) were overdiagnosis, false positive findings and burden. Women significantly disvalued the psychosocial and physical effects of false positive results and overdiagnosis. However, they generally considered these undesirable effects acceptable while recognising the potential benefits of screening (low confidence). In general, awareness of undesirable effects was limited. BC screening itself appeared to represent a significant burden for some women due to the associated psychological distress and inconvenience (moderate confidence).

Conclusions

Women generally highly disvalue the psychosocial and physical effects of false positive results and overdiagnosis. Accordingly,

patient views and preferences should be given enough emphasis while determining the direction and strength of recommendations in BC screening.

Key message:

- Consideration of users' views and preferences is crucial in establishing recommendations in healthcare interventions, incl. BC screening, where the risk-benefit ratio is not well established

Technology and prevention in the mobile health era: what Applications in oncologic screenings?

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Background

For the secondary prevention of cancers, European guidelines encourage Countries to plan screening to detect breast cancer, colo-rectum cancer, and cervix cancer. Almost all Countries embraced these recommendations and organized screening programs, but very often people do not attend the screenings offer as expected. Smartphones and their applications could help to communicate with the communities and to reach a wider adherence to screening.

This study aimed to analyze the features and the functions of applications related to secondary prevention of oncologic diseases.

Methods

In February 2016 we consulted the on-line App stores, using specific key-words, searching available apps for cancer screening. Apps retrieved were then classified and described according their main characteristics using an ad hoc grid.

Results

We identified thirty-two apps meeting inclusions criteria. The most frequent type of cancer screenings are breast (13/32) and cervix (4/32) ones. There are also apps dedicated to secondary prevention of other types of cancers (melanoma, prostate cancer and hepatocellular carcinoma). The most common features are: information providers (22/32), risk calculators (10/32), reminders for appointments and tests (7/32). Only one app has been validated for diagnostic accuracy or utility using an European international certification (CE Marking).

Conclusions

The results show large potential for development and utilization of applications in secondary prevention. Despite their potential usefulness, there are also disadvantages such as the linguistic and digital divide. Future efforts should focus on improving education in technologies, consolidating the European normative and monitoring inequalities.

Key messages:

- Several applications for smartphones are available to improve secondary prevention of cancers but only one has an European certification of good quality
- European public health programs should increase the use of this communication tools, maybe creating official apps for the screening of tumors

6.C. Pitch presentations: The odds and ends @ Vienna 2016

Policy brief addressing food insecurity and obesity Case study: the DIATROFI program

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Government or privately-funded school nutrition programs are a common policy response to food insecurity and obesity in periods of economic hardship. The implementation and assessment of such wide-scale programs pose several challenges.

Through the experience acquired from the DIATROFI Program implemented in low socioeconomic areas of Greece a series of guidelines that policy makers involved in the implementation of related programs, could use as a blueprint to maximize their effectiveness are proposed. In light of the socioeconomic crisis in Greece Prolepsis, has designed DIATROFI Program. Since 2012, it supports public school students in socioeconomically vulnerable areas throughout Greece by offering a healthy free meal to all students and promoting healthy nutrition through educational activities. Meals have been carefully designed to meet students' nutritional needs in accordance with age-specific guidelines. Results from the 2013-2014 school year (61,506 students) showed that the percentage of obese students was reduced from 7.6% to 6.5% post-intervention, the average index of food insecurity decreased by 10.7% and dietary consumption patterns improved. School dropouts decreased, school performance, concentration and behavior improved. Post-intervention 93.6% of parents and all of the principals would like the Program to continue for the next school year.

Interventions addressing childhood obesity and food insecurity can have both short and long term socioeconomic and educational effects for the State and its citizens. We recommend the implementation of national policy actions for free school meals, partnership networks between governmental and private bodies, operation of school canteens with staff from local governments or through school self-management, continuous training of teachers and school canteen operators on healthy nutrition. Good cooperation between authorities, educational stakeholders and the wider community will greatly benefit young students.

Key messages:

- A common policy response to food insecurity and obesity are government or privately-funded school nutrition programs
- Through the experience acquired from a wide scale food aid program in Greece, a series of guidelines that interventions addressing childhood obesity and food insecurity could use are proposed

Quality of care among diabetic patients with renal disease in Israel

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Objectives

Nephropathy is a common complication of diabetes mellitus, affecting 20-40% of patients. Treatment with Angiotensin Converting Enzyme Inhibitors or Angiotensin II Receptor Blockers (ACE-I/ARBs) is indicated in diabetic patients with proteinuria in order to retard renal disease progression. We aimed to determine the prevalence of nephropathy and, evaluate the quality of renal care among adult Israeli diabetic patients.

Methods

Within the framework of the Israel National Program for Quality Indicators in Community Healthcare (QICH), data were collected anonymously from practically all electronic medical records of Israelis aged 18 years and older (4,966,288 individuals in 2014). Data were stratified by gender, age, and socio-economic status (SES). Diabetic nephropathy quality

indicators include: (1) Prevalence of nephropathy (defined as Glomerular Filtration Rate (GFR) <60 ml/min/1.73m² or abnormal urinary protein excretion); and (2) ACE-I/ARBs therapy among diabetic patients with nephropathy. Patients with advanced renal failure (stage 4-5/dialysis) or above age 74 were excluded, as treatment for these patients should be individualized.

Results

In 2014, the prevalence of diabetes among the Israeli adult population was 9.7%. Rates of GFR and urinary protein excretion documentation were 91.3% and 79.0%, respectively. The overall prevalence of nephropathy was 30.5%, steadily increasing from 9.6% in the 20-24 age bracket to 53.3% in the 80-84 age bracket. Nephropathy was more prevalent among men (32.4% vs. 28.6%). Lower rates of ACE-I/ARBs therapy were observed in younger patients (33.0% in the 18-34 age bracket, 64.8% in the 35-54 age bracket, 80.1% in the 55-74 age bracket).

Conclusions

Prevalence of diabetes nephropathy was consistent with the literature, increased with age, and was higher among men. Despite an overall acceptable rate of ACE-I/ARBs therapy, relatively low rates were observed among young

Key messages:

- Monitoring diabetes nephropathy through QICH framework provides policy makers with national frequent data on diabetic complication
- Lower rates of ACE-I/ARBs therapy, was detected among young adults with diabetes nephropathy

Social inequalities in sodium intake in high-income countries: a systematic review and meta-analysis

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Background

High sodium intake increases hypertension, cardiovascular disease, and stomach cancer risk—all more prevalent among lower socioeconomic status (SES) groups in high-income countries (HIC). Lower SES is also associated with poorer diet quality, but whether sodium intake is inversely associated with SES remains unclear. To elucidate this matter, we conducted a systematic review and meta-analysis.

Methods

We searched PubMed, Embase, and Google Scholar for peer-reviewed papers reporting a measure of sodium intake disaggregated by a SES indicator in population-based samples of healthy adults in HIC. We extracted the direction and magnitude of the association between SES indicator and sodium intake measure, comparing the lowest and highest SES groups. We conducted a random effects model to identify the relative difference in sodium intake between SES groups, reporting the standardized mean difference.

Results

Of 2417 papers identified, we selected fifty papers from 17 HIC—6 papers from East Asia, 15 North America, 22 Europe, and 7 Australia. Thirteen papers measured urinary sodium, 28 dietary sodium, and 15 salt behaviors. Papers provided 165 total associations between a measure of sodium intake and a SES indicator (86 education, 31 income, 24 occupation, 24 other). Most associations (54%) were negative (higher sodium intake in low- vs. high-SES groups), 12% were positive, 34% showed no association. When considering exclusively urinary sodium, the negative pattern prevailed (63%; 7% positive, 30% no association). The effect estimate from 8 studies measuring urinary sodium (N = 12,819 participants) indicated a 10% relative SES difference (95%CI; 4-17%), corresponding to

approximately 232 mg/day higher sodium in low-SES groups in the Netherlands and 382 mg/day in Italy.

Conclusions

Strengthening the evidence on social inequalities in diet, these results merit public health attention to set structural-level interventions to reduce sodium intake disparities across SES groups.

Key messages:

- Lower SES groups consume higher sodium than higher SES groups, likely contributing to SES inequalities in hypertension, cardiovascular disease, and cancer risk
- Public health interventions are needed at the structural level to reduce sodium intake in the general population and to eliminate inequalities across SES groups

Economic impact of schizophrenia on health systems

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Background

Schizophrenia represents an important public health issue. An assessment of its costs would be useful to provide recommendations for policy and decision-making strategies. The aims of our study were to carry out a systematic review to assess the economic burden of schizophrenia in terms of direct and indirect costs and to perform a quality appraisal of the analysed studies.

Methods

A literature search was carried out on PubMed, Scopus and Cochrane Library to retrieve cost-of-illness (COI) analyses focused on schizophrenia and published up to December 2015. COI analyses that considered direct and indirect costs were included. Each included manuscript was independently appraised by three researchers on the basis of the British Medical Journal Drummond's checklist.

Results

2724 articles were initially retrieved, and 84 were included in the current review. The included studies showed a medium-high-quality level. The available studies seemed to be heterogeneous both in terms of methodology and results reporting. Extrapyramidal symptoms in patients with schizophrenia seemed to be associated with increased healthcare resource utilization and higher medical costs. Indirect costs were evaluated in 32 studies from a societal perspective and, in almost all these studies, their estimation exceed those provided for direct costs. High social costs of schizophrenia were also described for caregivers of schizophrenia patients.

Conclusions

The review confirmed that schizophrenia absorbs a huge amount of health-care resources. Further research is therefore needed to better understand the economic impact and to identify and promote public health strategies to tackle obesity.

Key messages:

- Schizophrenia absorbs a huge amount of health-care resources
- Indirect cost estimations exceed those provided for direct costs

Health related quality of life in the Deaf signing population

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Background

Prevalence of mental health and health difficulties in the signing Deaf population is higher than that in the hearing population. In health economics, utilities are used to represent preferences for different health states, with zero being equivalent to death and one reflecting perfect health. As part of a NIHR HS&DR funded study (Ref: 12/136/79) the EQ-5D-5L was translated into British Sign Language (BSL). This paper presents data from this study and compares the utility values for the Deaf population with those of the general population to assess the impact of being Deaf on utility.

Methods

Deaf BSL users (n=92) were recruited to complete a range of health questionnaires, including the BSL versions of EQ-5D-5L, the CORE-10 and the CORE-6D. Mean utility values were calculated for all participants and those with depression (defined by CORE-10 clinical cut-offs). Regression was used to identify characteristics/covariates for EQ-5D utilities. Participants EQ-5D utility values were compared with published norms from the hearing population.

Results

Compared to the hearing population, Deaf respondents were less likely to select 'no problems' for each of the EQ-5D domains. Over 74% of participants reported some (slight to severe) problems on one or more of the EQ-5D domains. This was reflected in the overall mean utility value (0.78, SD 0.21) which was lower than the published norms for a similar age group (0.91, SD 0.16). Over half (56.2%) of participants reported some problems with depression/anxiety.

Conclusions

The results of this study demonstrate that utility results published for the hearing population are unlikely to be generalisable to the Deaf population, with the mean utility in this group over 10% lower than published general population norms. In addition depression and anxiety are shown to be prevalent. Public health initiatives focused on BSL users are needed to address and increase quality of life, particularly related to mental health.

Key messages:

- Deaf BSL users have lower health related quality of life compared to the general population
- Depression and anxiety are prevalent in the Deaf signing population

The online appointment system: offering scope for increasing the accessibility of general practice

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Background

The OAS has potential to increase the accessibility of a general practice, by offering the patients the opportunity to schedule a doctor's appointment fast and easily. According to the Innovation Diffusion Theory (Rodgers, 2003) two important determinants predict acceptance of innovations: the perceived characteristics of the innovation by the user and the characteristics of the users. Our research question is in what regard the OAS contributes to an increased accessibility of a General Practice.

Methods

1657 unique users of the OAS of a large General Practice (12.500 patients) (between August 2014 and May 2015) estimated satisfaction, user friendliness, advantages and disadvantages of the OAS. The characteristics of the users (gender, age, educational level) were inventoried. Finally we made a comparison with a chi-square test for which medical

problems (by ICPC-2 codes) the OAS is used more and less frequently, compared to the more conventional appointment methods.

Results

The satisfaction with the OAS was valued with 7.7 (sd = 1.8) (on a scale from 1 to 10). 75 percent of the patients was happy with the user-friendliness of the OAS. The percentage of users in this practice (13%) is rather high compared to other reported percentages in The Netherlands, possibly because of its high percentage of highly educated people. 79% of the users was female. We found significant differences in ICPC-2 codes between appointments booked and not booked through the OAS: $\chi^2(16, N = 30805) = 300.9, p < .001$.

Conclusions

The OAS offers possibilities for increasing the accessibility of a General Practice by 1) increasing the functionality of the OAS such as creating more possibilities for the choice for a certain GP, date, time and length of the consult. 2) stimulate the use by other audiences such as lower educated patients. 3) offer an interface that is better suited to discuss problems that patients normally hesitate to consult a GP for, such as problems with the genitals or skin.

Key messages:

- Early adopters of an Online Appointment System in a general practice in the Netherlands were rather satisfied with the service
- The OAS offers possibilities for increasing the accessibility of a General Practice

Implementing The National Vaccination Competence Modules for nursing training in Finland

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Background

In Finland about 3000 nurses are graduated each year and over 2 million doses of vaccines are given per year. Nurses give almost all vaccinations. Public health nurses, PHNs, are in a key role carrying out the National Immunization Program,

NIP. Nowadays more and more vaccinations are given by nurses and also midwives have a crucial role to give accurate information about vaccination and vaccination preventable diseases to families. Vaccination hesitance has grown a bit. Nurses need a proper and enough broad training. Previously education has been very variable in separate Universities of Applied Science, UAS. It should be unified.

Objectives

The web-based national vaccination competence education modules Basics (2 ECTS) and Advanced (1 ECTS) has been created in ROKOKO project by three UASs and National Institute for Health and Welfare (THL) to provide a homogenous and enough broad education. The modules lean on continuously updated THL's web pages. Modules are easy to update. A separate vaccination competence assessment tool is included to both modules.

The aim is that in the future all nurse, midwife and PHN students complete at least the Basics module and all PHN students also the Advanced module.

Results

The implementation of Basics and Advanced vaccination competence modules started in autumn 2015. These modules were provided to PHN, nurse and midwife students. 12 of 22 UASs were using Basics, Advanced or both modules in autumn 2015. 470 students completed the Basic module, 230 the Advanced module and 137 both modules. In spring 2016 already 15 UAS were using either one or both modules and 1224 nurse students have started either one or both modules by 26.4.2016: updated data will be presented at the conference.

Conclusions

The modules are also suitable for updating the knowledge of nurses who are already working. Implementing the national modules to syllabuses supports the nurses in their important job and promotes positive attitude toward vaccinations.

Key messages:

- Improving and harmonizing the education maintains trust in NIP, supports high vaccination coverage and reduces vaccination preventable diseases
- Implementation of national vaccination competence modules has started successfully in UASs in Finland. Nurse's education will be improved highly

6.D. Pitch presentations: Ottawa and beyond: health promotion

Croatian National Health Promotion Program– Living Healthy

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Issue/Problem

Non communicable diseases (NCD) are leading cause of morbidity and premature death in Croatia. Main risk factors are irregular eating habits, inappropriate physical activity and high blood pressure. 35% of females and 48% males in adult population have excessive body weight, and 15% of females and 31% of males are obese. Only 17,1% males and 4,3% females are physically active.

Description of the problem

Croatian Ministry of Health and Croatian Institute of Public Health have initiated National Program of health promotion „Living Healthy”. Croatian government has adopted this

Program as a model of comprehensive intervention with the aim of decreasing behavioral, biomedical and sociomedical risks for NCDs. Program consists of 5 components: health education, physical activity, health and nutrition, health and working place and health and environment, with the goal of comprehensive prevention and inclusion of all age groups in all settings. Program is implemented through 21 county public health institutes in collaboration with local authority and civil society.

Results

Health education, as component of National Program has become a part of school curriculum; in 120 primary schools in Croatia that do not have sport gyms are introduced polygons for training through Program; paths for walking are established in 8 counties, 4 companies get the title “Healthy Company” for promoting health in the workplace, criteria for the food labeling with the pledge ‘Living healthy’ for the food with higher nutritional have been established, guidelines for

nutrition of school children have been made. Further implementation and evaluation of Program are coming ahead.

Lessons

For effective implementation of health promotion interventions it is necessary to act multidisciplinary, involving all stakeholders, at the national, local and individual level through legislation, guidelines and education and offering healthier choices that need to become more accessible to the population.

Key messages:

- Only comprehensive public health intervention can lower the risks for development of chronic NCDs
- It is necessary to carry out intervention at national, regional and individual level simultaneously

“Gesundheit führt!”: Focusing the crucial role of leadership in Workplace Health Promotion

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Issue

While Workplace Health Promotion (WHP) has been implemented in a large number of Austrian companies in the last 20 years, studies and consultation practice show that the long-term integration of WHP is often difficult.

Description of the problem

A main hypothesis is that there has been too little focus on a primary source for health: the management from top level to operative leadership. They affect health through strategic decisions they take, attitudes and style of leadership as well as being role models for health behaviour. „Gesundheit führt!“ is funded by Niederösterreichische Gebietskrankenkasse and Fonds Gesundes Österreich and runs from 04/15 to 08/18. In an innovative approach, 7 medium-sized companies in Lower Austria are accompanied during WHP implementation. The process starts with an intense working phase with the top and second level management. The common understanding of WHP that is built and the strategic decisions that are taken in this phase set the base for the subsequent participatory process that involves workforce.

Results

As of 04/16, 7 companies with a total staff number of 829 (54% male, 46% female; 34% workers, 66% employees) started this process. So far, 38 managers have participated in the top down phase. Preliminary results show that participants (n=107 questionnaires) report a positive impact on their own wellbeing (1.58 on a scale from 1-4) and their leadership skills (1.59), as well as having received impulses for a positive development of organisational health (1.45).

Lessons

The workshops enhance communication between management levels –some companies had no such forums for strategic cooperation before. The systematic discussion of health in the workplace broadens the understanding of WHP as a means of organisational development.

Key message:

- Addressing „healthy leadership“ helps managers to assume responsibility for their impact on employees' health. Strategic planning in this setting facilitates a long-term commitment for WHP

Health Promotion for teachers as a management task

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Background

The teaching profession is a challenging one for many reasons: Teachers have to deal with current societal changes due to migration processes, social problems and changed behavior of children in classrooms. Teachers working hours, work tasks and their field of responsibility are not clearly defined and their profession is broadly discussed in public – often negatively biased. Therefore the following research questions arise: What are the main challenges and stress factors for teachers? Which measures could be taken to reduce those? How could health of teachers be promoted and who is responsible for this?

Methods

20 guided interviews with experts, principals and teachers of different school types in Austria have been conducted and analyzed using a summarizing content analysis.

Results

The results show that health promotion for teachers is seen as a management task and is not perceived to be in teacher's personal responsibility exclusively. The respondents highlight the responsibility of school principals in supporting teachers in defining their work tasks and responsibilities by controlling and regulating. Management tasks include social support of teachers and fostering their collegial cohesion, providing training and support programs for personal and professional matters for developing skills to manage the professional life in a health promoting way as well as to enable teachers to change their profession if necessary.

Conclusions

An adequate training for school principals is essential in order to be able to support teachers adequately in their needs. As a measure of health promotion teachers need social support by principals as well as training and supervision programs for supporting them in reflecting their professional life.

Key messages:

- Health promotion for teachers is a management task
- Principals are seen as supporters of teachers by providing training and support programs for personal and professional matters

Determinants of soft drink consumption in children

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Background

There are increasing concerns relating to the specific contribution of sugar-sweetened beverages to child obesity. Given that encouraging healthy eating habits can be easier in childhood before taste preferences and habits consolidate, interventions designed to improve children's diets need to address key factors contributing to children's consumption of sugar-sweetened beverages. These interventions have the potential to benefit both current and future cohorts.

Methods

Over 1,300 parents of children aged 8 to 14 years responded to an online survey about their children's food consumption behaviours. The relationship between a broad range of predictor variables and the frequency with which Australian children consume soft drinks was then explored using structural equation modelling techniques.

Results

Parents' attitudes to soft drinks, children's pestering behaviours, and perceived social norms relating to children's consumption of these products emerged as primary predictors of soft drink consumption frequency in children. Pestering and social norms were identified as especially important factors as a result of their significant direct effects on consumption frequency and significant indirect effects on consumption frequency via their impact on parents' attitudes to soft drink.

Conclusions

Interventions that focus on pestering and social norms have the potential to influence parents' attitudes to soft drinks as well as their provision behaviours, possibly producing favourable dietary behavior changes that can be maintained over time.

Key messages:

- Pestering and social norms were identified as especially important factors to address in reducing the frequency with which children consume soft drinks
- Interventions that focus on these factors have the potential to influence parents' attitudes and food provision behaviours, possibly producing favourable behavioural changes that can be maintained

Healthcare behavior among healthcare students in 2007 and 2015: Health Campus studies in France

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Background

Healthcare students are future health care providers and serve as role models and coaches to enhance behaviors for healthy lifestyles. The aim of this study was to identify health behavior among healthcare students between 2007 (Health Campus 1) and 2015 (Health Campus 2) in France.

Methods

A self-administered questionnaires were performed in 2007 and 2015 among healthcare students: physicians, pharmacists, nurses, physiotherapists and radiologist students in Normandy (France). Data collected were socio-demographic, weight, size, smoking, binge drinking, alcohol consumption (heavy drinking; frequent consumption of alcohol and binge drinking), cannabis consumption, and regular practice of sport.

Results

A total of 2766 healthcare students were included (1407 in 2007 and 1359 in 2015) with a mean age of 21.8 years (SD = 3.1) and a sex ratio (M:F) of 0.46. In 2007 and 2015, respectively 42.8% and 39.7% of healthcare students self-have none health risk factors (overweight/obesity; heavy drinking, smoking or no regular practice of sport) ($p = 0.15$). Between 2007 and 2015, occasional binge drinking and regular practice of sport significantly increased, respectively AOR=1.48 CI95% (1.20-1.83) and AOR=1.33 CI95% (1.11-1.60) and regular cannabis consumption significantly decreased, AOR=0.32 CI95% (0.19-0.54), there was no change in the following health risk factors: smoking or overweight/obesity. Student physicians had lower health risk factors than student nurses AOR=0.41 CI95% (0.23-0.73).

Conclusions

Between 2007 and 2015, healthcare students show stable results for classic behaviors like smoking but a worsening of emerging behaviors such as binge drinking. Health behaviors are different among these future healthcare professionals. As well health behaviors are positively related to favorable attitudes towards preventative counselling, therefore healthcare students should adopt targeted courses and training in preventative counseling and develop healthy lifestyles.

Key messages:

- Binge drinking appears as an emergent behaviour between 2007 and 2015 and future physicians had the best global health behaviour
- Health care students should lead better healthy lifestyles to better advise their future patients

6.E. Pitch presentations: Policies and interventions in food and nutrition

Incentives to influence nutritional behaviour – Results from an overview of reviews

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Background

Unhealthy eating behaviour contributes significantly to the development of various non-communicable diseases. The increasing prevalence of obesity and overweight, even in children and adolescents, highlights the need for effective measures to improve the dietary habits and to reduce overweight and obesity. The aim of this project was to assess the effectiveness of incentives as potential instruments to influence nutritional behaviour.

Methods

The results are based on an overview of systematic reviews. The systematic literature search in multiple databases and hand search resulted in a total of 377 sources. 53 full-text articles were assessed for eligibility according to the inclusion criteria. The quality of relevant reviews was rated using the Quality Assessment Tool by Oxman & Guyatt.

Results

14 systematic reviews met the inclusion criteria. The systematic reviews dealt with various research questions relating to nutrition: Reduction of overweight/obesity, healthy nutrition, modification of nutrition behaviour, breastfeeding as well as weight gain during pregnancy. The analysed incentives, the outcomes as well as the target groups of incentives showed considerable heterogeneity. In general, the included systematic reviews mostly reported on minor, positive effects regarding incentives (primarily financial incentives) and the respective outcomes (e.g., reduction of weight, consumption or purchase of healthy food). However, these effects could not be sustained once incentives were suspended.

Conclusions

The result of this overview of reviews suggests that incentives show minor positive effects in the improvement of food habits or in losing weight. However, long-term effects could not be achieved or have not been adequately studied. The impact of incentives on health inequalities as well as unintended effects remain unclear. Numerous alternative strategies at the policy-level aimed at changing people's living conditions could potentially be effective.

Key messages:

- Incentives show small positive effects in improvement of nutritional behaviour or in losing weight. Long-term effects, however, could not be achieved
- Possible unintended effects and the potential impact on health (in)equalities have to be considered before the implementation of such incentives

Conditions for Implementation of Diet and Physical Activity Interventions in Schools-A DEDIPAC study

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Background

This case study was undertaken in Ireland as part of the European DEterminants of Diet and Physical Activity (DEDIPAC) Knowledge Hub. Two national interventions were chosen based on predetermined selection criteria: a Healthy Eating Programme (HEP) to encourage primary schoolchildren to consume more fruit and vegetables, and a Travel to School Programme, (TSP) to promote sustainable modes of transport, car-pooling and public transport use in primary and secondary schools. The HEP is EU and government funded, the ATSP entirely government funded. ATP adopts a flexible approach where schools can set their travel targets. School coordinators (teachers) cascade both programmes to classroom teachers.

Methods

Face-to-face interviews (15) were conducted using a topic guide developed by the DEDIPAC team and informed by a prior systematic umbrella review of conditions influencing implementation. Data were coded in NVIVO and thematic analysis carried out using parameters of the RE-AIM implementation framework.

Results

Good working relationships were critical to adoption, successful implementation and maintenance. Organisational and leadership ability of coordinators was key to successful delivery. Incentives and rewards acted as motivators to engage children's interest, which motivated teacher and parent involvement. Particular challenges faced by the TSP included a lack of funding security and timetable constraints within secondary schools. HEP was based on well-funded external research with clearly defined core components and has been frequently externally evaluated. ATP core components were broad rather than specific, implementation was a matter for the school and there was a lack of agreement among stakeholders on how targets were set and the accuracy of these.

Conclusions

Good relationships, organisational and leadership ability were key conditions for implementation. Specific, rather than general, core components, enhanced fidelity and outcome measurement.

Key message:

- Secure funding, leadership ability, interventions with specific core components and targets, and incentives,

increase likelihood of successful implementation of health promotion school programmes

Effectiveness of nutritional interventions on healthy aging in older people: an umbrella review

Sonja Milovanovic

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The worldwide increasing in longevity is undoubtedly a great public health achievement, but at the same time a huge challenge. Health promotion through nutritional interventions is recognized as a possible strategy to promote healthy ageing reducing the health care expenditures. Several authors have systematically reviewed the literature with a focus on population 60 years and over. This umbrella review aims to summarize the evidence on the effectiveness of nutritional interventions on healthy aging in elderly.

Five electronic databases were searched for systematic reviews (SR) and meta-analyses published in the period 2000-2016 with restriction to English and Italian language. Key words used were based on the PICO model implemented within the Work Package 5 of the European project PRO-HEALTH65+. A JBI Data Extraction Form for Review for SR and Research Syntheses was used.

Of the 2081 records initially identified, 23 SR and MAs that include over 450 individual studies (range 7 to 62) were selected. Majority of the included studies analyzed programs that involved provision of different kind of supplements or environmental and organizational strategies aiming to promote nutrition and healthy aging of the elderly. Only a few studies regarded education interventions and counseling group or the effects of multicomponent interventions. Twenty-eight outcomes were assessed in all studies and they comprised functional outcomes, anthropometric or nutritional indices, mental health, mortality or health-related quality of life.

Although nutritional interventions are broadly studied, their real effects are still questionable. The interventions that showed the highest effectiveness and yielded statistically significant results were various strategies of oral supplementation as well as programs of food improvement and dining aspects modifications

Key message:

- Nutritional interventions could represent an important and fruitful field for promoting healthy ageing in older adults

Factors facilitating policies promoting healthy eating: findings from DEDIPAC case studies in Norway

Gun Roos

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Background

As part of Determinants of the Diet and Physical Activity (DEDIPAC) Knowledge Hub (KH), case studies were conducted in five European countries to validate the factors facilitating implementation of interventions and policies targeting diet and physical activity that had been identified in a systematic review on conditions of implementation. The aim of the case studies in Norway was to gain a better understanding of what policy makers and stakeholders think are facilitators and barriers to successful implementation of policies promoting healthy eating.

Methods

Interviews were conducted with eight stakeholders and implementers of two Norwegian policies: the Keyhole labelling system and the Free school fruit programme. The Keyhole, which was implemented in 2009, is a Nordic voluntary front-of-package food label that identifies healthier products. The Free school fruit program was implemented in lower secondary schools 2007-2014. Thematic analysis of facilitating and hindering conditions was guided by the RE-AIM model for implementation and findings from the systematic review of conditions of implementation.

Results

Policy makers and stakeholders identified several facilitating conditions and barriers to implementation. Broad involvement of stakeholders, collaboration and good communication were described as important factors. However, this requires time. For example, the Keyhole came on the agenda in Norway five years before implementation. Political support was a facilitator to implementation of both policies, but in the case of Free school fruit, which became a symbol policy, it was ended when there was a change in political leadership in Parliament.

Conclusions

Policy makers and stakeholders referred mainly to the adoption and implementation components of the RE-AIM model.

Key messages:

- Active involvement of relevant stakeholders facilitates implementation of policies.
- Political decisions are decisive for implementation and sustainability of policies

Misreporting of energy intake in the Belgian Food Consumption Surveys (2004-2014)

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Background

Dietary assessment based on self-reported or proxy-reported data is often prone to misreporting, including both under- and over-reporting. Evaluation of this bias is crucial for correct interpretation of dietary exposure.

Methods

The prevalence and characteristics of misreporting of energy intake was investigated among 3096 participants (3-64 years old) in the Belgian National Food Consumption Survey 2014 (FCS2014). Information on food intake was collected with two non-consecutive 24-hour dietary recalls (GloboDiet®). Objective measures were obtained for anthropometric parameters. Misreporting was assessed using the Goldberg method. Additionally, the prevalence and size of underreporting was compared with FCS2004 for participants aged 15-64.

Results

Overall in 2014, 24.3% of participants underreported, 75.2% were plausible reporters and 0.5% overreported. Females underreported more often than males (OR 1.37; 95% CI 1.16-1.63). Under-reporting was less common in children (3-9

years) where parents reported dietary intake, than in adolescents (10-17 years) (OR 0.17; CI 0.12-0.26) and adults (18-64 years) (OR 0.49; CI 0.26-0.95) who self-reported. Obese participants underreported more often than overweight (OR 1.92; CI 1.45-2.55), normal weight (OR 3.71; CI 2.84-4.84) or underweight participants (OR 5.57; CI 3.37-9.21). Low educational level (OR 1.44; CI 1.21-1.71) and energy-restricted diet (OR 3.81; CI 2.40-6.03) increased the odds of under-reporting. The prevalence of underreporting was higher in 2014 (34%) than in 2004 (28%), but excluding under-reporters resulted in both FCS in an increase of the mean habitual energy intake of 300 kcal/day at population level. Further comparison with FCS2004 will be presented.

Conclusions

Underreporting of energy intake was associated with individual characteristics such as sex, age, BMI, educational level and diet. Proxy-reporting by parents resulted in less underreporting than self-reporting in adolescents and adults.

Key messages:

- Underreporting should be taken into account when calculating food intake estimates at population level
- The absolute estimate of underreported energy intake does not seem to change overtime while the proportion of under-reporters is increasing

Sodium intake in England and Scotland: Assessment of dietary sodium

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Background

There is an established link between high salt intake and hypertension which is risk factor of cardiovascular disease (CVD). The UK government recommends that adults consume no more than 6g of salt per day. Population representative urinary sodium data were collected in 2014 in England and Scotland to monitor and evaluate progress towards this goal.

Methods

Up to two participants aged 19 to 64 years from each household were recruited by NatCen's Telephone Unit. Trained NatCen nurses collected 689 complete 24-hour urine samples in England and 663 in Scotland.

The amount of sodium excretion in the urine was analysed to give a measure of dietary salt intake. The data were validated as representing daily intake by checking completeness of the urine collections by the para-aminobenzoic acid (PABA) method. Analysis was conducted by Medical Research Council Human Nutrition Research (MRC HNR).

Results

Mean estimated salt intake for adults aged 19-64 in England was 8.0g/day (33% higher than the recommended maximum). There has been a decrease of 0.9g/day since 2005/6, a reduction of 11%.

Similarly for Scotland, mean intake for adults aged 19-64 was 7.8g/day (29% higher than the recommended maximum). There has been a decrease of 1.1g/day since 2005/6, a reduction of 13%.

Conclusions

While salt intake has reduced in recent years, adults aged 19-64 are still consuming more than the recommended daily maximum.

Key messages:

- Salt intake, while slightly decreasing over the years, is still higher than the recommended maximum of 6g/day
- Adults in England on average consume 8g of salt per day, and similarly adults in Scotland consume 7.8g/day

Challenges in child feeding practices among immigrant mothers living in Norway

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Background

Establishing good dietary habits in early childhood is important for optimal growth and health. The population of children born to immigrant parents in Europe is increasing, yet few studies investigate weaning and early dietary habits among these children. The aim of this study was to investigate Somali and Iraqi immigrant mothers' experiences with child feeding in Norway. This can contribute to improve dietary advice to ethnic minorities' families.

Methods

The study utilized a Grounded Theory research design. Participants were women who migrated from Somalia and Iraq living in Oslo. Qualitative in-depth interviews and focus groups were carried out with mothers of children 6, 12 and 24 months of age. Forty-one mothers participated in the in-depth interviews and forty in ten focus groups.

Results

Mothers considered themselves as the main responsible for providing their children a healthy diet. The weaning phase was experienced as positive. Mothers praised making fresh food from scratch and were skeptical towards the Norwegian habit to feed children with commercial food. However, as the child grew up, mothers experienced losing control over their child's diet. Mothers lamented conflicting views with fathers and other relatives and blamed them for giving the child sweets and unhealthy Western food. Concerns about their children's weight emerged. Mother and Child Care Centers were trusted, but the need for culturally sensitive dietary advice was expressed.

Conclusions

The transition from weaning to early dietary habits was experienced as challenging. Despite the focus on healthy diets, Somali and Iraqi mothers encountered obstacles in their child feeding practices. It is important for professionals working at Mother and Child Care Centers to be aware of these challenges and support mothers by promoting culturally sensitive dietary advice.

Key messages:

- Immigrant mothers experience the transition from weaning to early dietary habits as challenging
- Culturally sensitive dietary advice to mothers of different cultural backgrounds must be promoted

Universal free school meals in Scotland: A process evaluation of implementation and uptake

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Background

In January 2015 Scotland moved from a means tested system for Free School Meals (FSM) to a universal system for children aged 4-8 years. Policy advocates believed a universal system would improve children's eating habits, and reduce nutritional and other inequalities. This work reports on a process evaluation of implementation and uptake focusing on barriers, facilitators and unintended consequences.

Methods

Data were collected from a number of sources. A self-completion questionnaire was sent via email to all local authorities asking about key areas of activity. In-depth telephone interviews were carried out with local authority representatives (n=19). Case studies were carried out in 10 schools in the first months of the policy's implementation and in the new school year. Forty-nine interviews were carried out with school staff (catering, senior managers and teaching), and observations of the dining hall environment. Six focus groups were carried out with parents (n=37) whose children were both previously and not previously eligible for FSM.

Results

Overall, the policy was implemented with only minor difficulties. Uptake levels ranged (64% to 91%), with a mean of 76% across local authorities. Facilitators included forward planning, previous levels of high uptake, good communication at all levels, staggered lunchtimes, popular menu choices and taster sessions. Barriers included school space, staff recruitment and funding, and children's speed through the dining hall. Unintended consequences included queuing, increased pressure on catering staff and a perceived increase in food waste. Parents were supportive of the policy and believed that it afforded them financial and time savings and had nutritional benefits.

Conclusions

UFSM for 4-8 year old children has been implemented successfully. The policy has the potential to improve Scottish children's dietary intakes through nutritional standards for school meals and to reduce nutritional inequalities.

Key messages:

- Universal free school meals for 4-8 year olds were implemented successfully in Scotland. This policy has the potential to improve children's diets in the long term
- Implementation and uptake could be improved through clearer communication around the policy's rationale, and investment in training and adequate staffing levels for catering and supervisory staff

6.F. Round table: Using JA-CHRODIS to address a complex case of a person with diabetes and other chronic diseases

Organised by: Joint Action CHRODIS

Contact: pcediel@eu-isciii.es

Chairperson(s): Mieke Rijken - The Netherlands, Fernando José García López - Spain

The purpose of this workshop is to show how to apply some of the results of the European Union Joint Action-CHRODIS (Addressing Chronic Disease and Healthy Ageing across the

Life Cycle) in a specific case, and identify lessons learned and the strengths of the results of this Joint Action, and gaps to be addressed in the future.

The objective of JA-CHRODIS is to facilitate a process of exchange and transfer of good practices among European countries and regions, addressing chronic conditions, with a specific focus on health promotion and prevention of chronic conditions, multimorbidity and diabetes. Since 2014, JA-CHRODIS has achieved relevant outputs:

Promotion & prevention:

- an overview on health promotion & primary prevention across Europe,
- selection and assessment of good practices
- Study visits in order to assess and foster the transferability of practices

Multi-morbidity:

- A review of multimorbidity care models
- Definition of a multimorbidity care model
- Definition of multimorbidity training programmes

Diabetes:

- Quality indicators for diabetes prevention and care
- SWOT analysis of policies and programs
- Analyses of National Diabetes Plans
- Guide for National Diabetes Plans

Knowledge exchange platform:

- Platform for knowledge exchange including good practices
- Clearinghouse

The workshop will present the use of all these outputs as they would be applied in a particular case from different perspectives: health promotion and disease prevention, addressing multi-morbidity, quality indicators or national plans for prevention and care of diabetes. It will also address these issues at different levels: from relatively limited interventions to models of care or to national plans or programmes. It will also show how to use existing scientific literature, study visits and exchange of practices. The chair will explain the objectives of the workshop and its design; she will present the case and open the debate, with some questions related to:

- health promotion and prevention of similar cases,
- integrated care of the case, with a focus on the control of diabetes,
- the management of the case focusing on the control of diabetes, including comments on the impact of National Plans,
- the ways to exchange knowledge and good practices on similar cases.

The panel will be formed by JA-CHRODIS experts on each of the fields. After the initial intervention of these experts, the discussion will be opened to the audience, guided by the chairperson with additional questions prepared beforehand if needed. The discussion will be recorded in written notes that will be later used to analyse the results.

The results of the workshop will be the identification of strengths of the outputs of JA-CHRODIS to help addressing similar cases and also the analysis of weaknesses or gaps that should be covered in the future.

This workshop arises from JA-CHRODIS, which has received funding from the EU, (Health Programme 2008-2013). Sole responsibility lies with the authors.

Key messages:

- Good practices to address the prevention and management of multimorbidity and to build health policies to reduce long-term complications of type 2 diabetes will be showcased

- Foundations of good practices for health promotion and prevention, multimorbidity and diabetes will be validated against a case study that can be generalized to frequent similar cases across Europe

The JA-CHRODIS case: a man with chronic diseases

Carlos Segovia

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The outline of the case study to be presented to the audience and discussed by the panelists of the round table is around a person with a complex health status:

A 75 years old male has been diagnosed with type 2 diabetes for seven years, which is not well controlled, and has just been discharged from hospital. He performs most activities of daily living but has recently suffered more memory lapses, including forgetting or confusing medications some days. He is treated with a variety of drugs. In short, this patient presents multiple chronic conditions: not well controlled type 2 diabetes mellitus, a mild cognitive impairment, hypertension, high cholesterol. Some information on his social context will also be outlined.

JA-CHRODIS: health promotion and prevention perspective

Alexander Haarmann

JA-CHRODIS WP⁵

JA-CHRODIS consortium

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Discussion of the JA-CHRODIS case study, from the perspective of health promotion and prevention, considering JA-CHRODIS outputs and results.

JA-CHRODIS: integrated care and multimorbidity

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JA-CHRODIS WP⁶

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Discussion of the JA-CHRODIS case study, from the perspective of the integrated care and multimorbidity, considering JA-CHRODIS outputs and results.

JA-CHRODIS: diabetes management

Marina Maggini

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Discussion of the JA-CHRODIS case study, from the perspective of the management of diabetes, considering JA-CHRODIS outputs and results.

JA-CHRODIS: exchange knowledge and good practices

Francisco Ramón Estupiñán Romero

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Discussion of the JA-CHRODIS case study, from the perspective of the exchange of knowledge and good practices, considering JA-CHRODIS outputs and results.

6.G. Workshop: Improving the access to health services - Community driven solutions

Organised by: Open Society Foundation
Contact: alina.covaci@opensocietyfoundations.org

Chairperson(s): Alina Covaci - Hungary

This interactive panel will highlight different approaches to promote equitable, quality health care for everyone, including the most excluded such as Roma, in the context of current austerity measures. The panel will examine community-based approaches to facilitating Roma access to health services. Two of the speakers will highlight efforts implemented by local non-governmental organizations, namely civil society monitoring and legal empowerment approaches. The third speaker will highlight a government-run program that has been implemented in many European countries. Speakers will describe community level strategies for bringing health implementation in line with European and national policies.

The proposed format of the workshop is an interactive moderated panel discussion. The participants will be involved in an interactive discussion with the moderator; they will not deliver individual presentations. The opportunity for discussion among the panelists will be also provided and followed by an open discussion with the audience. The invited panelists bring different backgrounds and perspectives, representing both local/national and regional viewpoints.

Panelists:

Borjan Pavloski

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Teodora Krumova

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Marta Schaaf

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6.H. Workshop: Cost-effectiveness studies in primary prevention interventions targeting children

Organised by: EUPHA section on Child and adolescent public health and EUPHA section on Public health economics
Contact: diana.sonntag@medma.uni-heidelberg.de

Chairperson(s): Tek-Ang Lim – France, Danielle Jansen – The Netherlands

Objectives

Cross-sectional representative surveys and school entrance examinations in different European countries have shown that an increasing proportion of pre-schoolers exhibit health-related issues with potential long-term negative consequences. These health problems (e.g. obesity, attention deficit hyperactivity disorder, social-emotional problems) affect health and quality of life in adulthood. In addition to effects on future health, these issues may have broader implications that impact both future health care costs and economic productivity.

Efforts to prevent these problems in children have increasingly been implemented in childhood everyday settings such as schools and neighborhoods. In addition, more and more interventions envision promoting children's health at even earlier points in development including pregnancy. Early childhood might be ideal for interventions to be cost-effective as health behaviors are yet to be firmly established.

However, most of the interventions are only evaluated regarding their health-related effects and not their costs. To enable effective political decision-making, cost-effectiveness estimates will be valuable in strengthening the case for early preventive efforts. Therefore, this workshop focuses on cost-effectiveness analyses that evaluate short and long-term economic consequences of early prevention programs. We will also discuss how economic parameterization and evaluation could be used to advance the field of early prevention.

Lay-out of the workshop

Starting with a systematic literature review (presentation 1) demonstrating that economic evaluations of childhood interventions are rarely performed, the workshop focuses on studies analyzing the cost-effectiveness of exclusive early prevention programs in Europe. In detail, costs and benefits of an obesity

prevention program in Portugal to increase healthy eating and active life as one representative European country will be presented (presentation 2). Afterwards, the workshop broadens the time horizon by focusing on short as well as longer-term costs and benefits of primary obesity prevention in Sweden (presentation 3). Since the use of conventional cost-effectiveness analyses cannot address the complexity of childhood interventions, the workshop discusses alternative approaches in the field of childhood interventions (presentation 4).

Key messages:

- Increasing the awareness of health care and policy organizations on health economic aspects of childhood interventions and consequences on the design of early prevention programs
- Translation into effective and sustainable public child programs in order to cut the rising costs of health care and advance health promotion of children in future

Cost-effectiveness of obesity prevention in early childhood: A systematic literature review of methods and applications

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Background

Despite methodological advances in economic modelling, cost-effectiveness studies in primary prevention intervention targeting children are currently insufficiently applied. The aim of the present study was to explore existing methods and applications of cost-effectiveness studies within early childhood obesity prevention.

Methods

A systematic literature review was conducted using the main electronic databases for health sciences and health economic evaluations, including PubMed, Cochrane Library, the British National Health Service Economic Evaluation Databases and EconLit. Peer-reviewed full economic evaluations published in English or German between January 2004 and November 2015 were considered for review. Eligible were studies including either a trial-based cost-effectiveness analysis or a simulation-based cost-effectiveness analysis of an obesity prevention targeting preschool children and/or their parents.

Results

Of the 728 studies identified in the initial search, 717 were excluded after scrutiny of the abstracts. The remaining 11 articles were retained for subsequent detailed assessment; among those, six were in line with our eligibility criteria and were included for analysis. They included five intervention studies, of which four were (cluster-) randomised trials and one a quasi-experimental intervention study. The sixth study was based on a simulation study conducted on secondary data. The descriptive quality assessment of the included economic evaluations presented varying degrees of integrity and completion.

Conclusions

While the need for cost-effectiveness studies on obesity prevention programmes in early childhood is immense, only a few studies of varying quality have been conducted. Moreover, due to methodological weaknesses, they have provided only limited information for policy makers. We elaborate reasons for the limitations of these studies and offer guidance for designing better economic evaluations of early obesity prevention.

Cost-benefit analysis of the 'Planning Health in School' programme to prevent children's obesity

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Background

This study evaluates the cost-benefits of the 'Planning Health in School' programme (PHS-pro), which was implemented for one-year in a follow-up non-randomized parallel-group trial that promoted healthy eating and active living in Portuguese children of 10-14 years.

Methods

Anthropometric outcomes (height, weight, waist circumference- WC, BMI and waist-height-ratio- WHtR) and behaviour changes in 219 intervention children (IC) were compared to 230 controls children (CC). A standard economic evaluation was used to determine the cost-benefits of the intervention, following the societal perspective approach. PHS-pro intervention costs were estimated and compared to the direct costs of treating obese adults in Portugal based on a Portuguese study (Ribeiro V. 2010). The net benefit was measured by subtracting the delivery costs of the intervention per child from the total averted medical costs associated to treat an adult obese in Portugal.

Results

After PHS-pro, the IC grew significantly more than the CC ($p < 0.001$), the WC was significantly lower in the IC (-0.4 cm) whereas CC increased (+0.3 cm; $p = 0.015$), and the WHtR of IC showed a significant reduction ($p = 0.002$) compared with CC.

PHS-pro costs were estimated in €8123.38 with an average intervention cost of €37.09/child to attend to the programme. This is much lower than the average direct costs for treating an adult obese in Portugal which was calculated in €3849.15/year. These costs are equivalent to implementing the PHS-pro in

104 children. The PHS-pro net benefit was positive in €3812.06 as the monetary benefits clearly overcame the monetary costs.

Conclusions

The findings provided evidence that the PHS-pro cost-benefits were economically feasible. The PHS-pro can be of beneficial investment to prevent overweight over in childhood and adolescence, developmental stages that determine adulthood free of chronic diseases.

Economic evaluation of an early childhood intervention to prevent obesity: the Primrose study

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Background

Childhood obesity is a major public health concern. Given the individual and societal consequences of childhood obesity, decision-makers are in need of cost-effective prevention strategies. The aim was to assess the costs and cost-effectiveness of a novel primary prevention program targeting pre-school children attending child health centers in Sweden.

Methods

The economic evaluation is based on the PRIMROSE cluster-randomized controlled trial aiming to establish healthy eating and physical activity among preschool children (9-48 months of age) through motivational interviewing applied by trained nurses at child health centers. The cost-effectiveness is assessed over the trial period taking a societal perspective. The primary outcome of this trial is BMI at age 4. Cost data was prospectively collected alongside the trial. To account for uncertainty, bootstrapping techniques and sensitivity analyses were carried out.

Results

The mean total costs of the PRIMROSE intervention was 4067 SEK per child. During preschool years direct costs mainly consist of training costs and costs for the additional time used by child health center nurses to implement the intervention compared to usual care. Early indirect costs mainly consist of parents' absence from work due to their participation in the intervention. Based the trial-based economic evaluation the incremental cost-effectiveness ratio was 1981 SEK per 0.1 BMI unit avoided.

Conclusions

This health economic evaluation is among the first European economic evaluations of an early childhood obesity prevention intervention. A simulation study incorporating the life time societal impact is planned to capture all relevant costs and effect.

Cost-effectiveness analyses as a facilitating tool for decision making: An illustration with vaccine preventable diseases in early childhood

Tek-Ang Lim

T-A Lim

EUPHA section on Public health economics

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Background

There have been a number of epidemics affecting infants and young children across Europe these past years (measles, polio, rubella, etc.). Most of the new infections in the population could have been avoided if the existing vaccines were administered in the communities. The information provided by public health experts doesn't seem to be convincing enough for authorities to implement the vaccination recommendations in the population. Since the mid-20th century, economic evaluations have been used to determine the optimal allocation

of resources in different fields (education, road traffic safety, etc.), the use of economic evaluations have also been extended to the health sector. This presentation will focus on how economic evaluation can complement traditional epidemiological studies and contribute to facilitate the decision making process.

Methods

There are different methodologies for economic evaluations, there is a growing literature that successfully addresses the monetary quantification of the overall impacts of adverse health risk factors and public health interventions. The focus here is on cost-effectiveness analyses of vaccine preventable diseases in early childhood. A systematic literature review has

been performed using the main electronic data bases for health sciences and health economic evaluations including PubMed, Cochrane Library and EconLit.

Results and Conclusions

Economic evaluations may contribute to enhance the effectiveness of decision making by providing information on optimal allocation of resources. In times of austerity, economic evaluations help to determine the most effective strategies and as such set priorities. However, it is essential to adopt a multidisciplinary approach in order to develop a more robust and comprehensive framework for health assessment in the decision making process.

6.I. Workshop: Suicide prevention strategies

Organised by: EUPHA-section on Public mental health
Contact: johan.bilsen@vub.ac.be

Chairperson(s): Johan Bilsen - Belgium, Jutta Lindert - Germany

Suicide is a major public health issue. According to the WHO worldwide over 800000 people die from suicide every year. The rate of suicide attempts is estimated to be even more than 10 times higher. In Europe, suicide rates vary from about 3/100000 inhabitants in Greece to about 28/100000 in Lithuania. Suicidal behavior is known to be a multifactorial phenomenon, resulting from an complex interplay of various bio-psycho-social factors, often unique for the involved individuals. Although there is already a great body of scientific evidence about important risk factors and processes that makes people vulnerable for suicide ideation and suicidal behavior, there is still a lot to discover and to explain, and continuously discussions are going on about key factors with regard to origin and development of suicidal thoughts and behavior. Especially regarding effective suicide prevention strategies, there are a lot of divergent opinions about the most appropriate steps to take going from rather restricting actions to broad pro-active health promotional approaches, population as well as, high risk group or even individual oriented. In this workshop we want to share recent insights about effective suicide prevention strategies, based on sound scientific research findings from different countries, and stimulate discussions about their concrete applicability and feasibility.

Dr. E. Dumon will present us the development, aims, and content of an updated overall suicide prevention strategy in Flanders, the northern part of Belgium, a country with among the highest suicide rates in Europe. She will discuss the lessons learned from an earlier strategy in the country, dealing with specific criteria such as suicide-specificity, quality of evidence, feasibility, etc. Prof. U. Hegerl emphasizes the usefulness of an multifactorial approach regarding suicide prevention, and will explain the community based 4-level-intervention concept, which has shown its effectiveness in several countries and is already implemented in more than hundred regions in Europe. He will discuss the main factors influencing this effectiveness based on a systematic implementation research and process analysis. Dr. O. Kirtley points to the importance of knowledge about associated factors that differentiate between suicide ideation and suicide enactment, for effective suicide prevention. She will explain this by presenting an integrated motivational-volitional model and showing evidence from several studies in the UK and Ireland. Among other things, she stresses the importance of social modelling of self-harm as an important key target for suicide prevention. Prof. M. Stricka finally gives us an overview of the suicide epidemiology and highlights the different suicide prevention initiatives in Lithuania, a country with among the highest suicide figures worldwide.

Key messages:

- Suicide is still a major public health issue, resulting from a complex interplay of various bio-psycho-social factors
- To address suicide sufficiently a comprehensive, tailored, evidence-based and feasible multisectorial suicide prevention strategy is necessary

The development and progress of a regional suicide prevention strategy in Flanders (Belgium)

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Introduction

Suicide rates in Belgium have been consistently high compared to suicide rates in the EU. The first Suicide Prevention Strategy was implemented in Flanders (northern part of Belgium) during 2006-2010. A revised prevention strategy was launched in 2012, aiming to decrease the Flemish suicide rate with 20% by 2020 (reference year 2000).

Methods

The first Flemish Suicide Prevention Strategy was evaluated and a team of experts developed a revised prevention strategy to incorporate new knowledge in suicide prevention and to capitalize on lessons learned from the first strategy. Specific and selected criteria (such as suicide-specificity, cost-effectiveness, quality of evidence, feasibility, ...) were used to define a broad range of new suicide prevention actions. For the coordination and scientific evaluation of the revised strategy, the 'Flemish Centre of Expertise in Suicide Prevention' (VLESP) was launched by the Flemish Government in 2013.

Results

The second Flemish Suicide Prevention Strategy contains five evidence-based prevention strategies, including 1) mental health promotion, 2) providing helplines and online help, 3) educating (mental) health professionals and community facilitators, 4) developing programmes targeting high risk groups, 5) developing and implementing guidelines for suicide prevention. In the framework of the strategy, a range of new innovative suicide prevention actions and studies targeting different population groups have recently been launched.

Conclusions

A targeted action plan for the prevention of suicide was recently developed in Flanders. The plan consists of a health target and a broad range of evidence-based strategies and actions. The development, goals, components and progress of

the revised Flemish Suicide Prevention Strategy will be presented and discussed.

Prevention of suicidal behaviour in Europe by community based interventions

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Introduction

The community based 4-level-intervention concept developed within the "European Alliance against Depression" (www.EAAD.net) combines two important aims: to improve care and treatment of patients with depression and to prevent suicidal behavior. It has found to be effective concerning the prevention of suicidal behavior in different countries and, in the meanwhile, has been implemented in more than 100 European regions.

Methods

The 4-level intervention concept comprises training and support of primary care providers (level 1), a professional public relation campaign (level 2), training of community facilitators (teacher, priests, geriatric care givers, pharmacists, journalists) (level 3), and support for self-help of patients with depression and their relatives (level 4). To deepen the understanding of factors influencing the effectiveness of the intervention, a systematic implementation research and process analysis was performed within an EU-funded study (www.OSPI-europe.com). These analyses were based on data from four intervention and four control regions from four European countries. In addition to intervention effects on suicidal behaviour, a variety of intermediate outcomes (e.g. changes in attitude or knowledge) were considered.

Results

Strong synergistic as well as catalytic effects were identified as a result of being active simultaneously at four different levels. Predictable and unpredictable obstacles to a successful implementation of such community-based programs will be discussed. Via the EAAD, the intervention concept and materials (available in eight different languages) are offered to interested region in and outside Europe. Internet based self management tools have recently been added to the catalogue of intervention materials.

Conclusions

The community based 4-level intervention is the most broadly implemented and evaluated approach to improve the care of patients with depression and to prevent suicidal behavior.

Using the integrated motivational-volitional model of suicidal behaviour for suicide prevention

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Background

Identifying variables that differentiate between those who think about suicide (ideate) and those who engage in (enact) suicide is a critical area for research focus, and represents key targets for intervention and treatment development. Recently, a new model of suicidal behaviour, the Integrated Motivational-Volitional model (IMV), has been proposed. The model posits that certain psychological, biological, and environmental factors are differentially associated with ideation and enactment. Evidence from several studies is presented to demonstrate the potential of the model for developing suicide prevention interventions.

Methods

Adults and adolescents from across the UK and Ireland have taken part in a series of studies investigating self-harm thoughts and behaviours, including defeat, entrapment, humiliation, hopelessness, depression, impulsivity and social modelling.

Results

The self-harm ideation and enactment groups do not differ significantly in pre-motivational phase (background and vulnerability factors) or motivational phase (ideation/intention formation) variables, including defeat, entrapment, and social perfectionism. Those in the enactment group, however, score significantly higher than the ideation group on volitional phase variables (behavioural enactment), namely exposure to social modelling of self-harm and impulsivity. Another volitional phase variable, implementation intentions, also offers promise in reducing suicidal behaviour.

Discussion

The results support the validity of the IMV model as a framework for identifying variables that differ between those who think about and engage in self-harm. Differences between the ideation and enactment groups, particularly in exposure to social modelling of self-harm, highlights this as a potential key target for suicide prevention. Furthermore, initiatives that socially model positive problem-solving behaviours and other protective factors may have utility.

Suicide prevention: a case of Lithuania

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Background

In Lithuania suicide is a key public mental health challenge affecting people throughout life time. For more than two decades suicide rates in Lithuania are at the epidemic level, and prevalence of risk factors is high. Urgent actions for comprehensive suicide prevention are needed, an several prevention pilots based on different policy approaches – push or pull – are being implemented in the country. This presentation aims to give an overview of the epidemiology of suicide and suicide prevention approaches in Lithuania.

Methods

Descriptive analysis of national administrative data on mortality, consumption of health care services, synthesis and analysis of suicide prevention approaches and practices.

Results

In Lithuania SMR from suicides in 2014 was 28.3/100 000 population, which is twice higher than the EU average. The main risk group is the middle aged men living in rural areas (SMR is almost 86/100 000). However recent trends show growing suicide rates among young people (3 times increase from 4.8 to 13.7 deaths per 100 000 in recent years in the age group 9-19 years) and elderly women (SMR is 20.5/100 000). Prevention strategies seek to enable GPs to identify depression and suicidal ideation and direct individuals to proper healthcare services, and ensure follow-up aftercare for patients with suicidal behavior.

Conclusions

Suicide mortality trends in Lithuania for two decades remain the highest in Europe and are among the highest in the world. Identified risk groups allow targeting suicide prevention policy approaches more specifically. Comprehensive suicide prevention and responsive health system contribution is needed to manage the suicide mortality trends in the country.

6.K. Pitch presentations: From genomics to vaccination in promoting health

Delivery models for predictive genetic testing: preliminary results of a systematic review

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Background

Research on the integration of genomic knowledge into clinical practice and public health is in an early phase, and many concerns remain. The aim of this study is to identify, classify, and evaluate delivery models for the provision of predictive genetic testing in Europe vs. extra-European (Anglophone) countries.

Methods

A systematic review of the literature was conducted to identify existing genetic delivery models. Inclusion criteria were that articles be: published 2000-2015; in English or Italian; and from European or non-European countries (Canada, USA, Australia or New Zealand). Additional policy documents were retrieved from represented countries' government-affiliated websites (non-systematic search).

Results

A total of 117 records were included, reporting on 148 genetic programmes. The programmes integrated into healthcare systems were 99 (64.9%), 49 (33.1%) were pilot programmes and 4 (2.7%) were direct-to-consumer genetic services. Most programmes were delivered in the United Kingdom (58, 39.2%), USA (35, 23.6%) or Australia (16, 10.8%). Tests for hereditary breast and ovarian cancer and Lynch syndrome were most commonly offered (39.9% and 12.8% of programmes, respectively). Many of the genetic tests offered have insufficient clinical validity or utility. The identified genetic programmes can be classified into five basic genetic service models based on which type of healthcare professional has the most prominent role in test referral: I) the geneticists model; II) the primary care model; III) the medical specialists model; IV) the population screening programmes model; V) and the direct-to-consumer model. Rudimentary evaluation of the identified programmes will be made based on outcomes and process measures of the models.

Conclusions

This review, as part of an European multicenter study, will facilitate the identification of appropriate models, outcome and process measures for the provision of predictive genetic testing in Europe.

Key messages:

- Current genetic services are delivered without standardized set of process and outcome measures, which are essential for the evaluation of healthcare services
- Identification of appropriate genetic services delivery models is important for the implementation of genetic applications of proven efficacy, effectiveness and cost-effectiveness

How do patients experience genetic testing? Survey on patients tested for cancers and thrombophilia

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Background

Variation in patients' experience of genetic services may affect their willingness to undergo testing and to participate in post-test disease prevention. The aim of this study was to investigate the main factors that may influence how patients experience genetic testing and post-testing care pathways.

Methods

Telephone surveys were administered to 370 individuals who underwent testing for APC, BRCA1/2, or inherited thrombophilia (FV Leiden and/or FIIG20210A). Outcomes (self-reported) were patient satisfaction with genetic counselling, patient perception of collaboration between actors in and out of the genetic service, and the impact of genetic testing on patient quality of life. Logistic regression analyses were used to assess determinants that could affect these outcomes.

Results

The response rate was 64% (237/370). Respondents included 33 tested for APC, 104 for BRCA1/2, and 100 for inherited thrombophilia. The majority of patients receiving counselling were satisfied with both pre-test (100% APC; 98% BRCA; 86% FVL/FII) and post-test (97% APC; 98% BRCA; 60% FVL/FII) sessions. Patients tested for cancer susceptibility reported significantly higher levels of satisfaction than those tested for thrombophilia in both pre-test (98 vs 86%; $p < .001$) and post-test counselling (98 vs 60%; $p < .001$). Face-to-face counselling was associated with more satisfaction than other counselling options. Patients tested for cancer susceptibility reported more perceived collaboration between health providers than those tested for thrombophilia (OR = 2.53; 95% CI = 1.23-5.23), and were also more likely to report improvement in life quality after testing (OR = 2.58; 95% CI = 1.22-5.47).

Conclusions

Patients show high satisfaction with genetic testing and tend to perceive their care pathways as integrated. The perceived quality of testing is significantly associated with the type of genetic disease.

Key messages:

- Genetic counseling, management of genetic care paths and overall experience of undergoing genetic testing were judged more positively by patients tested for cancer than those tested for thrombophilia
- Patients' perceptions may be influenced by the appropriateness and clarity of guidelines for different types of genetic tests

A pilot survey on knowledge and attitudes of public health professionals on public health genomics

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Background

During the past decade a debate has arisen on the possible utility of genomic science for public health purposes. Within this context, we aim to conduct a survey to assess the attitudes of European public health (PH) professionals belonging to EUPHA network regarding their role in the implementation of public health genomics (PHG), and their knowledge and attitudes regarding genetic testing and the delivery of genetic services.

Methods

A pilot on-line survey was conducted on PH professionals that attended EUPHA 2015 Conference's session on PHG, to

ensure practicability, validity and interpretation of the questionnaire. The survey tool is composed of 5 sections: Personal details, Professional activity, Knowledge on genetic testing and delivery of genetic services, Attitudes on genetic testing and delivery of genetic services, Attitudes on the role of public health professionals in PHG.

Results

34 people responded to the questionnaire, mostly female (78,6%) and medical doctors (71,4%). PHG was not addressed during the undergraduate training for any of respondents. Only 35.7% of them correctly identified all evidence-based applications of genetic testing and 42.9% knew all the components of a genetic service. There is no clear-cut opinion on the risk that PHG may divert efforts and resources from addressing social and environmental causes of ill health (42.9% thought it may). Over 85% of respondents thought PHG needs to be grounded on evidence of effectiveness and cost-effectiveness. 15 to 21% of respondents disagreed with the proposed roles of PH professionals in PHG. Comments provided to the questionnaire suggested to simplify the language and rephrase some of the questions in order to increase the number of negative items.

Conclusions

This pilot study showed a positive attitude but the need to improve knowledge of PH professionals on PHG. It provided useful input for the implementation of the survey to all members of the EUPHA network.

Key messages:

- Public Health Genomics (PHG) is not commonly addressed in undergraduate training and an effort should be made to develop specific curricula on PHG in public health post-graduate training programmes
- The results of EUPHA's survey on knowledge and attitudes on PHG will provide a useful background to develop strategies to foster the incorporation of genomics into public health practice in Europe

How should genetic tests be evaluated? Final Results of a systematic review of the existing tools

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Background

Given the increasingly rapid development of genetic tests, the assessment of their actual benefits is crucial for clinical and public health practice. For this purpose, different evaluation models have been developed. Our aim was to identify and compare in a systematic manner the existing evaluation models for genetic tests, considering their methodology and evaluation criteria.

Methods

We performed a systematic review of the literature through PUBMED, SCOPUS, ISI Web of Knowledge, Google Scholar, Google and grey literature sources including any document describing models for evaluating genetic tests such as research articles, congress abstract, documents of government agencies and research organizations. A Delphi survey involving Italian experts in Public Health Genomics has been performed to reach consensus on data extraction.

Results

We identified 26 models dated between 2000 and 2015 (USA n.10, Canada n.4, Europe n.9, Australia n.1, International n.2), mostly based on the ACCE model (n.12 models), on the HTA model (n.6) or both (n.2). The other ones refer to Wilson and Junger screening criteria (n.2) or to a mix of different criteria (n.4). While 14 tools address all types of genetic test, the other 12 address a specific type of genetic test (i.e. screening, presymptomatic, susceptibility, pharmacogenetic). Most used evaluation criteria are analytic and clinical validity, clinical

utility and ethical, legal and social implications. The economic dimension is always considered even if in little detail. Attention for delivery models, organizational aspects, consumer's point of view is often lacking and only few models highlight research priorities or criteria to recommend the use of the test.

Conclusions

These results unearth the lack of a standardized, shared and complete process for the evaluation of genetic tests and the need to develop an unifying proposal, based on the strengths and weaknesses of the retrieved models.

Key messages:

- This systematic review identified three main tools for the evaluation of genetic tests: the ACCE model, the HTA process and the Wilson and Junger population screening principles
- There is the need to develop a unifying proposal of a complete and innovative process to evaluate genetic tests, relevant to the different national and local contexts

Promote immunization among high school students: the school-based project "VacciniAmo le Scuole"

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The Italian vaccination calendar recommends some vaccinations to adolescents, which often represent a difficult target for immunization campaigns. Without adequate health education they could remain unaware or be misinformed and miss their opportunity. The "VacciniAmo le Scuole" project ("let's vaccinate the School") aimed at evaluating and enhancing students' knowledge and attitudes regarding vaccine-preventable diseases. Students of 4 Italian secondary schools fulfilled a questionnaire before and after they attended a health promotion intervention ("vaccination day") carried out by public health specialists, coming from both University and Local Health Authorities (LHA). Each class received a 90 minutes intervention that was divided into a first theoretical part and a second one more practical (using role-play). Later, each LHA arranged to receive students in their surgery to carry out recommended vaccinations or give specific information ("Vaccine day").

22 vaccination days involving 680 pupils were carried out. Students showed a significant mean improvement in their knowledge of vaccinations (mean pre-post difference = 2.9 ± 0.2 , $p < 0.01$) and a small but significant step towards the maximum self-perceived importance of vaccination (mean pre-post difference = 0.4 ± 0.2 , $p < 0.01$). Few students (5%) participated in one of the 13 Vaccine days, but within 6 months since the "vaccination day" 178 of the involved students went to their ASL to get vaccines or information.

The study highlights a significant amelioration in students' knowledge and attitude towards vaccine-preventable diseases. Considering the importance of informing and educating, especially in this field, role-play could represent an excellent and innovative way of imparting the best knowledge available to young students. The responsiveness to the dedicated Vaccine days has been below the expectations.

Key messages:

- Our results suggest that role-play can be a successful teaching method in secondary schools enabling students to practise through simulation what they have learned

- The vaccine supply out of the school context could have limited the efficacy of the intervention. Better results could be reached offering the vaccination in school facilities

Hungarian high-school students' attitude toward the HPV vaccine

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Background

In Hungary, the estimated mortality rate of cervical cancer in 2012 was 6.9/100,000, which was higher than the average of the EU27 (3.7/100,000). Since September 2014, the bivalent HPV vaccine has been mandatory for school girls aged 12-13 nationwide. Awareness of a disease is a protective factor, thus we aimed to assess the knowledge of young Hungarian adults about cervical cancer and their attitude towards the vaccine.

Methods

We conducted a cross-sectional study among 1022 high-school seniors (492 girls and 530 boys) from 19 randomly picked schools in Budapest. Participants anonymously completed our questionnaire of 54 multiple choice questions regarding basic sociodemographic factors, cervical cancer, HPV and the HPV vaccine.

Results

The majority (64.4%) of participants knew HPV infection was the cause of cervical cancer. 52.1% identified HPV infection as an STI. Knowledge of risk factors as promiscuity (46.9%) and early onset of sexual life (15.6%) was lower, as well as of other diseases related to HPV: genital warts (9.9 in women, 9% in men), anal cancer (2.6% in women, 1.9% in men), penile cancer (9.4%) and vulvar cancer (7.8%). 16.1% claimed to have received the vaccine and 51.2% of the students would vaccinate their future children. Only 14.6% believed that they were at risk of getting infected. 35.7% were in favor of making the vaccine mandatory, while 32.9% were against it. Significantly more girls than boys ($p < 0.001$) would have their future children vaccinated and make the vaccine mandatory.

Conclusions

Our results support the findings of previous international studies that the knowledge of young adults concerning cervical cancer and HPV is poor, especially regarding pathologies in men. Despite their low knowledge and self-perceived risk of infection, the attitude of our sample was mostly positive toward the vaccine.

Key messages:

- The knowledge of young Hungarian high-school seniors was relatively low regarding HPV and cervical cancer, which emphasizes the importance of health and sexual education among the youth
- The students were mostly supportive of the HPV vaccine for they would have their future children vaccinated

Cultural reflections on the Scottish HPV vaccination programme

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Background

The Scottish HPV vaccination programme serves young women aged 11 to 18 years and reports consistently high uptake rates, yet these figures may conceal levels of understanding and antecedents to decision-making. Evidence from other European countries indicates that ethnicity may influence decision-making regarding vaccination. The aim of the study was to identify understandings and explanations for HPV-related health behaviours within differing cultural contexts by examining accounts of young people from Black, Asian and Minority Ethnic (BAME) communities.

Methods

A critical qualitative exploratory study utilising Foucauldian discursive analysis was conducted. Seven focus groups and four paired interviews were conducted with 40 young people aged 16-26, from BAME communities: South Asian/Black African/Arab, Muslim/Sikh/Christian. Stimulus material was utilised to explore understandings of HPV, experiences of vaccine programme, views on universal vaccination.

Results

Contrasting attitudes and perceptions across ethnicity and gender were observed: openness of Black African participants to information and partnership working; barriers to inter-generational dialogue expressed by Asian men; intracultural and intercultural opportunities for information-sharing proposed by Asian women. Participants identified solutions for sensitising formative public health interventions - how they are to be delivered and in which contexts including a flexible approach to offering information and the vaccine.

Conclusions

Public health strategies should consider including: a staged and tailored approach to information-giving throughout school and beyond; extending the age of vaccination and including boys being offered the vaccine at a culturally acceptable stage and age; developing neutral and destigmatised messages in partnership with communities/elders; employing multi-media information campaigns for young men and women.

Key messages:

- Embracing a flexible intracultural and cross-cultural approach will include utilising general and specific strategies that embrace diversity and increase public access to information and vaccine
- Working in partnership with BAME communities is essential for the development of destigmatising messages and intercultural communications

Young men with intellectual disabilities' constructions of the human papillomavirus and vaccine

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Background

Scotland is one European country offering a national school-based HPV vaccination programme to at least one age-cohort of females, however it does not include young men. A substantial body of literature explores and measures attitudes of young people towards HPV vaccination. Young men, particularly those with an intellectual disability, have been neglected in the literature.

Methods

As part of a larger qualitative study, three focus groups with eighteen young men with intellectual disabilities were conducted in November and December 2015. A focus group topic guide and activity-oriented questions explored the men's understandings of HPV and the vaccine. Data were analysed from a critical public health perspective, underpinned by discursive psychology.

Results

Participants positioned themselves as excluded from the HPV public health agenda yet were not sexually naive. HPV appeared to challenge local logic and established safe sex discourses leading to a sense of powerlessness and confusion. Participant reflections on their exclusion from the vaccination programme included anxieties surrounding narratives of cancer and HPV risk leading to the identification of other more "at risk" groups across society. Estranged from HPV discourse at school and elsewhere, appropriate information resources were unavailable with no expectations of being offered the vaccine. In the absence of the HPV vaccine or

accessible information, the young men appeared at risk of contracting or transmitting HPV to non-vaccinated partners.

Conclusions

Young men with intellectual disabilities require access to health literature regarding HPV, taking into account levels of health literacy and capacity to utilise digital health resources. They can and should be equal partners in shaping public health policy and health messages, since excluding them from HPV discourse will only serve to reduce their expectations for health and increase their likelihood of poor health outcomes.

Key messages:

- Young men with mild/moderate intellectual disabilities desire targeted and co-produced written, pictorial HPV information delivered through face-to-face, digital and printed media
- Persistent exclusion from sexual health discourse puts young men with intellectual disabilities at significant risk of acquiring and transmitting HPV

6.L. Pitch presentations: Impact of health inequalities

Health inequalities reduction in Lithuania: from evidence based practice to policy development

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Problem

Lithuania appears in the range of the countries with the most significant inequalities in health and health care. In 2014, the Lithuanian Parliament approved the Lithuanian Health Program 2014-2025 with strategic goal - to reduce health and health care inequalities in Lithuania.

Description of the problem

In order to facilitate in tackling health inequalities, the project "Development of the Model for the Strengthening of the Capacities to Identify and Reduce Health Inequalities" has been launched. This project is run by Lithuanian University of Health Sciences, Vilnius University, Klaipeda University and the Institute of Hygiene and financed by the Norwegian Financial Mechanism 2009-2014 Program "Public Health Initiatives". It commenced in 2014 and will be completed in 2017.

Results

The project has three actions. The first - the development of health inequalities identification and monitoring system. This stage is completed, and all municipalities in Lithuania will start using it in 2016. The second - is the development of recommendations for reducing health inequalities in Lithuania. The set of recommendations has been developed and piloted in selected municipalities. The third - the capacity building of public health specialists and policy makers at regional and national level. These training sessions will be run in September - December 2016.

Lessons

It is expected, that outcomes of the project could contribute to the reduction of health inequalities in Lithuania. The monitoring system will ensure the good quality and reliable information on health inequalities in the country. Recommendations for reduction will provide guidelines for evidence-based measures in reducing health inequalities at

municipal level. Training will increase awareness and facilitate as accelerating factor for starting other initiatives for reducing health inequalities.

Key messages:

- A new health inequalities monitoring system will be developed
- Critical mass of public health specialists will undergo capacity building training in health inequalities

Worse or better? The challenge of measuring inequality changes in premature mortality in Belgium

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Background

Reducing health inequalities is, both on European and national agendas, a key public health objective, and requires monitoring. Interpreting changes is however a complex issue: indices can evolve in opposite ways and shifts in the socio-economic indicator over time may modify the population level impact of inequalities. Here, we compare several educational mortality inequality indices in Belgium between 2 consecutive decades.

Methods

The 1991 and 2001 census data were linked with causes of death data. A longitudinal approach was used, with a 5 years mortality follow-up. Age-standardized all-cause premature (25-64 years), avoidable mortality rates were computed by educational level (EL) grouped as "low" (ISCED 0-2), "mid" (3-4), or "high" (5-6). Inequalities were measured through rate differences (RD), rate ratios (RR), and Population Attributable Fractions (PAF) and decomposed by specific causes.

Results

All-cause and avoidable death rates decreased in all EL and both sexes. The largest decline was observed in the lowest EL in men (-111, -73 and -91 per 100,000 PY respectively in low, mid, high EL), but in the highest EL in women (-28, -23 and -48 in low, mid, high EL) resulting in a RD decrease in men

opposed to a RD increase in women mostly imputable to smoking related causes (except for IHD). RR increased in both sexes. From a societal perspective, the PAF increased (larger increase in women). Decomposing the PAF revealed Lung cancer, IHD, COPD and suicide in men, IHD, stroke, Lung cancer and COPD in women to have the highest impact on population level inequality.

Conclusions

Relative and absolute inequalities evolved differently in men, while both increased in women. However, a positive evolution is observed in the educational distribution and in the mortality in each EL, which are valuable outcomes. Further reducing the inequalities could best be achieved through targeting those causes that generate the highest PAFs.

Key messages:

- using multiple inequality indices reveals a nuanced picture, with an increase of relative inequalities, a puzzled trend in absolute inequalities, but a decreasing share of the lowest EL
- The contribution of inequalities in specific causes of death to the overall evolution will be helpful for the interpretation, and we shall explore it in this work

Economic Crisis and Health Inequalities in Southern Spain: A Multilevel Analysis

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Background

Health inequalities are closely related to variations in social and economic determinants of health. This work is aimed at studying how the economic downturn has affected the relationship between socioeconomic status (SES) and health for Spanish population, and how these changes might explain the emergence of health inequalities in different regions of Spain, with a specific focus in Andalusia.

Methods

In this study, we use quantitative data from the project IMPACT-A, in particular information from the Spanish Health Barometers (2005-2014), to explain the variations between SES and health in Spain during the recent economic crisis. The contextual effect of social and macroeconomic indicators is analyzed through the use of multilevel regression models.

Results

Despite the effect of economic indicator is moderated by the Spanish universal system of health provision, our results show that recent changes on individual and contextual socioeconomic factors have a significant impact on health, especially between groups in risk of social exclusion. The multilevel analysis technique describes the complex relationship between the changes in socioeconomic and health inequalities, which could be related with the recent variation in health and social policies.

Conclusions

The present work studies the changes in socioeconomic determinants of health and analyzes the evolution in this relationship for the period 2005–2014 in Spain. This study supports the existence of contextual effects among Spanish regions that varies the association between SES measures and health, and therefore points out the relevance of socioeconomic context in explaining the differences in individuals' states of health. In addition, our model indicates that more attention should be paid to less studied SES measures, especially those related to the position of individuals in globalized labor markets.

Key messages:

- This study describes the complex relationship between the changes in socioeconomic and health inequalities
- Supports the existence of contextual effects among Spanish regions that varies the association between SES and health

Time-trends in socioeconomic inequalities in oral health among 15-year-old Danish adolescents

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Background

Time trends in oral health inequalities among Scandinavian children and adolescents, particularly during recent decades, have not been studied in detail. We analyzed the association between socioeconomic position (SEP) and oral health in Danish adolescents (adjusting for potential confounders) and investigated the time trends in these associations between 1995 and 2013.

Methods

Nationwide repeated cross-sectional studies using individual-level data were conducted on 15-year-olds from Denmark in 1995, 2003, and 2013. Dental data—acquired from the Danish Health Authority—were available for ~80% of all adolescents (N=154,750). Data on social variables were obtained from registers at Statistics Denmark. SEP measures included previous year's parental education, occupation, and equivalized (household) disposable income. Covariates were immigration status, country of origin, number of children and persons in the family, and household type. The outcome was dental caries experience, determined by the decayed, missing, and filled surfaces (DMFS) index score. Zero-inflated negative binomial models were used to evaluate the effect of SEP on caries experience.

Results

Caries prevalence declined from 71% in 1995 to 63% in 2003 and 45% in 2013. Statistically significant graded associations between the SEP indicators and DMFS score (Type-3 p-values <0.0001) were observed throughout the years, even after adjustment for all other covariates. For instance, in 2013, being of subordinate occupational social class was associated with up to 2.4 (95%CI: 2.2–2.6)-fold increase in the amount of caries experience. Across the years, relative inequality consistently increased in all three SEP categories while absolute inequality decreased in the education and occupation categories.

Conclusions

Considerable progress has been made in reducing dental caries rates in Danish adolescents; however, this progress has benefited the disadvantaged social groups less than the better-off groups.

Key messages:

- Significant graded association between childhood socioeconomic position and dental caries exists in Denmark
- Declining caries prevalence in Danish adolescents has been accompanied by increasing relative but decreasing absolute socioeconomic inequalities

The weight of inequalities: length of residence and offspring's birthweight among migrants in Sweden

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Background

Evidence of health modification among migrants by time spent in the host country is relevant to define specific health care needs but also to assess the health consequences of different approaches to migration. We evaluated the effect of the length of residence on the association between birthweight and maternal origin in the Swedish context. Using a subsample of siblings, we also investigated how far the results could be biased by using cross-sectional data, since there might be a selection among those mothers who decide to have a child right after moving to the country.

Methods

A population-based cross-sectional study was conducted using the Swedish Medical Birth Register (1992-2012). The analysed population consisted of 1,566,665 singleton births. We performed multinomial, multilevel linear regressions, and random effect meta-analysis. We classified maternal countries of birth according to the Human Development Index categorization (HDI). Length of residence was classified into ≤ 4 , 5 to 9 and > 10 years in Sweden.

Results

Compared to the offspring of Swedish-born mothers, those of foreign-born ones were lighter on average (-120 g [-143,-60]) and had a higher risk of having low birthweight (relative risk ratios: 1.70 [1.61,1.80]). The variation of birthweight by length of residence was small (less than 50 gr) and was only statistically significant among countries of medium and high HDI after maternal socioeconomic information. This small variation contrasts with the gradient found between countries of different HDI (the difference between low and very high HDI was of 105 gr) regardless of length of residence. The within-country analysis using sibling comparison confirmed these results.

Conclusions

Early life conditions are associated with offspring's birthweight. This association is not modified by maternal length of residence in Sweden or buffered by her socioeconomic conditions.

Key messages:

- Contextual early life conditions of women are associated with their offspring's birthweight favoring the intergenerational transmission of health inequities
- More efforts are needed in the host country to compensate for maternal early-life forces

Occupational class trajectories in physical health functioning among ageing female employees

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Background

Employee populations are ageing in many countries as baby boomers approach retirement ages. However, changes in health and health inequalities among ageing employees are poorly understood. We examined occupational class trajectories in physical health functioning among ageing female employees, and the contribution of work factors to these differences.

Methods

The data derived from the Helsinki Health Study baseline mail surveys in 2000-2002 (n = 8960, response rate 67%) and follow ups in 2007 and 2012. 6528 female participants (ages 40-65)

were included. Occupational classes at baseline were managers, semi-professionals, clerical employees and manual workers. Time-variant functioning was measured by Short Form 36 physical component summary (PCS), with scores from 0 to 100, higher scores indicating better health. Time variant physical and mental strain of work and employment status were measured. Growth curves were estimated using mixed models.

Results

Functioning declined by age in all occupational classes. At age 40 the PCS score for female managers was 52.5 (95% confidence interval 51.9-53.2) and for manuals 50.7 (49.6-51.7). At age 65 the scores were 48.0 (47.1-48.9) and 41.3 (39.8-42.8), with the class gap widening from 1.8 to 6.7 scores. Adjusting for strain of work had minor effects on the class trajectories. For those remaining employed the trajectories were similar but the class gap was narrower. For those retiring the gap was wide but narrowed by age.

Conclusions

Among female employees facing retirement age physical functioning was the poorer the lower the occupational class. Functioning declined in all classes with a faster pace in the lower the classes, leading to a widening class gap towards age 65. Strain of work had minor effects, whereas retirement led to a wide class gap narrowing over age. Workplace measures are needed to prevent declining physical functioning among ageing female employees in general and among lower class employees in particular.

Key messages:

- Among ageing female employees the class gap in functioning widened towards retirement age
- Work factors did not affect the class gap, but among the retired a large initial gap narrowed over age

Low education and poor health: their combination makes non-employment much more likely

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Background

Low education and poor health affect employment status but it is unclear whether they exacerbate each other's effect. This study examines the associations and interaction of education, and physical and mental health, with employment status among young and older adults.

Methods

This cross-sectional study was conducted using data on 83,575 participants from the population-based Lifelines Cohort Study. Physical and mental health were measured with the RAND-36. Poor health was defined as a physical or mental component score < 50 . Participants not working ≥ 12 hours per week were considered non-employed. The relative excess risk due to interaction was calculated to examine interaction on the additive scale.

Results

Rates of non-employment were highest for participants with low education and poor health. The relative excess risk due to interaction of low education and poor physical health with non-employment was 2.88 (95% confidence interval: 2.31, 3.45) in young adults and 1.34 (95% confidence interval: 0.83, 1.86) in older adults. For poor mental health, the relative excess risks due to interaction were 2.67 (95% confidence interval: 2.08, 3.27) and 1.21 (95% confidence interval: 0.70, 1.72), respectively. In young but not in older adults, medium education and poor physical health also interacted.

Conclusions

Low education and poor health combined make non-employment much more likely in young and older adults. This regards both physical and mental health, and extends to medium education and poor physical health in young but not in older adults. Social policies should address the health status of low educated individuals more explicitly to provide them with better opportunities for paid employment.

Key messages:

- Low education and poor health exacerbate each other's association with non-employment in both young and older adults
- Social policies may become more effective if they explicitly address the physical and mental health status of low educated individuals

Health predictors for return migration: a nationwide historic prospective cohort study

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Background

Knowledge is scarce about the health status as well as other characteristics of individuals who choose to return to their country of origin. This information is, however, important to design and implement appropriate health interventions for those migrants who stay as well as for those who leave. The study aims to describe what characterizes those who return migrate with regard to demographics, socioeconomic and

health status. Denmark provides unique possibilities of studying this problem due to extensive nationwide registries.

Methods

A historic prospective study based on a cohort of all adult refugees and family reunification immigrants (n=114,331) who obtained residence permission in Denmark between 1 January 1993 and 31 December 2010. The cohort was merged with the Danish National Patient Register and registries on socioeconomic data. Logistic regression with emigration (proxy for return migration) as outcome and age, sex, nationality, type of residence permit, marital status, educational status, household income, and presence of diseases as potential predictors will be performed.

Results

Descriptive data found that return migrants had a lower prevalence of cardiovascular disease, diabetes, post-traumatic stress syndrome and chronic pain and to a higher degree originated from a Western country, were divorced rather than married and had a lower household income when compared to non-return migrants. Results are, however, preliminary at this stage as analysis are ongoing. ORs with 95% CI from the regression model will be presented at the conference if the abstract is accepted.

Conclusions

The topic is of interest for European countries with growing immigrant populations many of whom choose to return migrate. Information is warranted on the health characteristics and needs of these populations and their access to care in return countries.

Key message:

- Return migrants are less ill and have lower socioeconomic status compared to non-return migrants

6.M. Oral resentations: Health services and policy making

Use of health services in the European Union – Findings from the European Health Interview Survey

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Background

Universal access to health care is an internationally shared political goal. While health protection is widely granted by law in the EU it can still be assumed that country specific barriers to access are in effect. We ask to what extend differences in realized access (utilization) persist in the EU.

Methods

The 1st European Health Interview Survey (2006-2009; n=174,254) was conducted in 16 member states including 13 with complete information on physician services use (Belgium, Bulgaria, Czech Republic Estonia, Greece, Hungary, Latvia, Malta, Poland, Romania, Slovak Republic, Slovenia, Spain). Use of general practitioners and specialists was measured for recall periods of 12 months (GP12M, SP12M) and 4 weeks (GP4W, SP4W). Logistic regression served to adjust for age, sex, SES and health-related limitations as an indicator for medical need.

Results

Country-specific GP12M was lowest in Greece with 57.8% (CI-95%: 56.2-59.4) of the total population and highest in Belgium

with 79.3% (78.2-80.4). Variation was even higher for SP12M with a demand of 17.4% (16.8-18.0) in Romania and 59.8% in Hungary (58.4-61.2). Model based predictions at medium SES for the same sex distribution and average age across all countries show that in case of health-related limitations GP12M was lowest in Greece (74.3%; 70.4-78.2) and highest in Belgium (93.6%; 91.8-95.4) while SP12M was lowest in Bulgaria (48.6%; 45.0-52.3) and highest in Spain (75.8%; 73.9-77.7). Similar results were found for GP4W and SP4W indicating that especially in case of need use of specialist care was higher in western and southern member states and lower in the Baltic and southeastern countries.

Conclusions

Between EU member states considerable differences in terms of realized access exist that should be further observed. Based on harmonized survey methodologies surveillance systems should not only consider population-wide demand but as well indicators of realized access in case of need.

Key messages:

- There are marked differences between EU member states in the utilization of health care even in case of medical need
- International comparisons should include health-related measures of access to health care in addition to the measurement of mere population-wide demand

New migrants' primary healthcare in the UK: a formative study of adaptation

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Background

The impact of immigration on healthcare services is a dominant European concern. Efficiency and equity are key goals. This study examined the ways primary healthcare adapts to the needs of new migrants in the UK; a national context where there is little guidance or performance measurement related to care for this group.

Methods

Survey: Non-probability sample of GPs and other health professionals who had served new migrant populations in the last five years ($n = 70$);

In-depth case studies: Documentary analysis, in-depth interviews and focus groups with eight case study primary care organisations.

Results

86% of survey respondents reported migration had increased in their area in the past five years. While most had made changes to their services as a result, one in five did not identify any adaptations. There were a variety of modifications evident, for example, signposting patients to support agencies, coordinating primary care services with other agencies e.g. housing associations, providing cultural competency training for staff and running 'one stop shop' clinics. Some of the case study organisations were specifically designed for vulnerable migrants; these services adopted a range of resource-intensive adaptations including bespoke screening programmes and holistic medical/social assessment. Drivers for adapting services included practitioner, organisational and wider contextual factors; a commitment to equity was central. Factors that prevented adaptation included funding limitations, staff skills and training and staff 'burn-out'. Adaptations were intended to enhance patient access, identify complex need, address the social determinants of health and improve patient-practitioner communication and trust.

Conclusions

Adaptations to primary care services for new migrant populations are closely related to organisational and practitioner orientations to equitable care but are constrained by existing funding and capacity limitations.

Key messages:

- In the absence of guidance, primary care adapts its services to new migrants' needs focusing on population need and organisational capacity
- Important drivers for adaptations to primary care services for new migrant populations are organisational and practitioner orientation to equitable care

Mid-term review of the European Action Plan for Strengthening Public Health Capacities and Services

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Background

In September 2012 all 53 WHO Europe Member States endorsed the European Action Plan for Strengthening Public Health Capacities and Services (EAP-PHS), a main pillar of implementation of the European health policy, Health 2020. The CPPH, Durham University, England, was commissioned to undertake a mid-term review of the EAP-PHS.

Methods

A mixed methods study design was used. Two surveys were conducted between January and April 2016: one for Member States and one for Partner Organisations working with WHO.

They were supplemented by key informant interviews. Selected country case studies were undertaken to explore the use of the self-assessment tool, Essential Public Health Operations (EPHOs), part of the EAP.

Results

The surveys revealed a number of significant developments that aligned with the EAP-PHS. Examples included completing a national strategy; developing policies; a tool to prioritise finances. Barriers to progress included resources, politics, collaboration, evidence. The EAP-PHS was not as well-known as it should be according to respondents. While there had been a commitment to the EAP-PHS in many Member States, the majority of respondents did not believe enough had been done. There was a gap between a stated commitment and the actual means and resources to strengthen capacities and improve services.

Conclusions

Positive progress was reported in regard to the implementation and impact of the EAP-PHS in Member States. While some developments might have happened anyway, their link to the EAP suggests that its value is recognised. But much remains to be done by Member States and WHO to provide appropriate technical support for countries in their efforts to implement the EAP-PHS. In order to meet contemporary challenges facing public health, a strong case for rethinking, realigning and renewing public health capacities and services in the Region emerges from the data analysis.

Key messages:

- The EAP-PHS has been of value to countries and had an impact
- There is much still to do to implement the EAP, raise its profile and adapt it to the challenges facing public health across Europe

Conflicts in health care – narratives of health care providers in Hungary

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Conflicts are inevitable in the health care system but unresolved conflicts have negative effect on the employee satisfaction, team work, quality of patient care and patients' safety. Patients' safety is undisputedly a public health issue. Our study is part of an international comparative research based in the U.S., Switzerland and Hungary.

In the Hungarian part of the study 71 physicians and nurses were interviewed (using a standardized interview protocol) in primary and hospital care. Participants shared 123 conflict stories. The in-person interviews used the critical incident method. The interviews were audiotaped, transcribed verbatim and analysed using the method of content analysis.

The initial coding scheme was developed based on the previous findings and on the pilot study conducted by the American collaborators of the international team (Kim et al, 2016). Three main categories (individual, interpersonal, organizational) were identified which can contribute to the development of the conflicts. 10 subcategories were elaborated (personality differences; difficulties in coping with loss and bereavement; subordinate relationships, dominance; communication about emotion and personal issue; failure of information transmission; role expectation; regulation of work organization and procedures; feudalistic, implicit rules; lack of resources; overwork). The content analysis unfolded the specificities of conflicts in the Hungarian health care system. Organizational hierarchy was a substantial source of conflict which could be based on formal rules but in many cases it originates from

implicit, “feudalistic” rules. The results are preliminary, focusing on the initial coding scheme.

Our study contributes to a deeper understanding of health care conflicts. We focused on the providers’ narratives and developed a conceptual framework for the analysis of the conflicts. Our conceptual framework is a starting point for developing an appropriate intervention.

Key message:

- Investigation of conflicts is a key factor for developing a proper intervention. Effective problem management is necessary for securing patients’ safety and positive working environment

6.N. Pitch presentations: Primary care, prevention and nursing

Burden of rare diseases in Belgian general practice 2015

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Background

A Medline search shows that almost no studies exist about rare diseases in general practice. We aimed to estimate its burden in Belgian general practice anno 2015, i.e. the volume of active patients and GP workload as measured by the patient contact rate.

Methods

This retrospective observational study was set in the nationwide representative Belgian Network of Sentinel General Practices (SGP). In January 2016, all SGP were asked to report on a structured form 1) the number of active rare disease patients in 2015, and 2) patient and care characteristics of 1 to maximum 3 most recently seen patients. All reported rare diseases were matched against the reference portal Orphanet. Data were examined on patient and practice level by logistic and Poisson regression modeling.

Results

Study participation (109 of 129 SGP) was relatively higher among SGP without general practitioners (GPs) ≥ 65 years (OR 6.68; 95% CI 2.41-18.47). The study included 118 patients from 64 SGP (58.7%); 45 SGP (41.3%) reported to have no such patients. GP’s age below median (incidence rate ratio [IRR] 1.64; 95%CI 1.06-2.57) and a group practice setting (IRR 1.93; 95% CI 1.28-2.92) were predictors of the number of patients. The patient age distribution was similar to that of the general population. The mean annual patient contact rate (7.4; 95% CI 6.1-8.6) was higher than that in the general population (3.9; 95% CI 3.7-4.1). Whereas the GP contact rate in the general population was significantly lower among people < 45 years (2.6; 95% CI 2.3-2.8) than ≥ 45 years (5.6; 95% CI 5.3-5.9), it was similar among younger (7.1; 95% CI 5.0-9.2) and older (7.6; 95% CI 6.3-9.0) rare disease patients.

Conclusions

More than half of the Belgian SGP practices had rare disease patients in 2015 with a relatively high patient contact rate. Upcoming findings will shed more light on this burden.

Key message:

- Measured by the volume of patients and their contact rate, the burden of rare diseases in general practice is considerable

Effect Of Delegation Or Substitution Of GP’s Activities By Nurses– An Overview Of Systematic Reviews

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Background

Nurses’ contribution in primary health care has increased in the last decades because of the shortage of general practitioners (GPs) and the intention to enlarge primary health care services. Study question: What are the effects of delegation or substitution by nurses of GP’s activities in comparison to routine care regarding clinical, patient relevant and health services related outcomes?

Methods

A systematic literature search for secondary literature in PubMed/MEDLINE, EMBASE, CINAHL and Cochrane databases was conducted. Systematic reviews, meta-analyses and HTAs in German and English comprising RCTs and CCTs were included.

Results

We identified 19 relevant systematic reviews including a total of 74 primary studies. The nurse-led and physician-led groups did not differ regarding the clinical and patient relevant outcomes in most cases. Overall, patient satisfaction tended to increase in nurse-led groups. Most fields of activity that were identified have not been investigated or remain unclear regarding health services outcomes. However, in some activities the number or the duration of consultations tended to increase, if they were done by nurses.

Most nurses in the included studies worked as nurse practitioners. Additionally, the nurses had a specific training, and guidelines or SOPs were available for the tasks they were responsible for. Their field of activities comprised interventions from delegation of single tasks to substitution of a comprehensive disease management including diagnostic, therapy, patient education and consultations. Nurses had often the possibility to consult a GP.

Conclusions

Nurses with academic education and specific training are able to take over specified GP’s activities in routine care. SOPs and the possibility of GP’s consultation are helpful tools to ensure quality of care. Heterogeneity of interventions and outcomes make it difficult to state a clear effect of nurses’ contribution to primary health care.

Key messages:

- Nurses with academic education and specific training are able to take over specified GPs activities in routine care
- SOPs and the possibility of GPs consultation are helpful tools to ensure quality of care

Prescribing of hypnotics and sedatives between secondary and primary care

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Background

Due to the strict separation between primary and hospital care in Germany, there are problems in terms of communication and discontinuity of care. During hospitalisation and discharge, medications such as hypnotics and sedatives are often prescribed unnecessarily and patients are often not informed about drug names, risks or adverse effects. It is necessary to know how hospital doctors and general practitioners (GPs) perceive the handling and prescribing of these drugs.

Data source and data collection

Semi-structured interviews with 11 GPs and 10 hospital doctors from Lower Saxony and Northern Hessen in Germany were conducted, using maximum variability sampling (gender, age, job function, length of experience and (for GPs only) practice location). The interviews started with a narrative opening question. A self-developed topic guide was used to explore beliefs that were not spontaneously reported. The interviews were analysed with Mayring's qualitative content analysis.

Results

Three main issues emerged from the analysis: (1) Neither hospital doctors nor GPs see a necessity to inform each other about these prescribed medications. (2) One reason for hospital doctors to continue hypnotics and sedatives during hospitalisation was the fear of delirium due to a patient's dependency. (3) In some instances, GPs prescribe these drugs at patients request in order to avoid conflicts and as a way of "holding" the patient.

Conclusions

The handling of hypnotics and sedatives at the interface between primary and hospital care is rarely a matter of peer collaboration. Hospital doctors and GPs have different reasons for continuing hypnotic and sedative treatment and underestimate the risks involved with long-term use.

Key messages:

- Communication at the primary-secondary care interface was not considered relevant
- Hospital doctors and GPs often continue hypnotic and sedative treatment, underestimating the risks involved with long-term use

Cardio-metabolic preventive service underuse among Hungarian Roma: a nationwide survey 2013

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Background

The cardiovascular mortality is very high in Hungary, which is more extreme among socio-economically deprived groups, especially among Roma. It is raised that Hungarian primary health care (PHC) is unable to apply evidence-based preventions, and it may contribute to social and ethnic health inequalities. Our study investigated the underuse of PHC preventive services, and the risk factor role of Roma ethnicity.

Methods

Random sample of 4320 adults was surveyed in a nationwide cross-sectional study, which was implemented by a network of 165 GPs. Data on socio-demographic status, self-declared Roma ethnicity, and lifestyle, and history of recommended cardio-metabolic preventive service use were collected. Delivery rates were calculated for Roma and non-Roma adults, and the influence of Roma ethnicity was determined by calculating Roma to non-Roma delivery rate ratios (dRR), and comparing 95% confidence interval of ethnicity specific delivery rates.

Results

Participation rate was 97.3% (N = 4202). There was 325 Roma in the sample. The majority of delivery rates was far from 100%, and varied between 18.0% and 90.4% for non-Roma, and between 9.5% and 80.3% for Roma. Examination of atherosclerosis (dRR: 0.53), measurement of urinary creatinine (0.75), urinary protein (0.75), serum glucose (0.76) serum lipid parameters (0.76), and blood pressure (0.89) was significantly underused among Roma. Roma ethnicity has no influence on screening for alcohol misuse (0.77), measurement of body weight (0.88), waist circumference (0.92), assessment of family history (0.92), dietary habit (0.93), and smoking habit (1.05).

Conclusions

Hungarian PHC contributes to the high cardiovascular mortality by underproviding the cardio-metabolic prevention. This role is more pronounced among Roma, especially in the case of preventive services require laboratory investigation with relatively high resource need. This way, the Hungarian PHC contributes to the bad health status among the Roma.

Key messages:

- The Roma are poorly provided by cardio-metabolic preventive services by Hungarian primary health care
- The service underuse is more pronounced for investigations with higher costs

Breast cancer screening: how well-informed are Flemish women?

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Background

Although breast cancer screening (BCS) leads to substantial health benefits and shows to be cost-effective, women have the right to know that it also has some disadvantages, such as overdiagnosis and radiation risk. Contrary to merely aiming at a high BCS participation rate, the concept of 'informed decision' becomes more and more important. Until recently, no Flemish data were available on the proportion of women being able to make an informed decision on participating in BCS.

Methods

All women aged 50 to 69 from a community health center in Antwerp were asked to fill out a questionnaire on knowledge about BCS, BCS attitude and intention to participate in BCS. An informed decision is only possible when a woman has adequate knowledge and when her attitude is consistent with the intention to participate.

Results

More than half of the eligible women responded: 141/268 (52.6%). Almost 90% have adequate knowledge (122/141 – 86.5%). Educational level is positively linked to adequate knowledge. 89.4% Of women have a positive attitude towards BCS (126/141) and 103 women intend to participate (73.0%). A total of 70.2% of women were able to make an informed decision (n = 99), of which 89 (89.9%) have adequate knowledge, a positive attitude and the intention to participate, while 10 (10.1%) have adequate knowledge but a negative attitude and the intention not to participate. We found a positive relationship between educational level and informed decision.

Conclusions

This small-scale study is the first in Flanders to quantify the informed decision making in women eligible for BCS. An overwhelming majority of women have a positive attitude towards BCS and make an informed decision to participate. A small group of less-educated women are not able to make an informed decision. It is important to also inform these women about the pros and cons of BCS. In this respect, due to his relationship of trust with his patients, the general practitioner holds a crucial position.

Key messages:

- This small-scale study is the first in Flanders to quantify the informed decision making in women eligible for breast cancer screening
- Less-educated Flemish women should be better informed about the pros and cons of breast cancer screening. In this respect, the general practitioner holds a crucial position

Health system factors associated with uptake of cancer screening: an overview of systematic reviews

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Background

Existing research on barriers and facilitators of breast, cervical and colorectal cancer screening uptake has primarily focused on individuals. However, health system factors might be more feasibly altered to increase screening rates. The primary aim of this review was to summarise the evidence reported in systematic reviews regarding health system related factors to cancer screening.

Methods

We conducted a systematic review of reviews published since 2000, employing a standardized search strategy in six databases. Inclusion criteria required that reviews be systematic and reported on the effects of national or regional health system level arrangements within cancer screening programmes. Methodological quality of reviews was also assessed. We used an established framework that consists of four domains relating to key system level input to classify study results.

Results

Our search strategy resulted in 3549 studies which were screened by title and abstract. A total of 25 studies met our eligibility criteria. Finding revealed considerable variations in health system factors identified which impact cancer screening rates. Social resources such as health facilities with flexible appointment times and reminders enhanced screening rates.

Conclusions

We identified a number of key system level factors which influence cancer screening rates across countries.

Key messages:

- Contextual health system factors are associated with cancer screening rates

- Future public health policy should focus on health system factors rather than on individual factors only

A nationwide assessment of nursing education in Armenia

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Background

Over the years, a number of projects aimed at strengthening nursing practice and improving nursing education have been implemented in Armenia. However, nursing education remains a vocational level education. The aim of the study was to assess nursing education in Armenia and explore perceptions of the role of nurses.

Methods

The study team implemented a cross sectional qualitative content analysis using in-depth interviews and focus group discussions with nursing students and faculty, working nurses, physicians, hospital heads, policy makers and consumers of nursing services. The study participants were selected from state and private health care facilities, including hospitals, polyclinics, and regional ambulatories, and nursing colleges in the capital city and three provinces. Overall, 206 people participated in the study.

Results

Our findings showed that the main shortcomings of nursing education include lack of attention on practical competencies, absence of narrow specialization, lack of qualified faculty, and out of date teaching methods and educational resources. In general, nursing colleges were perceived as educational institutions for low performing students who could easily enter and graduate without having proper competencies. The majority of participants perceived a nurse as someone who is an “appendix” to the physician. The majority of participants were very enthusiastic about strengthening nursing education through a baccalaureate degree in nursing program, which would give an opportunity for self-development and career advancement. However, some of the participants were skeptical about nurses with university degree due to tuition related issues and lack of understanding of the need for more competent nurses.

Conclusions

The assessment showed that poor nursing education produces nurses with insufficient knowledge and practical skills, which contributes to the distorted role of nurses in the Armenian health system.

Key messages:

- Poor nursing education contributes to the distorted perception of the role of nurses
- University level nursing education could empower competent nurses to advance the role of nurses

Nursing practice in Armenia: a nationwide qualitative assessment 2016

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Background

Well-performing nurse workforce contributes to better health outcomes and improved healthcare system performance. Very limited research was conducted on nursing in former Soviet Union (fSU) countries, including Armenia. A nationwide assessment has been conducted with the objective to explore how stakeholders define the nursing practice and work environment in Armenia.

Methods

Cross-sectional qualitative study design was utilized. We used Nvivo10 software to analyze data through deductive content analysis with an unstructured matrix. The study population included nurses, physicians, consumers, hospital heads, representatives from NGOs and international organizations. We conducted 37 FGDs and 28 IDIs interviews.

Results

The assessment suggested that the nursing practice did not change much since the Soviet times. Nurses have very limited participation in clinical practice, and the main expectations from them include showing carrying attitude to patients and do paper-work. There are no national standards on nursing profession as they are not considered as independent health professionals. Stress and tension caused by a blaming culture, hierarchical relationships, and exploitation among nurses were reportedly leading to decreasing job satisfaction and declining interest in the profession. Participants mentioned additional factors that influenced their job satisfaction, such as low

salaries and poor working conditions in terms of facilities and medical equipment. A few facilities had better work environment for nurses.

Conclusions

Nurses in Armenia have inadequate participation in clinical decision making and their contribution to the health system is restricted. We recommend developing an action plan for strengthening the nursing profession through a series of stakeholder meetings, including international experts and local decision makers. Nursing practice in Armenia is very similar to other fSU counties and the lessons learned are very applicable to them.

Key messages:

- Nursing workforce potential is impaired because of poor nursing practice
- Nursing profession requires significant modernization

6.O. Round table: Essential functions of an EU Health Information System

Organised by: BRIDGE Health

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Chairperson(s): Herman Van Oyen - Belgium, Simona Giampaoli - Italy

The European Union and the Member States are cooperating with a view to establishing a sustainable and integrated EU Health Information System. To build up country-specific and cross-country knowledge that can inform policies, support research and preventive actions at national and European level, the best available data and information are needed based on common and standardized methodologies.

The European Commission tasked the BRIDGE Health project (BRidging Information and Data Generation for Evidence-based Health Policy and Research) to look at various structural and institutional options, at specific actions of an EU Health Information System and to support the transition towards this health information and knowledge generation network. BRIDGE Health builds on existing knowledge and expertise from over 13 EU projects under the EU Health Programme. They operate in different public health domains and for a wide range of goals from monitoring and surveillance to ground breaking knowledge production or capacity building.

To frame essential functions of the EU Health Information System, diverse health information domains are bridged by horizontal activities which aim at developing blueprints for common methods to: (1) enhance the transferability of health information and data for policy and improve the utility and use of data and indicators for stakeholders in policy making, public health surveillance and health care; (2) reduce health information inequality within the EU and within Member States; (3) enhance information at regional level and specific population group; (4) standardise health information gathering and exchange between population health and health systems information within and between Member States; (5) standardise data quality assurance systems; (6) identify relevant health information priority setting methods; and (7) harmonise ethical-legal issues. The resulting blueprints will be instrumental to the concept paper of BRIDGE Health which serves as a draft agreement between the EC, Member States, candidate and EEA/EFTA countries and international organizations to decide on an EU-wide Health Information System infrastructure.

The EPH round table workshop reviews the strategic approach to essential functions of an EU Health Information System. Pitch presentations (1-5) on transferability of health information to policy, standardizations and quality control, data availability and analytical capacity, health information inequality and priority setting methods in health information will be given to launch discussions on key elements of a sustainable future EU Health Information System. BRIDGE Health is interacting with key players in health information and requires interaction with a wider audience to ensure its representativeness and to be challenged by its critical views.

Key messages:

- An EU Health Information System needs to be based on the best available data and information through common and robust methodologies to guide policy makers, public health surveillance and health care
- Essential functions of an EU Health Information System should be aligned with key challenges that arise in fragmented health information domains and can be overcome with blueprints on common methods

Principles and key features of science to policy transfer in health information

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Background

Evidence-based policymaking (EBP) is defined by the WHO as “a practice, in which the best available evidence is systematically and transparently used in the development of health policies to improve health systems and population health”. To do so, EBP relies on efficient transfer of knowledge on latest evidence. It requires tailor-made communication on collected evidence that enables a clear identification of the public health priorities, but this communication is cumbersome and challenging for various reasons.

Methods

A literature research was carried out to investigate basic principles and theory behind knowledge transfer, as well as the regulatory framework and existing initiatives for science to

policy transfer. Additionally, project leaders of BRIDGE Health and other key EU projects were questioned on major challenges in transferring health information and data to policy and on the approaches used.

Results

Key challenges on expertise available within the BRIDGE Health network, in Commission Services and different Member States include dispersed unequal data collection, deficits in data utilisation, lack of information on impacts and policy relevance, infrastructures for information transfer, divergent language in information transfer and divergent objectives between researchers and policy makers. Mechanisms considered beneficiary to ensure efficient information transfer to policy are standardisation in data collection, improvement in collaborations (e.g. establish network and involvement of main stakeholders), training of personnel to improve data quality, improvement in communication to different target audiences and establish simple method of data transfer.

Conclusions

Essential elements of an EU health information system need to include the transfer of health information to policy both at EU and national level. Taking into account the results of BRIDGE Health activities, a blueprint will be presented on knowledge transfer from science to policy.

Standardizations and quality control – essentials for high quality health information

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Background

Health information is widely used for evidence-based policy making, planning and evaluation of prevention activities as well as for research. An EU Health Information System can be used to assess individual and public health outcomes and to influence policy and decision-making. It aims to link national and subnational health information from different data sources. Standardisations and quality control methods are crucial to ensure reliability and comparability of health information among countries, across regions and over time periods. This process is time and cost consuming.

Methods

A questionnaire was sent to the project leaders of BRIDGE Health and other partners of health monitoring program; an overview of data standardizations and quality methods used in the different projects have been created.

Results

15 project leaders replied to the questions. In all projects, some level of standardization was used for the data collection. When projects were involved in primary level data collection, standardized data collection procedures were in place. When projects used already collected data for example from international level surveys (e.g. EHIS) or administrative registers (e.g. hospitalizations and deaths), post-harmonization for the definition of data items was used. Standardization of data for secondary use is often more challenging than for primary data collection.

For quality control/assessment procedures used in different project only two had evaluation of representativeness, 10 evaluation of completeness, and few reported evaluation of internal and external validity. Other important component of quality control was training and 50% of the project used that.

Conclusions

Standardization and quality control is needed for reliable comparison of data between country, facilitating benchmarking of national actions and policy decisions, and it will also help to identify health inequalities within and between countries.

Health Information Inequality – BRIDGE-ing the gap through shared experiences and knowledge

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Background

Health information inequality, defined as an unequal capacity to monitor and evaluate population health and health system performance using routinely collected data, needs to be overcome for an effective EU Health Information System. We sought to assess health information inequality in EU countries.

Methods

We reviewed background reports from international institutions and the published literature on health information systems. We sent a questionnaire to project leaders of BRIDGE Health to ask about the existence of countries with advanced Health Information System and the barriers to better health information in countries with weaker systems.

Results

15 project leaders replied to the questionnaire and 9 provided examples of countries with advanced Health Information System (mainly the Nordic countries and the UK, considered to be comprehensive and link to multiple sources). Four types of barriers were mentioned by most projects regardless of content area or principal data source and three of them mapped into other horizontal activities in BRIDGE health (1) knowledge about use of data, (2) ethics and (3) the absence of political will and prioritization. The fourth type of barriers were related to national or regional infrastructure, governance and communication, including sustainability of infrastructure, costs of improving existing systems, weaknesses of administrative structures, communication problems between administrative structures and absence of accountability. Continued work will focus on describing how these barriers were overcome in case studies of countries with advanced systems as well as those that significantly improved health information systems in the past 5 years.

Conclusions

Multiple barriers to improving routine health systems are shared by diverse health information projects. Models for reducing inequalities can be found in countries with already advanced systems as well as those that have succeeded in strengthening their systems.

Data availability and analytical capacity - enhance information at meaningful levels of analysis

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Background

Cross-country research on differences in health status, health determinants and health systems performance recurrently dismisses the multiple levels at which information might result meaningful for decision makers. However, the underlying causes of those differences (and any eventual policy decision to correct such a difference) operate within and across those levels. BRIDGE Health aims at outlining a pathway to include this multi-level perspective in an EU Health Information System (EU-HIS).

Methodology

A short questionnaire was handed out to make a preliminary diagnosis from the lessons learnt of the projects composing BRIDGE Health. Three questions were asked; a) How did projects approach regional or sub-regional differences (i.e., multilevel perspective)? b) Which were the limitations they found? c) What should be the way forward to include this approach in a future EU-HIS?

Results

Consistently, the countrywide approach was the most prevalent and the lack of data at different levels of interest was argued as the main reason to only yield countrywide results. Suggested mechanisms to include multi-level perspective in an EU-HIS were: multilevel approach should be considered in the very design; the use of real world data, solo or linked to other sources, would make it easier and cheaper; benchmarking exercises with Member States used to within-country comparisons would help to understand pros and cons; local decision makers can persuade data authorities on the need of meaningful data for meaningful decisions, as this approach needs greater granularity, data quality assurance and fulfilment of legal provisions is a requirement to build trust across all involved parties.

Conclusions

Projects within BRIDGE Health confirm the paucity of a multi-level perspective in cross-country public health research. Researchers, local decision-makers and data authorities might play a role to include this perspective in a future EU-HIS.

Priority setting methods in health information

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Background

Priority setting is a challenge at all levels and contexts in health systems because demand for health care usually exceeds

available resources. The development of health goals is used in many countries to address emerging health needs. But there is virtually no consensus regarding which, or whose, values should guide decisions and how these values should inform priority setting. While key health system goals like access, efficiency and quality are broadly shared across countries they involve complex decision making. Priority setting differs across countries and within service areas. This paper aims to identify methods to inform the gradual development and focused expansion of European Health Information.

Methods

A questionnaire was sent to BRIDGE Health partners to survey current practice. In addition, a systematic literature review is in progress to collect relevant information on priority setting methods. Grey literature will be looked at by a targeted search of websites from international organizations and a selection of countries. Results from the EU health system indicator survey will be used to showcase expert assessment in defining levels of indicators and in identifying data gaps in relevant areas.

Results

Questionnaire results indicate that 40% of BRIDGE partners have been involved in priority setting methods. While more than 50% indicate that they are aware of best practice, priority setting is said to be often opportunistic and driven by the availability of relevant data. Structured development of country level health goals as a priority setting methods appears rare.

Conclusions

While questionnaire results indicate rather erratic approaches to priority setting, findings from the systematic literature review and the euHS_I survey are expected to shed better light on useful methods in this area. Priority setting is key in framing a health information infrastructure.

6.P. Oral presentations: Ferenc Bojan: Young Investigator Award

Amenable mortality in the EU28 before and after the economic crisis

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Background

There is accumulating evidence that the global financial crisis of 2008 and ensuing austerity measures have affected health systems and selected health indicators in EU member states. The cumulative impact of health system changes in response to the crisis on measures of population health outcomes that can be related to healthcare quality is not well understood. In this study we use amenable mortality to assess whether health systems in Europe have sustained their performance throughout and following the crisis years.

Methods

WHO mortality data were used to calculate amenable mortality rates for 28 European Union (EU) countries between 2000 and 2013. We used joinpoint regression to identify changes in amenable mortality. We analysed trends in average annual percentage change (AAPC) and calculated the number of excess deaths in countries where the best fit joinpoint model showed reversal in or after 2009.

Results

Amenable mortality overall has declined in all countries between 2000 and 2013, but there were variations in levels and the pace of change. Two countries showed significant reversal in trends: in Greece amenable mortality started rising by 1.7 (males) and 0.8 (females) AAPC since 2010, while in Italy the rise was seen in females (by 0.3 AAPC since 2010), ($p < 0.05$). This equated to at least 531 excess deaths across both countries in 2012 compared to 2010.

Conclusions

The reversal in amenable mortality decline observed for Greece and Italy coincides with economic crisis, when many countries reduced public expenditure on health, with Greece experiencing the most drastic cuts. Data on post-crisis changes in amenable mortality studied here only capture three years, and observed findings need to be interpreted with caution. However, taken with other evidence of the health impact of austerity, these findings provide a warning of potential problems that must be investigated further.

Key messages:

- Amenable mortality has declined in the EU28 between 2000 and 2013, however some countries experienced reversal or slowdown in decline since the onset of the crisis in 2009

- Reversal in amenable mortality provides insights into the scale of the impact of the crisis and austerity, and serves as a warning of potential problems with health systems performance

The impact of health system reform on amenable mortality in England

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Background

In 2010 the UK government began a series of reforms to the NHS in England. Rates of amenable mortalities (AM) were part of the justification for this process, given England's poor outcomes compared to other countries at the time. We studied trends in AM between Scotland and England over 14 years.

Methods

We used mortality records for England and Scotland from 2000 to 2013. An established definition of AM was used, excluding ischaemic heart disease, with an upper age limit of 74 years. Poisson regression, using sex specific counts of death and the population at risk as the offset, was used to investigate whether a step change occurred in 2010 in England, using Scotland as a control.

Results

There were 600,388 deaths from amenable causes in England and 82,071 in Scotland over the 14 years.

Before 2010, the rate of AM for men in England was 9.7% lower than in Scotland (95%CI -22.5, 5.9%). The overall rate decreased by 3.4% per year in Scotland (95%CI 3.1, 3.6%) and 3.9% in England (95%CI 3.4, 4.4%).

Prior to the reforms, the rate of AM for women in England was 9.3% lower than in Scotland (95%CI -23.1, 7.9%). The overall rate decreased by 2.5% per year in Scotland (95%CI 2.3, 2.7%), and 3.4% in England (95%CI 2.8, 3.9%).

From 2010 in England there was a 2.3% (95%CI 1.0, 3.6%) step increase in the rate of AM for men and a 0.9% (95% CI -0.4, 2.2%) step increase for women, compared to Scotland. This resulted in an additional 420 and 170 deaths per year between 2010 – 2013 for men and women respectively. Men in the most deprived 20% experienced a 1.0% decrease (95%CI -3.8, 1.6%), whilst for women the rate increased by 2.3% (95%CI -0.6, 5.3%).

Conclusions

Following the NHS reforms in England there has been a step change in the rate of AM for men that has not been seen in Scotland. Embarking on large-scale health system reforms may have negative opportunity costs, including effects on the health system resulting in increased deaths in the short term.

Key message:

- The introduction of a large-scale reform to England's health system was associated with an increase in amenable mortality for men compared to Scotland, where no such changes occurred

Multiple deprivation and distribution of vulnerable asylum-seekers: a small-area analysis in Germany

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Background

Newly arriving asylum-seekers in many EU countries are assigned a place of residence based on administrative quota. We assessed the association between multiple deprivation and the distribution of asylum-seekers in Germany considered as vulnerable (women, children < 7 years, and elderly asylum-seekers aged 65 and above) as this could have important health implications.

Methods

Using nationally representative data we analysed the rates of observed to expected numbers of asylum-seekers and of vulnerable subgroups in Bayesian spatial models approach. Multiple deprivation, measured by the German Index of Multiple Deprivation (GIMD), was the exposure comprising seven domains of area deprivation (income, employment, education, municipal revenue, social capital, environment, and security). The analyses were performed at the county-level (N = 402 Landkreise/kreisfreie Städte) and adjusted for effects of federal states as well as structured and unstructured spatial effects.

Results

Of the 224,993 asylum-seekers, 38.7% were women, 13.8% were children aged < 7 years, and 19.8% aged 65 years and above. The total number of asylum-seekers and vulnerable asylum-seekers were significantly higher in counties with medium (Q3) and highest deprivation (Q4, Q5) relative to counties in the lowest deprivation quintile (Q1). The adjusted rate ratios for counties with highest deprivation (Q5) relative to those with lowest deprivation (Q1) were 1.26 (1.03 - 1.53) for women, 1.28 (1.04 - 1.58) for children aged < 7 years, and 1.50 (1.08 - 2.08) for elderly asylum-seekers aged 65 years and above.

Conclusions

The number of vulnerable asylum-seekers was higher in counties with medium and highest deprivation compared to counties with lowest deprivation. The disproportionate distribution was highest for elderly asylum-seekers and children < 7 years. Vulnerable subgroups tend to be exposed to more deprived places of residence which may further increase health risks and health care needs.

Key messages:

- Multiple deprivation is associated with the distribution of vulnerable subgroups of asylum-seekers
- This may affect health risks and needs for targeted measures of prevention and health promotion

Who wants to cross borders for health care? An analysis of the Eurobarometer data in 2007 and 2014

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Background

The EU Directive on cross-border healthcare, approved in 2011, clarified the entitlements of EU citizens to medical care in other EU Member state. However, little is known about the cross-border patient mobility and willingness to travel to receive medical care. The aim of this study is to measure the determinants of cross-border patient mobility and willingness to travel to receive medical care in the EU, before and after the adoption of the Directive.

Methods

We used individual data from the Eurobarometer 210 (2007) and 425 (2014). In the two years, 54,384 EU citizens were randomly selected to telephone and face-to-face interviews. We performed a logistic regression on the cross-border patient mobility and willingness to travel to other EU countries to use healthcare services as a function of the year (2007 or 2014), adjusting for age, sex, self perceived health (SPH), and country size.

Results

In 2007, 3.3% of citizens reported cross-border mobility, for 4.4% in 2014. The odds of cross-border patients' mobility was 15% higher in 2014, compared to 2007 [OR 1.15, $p < .001$], and 12% higher in males [OR 1.12, $p < .001$]. However, the odds decreased with age [OR .99, $p < .001$], bad and very bad SPH [OR .99, $p < .001$], and country size [OR .95, $p < .01$]. On the other hand, in 2014 the willingness to travel significantly decreased by 22% [OR 0.78, $p < .001$] compared to 2007. The other determinants of willingness to travel, namely sex, age, SHP, and country size had a similar effect as in the cross-border mobility model. The employment status did not reach significance in any model.

Conclusions

Between 2007 and 2014, there was a slightly increase of cross-border patient mobility, which remained however low. Cross-border patient mobility and willingness to travel are more likely among younger and healthier patients from smaller countries. The 2011 directive does not seem to have promoted mobility at a large scale among the neediest citizens.

Key messages:

- Between 2007 and 2014, there was a slightly increase in cross-border patient mobility in the EU, which remained low. Cross border patient mobility is more likely among younger and healthier people
- The 2011 directive on cross-border health care does not seem to have promoted mobility at a large scale among the neediest citizens

6 psychosocial and socioeconomic factors independently predict CVD, but not health inequalities

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Background

Cardiovascular diseases (CVD) are the leading cause of death, as well as health inequalities between and within European countries. Cohort studies have associated psychosocial and socioeconomic (PSE) factors to CVD. We asked: 1] Do various PSE hazards attenuate when adjusted for each other? (e.g. do psychosocial factors account for socioeconomic gradients within countries?) 2] Do PSE factors account for international differences between countries?

Methods

We collected prospective data for the HAPIEE study from Russia, Poland, Lithuania & the Czech Republic. 26 743 population-based participants (aged 43–74) free of CVD in 2002–2008, were followed up for a median of 7 years. 14 PSE variables were examined for associations with 676 CVD deaths (making this one of the largest PSE cohorts to date).

Results

1] Low material amenities (HR = 1.29 [1.16–1.45] per 1SD), unemployment (HR = 1.80 [1.20–2.70]), depression (HR = 1.36 [1.13–1.63]), single marital status (HR = 1.63 [1.14–2.32]), infrequent contact with relatives (HR = 1.33 [1.12–1.58]), and infrequent contact with friends (HR = 1.76 [1.25–2.47] in females) all predicted CVD mortality, when adjusted for each other and classical risk factors in a pooled cohort analysis. For each of these 6 factors, population-attributable risk fractions ranged between 7–22%. Psychosocial factors attenuated just 25% of socioeconomic gradients. 2] Classical risk factors did not account for international differences in CVD mortality between Russia and Central/Eastern Europe. PSE factors accounted for 66% of these international differences among women, but 0% among men.

Conclusions

Psychosocial and socioeconomic hazards do not collapse onto one core factor, but retain many independent effects. If causal, then this would suggest that there might be many separate mechanisms at play. While these factors can account for much of why female mortality is high in Russia, they do not explain why male mortality remains so puzzlingly high in Russia.

Key messages:

- Contrary to many expectations, psychosocial factors are not particularly important, in explaining health inequalities between and within these countries
- As these associations are quite large, future research could ask: A) Are these associations causal? B) Can PSE factors augment clinical risk prediction, and CVD prevention, in primary care settings?

6.Q. Round table: Training and support of public health PhD supervisors – a way forward to improve PhD outcomes

Organised by: The Association of Schools of Public Health in the European Region (ASPHER)

Contact: robert.otok@aspher.org

Chairperson(s): Jacqueline Müller-Nordhorn - Germany, Henrique Barros - Portugal

In May 2013, the ASPHER Working Group on Doctoral Programmes and Research Capacities published the recommendations for doctoral programmes in Public Health.

University centres put a lot of effort into provide adequate academic support to their PhD candidates, including targeted courses and supervision. However, little is done to support the PhD thesis supervisors in the very responsible work which they do. Universities undergo rigorous evaluation based on the number of successful PhD promotions, impact factor publications etc. This puts pressure on PhD supervisors. Therefore, supervisor support and training is needed to cope with the ever-increasing demands of both schools and students.

In 2014, the ASPHER Working Group on Doctoral Programmes and Research Capacities conducted a survey among PhD candidates and their supervisors (see Abstract 1). The data obtained provide an important basis for the development of a programme of PhD supervisor support and training towards ensuring best experience and outcome for schools and doctoral candidates. ASPHER can support its members to secure the highest standard of PhD supervisions based on the capacity it comprises.

The aim of this workshop is to stimulate discussion related to the development of an optimal formula for the support and training of public health PhD supervisors, including possible annual training session offered in the context of the EPH conference and the additional ones organized in various locations of the membership network subject to available expertise, member schools' commitment and demand.

Proposed structure of the workshop:

Background presentation by Mary Codd (University College Dublin, Ireland) followed by a round table.

Round table contributors:

Nino Kuenzli (Swiss School of Public Health+, Switzerland) – PhD supervisor

Mary Codd (University College Dublin, Ireland) – PhD supervisor

Katarzyna Czabanowska (Maastricht University, Netherlands) – PhD supervisor

Felix Gille (LSHTM, United Kingdom) – PhD candidate/academia-based

Bernardo Gomes (University of Porto, Portugal) – PhD candidate/in work place - regional PH authority

Panel discussion assumes interaction with the audience and social media (secured by Robert Otok – ASPHER) 20 minutes: Wrap-up, presenting the key points related to the main theme.

Key messages:

- PhD supervision represents a key area of focus to improve PhD outcomes of students and schools of public health
- There is a documented need to strengthen support and develop training offer for public health PhD supervisors

Background presentation: ASPHER's study 2014/2015

Mary Codd

May Codd et al (ASPHER)

University College Dublin, Dublin, Ireland

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A 31-item questionnaire was developed based on previous questionnaires from the National Institutes of Health, National Academy of Sciences and the Higher Education Academy in the UK for circulation to PhD candidates in the Schools of Working Group members. PhD candidates were encouraged to complete and return the questionnaire anonymously, without oversight or influence from supervisors. There were 159 respondents from nine countries.

The majority of respondents (85%) had annual or more frequent assessments of their progress, while 78% indicated timely feedback on their research. High proportions indicated instruction in communication and presentation skills (75%), preparation of scientific articles for publication (84%), experience of working in groups (67%) and exposure to research ethics (73%). Less than half had instruction in project management (46%) or gained any experience of writing grant proposals (45%). Career advice for PhD candidates appears to be lacking in PhD programmes, with two-thirds of candidates indicating they received no career advice, though a high proportion (82%) have access to individual faculty mentors on request. This may reflect a relative lack of experience on the part of supervisors of employment issues and opportunities for PhD graduates. As almost half of respondents indicated their expectation to have a career in higher education, and will in time become supervisors themselves, this may be an important area for action. Researching career and employment opportunities and understanding employers' expectations are increasingly important in this highly competitive sector.

In conclusion, PhD programmes and supervisors appear to function well in certain respects (e.g. assessment, feedback, publication experience). However, skills that may be critical to the ability of graduates to succeed in the workplace, such as experience of writing grant proposals, training in project management and career advice generally could be improved.

PARALLEL SESSION 7

FRIDAY 11 November 2016 16:40-17:40

7.A. Workshop: Reducing the Health & Environment footprint of European Public Health conferences?

Organised by: EUPHA section on Health impact assessment and
EUPHA section on Environment related disease
Contact: rainer.fehr@uni-bielefeld.de

Chairperson(s): Rainer Fehr - Germany, Dineke Zeegers Paget - EUPHA

To strive for sustainability is recognized as a prerequisite for improving people's health and their environment in the 21st century. At the EPH 2015 conference in Milano, the issue received prominent attention; topics included the anthropocene, human impacts on global processes and systems, and the planetary boundaries consistent with human health and survival. In a press release of 15 October 2015, EUPHA expressed its serious concerns about climate change and health. This resonates with concerns about global environmental change expressed by the World Health Organization, the European Commission and many others.

For an ambitious professional association like EUPHA, concern for the environmental and health impacts of our own activities must feature amongst our core values. This ought to be reflected in the arrangements for our large and prestigious annual conferences. Areas of concern include: mode of travel (especially by air); conference venue and accommodations; flow of energy and materials; food consumption; waste avoidance and disposal; physical activity; and equity, e.g. (financial) barriers to conference attendance.

While previous conferences have not been oblivious to these issues, more should be done. To intensify efforts would be consistent with the professional responsibility and ethical obligations which are shared by all in Public Health. Clearly, there is potential for sustainability and (long-term) health perspectives to be in conflict with other relevant mission components incl. face-to-face encounters, vibrant meetings and intensive campaigns. EUPHA is challenged to prove that it has the profile and capacity to create positive example. Through how we plan and deliver our conferences, we can demonstrate a commitment to the health of individuals, populations and the planet and its component systems.

A promising approach might have regard to issues like the following: Awareness-raising among EPH organizers and participants about conference impacts on health and environment; tools available for "benign and responsible" conference organization; existing approaches of good practice; ways to "make the (eco-) healthy choice the easy choice"; accepting that such an activity should not become unduly burdensome; and identifying ways to monitor progress.

Importantly, success for EUPHA in this venture could provide a template for adoption by other, e.g. national, professional associations. In addition, the "greening" of EPH conferences can stimulate and encourage both individuals and institutions to move along similar pathways.

Key messages:

- For an ambitious association like EUPHA, concern for the impacts of our own activities features amongst our core values; this ought to be reflected in the arrangements for our annual conferences
- Building on existing examples, EUPHA is challenged to prove that it has the profile and capacity to create positive example

"Greening" conferences - Experiences from the International Society for Environmental Epidemiology (ISEE)

Nino Künzli

N Kuenzli, MS Ragetti, M Rössli

Swiss Tropical and Public Health Institute; Department of Education and Training, Swiss School of Public Health, Basel, Switzerland
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Context

The environmental and climate footprint of large meetings is increasingly acknowledged. With most scientists recognizing that nothing can replace the added value of in-person get-togethers, the question is how to run a "sustainable" conference. This presentation informs about experiences from a conference where organizers explored, and practiced, a range of approaches.

Case study

The International Society for Environmental Epidemiology (ISEE), together with other associations, held a conference in Basel in 2013 which was attended by c. 1,800 scientists from > 70 countries. The local organizing committee also had one committee for addressing environmental issues, building on previous conferences and considering event guidelines. The estimated "footprint" of most areas of activity (print material; food) was relatively small, compared to the greenhouse gases produced by travel (c. 14 million km, >1.5 tons of CO₂ per person). Several actions were taken. A printed program was only handed out upon request; c. 2/3 of participants opted for electronic versions. Caterers were asked that food should be seasonal, organic, and grown locally, or else be traded fairly. The four lunch buffets were vegetarian. The organizers chose two CO₂ compensation projects, in Uganda and China, with compensation (c. 20 Swiss francs per person) included in the standard costs. Challenges of the implementation of strategies and feedbacks from the audience will be discussed.

Conclusions

In the absence of a simple recipe or "truth", there is still a long way to go to accomplish "green" conferences. Lack of evidence creates challenges. Changes in standard practices and resource allocations may frustrate conference organizers, if not participants. It is important to keep the vision of a green conference high on the agenda.

Guideline for a sustainable organization of events – Theory and practice

Myriam Tobollik

HH Eggers, D Huth, K Stechemesser, M Tobollik

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The "Guideline for a sustainable organization of events" (Leitfaden für die nachhaltige Organisation von Veranstaltungen) is published by the German Federal Environmental Agency (Umweltbundesamt, UBA), together with the German Federal Ministry for Environment, Nature Protection, Construction and Nuclear Safety (Bundesministerium für Umwelt, Naturschutz, Bau und Reaktorsicherheit, BMUB). It originated in the UBA's Department of Ecodesign, Eco-Labeling and Environmentally friendly Procurement

(Ökodesign, Umweltkennzeichnung, Umweltfreundliche Beschaffung); the (revised) third edition was published in 2015. The guide provides information on a range of topics that are important for organizing an event in a “sustainable” way. Specific areas of activity include the following: mobility to and at the venue; accommodation of participants, use of energy and water, “green” procurement of goods and services, catering, waste management, communication, and social aspects (universal access; gender mainstreaming). Beyond contributing to environmental and health protection, to realize an event in a more sustainable way can also save money, especially in relation to the use of products and to waste disposal. In order to support event managers, the guide offers several work sheets that include specific objectives, measures to be taken, products and services featuring the “Blue Angel” ecolabel, and further links. Experiences of applying this guide in practice will be reported.

Footprint reduction: What can we learn from related initiatives within, e.g., the United Nations, World Health Organization, European Commission, and European Environment Agency?

Rainer Fehr

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Various eminent international institutions have expressed concerns about global environmental change and its impact on human health and well-being. Moving beyond analysis and discussion, several have begun to tackle the issue in practice. Given that the measures required demand organisational and individual commitment and often require significant modification of behaviour, procedures etc., it is important to review how other institutions approach the issue of sustainability and health. Such an exercise can yield a range of benefits. Firstly, it can provide the opportunity to learn from the experience of others, e.g. concerning the actions which can deliver early wins, those which are worthwhile but demand careful thought and planning, and those which have been less successful. These insights may help EUPHA to press the arguments for engagement in this area by showing that others are engaged and active and that EUPHA’s contribution can be much more than mere tokenism in the face of a global challenge. The presentation looks at the United Nations (“Moving towards a climate neutral UN – The UN’s system footprint and efforts to reduce it”), the World Health Organization’s efforts to include the Regional offices in the carbon footprint assessment exercise and to develop a global WHO Sustainability Management System; the European Commission’s activities including “Greening the European Semester”, “Green public procurement”, and the EU Eco-Management and Audit Scheme (EMAS); and the European Environment Agency’s project “Greening European transport consumption: change user behaviour and set carbon targets”.

7.B. Oral presentations: Mental health issues

Neuroenhancement among university students: substance use, motivations and associated factors

Marie-Pierre Tavolacci

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Introduction

The aim of the present study was to identify the extent of prescription drug, alcohol, illicit psychoactive substance use and soft enhancers for the purpose of neuroenhancement among French university students

Methods

A self-administered anonymous questionnaires were performed in 2015 among university students in three campuses in France (Rouen, Nanterre, and Dunkerque). Three different categories of substance use were used. The category “prescription drugs” included methylphenidate, modafinil, antidepressants, and beta-blockers. The category “drugs of abuse” including alcohol, cannabis, cocaine, amphetamines. A third category called “soft enhancers” included vitamins, coffee, caffeine tablets, and energy drinks. Motivation of neuroenhancement was also collected

Results

A total of 1446 university students (648 in Rouen, 423 in Nanterre and 375 in Dunkerque) were included with a mean age of 20.2 years (SD=2.1) and a sex ratio (M:F) of 0.44. Prescription drugs had been used once or sometimes in 1.2% of the sample CI95% [0.7-1.8], drugs of abuse by 6.2% IC95%

[5.0-7.5] and sometimes for soft enhancers by 52.3% [49.7-54.9]. Arguments for neuroenhancement were to stay awake to study (43.3%), improve concentration (28.4%) and decrease stress (19.8%). 72.8% of users declared it was responding to their expectation. Factors associated with neuroenhancement were female gender AOR=1.4 [1.1-1.8], third year and more in the curriculum AOR=1.8 CI95% [1.3-2.6], student job AOR=1.4 CI95% [1.0-1.8], smoking AOR= 3.0 CI95% [2.2-4.0] and binge drinking AOR=1.9 CI95% [1.1-3.1].

Discussion

Academic performance enhancement through the use of stimulant aims at enhancing cognition to achieve better academic results and had a multifaceted life context in which it is embedded is of crucial relevance. It seems to be also interesting to weigh the medical, ethical and legal aspects corresponded to the students’ individual preferences of substances used for neuroenhancement.

Key messages:

- Neuroenhancement with prescription drugs, abuse of drugs or soft enhancers is prevalent among university students
- Neuroenhancement seems to fulfil the expectations of the students that is mainly staying awake to study

Two years after the train derailment: Lac-Mégantic (Quebec, Canada) residents are still suffering

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Background

In 2013, a train carrying 72 cars of oil derailed in Lac-Mégantic, the seat of the Granit territory, in the Estrie region. The explosions and the raging fire killed 47 people, destroyed much of the downtown area, and heavily contaminated the environment. The health consequences were examined in the years following the disaster.

Methods

Two phone surveys were conducted, one in 2014 and another in 2015, among random samples of adults residing in the Estrie region (2014: n = 8737; 2015: n = 1600). Using Chi-square and t-tests, the frequency of physical and mental health issues was compared according to residential location (Lac-Mégantic, Granit, Estrie) and over time (2014 and 2015).

Results

Overall, 7 in 10 adults in Granit reported human (e.g. loss of a loved one) or material losses (e.g. home damage). In 2015, 19.3% of adults in Lac-Mégantic did not consider themselves healthy, a proportion twice as high as elsewhere in the Estrie region (9.6%, $p < 0.001$). This proportion was higher than the one measured in 2014 in Lac-Mégantic (13.0%; $p = 0.03$). In 2015, anxiety disorders were twice as common in Lac-Mégantic as elsewhere in the region (14.1% vs. 7.2%, $p = 0.03$). Similar findings were observed for psychological distress (34.1% vs. 22.1%, $p < 0.001$). No improvement was noted over time for these issues. Despite the significant proportion of people affected by the tragedy, visits to psychologists and social workers decreased by half since 2014 (15.5% vs. 26.9%, $p = 0.001$).

Conclusions

In the Granit, particularly in Lac-Mégantic, health and social problems are persistent and even increasing 2 years after the tragic event, while the consultation for psychosocial aid has declined. Secondary stress factors may increase the sense of distress in individuals and affect its duration. To increase resilience in the coming years, the local health network needs to maintain resources, adapt psychosocial services, stay connected with the community, and foster resident involvement.

Key messages:

- The population burden of psychopathology in the aftermath of disasters is substantial and may span several years
- This calls for sustained effort from everyone and requires a flexible approach

Does loneliness influence the association between visual impairment and quality of life?

Jitka Pikhartova

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Background

Interest in quality of life increased in recent years in line with ageing of population worldwide. Both loneliness and reduced possibility of participating in daily activities due to visual impairment alter personal well-being and quality of life. Aim of this study was to investigate the role of loneliness in the association between visual impairment reported throughout the study and quality of life in the last wave of English Longitudinal Study of Ageing (ELSA).

Methods

Data from 4,765 of men and women who took part in every wave of the ELSA were used in multivariable regression analysis

assessing the association between measures of quality of life and visual impairment. Impairment was derived from information on newly reported eye disorders (available between waves 2 to 6) and from self-rated quality of eyesight (waves 1 to 6). Quality of life was measured by CASP-19 and life satisfaction score (LSS) (both available between waves 2 and 6).

Results

Within six waves of the study, poor eyesight or blindness was at least once self-reported by 8.8% and any eye disorder was reported at least once by 46% of the sample. Quality of life through the study decreased more rapidly among those with visual impairment. Negative and significant association between reporting visual impairment at least once between waves 1 and 6 and level of CASP-19 and life satisfaction scores in wave 6 was found for both measurements and it remained significant in fully adjusted analyses for CASP-19 (every extra visual impairment reported between waves 1 and 6 decreased CASP-19 score in wave 6 by 0.3 point) while it was fully explained for LSS. Loneliness was one of the most important covariates mediating the role of visual impairment on quality of life.

Conclusions

Results suggest that visual impairment influences quality of life of older adults represented by CASP-19 and LSS, and that the loneliness significantly influences the association between visual impairment and quality of life.

Key messages:

- Visual impairment is significantly associated with quality of life
- Loneliness influences the association between visual impairment and quality of life

Trauma experienced in the genocide period, mental health effects and barriers to care 17 years later

Gunilla Krantz

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Background

In 1994, Rwanda experienced genocide and an estimated 800,000 people lost their lives. People lived through mass killings, witnessed family members and near relatives being murdered, women and young girls were exposed to sexual violence and millions of people fled to neighbouring countries. This study investigated mental health effects of genocide trauma 17 years later in men and women, aged 20 -35 years. Health care seeking behaviour and barriers to care related to mental problems were further investigated.

Methods

A population based prevalence study was performed in the Southern province, including 440 men and 477 women. Barriers to care were investigated by use of focus group discussions with mental health professionals. Content analysis, manifest and latent, were used for analysis.

Results

Prevalence of depression, anxiety disorders, PTSD and suicide risk, were almost twice as high in women as in men. A clear association was found for both men and women between exposure to a summary index of traumatic episodes in 1994 and mental disorders.

Barriers identified by health professionals in mental health services included poverty and lack of family support, fear of stigmatization, poor community awareness of mental disorders and beliefs in traditional healers and prayers. Further were gender differences pronounced, with women being “weaker” and more willing to seek help and men seen as “stronger”, able to solve problems on their own.

Conclusions

Experience of trauma during the genocide is associated with mental disorders 17 years later, and the productive generation is seriously affected. Mental health care services should be integrated into primary health care to reduce barriers and improve accessibility and quality of care. To achieve this, considerably more psychiatrists, psychologist and mental health nurses are needed. Further should the stigma related to mental disorders be reduced and mental health literacy in the population improved.

Key messages:

- Women to a higher extent than men suffer from poor mental health in Rwanda. Contributing factors are trauma experienced during the genocide period and current partner violence
- Mental health care should be integrated into primary care to improve accessibility, acceptability and quality of care

Living arrangements and 20-year trajectories of hospital use among middle-aged and older Finns

Yaoyue Hu

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Background

Given the fast population aging, it is imperative to advance our understanding on how hospital use changes as a function of aging and its determinants. Certain living arrangements, living alone in particular, are associated with elevated risks of morbidity and mortality, but evidence on hospital use is inconsistent. By using Finnish Registry Data with no attrition, we investigate the relationship of living arrangements with 20-year trajectories of length of stay (LOS) in hospital.

Methods

Data are from a linked register-based 11% random sample of population residing in Finland in the end of any years between 1987 and 2006. 149,608 Finns aged 50 and over in the end of 1987 are included. Annual total LOS (days) in 1988-2007 are calculated from Hospital Discharge Records. Living arrangements in 1987-2006 combine the family type and household composition. A latent growth curve negative binomial model is applied to estimate the LOS trajectories over time (1988-2007), which allows us to estimate exponential growth trajectories. Sex, age and education in 1987 are adjusted as time invariant covariates.

Results

The average LOS in 1988 is 7.11 days (95% confidence interval [CI]: 6.98, 7.25), and it increases and increases faster at later years ($\beta = 0.030$, 95% CI: 0.028, 0.032). Compared to Finns living with spouse and child(ren), the LOS is higher in those living alone (incidence rate ratio [IRR]: 1.34, 95% CI: 1.28, 1.40) and single parents (IRR: 1.27, 95% CI: 1.20, 1.34), but no difference is found in those living with spouse only (IRR: 1.02, 95% CI: 0.98, 1.07). The Results are preliminary.

Conclusions

LOS increases with increasing age. Compared to Finns living with spouse and children, those living alone and being single parents are associated with longer LOS. Further analysis will be performed to examine living arrangements and the rate of change in LOS.

Key messages:

- Middle-aged and older Finns who live alone and those who are single parents are more likely to have a longer stay in hospital than those who live with their spouse and children
- No difference in the length of stay in hospital is found between Finns who live with spouse and those who live with spouse and children

7.C. Workshop: A European framework for patients' rights: from a patient to an active beneficiary of healthcare?

Organised by: Maastricht University; European Observatory on Health Systems and Policies

Contact: timo.clemens@maastrichtuniversity.nl

Chairperson(s): Helmut Brand – The Netherlands

Reasons for the workshop

Patients' rights in Europe have developed in different ways. Despite the fact that a legal and more comprehensive approach has been established in many countries, patients' rights encounter low awareness and weak enforcement in many countries. These rights also have to be applied in a changing context of growing medical complexity and cultural diversity. At the same time the increased political attention for patient involvement and empowerment calls for a consolidated framework. Patients are no longer regarded as the passive recipient of care, but rather as an active beneficiary of healthcare services. In that respect the European Directive 2011/24/EU on the application of patients' rights in cross-border healthcare could be seen as an instrument to help mature patients' rights in Member States, not only for cross-border patients but also for those seeking care domestically. However, some would argue that the Directive is taking a consumer-based approach to patients' rights, focusing on information provision, ensuring quality of care and patient safety and promoting choice.

Objectives of the workshop

Using insights from a mapping exercise of patients' rights in 30 European countries (EU28 + Norway & Iceland) this workshop aims to

- present a conceptual framework to look at different domains of patients' rights;
- assess the state of patients' rights and their enforcement systems in various countries, highlighting national examples of good practice;
- analyse their relevance and usefulness for achieving broader health systems objectives of patient-centredness and patient empowerment;
- discuss how patients' rights can be further promoted and developed in an EU context, i.e. through the Directive 2011/24/EU

Key messages:

- The consolidation of patients' rights and their enforcement helps to raise awareness, empower patients and to guide policy makers to support the achievement of broader health system objectives
- Directive 2011/24/EU contributes to the development of patients' rights at national level benefiting not only

patients seeking care abroad but as well those receiving care at home

Patients' rights in the European Union: from recognition to implementation

Willy Palm

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Background

Increasingly the concept of patients' rights is interpreted in a broad sense. Different types of "patients' rights" can be distinguished embedded in different legal frameworks. From the individual rights as a patient, the concept has expanded to incorporate the rights to become a patient. More recently, we observe a further expansion towards "consumer" patients' rights, which are more focused on issues of information, quality and choice. They also extend to rights to protect patients whenever their patients' rights were not respected or harm was caused to them.

Methods

The framework by Nys and Goffin (2011) has been taken as a starting point for developing a broader concept of patients' rights. Initial revisions of the model have been tested by a survey among legal and medical patients' rights experts in 30 countries and discussed and refined at a workshop with a broader set of 35 experts.

Results

We developed a broader broad concept of patients' rights discerning the domains of basic individual, social and consumer based rights. Basic rights cover the right to informed consent; to privacy and dignity; to access to the medical file. Consumer rights entail the right to choice, to patient safety and quality of care. Social rights include the rights to access, reimbursement and equal treatment. These domains are supported by transcending procedural (to complain, to compensation, and to participate) and informational rights. However, the different subjects cannot be totally separated from each other.

Conclusions

Patients' rights constitute an important pillar for citizens to be considered as an actor in their own health care. As such they play an important role in empowering patients and developing health systems towards enhanced person-centeredness. They help to grow awareness among service users (and providers) to provide them with tools to claim a more leading and active position in their own health care process as well as to steer health system reforms.

The status of the rights of patient choice, quality of care and patient safety in 30 European countries

Timo Clemens

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Background

Reforms to support patient choice and reducing unwarranted variations in care provisions have been high on the agenda since the 1990ies in European healthcare systems. Member states placed varying emphasis on different objectives and employed different policy tools to achieve those. Moreover, reforms needed to be integrated in the context of the respective healthcare system. Therefore, an overview of how those rights are developed in different European countries is lacking so far.

Methods

The mapping of consumer-based patients' rights was undertaken by an expert survey assessing the situation in all EU

member states, Norway and Iceland. The findings were completed by a literature and project review and preliminary results were discussed with relevant stakeholders at a workshop in September 2015 in Brussels.

Results

Consumer-based patients' rights are not yet well-established in many European countries. Although the right to freely choose a healthcare provider is increasingly acknowledged, choice is still often restricted by regulation and practicalities within the system. Information required to enable provider choice is often not sufficiently available despite various countries have invested substantially in new modes for publishing respective information. The right to safe and quality healthcare is molded as an obligation of the service provider to ensure a certain standard of care frequently remaining very broadly defined. Many countries operate professional standards and clinical guidelines and to a lesser extend protocols to ensure quality and safety from procedural perspective. Outcome reporting is common in Scandinavia but not widespread in many other countries.

Conclusions

The development of more consumer-based patients' rights seems to go in parallel with the transposition of Directive 2011/24/EU at least in some countries. The Directive has pushed member states to be more transparent about the rights citizens enjoy in the health care systems.

Mapping enforcement systems for patients' rights in 30 European countries

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Background

The enjoyment of patients' rights as enshrined in European jurisdictions is very much dependent on the linked enforcement systems to allow patients to exercise those rights. Patients' rights laws remain a 'toothless tiger' if not paired with effective enforcement procedures so that patients can invoke their rights practically. Therefore, for a full picture of the patients' rights situation in European countries an analysis of the respective law enforcement systems is inevitable.

Methods

The enforcement systems for patient rights in 30 European Countries (EU member states, Norway, Iceland) were assessed by survey among patient rights' experts along with the patients' rights itself. Results were analysed with regard to its functions (complain, redress, information on rights) and the mechanisms used. A workshop in September 2015 served to discuss preliminary findings with stakeholders from different backgrounds and countries.

Results

Mechanisms for enforcement of patients' rights vary between countries. Most countries have a wide range of mechanisms for investigating and responding to patients' complaints in place. They include court-based procedures of civil, criminal, administrative law, medical professional laws or alternative dispute resolutions systems such as mediation or an ombudsman. Even where similar mechanisms are applied, the instruments may serve different purposes and the linked rules, expectations and roles of stakeholders differ. Establishing fault remains the main criteria for compensation in the majority of countries. Few systems have developed no fault compensation schemes or hybrid systems.

Conclusions

The mechanisms for enforcement of patients' rights are complex. Patients need to have knowledge (or support) of how to negotiate the process on the background of the normative culture of the domestic legal and healthcare system.

7.D. Oral presentations: What works in health promotion

Decisions regarding Quebec's publicly funded health and social services: Promoting the citizen voice

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Background

In the province of Quebec (Canada), 71% of health and social services are publicly funded. Decisions about which services to include in the public services basket are complex (e.g. obsolete interventions, new and costly technologies, preventive activities). Different criteria (individual/population needs, effectiveness, safety and efficiency of services) are taken into account in decision-making, as well as ethical, economic, and political issues. Furthermore, there is a global consensus supporting that citizens' values and preferences must guide decision-making. To elicit citizens' values and preferences regarding publicly funded health and social services, the Quebec Health and Welfare Commissioner has conducted a vast public consultation on the population viewpoints.

Methods

Various consultation methods were used in complementary steps. One step involved holding six focus groups in different regions with randomly selected participants (n=62) from a previous representative population survey (n=1850). A four-step content analysis was performed on those focus groups (double-listening, open coding, semantic data processing, interpretation of coded and processed data).

Results

Citizens' concerns about publicly funded services were grouped in eight dimensions, namely the: 1) health in first, 2) strength of prevention and psychosocial care, 3) importance of patient and relatives, 4) economic issue, 5) disillusionment toward the system and decision-makers, 6) science, reason, and measurement, 7) fear of drifts in allocating limited resources, and 8) duration vs. quality of life.

Conclusions

To promote social participation and accountability, the Commissioner conducted a vast public consultation. Preventive and psychosocial interventions ranked high in citizens' priorities. Decision-makers must take into account citizen voice to be sure that the basket of insured services is representative of social values and preferences.

Key messages:

- The citizen voice must also guide decision-making to provide publicly funded services or not
- Preventive and psychosocial interventions are ranked high in citizens' priorities

"Health Promoting Judicial Youth Protection": the commitment of a French institution since 2013

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The Judicial Youth Protection (JYP) Directorate ensures the application of judgments rendered by the French children's courts. In a given month, its 1300 structures take care of 40 000 juvenile offenders. They often present medical and social vulnerabilities, and high-risk behavior. In 2013, the JYP, yet a non-medical institution, has decided to develop a health promotion program in order to address the young persons' global health determinants. The point is to involve all parties: from the practitioners in the field with the minors, to the decision makers. The goal is to provide the social actors of the JYP with the necessary assistance to include health promotion in their educational mission and go beyond providing only healthcare. The physical and psychosocial environments (including the professionals' wellbeing), the user participation and their life skills, are targeted for them to become more favorable to health.

The strong political backing includes a transversal engagement (financial services, human resources) and a double movement from bottom to top, and top to bottom. A framework, based on the Ottawa Charters' 5 fields, was built in participative workshops to structure the action of the 9 regional judicial youth protection directorates, coordinated by the central administration. Many partnerships have been developed with some health policy actors, and particularly with the health promotion and education associations.

The first outputs are a widening in actors' health representation, an increasing professional commitment in health actions (nutrition, sports, drug use, violence, sleeping problems, personal hygiene), new partnerships and a new dynamic to improve work-life quality.

The "health promoting JYP" is still at its beginning but it seems positive that this type of ministerial institution is able to promote health in a country that is still far from adopting a global health promotion policy.

Key messages:

- Juvenile youth protection social workers are also health actors for the "health promoting JYP", even if they are not totally aware of it
- Health promotion is now seen in French Juvenile Youth Protection not only as a useful tool for health improvement, but also as a tool for educative achievement, useful to support social reinsertion

An intervention program to create a school supportive environment to promote physical activity

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To promote healthy lifestyle of female schoolchildren, including being physically active, by providing supportive environments at the school settings. A previously reported randomized controlled trial showed that females do not perform the recommended duration of PA and raised the issue of lack of access to sports and PA facilities. The intervention was aimed at creating a safe and healthy setting for the female schoolchildren to be active.

The trial was conducted in 3 phases: pre-intervention needs assessment baseline survey, intervention among 7 randomly selected schools and post-intervention evaluation survey. Baseline and post-intervention surveys were self administered questionnaires for teachers, mothers and schoolchildren. Teachers underwent training in PA and school supportive

environment were created, including decorations to the school yards with games such as snakes and ladders, in order to promote being physically active.

897 children, 373 teachers, and 760 mothers participated in the study. In the intervention schools PA increased by 271%, compared to reduction by 3.7% in the control ($p < 0.001$), whereas sedentary behavior was reduced in both intervention and control schools by 17.0% and 5.6% respectively ($p = 0.375$). BMI increased less in the intervention school-children compared to the control ($p = 0.045$). Mothers and teachers reported an increase in their PA patterns. Teachers' commitment and engagement in health promotion increased among the intervention schools by 4 fold ($p < 0.001$). Schoolchildren's being physically active was mediated by their teachers' training in PA ($\beta = 0.420$, $p = 0.020$) and engagement ($\beta = 0.655$, $p < 0.001$).

An intensive intervention which was planned and implemented by the principal, teachers, mothers and children, succeeded in changing health behaviors, specifically PA. This was possible through the engagement of the mentioned personnel's and the external professional support as well as the changes in the school setting and its environment.

Key messages:

- A participatory intervention program proved success
- Environmental changes helped increase physical activity

Assessing exercise courses open the gateway to a cooperation of sport and health sector in Austria

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Background

The Austrian ministry of sport and the ministry of health aim to increase health enhancing physical activity in cooperation of sport organization and social health insurance. Therefore, two studies assess target group specific exercise courses (TGSEC) in local sport-clubs.

Methods

Patients suffering from diabetes mellitus 2, overweight and obesity were mainly recruited by outpatient departments or general practitioners and transferred to TGSEC in sport-clubs. TGSEC are conducted twice a week for 90 minutes with a limited number of 12 participants. The program contained at least 20 minutes cardiovascular exercise, 20 minutes muscle strengthening activities and a flexibility and coordination part. The first study addressed the feasibility and self-reported physical activity (FEG) of the program. The second study assessed adherence to the TGSEC and physical function (ergometer and dynamometer).

Results

In a pre-survey of the first study 43% ($n = 104$) of people with diabetes mellitus 2, reported their interest for TGSEC and 23% actually participated in the program. In the whole study, 881 people participated in different TGSEC-groups (age: 59 years; BMI: 30 kg/m²). Self-reported weekly time spent in hours on exercise training increased significantly after 12 month (Baseline: 1.4 hours; 12-month FU: 2.15 hours).

71 people with overweight or obesity participated in the second trial (age: 52 years; BMI: 37 kg/m²). 37% of active participants showed a high adherence after 6 month. Endurance capacity (steady-state heart rate in beats per minute baseline: 126; 2-month FU: 121) and muscle strength (1RPM (kg) lower limb baseline: 96; 2-month FU: 109) significantly increased after 2 month.

Conclusions

TGSEC provided by sports clubs are attractive for people suffering from diabetes mellitus 2, overweight or obesity. The results of the two studies represent the foundation for the first cooperation between the sport sector and social health insurance companies in Austria.

Key messages:

- Target group specific exercise groups are appealing, show a satisfactory adherence and can improve physical function of people with diabetes mellitus or overweight/obesity
- The basis of the first cooperation between the sport sector and social health insurance companies in Austria was established

7.E. Pitch presentations: Food, diet and nutrition

Dietary patterns and cancer risk: a comprehensive meta-analysis of observational studies

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Background

The exploration of existing dietary patterns in a population and their association with chronic diseases risk could provide a realistic estimation of relation between food habits and health. We conducted a systematic review to identify all epidemiologic studies identifying a posteriori dietary patterns and risk of any cancer.

Methods

A systematic search of Medline and Embase through December 2015 returned 92 studies meeting inclusion criteria, including about 85,000 cases, 100,000 controls and 2,000,000 exposed individuals.

Results

We found probable evidence that higher adherence to healthy dietary patterns was associated with decreased risk of colorectal, colon but not rectal cancer. Also breast cancer risk was significantly decreased, especially in postmenopausal, receptor

negative women. Among other cancer sites, esophageal, gastric, pancreatic, and ovarian cancers were significantly related to healthy dietary patterns, but evidence relied only on case-control studies. Unhealthy dietary patterns were associated with higher risk of colorectal, colon and rectal cancer, despite significant findings on the latter were limited to case-control studies. For other cancer sites, such as laryngeal, esophageal squamous cell carcinoma, gastric, pancreatic, endometrial, breast, and prostatic cancers, the meta-analyses were significant only when considering case-control studies. A comprehensive analysis of all datasets showed that an unhealthy or healthy diet might exert variation of cancer risk by roughly 20-30% (reduced to 5% when considering prospective studies only).

Conclusions

Findings of this comprehensive meta-analysis provide further epidemiological evidence on the relation between food habits and cancer risk and could help to support policies aimed to reduce cancer burden in general population.

Key messages:

- Healthy and unhealthy dietary patterns are strongly associated with cancer risk

- Nutrition policies may affect cancer burden in general population

How much excess weight loss can reduce the risk of hypertension?

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Background

A 25% relative reduction in the prevalence of hypertension is a global target for the prevention and control of noncommunicable diseases. We conducted this meta-analysis to estimate the effect of excess weight loss on hypertension.

Methods

We searched PubMed, Web of Science, Scopus, and reference lists of articles to January 2016. We included prospective cohort studies addressing the association between overweight and obesity and hypertension. We expressed the strength of association between overweight and obesity and hypertension using risk ratio and the excess risk of hypertension attributable to overweight and obesity using attributable risk fraction with 95% confidence intervals (CI) based on the random-effects model.

Results

We found a total of 7617 references and included 10 studies with 173,828 participants. Compared to normal weight, the risk ratio of hypertension was 1.52 (95% CI: 1.37, 1.67; 9 studies, I²=82.4%) for overweight and 2.17 (95% CI: 1.84, 2.50; 9 studies, I²=88.9%) for obesity. The excess risk of hypertension attributable to overweight was 32% (95% CI: 24%, 40%; 8 studies, I²=85.5%) and that attributable to obesity was 47% (95% CI: 40%, 54%; 8 studies, I²=88.2%). That means, excess weight loss may reduce the risk of hypertension from 24% to 40% in people who are overweight and from 40% to 54% in people who are obese. No evidence of publication bias was detected.

Conclusions

Excess weight loss is effective in a relative reduction in the incidence of hypertension and is sufficient for achieving the global target, but requires to be accompanied with other preventive measures.

Key message:

- In prioritizing the main risk factors for noncommunicable diseases, excess weight loss may be a priority that should be the focus of special attention for achieving the 25 × 25 target suggested by WHO

Evaluation of the effectiveness of internet based nutrition education: A randomized controlled trial

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Background

Due to characteristics of adolescents, one of the suggested methods obesity prevention programs is the use of interactive multimedia. Prepared as a web-based programs provide straining to be standardized and reduce the burden of schools significantly. The purpose of this study to create an educational portal "Genc e-saglik" in an attempt to develop a healthy eating habit, increase physical activity and reduce sedentary behavior in order to prevent to overweight gain which is school-based approach in adolescents and there with also test the level of program information and the behavioral alterations of effectiveness.

Objectives

The study is an intervention study conducted on 496 (90.2%) high school students in centre of Eskisehir province in Turkey

between 2014 May-2015 October. A website was created for the students in the intervention group of the study. Training materials prepared for the internet medium were taught to the control group students by the researchers in the form of slides in the classroom environment during each lesson hour.

Results

A significant increase was observed in the average information scores of the students in the intervention group while no difference was observed in the control group. After the training, an increase was observed in the vigorous physical activity levels lasting for at least 20 minutes, the physical activity levels that will force muscles in the intervention group students. The number of step that students walked daily, was exceeded suggested level in both group, however the number of step was lower at before of intervention.

Conclusions

It has been observed that web-based training was more successful than classic training in improving the level of information. It was concluded that it would be useful to use different teaching and learning techniques and to continue these trainings because of the positive influence of training conducted in adolescent age group towards their behavior.

Key messages:

- Web-based training is more successful than classic training
- Both training methods affect nutrition and physical activity positively

Overweight social gradient of adolescents and its evolution after a 1-year school-based intervention

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Background

Tackling social inequalities is a key challenge in reducing overweight in adolescents. The study aimed to investigate the importance of social inequalities in adolescents' health and their evolution after a 1-year intervention.

Methods

The French cohort (PRALIMAP-INÈS) included 1142 (13-18 year old) adolescents. At the 2 follow-up visits adolescents were measured (weight, height) and filled in questionnaires on their social status (FAS: Family affluent scale), physical activity (PA), diet and global health. FAS score ranges from 0 to 9 and defines 5 social classes: significantly less advantaged (HLA), less advantaged (LA), intermediate, advantaged and highly advantaged (HA). The trial consisted in interventions adapted to the social class based on the proportionate universalism Principle. Social gradient (SG) may be seen as a linear relationship between health indicators and social class. Baseline and 1-year SG of weight status, PA, diet and general health were described according to the FAS classes (slopes) and evidenced using linear trend tests (p).

Results

At baseline, the higher the social class, the lower the weight status. SG exhibited a very strong slope for BMI ($\beta=-0.6$, $p<.0001$), BMI z-score ($\beta=-0.08$, $p=.0009$) and obesity ($\beta=-5\%$, $p=.002$) and was consistent with vigorous PA ($\beta=+9$, $p<.0001$), fruits and vegetable consumption ($\beta=+2$, $p<.0001$), sugar foods ($\beta=-1$, $p=.006$) and good general health ($\beta=+4\%$, $p<.0001$). Changes were globally favourable after the intervention but more marked in socially less advantaged classes contributing to reducing SG: BMI ($\beta=-0.4$, $p=.0008$), BMI z-score ($\beta=-0.05$, $p=.02$), vigorous PA ($\beta=+2$, $p=.3$),

fruits and vegetable consumption ($\beta = +1$, $p = .006$), sugar foods ($\beta = -0.4$, $p = .2$) and good general health ($\beta = +2\%$, $p = .2$).

Conclusions

SG was significantly and linearly distributed in adolescents regarding weight status and its determinants. A socially adapted intervention can help tackling or at least not worsening inequalities.

Key messages:

- Weight status is socially determined
- PRALIMAP-INÈS intervention help tackling these inequalities

Coca-Cola – a model of transparency in research partnerships?

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Background

Global corporations have come under sustained attack in recent years for their lack of transparency. In particular, concerns have been raised about their funding of research to support their advocacy campaigns, in some cases with concealment of the links between the funder and the researcher. Most attention has been focused on the tobacco industry, which has a long history of conducting research designed to create confusion and to reframe the agenda in ways that advance its interests. Similarly, the food industry has sought to reframe the debate on obesity as one driven primarily by too little physical activity rather than by high levels of intake of energy dense food. In this paper we report the findings of the case study of Coca-Cola. The Coca-Cola Corporation has been the subject of extensive criticism because of its support of academics who have been in the forefront of advancing the argument that the obesity epidemic should be tackled through greater physical activity rather than through reduction in energy dense products. However, it has also claimed that it embraced transparency by publishing a list of researchers that it funds. Here we investigate Coca-Cola's transparency list to assess whether (i) it is comprehensive and (ii) the researchers on its lists declare their funding to be a conflict of interest.

Methods

To test this, we systematically searched Web of Science for all publications that acknowledge funding from the Coca-Cola Company or the Coca-Cola Foundation (its philanthropic arm) and compared this sample with Coca-Cola's transparency list.

Results

A conservative matching procedure identified 453 authors, on 127 articles declaring Coca-Cola funding, who did not appear in any of Coca-Cola's list of scientific experts and research collaborators between 2010 and 2015.

Conclusions

These numbers suggest that Coca-Cola's transparency lists are severely incomplete and raise questions about the role of industry in funding academic research.

Key messages:

- Coca-Cola funding of scientific research lacks transparency
- Coca-Cola has sought to shift debate on obesity from consumption of sugar to lack of physical activity by funding scientific research

Are sit-down restaurant, fast food and café usage independently associated with diet and obesity?

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Background

Frequency of eating away-from-home has been associated with reduced intakes of healthy nutrients and foods and increased body weight. However, examining independent links between the use of different retail locations, overall diet quality and measured obesity status are needed.

Methods

A cross-sectional analysis of repeated cross-sectional data for 2083 adults from the UK National Diet and Nutrition Survey. Using 4-day unweighed food diaries participants recorded foods, drinks and eating location. Height and weight were objectively measured. Exposures were the proportion of energy intake (kJ) away-from-home and within three retail locations. Outcomes were accordance with the Dietary Approaches to Stop Hypertension (DASH) diet and obesity status ($BMI > = 30 \text{ kg/m}^2$). Logistic regressions were used to estimate associations between eating location exposures, DASH accordance and obesity.

Results

Overall the highest proportion of eating away-from-home was associated with decreased odds of DASH accordance (0.45 [0.31, 0.67]) and increased odds of obesity (1.48 [1.10, 1.99]). After controlling for demographics, socio-economic factors and respective retail and non-retail locations, use of fast food outlets was significantly associated with decreased odds of DASH accordance (0.48 [0.33, 0.69]) and increased odds of obesity (1.30 [1.01, 1.69]). After socio-economic adjustment use of sit-down restaurants or cafés was not significantly associated with DASH accordance or obesity.

Conclusions

Eating away-from-home was associated with decreased diet quality and increased obesity. However, away-from-home eating locations were not homogeneous in their independent associations. When developing population health interventions to reduce retail usage it may be important to focus on specific food outlet types and the drivers of individual usage within a broader social and economic context.

Key messages:

- Away from home eating locations have different associations with diet and obesity
- Socio-economic position is important to understanding these associations

Health at the borders: multilevel analysis of women's malnutrition determinants in Ethiopia

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Background

Women's malnutrition, particularly undernutrition, remains an important public health challenge in Ethiopia. Although various studies examined the levels and determinants of women's nutritional status, the influence of living close to an international border on women's nutrition has not been investigated. Yet, Ethiopian borders are regularly affected by conflict and refugee flows, which might ultimately impact health. The objective of our study is to investigate the impact

of living close to borders in the nutritional status of women in Ethiopia, while considering other important covariates.

Methods

Our analysis was based on the Body Mass Index (BMI) of 6334 adult women aged 20–49 years, obtained from the 2011 Ethiopian Demographic and Health Survey (EDHS). A Bayesian multilevel multinomial logistic regression analysis was used to capture the clustered structure of the data and the possible correlation that may exist within and between the clusters.

Results

After controlling for potential confounding factors, women living close to borders (i.e., ≤ 100 km) in Ethiopia were 59% more likely to be underweight (posterior odds ratio [OR]=1.59; 95% credible interval [CrI]: 1.32–1.90) than their counterparts living far from the borders. This result was robust to different choices of border delineation (i.e., ≤ 50 km, ≤ 75 km, ≤ 125 km and ≤ 150 km). Women in poor families, those with no access to improved toilet, residing in lowland areas, and Muslims were independently associated with underweight. More wealth, higher education, older age, access to improved toilet, being married, and living in urban or lowlands were independently associated with overweight.

Conclusions

The problem of undernutrition among women in Ethiopia is most worrisome in the border areas. Targeted interventions to improve nutritional status in these areas such as improved access to sanitation, economic and livelihood support are recommended.

Key messages:

- Helps design intervention to improve women's nutritional status in borders zones through improving access to sanitation, enhancing household wealth and livelihood
- Foster the debate on the health of communities living at the borders by investigating both internal and external factors

The hunger-obesity paradox associated with homelessness in Hungary

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Background

Regarding nutritional problems, homeless people are at high risk. Although the homeless population is broadly regarded as underweight, the literature lacks a rigorous analysis. Furthermore, no study has examined the anthropometric parameters and nutritional status of homeless adults in Hungary.

Methods

Demographic, socioeconomic variables and anthropometric parameters were collected in three major Hungarian cities from who use the homeless shelter system, applying questionnaire and body composition monitor, and blood samples were taken as well. Statistics were performed in SPSS software using logistic regression, Chi-square-, Mann-Whitney-, Kruskal-Wallis tests.

Results

In 33,3% of 453 homeless adults the prevalence of obesity was detected which was associated with high cholesterol, triglyceride and LDL level. Only 5,7% of the participants were underweight. The mean BMI was $24,5 \pm 5,7$ kg/m² (men: $24,1 \pm 4,8$ kg/m², women: $25,7 \pm 7,1$ kg/m²), the mean fat % values were higher in women (men: $20 \pm 10\%$; women: $34,3 \pm 11,4\%$), while the visceral fat level of men was above the normal (men: $8,3 \pm 5,1$; women: $6,9 \pm 3,4$). 48% of the participants had high cholesterol level, 27% had high triglyceride level and 56% had high LDL level. Homeless women who live in a temporary accommodation are more likely to be obese than those who attend night shelters or live on the streets ($p < 0,002$). Based on self-reports, 69,5% of the participants eat regularly, at least two or three times per day; 92% of them consider their nutritional status normal, however, based on our measurements, the prevalence of obesity was higher among the men participants in this category ($p < 0,001$).

Conclusions

Our study highlights the co-existence of overweight and homelessness, suggesting that obesity can be the new malnutrition issue of the homeless in Hungary.

Key message:

- The nutrition problems of homeless people are of concern because can cause or intensify other physical signs and symptoms

7.F. Oral presentations: Cardiovascular risk and health equity

Representation of hypertension related polymorphisms in the Hungarian general and Roma populations

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Background

Roma represents the largest minority population in Europe. It was recently pointed out that the prevalence of hypertension is

lower among the Roma compared to the majority population ever tested. Concerning the fact that hypertension is known to be highly affected by inheritable factors, our aim was to identify whether genetic factors contribute to the lower prevalence of hypertension.

Methods

SNPs (N = 23) related to renin-angiotensin-aldosterone system (AGT, CYP11, AGTR1, ACE), regulation of vascular tone (NOS3) and renal tubular sodium reabsorption (ADD1, NPPA), and homocysteine metabolism (MTHFR) previously described to be closely related to hypertension were investigated in representative random samples of the Hungarian Roma and general populations (N = 1202, N = 1167, respectively). Differences in allele frequencies, as well as genetic risk scores both unweighted (GRS) and weighted (wGRS) were defined for the study groups compared to estimate the joint effect of SNPs.

Results

Differences in allele frequencies between the study populations were significant in case of 7 polymorphisms after multiple test correction, and almost all susceptible alleles were more prevalent in the general population. The mean of GRSs was 19.6 ± 3.1 SD in the Roma population while it was 20.4 ± 3.2 SD in the general group ($p < 0.01$). Twenty-four % of Roma subject were in the bottom fifth of the GRS ($GRS \leq 17$) compared with 18% of those in the general population while only 9% of Roma people were in the top fifth ($GRS \geq 24$) of the GRS compared with 17% of those in the general population ($p < 0.001$). In addition, the mean wGRS was significantly lower in the subjects of Roma population comparing to the subjects of general population (0.5 vs. 0.6, $p < 0.01$).

Conclusions

GRS modelling showed lower burden of risk alleles for hypertension in Roma compared to Hungarian general population, suggesting ethnicity-related differences in genetic architecture underlying lower hypertension prevalence among Roma.

Key messages:

- Lower prevalence of hypertension among Roma seems to have genetic background
- thus interventions aimed to prevent hypertension should preferentially focus on environmental and behavioural factors

Self-reported lifestyle changes in pharmacy customers: 'Ci sta a cuore il tuo cuore' 1-year follow-up

Andrea Silenzi

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Community pharmacies represent an ideal site to screen modifiable risk factors and promote healthy lifestyles. The community pharmacy project 'We love your heart' ['Ci sta a cuore il tuo cuore'] evaluates cardiovascular (CVS) and type 2 diabetes (T2DM) risks in Italian (IT) and Spanish (SP) healthy customers. This study aims to present self-reported lifestyle changes and CVS and T2DM risk control after one-year follow up.

The project is realized by the Apoteca Natura pharmacy network with the support of academy and scientific societies. Over 3000 trained pharmacists of the over 800 Apoteca Natura pharmacies screened by validated questionnaires and the measurement of several parameters the CVS and T2DM risk of voluntary enrolled customers.

At 1-year from the first assessment, 1211 subjects (934 IT; 277 SP) repeated the evaluation. 70.9% and 69.8% declared to have changed their lifestyle and to have suggested the campaign to their friends/relatives. Participants showed an increase in physical activity ($p < 0.01$) and in fruit and vegetable consumption ($p = 0.01$). Furthermore they decreased the systolic blood pressure (-3 mmHg; $p < 0.01$) and waist circumference (-0.45 cm; $p < 0.01$). BMI and smoking habits as well as the overall CVS and T2DM risk did not show significant pre-post variations. 15.5%, 35.5% and 3.7% of customers started a therapy for their pressure, cholesterol and glycaemic control.

Customers involved in this community pharmacy based health promotion program show a reduction in several modifiable risk factors, possibly due to a lifestyle change or a specific therapy. Considering the high cost associated with T2DM and CVS diseases, a longer follow-up could allow a cost-effective analysis of the real impact of such a program implementation.

Key message:

- Community pharmacies represent an opportunity to strengthen primary prevention at local level and to identify people who could benefit from early lifestyle intervention reducing the burden of NCDs

Health literacy and cardiovascular knowledge workshop in women from disadvantaged communities

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Background

Cardiovascular disease (CVD), the leading cause of death in women, can be prevented through medical care and engagement in health behaviors. For many women in low socioeconomic status (SES) communities, limited health literacy (HL) is an obstacle to following medical guidance and engaging in health behaviors. The current HL pilot intervention was designed through focus groups with women in low SES communities. The primary HL issue identified was communication challenges at doctors' visits. As a unique HL intervention tailored to the participants' preferences, this intervention can serve as a model for improving HL in similar communities worldwide.

Objectives

To increase the percentage of women who utilize patient-doctor communication skills and to increase their CVD knowledge. A unique HL intervention tailored to the participants' preferences was designed which consisted of three workshops conducted in municipality-sponsored women's groups in low SES Jerusalem communities. Questionnaires were completed before and three months after the intervention. The study answers the following: Can HL workshops improve patient-doctor communication skills and CVD knowledge in low SES women?

Results

150 women (age range 53-85) with low education levels completed questionnaires. The percentage of women that reported not preparing for doctors' visits decreased from 45% to 17% ($p < 0.05$). More women reported preparing for doctor's visits with lists of: questions (28% to 67%, $p < 0.001$), medications (19% to 44%), symptoms (14% to 34%), and medical **Background**

(13% to 39%), all at $p < 0.01$. Post intervention, more women recognized heart attack symptoms such as fatigue (47% to 68%, $p < 0.05$) and felt more confident about controlling their sugar level ($p < 0.05$).

Conclusions

A three session, tailored HL workshop can raise low SES women's CVD knowledge and improve patient-doctor communication skills.

Key message:

- HL workshops can improve low SES women's CVD knowledge and patient-doctor communication skills

Migration and cardiovascular disease risk among Ghanaian populations in Europe: The RODAM study.

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Background

Migration has been associated with an increased risk of cardiovascular disease (CVD). For migrant populations from sub-Saharan Africa, adverse CVD risk factors have been observed to be higher than their home country-based counterparts or the host populations in high-income countries. Differences in absolute overall vascular risk, however, remains largely unexplained. We therefore assessed the differences in 10-year CVD risk among Ghanaians living in Ghana and in three European countries.

Methodology

For 3864 participants, aged 40-70 years, selected from the multi-centre RODAM study conducted among Ghanaian adults residing in rural and urban Ghana and three European cities (Amsterdam, Berlin and London), 10-year risk of CVD was estimated using the Pooled Cohort Equation. A logistic regression analysis was performed to determine the effects of migration on 10-year CVD risk of >7.5% according to the 2013 ACC/AHA Guideline on the Assessment of Cardiovascular Risk.

Results

CVD risk was higher for men than for women and differed within Ghana and by country of residence in Europe. Ghanaians in urban Ghana and Europe had increased risk for CVD as compared to their rural Ghana counterparts. CVD risk was significantly increased for Ghanaian men living in Berlin (adjusted Odds Ratio (AOR) 3.98; 95% CI 2.54- 6.23), London (AOR 3.12; 95% CI 1.97-4.93), Amsterdam (AOR 2.8; 95% CI 1.87-4.09) and urban Ghana (OR 1.69; 95% CI 1.15-2.48) and for Ghanaian women living in London (AOR 2.49; 95% CI 1.64-3.79). CVD risk was frequent with longer length of stay in Europe in both men and women.

Conclusions

The risk of CVD was observed to be higher among Ghanaians residing in urban environment particularly in Europe and differed by country of European residency. Knowledge about differences in absolute CVD risk between migrant populations abroad and their home countries supports appropriate tailoring of health policy and care for migrant populations.

Key messages:

- Ghanaian migrants in Europe have increased CVD risk, which differs by country of residence
- Knowledge about differences in absolute CVD risk between migrant populations abroad and their home countries supports appropriate tailoring of health policy and care for migrant populations

What matters? Relative and absolute equity in coronary revascularisations in 1995–2010 in Finland

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Background

Studies on socioeconomic equity in coronary revascularisations taking the need for care into account are scarce. This study aims to examine trends in absolute and relative equity in revascularisations using ischaemic heart disease (IHD) mortality as a proxy for need. We also investigate age group differences in equity.

Methods

Hospital Discharge Register data on revascularisations among Finns aged 45–84 in 1995–2010 were linked to register data on socio-demographics. We measured absolute and relative income group differences with absolute inequity index (AC) and concentration index (C), and relative equity taking need for care into account with horizontal inequity index (HII).

Results

The supply of procedures doubled during the years. Socioeconomic distribution of revascularisations was in absolute and relative terms equal in 1995 (Men: AC=-6, C=-0.01; Women: AC=-6, C=-0.05), but differences favouring the low-income groups emerged by 2010 (M: AC=-53, C=-0.08; W: AC=-28, C=-0.15).

IHD mortality decreased markedly, but absolute and relative differences favouring the better-off existed throughout the years. Absolute differences decreased somewhat (M: AC=-108 in 1995, AC=-92 in 2010; W: AC=-40 in 1995, AC=-27 in 2010), but relative differences increased (M: C=-0.16 in 1995, C=-0.30 in 2010; W: C=-0.17 in 1995, C=-0.28 in 2010).

The HII increased from 0.15 to 0.20 among men and remained around 0.12 among women indicating inequity favouring the better-off. We found significant and increasing age group differences in HII.

Conclusions

Despite a large increase in supply for revascularisations and decrease in IHD mortality in the last decades, there is still marked socioeconomic inequity in revascularisations in Finland. However, since the changes of the absolute distributions of the both supply and the need for coronary care have favoured the low-income groups, it can be stated that absolute inequity has decreased although it cannot be quantified numerically.

Key messages:

- Despite the socioeconomic inequity in the use of revascularisations in absolute terms decreased somewhat in 1995–2010, marked relative inequity remained
- Identifying patients with the highest need of care early and more specific targeting of resources especially to young low income coronary patients is needed

7.G. Pitch presentations: Health services responses to meet the health needs of migrants and asylum seekers

Unmet need for medical care among people of foreign origin in Finland

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Background

Previous studies show inequities in unmet need for medical care between migrants and the overall population despite universal health care coverage. This study tested 1) if there are differences in self-assessed unmet need for medical care between people of foreign origin from different countries and 2) if socio-demographic factors, immigration related factors, employment status and poverty were related with unmet need for medical care among persons with foreign origin.

Methods

We used data from the cross-sectional survey on work and well-being among people of foreign origin (UTH), conducted in Finland (2014–15). A total of 3262 subjects participated in computer-assisted home-interviews in 12 different languages. (Response rate 66%). The analyses limited to those aged 18–64-years ($n = 3068$). Our indicator for unmet need for medical care was based on the question: "Do you feel that you have adequately received primary care services during the past 12 months?" Potential confounders were gender, age, marital status, education, refugee status, length of stay, language skills, low income and employment status. Logistic regression was used to test the association between unmet need for medical care with the confounders.

Results

The results show significant differences in unmet need for medical care among persons from different countries ($p = 0.005$). The prevalence of unmet medical need was highest among people from Middle-East and North-Africa (55%) and lowest in persons from EU-countries and North America (36%). Single women, refugees, unemployed persons and those having low income had the highest odds for unmet need for medical care. Gender, age, education, length of stay and language skills were not associated with unmet need for medical care.

Conclusions

Large inequities in unmet need for medical care were identified among persons of foreign origin. In addition to refugee status, social and financial exclusion were associated with unmet need for medical care.

Key messages:

- Unmet medical care need is an indirect indicator of problems in access to care
- Actions are needed to improve access to care among migrant populations, especially among those who are in the most vulnerable position

Strengthening an evidence base on policies and interventions for undocumented migrants in Europe

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Background

Undocumented migrants (UMs) are migrants without necessary documents and permits authorizing them to regularly stay in a country. According to estimates for 2002–2008, 1.9–3.8 million undocumented migrants live in the European Region. Their status may be considered an obstacle in accessing basic healthcare and social services, determining vulnerability to several health problems such as communicable diseases, occupational health hazards, poor mental health.

Methods

In response to the current refugee and migrant crisis in Europe, a systematic review of the best available scientific and grey literature was conducted to identify barriers to access to healthcare in order to design suitable policies that improve access to and quality of healthcare services for UMs. In particular two groups of 5 researchers carried out a review of available evidence, until August 2015, investigating the following databases or report sources: PubMed, Scopus, Cochrane, Econlit, HEN, European Observatory, OECD.

Results

The research resulted in 122 articles, which highlighted several critical aspects in the access to and quality of healthcare services for UMs. They mostly only have access to emergency care across the European Region. Furthermore, formal and informal barriers in the access to healthcare were found. Formal barriers regarded entitlement to health whereas informal ones included language, culture and communication, lack of social network and of knowledge about the health care system organization. Finally, inconsistency and uncertainty in data collection were common across the European Region.

Conclusions

On the basis of the evidence strong efforts should be put in place in order to reconsider entitlement to health care; increase public awareness; plan systems to disseminate information; promote an intersectoral approach and cross-border cooperation; improve communication services; launch specific training programmes; collect routinely data on UMs health status.

Key messages:

- Entitlement to healthcare for migrants is one of the most important challenges of European Public Health
- Stronger shared efforts are necessary in order to address migrant health issue

Health status amongst migrants in Serbia during European migrant crisis

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During 2015 Balkan encountered with the huge migration from Asia and Africa. Migration route is long and connected with lot risks. In the second half of 2015, Serbia was a crossroad of migrations from BYR Macedonia and Bulgaria to Hungary and Croatia. According to the Commissariat for Refugees, 556.393 migrants passing through Serbia. The Serbian health system was responsible to render all necessary health protection to all migrants, which make a serious challenge for the entire state.

Data obtained from systematic health monitoring of asylum centers from June 1st, 2015 to January 10th, 2016, were used. During analyzed period, 68 802 health conditions were observed: 45% respiratory infections, 8% injuries, 5% intestinal infections with diarrhea and 4% without diarrhea. There were 15 parturitions, 6 abortions and 2 sudden deaths. The number of conditions exhibited growing incidence, with a peak in the late October and early November, and stabilized in the winter. During analyzed period, 71 327 health services were provided, with predominance of curative treatments 94%. Additionally, there were 93 hospitalizations. Hygienic-sanitary and epidemiological inspection have been conducted in a routine manner. 37% of the whole health services have been offered in the public health institutions, while the rest of services have been provided by national and international organizations and private institutions.

Respiratory diseases dominated among migrants and their incidence increased with the cold months arrival. Their health status usually doesn't require hospital treatment. Non-governmental organizations and private health institutions conducted a review of all people, while state institutions oriented only on persons who sought help.

Key messages:

- The migrant population is relatively healthy and doesn't present a health hazard for locals
- Their stay in transit countries is short and doesn't require special engagement of the health care system

The communication flow on basic medical supply between local authorities and asylum seekers in Tyrol

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In December 2015 Austria had 7,282 asylum seekers. Most of those represent vulnerable groups who need medical assistance. They are entitled to certain services that are stated in the basic supply. But how are they informed about the services of the Austrian health care system and the respective claims to treatments? With a specific focus on Tyrol this study analyses the information and communication flow between the sender and receiver to find out the status quo and possible fields of improvements.

On the basis of the communication model of Lasswell and Watzlawick's two level analysis (relationship and pure information), this study examines on the one hand the information and communication flow of the sender (local authorities, NGOs, wardens of the refugee homes) and on the other hand the group of refugees/asylum seekers itself as the final receiver of the message. The method encompasses studies and online research, email exchanges and telephone calls to get a sound overview. Furthermore, five interviews with wardens of refugee homes in Tyrol have been conducted. Interviews with asylum seekers will follow in May.

There are only a few brochures in the respective languages and none of those focusses on medical assistance. Furthermore, there is no standardized information flow from local authorities to the wardens of refugee homes. As result there are existing different kinds of "welcome documents", which are explained on site to the asylum seeker/refugee, lasting from 15 min. to two hours. The wish of an immediate solution for the respective health problem from the receiver side is often not fulfilled by the first medical check due to the lack of knowledge and the different cultural background.

To sum up, the information on basic supply is still not coherent, with the consequence that this task is shifted to the wardens of refugee homes. Harmonized information on access

to health care (basic supply) would facilitate the communication flow, but is still missing.

Key messages:

- The information on basic supply is still not coherent, with the consequence that this task is shifted to the wardens of refugee homes
- Harmonized enlightenment standards on access to health care (basic supply) for refugees/asylum seekers are still missing and should be established from national and local authorities

Asylum seekers' access to maternity care: Participant observations in two German reception centres

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Background

Germany has received about 475,000 asylum applications in 2015. Asylum seekers are legally granted full access to needed health care during pregnancy and childbed. The World Health Organization's dimensions of quality require care to be accessible, acceptable and equitable.

As no studies within the last 25 years have assessed access to health care for this group the aim of this study was to gain insight in how asylum seeking women access maternity care (comprising midwifery, gynecological, postnatal, and psychological care) in two large reception centres in Southern Germany.

Methods

We performed participant observations of midwifery consultations of 64 asylum seeking women at 14 days with a total of 45 hours provided by six midwives at two federal states' reception centres from February to June 2016. We observed four dimensions of access (availability, social acceptability, physical accessibility, and financial affordability) to maternity care for 36 pregnant women and 28 women in childbed. The observation was realized in an open and participatory way by one female researcher. Informed consent was sought from midwives prior to data collection. Field notes were discussed in the research team and summarized inductively. We executed member checks to ensure the credibility of our findings.

Results

Availability and accessibility of midwifery, gynecological and postnatal care was assured. Availability of psychological care was limited. Affordability of maternity care was guaranteed and free of both direct and indirect costs.

Language barriers affected the quality of care negatively. Sudden transfers caused discontinuity of care. Asylum seekers did not dispose of equal access to care compared to the host population.

Conclusions

Asylum seekers' access to maternity care is largely assured. Bridging language barriers and ensuring equity are essential to enhance the quality of care. Transfer- and expulsion stops are relevant for the continuity of care.

Key messages:

- Access to high-quality maternity care requires female professional interpreters, an increased availability of psychological care, and the equal accessibility of maternity care for asylum seekers
- The implementation of transfer- and expulsion stops during pregnancy and childbed could improve the continuity of maternity care and consequently strengthen the social acceptability of care

Self-reported health issues in recently arrived migrants to Sweden

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Background

The awareness of health and health related needs in migrants (i.e. refugees) is crucial for effective public support systems. For this and other reasons a regional survey was established to address various health issues in recently arrived migrants to Scania. The questions that the present study is seeking answers for relates health, changes in health as well as self-reported possibility to affect health in general but also in relation to level of education.

Methods

Data collection occurred between February 13, 2015 and February 12, 2016. The inclusion criteria were recently arrived adult migrants speaking Arabic, Dari, Pashto or Somali participating in the public support system. Questions on self-reported health, self-reported changes in health since the move to Sweden, self-reported possibility to affect own health as well as education was examined among others in an extensive health survey. The survey was funded by the European refugee fund.

Results

681 respondents took part in the survey where 94% were Arabic speaking, 69% were men and 51% were 18 to 34 years. 23% graded self-reported health as very well and 46% as well. Highly educated reported very well to a higher degree (30%) than the primary (17%) and the secondary level (12%) (p-value<0.01). Change in health was reported by 32% as negative and by 21% as positive. No significant difference was observed in relation to education. 70% reported the possibility of affecting own health as very important and the comparison with education was significant (p-value<0.01). Over 64%, independently of education, reported own contribution as very important.

Conclusions

The majority of recently arrived migrants' reports good health and own contribution for health as very important. Negative change in health was reported by almost a third of the migrants.

(a) Increase efforts to stop negative changes in health.

(b) Enhance health information practice to increase the benefits of own contribution for health.

Key messages:

- Recently arrived migrants reports a similar level of good health as the inhabitants of Scania observed in the latest regional public health survey

- A third of the respondents reports worsening health since the move to Sweden

Refugees and asylum seekers' quality of life: a Italian experience

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Background

There are almost 20 million refugees worldwide and it is estimated that in Italy arrived almost 200,000 refugees coming from 77 countries. Our purpose was to evaluate the HRQoL of refugees and asylum seekers welcomed in Tuscany using the Short-Form Questionnaire (SF-36).

Methods

We conducted a cross sectional study from July 2011 to February 2015 administering the SF-36 to asylum seekers and refugees, accommodated in facilities managed by the organization "Arci Regional Tuscan Committee".

We collected information about age, sex, weight, height, smoking, education level, country of origin, date of admission in the project, project location. Questionnaires were administered directly, through an interview, or using an interpreter. The data from the questionnaires were organized and processed by software Stata[®] SE.

Results

We collected 114 questionnaires. 98 were males and 16 were females; the mean age was 27,4. The refugees came from 25 countries. Statistical analysis showed significant differences due to language in Physical Activity and Social Activity. Younger refugees (from 18 to 23 years) reported the best results in Physical Role; Physical Pain; General Health.

There are significant differences in Physical Pain, General Health, and Vitality due to the stay in one of the 8 cities of Tuscany. The provenience from a particular WHO region is a significant variable for Physical Activity and Social Activity: refugees of the African Region reported the best results.

Conclusions

Our study showed that gender, length of stay and educational qualification were not associated with a poorer HRQoL among refugees welcomed in Italy; the effect varies with age, country of provenience, language and the city where they are welcomed. This is a pilot study and our purpose is to continue it enlarging more and more the sample size and the geographical coverage, in order to have a higher and more interesting description of the health perception of immigrants welcomed in Italy.

Key messages:

- This study evaluated the health-related quality of life (SF-36) and the main characteristics of refugees and asylum seekers welcomed in Tuscany (Italy), from 2011 to 2015
- Age, country of provenience, language and the city where the refugees are welcomed influenced their HRQoL

7.H. Pitch presentations: Empowerment in schools and for youth

Preventing violence against women by challenging gender stereotypes in Scottish primary schools

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Gender violence is a major public health issue in Europe; it is normalized and partly legitimized by gender stereotypes. An example of a primary prevention education programme designed to challenge the attitudes that underpin gender violence, particularly violence against women, is the Zero Tolerance Respect (ZTR) programme developed for Scottish

pupils. Given the importance of early preventative action in this area, this paper analyses how gender stereotypes were challenged in ZTR materials for primary pupils aged 10-12 years. Qualitative content analysis was used to analyse the content of the seven lessons in the ZTR primary school programme; the materials were also evaluated in relation to best practice within attitudinal change promotion. Analysis shows that ZTR empowers pupils to reflect on and confront gender stereotypes by developing pupils' social awareness, as respect is characterized as a right and a responsibility, and empathy for others and an awareness of the potentially discriminatory effects of difference in society are emphasised. Facts help pupils challenge prevailing myths of gendered violence, and a gendered perspective on history is also indicated. ZTR material involves a variety of methods aimed at engaging pupils, including brainstorming, quizzes, cases for discussion and imaginary scenarios. Whilst much of the ZTR material reflects best practice advice regarding attitudinal change promotion, there could have been more focus on the significance of gender stereotypes for the individual pupil. Moreover, further attention could have been given to surrounding powerful discourses and media representations that may be at odds with the messages of the programme. This qualitative study illustrates that the expanding field of public health can be supported through an "all for health" interdisciplinary approach that draws on fields such as discourse studies, health communication and ethics.

Key messages:

- Primary prevention education programmes such as Zero Tolerance Respect are important as they can help expose the link between gender roles and gender violence, leading to better public health
- To maximize the effectiveness of such programmes, participants should be integrated and supported in their reflections, and misalignments with prevailing discourses and practices should be identified

Girls and boys strategies to handle and cope with school-related stress

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Background

A trend of increased stress and deteriorating mental health of adolescents is a global challenge (Currier et al, 2012). Research shows that many adolescents report high levels of stress associated with an increased focus on school performance (Moknes et al, 2014). These demands generally have a stronger impact on girl's health (Låftman & Modig, 2013) due to context and social construction of norms, values and beliefs about femininity and masculinity (Connell, 2002; Butler, 1999). The aim was to get a deeper understanding of girls and boys perceptions of how they handle demands and school-related stress.

Methods

This study has an explorative design and was analyzed by qualitative content analysis described by Graneheim and Lundman (2004). The participants were 42 adolescents 15 years old, interviewed in five focus groups, divided by gender from five randomly selected schools. Two additional gender mixed focus groups with 14 adolescents 15 years old, were recruited from two of the randomly selected schools.

Results

The results show that girls and boys handle school-related stress by using similar strategies, but in different ways. Girls express that they have to prioritize to deselect activities they use to do to handle demands from school, and boys prioritize

their own activities to obtain strength to cope with demands. Girls often think about their future while boys more often live in present time, and don't worry so much about the future. Girls receive social support and recovery from friends and family, while boys do various activities with their friends and family to get energy.

Conclusions

This study shows that girls and boys used different strategies to handle demand and school-related stress. The results are based on adolescent's experiences and could therefore be an important foundation for interventions that promote adolescents capabilities to cope with increasing demands and to handle school-related stress.

Key messages:

- This study shows that girls and boys perceived and used different strategies to handle demand and school-related stress
- The result is an important foundation for interventions that promote adolescents capabilities to cope with increasing demands and to handle school-related stress

Fostering emotional competence in elementary school children in Novi Sad, Serbia in 2015

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Emotional competence, being our ability to express, understand and regulate our emotions, is the very basis of our social competence. As peer violence in school settings is a major problem in Serbia, but also in other countries worldwide, many school programs include violence prevention. In Serbia, these programs usually put an emphasis on conflict management and often leave behind what is believed to be a basis of good interpersonal functioning – emotional competence.

We wanted to create a project which would focus on developing emotional competencies in children. Workshop curriculum was created for 5 sessions which were conducted during November and December 2015 by trained psychology students with 8-year-old pupils in two elementary schools in Novi Sad, Serbia. Also, an interactive theater play was organized for parents. The educational materials were created: a calendar, a coloring book and a parents' guide on emotional development. An evaluation of the program's effects was organized.

The main results show that the children who attended the workshops had greater level of correct emotion recognition from facial expressions after than before the workshops. Also, after the workshops they gave more constructive answers in fictional emotion engaging situations. In addition, teachers stated that this experience had positive changes in group dynamics and gave higher rate of emotional expressiveness in pupils.

This pilot project has showed that children can benefit even from a short curriculum focusing on emotional development. Nevertheless, for more sustainable results, it is much more important to have a greater level of parents' and teachers' involvement as they are the main figures of child socialization at that age.

Key messages:

- Created workshop curriculum had a positive impact on emotional skills in children who participated
- The development of emotional competencies in children, which includes family and school settings, should be linked to violence prevention programs as they are the base of social competence

Health forums in schools – experience and reflections from parents, teachers and children

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Background

School environment is common responsibility of school, parents and pupils, and community as well. Health forums in schools, as a way of education were organized in coordination with management, with presence of teachers who were interested. According to assumption that acceptance of the principles of healthy lifestyles would be more successful if both children and parents were involved at the same time, obesity and physical inactivity, as major public health problems, were main topics of training.

Objectives

Motivation of parents in their efforts to share healthy behaviour with their children at home was the main goal. Their knowledge of basic principles of nutrition and healthy lifestyles was investigated. Health forums with children organized in aim that they put healthy nutrition and physical activity on their list of priorities.

Results

During the period 2014-2016 we were organized 32 Health forums in 16 schools (46% urban area and 56% in rural and semi urban area). The total number of parents was 246 (more than 86% were mothers). Parents and pupils were tested by anonymous questionnaire after training. The total number of pupils was 658 (more than 58% were girls). Almost all parents who had come to training thought that this kind of activity is useful for them and for children. It is notable that they have good attitude, but not always proper behaviour. 44% of tested pupils keep on proper nutrition, and 50% of them said that information about correct school-meal will influence their choices of other meals.

Conclusions

Although parents have the knowledge and awareness of certain principles proper nutrition and physical activity, they often do not apply these principles to themselves (they are not an adequate example to their children). Strengthening the parent's responsibility and knowledge contributes to their behavior's change in acceptance of healthy lifestyles in children (It is additional inspiration, to share the same goals with their children).

Key messages:

- Parents have important role in saving school environment and improving sanitation, together with their children and teachers
- Adequate parent's attitude and behaviour is essential in improvement results in children's proper nutrition and physical activity. (Project supported by Provincial Secretariat for Health APV)

Association between organized activity participation and healthy lifestyle in adolescents

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Background

Organized activities (OA) have been linked to healthy youth development and lower occurrence of risk behaviours. However, evidence on the association with healthier lifestyle outcomes is rare. The present study aimed to assess the associations of adolescents' participation in OA with eating habits and physical activity (PA).

Methods

Representative sample of 10,503 Czech adolescents aged 11, 13, and 15 years (mean age 13.47 years, 49.2% boys) was drawn from the 2014 Health Behaviour in the School-age Children study. The associations of participation in organized activities (team sport, individual sport, art, youth organization, leisure centre or school club, and church meeting) with eating habits, meeting the moderate-to-vigorous PA (MVPA) (≥ 60 minutes/day) and vigorous PA (VPA) (≥ 120 minutes & ≥ 4 days/week), recommendations were assessed using logistic regression adjusted for gender and age.

Results

About 80% of adolescents took part in one or more OA. The OA participation was associated with daily consumption of breakfasts (odds ratio (OR) 1.52; 95% confidence interval (CI) 1.37-1.69), fruits (OR 1.59; CI 1.42-1.78), vegetables (OR 1.42; CI 1.26-1.61), and soft drinks (OR 0.71; CI 0.63-0.81). The association with daily consumption of sweets was not significant. Adolescents involved in OA were also more likely to meet the MVPA (OR 1.78; CI 1.55-2.05) and VPA recommendations (OR 2.99; CI 2.58-3.28). The strongest associations with healthier eating habits were, in general, observed for adolescents involved in sports and other activity concurrently, while those involved only in sports had the highest odds to meet both the PA recommendations.

Conclusions

Participation in OA is associated with healthier lifestyle outcomes, with participation in sports (either alone or in combination with other type of activity) showing the strongest associations. The non-participation in any OA seems to act like a part of unhealthy lifestyle.

Key messages:

- Adolescents involved in OA are more likely to report healthy eating habits and recommended PA levels
- Non-involvement in OA thus may serve as an indicator of unhealthy lifestyle

Development and evaluation of a booster intervention to increase mindfulness practice in adolescents

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In Finland, 15-25% of adolescents suffer from mental health problems. There is initial evidence that mindfulness (MF) interventions might hold some promise. For MF interventions to have the intended effects, it is critical that participants continue practice of MF after the program. We aimed to identify motivational predictors of MF practice, develop a theory- and evidence-based booster intervention to increase maintenance of MF practice after a school-based MF intervention, and test the booster's effectiveness on MF motivation.

Analyzing the first wave (N = 310), predictors of MF practice were identified as targets for the booster intervention. A booster intervention was then designed to be implemented during the last two sessions of the TOM intervention, and evaluated in a cluster-randomized controlled trial (cRCT) within the third wave (N = 323) (Control N = 164; Booster N = 152) of the TOM cRCT.

In the first wave of the TOM intervention trial, 40% of students reported having practiced MF at home during the past month. Those students who had practiced reported several benefits. Descriptive norms were found to be the

greatest predictor ($B=.121, p=.006$) of MF practice. Based on these results, a motivational booster intervention was designed. In the cRCT, the booster intervention had no statistically significant effects on determinants of MF practice at nine weeks. Nevertheless, results showed a trend towards use of MF to relax increasing more for the booster than control, outcome expectancies decreasing less for the booster than control, and booster participants believing peers practiced more at nine weeks (descriptive norms).

The intervention developed and tested in this study did not lead to the hypothesized effects on the theoretical constructs of

the MF behaviors. The effectiveness of the motivational booster might have been stronger with higher doses or if delivered in the earlier lessons of TOM.

Key messages:

- School-based MF programs may be a low cost means to promote well-being
- Future research should identify best strategies for this among adolescents with co-creation/participatory action procedures

7.I. Workshop: Mental Health Disparities Based on Sexual Orientation and Gender Identity across Europe

Organised by: EUPHA proposed section on Sexual and gender minority health in collaboration with the competence group on sexual and gender diversity of the Austrian Public Health Institute (ÖGPH)

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Chairperson(s): Richard Bränström - Sweden, Arjan Van Der Star - Sweden

Today many governmental public health agencies call for policy and intervention programs addressing specific needs of lesbian, gay, bisexual, and transgender (LGBT) individuals. Still, the public health consequences of discrimination towards LGBT individuals have only recently been a topic of investigation and current knowledge in the area is limited. An increasing body of research show large differences in mental health functioning between sexual minorities as compared to heterosexual individuals. In particular, studies from North America show that LGB youth are at greater risk for suicide attempts than non-LGB youths and that they have higher prevalence of depression and anxiety diagnoses. A meta-analysis found that sexual minorities are two-and-a-half times more likely to have a lifetime history of mental disorder compared to heterosexuals.

This workshop will give examples of studies of mental health differences and discrimination based on sexual orientation and gender identity, with representation from various fields of inquiry and parts of Europe. Dennis van der Veur from the European Union Agency for Fundamental Rights (FRA) will present results from a newly conducted monitoring of LGBT discrimination and human rights violations across Europe. Associate professor Mark Hatzenbuehler, an international leading expert in the field of stigma and health from Columbia University (USA), will present theoretical frameworks outlining our current understanding of the development of LGB disparities and present analyses supporting these models using data on mental health disparities based on sexual orientation over the past decade. Examples of health disparities in suicide and mental health morbidity will be presented by Martin Plöderl (Austria) and Richard Bränström (Sweden). The situation for LGBT individuals varies greatly across Europe. The level of acceptance for minority sexual orientations differs greatly by country, and in many countries, LGBT people are also subject to legal discrimination concerning basic civil rights, e.g. regarding recognition of same-sex unions. The wide differences in LGBT acceptance and differences in institutional discrimination make cross-European studies particularly suitable for the exploration of the consequences of structural discrimination on health. Our workshop aims to facilitate such initiatives.

Key messages:

- The situation for LGBT individuals varies greatly across Europe making cross-European studies particularly suitable for the exploration of the consequences of structural discrimination on health
- More knowledge of factors influencing mental health outcomes among LGBT people could facilitate the development of targeted interventions to improve the health of LGBT individuals

The human rights situation among LGBTI individuals in Europe and its health consequences

Dennis van der Veur

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Background

International human rights law has progressively clarified its application in relation to sexual orientation and gender identity, including in relation to health.

Methods

The European Union Agency for Fundamental Rights (FRA) has developed legal analysis and has also collected data on the views and experiences of lesbian, gay, bisexual and trans (LGBT) people, as well as those of relevant officials and professionals on the extent to which LGBT persons enjoy their fundamental rights including in the area of health.

Results

FRA's legal analysis identified several human rights protection gaps in the area of health, including concerning access to and legal recognition of the preferred gender. It also showed that legislation against discrimination on the grounds of sexual orientation in the provision of goods and services (including healthcare) has been adopted by less than half of EU Member States, including Belgium, Bulgaria, Croatia, Czech Republic, Denmark, Hungary, Lithuania, Romania, Slovakia, Slovenia, Spain, and the United Kingdom. The Agency's Focus Paper on the rights of intersex people showed that they face several challenges which relate to law and medical intervention.

Conclusions

Increased efforts are needed to reduce health inequalities faced by LGBTI people, especially those in vulnerable situations (isolated communities, elderly and young people, prison settings, people from lower socio-economic groups, etc.) and the barriers faced by health professionals when providing care to develop training for professionals.

Societal-level explanations for reductions in sexual orientation mental health disparities

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Background

Health disparities related to stigmatized characteristics, including sexual orientation, have been well-documented. However, it is largely unknown whether declines in stigma at a population level contribute to concomitant reductions in health disparities between stigmatized and non-stigmatized groups. The object of this study was to test the influence of reductions in sexual minority stigma during the past decade in Sweden on sexual orientation-based mental health disparities.

Methods

Repeated nationwide population-based cross-sectional surveys in 2005, 2010, and 2015, were conducted among individuals (16–84 years of age) in Sweden. Of the total sample of 25,819 individuals, 221 (0.9%) individuals self-identified as gay/lesbian and 454 (1.8%) self-identified as bisexual. Psychological distress was measured with the 12-item General Health Questionnaire, which has demonstrated adequate validity in both clinical and general population samples and satisfactory sensitivity and specificity in predicting current diagnosis of major depression.

Results

The interaction between year and sexual orientation was statistically significant for men, demonstrating a stronger reduction over ten years in psychological distress (Wald $\chi^2=7.67$; $p=.02$) and in victimization/threat of violence (Wald $\chi^2=14.84$; $p<.001$) among gay/bisexual men as compared to heterosexual men. Mediation analyses revealed a 24% change in the coefficient for psychological distress in 2015 as compared to 2005, indicating that victimization/threat of violence explained, in part, the reduction in the sexual orientation disparity in psychological distress. These results were not observed among women.

Conclusions

This research provides new evidence that stigma mediates temporal reductions in population-level social inequalities related to sexual orientation.

Suicide risk and sexual orientation – International and Austrian Evidence

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Background

Many international studies have reported higher rates of suicide related behavior for sexual minority individuals, compared to heterosexuals. Early studies have been questioned for methodological reasons, but more recent research has overcome most of the limitations and in the past 10 years several Austrian studies have been published. The goal of this presentation is to provide an overview of the national and international evidence by taking into account different dimensions of sexual orientation, gender, life-stages, geographic regions, and the quality of studies.

Methods

Studies listed in PubMed up to 2015 were systematically reviewed. To avoid potential bias, only studies were included that did not selectively recruit sexual minority individuals but used pre-specified, defined populations. Only studies with a

heterosexual comparison group were included. Since the studies were too diverse for a meta-analytic aggregation, the effect-sizes were tabulated and described qualitatively. The results of the systematic review are compared with those from all existing Austrian studies.

Results

Nearly all studies reported elevated rates of suicide attempts and suicides in general or across sexual minority subgroups, in all dimensions of sexual orientation (behavior, attraction, identity), for both genders, age groups, regions, and in more recent studies. Most effects were large. The majority of studies reported larger sexual orientation differences for men than women. Studies of higher quality are in line with other studies. No population based Austrian studies exist, but the available evidence from convenience samples is comparable with international data.

Conclusions

This updated review of studies supports the proposition that sexual minority individuals are at increased risk for suicide and suicide attempts, nationally and internationally. Thus, sexual minority individuals should still be considered as target group for suicide preventive measures.

Sexual orientation disparities in mental health: the moderating and mediating role of sociodemographic and minority stress factors

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Background

Recent studies have identified substantial mental health disparities between lesbian, gay, and bisexual (LGB) individuals compared to heterosexuals. The concept of minority stress (describing the disproportionate stigma-related stress faced by LGB individuals compared to heterosexuals) has been used when studying LGB health and differences in health based on sexual orientation. However, previous research has mainly relied on cross-sectional self-reports of mental health status.

Purpose: To examine potential sexual orientation disparities in mental health morbidity in a prospectively analyzed sample of the general population in Sweden, and to explore if potential differences can be explained, or partially explained, by exposure to minority stressors and lack of ameliorating factors.

Methods

For the current analysis, 30 000 individuals (aged 18 years and older), from the Stockholm Public Health cohort, who responded to a self-report questionnaire in the fall of 2010 were followed up with registry-based archival data on morbidity and prescription drug use between January 1st 2011 – December 31st 2011.

Results

In prospective analyses, LGB individuals were much more likely to having received treatment for mental health diagnoses (adjusted odds ratios [AOR] = 2.72; 95% confidence interval [CI] = 2.05, 3.62) and using anti-depressant medication (AOR = 2.12; 95% CI = 1.72–2.63) as compared to heterosexuals. Substantially elevated exposure to victimization and lack of social support among LGB individuals, could partially explain sexual orientation differences in mental health morbidity (victimization: 4%; and lack of social support: 23%).

Conclusions

This study provides additional support for considerably elevated risk of poor mental health among gay, lesbian, and bisexual individuals as compared to heterosexuals. Further, minority stress factors were demonstrated to be important mediators explaining sexual orientation based differences in mental health.

7.K. Skills building seminar: Tackling Antimicrobial Resistance: case studies and ethical reflection

Organised by: EUPHA section on Infectious diseases control and EUPHA section Ethics in public health
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Chairperson(s): *Aura Timen – The Netherlands, Peter Schröder-Bäck – The Netherlands*

Key objective of this workshop is to sensitize participants to the ethical dilemmas related to the care for people carrying antimicrobial resistant pathogens. Second objective of the workshop is to support ethical reflection skills of professionals in relation to their national prevention guidelines.

Antimicrobial resistance (AMR) has been described as one of the major threats to individual and population health in the present century. Many countries have specific AMR prevention guidelines in order to prevent further introduction and spread of AMR in healthcare facilities.

These guidelines may in many ways affect the lives of carriers of antimicrobial resistant pathogens. This is for instance the case with isolation and quarantine treatment; restrictions in the workplace; refusal of access to important activities; requests to abandon one's pet animal that is colonized with a resistant pathogen; or contact restrictions at the farm of one's family. These situations all result in complex ethical dilemmas. In practice, however, the ethical component of this dilemma remains largely implicit.

An important feature of AMR-dilemmas is that they involve conflicts between the interest of the individuals that carry AMR on the one hand, and the interests of society as a whole, on the other. Such conflicts are at the heart of this workshop: how to balance the public and institutional interests to prevent spread of AMR against the wellbeing and freedom of infected individuals?

Key element of this workshop will be a moderated group discussion. We will first present real-life ethical dilemmas from Dutch and UK practice. We will then introduce values and principle such as Solidarity, Justice and the principle of The Least Intrusive Means. Finally, we will give the floor to the audience: how do other European countries approach comparable AMR dilemmas?

The group discussion will be moderated by Aura Timen, Head of the Dutch National Coordination Centre for Communicable Disease Control and Peter Schröder-Bäck, president of the EUPHA section ethics in Public Health. Also Marlies Hulscher will be present to make the connection between ethics and quality of care.

Key messages:

- AMR policies require a balance of the wellbeing and freedom of an infected individual against the public and institutional interests to prevent spread of AMR
- Addressing these AMR dilemmas requires robust explicit ethical considerations and the use of core public health values

Dilemmas related to being a carrier of a multidrug resistant organism

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Aim of the first presentation is to outline the dilemmas related to being a carrier of a multidrug resistant organism.

People that carry multi-resistant microorganisms do often not experience clinical symptoms. In other words, they are healthy carriers, but can transmit the resistant bacterium to their contacts. Spread of resistant microorganisms is a serious problem in healthcare facilities, especially there where patient with severe underlying disease are being cared for. They can become infected with a resistant microorganisms and develop disease that cannot be treated with most of the available antibiotics. Measures taken to prevent further spread are thus imposed on healthy carriers, with the goal to prevent disease in their vulnerable contacts.

This results in complex dilemmas that involve conflicts between the interest of the individuals that carry AMR on the one hand, and the interests of society as a whole, on the other. In the first presentation we will share two real life cases from Dutch practice with the audience to illustrate the dilemmas.

(1) A first real-life case address a Dutch medical student found to be persistent carrier of Methicillin-Resistant Staphylococcus Aureus (MRSA). In line with Dutch guidelines the student is not allowed to be involved in patient-care, which implies he cannot participate in internships necessary to finish his medical education. (2) A second real-life cases address a toddler colonized with an AMR. The toddler applies for admission to a medical day-care facility. In the facility, there are other children that would become at risk of becoming colonized with the AMR as well.

Key message:

- Applying AMR policies often involves balancing the wellbeing and freedom of an infected individual against the public and institutional interests to prevent spread of AMR

Value based public health practice and its implications for meeting challenges of antimicrobial resistance and communicable diseases

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This second presentation will highlight and reflect on a recent case of multidrug resistant tuberculosis in southern England and the complex ethical challenges in managing such cases. It will highlight and use some of the emerging public health values developed by the UK Faculty of Public Health to reflect and consider the ethical challenges in addressing issues around antimicrobial resistance and communicable diseases.

Ebola outbreak, migrant crisis, climate change, emerging communicable diseases, and other public health challenges have highlighted the importance of population based approaches, key role of social determinants and inequalities, and explicit consideration of public health ethics and values in addressing such issues.

AMR and effective management of communicable diseases continues to be a major global public health issues requiring genuine collaboration between and within all countries and various agencies and recognition of the coherent role of individuals, communities and institutions. Solidarity, Justice, knowledge, service and interconnectedness offer potential useful public health values to advance the discourse on the ethical challenges and their consideration.

Reflection on key public health values such as solidarity, Justice and others provide useful practical tool for considering some

of the ethical challenges to address AMR and emerging communicable diseases.

Key message:

- Addressing the challenge AMR and communicable diseases requires robust explicit ethical considerations and core public health values and recognition of their global nature. There is case to consider coherently the role of individuals, communities and institutions in tackling such issues

AMR and the Principle of the Least Intrusive Means

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To support ethical skills by exploring the value of the principle of the 'least intrusive means' for AMR practice.

The principle of the least intrusive means is commonly seen as a core element in justifications of liberty-limiting interventions in public health (Dute 1994, Krom 2014, Childress et al. 2002; Upshur 2002; Nuffield Council on Bioethics 2007).

One common version entails that health professionals should always choose the least intrusive means available. This, however, seems to be in sharp contrast with the typical

strictness of AMR policies, often involving 'zero-tolerance' (Török 2014). This suggests there is little room for ethical concerns about the intrusiveness of such policies. Adding to the complexity, different policies to protect against infections will not only differ in how intrusive they are but also in their expected effect on reducing infection risks. Often there will be a correlation between the two: stringent options being more effective, and vice versa. Choosing the least intrusive option, then, might also mean choosing the least effective option. Hence, it is not obvious that health professionals should choose the least intrusive among effective options if alternative options are more intrusive but may also offer better protection (Verweij 2011; Grill & Dawson 2015).

Can the principle of the least intrusive means play a central role in AMR care? Two strategies will be presented: (1) Rephrasing the principle to leave room for stringent measures, while also protecting individual interests; (2) Testing whether it could support common AMR measures with the help of other moral considerations such as effectiveness and proportionality.

Key message:

- The principle of the least intrusive means can play a role in AMR policy and practice, but in order to do so it requires further qualification

7.L. Oral presentations: The where and why in inequalities

Health determinants and outcomes across European regions. EURO-HEALTHY' Preliminary Results

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Background

Tackling health inequalities is one of the main challenges that the Europe 2020 objectives hope to achieve. To do so, policymakers need evidence on how the health of populations varies across regions, which includes not only the analysis of health outcomes but also of health determinants. This study presents and discusses the geographical pattern of several population health indicators, accounting determinants (economic, social, demographic, behavioral, environmental) and outcomes (mortality).

Methods

Using a set of 32 indicators considered as relevant by the EURO-HEALTHY consortium to evaluate European population health, data was collected at NUTS 2 level for the last year available. Furthermore, a spatial cluster analysis (Moran's I and LISA) was applied to identify the clusters. The detection of regions with concentrations of indicators which contribute positively or negatively to population health was made by overlapping all the clusters.

Results

All the indicators present spatial heterogeneity and it is possible to identify geographical patterns. Most of the determinants present a north/south pattern. As for outcomes, most of the indicators present clusters of high values in Eastern Europe. In fact, this region presents a higher concentration of outcomes contributing negatively to population health. Regions from southern Europe present a higher concentration of determinants that contribute negatively to population health.

Conclusions

The spatial clustering of outcomes and determinants at Europe's regional level provide valuable evidence to policymakers on a) regional inequalities in terms of health across Europe, b) groups of regions sharing the same problems and c) target regions where priority action is needed. Resources must be allocated under a holistic population health approach where policies to tackle regional health inequalities consider multiple dimensions and indicators.

Key message:

- Across European regions, there is a clustered spatial pattern of health determinants and health outcomes that can help inform policymakers with respect to priority areas of intervention

Health inequalities in Europe: where are we evolving to?

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Background

Socioeconomic inequalities in health have been largely observed in Europe, but their recent evolution is controversial. In this study, we measured the evolution of education-related inequalities in health using a sample of 3 million European people from 2004 to 2014.

Methods

We used cross-sectional data from the EU-SILC survey on adults aged 25 years or older from 25 European countries, from 2004 to 2014 (n = 3,268,557). Self-reported health and functional limitations were used as health outcomes. Education was categorized into low (primary or less), mid

(secondary and post-secondary), and high (tertiary). We used logistic regression to model the odds of poor health as a function of education. We measured the evolution in inequalities using the interaction between a linear time trend and education categories. We included country, age, and sex as confounders, and stratified the analysis by social welfare groups, age categories, and sex.

Results

The risk of poor self-reported health was 4.41 higher for low education compared to high education groups ($p < 0.01$), and 2.89 ($p < 0.01$) higher for functional limitations. Over the 2004–2014 period, inequalities increased by 1.8 pp per year for self-reported health ($p < 0.01$), and by 3.2 pp per year for limitations ($p < 0.01$). This yearly increase was twice higher among women, and slightly higher among the oldest (>70) groups. Health inequalities showed a negative trend in the Nordic countries, but increased up to 5.3 pp per year in Mediterranean and Central/Eastern countries.

Conclusions

Education-related inequalities in health have increased across European countries over the last decade. However, this rise was not observed in Nordic countries, in contrast to Mediterranean and Central/Eastern ones, possibly due to more protective welfare systems or equity-driven public policies. The higher rise in inequalities among women and older people suggests that these groups may be particularly vulnerable to adverse economic circumstances.

Key messages:

- Education-related health inequalities have increased in Europe over the last decade, being the rise more marked among females and in Mediterranean and Central/Eastern countries
- The lower increase in Continental countries, and the decreasing inequalities in Nordic suggest that equity-driven and social protection policies may be fundamental to tackle health inequalities

Changes in educational differences in leisure-time physical activity – A 12 year follow-up study

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Background

Cross-sectional studies suggest that among the lower educated physical inactivity is more common than among higher educated. However, there are only few prospective studies examining changes in leisure-time physical activity among different educational groups. We examined whether educational differences in leisure-time activity change over 12 years of follow-up among ageing employees.

Methods

Follow-up survey data were collected from 40–60-year-old employees of the City of Helsinki, Finland, at three time points: Phase 1 (2000–2002), Phase 2 (2007) and Phase 3 (2012) ($N = 5705$). Educational level was categorized into three levels: higher (university degree), intermediate (e.g. vocational) and basic (primary school or less). Leisure-time physical activity was asked in four intensity grades using identical questions in each survey. The volume of physical activity was assessed by approximate MET-hours per week. Incidence rate ratios (IRR) were calculated using generalized estimating equations (GEE) with negative binomial regression. Age and sex at phase 1 and time variant employment status, limiting long-standing illness and body mass index were used as confounders.

Results

At phase 1 there were minor educational differences in leisure-time physical activity. However, the educational differences in leisure-time physical activity widened over time as among the

basic educated the mean MET-hours decreased, among the intermediate educated remained whereas among the higher educated the mean MET-hours increased. Leisure-time physical activity decreased among those with basic (IRR=0.90, 95% CI 0.87–0.93) and intermediate (IRR=0.96, 95% CI 0.94–0.99) education compared to those with higher education.

Conclusions

Educational differences in leisure-time physical activity widened over time among ageing employees. Physical activity should be promoted among ageing employees and retirees and especially among those with low education.

Key messages:

- Socioeconomic differences in leisure-time physical activity widened among ageing employees from 2000 to 2012
- More emphasis on supporting physical activity especially in lower socioeconomic classes should be targeted among working-aged as well as among retirees

Paths of adversity linking adolescent socioeconomic conditions to adult functional somatic symptoms

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Background

While research examining the health impact of early socioeconomic conditions suggests that effects may exist independently of or jointly with adult socioeconomic position, studies exploring other pathways are few. Following a chain of risk life course model, this study examine if the socioeconomic conditions of the family contributes to an adverse social and material environment across life ultimately affecting functional somatic symptoms in adulthood.

Methods

Mediation was examined using path analysis on prospective data from a sample of 987 individuals residing in Luleå, Sweden in 1981 and who answered surveys at age 16, 21, 30 and 42. Early socioeconomic conditions was assessed at age 16 by using the parents occupation. The participant's own occupation was measured at age 21 and 30. At age 21 and 30, social adversity comprised of items pertaining to stressful life events, while material adversity included items of unfavorable economic conditions. Functional somatic symptoms was examined at age 42 as a summary of self-reported physical symptoms, palpitation and sleeping difficulties occurring during the last 12 months.

Results

The results suggested that the association between socioeconomic conditions at age 16 and functional somatic symptoms at age 42 ($r = .068$) could be explained by two plausible pathways. Through own class at age 21 and then through material ($B = .064$, 95% CI = $.004 - .123$) and social adversity ($B = .067$, 95% CI = $.019 - .114$) at age 30.

Conclusions

Growing up in an unfavorable socioeconomic setting might be a source for later adversities, and these might largely explain the effects of early disadvantage on later health. Thus, improved social and financial living conditions for people from poor backgrounds could avert adult stress-related health problems.

Key messages:

- Chains of life events may be central to understand socioeconomic health effects
- Breaking life course chains might avert adult health effects of early disadvantage

Socioeconomic differences in macro and micronutrient intake in Switzerland

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Background

Few studies assessing differences in dietary intake by socioeconomic status (SES) use more than one SES indicator. To better elucidate the complex role of SES in diet, we aimed to assess differences in macro- and micro-nutrient intake in both sexes according to education, income, and occupation.

Methods

A validated food frequency questionnaire measured dietary intake in 5087 participants (2157 women) from yearly adult population-based cross-sectional surveys conducted from 2005 to 2012 in the canton of Geneva, Switzerland.

Results

Low-education men consumed more calcium but less vitamin D than high-education men; low-income men consumed less total and animal protein (80.9±0.9 vs 84.0±0.6 g/d; 55.6±1.0 vs 59.5±0.7 g/d) and more total carbohydrates and sugars (246±2 vs 235±2 g/d; 108±2 vs 103±1 g/d) than high-income men. Occupation and diet showed no association. Low-education women consumed less vegetable protein (20.7±0.2

vs 21.6±0.2 g/d), fibre (15.7±0.3 vs 16.8±0.2 g/d), and carotene (4222±158 vs 4870±128 µg/d) than high-education women; low-income women consumed more total carbohydrates (206±2 vs 197±1 g/d) and less monounsaturated fat (27.7±0.4 vs 29.3±0.3 g/d) than high-income women. Finally, low-occupation women consumed more total energy (1792±27 vs 1714±15 kcal/d) and total carbohydrates (206±2 vs 200±1 g/d), but less saturated fat (23.0±0.3 vs 24.4±0.2 g/d), calcium (935±17 vs 997±10 mg/d) and vitamin D (2.5±0.1 vs 2.9±0.1 µg/d), than high-occupation women.

Conclusions

In Switzerland, the influence of socioeconomic factors on nutrient intake differs by sex; income and education, but not occupation, drive differences among men; among women, all three indicators seem to play a role. Interventions to reduce inequalities should consider the influence of education, income, and occupation in diet to be most effective.

Key messages:

- Adjusting for three different SES indicators—education, income, occupation—reveals disparities in macro and micronutrient intake across SES groups, with different impact of each indicator by gender
- Reducing socioeconomic inequalities in diet requires interventions that address the role of income, occupation and education. Solely focusing on education is unlikely to prove effective

7.M. Workshop: CEPHOS-LINK: European pooling of psychiatric rehospitalisation data: from diversity to comparability

Organised by: IMEHPs.research
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Chairperson(s): Christa Straßmayr - Austria

Despite the development of community mental health services in many countries the so-called “revolving door” phenomenon, manifested by high psychiatric rehospitalisation rates, is still a problem in mental health care.

The CEPHOS-LINK project is funded by the European Commission in its FP7 program (CEPHOS-LINK, 2014-2017, 603264) and it was set up to address some of the shortcomings of existing studies on rehospitalisation of psychiatric patients, such as small patient samples, selected diagnostic groups, considering only readmissions to the same hospital, and, above all, lack of between country comparability of results.

CEPHOS-LINK analyses the structure and semantics of the different national routine health care utilization data bases, thereby considering health care system differences, in order to explore the chances and limitations of comparing results across the borders of European countries, and makes use of record linkage and data pooling methods, thereby observing ethical and legal requirements. While limitations still exist in identifying high quality and comparable data across countries, the very large number of patients which can be included in retrospective cohort studies based on national health care registries warrants the pursuit of this “big data” approach. The pooling of data across countries also allows, in addition to using patient and service utilization data predictors, the consideration of health system factors in a multilevel analysis approach.

The objective of this workshop is to show how retrospective cohort studies based on large national administrative electronic data bases in six European countries with largely differing health care and routine data collection systems (Austria, Finland, Italy, Norway, Romania and Slovenia) can contribute to identifying risk factors for psychiatric rehospitalisation. In addition, we will also present the challenges of comparing routine health care data across countries and will propose for discussion the possible solutions identified

The workshop will consist of five presentations. The first will provide general data on the phenomenon of psychiatric rehospitalisation in Europe and its burden on health care systems; the second presentation will report on the problems and solutions of identifying and selecting comparable variables in the national databases; the third and fourth contributions will exemplify the process of identifying and piloting different categories of factors that might impact on rehospitalisation rates, namely individual pre-discharge factors and system level variables, while the last presentation will give an overview on data analysis strategies as well as dynamic modelling including results of population dynamics.

Key messages:

- It is possible to carry out comparable retrospective cohort studies based on large national administrative electronic health care registries across the borders of European countries
- If differences in such registries are carefully considered such studies can provide support to decision makers on crucial health care topics such as psychiatric rehospitalisation

Burden of rehospitalisation of psychiatric patients for health systems

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Issue

Hospital readmission of psychiatric patients is considered a negative clinical outcome, being both disruptive for patients and costly for the health systems, thus representing an issue of interest for European Union member states. Reducing the burden of preventable readmissions should be the objective of evidence based inter-sectorial policies and should rely on the identification of best practices.

Description of the problem

According to WHO Global Health Estimates, in 2012, neuropsychiatric disorders were the third leading cause of disability-adjusted life years (DALYs), accounting for 15.2% of the disease burden in the European Region, and ranked as the first cause of years lived with disability (YLD) in Europe, accounting for 36.1% of those attributable to all causes.

The Mental Health ATLAS 2014, reveals that mental health care in EURO Region relies on inpatient and residential care, despite the current pattern based on community mental health services and primary health care, derived from the necessity to find the most cost-effective solutions in dealing with mental health disorders.

Results

Available data shows that a great part of the admissions are in fact re-admissions that can be avoided by providing other type of mental health services and that reducing readmission by providing alternative outpatient services leads to reducing healthcare costs.

In order to be able to make comparative analyses among the countries it would be necessary to reduce the variation among different aspects that need to be measured and compared, among the measuring tools or among other issues conducting to different levels of evidence.

Key message:

- A big challenge for healthcare research is to improve the research methodologies, including methods which allow the data mining of different administrative health service utilization databases in order to provide valid evidence for decision makers

Ensuring interoperability of data on psychiatric rehospitalisation derived from large electronic administrative health care registries across six European countries

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Background

Routinely collected health care utilization data contained in countrywide electronic registries are a potentially important source for carrying out retrospective cohort studies. While the sheer quantity of such data makes it attractive to use them for such studies, the restricted number of variables and the problematic quality of the data are potential obstacles to the validity of the comparison of results, because the data was not specifically collected for research purposes.

Methods

In order to obtain maximum comparability between countries, the following procedure were undertaken: (1) identifying the relevant databases and variables, (2) analysing frequencies of

the main variables for plausibility checks, (3) structured descriptions of the different health care systems, (4) meetings with health services and their IT departments and data owners in order to solve discrepancies and (5) repeated exploratory data analysis.

Results

It will be shown that it is possible by these efforts to make data comparable for psychiatric rehospitalisation studies across the borders of European countries. One example where improvement was possible is working on the discrepancies of such seemingly simple codes as those identifying admission and discharge. Differences could be partly explained by different reporting procedures due to administrative or financial peculiarities. Variables identifying an inter- or intra-hospital transfer are in particular prone to reflect differences in concepts of inpatient mental health care provision in different countries impeding comparability and potentially representing artefacts. The respective discrepancies could be resolved to a satisfying degree.

Conclusions

It has proven to be possible to improve the comparability of data contained in large electronic administrative health care registries for increasing the comparability of retrospective cohort studies across the borders of European countries.

Predischarge factors linked to rehospitalisation

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Background

Previous studies have examined a number of individual factors that are likely to influence readmission and readmission rates are considered as a measure of the quality of care of the preceding hospital episode. The main objectives are: to review in a comprehensive way the relevance of these pre-discharge variables for readmission of adult psychiatric patients; to compare pre-discharge characteristics of admitted psychiatric patients in 6 EU countries.

Methods

Studies published from January 1990 to June 2014 on the association between pre-discharge variables and readmission after discharge with a main psychiatric diagnosis were searched. For each variable, the number of papers that found a significant association with readmission was recorded, together with the association direction. Data on pre-discharge variables from large electronic registers across 6 EU countries were selected and compared.

Results

Of the 734 articles identified, 58 papers were included in the review. Analyzed variables were classified in the following categories: patients' demographic, social and economic characteristics; patients' clinical characteristics; patients' clinical history; patients' attitude and perception; environmental, social and hospital characteristics; and admission and discharge characteristics. The most consistently significant predictor of readmission was previous hospitalizations. Among admission characteristics, length of stay was the main factor studied; however, results were not consistent. Results of the exploratory analysis in 6 EU countries will be presented.

Conclusions

As far as we know, this review is the first systematic description of all the pre-discharge factors of readmission for inpatient psychiatric populations. Associations are not straightforward and interactions between factors have to be considered. Comparability problems on pre-discharge variables across EU countries emerged and only few variables can be used in international studies.

System level factors as predictors of psychiatric rehospitalisation: A pilot study with Finnish data

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Background

System level factors are less studied than individual factors as predictors of psychiatric rehospitalisation. The aim of this pilot study was to examine system factors as predictors of rehospitalisation using Finnish health register data.

Methods

We examined all adults with a main psychiatric diagnosis (ICD-10: F2–F6) discharged from inpatient care in Finland (5 mill. inh.) in 2012, N = 16.804. Outcome was the likelihood of psychiatric rehospitalisation within one year. Two groups of factors were examined at hospital district level (21 districts): 1) length of stay, time to first outpatient contact after discharge, psychiatric inpatient days per capita, outpatient visits in psychiatric care per capita; and 2) single parent families, unemployment, education level, population density. Logistic regression was used with two-level random intercept model, clustered within hospital districts. For each predictor, results were adjusted for all other variables belonging to the same group.

Results

Preliminary results show that rehospitalisation rate in different hospital districts varied between 25–52% (mean 38%). Those who had no outpatient contact following discharge were especially prone to rehospitalisation (OR 4.94, 95% CI 4.22–5.79), in comparison to those who had contact within 0–3 days. A higher population educational level was negatively associated with rehospitalisation (highest group, OR 0.55, 95% 0.35–0.86). Compared with the least populated areas, risk of rehospitalisation was OR 1.57 (95% 1.11–2.22) in the middle group, and in the capital with the highest population density OR 2.03 (95% 1.13–3.64).

Conclusions

System level factors can be significant predictors of psychiatric rehospitalisation – important considerations when striving to reduce unplanned rehospitalisations. However, careful consideration must be given to the extent to which results reflect the health of the population, or the availability and effectiveness of health care services.

Analysis of pooled European health register data

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Background

The basic strategy was to use retrospective administrative electronic health care registries from different countries/health insurance systems to investigate psychiatric hospitalization focusing on rehospitalization and aftercare, utilizing sufficient analytical methods.

Methods

Firstly, based on systematic literature reviews conducted in CEPHOS-LINK, an evaluation of the mathematical (statistical and simulation modelling) methods used was established.

Secondly, logistic regression models and Cox-regression analyses were performed at national and pooled level for all partner data sets. System variables as well as post discharge information and co-morbidities were also included.

Thirdly, dynamic modelling and simulation was developed in order to identify dynamic effects of changes in demography, the influence of distance to services, as well as scenario calculation of effects of, and increase in chronic somatic diseases in the European partner countries within CEPHOS-LINK.

Results

The literature review of 507 papers generated scattered results depending on population size and follow up time. Studies with bigger sample sizes (at least 1000 patient data sets) conducted survival and regression analysis more often, while studies with fewer patients relied more often on classical statistical tests (t-test, chi-square, etc.).

Modelling the effects of dynamic population changes according to Statistics Austria's predictions from 2006 to 2026, resulted in an annual increase of 8% of patients discharged with an ICD10 F2-F6 during the simulation period.

Conclusions

Logistic regression and Cox regression depict differences in the underlying systems of the CEPHOS-LINK countries quite well. Dynamic modelling gives added value to the broad statistical methods usable for routine data analyses. National idiosyncrasies demand strict protocol definition.

7.N. Pitch presentations: Maternal health

Perception of environmental risks by French perinatal health professionals

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Background

The exposure of pregnant women to environmental contaminants is the subject of recent concerns (International Federation of Gynecology and Obstetrics). However, the risk perception by health professionals (HP) of these contaminants have not been extensively investigated. Our main objective was to describe the risk perception of perinatal HP about exposure of pregnant women to environmental contaminants. The

secondary objectives were to describe the preventive behaviour of perinatal HP about chemicals exposure of pregnant women and to identify the difficulties encountered by the HP.

Methods

A cross-sectional study was made up of perinatal HP (obstetricians, midwives, general practitioners, etc.) in France. One hundred and ninety-one HP replied to an online self-administered questionnaire (participation rate of around 11%).

Results

Carbon monoxide, pesticides and lead were the most frequently contaminants perceived by the HP as a high risk for the pregnant woman and the fetus; noise and use of cosmetics were mostly perceived as low risk. More than half of HP reported being solicited by pregnant women on food risks related to bacterial contamination, occupational exposure to chemicals and use of cosmetics. A minority of HP questioned women about their exposure to chemicals and advised them to reduce exposure (i.e., cosmetics and household products).

Eighty percent of HP said they were poorly informed about environmental contaminants and their health effects. Only 5.8% of HP received an initial or continuing training in environmental health. The lack of knowledge, training, scientific evidence and time during the consultation were the main difficulties declared by the HP to advise the pregnant women.

Conclusions

Our findings highlight the lack of information of perinatal HP to advise pregnant women about environmental exposure. In France, health authorities must take into account the difficulties identified and improve information and training of perinatal HP.

Key messages:

- The majority of French perinatal health professionals declared having poorly training about environmental health
- Information and formation of perinatal health professionals about environmental health should be improved in France

Detection of at risk mothers and infants by community nurses in Slovenia – a pilot study

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Objective

Start of life has been repeatedly recognised as the most important period of life for health prevention and promotion and tackling socio-economic health inequalities. Slovenia has a long standing universal prevention programme that includes eight preventive home visits by a community nurse during child's first year of life. In a project addressing health inequalities financed by a Norwegian financial mechanism, we piloted a program with additional visits for at risk mothers and children to see how many at risk families are detected, what kind of risks are detected and what kind of subsequent interventions are needed.

Methods

Experts from the National institute of Public Health provided piloting protocol with a list of 23 at-risk criteria, including mothers', child's and family's circumstances, with emphasis on socio-economic circumstances and a provisional list of specific interventions for each risk. The pilot was carried out by 32 specially educated community nurses, during April and October 2015. All mothers with new-borns in two piloting areas, one urban and one rural, were included in the study.

Results

Community nurses visited 289 families. In 36% of the families, they reported at least one of the at-risk criteria, on average 1.7 criteria per family. The most common criteria were associated with health status of the new-born and problems with breastfeeding. Six percent of all families had socio-economic risk criteria. The most common intervention was empowering mothers and strengthening their confidence.

Conclusions

Our study shows that there is a large proportion of young families at risk that could benefit from additional preventive visits. Health sector has to increase the knowledge of recognition and addressing the issues beyond health in order to appropriately address socio-economic inequalities in health.

Key messages:

- There is a large proportion of young families at risk, which could benefit from additional interventions
- To reduce socio-economic inequalities in health, at risk circumstances should be addressed

Interventions to improve birth outcomes for women at highest risk of infant death-a systematic review

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Background

Inequalities in UK infant mortality particularly affect Pakistani, African, Caribbean and Bangladeshi mothers but no national strategy addresses the needs of minority ethnic women. Explanations for such inequalities are contested and can reflect the social exclusion of women from these groups. This study explores available evidence on interventions that improve birth outcomes in these groups with a view to identifying components of a complex intervention.

Methods

A total of 1656 articles were identified and screened for inclusion. Articles were included in the review if they met the following inclusion criteria: (1) original English-language study conducted anywhere in the world; (2) evaluated an intervention; (3) included sub-analysis by race/ethnicity or had a study population composed of more than 50% racial/ethnic minorities and (4) intervention was linked to birth outcomes. Articles included were reviews, RCT's, evaluative studies as well as retrospective and observational cohort studies.

Results

53 birth outcomes intervention articles were systematically categorised using the taxonomy developed by Clarke and Colleagues (2013) for disparities interventions. For all 53 articles we identified the tactic, or what was done to intervene; the strategy, or a group of tactics with common characteristics; and the level, or who was targeted by the intervention.

Conclusions

Findings highlight potential elements of a complex intervention to improve birth outcomes in groups at highest risk of infant death. Such an intervention still needs to be developed, piloted for feasibility and acceptability and trialled at national level for effectiveness and cost-effectiveness.

Key messages:

- There is a need to identify elements of a complex intervention that can improve birth outcomes in women at highest risk of infant death
- This systematic review explores existing evidence with a view to informing a future trial

Social determinants of maternal smoking during pregnancy: findings from the German KiGGS study

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Background

Maternal smoking during pregnancy is a major developmental risk factor for the unborn child. Smoking behaviour among pregnant women is known to vary across socio-demographic groups. Therefore, the role of maternal age at birth, socio-economic status (SES) and migration background has been examined.

Methods

The analyses were based on data of two waves of the German Health Interview and Examination Survey for Children and Adolescents (KiGGS) that were conducted from 2003-2006 and 2009-2012. We compared information given by parents of 0- to 6-year-old children born between 1996-2002 (KiGGS baseline study, n=4,818) and 2003-2012 (KiGGS Wave 1,

n=4,434), respectively. SES was quantified as an index calculated according to parental education, occupational status, and income. Migration background refers to country of birth and nationality of both parents and child. Prevalences and adjusted odds ratios (OR) from logistic regression models were calculated.

Results

Prevalence of maternal smoking during pregnancy was 19.9% among children from the older birth cohort and 12.1% among their younger birth cohort counterparts. Children whose mothers were under 25 years at the child's birth had a twofold risk of intrauterine tobacco smoke exposure compared to children with older mothers. Children from socioeconomically disadvantaged families had the highest risk of exposure (KiGGS baseline study: OR = 6.34; 95%-KI=4.53-8.86; KiGGS Wave 1: OR = 13.88; 95%-KI=6.85-28.13). A two-sided migration background was associated with a lower risk of maternal smoking during pregnancy.

Conclusions

The KiGGS results are in line with national and international studies showing that prevalence of maternal smoking during pregnancy has declined. However, our trend results should be interpreted with caution due to possible mode effects in KiGGS (written vs. telephone questionnaire). Tobacco prevention and cessation programs should particularly target young women and socially disadvantaged mothers.

Key messages:

- In Germany, smoking prevalence among pregnant women might have declined in recent years
- Yet, children born to younger mothers and children from low SES-families had the highest risk for in utero exposure to maternal smoking

Breastfeeding self-efficacy and breastfeeding up to the 6th month: the BrEaST start in life project

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Background

The BrEaST start in life project documented low breastfeeding rates among Cypriot mothers. A bi-directional association between breastfeeding and maternal self-efficacy contributes to the premature discontinuation of breastfeeding.

Methods

A consecutive sample of 568 mothers who gave birth in all public maternity wards and 29 (out 35) private maternity clinics on the island responded to the 14-item Breastfeeding Self-Efficacy Scale whilst still at the clinic as well as one month later by telephone follow-up. The association between self-efficacy and breastfeeding (BF) or exclusive breastfeeding (EBF) at the 1st, 4th and 6th month were estimated in logistic regression models.

Results

Breastfeeding self-efficacy was only moderate, and even lower among primiparas, those who delivered by caesarian section and those who did not experience good practices while at the clinic on the basis of the WHO's "10 steps". While higher levels of self-efficacy were not associated with the likelihood of BF initiation, there was a clear association between self-efficacy and exclusivity. The quartile of mothers with the highest levels of self-efficacy at 48 hours were five times more likely to breastfeed exclusively (40.5% Vs 7.9% among those with the lowest levels). Further, the association between self-efficacy and EBF persisted at the 1st (OR = 5.0 95%CI 1.5-16.6), 4th (OR = 8.5 95%CI 1.7-43.5) and 6th (OR = 5.7 95%CI 0.6-56.5)

month, even after adjusting for socio-demographic characteristics including type of delivery and parity. Similar if not even stronger associations were observed between BF/EBF rates and self-efficacy as reported at the 1st month.

Conclusions

Against generally low prevalence of breastfeeding among Cypriot mothers, low self-efficacy in the early period was associated with non-exclusivity and earlier discontinuation of breastfeeding, suggesting an urgent need for policy, educational and community support interventions at the pre- and post-natal period.

Key messages:

- Self-efficacy is a determinant of exclusivity and duration of breastfeeding
- Breastfeeding promotion and support interventions are needed to tackle low breastfeeding rates

Methyl mercury exposure in children cognitive development due to prenatal intake of fish

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Background

Research on prenatal intake of fish in relation to children cognitive development has shown the controversial association. Some has shown the adverse association, some has shown positive association and some did not show any association. Systematic review is done to investigate current knowledge of prenatal fish intake association in children cognitive development based on published prospective cohort studies and to assess the quality of knowledge.

Methods

Studies were searched in bibliographic databases Pub med, Web of Science, Science Direct and Scopus. In addition, Lancet Journal and reference of references were also searched. Cohort studies published from 2000 onwards in English language, participants as children of 0-18 years and pregnant women consuming fish, and outcome as cognitive development were only eligible for the review.

Results

Ten studies were included with total number of 5,789 eligible mother-children pairs. In eight studies, 3,228 (55.8%) mothers took normal serving size fish and in two studies 2,561 (44.2%) mothers took moderately high portion serving size fish per week. Five studies with 2,486 (42.95%) participants showed adverse association, four studies with 3,168 (54.72%) participants showed no association and one study with 135 (2.33%) participants showed both positive and negative association. The quality reporting of studies assessed using STROBE checklist reflected that 40% (4) studies had rather low bias, 50% (5) had moderate to low risk of bias and 10% (1) study had moderate bias.

Conclusions

Prenatal fish intake showed adverse and no association effects in children cognitive development although "no association" effect was more pronounced. Risk of bias in original studies and limitations of the review process hinders any robust conclusion on exact role of methyl mercury of fish in children's cognitive development. Further research is necessary to confirm the true association.

Key messages:

- Pregnant women eating fish has both adverse and no association effects in children cognitive development
- The effect of methyl mercury in children cognitive development cannot be concluded exactly due to limitation of studies and systematic review process

Paternal violent criminality and preterm birth: a Swedish national cohort study

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Background

Partner's malicious aggressive behaviour is a threat to the pregnant woman and her unborn child. However, the impact of paternal aggressiveness on preterm birth has not been well-elucidated due to difficulties of studying intimate partner violence.

Methods

Register based study on all live singleton births in the Swedish Medical Birth Register from 1992 to 2012, linked with records of violent crimes conviction from the National Crime Register from 1973 to 2012. Total frequency of convicted crimes was calculated, as well as the time interval between the most recent offense to birth. Odds ratios (ORs) of preterm birth and mean differences of gestational age in days (β s) were estimated for births exposed to paternal violent criminal convictions. Conditional regression models, comparing siblings with different fathers, were also employed.

Results

Paternal criminality was associated with increased risk of preterm birth (OR = 1.17 [95%CI 1.13-1.21]), compared to children of the non-offenders, which was not eliminated when further controlling for paternal psychiatric disorders (OR = 1.14 [95%CI 1.10-1.18]). Reoffenders, who had been convicted of three or more violent crimes, were associated with an even higher risk than those convicted less (OR 1.31 [95%CI 1.25-1.38] vs. 1.12 [95%CI 1.08-1.16]). Risk of spontaneous very preterm birth was particularly pronounced among children of reoffenders (OR = 1.66 [95%CI 1.41-1.96]). Comparison of siblings, who had the same mother but different fathers regarding conviction status, showed consistent results. A shorter time interval between the crime and birth was associated with a higher risk of preterm birth in population analysis, however this was not confirmed when comparing full siblings.

Conclusions

Paternal violent criminality, as an underestimating proxy of aggression, is associated with preterm birth in a dose-response manner.

Key messages:

- Replacing the violent partner decreases the risk of preterm birth
- Aggressive behaviour of expectant fathers is a risk factor for preterm birth that deserves more attention from antenatal care providers

Socioeconomic inequalities in child's psychosocial problems: role of maternal depression and anxiety

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Background

Socioeconomically disadvantaged children are more likely to have psychosocial problems. This study aimed to analyse the determinants of inequalities in psychosocial problems of 5-6 year old children. We analysed the mediating role of maternal depression and anxiety symptoms in the relationship between maternal education and psychosocial problems. We focused on three developmental periods: pregnancy, 3 months after birth and at age 5-6.

Methods

We included 3410 5-6 year old children of the Amsterdam Born Children and their Development (ABCD) study. At age 5-6 years mothers completed the Strengths and Difficulties Questionnaire (SDQ) to assess psychosocial problems of the child. Maternal depression and anxiety were assessed using the Center for Epidemiologic Studies Depression Scale (CES-D), State Trait Anxiety Inventory (STAI) and Depressive Anxiety and Stress Scale 21 (DASS21). Proportion mediated measures in psychosocial problems explained by the mediators maternal depression and anxiety were calculated.

Results

The mean mother-reported SDQ total difficulties score was significantly higher ($p < 0.001$) for children of low educated mothers (6.74 ± 4.41) compared to children of high educated mothers (4.47 ± 3.73). Maternal depression and anxiety scores were also higher in low educated mothers. Preliminary analysis showed that depression and anxiety scores during pregnancy mediated 30.0% and 33.7%, respectively, of the SDQ differences between children of different maternal education. Maternal depression and anxiety scores 3 months after birth and at age 5-6 mediated lower proportions of offspring SDQ-scores (22.8%, 26.3%, 17.9% and 20.2%).

Conclusions

Suboptimal maternal mental health during pregnancy had the largest effect on SES inequalities in child psychosocial problems. Early recognition and treatment of symptoms of maternal depression or anxiety is important to prevent psychosocial problems in children, especially in low SES families.

Key messages:

- Socioeconomic inequalities have a strong disadvantageous effect on early psychosocial development
- Maternal depressive and anxiety symptoms during pregnancy play an important role in the relation between maternal education and the development of psychosocial problems in 5-6 year old children

7.0. Oral presentations: Novel approaches to population health monitoring

Monitoring population health in Austria - introducing a new Public Health Monitoring Framework

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Problem

Population health and welfare depend on continuous and informative health monitoring programmes as a crucial part of a well-performing public health system. Based on aggregated data collected on individuals, conclusions can be drawn about the health status and determinants of defined populations. The Austrian Public Health Institute (Gesundheit Österreich

GmbH) is regularly commissioned by the health ministry to identify, surveil and report on health indicators thus providing a basis for health-related political decision-making. There was a need to harmonize national strategies and make indicators compatible.

Description of the problem

The objective of this project was to develop a framework which systematizes relevant health determinants and differentiates between individual and societal health determinants with a strong orientation towards the latter, including social equity. Well established health science models (e.g. health behaviour, stress, quality of life and environmental models) have been synthesized in a literature review between 2013 and 2014.

Results

As a result, a new Public Health Monitoring Framework (PHMF) was proposed. Applying the PHMF allows to link health monitoring to health in all policies. Following the setting approach, all segments of the PHMF may be looked at considering different settings and according to the health in all policies approach, may equally be addressed with specific policy sectors (education, family, environment, health, economy etc.). Compared to other frameworks, the PHMF allows differentiated and concrete monitoring and addresses various levels, as for instance psychogenic factors. Additionally the PHMF distinguishes analytically into micro, meso and macro level.

Lessons

Initial applications of the PHMF have proven to be of use to get a better understanding of the impact of determinants on health. Although it's clear systematics, the PHMF is highly flexible thus allowing contextual overlapping.

Key messages:

- The Public Health Monitoring Framework (PHMF) allows structured monitoring of population health and its determinants
- Moreover it may serve as the basis for intervention planning

2015 Doctors of the World International Network Observatory: 10 year review of key challenges and lessons learned on health data, methodology, monitoring and reporting

Nathalie Simonnot

M Nuernberg, N Simonnot

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Background

Doctors of the World International Network Observatory has conducted in our free clinics multicenter medical & social surveys (2006-2016) across Europe & Canada with vulnerable people (EU nationals & migrants). It aims to describe health states, social determinants of health & barriers to care in order to inform health policy makers & obtain positive changes.

Reflecting on 10 years of this humanitarian health initiative with very limited resources, we identified numerous data collection and methodological challenges, several innovative solutions, and three key lessons learned.

Materials and Methods

In 2006 & 2008 we run specific surveys only with undocumented migrants (patient n = 835 and 1,218 respectively). In 2011, we changed to routine data concerning all patients seen. In 2015, our Observatory included over 35,000 patients seen in BE, CA, CH, DE, EL, ES, FR, IE, LU, NL, NO, RO, SE, SI, TR, UK.

The 2006 social & medical form have 92 unique questions. Until 2011 data was collected on paper then entered in a database, now a free internet-based mobile survey tool is used by all teams except 4. Data are centralized in France & analysis is externalized.

Results

Main challenges revolve around 3 axes: strategic decision making; technology and training; working within limitations. We developed solutions including standardized training sessions & tools, peer-evaluations, an adapted survey tool, an open-source data analysis & visualization platform.

Key lessons learned include: the value of collecting health & social data from populations excluded from all surveys; how collecting data helps programs monitoring; the importance of reaching consensus with field teams in the construction & implementation of data collection.

Discussion

While training is a major element to successful survey conduct, future innovations in health informatics will continue to increase the feasibility and quality of data collection within limited resource humanitarian contexts.

Key messages:

- Field teams' expertise improve data collection acceptability & process
- It is worthwhile & feasible to collect data with vulnerable people even in extreme low resource context

Psychoactive substances in Tiber river: an evidence - based tool to monitor the community drug abuse

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Background

Wastewater analysis is an objective method to measure human consumption of illicit drugs: in fact, after the assumption, drugs or the active compounds or the metabolites are excreted in consumers' urine, entering urban wastewaters. The aim of this study was the identification of drugs, pharmaceuticals or their metabolites in the waters of the Tiber River in order to provide an objective and statistically valid assessment on the use of these substances in the greater urban centers, and specifically in Perugia (Umbria Region, Center of Italy).

Methods

We collected 20 water samples from May to June 2012, in six points of the river: at the source, near Perugia, near Rome and at the mouth. In each point we collected 3 samples of 500 ml non-filtered river water. Sample collection near Perugia occurred for seven continuous days in order to evaluate significant variations in drug concentrations during the weekend. Samples were analyzed using gas chromatography with mass detector.

Results

The most detected drug was ecstasy. We identified also traces of methadone and morphine, which had a higher concentration near Rome; heroine, metamphetamine and THC were appreciated everywhere. The highest concentration of cocaine was found near Perugia with a peak in the weekend (4744 ng/ml). Psychoactive substances (mirtazapine, sertraline, diazepam, clozapine, orphenadrine, methaqualone, chlordiazepoxide, clotiapine, olanzapine) had constant concentrations in the week.

Conclusions

Continuous monitoring of drugs' consumption through the analysis of wastewaters, is very important to assess the actual extent of drugs abuse. The most detected drug was ecstasy and the most interesting finding in our study was the increased concentration of cocaine and heroin in waters near Perugia

showing the alarming phenomenon of weekend use of these substances.

Key messages:

- We demonstrated the spread of the drug addiction in Perugia, with an abuse of substances especially in the weekend
- The method used in our study let us analyze the epidemiology of illegal substances' use

Participatory epidemiology: advancing the theory and practice

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Background

There is a continuing debate regarding the ability of epidemiology to not only describe, but to also describe and explain the effects of social and environmental determinants on the health of the population, which can serve as a basis for action in the interest of health equity. It has been proposed that participatory research approaches can be applied to epidemiology in order to bridge this gap between description and action; however, a systematic description of what constitutes participatory epidemiology practice has been lacking.

Methods

An exploratory search of the international literature published in English was conducted in relevant databases (PubMed, EMBASE, SciSearch, Scopus, Web of Science, BASE) focused on the question of what constitutes participatory approaches to epidemiology. A highly diverse, interdisciplinary body of literature was identified, including original studies, conceptual papers, book chapters, and reports. The literature was analyzed iteratively by the authors, members of PartKommPlus – German Research Consortium for Health Communities.

Results

The results of the analysis were summarized in a framework comprising of six dimensions: research goal, research question, population, context, validity, and research process. The framework describes how participatory epidemiology differs from more common approaches to epidemiologic research within these dimensions. Based on this, recommendations for the further development of participatory epidemiology were formulated. These include capacity building for research at the local level, expanding the repertoire of methods for data collection and analysis, and synthesizing data from heterogeneous sources.

Conclusions

The proposed framework provides a basis for systematically developing and applying the emergent science of participatory approaches to epidemiologic research.

Key message:

- Participatory epidemiology is an emerging science that provides a tool to close the gap between description and action for the mutual benefit of science and public health practice

Inequalities in the time between stopping work and death: ONS Longitudinal Study

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ET Murray, NJ Shelton

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Background

Increasing the State Pension Age of the UK based on average life expectancies could be depriving certain sub-groups of the population of retirement years, due to inequalities in disability onset and mortality.

Methods

Office for National Statistics Longitudinal Study (LS); all members resident in England and Wales, aged 40-69 at the 2001 census and died by December 2013. We calculated the number of months between stopping work and death. If the LS member had stopped work in 2001 or 2011 they were asked the year they had stopped working. If working at 2001 or 2011 census, and died the following interval, the average amount of time they could have not worked before death was taken. Linear regression was used to examine mean differences in “not working” time by age category, sex, employment status, social class, ethnicity, tenure, health status, industry grouping and region.

Results

Of the 18,205 LS members who had died May 2001 - December 2013, the mean number of months between stopping work and death was 152.4 (SD 1.4). LS members with higher mean months of “not working” were more likely in 2001 to be female, of older age, not working (both sick and retired), II and IV social class, owner occupiers and renters, had worse health, resided in the North and Wales and worked especially in mining, manufacturing and construction industries.

Conclusions

Pension eligibility may be more equitable if based on years worked alone, rather than in combination with a minimum age.

Key messages:

- The mean length of time in England and Wales between stopping work and death was 12 years and 8 months
- There is variation between groups in mean length of time between stopping work and death with longer periods for those in poor health

7.P. Round table: Bridging the gap between knowledge and practice in public health genomics

Organised by: EUPHA section on Public health genomics

Contact: adany.roza@sph.unideb.hu

Chairperson(s): Roza Adany - Hungary, Stefania Boccia - Italy

The “genomic revolution” is already transforming science, especially medicine. Genomic medicine have captured the interest and enthusiasm of not only the researchers, but also

the public and resulted in the creation of both realistic and unrealistic expectations. Among these expectations using genomic information for the benefit of population health is the most obvious. “The public health community, with its commitment to equity, must take the opportunity to engage with genomic knowledge, ensuring that it advances the population’s health.”- as it is stated by the expert group releasing the Rome Declaration “Beyond public health

genomics” (Boccia et al: *Eur. J. Public Health*, 24: 876–878, 2014). Public health genomics (PHG) focuses on the translation of genome-based knowledge and technologies into public policy, disease prevention and the improvement of population health, but translation of genomic findings to public health applications raise a lot of questions unanswered yet. Among these questions those related to screening (one of the most important – if not the most important – public health operations) at individual and population levels have special importance. Recent advances in new-born screening, as well as in screening of groups at high risk for certain diseases open new vistas in disease prevention, but ways in which our emerging understanding in these fields could guide future interventions and research efforts in public health are not clearly identified. Various ethical, legal, and social issues – among them policies to regulate access to personal genomic information, how to improve genetic literacy in both health professionals and the public, how to ensure that benefits of genomic discoveries are equitably distributed – are also posed by recent developments in public health genomics. In order to overview and to follow up the recent advances in genetic disorders and diseases associated with genetic alterations the design of the genetic testing, screening and monitoring systems should be revisited and improved making the genetic aspects more visible.

In the framework of the workshop presentations will focus on the quality assurance and improvement of genetic testing, development guidelines to the proper use of genetic tests, as well as on barriers and facilitating factors for implementation of genetic services. In addition the dilemma how should the public health system deal with the challenges of the genetic testing in a personalized care system is also discussed.

The eye-opening presentations will be followed by lively discussion on the future perspectives of genetic testing as an invaluable tool in the methodological arsenal of public health.

Key messages:

- Genetic services will increasingly contribute to population health by supporting personalized medicine. Priorities are tests with high predictive value and possibilities for prevention
- A model that combines the extent of the HTA perspective with the specificity of the ACCE criteria is applicable for the evaluation of genetic tests

The evaluation of genetic tests: a Health Technology Assessment exercise?

Paolo Villari

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Genetic tests are offering new opportunities to clinical decision making and personalized medicine. Despite different evaluation models have been developed to guide their implementation, none of them reached a generalized consensus. Our aim was to realize a new model, based on the best evidences and practices available that could become a reference methodology for Italy and other countries.

We conduct a systematic review of existing models, guidelines and reviews dealing with genetic tests evaluation and a Delphi consensus procedure involving Italian experts of public health genomics. The evaluation dimensions retrieved through the systematic review and the Delphi procedure were combined, defined and organized in the final model, based on the analysis of the literature and the experience of the working group itself. The final draft of the model was revised by the experts and suggested changes were made.

Our model combines the specific evaluation dimensions for genetic tests of the ACCE model with the HTA process. The

first two sections of the model guide the collection of evidences for the genetic test and its delivery models through eight evaluation dimensions (Genetic test: analytic validity; clinical validity; clinical utility; personal utility. Delivery models: organizational aspects; economic evaluation; ethical, legal and social implications; patient’s point of view). The third section highlights the research priorities. The fourth shows the criteria to recommend on the use of the genetic test (net benefit, cost-effectiveness, feasibility).

The most innovative aspect of the proposed model is its focus on the delivery models, including the levels of care, the health care programs and the clinical pathways in which the test is delivered. It will be useful to evaluate both the new genetic tests to be introduced in the public health practice and those already in use, guiding the decisions of a large audience of stakeholders.

Barriers and facilitating factors for implementation of genetic services

Martina Cornel

MC Cornel

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Genetics and genomics have developed fast in the last decade, but have not revolutionized medicine, as some had expected. Translation of research findings to public health applications is lagging behind.

Many people in the EU suffer from rare conditions or more frequent monogenic subtypes of common disorders, for which genetic tests could contribute to personalized medicine. However, to move knowledge from bench to population requires planned implementation activities.

Beyond translation from mouse to man, education of public and professionals is needed. Transdisciplinary guidelines will attune perspectives of laboratory geneticists, expert clinicians and primary care. Monitoring of key performance indicators may help to evaluate to what extent implementation has been successful. Health technology assessment is needed to discern genetic tests with proven clinical utility from the offer of all kind of tests without clinical utility. Associations between genetic variants and disease risks of clinical relevance have been established, for instance for hereditary breast and ovarian cancer, colon cancer (FAP, HNPCC), cardiovascular disorders (familial hypercholesterolaemia, hypertrophic cardiomyopathy). Neonatal screening is adequately monitored in several EU countries. These examples can be used to reflect on the possibilities of using the new genetics in public health. For the first group of diseases cascade screening (inviting family members) is a very effective approach.

Stakeholders must actively plan the translation of clinically useful knowledge to the population. Transdisciplinary collaboration is needed to attune priorities and key values. Monitoring of the most important indicators will support change management.

Genetic testing between private and public interests: ethical and legal implications

Judit Sándor

J Sándor

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In Europe there is a wide variety of genetic tests that various private companies offer to patients or consumers. As a result, more and more people have become curious about their genetic predisposition and susceptibility. However, most public health care systems are not adequately prepared for responding to the results of these genetic tests as quite often there is no available therapy for the identified genetic condition. This discrepancy between the newly emerging expectations and the insufficient responses contributes to a

further rift between the public and private sectors of health care. Individual genetic test results may also trigger the need for personalized medicine and may open up a competition between the two fields in offering further genetic tests and

medical exams. In this context, how should the public health system deal with the challenges of the private testing? Will private genetic testing transform health care from a solidarity-based health care to a risk specific health care?

7.Q. Skills building seminar: The EPHRF Online Tool for individual career and system planning in Public Health

Organised by: The Association of Schools of Public Health in the European Region (ASPHER)

Contact: robert.otok@aspher.org

Chairperson(s): Anders Foldspang - Denmark, Robert Otok - ASPHER

ASPHER's European Public Health Reference Framework (EPHRF) online platform has been initiated to constitute a central and comprehensive source of data to perform the basis for the planning of public health workforce and mapping of public health education and job opportunities associated with specific patterns of competences and EPHO skills offered at concrete public health educational and training programmes. This mechanism will interact with accreditation and the formation of a professional culture, sustained by licensed professionals responsible for population health. The Repository of the EPHRF will be rooted in an online IT tool, which has been developed by Anders Foldspang and Robert Otok during 2014-2015.

The core of the Repository is built on the principles of the Population Health Challenges-EPHOs-Competences Model (the CEC Model), which takes into consideration the interactions between challenges of population health and health systems, which demand performance of adequate actions within Essential Public Health Operations of WHO (EPHOs). CEC Model is based on the competences needed as defined by ASPHER's European lists of core competences.

Thus, the Repository's outputs will be able to advise:

1. The further development and adjustment of:
 - a. Education and training programme, and;
 - b. Systems of Public health service delivery.
2. The individual choice and adjustment of education and training for career planning.

After empirical data have been included in the computer programme, it will be possible, at the systems level in a later phase of development, to study competences and EPHO

profiles characteristic for selected parts and countries of Europe, and their association with population health patterns, education and training capacity, and public health job market structures. Furthermore, such patterns may in the future be scrutinized as functions of, e.g., socio-economic status at individual as well as national levels, and as functions of health systems and public health systems structure, culture, tradition and development.

The workshop targets public health students, graduate, teachers and decision makers. Its principles, methods and practice are applicable locally, across countries in Europe and globally.

The procedure will be:

5 minutes: welcome and presentation of the scenario by Anders Foldspang and Robert Otok.

20 minutes: presentation of individual use functionality of the tool by Robert Otok, including 2 real-life examples based on the information provided by: Alessandra Lafranconi (Italy) and Bernardo Gomes (Portugal); both being young public health professionals and at the same time doctoral students.

20 minutes: presentation of system use functionality of the tool by Anders Foldspang, including 2 real-life examples based on the information provided by: Professor Alison McCallum (Director of PH and Public Policy, Edinburgh, Scotland), and Dr. Mirosław Wysocki (Director, NIPH, Poland).

15 minutes: Q&A from the audience followed by a 5-minute summary.

Key messages:

- A web-based ICT supported system has been developed and proved useful for public health systems and services planning
- A web-based ICT supported system has been developed and proved useful for individual career planning, testing, certification and licensing

PARALLEL SESSION 8

SATURDAY 12 November 2016 8:30-9:30

8.A. Oral presentations: Environment and the community**Actual and perceived exposure to base stations and non-specific symptoms in a longitudinal study**

Astrid Lysanna Martens

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Background and aims

A substantial part of the population experiences non-specific symptoms that could be related, or that they suspect might be related, to environmental exposures. Both physical exposure and perception could play a role, but the combination of these aspects has rarely been studied, in particular longitudinal data is scarce. In this prospective study we studied the associations between actual and perceived exposure to RF-EMF exposure from mobile phone base stations and non-specific symptoms.

Methods

This study is nested in the prospective Dutch Occupational and Environmental Health Cohort Study (AMIGO). This cohort consists of 14829 adults (aged 31-65 years at baseline in 2011/2012) across the Netherlands who were recruited via their General Practitioner. We invited a subgroup (n=4000) with high exposure contrast for two follow-up questionnaires in 2013 and 2014. Perceived exposure to a number of environmental exposures and non-specific symptoms were measured longitudinally by questionnaire. We modeled RF-EMF exposure at the home address using a 3D geospatial model (NISMap) as a proxy of actual exposure. We computed correlations and carried out cross-sectional and longitudinal regression analyses.

Results

We found a weak correlation (rSp=0.09) between actual and perceived exposure. Perceived (p<0.0001), but not actual exposure (p=0.90), was consistently associated with higher total symptom scores. Additional analyses showed no consistent effects of actual exposure on any individual symptom, and associations between perceived exposure and symptoms were similar for different symptoms.

Conclusions

RF-EMF exposure from mobile phone base stations was not associated with increased symptom scores in this prospective general population sample. Importantly, perceived exposure was associated with higher symptom scores. Preventive measures should focus on addressing the health risks associated with the public perception of mobile phone base stations.

Key messages:

- Not actual RF-EMF exposure from mobile phone base stations, but perceived exposure is associated with increased symptom reporting
- Preventive measures should focus on addressing the health risks associated with public perception of mobile phone base stations

Is cancer mortality associated with individual and area-level deprivation (Belgium 2001-11)?

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Introduction

Recently, there has been a renewed interest in the role of our living environment on health. Although the relation between individual socioeconomic position (SEP) and cancer mortality has long been established, the role of small-scale area SEP remains understudied, especially for site-specific cancers. Yet, understanding all facets of social disparities in cancer mortality is important for the development of effective policies and interventions. This study will explore mortality differences by individual and area-level SEP for all-cancer and site-specific cancer in Belgium.

Material and Methods

Data on all Belgian inhabitants aged 40 years and over was collected from the 2001 Belgian census linked to register data on emigration and cause-specific mortality for 2001-2011. Individual SEP was measured using education, employment status and housing conditions. Small area-level SEP (on statistical sector) was measured by a deprivation index (in quartiles). Multilevel Poisson models were used to estimate the association between individual and area-level SEP and all-cancer and site-specific (lung, colon and rectum, prostate, and breast) cancer mortality.

Preliminary Results

Compared to the most affluent areas, mortality after controlling for individual SEP was significantly higher in the most deprived areas for all-cancer among men (MRR 1.11; CI 1.09-1.13) and women (MRR 1.09; CI 1.07-1.12); for lung cancer among men (MRR 1.11; CI 1.07-1.15) and women (MRR 1.36; CI 1.27-1.45); and for colorectal cancer among women (MRR 1.08; CI 1.01-1.16). Male colorectal and prostate cancer is not associated with area deprivation. Men and women with a low SEP have a higher risk of dying from (site-specific) cancer(s).

Conclusions

Our findings suggest that next to individual characteristics, area deprivation is associated to cancer mortality as well. Not only low-SES individuals, but also deprived areas should thus be targeted in order to reduce social disparities in cancer mortality.

Key messages:

- Both individual and area deprivation are associated with cancer mortality
- The association with area deprivation is most pronounced for all-cancer, lung cancer, and female colorectal cancer mortality

University-community collaboration to address Flint water crisis

Suzanne Selig

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Contact: sselig@umflint.edu**Background**

We developed a course using community engaged teaching in response to a Public Health crisis. This course was an innovative adaption of the underlying principles of community participatory based research. We engaged community members who are impacted by the Flint Water Crisis in the process of bi-directional learning in which both topic experts and community members gain insight on an issue from each other. Community engaged teaching can be used in other settings, particularly where community members may feel disenfranchised.

Objectives

We conducted eight sessions over four months after the contamination of drinking water in the City of Flint, Michigan. Topics were chosen with input from the community. Students and the public were invited to participate. Experts presented for the first half of each session and attendees engaged in dialogue with these experts for the remaining time. This was a novel opportunity for community members, topic experts and students to learn from one another.

Results

An average of 130 participants attended each session with ~60 attending ≥ 4 sessions. When surveyed (response rate = 26 to 81%), $\geq 90\%$ of respondents stated that they left with a broader understanding of the Public Health crisis, learned things that would help them respond to the crisis and were highly motivated to make a difference in the community. In every session $> 50\%$ of respondents felt that their concerns were addressed.

Conclusions

Based on data collected from participants, our community engaged sessions succeeded in enhancing the participants' understanding of the Flint Water Crisis and how they could respond to it. The format of these sessions could be used in other Public Health Crises.

Key messages:

- University-community collaboration engages community to address crisis
- Collaborative process results in participants' unpacking complex causes of crisis

Can creating walkable neighbourhoods have adverse effects?

Gerlinde Grasser

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Background

The walkability of the residential neighbourhood is considered to be one determinant of physical activity for transport. However, people living in walkable neighbourhoods need to be satisfied with their environment to avoid distress and to increase quality of life. Furthermore, it has to be ensured that

creating walkable neighbourhoods does not contribute to differences by socio-economic status. The aim of this presentation is to explore the direction and strength of the association between walkability and neighbourhood satisfaction by socio-economic status.

Methods

A cross-sectional study was conducted. Neighbourhood satisfaction data were derived from the representative survey 'Bicycle-friendly City' of adults ($n=843$) in the city of Graz (Austria). Walkability was measured based on geographic information systems and included gross population density, household unit density, entropy index, proportion of mixed land use, three-way intersection density, four-way intersection density and walkability indices. Logistic regression analyses were conducted, including sex, age and place of residence.

Results

Preliminary results suggest negative associations between walkability and general neighbourhood satisfaction, neighbourhood satisfaction with social-environmental quality and neighbourhood satisfaction with social cohesion. These associations were stronger among respondents with a low socio-economic status. Walkability was positive associated with neighbourhood satisfaction with infrastructure and this association was stronger among respondents with a high socio-economic status.

Conclusions

The creation of walkable neighbourhoods has to be approached with caution. The reasons for the negative associations between walkability and neighbourhood satisfaction need further investigation. Furthermore, these results suggest that the association between walkability and neighbourhood satisfaction varies by socio-economic status.

Key messages:

- Walkability is negative associated with some indicators of neighbourhood satisfaction
- These associations differ by socio-economic status

Influence of neighbourhood characteristics on asthma outcomes in an asthma clinic cohort of youths

Nicoleta Cutumisu

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Background

Asthma is the most common chronic illness among children. We aimed to better understand the association of neighbourhood context with asthma control and the moderating effect of obesity status on this association.

Methods

Data were from an asthma clinic cohort ($n=4621$) of Montreal youths aged 2-18 years, recruited in 2000-2007 and followed for up to 6 years. Clinical data were linked with medical records on acute care visits and hospitalizations. Neighbourhoods were defined by the 750 m buffer around youths' postal codes. Using spatial data, neighbourhood context was described by high or low deprivation (D) and walkability (W). Asthma control was based on a composite indicator of all adverse events. The outcome was described by the event rate, i.e. total number of composite events by duration of exposure (time in neighbourhood). A Poisson model was fitted to predict asthma control rates by neighbourhood context, controlling for individual covariates

and an air pollution index based on spatial exposure estimates. We used the Baron-Kenny framework to test for effect modification by obesity status.

Results

Asthma control was independently predicted by neighbourhood context. Youth living in low D, high W areas had better asthma control compared with those living in high D low W (IRR=0.83, 95%CI 0.69,0.99, $p=0.04$) and those in high D high W (IRR=0.80, 95%CI 0.67,0.95, $p=0.01$) areas. Within low D areas, higher W was associated with greater asthma control (IRR=0.88, 95%CI 0.76,1.01, $p=0.07$). No other associations were found and obesity did not modify the association between neighbourhood context and asthma control.

Conclusions

Higher deprivation is associated with lower rates of asthma control among youth; moreover, high walkability may have a protective effect in low deprivation areas. Efforts to reduce area deprivation may benefit youth suffering from poor asthma control; increasing walkability may be especially beneficial in the absence of area deprivation.

Key messages:

- Asthma control varies according to area deprivation and walkability
- Obese youth do not appear to be more susceptible to adverse environments

8.B. Workshop: Evidence and practice in suicide prevention

Organised by: Mental Health Working Group of the Austrian Association for Public Health (ÖGPH)
Contact: thomas.niederkrotenthaler@meduniwien.ac.at

Chairperson(s): Thomas Niederkrotenthaler - Austria, Ellenor Mittendorfer Rutz - Sweden

Suicide prevention is hampered by limited knowledge on the adequate prediction of suicide risk, an insufficient evidence-base in several widely used prevention fields, and very limited knowledge on the social outcomes of suicidal behavior. In this workshop, we plan to provide a cutting-edge update on several emerging problems related to these knowledge gaps. A core strength of the workshop will be the combination of experimental studies relevant to both, clinical and nonclinical settings.

Objective 1: Highlight a novel approach to suicide risk assessment in high-risk patients.

With regard to clinical settings, the adequate prediction of suicide risk is one of the core problems when treating individuals at high risk of suicide. This workshop will provide insight into a novel approach to the clinical monitoring of suicidal processes using an Internet-based application for continuous self-assessment.

Objective 2: Scrutinize the effectiveness of educative websites in reducing suicidality.

On a public health level, particularly educative measures using the Internet as a tool have gained a groundswell of support in recent years, and many healthcare providers as well as public health agencies are now using their internet websites to educate the public about suicidality and how to cope. However, evidence about the impact of such educative websites is largely missing. This workshop will provide important new research about the effectiveness of this 'classic' yet under-researched approach.

Objective 3: Demonstrate how migration status and suicide attempt impact on subsequent labour market marginalization. A widely neglected research field in the area of suicidology have been the labour market outcomes of suicide attempts. With an increasing proportion of migrant populations in many European countries, from a social insurance perspective, it is essential to learn more about patterns of marginalization subsequent to suicide attempt in various migrant groups. This workshop will provide novel data highlighting that young individuals are differentially impacted by their migration status and history of suicide attempt with regard to different measures of labour market marginalization, including long-term unemployment, sickness absence, and disability pension.

Objective 4: Describe the process of structuring and implementing the National Austrian Suicide Prevention Program.

In the final presentation, an emphasis will be put on the process of integrating these and other research findings into the comprehensive National Austrian Suicide Prevention Plan SUPRA. In close collaboration with a panel of leading experts, 6 strategic and 19 operative goals were identified, and more than 80 measures, target sizes, indicators and responsibilities were defined. Using a double strategy of precise planning and pragmatic stepwise implementation seems to be both, promising and feasible.

Key messages:

- Internet-based suicide-risk monitoring tools and educative Internet websites may both help reduce suicide risk
- A double strategy of precise planning and pragmatic stepwise implementation seems to be both, promising and feasible when implementing a comprehensive National Strategy

Real-time monitoring of nonlinear suicidal dynamics: methodology and a demonstrative case report

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Background

Suicidology is characterized by a near exclusive assumption of linearity, i.e., the output (e.g., suicide risk) is proportional to a given input (e.g., risk factor levels). However, the fact that there are many risk factors and that their dynamic interplay is complex would suggest that the process is most likely nonlinear by nature. The application of nonlinear dynamics in suicidology has been limited due to the lack of technical possibilities, especially with respect to real-time monitoring of suicidal processes. This presentation is about a novel real-world application of nonlinear dynamics in suicide prevention.

Methods

We demonstrate how suicidal dynamics can be monitored in high-risk patients by an Internet-based application for continuous self-assessment with integrated tools of nonlinear time series analysis: the Synergetic Navigation System. This procedure is illustrated with data from a patient who attempted suicide at the end of a 90-day monitoring period.

Results

The real-time monitoring of suicidal processes, combined with analysis tools from nonlinear dynamics, is technically feasible. Nonlinear qualities of the suicidal process emerge in the data

suggesting that the suicidal process is complex. Anecdotal evidence from this case study suggests that real-time monitoring is likely beneficial in suicide prevention, but of course more data is needed. We discuss novel possibilities and challenges for suicide research and prevention.

Conclusions

The application of nonlinear dynamics by means of real-time monitoring of suicidal processes is realistic. This opens up new possibilities for the prediction of suicide, and suicide prevention.

Key message:

- We demonstrate that modern tools allow the application of nonlinear dynamics in real-world clinical settings, with a potential to improve our understanding and the prevention of suicide

Werther vs. Papageno Effect Online: Randomized Controlled Trial of the Impact of Educative Suicide Prevention Websites on Suicide Risk Factors

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Background

Organizations dedicated to suicide prevention frequently use websites to educate the public, but related evaluations are lacking.

Aims

To examine the effects of educative suicide prevention websites and the moderating effect of participants' baseline suicidality.

Methods

One hundred sixty adults were randomized to view either an educative website on suicide prevention or a website not related to suicide in a blinded randomized controlled trial. The primary outcome was suicidal ideation. The secondary outcomes were mood, suicide-related knowledge, and attitudes toward suicide and seeking professional help. Data were collected with questionnaires before and immediately after website exposure and one week later and analysed with linear mixed models.

Results

Participants with baseline suicidality above the median experienced a significant sustained reduction of suicidal ideation after exposure to an educative website on suicide in contrast to the control group. Furthermore, there was a significant short-term deterioration of mood and a significant sustained increase in suicide-related knowledge.

Conclusions

Educative components of professional suicide prevention service providers seem to have a sustainable medium-sized positive impact on suicide risk and increase suicide-related knowledge in a subsample of the general population with increased vulnerability. These findings support a potential suicide-protective Papageno effect online. Follow-up studies with clinical samples are needed.

Key messages:

- Educative components of professional suicide prevention websites related to suicide prevention may help reduce suicide risk
- Follow-up research in high-risk samples is warranted

Labour market marginalisation subsequent to youth suicide attempt in migrants and native Swedes

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Background

Migrant background and suicidal behaviour both increase the risk for labour market marginalisation, but related research investigating their relationship with regard to different labour market outcomes (long-term unemployment, long-term sickness absence, and disability pension) is scarce.

Methods

We conducted a prospective cohort study based on register linkage of 2 775 397 individuals who in 2004 were 16–40 years old and lived in Sweden. Suicide attempters treated in inpatient care during the three years preceding study entry, i.e. 2002–2004 (N=9 149) were compared to the general population of the same age without suicide attempt between 1978–2011 (N=2 766 248). Hazard ratios (HRs) for long-term unemployment (>180 days), sickness absence (>90 days), and disability pension in 2005–2011 were calculated by Cox regression models, adjusted for a number of individual risk markers, and stratified by country of birth.

Results

Compared to native Swedes with and without suicide attempt, the risk for unemployment was considerably higher for migrant subgroups with and without suicide attempt, respectively. With regard to sickness absence, the risks for migrant groups was similar to the non-migrant population. The risk of disability pension was lower for migrant populations without or with suicide attempts compared to Swedish natives without or with suicide attempt, respectively.

Conclusions

Young individuals are differentially impacted by their migration status and history of suicide attempt with regard to different measures of labour market marginalization.

Key messages:

- Typically, the risk of migrant populations for long-term unemployment is increased as compared to the native population, whereas the risk of measures requiring medical assessment is similar or even lower than that of the native population
- Differences seem to be strongest in migrant groups with larger cultural differences from native Swedes

Structuring and implementing the Austrian suicide prevention program SUPRA

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Issue

In 2014 1.313 people die by suicide in Austria. Hence the number of suicides is more than three times higher than the number of people who die in traffic accidents. While the suicide rate declined between the 1980ies and the year 2007 it has reached a plateau since then. In 2012 the Austrian suicide prevention program SUPRA was published and the Gesundheit Österreich GmbH was assigned to support its implementation by the ministry of health.

Description of the problem

The SUPRA program is a 70 page paper that was written by Austria's leading experts. It describes a broad range of possible measures. However, the paper does not go into details on prioritisation of measures, responsibility for implementation, recommended target goals or outcome indicators. In order to convince decision makers to foster suicide prevention in a federally structured country like Austria all this information is crucial – especially in times of limited resources.

Results

A double strategy was chosen for the implementation of SUPRA. On the one hand, goals and measures that were easy to achieve, e.g. the implementation of a nationwide webpage, were conducted immediately. On the other hand, a process of structuring the program was started. In close collaboration with a panel of leading experts, 6 strategic and 19 operative goals were identified, more than 80 measures, target sizes, indicators and responsibilities were described. The method was inspired by the ongoing health care system reform.

Lessons

At this point it is difficult to judge whether this approach will lead to a stronger commitment among decision makers – however, choosing the same method of structuring as is used in ongoing large-scale health policy developments seems useful for facilitating the inclusion of suicide prevention.

Key message:

- Using a double strategy of precise planning and pragmatic stepwise implementation seems to be promising

8.C. Round table: New sustainability agenda for European countries and regions: achieving health and wellbeing for all

Organised by: Public Health Wales, WHO European Regions for Health Network

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Chairperson(s): Bettina Menne - WHO Europe, Silvio Brusaferrero - Italy

Rationale

The 2030 Sustainable Development Goals and the COP21 United for Climate agreement have set the sustainability agenda worldwide. This calls for a coordinated and coherent approach to improving health and wellbeing, ending poverty and hunger, making cities more sustainable and combating climate change. Health 2020, the WHO European strategy, supports member states in their efforts to engage intersectoral partners and achieve whole-of-government and whole-of-society synergies. It provides a platform for driving action, advocacy and coordination at national and sub-national levels. The WHO Regions for Health Network plays a vital role in sharing knowledge, good practice and building capacity across Europe towards a common agenda for more equitable, healthy and happy populations now and in the future. This body of work is also coherent and helps the EUPHA practice pillar providing learning from various contexts and initiatives.

The aim is to share experiences and maximise opportunities for sustainable development (economic, environmental and social) at a national and regional level across Europe.

Objectives

- To present and discuss examples from European regions with practical approaches translating the post-2015 global sustainability agenda into useful & effective national and sub-national legislation, policies, programmes and actions
- To improve knowledge and understanding of the interrelations between the SDGs, the Health 2020 strategy and their implications and synergies for countries and regions
- To promote intersectoral governance, multiagency work and networking for health and wellbeing, providing ideas, tools and pathways

Added value

This is a unique opportunity to bring participants from across European countries and sectors and link global, European, national and sub-national contexts and policy agendas with a focus on sustainable development and health. It provides forum for discussion and insights into how countries are taking this agenda forward.

Format

1) Introduction by the chairs 2) Introductory presentation 3) The 'Welsh model' presentation 4) Brief interventions by panellists from other regions 5) Open discussion 6) Conclusions & next steps

The panellists will share existing policies and practices and discuss with the audience focusing on: how initiatives to

improve health and wellbeing/reduce inequalities are essential prerequisites for sustainable development; how regional initiatives can be scaled up to national/European level and vice-versa; what are the intersector multi-disciplinary approaches employed to foster sustainability and generate health impacts; mechanisms for monitoring and accountability to achieve reciprocal effects of sustainability, economic growth, health and equity for all.

Panelists

Monika Kosinska, Governance for Health and Healthy Cities, WHO EURO; Peter Beznec, Pomurje Region, Slovenia; Thomas Claßen, NRW Centre for Health, Bielefeld, Germany; Elisabeth Bengtsson, Region Skåne/Västra Götaland, Sweden; Cathy Weatherup, Wales

Key messages:

- Health, equity and sustainable development are interrelated and interdependent
- Regions are key in driving the sustainability and health and wellbeing agendas across Europe

Sustainable development for the health and wellbeing of the present and future generations in Europe

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On a global level, the newly adopted United Nations Sustainable Development Goals 2016-2030 represent a milestone for human and planetary sustainability and a huge opportunity to address health, inequalities and their wider determinants worldwide.

On a European level, the WHO European Health 2020 Strategy and Policy Framework represent a platform for taking this forward, aiming to support action across government and society to “significantly improve the health and well-being of populations, reduce health inequalities, strengthen public health and ensure people-centred health systems that are universal, equitable, sustainable and of high quality”. With 53 signatories, member states are committed to Health 2020 which highlights the role of health and wellbeing as public goods and assets for human development in their own right, and demonstrates the contribution to economic growth and strong, dynamic and creative societies.

Poverty eradication, social protection, education, and the improvement of health outcomes are common aspirations across Regions, making them well positioned to realise the 2030 Agenda through providing opportunities for peer learning, sharing of good practices and discussion of targets on national, regional and local levels.

One example is Wales - one of the first nations in the world to establish a legislative link to the Sustainable Development Goals, through the creation of the Well-being of Future Generations (Wales) Act 2015. The ambitious Welsh legislation provides an opportunity for a step change in the way public services tackle some of the main health and societal challenges that will serve and sustain future generations. Other regional European case studies can bring insights into the range and level of action required to create impact.

These regional experiences and learning have been gathered and developed into a WHO publication to serve as a resource for ideas and practical tools and approaches across the European Region.

The Welsh experience: Well-being of Future Generations (Wales) Act 2015

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Legislation is arguably one of the most powerful tools available to governments to direct long-term policy goals. It can be an

effective lever for influencing changes in society and provide a platform for directing action for the benefit of whole populations. In the case of the Well-being of Future Generations (Wales) Act, it is the recognition that Welsh public services, through leadership and improved capability, are uniquely placed to support individuals and communities to maintain, improve and sustain their health and wellbeing. To this end, the Act includes seven statutory well-being goals, and places a new duty on national and local public services, no matter what their specific responsibilities, to maximise their contribution to improving the economic, social, environmental and cultural wellbeing of the country. The Act also defines sustainable development as a way of doing things rather than as an end in itself.

The seven statutory wellbeing goals for Wales are: 1) A prosperous Wales; 2) A resilient Wales; 3) A healthier Wales; 4) A more equal Wales; 5) A Wales of cohesive communities; 6) A Wales of vibrant culture and thriving Welsh language; 7) A globally responsible Wales.

Monitoring and accountability structures are built into the legislation. The Auditor General for Wales will be seeking evidence from public services including Welsh Government, about how the duty is being met; through decision making, planning, budget setting and policy formulation. A Future Generation Commissioner will be scrutinising efforts at a local and national level to see whether Wales is making the progress at a scale and a pace that is required in order to contribute to global sustainability, as enshrined in the UN SDGs.

8.D. Oral presentations: Health promotion links in community care

Exploring the links between volunteering, health and inequalities – is this a public health issue?

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Issue

Health 2020 envisions a critical role for civil society and volunteerism is an important facet of this. As well as the volunteer contribution to community health, volunteering is associated with intrinsic health benefits. This makes it a public health issue but little attention is given to the question of how volunteering intersects with health inequalities.

Description of problem

This presentation reports on a UK project that is seeking to maximise the public health potential of volunteering and address barriers that result in unequal access. Because little is known about this issue beyond the variations that exist, the first stage was a rapid scoping review conducted in 2015-6. This involved reviewing key literature on health inequalities and volunteering across socio-economic status and the nine population groups protected by the UK Equality Act.

Results

The scoping review identified 6,094 publications and after screening, 98 studies were reviewed; of these were 24 UK and 18 from elsewhere in Europe. **Results** confirmed that volunteering is associated with a social gradient, with disadvantaged groups less likely to volunteer. A web of factors were found to influence volunteering prevalence, however barriers varied between groups and across the lifecourse. The review also uncovered issues of stigma affecting people with disabilities.

Lessons

The review provides a map of inequalities issues that affect volunteering, which given the focus of Europe 2020 will be of use to public health policy and practice. The next stage is to identify interventions that are able to widen participation and address social exclusion. Our **Conclusions** are that volunteering should be recognised as a public health issue. More debate is needed on how public health systems can respond to the inequalities identified and enable those who face barriers to gain from the health and wellbeing benefits of volunteering.

Key messages:

- Volunteering needs to be considered as a public health issue, with more potential for addressing social exclusion and health inequalities
- Multiple factors influence inequalities in access to volunteering, with different population groups experiencing different barriers

Housing precariousness: its measurement and impact on health before and after the Great Recession

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Background

Employment precariousness has received considerable attention following the recent Great Recessions in Europe and North America. Work has developed comprehensive measures of employment precariousness, demonstrating both the extent of precariousness and its considerable impact on health.

Despite the Great Recession originating in the troubled housing market, studies of housing precariousness are comparatively rare, and often focus on single or limited-item indicators, such as tenure and/or housing arrears.

Methods

This paper presents an effort to reduce this gap in the literature by developing a multi-item measure of housing precariousness using secondary data. Our Housing Precariousness Measure uses data for 31 countries from the 2012 EU Survey on Income and Living Conditions (EU-SILC, including additional Housing Conditions Module) and with reference to the Employment Precariousness Scale developed by Vives et al. (2010). This measure is then recreated using data from 2007 (the only previous survey wave including the Housing Conditions Module) to investigate how precariousness changed during the recession and austerity periods.

Results

Preliminary findings show that housing precariousness exists across Europe, although with varying levels in different countries. Housing precariousness is associated with lower education levels, unemployment, renting, and, importantly, poorer health. The least precariously housed in the 2012 survey report overall health levels (2.9 out of 4) that are over half a standard deviation higher than the most precariously housed (2.3 out of 4).

Conclusions

As with precariousness employment, precariousness housing is associated with lower health. Policy makers and public health practitioners should work together to minimise precarious housing and its impact on health.

Key messages:

- Housing precariousness is prevalent across Europe, although at varying levels
- Precarious housing is associated with considerably lower levels of health, & should therefore be a public health concern

Langgezond.nl: A service to detect pre-frailty and prevent frailty among Dutch older adults

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Problem

Frailty is a multifaceted condition that affects many older adults. Frail persons are at increased risk for the development of disability, dementia, and falls. A focus on prevention, which is hardly done yet, is hypothesized to be of potential to prevent frailty. This paper presents a service (Langgezond.nl) that allows for the detection of pre-frailty (a stage before frailty) and offers services to prevent further functional decline.

Description

The service screens adults between 65 and 75 in the East of The Netherlands, on invitation from the General Practitioner, via an online or paper questionnaire. Screening focuses on general frailty using the Groningen Frailty Indicator and on physical (SF-36), cognitive (AD8) and nutritional functioning (MNA). Frail persons are referred to their General Practitioner. Those not frail, but with some functional decline, are invited for a second, face to face assessment and provided self-management services. These multidisciplinary services are offered online and at a location in the neighborhood, focusing on their physical and cognitive condition and nutritional habits. The service was launched in 2013.

Results

In total, 2261 older adults participated in the screening until now, of which 29.0% completed the questionnaire online. 15.7% was frail and 23.7% was pre-frail. Of the pre-frail, 46.2%

showed decline on the physical, 30.5% on the cognitive, and 23.6% on the nutritional aspect. At of yet, we are still developing the training service package. Participants' first reactions to the physical training are positive and resulted in high treatment compliance.

Lessons

Langgezond.nl shows that the pre-frail make up a substantial part of the population of older adults. They might benefit from health services that prevent further functional decline, and can prevent the burden and costs of frailty. Online and local initiatives appear to be a promising and cost-effective means that can easily be implemented throughout Europe.

Key messages:

- The pre-frail make up a substantial group of the population of older adults, who can improve their physical and cognitive condition, as well as their nutritional habits
- Offering online and community-based services that target multiple medical domains to identify and train pre-frail older adults are promising and cost-effective means for preventing frailty

The Health Embassy. Resident benefits of Citizen Science in a low SES Dutch neighbourhood

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Background

Slotermeer is a disadvantaged neighbourhood in Amsterdam, the Netherlands. Local policy makers want to collect information about resident views as a basis for health enhancing policies. A Citizen Science approach where residents interview people in the neighbourhood was applied to collect such information. But how does this approach affect these residents themselves?

Methods

Two subsequent groups of residents (n = 34), the so-called Health Ambassadors, were trained. They interviewed fellow residents about health and a healthy local environment. All filled in pre and post project questionnaires measuring how they rate neighbourhood health, as well as their health literacy and sense of coherence. Also, pre and post project focus groups and individual interviews were carried out. Verbatim transcripts were analysed with qualitative data analysis software.

Results

Preliminary results show that the Health Ambassadors rated neighbourhood health more positively after the project. Self reported knowledge and skills, in particular regarding health, were increased and personal social networks extended. Health Ambassadors developed a sense of urgency to continue working on improving neighbourhood health and have also put this to practice in various activities.

Conclusions

Participating in Citizen Science yields personal empowerment for residents of a low-SES neighbourhood. It stimulates them to further engage in health enhancing activities. These benefits resemble those found for other types of Citizen Science projects. The Citizen Science approach poses new opportunities for the practice of community based health promotion in low SES settings, both as a tool to empower residents and as a way to identify and better link up to community needs and concerns.

Key messages:

- Citizen Science approaches in low SES settings can empower residents that participate
- A Citizen Science approach provides new opportunities for community based health promotion in low SES settings

The quantitative evaluation of the Health and Local Community Project (SoL)

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Background

The purpose was to evaluate the effects of The SoL Project on overweight, dietary intake and physical activity among children and on food sales in supermarkets located the three intervention communities.

Methods

The SoL Project was a community-based multi-level, multi-component intervention study to promote healthier eating and physical activity among children aged 3-8 years living in three local communities on the island of Bornholm, Denmark. The design was a quasi-experimental design, including a matched intervention and control group. Main settings were day care centers, primary schools and supermarkets and the local media. The quantitative evaluation included measures of BMI and waist circumference among children, questionnaires for children and families, and sales data from both intervention

supermarkets (n=7) and control supermarkets (n=8). At baseline the intervention group consisted of a total of 443 children and the control group of 418 children. Data were analyzed using linear mixed model. The SoL project was completed in June 2015. All data have been collected and are processed but the final statistical analyses are currently in progress.

Results

Preliminary results show a significant increase in the sales of fish (P=0.002), vegetables (P=0.008) and wholegrain products (P=0.036) in the intervention supermarkets compared to the control area. No significant effects were found on sales of fruits, confectioner and sugary beverages. Furthermore, a tendency of a decreased intake of candy (P=0.07) and significant increase in the time spend on outdoor activities (P=0.002) was found among children in the intervention group compared to the control group. A significant increase in BMI z-scores (0.19 [0.08; 0.31]) was found in the intervention group compared to the control group.

Conclusions

Preliminary results showed significant increases in the sales of healthy foods in the supermarkets located in the intervention communities compared with the control.

Key messages:

- A 19-months multi-level, multi-component intervention was effective in changing lifestyle among local citizens
- The Supersetting approach is useful in local community interventions

8.E. Oral presentations: Food and nutrition in children

Dietary patterns among Finnish preschool children and their parents

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Background

Dietary pattern approach has become popular in nutrition science, but there is only limited information on dietary patterns among preschool-aged children and their parents. Our aim was to study familial dependence of dietary patterns among Finnish children and their parents. In addition, we investigated the associations between parental educational level and the dietary patterns.

Methods

The present analyses are a part of the DAGIS study that investigates energy balance-related behaviors and stress among preschool-children. The participants were 3 to 6-year-old children (n=819) from 57 preschools in Finland and their parents (n=1323). Parents filled in 47- (children's diet) and 49-item (parents' diet) food frequency questionnaires (FFQs) measuring food consumption during the last week. In the children's FFQ, only foods eaten outside daycare were measured. We used principal components analysis to identify

dietary patterns using the FFQ food groups as input variables. Parental educational level was assessed using self-reported questionnaires.

Results

We identified two dietary patterns among the participating children. Pattern 1 was most positively correlated with berries, natural yogurt, plain nuts, and fresh vegetables. Pattern 2 was strongly characterized by sweet biscuits, soft drinks, sweets, and chocolate. Among the parents, two dietary patterns with similar outlines but somewhat different contents were identified: pattern 1 included lots of e.g. berries, fresh fruit, and natural yogurt. Pattern 2 was characterized by sweet biscuits, sweet pastries, and white whole meal bread. The children's dietary pattern scores were associated with the educational level of their parents.

Conclusions

We identified two distinct dietary patterns among the participating children. Patterns with similar contents were also identified among their parents.

Key messages:

- The study will provide new information on familial dependence and SES determinants of dietary patterns among preschool-children and their parents
- Preliminary findings from the DAGIS project show that there are inequalities in familial dependence and SES determinants of dietary patterns among children and their parents

How are food and alimentary behaviours portrayed in animation movies for children?

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Background

Childhood obesity has become a worldwide public health problem. Since mass media may contribute to the development of unhealthy alimentary behaviours, we performed a research to analyse how food and alimentary behaviours are portrayed in kids animation movies.

Methods

The most viewed animation movies for children in the last three years in Italy were analysed to collect any portrayals of food, beverages and alimentary behaviours, both in images and in movie's audio. Food and beverage were classified into three categories: healthy (i.e. vegetables, fruits, fruits juices and milk), unhealthy (hot-dog, chips, salted snacks, sweets and candies, cakes and cookies, ice-cream and milkshakes, sweet drinks, coffee/the, alcoholic beverages) and neutral food (bread/grain, pasta, soup, pizza, meat, fish, cheese, ethnic food).

Results

Globally, 15 animated movies were analysed, produced in Italy in 1 case, in Japan in 1 case, in France in 2 cases and in USA in 11 cases. The mean number of sold tickets was 1,726,212.67 and the mean total gross was 7,679,858.33; mean total movie time was 5848.00 sec. Healthy food was portrayed in 9 movies out of 15 (60%), but for a total mean time equal to the 1.71% of the total movie time (range, 0.02-5.59%), while neutral food was portrayed in 12 movies (80%) for a mean time of 1.75% (range, 0.07-5.11%). Unhealthy food was present in 14 movies out of 15 (93.33%) for a mean time equal to the 7.79% of total movie time (range, 0.77-66.97%). Surprisingly, alcoholic drinks were depicted in 10 movies (66.67%) for a mean time of 0.53% (range, 0.08-1.41%).

Conclusions

Our work showed high contents of unhealthy food and wrong alimentary behaviours in the last three years most viewed animated movies for children, thus presenting a warning for the public health agenda. European scientific community should deepen the phenomenon since exposure to unhealthy alimentary behaviours may encourage children to obesogenic behaviours.

Key messages:

- The present study showed high contents of unhealthy food and wrong alimentary behaviours in the most viewed animated movies for children's in Italy in the last three years
- Cinema and movies represent an important conveyor of health-related messages for children's, thus being an important key in the fight of paediatric obesity

Parental perception and attitude toward their children's weight status in Riyadh, Saudi Arabia

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Background

Prevalence of overweight, obesity and severe obesity among Saudi children of all age groups varies between 2 to 23.1%. Generally, childhood obesity is not perceived as a health threat by parents, which explains their resistance for prevention programs. Assessing the direct effect of parents' perception toward their children's weight will be an effective determinant of weight management among children in Saudi Arabia.

Methods

A cross-sectional study was conducted among 426 children (1-8 years old) and their parents who were recruited from pediatric clinics from the 5 provinces of Riyadh City. Demographics, anthropometric measures, child feeding, knowledge and beliefs about childhood obesity, and perceptions of body image (verbal and visual) were collected. Bivariate analysis and multinomial logistic regression were conducted for correlates of knowledge and perceptions across parental characteristics.

Results

More than half (52%) of Saudi parents misperceived their children's actual weight both verbally and visually ($P=0.01$). Participants were 2 times more likely to correctly state their perception of child weight verbally than visually ($P=0.01$). Almost 26% of children were classified as "overweight or obese". Among those, only 5.3% (95%CI: 3.2-7.4) were perceived correctly as such by their parents. Parental knowledge was not significantly associated with perception ($P=0.70$). Child's age (≤ 6.5 years) ($P<0.001$), child's abnormal BMI ($P<0.001$), parents' education of less than college ($P<0.02$), child's computer/tablet use of ≥ 2 hours ($P<0.001$), were all independent predictors of incorrect perception of child's weight.

Conclusions

This is the first study assessing parental perception of children's weight status among Saudis. Parental misperception is a major risk factor for obesity in children; helping parents to be aware of the nutritional status of their children may become the first step to the prevention of childhood overweight/obesity.

Key messages:

- Current strategies targeting childhood obesity need to take into account the parents' perception as a barrier to receive and react to any prevention programs
- Tailored methods to appropriately educate parents how to recognize their children's weight status and body image are recommended

Associations between dental caries and BMI among 5-9 year old Bangladeshi children

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Aim

Previous research on associations between dental caries and BMI among children has produced inconsistent results. The aim of this study was to assess the associations between dental caries and height, weight and BMI among 5 to 9 year old Bangladeshi children.

Methods

A cross sectional observational study was conducted among 5-9 year old children in Dhaka, Bangladesh. Ethical approval was granted by the UCL Research Ethics Committee and National Research Ethics Committee Bangladesh. All parents gave their written consent. Children were recruited from those coming for dental treatment to Dhaka Dental College Hospital and from three nearby primary schools. Clinical dental data were collected by trained and calibrated dentists, using WHO Oral Health Survey Basic Methods (2013). Outcome measures were height, weight and BMI of the children, converted to Z-scores: weight-for-age (WAZ), height-for-age (HAZ) and BMI-for-age (BAZ). The main exposure was a combined measure of decayed, missing and filled deciduous and permanent teeth (dmft+DMFT). Multiple linear regression analysis was used to assess the associations of interest, adjusting for potential confounders (age, sex, parental education, occupation and household income).

Results

The final sample comprised 788 children and response rate was 92%. The mean dmft+DMFT in the study population was 2.8 (95% CI: 2.6-3.0). Children with high level of caries experience had significantly lower HAZ, WAZ and BAZ scores compared to low and no caries groups. In the fully adjusted model, one-point increase in dmft+DMFT score was associated with 0.1 decreases in each of the HAZ, WAZ and BAZ scores ($P < 0.001$).

Conclusions

The results of this study provide evidence that dental caries was associated with lower height, weight and BMI among Bangladeshi children. As dental caries appears to contribute

to lower height and weight in children; so, it is important to reduce the high levels of dental caries among Bangladeshi children.

Key messages:

- Dental caries was associated with lower height, weight and BMI among Bangladeshi children
- The caries level is high in this country and most of the decay remains untreated. So, it is important to reduce the high levels of dental caries among Bangladeshi children

8.F. Pitch presentations: Public health practice: cancer

Genetic contributions to the association between adult height and head and neck cancer

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Background

Adult height is reported to be associated with head and neck cancer (HNC), however its role is still matter of controversy. Height is determined by a combination of genetic factors and environmental exposures, among them the socioeconomic status (SES), and the environmental effect may be the source of several confounding factors that may influence the observed associations between height and cancer.

Herein, with the use of Mendelian randomization (MR) approaches, we test the association between genetic instruments for height and the risk of HNC. The aim is to dissect the effect of height on HNC, without any confounding effect by environmental factor.

Methods

Data concerning HNC were obtained from a genome-wide association study of the Upper Aerodigestive Tract Cancers that was carried out in 2091 cases and 3513 controls. Association summary statistics were used in complementary MR approaches, namely the weighted genetic risk score (GRS) and the inverse-variance weighted (IVW).

Results

A total number of 599 SNPs emerged to be significantly height-related. These SNPs account for 10-16% of the phenotypic variation. From the GRS analysis, 1 standard deviation of increase in height (6.9 cm) provided an increasing risk of HNC (OR, 1.14; 95% CI, 0.98-1.32) for men and women combined, and an OR of 1.13 (0.97-1.32) and of 1.16 (0.83-1.62) for men and women, respectively.

Similarly, the IVW estimate provided an OR = 1.11 for HNC (95% CI, 0.96 - 1.28).

Conclusions

Our analysis does not provide evidence of a possible effect of height on the risk of HNC. Previous associations may be caused more likely by an environmental effect such as the SES, rather than by a genetic pathway. Diet, ill health are childhood factors that may have long term influences on cancer risks; timing of puberty and the length of sex and growth hormones exposure influence height and may influence cancer too.

Key messages:

- This study assessed whether adult height has an effect on the risk of head and neck cancer
- With the use of all the available height-related SNPs, we were unable to ascertain an effect of height on the risk of HNC, so reinforcing the importance of MR approach in dissecting true associations

Randomized colorectal cancer screening programme in Finland– effect of screening invitation on health

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Background

Previous research implies that colorectal cancer (CRC) screening may have a negative effect on lifestyle. The aim of the current study was to evaluate the effects of CRC screening on self-rated measures of lifestyle and health within a randomized health-services study on CRC screening in Finland.

Methods

In 2010, altogether 31 951 men and women born in 1951 were randomized 1:1 for CRC screening and control groups. The screening group was invited to screening in 2011. A random third of the screening and control groups received a questionnaire on health and lifestyle in 2010 and 2012, one year before and one year after the first invitation to screening. The current study population consists of persons who responded to the questionnaire in 2010 and 2012 (n = 4895). Self-rated physical fitness, diet and health were assessed and modelled using calendar time (2010, 2012), screening invitation (yes/no) and sex as covariates.

Results

Self-rated physical fitness, diet and health improved over time (OR 1.45, CI 1.30-1.61, OR 1.25, CI 1.09-1.43 and OR 1.29, CI 1.16-1.43, respectively). CRC screening invitation had no effect on neither of these measures (OR 1.09, CI 0.87-1.37, OR 0.95, CI 0.75-1.20 and OR 0.90, CI 0.74-1.10, respectively).

Conclusions

Invitation to CRC screening did not have a negative effect on self-rated lifestyle and health. The randomized setting enables us to generalize the results to the whole screening target population.

Key messages:

- When assessing benefits of screening it is essential to evaluate all relevant aspects related to the mortality impact

- CRC screening invitation had no effect on overall health of the study population. Therefore there is unlikely to be a need for an additional health education within the CRC screening program

The Dutch public are positive about colorectal cancer-screening, but is this a well-informed opinion?

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Background

Population-based colorectal cancer (CRC) screening is widely recommended. In the Netherlands, it is provided by the government. CRC screening involves possible benefits as well as harms and risks. Therefore, making an informed decision concerning screening is seen as important. Members of the eligible screening population seem to be positive about CRC screening. However, it is not well known how people outside the eligible screening population view CRC screening, and whether they are supportive of the government providing this. Public opinion may affect people's personal views and their screening decision. Our study aims to examine the opinion of the Dutch general public regarding the national CRC screening programme.

Methods

An online survey was carried out in a Dutch population sample (18+), assessing level of support, personal attitude, collective attitude, perceived social norm, awareness, and knowledge regarding the CRC screening programme.

Results

The response rate was 56% (n = 1679/3000). Generally, the Dutch public are positive about and supportive of the CRC screening programme. We found the biggest proportion of support (86%) when people were asked directly. A smaller proportion (48%) was supportive when people had to choose between other options concerning how the government could possibly deal with CRC. People report knowing more about the benefits of CRC screening than about its harms and risks.

Conclusions

People were less supportive of the CRC screening programme when having to choose between other options concerning dealing with CRC. Additionally, their support may not be based on a full comprehension of what CRC screening entails, especially regarding the harms and risks of CRC screening. This could impede forming a well-founded opinion as well as making a well-informed decision. Further research is needed to establish what knowledge people need in order to form a well-founded opinion.

Key messages:

- The Dutch public are positive about the CRC screening programme, but they are less supportive when having to choose between other options concerning dealing with CRC
- People's support for the CRC screening programme may not be based on sufficient knowledge and a full comprehension of what screening entails

Integration of personalised invitation system to cancer screening programmes in the Czech Republic

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Issue

Screening programmes are effective in decreasing mortality from breast, colorectal and cervical cancers. Population-based screening programmes including personalised invitation of targeted individuals are widely recommended to ensure high coverage.

Description of the problem

In the Czech Republic, the aforementioned screening programmes were in place as organised non-population-based; participants were enrolled by GPs or gynaecologists as part of their regular preventive check-up. The aim of our project was to integrate population-based approach to existing organised non-population-based programme on the basis of invitation of non-attenders by health insurance companies, which cover the entire Czech population. In 2014, all eligible individuals (up to the age of 70), who had not regularly attended screening, were personally invited. The aim of our study is to estimate changes in coverage by screening programmes after the launch of personalised invitation.

Results

In 2014, almost 2 million previously non-attending individuals were personally invited to screening programmes. Between 2013 and 2014, the estimated population coverage by screening examination increased from 26.5% to 30.8% in colorectal cancer screening, and from 58.2% to 60.9% in breast cancer screening. There was a slight decrease in annual cervical cancer screening coverage (from 55.8% to 55.2%).

Lessons

The project showed that integration of non-population-based organised screening and invitation of non-attenders can be a useful approach to increase coverage. This approach may be a possible solution for other countries struggling to achieve a full population-based approach.

Key messages:

- The integration of personalised invitation into existing organised cancer screening programmes is feasible, using systems of health insurance companies
- The effect of additional personalised invitation was substantial mainly for colorectal cancer screening, where spontaneous participation led to a low coverage

Estimation of attributable fraction of avoidable lung cancer linked to smoking in Morocco

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Background

To establish the impact of tobacco smoking on mortality is essential to define and monitor public health interventions in developing countries. In Morocco, smoking prevalence has increased from 17.2% to 18.5% between 2000 and 2006. Moreover, no updated estimates are available on smoking

attributable fraction mainly for lung cancer in Morocco. The objective of this research is to estimate the attributable fraction of the lung cancer linked to smoking in Morocco.

Methods

The estimation was based on the SAMMEC (Adult Smoking-Attributable Mortality, Morbidity and Economic Costs) software used to estimate the smoking attributable mortality for the year 2012 and the estimation of AF linked to tobacco was based on the Levin's formula. Data about frequencies, association measures and relative risks were taken from available sources.

Results

Among the principal results found, is that the FA of lung cancer linked to smoking was about 87% and around 3050 men cases of this cancer could be avoided, if we could stop tobacco use. About 10% reduction of smoking prevalence would allow to avoid 346 number of lung cancer cases.

Conclusions

Our study provides additional important elements as additional advocacies for policy makers to implement a tobacco control strategy based on a policy preventing more adapted to the epidemiological situation and able to avoid a huge burden to the country.

Key messages:

- Among the principal results found, is that the FA of lung cancer linked to smoking was about 87% and around 3050 men cases of this cancer could be avoided, if we could stop tobacco use
- About 10% reduction of smoking prevalence would allow to avoid 346 number of lung cancer cases

Global DNA methylation as a biomarker of cervical intraepithelial neoplasia: a ROC curve analysis

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Background

DNA methylation may be used as a biomarker for detecting women with higher grades cervical intraepithelial neoplasia (CIN2+). The aim of this study was to investigate the association between methylation levels of LINE-1 sequences, a surrogate marker of the global level of DNA methylation, and CIN2+ risk.

Methods

A case-control study was conducted including women who tested positive for HR-HPVs, classified as cases (CIN2+) or controls (\leq CIN1). DNA from blood samples was extracted and analysed for LINE-1 methylation, using pyrosequencing. The degree of LINE-1 methylation was reported as the average percent methylation of the CpG sites evaluated. A Receiver-Operating Characteristic (ROC) curve analysis was performed to define the optimal methylation level cutoff value for discriminating CIN2+ from CIN1/normal women. Odds ratios (ORs) and 95% CIs were estimated using logistic regression analysis.

Results

ROC curve analysis, by using the best cut-off value (LINE-1 methylation=73.8%), showed that the test sensitivity was 63.4%, the test specificity was 61.8% and the area under the curve was 0.652. The positive and the negative predicted values for diagnosing CIN2+ were 63.0% and 62.0%. Women with high methylation level (>73.8%) had 2.8 fold increased risk to be diagnosed with CIN2+, compared with women with low methylation level (95%CI: 1.41-5.56; $p=0.003$). Regression analysis adjusted for age, educational level, smoking status,

parity, hormone contraceptive use and nutritional status, confirmed that higher LINE-1 methylation levels were associated with CIN2+ (OR: 2.7; 95%CI: 1.3-5.4; $p=0.006$).

Conclusions

Findings of this study demonstrated the association between LINE-1 hypermethylation in blood and a higher risk of CIN2+. Although further studies are needed to confirm this association, LINE-1 methylation may represent a potential epigenetic biomarker for pre-neoplastic lesions detection, providing added reassurances of safety for women infected with HPV.

Key messages:

- The identification of women who tested positive for HR-HPVs and at risk of CIN2+ by new epigenetic biomarkers are a future challenge for the management of cervical abnormalities
- LINE-1 methylation may represent a potential epigenetic biomarker for pre-neoplastic lesions detection

Towards developing evidence-based GIS-driven infrastructure for cancer surveillance in Greece

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Issue/problem

Geographical Information Systems (GIS) are rapidly growing in cancer research and public health practices. They are accredited by cancer registries as powerful evidence-based practice tools. Greek cancer registries lack such tools. The current study aims to propose an evidence-based GIS-driven practice for developing infrastructure and methodological framework for cancer surveillance in low resource settings.

Description of the problem

The Cancer Registry of Crete (CRC) is the only regional cancer registry in Greece since 1992. The Region of Crete supported the implementation of a suitable digital monitoring system for accommodating "big-data", identifying inequalities in the genetically homogeneous population of Crete and proposing targeted public health measures. GIS and visual basic were used to construct the Cancer Monitoring System (CMS). A methodological toolkit for spatio-temporal statistics was developed after systematic review of the literature. Age-Standardized Incidence Rates (ASIR) and Age-Standardized Mortality Rates (ASMR) were measured.

Results

The new CMS along with the methodological toolkit enabled mapping, correlation with risk factors, estimation of high risk areas and future trends. The most common malignant neoplasms were the following: lung (ASIR=40.2/100,000/year; ASMR=36.5/100,000/year), colon (ASIR=25.1/100,000/year; ASMR=14.7/100,000/year) and breast (ASIR=28.6/100,000/year; ASMR=11.1/100,000/year). Variations (P value<0.05) were observed among the different regions in Crete and between genders. Significant increase of the incidence of lung cancer (females), colon (both genders), leukemia (males), thyroid (both genders) and cervix uteri is expected within the next 10 years (P value<0.05).

Lessons

Best practices are feasible during the Greek austerity period. Cancer burden varies among regions of Crete, indicating health inequalities that require geographically-oriented preventive measures.

Key message:

- The proposed practice is considered to be a feasible and cost-effective solution for data monitoring and early problem detection for countries with limited resource.

Use of cancer registries data for measuring adherence to breast cancer guidelines in Europe

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Contact: luciana.neamtii@ec.europa.eu**Background**

The aim of the European Commission Initiative on Breast Cancer is to improve health and to reduce health inequalities in Europe by ensuring the quality of breast cancer services. Among the objective of the ECIBC is the development of the voluntary European quality assurance scheme for breast cancer care based on high quality evidence-based guidelines.

The goal of this study is to investigate how European cancer registries could be used to assess and measure compliance, at population level, with breast cancer guidelines.

Methods

Studies examining adherence to breast cancer guidelines (covering the processes from screening to end of life care) in Europe were retrieved through Pubmed searches (up to March 2016). Studies using data from European cancer registries were included. The titles and abstracts of the papers were screened.

Only full papers related to adherence to guidelines were included for analysis.

Results

75 articles that included data from European cancer registries and were related with breast cancer guidelines were identified. The majority of retrieved articles dealt with compliance with guidelines in the care processes of treatment, mainly surgery and chemotherapy. The results of these studies prove an increase in the quality of care for patients treated according to guidelines. In addition, cooperation with hospital based cancer registries and linkage with administrative databases increase the possibility to perform such studies at population level.

Conclusions

There is a limited number of publications that use population-based cancer registry data to evaluate the adherence to guidelines for different processes in breast cancer care.

In order to be sustainable and equitable (decreasing variability and inappropriateness in clinical practice), a health care system should ensure implementation of evidence-based guidelines. Cancer registries can aid health authorities by providing population-based data to measure adherence to guidelines.

Key messages:

- Implementation of guidelines can help decrease variability in clinical practice
- Cancer registries can help measure adherence of guidelines at population level, detecting gaps in their implementation

8.G. Oral presentations: Access to health care for migrants and ethnic minorities

Access to preventive health services of migrants in five EU countries

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Background

The goal of preventive health care services (PHS) is to reduce morbidity and mortality through the prevention or detection of disease. Migrants have different lifestyles, health beliefs and risk factors. This may influence access to health services and participation in prevention programs. The objective of the study is to compare the use of PHS between migrants and native populations in five EU countries: Belgium, Italy, Malta, Portugal and Spain.

Methods

We analysed four indicators according to the “European Core Health Indicators” definitions, namely access to mammography, cervical smear test, colorectal cancer screening and flu vaccination. These indicators were calculated for nationals, migrants with EU and Non-EU citizenship. These were then analysed using logistic regression. Odds Ratios (OR) with limits of 95% confidence interval were calculated, using nationals as reference. Data from the Health Interview Surveys were used, respectively 2008 for Malta, 2011 for Spain, 2012-13 for Italy, 2013 for Belgium and 2014 for Portugal.

Results

Overall 163,763 subjects were interviewed, with 2% of EU migrants and 4% non-EU migrants. The risks, in terms of OR, to have a poorer access to mammography was 2.5 (2.0-3.1) for migrants from EU and 2.6 (2.1-3.1) for migrants from non EU

countries; to cervical smear test was 1.5 (1.3-1.6), and 1.7 (1.6-1.9); to colorectal cancer screening was 1.4 (1.1-1.7) and 2.1 (1.7-2.5); to flu vaccination was 3.1 (2.4-3.9) and 5.7 (4.7-6.9). The OR were similar among selected EU countries for Cervical smear test and colorectal screening, higher variability was observed for mammography and flu vaccination, with higher risks in Italy and lower in Belgium.

Conclusions

The use of PHS is significantly reduced among migrants, particularly for those coming from non-EU countries. This may lead to the deterioration of health status, particularly among the most vulnerable people.

Key messages:

- Migrants showed poorer access to preventive health services, especially for those coming from non-EU countries
- The comparison among 5 EU countries showed similarities, with slightly poorer access in Italy

Health and access to care among vulnerable populations in Europe: Findings from the 2015 Doctors of the World International Network Observatory

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Background

Since 2006, the Doctors of the World (MdM) International Network Observatory has conducted multicenter surveys in our free clinics across Europe & Canada among people facing multiple vulnerabilities, (EU nationals & migrants, 3rd country citizens). These surveys describe their health states and social

determinants of health, including obstacles to access to care, with the aim of informing health policy makers and obtain positive changes.

Materials and Methods

A cross-sectional analysis of routine data collected from 34,300 patients in 94,453 social and medical consultations at MdM & partners health centers in 13 countries in 2015 (Belgium, Canada, France, Germany Greece, Luxemburg, the Netherlands, Norway, Spain, Sweden, Switzerland, Turkey and UK). An analysis of the legislative context regarding access to care was made.

Results

The vast majority of patients consulted our clinics for medical care while around 20% of patients were seeking social assistance. The population consisted mainly of migrants (EU migrants included), however a good part of patients seen in Greece & Germany were nationals. Around 80% of patients seen did not have any health coverage. Nearly 100% of patients were living below the poverty level of the country. The obstacles to access to care were primarily due to restrictive legislations; financial, administrative or lack of knowledge about rights & local health system, or language barrier. The immigrants interviewed had been living in their host country long term before consulting. Very few patients with a chronic disease knew about it before migrating or cited health as a reason for migration.

Discussion

The populations seen by MdM live in particularly disadvantaged conditions. They need more (and certainly not less) protection and to be given easier access to care. There is no tangible argument or public health justification for using health care and access-to-care policies as means of regulating migration flows.

Key messages:

- Major inequalities in health states & social determinants of health, including obstacles to access to care, are found in the vulnerable populations using MdM & partners clinics in Europe & Canada
- MdM urges Member States and EU institutions to ensure universal public health systems built on solidarity, equality and equity, open to everyone living in an EU Member State

Access to healthcare for migrants during emergencies: a health policy analysis

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Issue

Migration has been recognized as one of the greatest challenges that societies are facing and will continue to face during upcoming decades. The affected destination countries have recognized that their health systems have been overstretched and are unprepared to match the health needs of undocumented migrants with these systems' existing resources, plans, and policies.

Description of the problem

This study takes account of evidence from the existing policies of countries facing large influxes of migrants, and compare and evaluate the chosen policies in order to formulate a new policy option. The Bardach's Policy Analysis Framework is adopted and evidence is compiled from the national policies of the four countries in the WHO European Region with the highest percentage increase of emergency immigration in 2014: Greece, Spain, Malta and Italy. The policy evidence is judged, adopting four criteria obtained from international laws and guidelines. To each criterion is assigned a set of indicators, allowing for the comparison and scoring of policies. The criteria

were: sensitivity to migrants, intersectoriality, respect for human rights, and emergency preparedness.

Results

According to this frame Italy and Malta score the highest while Spain and Greece the lowest.

In particular, Italian policies are the more sensitive to migrant issues and Maltese policies to intersectoriality. Emergency preparedness and respect for human rights are poorly addressed in three out of four countries.

Lessons

The policies comparison shows which countries have the gold standard for migrant-sensitive health policies, intersectoriality, respect for human rights and vulnerabilities, and emergency preparedness.

Key messages:

- Findings suggest that an enhanced policy option would include free of charge health care to undocumented migrants; anonymous access to services; the support of intercultural mediation for health
- Multisectoral collaboration in migration management enables specific provisions for the most vulnerable migrants (unaccompanied minors, disabled, elderly people) as shown by Maltese policy

ER access by non-EU citizens between 2000 and 2014 in a large teaching hospital of Rome, Italy

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Background

Lack of information about the national health system and the status of illegal immigrant can make difficult for migrants from non-EU countries to access primary care, leading to misuse of emergency room (ER). This study investigated non-EU citizens' (non-EU) accesses between January 2001 and September 2014 to the ER of the "Umberto I" teaching hospital of Rome, Italy.

Methods

Patients' accesses to ER, triage codes, hospitalizations, mortality and diagnoses of Italians and non-EUs were described. Incidence rate ratio (IRR) and 95% CI for the non-EUs of being assigned a white code at triage and of hospitalization after ER access compared to the Italians were estimated through Poisson regression.

Results

Of the 1,934,431 people that accessed the ER between 2000 and 2014, 266,213 were strangers. Non-EUs citizens increased from 6.6% to 11.5% during this period. They showed a higher rate of white codes than the Italians (19.3% vs 16.7%) and a lower rate of yellow and red codes. Poisson regression showed that non-EUs are more likely to be assigned a white code than the Italians (IRR: 1.17; 95% CI: 1.16-1.19; $p < 0.001$).

Non-EUs left the ER without authorization more frequently than Italians and experienced also a lower rate of hospitalization (13.9% vs 8.0% and 14.3% vs 17.8%, respectively). Poisson regression confirmed these results showing a lower risk for non-EUs to be hospitalized (IRR: 0.98; 95% CI: 0.96-0.99; $p < 0.001$). The ER death rate was low and stationary during the period and twofold higher in Italians than in non-EUs (0.14% vs 0.07%).

Respiratory, genitourinary and obstetrical/gynaecological diseases were more frequently diagnosed in non-EUs (8%, 3.4% and 9.1%, respectively) than in Italians (6.3%, 2.7% and 3.8%, respectively).

Conclusions

These results highlighted a propensity for the non-EUs to access the ER mostly for non-urgent events. This could partly be an effect of the lack of filters in access to care, usually carried out by the primary care.

Key messages:

- Non-EU citizens have higher rate of inappropriate access to emergency rooms, as showed by the rate of white codes, hospitalization and mortality
- There is a need for filters other than the usual able to appropriately route this non-EU population and to address its specific health needs

The health information assessment tool on asylum-seekers (HIATUS): a comparative validation study

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Background

A lack of accurate data on the health status of asylum-seekers in many EU countries turns inequalities in health between residents and asylum-seekers invisible. We assessed the performance of the health information system (HIS) in Germany (DE) and The Netherlands (NL) with respect to the country ability to assess the health situation of asylum seekers.

Methods

We developed a Health Information Assessment Tool on Asylum Seekers (HIATUS) with 50 items to assess HIS

performance across 3 dimensions: 1. availability and detail of data across data sources; 2. HIS resources and monitoring capacity; 3. general coverage and timeliness of publications on selected indicators. Two raters per country independently assessed the performance of country HIS. Ratings were transformed into an unweighted summary score (range: 0-100). We calculated mean scores (standard deviations, SD) by country and absolute/relative gaps in scores within/between countries. Inter-rater reliability was assessed by Pearson's rho and the intra-class correlation (ICC).

Results

The total HIATUS score was 31 (SD: 8.5) in NL and 24 (SD: 2.8) in DE, translating into a 69% (NL) and 76% (DE) gap in HIS capacity. The 7-score difference between NL and DE translates into a 23.0% higher HIS capacity in NL relative to DE. Shortfalls in HIS capacity in both countries relate to data availability across most sources, and to coverage of specific indicators such as self-reported health, mental health, socio-economic status and health behaviour. Pearson's rho was 0.144 (NL) and 0.30 (DE), the ICC yielded an estimated reliability of 0.290 (NL) and 0.830 (DE) respectively.

Conclusions

Inter-rater reliability was acceptable in DE but low in NL. Team-based ratings by country instead of independent ratings may improve reliability in future EU-wide studies. Preliminary findings suggest substantial limitations in HIS capacity to assess the health situation of asylum-seekers in both countries, especially in DE.

Key messages:

- Accurate data on health status of asylum-seekers is essential to assess health inequalities
- The standardised tool (HIATUS) proved useful to assess country health information systems in two EU countries

8.H. Oral presentations: Health promotion for children

Combined preventive Interventions for preschoolers – often recommended – well evaluated? A Review

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Background

The early learning of healthy lifestyles is an important aim of preventive interventions. Programs for preschool children exist worldwide, combining measures from the key areas of Diet, Physical Activity and Life Skills, but little is known about their effects. This review, an additional module of a systematic literature search on the effectiveness of combined interventions for kids and teens in cooperation with the Federal Centre for Health Education, contributes to this area of knowledge.

Methods

Twelve databases were searched for studies published between 2004 and September 2014. Reviews were screened for relevant studies. 191 titles referred to preschool children. Studies fulfilling the following criteria were included: participants aged between three and six; at least two of the three mentioned fields combined in the intervention; outcomes assessed at an individual level; existence of a control-/comparison group.

Results

Eight primary studies were included. All studies had a randomized, mainly cluster design. None contained follow-up data collections or comprised life skill interventions. All studies involved measures with behavioral focus and usually also targeted structures and conditions. More than half of the studies provided evidence for positive effects on anthropometric and/or physical activity related parameters, two studies showed improved BMI z-scores.

Discussion

The evaluated data available to substantiate the effectiveness of combined interventions for preschool children is sparse; but positive results do indicate a potential for improving child-development. The superiority of combined interventions over measures in a single field, particularly with regard to resource use, is still to be proven. Regarding diet- or physical activity-related preventive interventions, the potential of life skills programs seems not yet to be exhausted.

Key messages:

- The Review gives an overview of current studies including interventions linking Diet, Physical Activity and/or Life Skills as key areas for prevention and health promotion for preschool children

- The number of evaluated combined approaches in Diet, Physical Activity and Life Skills published is surprisingly low. The studies provide evidence for positive effects, but no data on sustainability

Self-regulation, normative beliefs in alcohol use and sexual behaviour: longitudinal study

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High dispositional self-regulation (SR) has been frequently found as a factor which may decrease levels of risky drinking and sexual behaviour. On the other hand, overestimated descriptive normative beliefs (NB) may serve as a powerful source of social influence on personal alcohol use and sexual risk behaviour. Both SR and NB may be especially important during the period when young adults leave their families and may feel less external control and more freedom to use alcohol or to pursue sexual opportunities.

This one-year longitudinal study followed a sample of N = 2675 first-year college students who participated in the SLiCE project (Student life cohort in Europe) a 5-year follow-up cohort study. Students from the Czech Republic (n = 347), Hungary (n = 771), Lithuania (n = 965) and Slovakia (592) who filled in the AUDIT test, Short Self-Regulation Questionnaire and a set of questions regarding NB and sexual behaviour. Three binary logistic regression models (one for each country) were computed to test the main effect of SR and NB and interaction among SR and NB at T1 on risky drinking and sexual behaviour at T2.

Overestimated NB were positively associated with risky drinking and sexual behaviour in all countries. High SR negatively predicted risky drinking but not risky sexual behaviour in most of the countries. However, in the model with all respondents controlled for gender and country, SR was negatively associated with a higher number of sexual partners (OR 0.95 CI: 0.86-0.91) and unprotected sex (OR 0.96 CI: 0.88-93). Moreover, in predicting risk drinking and sexual behaviour, a three-way interaction was confirmed as overestimated NB increased risky drinking and sexual behaviour but only among those with lower SR.

The protective effect of SR on these risk behaviours together with social norms potentially improve the intervention accuracy and make it a promising target for intervention among young adults.

Key messages:

- Self-regulation has protective overall effects on risky alcohol use and sexual behaviour what demonstrates that SR remains an important protective factor into emerging adulthood
- Self-regulation may also buffer against overestimated normative beliefs in risky alcohol use and sexual behaviour

Effectiveness of the Salut Program: a universal health promotion intervention for parents & children

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Background

There is a lack of evidence for the effectiveness of health promotion interventions during pregnancy and early childhood. This study aims to investigate the effectiveness of the Salut Programme, a universal health promotion intervention in a Swedish County, compared to care as usual.

Methods

A register-based retrospective observational study design is used with respect to both exposures and outcomes. Outcomes of interest during pregnancy, delivery and the child's first three years of life included: direct indications of health risks, such as birth weight, Apgar scores, hospitalization, delivery; and indicators of poor health, such as child's and mother's hospital visits, and parents' number of paid days for care of sick child. We compared outcomes of interest for both parents and children during pre- (children born 2002-2004) and post- (born 2006-2008) measure periods for the intervention (n = 1891 children, n = 1599 mothers), and non-intervention groups (n = 12723 children, n = 10544 mothers). Our analysis strategy combined difference-in-difference estimation with matching. A complementary analysis was carried out on the longitudinal subsample of women who gave birth in both the pre- and post- measure periods.

Results

No significant changes were found in the difference-in-difference analysis. A few significant changes were found between intervention and non-intervention groups in the longitudinal analysis; for the Apgar scores 1 and 5 minutes (p < 0.001), and hospitalization during the first three years after birth for mothers (p = 0.002).

Conclusions

Adding the Salut Programme to the care as usual provided minor effects on children's and mothers' health, for the outcomes used in this study. However, the health outcomes may impact child public health in the long-time perspective.

Key message:

- In this study of the effectiveness of a universal health promotion intervention, the Salut Programme, some positive impact was found on child and maternal health outcomes

Cultural community complexity - challenges and strategies in securing health for all

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An increasingly complex society with large social differences, Norway spends considerable resources on secondary and tertiary measures. In Stovner district in Oslo 53% of the population (31 300) is immigrants from 142 different countries. Among children under 4 years, 60% are immigrants or born to immigrant parents. Development of a new model based on early intervention, user participation and community participatory principles are relevant for other European settings. Studies show that early intervention improves parent and child relationship, child development, children's social adaptation and school readiness and reduce the need for costly secondary and tertiary preventive measures. A new home visit program from pregnancy until the child is two, was initiated. Norwegian public health policy encourages user involvement in development of health services. The district decided to conduct formative research as a part of the development. Various levels at the health department as well as other sectors, e.g. child protection and social services were partaking in the discussions. Key informant interviews,

seminars and meetings in addition to focus group interviews with mothers and the public health nurses (PHNs) were conducted. The pilot includes 85% of the eligible pregnant women. The services were provided in the clinic by specially trained PHNs. The PHNs identified added values and unique challenges of early home visits during pregnancy. A closer relationship between the family and the PHN was achieved. The PHNs experienced an increased efficiency during clinics visit when having met the mothers at home. The PHNs identified more easily the resources in even challenged families. In a multi-ethnic and multi-cultural community home visits to first time mothers initiated positive changes in the PHNs work in the clinics. Cross sectorial participation of the service lines are important when developing early interventions.

Key messages:

- A home visiting program is feasible in a multiethnic community
- Public health nurse home visits to first time mothers positively impact the routine clinical services

Impact of "health promoting schools" intervention in Nairobi slums' primary schools

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Background

Children in Nairobi's slums suffer from higher rates of morbidity and underweight than other Kenyan children. While health promoting schools (HPS) interventions can improve health indicators, they have not been implemented in Kenya. The current study aimed to evaluate the impact of a HPS intervention, using personal hygiene (PH) as an entry point, in Nairobi slums' primary schools (PS). Identification of a PH-based HPS intervention as an effective method of health

promotion for children in this unique locale can serve as a model for other poverty-stricken populations worldwide.

Objectives

Through a program trial, 11 PS in one Nairobi slum received the intervention while 10 in another slum served as controls. Head teachers, teachers and students from all schools completed questionnaires and anthropometrics before and after the 18 month intervention. Main outcomes included students' hand washing (HW), physical symptoms and BMI. Using PH as the entry point, the intervention included healthy policy changes, teachers' training, construction of water and sanitation facilities, PH education, and community partnership. This study addressed whether or not a PH-based HPS intervention improved health-related outcomes in Kenyan children.

Results

82% of intervention students reported HW compared to 12% controls ($p < 0.001$). These students reported less fever (40% vs 32%, $p < 0.001$), stomach pains (69% vs 60% $p < 0.0001$) and coughing (69% vs 53% $p < 0.001$). BMI z-score increased (-0.53 to -0.4; $p < 0.001$) in the intervention children with no change in controls, and incidence of underweight decreased (12.8% to 9.6%; $p < 0.005$).

Conclusions

PH-based HPS initiatives improve students' health behaviors, physical symptoms, and BMI (without food supplementation) and are therefore recommended for use in slum locales. This study motivated the Kenyan Ministry of Education to secure funding under their Free Primary Education Policy for water and sanitation activities in PS.

Key messages:

- Health promoting school interventions may improve health outcomes and reduce underweight in children in Kenyan slums
- Health promoting schools are recommended for implementation in similar poverty-stricken locales internationally

8.I. Workshop: War and Mental Health

Organised by: EUPHA section on Public mental health
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Chairperson(s): Jutta Lindert - Germany, Johan Bilzen - Belgium

War and genocide destroy communities and families and have severe consequences on health and mental health and on the well-being of survivors. Among the consequences of war and genocide, the impact on the mental health of survivors is significant. Such impact on mental health can be short or long term. The importance that the World Health Organization (WHO) attributes to dealing with the mental health impact of war was highlighted by the resolution of the WHO Executive Board in January 2005, which urged 'support for implementation of programs to repair the psychological damage of war, conflict and natural disasters.' This workshop reviews the evidence from studies about the impact of war on the mental health of war-affected communities in Rwanda, Israel, and Cambodia. The first talk by Gunilla Krantz (Professor of Public Health and Community Medicine, Gothenburg University, Sweden) will outline the mental health effects of the genocide in Rwanda; the second talk by Haim Knobler (Professor of Psychiatry, Hebrew University-Hadassah Medical School, Jerusalem, Israel) suggests interventions to improve mental health of people affected by wars individuals and the third delivered by Moshe Z. Abramowitz (Clinical Senior Lecturer, Hebrew University-Hadassah Medical School, Jerusalem,

Israel) will discuss the lessons to be learned for interventions in war affected communities and the fourth by Jutta Lindert (Professor of Public Health, University of Emden, and Brandeis University, USA) will investigate the long term effects of genocides on mental health of affected populations.

Key messages:

- wars and genocide have Impact on health and mental health of survivors; - effects on mental health vary widely
- further longitudinal studies on the effects of wars and genocides are required; - methods to prevent wars and genocides are serious political and Public Health challenge

Trauma experienced in the genocide period in Rwanda, its mental health effects and barriers to care 17 years later: a study among men and women in Rwanda, 20-35 years of age

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Background

In 1994, Rwanda experienced genocide and an estimated 800,000 people lost their lives. People lived through mass killings, witnessed family members and near relatives being murdered, women and young girls were exposed to sexual violence and millions of people fled to neighbouring countries. This study investigated mental health effects of genocide trauma 17 years later in men and women, aged 20-35 years. Health care seeking behaviour and barriers to care related to mental problems were further investigated.

Methods

A population based prevalence study was performed in the Southern province, including 440 men and 477 women. Barriers to care were investigated by use of focus group discussions with mental health professionals. Content analysis, manifest and latent, were used for analysis.

Results

Prevalence of depression, anxiety disorders, PTSD and suicide risk, were almost twice as high in women as in men. A clear association was found for both men and women between exposure to a summary index of traumatic episodes in 1994 and mental disorders. Barriers identified by health professionals in mental health services included poverty and lack of family support, fear of stigmatization, poor community awareness of mental disorders and beliefs in traditional healers and prayers. Further were gender differences pronounced, with women being "weaker" and more willing to seek help and men seen as "stronger", able to solve problems on their own.

Conclusions

Experience of trauma during the genocide is associated with mental disorders 17 years later, and the productive generation is seriously affected. Mental health care services should be integrated into primary health care to reduce barriers and improve accessibility and quality of care. To achieve this, considerably more psychiatrists, psychologist and mental health nurses are needed. Further should the stigma related to mental disorders be reduced and mental health literacy in the population improved.

Lessons to be learned from the resilience and post traumatic growth of Holocaust survivors

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Background

Research on Holocaust survivors in Israel has revealed that the common result of massive psychological trauma on the victims was not necessarily post-traumatic stress disorder, but more often better mental health and resilience. Survivors, including those who overcame long-standing continuous atrocities, presented evidence of post-traumatic growth. The aim of this talk is to describe the lessons learned from the survivors' experiences for current and future prevention and treatment of victims of war and genocide.

Methods

A systematic review of the literature, reports on Holocaust survivors experiences, and current programs for prevention of post traumatic stress disorders in Israel, in defense and rescue organizations, and in the community.

Results

The resilience and the post-traumatic growth of Holocaust survivors in Israel was well described in the last 5 decades. Lessons learned from their experience were found in all major current PTSD prevention programs: in the recommendations for community resilience programs, in the Israeli Defense Forces' programs, and in the Magen David Adom ('the Israeli Red

Cross') program. They include an emphasis on creating social cohesion, and of reforming family-unit-community connections. Moreover, survivors of massive trauma must be regarded not only as victims, but as heroes, who overcame atrocities.

Conclusions

Skills and practices that were helpful for the rehabilitation of Holocaust survivors were identified and adapted to create programs for mental preparedness and resilience. Research-based findings must be considered when planning future PTSD prevention and treatment of survivors of massive psychological trauma. Such current prevention programs in Israel may serve as models for other countries and societies. Experience shows that these attitudes are far more promising than standard psychotherapy or psychomedication – that have proven only limited effects on the recovery of the survivors.

The limits of psychological and psychiatric interventions in the prevention and the treatment of PTSD

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Since the First World War the main treatment of acute and chronic stress disorders was aimed at the pathological post traumatic symptoms. It is still assumed by many that a prompt early diagnosis of acute stress reaction, or subsequently of acute stress disorder, and prompt early treatment, will eventually prevent or cure the post traumatic syndrome. The aim of this talk is to portray the evidence-based state of these assumptions.

A systematic review of the literature on randomized clinical trials of individual and group psychotherapies and other treatments of PTSD, combined with the authors field experience.

Several areas of the limitations of the current therapies need to be confronted, including: 1. PTSD is not the only possible psychiatric outcome of a trauma. Many survivors may be anxious, depressed, and even psychotic. 2. Some post traumatic survivors do not want to be re-exposed by standard psychotherapy. They may be 'over-sensitized' and not desensitized. Such patients may resent treatment and regard it as harmful. 3. All individual and group psychotherapies studied do not comprise a complete cure for more than 50% of chronic PTSD patients. Non-response rates are still high, even though 49-70% of participants in validated randomized clinical trials attained some meaningful symptom improvement. 4. Even though some cognitive-behavioral therapies promise cure, no advantage was found for chronic PTSD patients by any form of psychotherapy. 5. Although exposure therapy is still the cornerstone of PTSD psychotherapy, lately it has been proven that it does not have an advantage over interpersonal psychotherapy, and it did not differ from placebo – or no treatment at all – 3 years following the trauma.

Better psychological and psychiatric treatment of post traumatic patients is an urgent need, and in the absence of such a treatment, the best preventive and curative measures may still be social interventions.

The long term mental health consequences of genocides on survivors' offspring

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Background

The long term mental health consequences of genocides on survivors' offspring are increasingly discussed but conclusions have been conflicting.

Methods

We systematically reviewed studies from five electronic databases (EMBASE, PILOTS, PUBMED, PsycINFO, Web of Science) that used a quantitative study design and included: (i) exposure to the genocides of Armenians, in Nazi-Germany, Cambodia, Rwanda, and Bosnia; (ii) mental health outcomes; (iii) validated instruments; (iv) statistical tests of associations.

Study quality was appraised using a quality assessment tool for genome studies. PRISMA reporting guidelines were followed.

Results

From 3352 retrieved records, 20 studies with a total of 4793 participants involving 2431 children of survivors and 2362 controls met the eligibility criteria. Studies were conducted in seven countries: Australia, Canada, Italy, Israel, Norway, Rwanda, and the United States over the past seven decades. Data provide no consistent evidence that survivors offspring are more likely to have mental health problems than comparators who were not children of genocide survivors.

Conclusions

Future studies of the long term impact of genocides on mental health should report using a standardized structure.

8.K. Workshop: Health impact quantification for a culture of "foresight"? Dyadic Workshop, part 1

Organised by: EUPHA section on Health impact assessment
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Chairperson(s): Johan Mackenbach - The Netherlands, Rainer Fehr - Germany

An orientation of foresight and precaution is among the core virtues of Public Health. In times of rapid changes referring to personal health behavior, health systems, and other sectors beyond health ("Health in all Policies"), with increasing awareness of a multitude of systems interacting, it is particularly challenging to assess future impacts on health and disease. Quantitative modeling is meant to help in estimating impacts of developments, policies and interventions, in identifying group differentials, comparing scenarios, ranking interventions, and thus to support governance and decision-making. A range of impact quantification tools are available, providing approaches to strengthen "foresight" awareness, and to contribute to the development of health impact modeling as a component of good Public Health practice.

Toolmakers and users of tools convened in the past to discuss experiences and challenges. There were, e.g., two documented workshops [1, 2] and two publications [3, 4] from this initiative. It has become clear that issues deserving special attention include the following: systemic interactions; differential impacts (equity); temporal dynamics; uncertainty of estimates; and visualization of results.

The current workshop focuses on practical experiences with existing models and tools, compares and critically discusses them, and identifies appropriate steps forward. A range of real-life examples of tool application will be discussed, in the light of the following questions: What was the (governance) question or problem that triggered the analysis? What model was applied, what data used? How were the following issues dealt with: (systemic) interactions, differential impacts/(in)equity, changes over time, uncertainty of estimates, visualization of results? How did decision-makers and/or the public react?

Workshop format: 4 presentations, plenary discussion (10 min).

This is part 1 of a dyadic workshop. Part 2 contains presentations on three additional approaches, plus a summary presentation with conclusions.

Key messages:

- The essential Public Health virtues of foresight and precaution call for assessing future impacts on health and disease

- Using impact quantification tools, health impact modeling can develop into a component of good Public Health practice

Modelling the economics of chronic disease with the EConDA tool and the UKHF microsimulation model

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Context

Policy makers and planners need to understand the distributions of avoidable non-communicable diseases (NCDs), and how they are likely to develop in the future. The UK Health Forum (UKHF) uses advanced microsimulation modelling methods to forecast trends in risk factors and test the health and related cost-impacts of policy interventions.

Methods

Two approaches were applied: (i) the Economics of Chronic Diseases (EConDA) tool, a deterministic model developed for policy makers, across 8 EU countries, to assess the cost-effectiveness of specific BMI-related interventions for different population age groups, and (ii) the stochastic UKHF microsimulation model which was originally developed for Foresight Tackling Obesities (England), has modelled obesity and related diseases in 70 countries, and was used to test the impact of BMI trends and interventions over time. Data for each country were collected from a variety of sources including both cross-sectional and longitudinal studies.

Results

The EConDA tool and the microsimulation model are both data intensive; data needs include cross-sectional age-sex risk factor data (e.g. for body mass index (BMI), or smoker status), and disease incidence, prevalence, and mortality. When interventions such as a sugar sweetened beverage (SSB) tax and multi-component lifestyle intervention (MCLI) were compared to a baseline (no change) scenario where individuals follow BMI trends predicted by cross-sectional data, then small reductions in BMI were shown to have a significant effect on reducing both the levels of NCDs and their related costs. The model predicted that a 20% SSB tax would have a significant impact on prevalent NCDs such as Heart Disease and Type 2 Diabetes.

Conclusions

Both models can be used to predict the impact of interventions at a population level in terms of BMI-related NCDs and their associated (non-)healthcare costs. Deterministic tool and

stochastic microsimulation provide a good validation of each other.

Risk factor modelling with the Proportional Multi-State Life Table model

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Approach

Originally designed by Barendregt in the 1990s, the models mimic morbidity and survival of populations in 5-year age-sex groups over their remaining lifetime, comparing an intervention scenario with 'business as usual'. Risk factors such as body mass, physical activity and dietary factors are modelled as distributions. Potential impact fraction calculations link these with the incidence of explicitly modelled diseases. Health-related quality of life is calculated using disability weights, and changes in mortality are integrated in the life table. The main health outcome is health-adjusted life years. Trends can be incorporated.

Results

Recent applications of the model include the estimation of the health impact of sugared drinks taxes in South Africa (Manyema, Veerman et al., PLoS One. 2015;10(11):e0143050) and Australia (Veerman, Sacks et al., PLoS One. 2016;11(4):e0151460). In the latter example we used consumption and body mass data from the Australian Health Survey 2011–2013, Australian price elasticity estimates, energy balance calculations, health care costs from the Australian Institute for Health & Welfare, and relative risks, disability weights and epidemiological data from the 2010 Global Burden of Disease. Results indicated that a 20% valoric tax on sugared drinks could lead to a gain of 112,000 health-adjusted life years for men (95% uncertainty interval [UI]: 73,000–155,000) and 56,000 (95% UI: 36,000–76,000) for women, and a reduction in overall health care expenditure of AUD 609 million (95% UI: 368 million– 870 million).

The South African Minister of Finance recently announced plans for a tax on sugared drinks. This seems related to our publications on the potential impact of such a tax on obesity and diabetes rates, which received much media attention. The impact on the Australian debate is as yet unclear, but sensitised by the UK announcement of a sugar tax, our publication sparked debate across online, print and visual media.

Integrated environmental impact assessment with ECOSENSE – the impact pathway approach

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Background, methodology

In the 1990s, the European Commission, DG RTD, financed the ExternE (external costs of energy) series of projects, for quantitatively assessing the health risks and other impacts caused by energy technologies. In subsequent projects, with my team and me playing a leading role, the methodology was refined; the sectors extended, and the range of pollutants widened.

Results

The methodology is now widely used for policy support, especially for assessing air pollution control policies and transport and industry project appraisal. Impacts are

transformed into monetary values using willingness-to-pay-approaches, allowing for cost-benefit analyses and estimating external costs (ECOSENSE tools family, www.ExternE.info: online tools, www.integrated-assessment.info: guidebook).

One exemplary application shows that it is important to take account of impacts caused by air pollution when assessing policies to reduce climate change: the promotion of wood firings in cities leads to negative health impacts that more than compensate the positive effect on climate change, unless the firing is equipped with a dust filter. Similarly, insulation of houses may lead to higher indoor pollution, thus installing new windows should be coupled with mechanical ventilation systems. - Different policies reducing air pollution caused by urban transport were ranked by impacts on air pollution and climate, with bicycle use, traffic management, and replacing short haul air traffic by rail being most efficient.

Reactions: Decision makers in Europe, e.g. DG TREN, national authorities or the EIB, now support or even demand cost-benefit analyses to support decision processes. Press and public are especially interested if high risks occur, or if recommendations disagree with current policies.

Conclusions

The use of methods and tools for integrated environmental, health and climate impact assessment increases rapidly, especially for pollution control and transport project appraisal.

Assessing Cancer Control Initiatives in Canada – the Role of CRMM

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The Canadian Partnership Against Cancer (CPAC) was funded by the Government of Canada in 2009, to work with all stakeholders across the country to reduce cancer incidence, improve treatment, and improve the health of cancer survivors. As part of its initial mandate, CPAC has developed a detailed simulation model, the Cancer Risk Management Model (CRMM), designed to integrate and synthesize a wide range of empirical data, clinical trials and expertise to provide rigorous evidence for analysis and decision-making on cancer control policies.

Three major cancer site models have been completed. However, the analysis and decision-making across these sites offer notable contrasts. Each cancer site model was based on cross-country consultation with a key focus centred around what were the main policy questions over the coming two to five years. Responses guided prioritization of various design elements in the models.

For cervical, a high priority was how to organize HPV vaccination and Pap testing vs DNA tests. For colorectal a focus was comparative cost-effectiveness of FIT (at various thresholds) and FOBT screening. With a recent clinical trial showing a 20% reduction in mortality by using low dose CT (LDCT) screening for heavy smokers, the recent focus with the lung model includes annual versus biennial screening.

Policy responses have been quite different. For cervical, the Ontario government has moved to vaccinate boys as well as girls. For colorectal screening, a pan-Canadian group of administrators of provincial screening programs is the key audience. For LDCT, audiences include both the federal preventive services task force and provincial cancer control agencies who are moving ahead with pilot projects.

This paper contrasts the analyses for cervical, colorectal and lung cancer and their take-up in policy.

8.L. Oral session: Life expectancy and inequalities

Socioeconomic differences in healthy life expectancy: Evidence from four prospective cohort studies

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Background

There are striking socioeconomic differences in life expectancy, but less is known about inequalities in health expectancies. We estimated differences in healthy life expectancy and chronic disease-free life expectancy in four European cohort studies.

Methods

We used data from longitudinal studies in England, Finland, France and Sweden for two health indicators: (i) sub-optimal self-rated health and (ii) having a chronic disease (heart disease, stroke, diabetes, chronic lung disease and cancer). Socioeconomic position was measured by occupational position and grouped into high, medium and low grade occupations. Multistate life table models were used to estimate healthy life expectancy and chronic disease-free life expectancy from ages 50 to 75 by occupational position and sex.

Results

In all four cohorts, we found inequalities in healthy life expectancy between ages 50 to 75 according to occupational position such that men and women in the higher occupational positions had higher healthy life expectancy compared to those in low occupational positions. Compared to men and women in low grade occupations, men and women in high grade occupations could expect to live from 2 to 7 years longer in good health. Similarly, there were occupational differences in chronic disease-free life expectancy in all four cohorts.

Conclusions

There are inequalities in both healthy life expectancy and chronic disease-free life expectancy between ages 50 to 75 according to occupational position. These results suggest that reducing socioeconomic inequalities would make an important contribution to extending healthy life expectancy for all.

Key messages:

- Multistate life table models were used to estimate health expectancies between ages 50 and 75
- Men and women in high grades can expect to live more years in good health and more years free of chronic disease, compared to those in low grades

Health Inequalities in use of contraceptive Methods among women in developing country, Pakistan

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Background

The developing world including Pakistan steps into the Sustainable Development period with critical reproductive health needs. The study aims to examine existent wealth and education based inequalities in use of contraceptive methods (CM) among ever married women in Pakistan, using Relative and Absolute Indices of inequality.

Methods

Secondary data analysis of Pakistan Demographic and Health Survey (PDHS) 2006-7 (n=9177), and 2012-13 (n=13558) has been performed. Survey was conducted among women aged 15 to 49 years. Social position was assessed through wealth index and highest level of educational attainment. Relative Index of inequality (RII), and Slope index of inequality (SII) were used to measure social position based inequalities in use of contraceptive services.

Results

The prevalence of CM use has increased from 28% in 2006 to 54% in 2013. However, the socioeconomic position based inequalities are present. Education wise absolute inequalities in urban residents have increased from -0.41 (95% CI -0.67,-0.13, p-value < 0.01) in 2006 to -0.83 (95% CI -1.02, -0.63, p-value < 0.01) in 2013; and among rural residents, they have increased from -0.93 (95% CI -1.21, -0.64, p-value < 0.01) in 2006 to -0.98 (95% CI -1.20, -0.76, p-value < 0.01) in 2013. Wealth based inequalities in use of CM also exist.

Conclusions

The CM use increased over time, but unfortunately socioeconomic position based health inequalities persist; depriving the poor and the illiterate of the country.

Key messages:

- This is the first study from Pakistan to report socioeconomic position based reproductive health inequalities using RII and SII measures
- The poorer and illiterate Pakistani women remain disadvantaged. Inequalities have increased over time

How does government spending on healthcare affects mortality rate in Italy? A panel data analysis

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Background

In Europe, since the 2008 financial crisis, economic restrictions known as “austerity politics” led to a reallocation of governments’ expenditures. This kind of economic strategy involved different areas, including healthcare. The aim of this study was to examine how the changes in Italian government healthcare spending, before and after 2008, affected the mortality rates of the population.

Methods

A cross-sectional ecological study from 1998 to 2013 was performed. Standardized mortality Female+Male per 10,000 (SM) and per capita government healthcare spending as a part of total government expenditure, both sorted by the twenty Italian Regions, were analyzed. Data were obtained from the Italian National Statistical Institute (ISTAT). Government spending was supplied divided in:

- Directly provided services (DPS)
- Pharmaceutical care (PC)
- General Practitioners care (GPC)
- Specialist medical care
- Private-delivered hospital care

- Other private-delivered medical services (OP)
- Prosthesis and rehabilitation

Statistical analysis was performed using STATA v.12. The normal distribution of the outcome variable (SM) was first assessed. A multivariate regression analysis (fixed-effects approach) was used to assess the relationship between population mortality and government spending on healthcare.

Results

A 1€ per capita increase in DPS was associated with a reduction in SM (coeff. -0.0184, $p=0.000$). A 1€ per capita increase in PC was related to a growth in SM (coeff. 0.0336, $p=0.000$). A 1€ per capita increase in GPC led to a reduction in SM (coeff. -0.0629, $p=0.000$). A 1€ per capita increase in OP was associated with a decrease in SM (coeff. -0.0683, $p=0.000$).

Conclusions

A well-developed and public-based healthcare system, such as the Italian one, responds to small variations in government spending with marginal gains in terms of mortality. Moreover, our results highlight how differently SM may react to variations in specific items of expenditure.

Key messages:

- Governments' healthcare expenditures reallocation affect mortality rates
- Evidence-based policies should be encouraged in order to maximize the efficacy of public resources' impact in healthcare

Prospective study of predictors of long-term mortality among Spitak earthquake survivors in Armenia

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Background

Empirical evidence suggests higher rates of mental and physical illnesses among earthquake survivors. However, studies examining risk factors of long-term mortality among earthquake survivors are limited. This study prospectively evaluated predictors of mortality among survivors of a devastating earthquake, which struck the northern part of Armenia in 1988.

Methods

In 1990, a large-scale community-based cohort study was initiated in the areas severely affected by the earthquake. It had four phases with the latest one conducted in 2012, which tracked 1423 individuals, over 80% of the initial cohort. Those who died were compared with survivors using prospectively collected data on demographic characteristics, earthquake exposure, earthquake-related psychopathology, health status, health behavior, and socioeconomic variables. Cox proportional hazards model was fitted to identify predictors of mortality.

Results

During the 23-year follow-up period, 309 deaths were observed, constituting 21.7% of the tracked cohort. The mean age of the cohort in 1990 was 39.4 years (SD 14.6). For those who died, the mean age at the time of death was 66.6 years (SD 13.5). Independent predictors of mortality included being injured during the earthquake ($p=0.019$), older age ($p<0.001$), lower education ($p=0.003$), male gender ($p<0.001$), baseline smoking ($p=0.005$), obesity ($p=0.008$),

and chronic morbidity ($p<0.001$). Earthquake-related losses and psychopathology were not predictive for long-term mortality in this cohort.

Conclusions

Based on available estimates, long-term mortality trends in this cohort were not different from that observed among the general population of Armenia. The identified predictors of mortality among earthquake survivors were well-known predictors of mortality in general population. This study underscored the importance of health behavioral interventions and injury prevention measures in the areas at high risk for earthquakes.

Key messages:

- Earthquake-caused injury, baseline smoking and obesity are predictive for long-term mortality among earthquake survivors, while earthquake-related losses and psychopathology are not
- Injury prevention measures and health behavioral interventions are important among populations residing in the areas at high risk for earthquakes to reduce post-earthquake mortality among them

Male – female health – survival paradox in Cuba, Mexico, and Hispanics in the US

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Background

Previous research has demonstrated a female advantage in life expectancy in all countries. However, women do worse with regard to self-reported health, basic and instrumental activities of daily living, and mobility limitations. Remarkable health progress achieved in the 1960s and 1970s earned Cuba a reputation of longevity vanguard of the region. The study compares components of the male-female health-survival paradox across Cuba, Mexico, and the Hispanic population in the US by examining sex differences in survival and several health measures.

Methods

The Human Mortality Database, the Latin American Mortality Database and the World Health Organization Mortality Database are used to examine sex differences in all-cause death rates in the two populations in an international context. Data for health is taken using the Survey on Health, Well-Being, and Aging in Latin America and the Caribbean. The 2000 follow-up of the Health and Retirement Study is used to examine sex differences in health of immigrants to the US of Hispanic ethnicity.

Results

The results show that sex differences in life expectancy in Cuba has increased from 1960s to 2000s. However, sex differential life expectancy is smaller in Cuba than in Mexico and countries of the Southern America, whereas it is higher in Cuba than in the Hispanic population in the US. Sex differences in health in Cuba and Mexico are varying depending on selected health measures.

Conclusions

This study suggest a lower gender gap in life expectancy of Cubans in comparison to Mexicans, which may possibly due to larger emphasis on primary healthcare, disease prevention and a lower spread of violence and related male deaths in Cuba.

Key message:

- This study suggests a weaker contradiction/disconnect between sex differences in health and sex differences in survival in Cuba than in Mexico and the US of Hispanic ethnicity

8.M. Pitch presentations: Public reporting and hospital care

Changes in Quality, Market Share and Disparities after Performance Publication: A Systematic Review

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Background

Public reporting (PR) of health-care provider's quality was proposed as a public health instrument for providing the transparency and accountability in health-care (HC) which could enable patients to make informed and rational choices about their health-care. The aim of this study was to perform a systematic review of literature to assess the impact of PR on improvement, market share and unintended consequences.

Methods

Literature search was performed by accessing MEDLINE, ISI Web of Science, SCOPUS and EconLit databases to identify studies that investigated relationship between PR and quality improvement, changes in market share and unintended consequences, published in English or Italian until 01/04/2016. Additional publications were identified from the references of initially retrieved articles. GRADE derived approach was used to assess quality of the studies and narrative review was used for describing the results.

Results

Forty-three studies published between 1994 and 2016 were included in this review. Nineteen studies had quality improvement as main outcome, 16 unintended consequences and remaining 8 tackled market share and economic outcomes. Most of the studies were conducted in USA (86%) and in hospital settings (76.7%) with cohort design used throughout the studies. Performance information was presented in the form of "report cards" in the majority of the studies. The body of evidence was characterized by moderate to low quality level. Mainly, the effect of PR was positive on quality improvement (57.9%), unintended consequences (56.3%) and market share (37.5%).

Conclusions

PR is associated with changes in HC provider's behavior and can influence the market share. Unintended consequences are concern of PR and should be taken into account when allocating the HC resources. The experiences collected in this paper could make an impact on HC user's perception of the providers' quality and help them make empowered choices.

Key messages:

- Public reporting demonstrated an effect on quality improvement, unintended consequences and market share
- Policymakers should benefit the PR information when shaping the health-care strategies in order to adequately respond to modern-age challenges in public health

Patient and hospital characteristics that influence incidence of adverse events in acute hospitals

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Adverse events in hospitals constitute a significant problem and a challenge for public health. The main purpose of this study is to analyse the variation in the rate of adverse events between acute hospitals in the Portuguese NHS and to explore the extent to which some patients and hospital characteristics influence the differences in the rates of AEs.

This work was based on a retrospective cohort study and was carried out at 17 acute hospitals representative of the Portuguese NHS hospitals. A random sample of 4.350 charts, representative of around 180,000 hospital admissions in 2012 year was analysed. Hospitals characteristics were also considered. Binary logistic regression models were used to identify potential association of some patient and hospital characteristics. All tests were performed for a statistical significance of 0.05.

Main results i) incidence of 12.5%; ii) 66.4% of all AEs were related to healthcare-acquired infection and surgical procedures; iii) 12.5% resulted in death; iv) Patient characteristics such sex (Female 11.1%; Male 14.4%); age (> 65y 16.4%; < 65 y 8.5%); Elective Vs Urgent (8.6% Vs 14.6%) all with $p < 0.001$; and medical Vs surgical (13.4% Vs 11.7%, $p = .112$) were associated with a large rate of AEs. Charlson Comorbidity Index seems to influence the difference in the rates of AEs, with a mean in the group with AE 3,10 Vs no AE 2,20, $p < 0.001$; v) Use of reporting system (13.2% Vs 7.1%); Accredited Vs non accredited (13.7% Vs 11.2%); University Vs non University hospitals (15.9% Vs 10.9%); dimension of hospitals (small 12.9%; medium 9.3% large 14.3%) all with $p < 0.001$; and electronic prescribing drug system (yes, 13.2% Vs no, 11.8%, $p = 0.177$) were also associated with a large rate of AEs.

This study shows that some patients and hospitals characteristics are associated with the occurrence of different rates of AEs. These results give us important insights that can help to investigate areas for improvement in the Portuguese NHS acute hospitals.

Key messages:

- The incidence of adverse events in acute hospitals in Portugal was 12,5%. This is in line with other similar studies find in other countries worldwide
- We identified some patient and hospital characteristics that can influence the rate of adverse events. Based on these results we can define more adequate solutions to improve patient safety

Factors associated with hospitalization in the period between evaluation and start of long term care

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Background

The growing number of elderly subjects with functional limitations, cognitive impairment and disability is an organizational challenge for the healthcare sector. This study investigated the factors associated with hospitalization in the period between evaluating the patient and the start of a long term care (LTC) program, while the patients are on a waiting list.

Methods

A population-based historical cohort study was performed using data extracted from different administrative databases, which were linked by a unique ID number. The cohort included individuals 65 years and older who were evaluated for entrance into an LTC program between January 1, 2012 and December 31, 2013 in Tuscany, Italy. Poisson regression was used to estimate the Incidence Rate Ratios (IRR) of hospitalization in the waiting period.

Results

The sample consisted of 11,498 subjects (mean age 83.7 years), of whom 10.5% was hospitalized during the follow up. The characteristics positively associated with hospital admission were Residence zone [urban IRR 0.88 (95% confidence interval 0.77-1.00)], number of drugs IRR 1.01 (95% confidence interval 1.00-1.02) and Charlson scores [Charlson score 1 IRR 1.20 (95% confidence interval 1.03-1.39) and Charlson score 2 IRR 1.40 (95% confidence interval 1.22-1.60)]. Rates of hospitalization for patients with heart failure, chronic obstructive pulmonary disease (COPD) and dementia were higher than for other chronic diseases.

Conclusions

Our preliminary results indicate that it may be possible to predict the risk factors that can lead to hospitalization. This study will produce list of variables that could be considered for assigning priority during the evaluation process.

Key message:

- The recognition of patient characteristics that increase the risk of hospitalization before the start of a LTC program may help those involved in multidimensional evaluation to assign priority

Understanding high resource users across health and social care in Scotland using linked data

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Issue

In 2016 Scotland brought together many of its services within Health and Social Care Integrated Joint Boards (IJB). Information and intelligence are essential to identify health and social care needs and cost, to understand high resource users (HRs), in order to target interventions effectively.

Description

A linked health and prescribing data platform was developed, with the ability to add in community, intermediate, social, unscheduled and end of life care data over time.

A patient level costing methodology attributed costs to individual patient level activity. Individuals were ranked according to total resource used. HRs defined as those where cumulative expenditure reached 50% of total expenditure per financial year.

Novel data mining techniques were used to model flow, identify common pathways and HRs cohorts, focusing on 2 groups- geriatric service users and those with multiple emergency admissions.

Results

In 2013/14, 2% (n = 104, 000) of the Scottish population (5.2 million) accounted for 50% (£2.5 billion) of hospital and community prescribed expenditure. Just over half (56%) HRs are aged over 65, 85% are suffering from at least one chronic condition and 75% of delayed discharges are HRs. 25% of HRs are from the most deprived quintile and 27% are in their last year of life.

Geriatric service users and those with multiple emergency admissions together accounted for 52% HRs and 28% of relevant IJBs' expenditure.

Through mapping/visualisation of care pathways and understanding characteristics of HRs, IJB decision making is informed; the methodology and findings of which are relevant for other countries.

Lessons Learnt

Intelligence across the integrating care sectors is key to integration. There are many challenges, including the

complexity of the individuals and the systems. However, using this information, key developments can be targeted by IJBs - capacity modelling, care pathway redesign, risk profiling and prevention strategies.

Key messages:

- The use of data linkage to understand care journeys between and within sectors is important for effective and efficient working
- Beginning to understand high resource users will enable more effective targeting of resources

Impact of frailty on the hospitalization in a sample of community-dwelling older adults in Rome

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Background

Frailty is the background of functional decline in older adults.

The aim of the paper is to assess both the use and cost of hospital care linked to being frail.

Methods

The impact of hospital care use and costs have been assessed in a cohort of community-dwelling older adults living in Rome, enrolled between November 2013 and November 2014, and stratified according to frailty status. Frailty has been assessed through the administration of the Geriatric Functional Evaluation (GFE) Questionnaire. Data on hospitalizations stem from the regional health authority database. Statistical analysis has been carried out with SPSS software 20.0.

Results

The sample was made up by 1,338 older adults (mean age 76.3, SD ± 7.1; males n. 612, 45.8%) living in the community. Preliminary results are concerned on 354 older adults (76.4 SD ± 6.9; males n. 159, 44.9%). The median observation time was 1.74 years (IQR: 1.55-2.00). Less than one third of the patients (106, 29.9%) was admitted to the hospital. The mean hospitalization rate per 100 person/years was 29.5 (CI95% 20.0-39.0), 52.8 (CI95% 11.6-93.9), 97.9 (CI95% 22.9-172.8) for the robust, frail and very frail population respectively (p = 0.005). The mean hospital length of stay for robust (7.3 days per admission; CI95% 6.1-8.5) and frail (7.3; CI95% 5.6-8.9) patients was lower than for very frail ones (16.6; CI95% 9.0-24.2) (p < 0.001). The mean cost of hospital care per person/year increased from €1,318.2 for the robust to €2,861.2 for the frail and to €11,009.9 for the very frail population (p = 0.002). The very frail patients generated more than 40% of the total hospitalization costs.

Conclusions

Frailty status is a strong predictor of use of hospital care by older adults. Interventions aimed to postpone the onset of frailty should be implemented in order to reduce both the costs and the utilization of hospital care.

Key messages:

- Frailty is a strong determinant of the use of hospital care by older adults
- Interventions aimed to prevent or mitigate frailty could allow important savings for the NHS

The role of hospital in pneumococcal vaccination: results from a pilot study in a Teaching Hospital

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Background

Streptococcus pneumoniae (Spn) is the main responsible for community acquired pneumonia in elderly and in people affected by chronic diseases. Because of that, vaccination is firmly recommended. Yet, vaccination coverage is very low also because of the barriers in capturing adults at risk and elderly in the primary care setting. In order to reach this population a pilot study was launched in the Teaching Hospital "A. Gemelli" of Rome with an unrestricted grant from Pfizer.

Methods

All patients 50 years old or older admitted to the Medical Sciences ward of the Teaching Hospital "A. Gemelli" in 2015 were interviewed through a questionnaire in order to identify eligibility to vaccination. The questionnaire was included in the electronic medical record and allowed the identification of people at risk for Spn which were eventually offered the vaccination with the conjugate 13-valent vaccine. The acceptance rate was indeed calculated and reasons for refusal described.

Results

A total of 325 patients 50 years old or older were interviewed in 2015 and 285 (87.7%) were eligible for vaccination against Spn. Nevertheless, only 15 (5.3%) of these patients were previously recommended the vaccination by any healthcare professional and only 4 (1.4%) were already vaccinated. During the hospital stay, vaccination was recommended to 269 subjects (95.4% of eligible patients) but only 41 (15.2%) were willing to accept it. The remaining part refused vaccination mainly because of a mistrust in vaccines (31.5%) and safety concerns (17%). Finally, a total of 17 patients (6.3% of those who received the recommendation) were vaccinated.

Discussion

This pilot study shows that the hospital may allow catching adults at risk for Spn. Furthermore it highlights that physicians, if informed and educated, may be compliant in recommending vaccinations. However, patients' willingness to accept the vaccination is low because of false beliefs and fear.

Key messages:

- The hospital represents a very important site for capturing adults at risk for pneumococcal diseases which are often not yet protected
- Willingness to accept pneumococcal vaccination is low. Tailored interventions are needed to increase knowledge about vaccines and improve attitude towards them

Chance for in-hospital pneumococcal vaccination. Analysis of discharge data from an Italian hospital

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Background

S. pneumoniae (Spn) is responsible of a high burden of disease worldwide. Vaccination with any of the two available vaccines (PCV13 and PPV23) is effective in reducing the burden of disease and, in Italy, it is recommended for people who are at high risk because of chronic conditions. Eligible subjects are, however, hard to reach and vaccines are still underused. Eligibility for pneumococcal vaccination may be easily assessed in the hospitals, albeit these do not currently play an active role in vaccination. Objective of this study (which is part of a bigger one, funded by Pfizer) is to assess the potential of the hospital as a setting for catching people at risk for Spn.

Methods

A retrospective analysis of hospital discharge data from all patients over 49 years of age admitted between 2011 and 2013 to any of the departments of the "A. Gemelli" teaching hospital (Rome, Italy) was carried out. Eligibility for pneumococcal vaccination was evaluated looking for specific ICD-9 codes in primary and secondary diagnosis fields. For each patient only data from the first admission were analyzed.

Results

Of the 65,049 patients over 49 years of age admitted to the hospital in 2011-2013, 34,576 (53.2%) were eligible for pneumococcal vaccination; 79.8% of them were observed during ordinary admissions. Most common eligibility criteria were chronic heart diseases (23.7% of the cases), cancer (21.3%) and diabetes (8.5%). Eligible patients were more often admitted in: cardiovascular medicine department (5,502 subjects, 85.4% of patients admitted); internal medicine unit (3,659, 81.1%); geriatric ward (1,043, 82.1%). All these accounted for 29.7% of eligible patients observed in the over 100 wards, rehabilitations and day hospital/day surgery units of the hospital.

Conclusions

The hospital (and particularly the geriatric, cardiovascular and internal medicine units) seems to be promising as a setting where to catch and to vaccinate those at risk for pneumococcal disease.

Key messages:

- The hospital may represent a strategic setting for pneumococcal vaccination, as over half of the admitted patients over 49 years of age are eligible for vaccination
- Patients at risk for *S. pneumoniae* are more frequently observed in cardiovascular units and internal medicine and geriatric wards. Subsequently these could be best suited for providing vaccination

8.N. Pitch presentations: Access to health care

Cross-border health care - the key to a sustainable health care coverage in border regions?

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Demographic change presents a threat to the economy and welfare system of the European Union (EU). Cross-border regions in the EU face similar challenges: quality and coverage of health care services are deteriorating. Cross-border health care can tackle this problem by expanding the access to health care services from EU neighbour states.

About a third of the EU population lives in cross-border areas and could profit from cross-border health care. To facilitate cross-border patient mobility, the EU published a directive in 2011 and decreased administrative obstacles. But only 3-4% of the Europeans make use of this option. This deficit is due to the lack of cross-border health care services. A few services have been established, but no comprehensive cross-border health care infrastructure exists yet. Objective of this work is to identify causes for success of cross-border health services and to derive implications for realizing cross-border health care. Based on a literature review, we propose an overview of 21 existing cross-border health care projects in German cross-border regions from 2008 to today (# of patients a year: 3-1000). These projects were locally initiated municipality partnerships or EU-subsidized pilot projects. For this paper we analysed their impact, patient numbers and success rates. 80% of the analysed projects were successful and established long-term health care services. These projects identified local needs, kept commitment of stakeholders, received political support and handled competition issues between partners. The remaining 20% were not able to establish health care services. This was due to complicated bottom-up dynamics in cross-border cooperation, administrative differences and lacking political support. Despite the success rate of 80%, the number of affected patients remains insignificant. It became clear, that efficient cross-border health care requires standardized policy protocols and top-down governance at EU level.

Key messages:

- Cross-border health care services improve quality and coverage of European public health
- Therefore, policy protocols, political support and top-down governance at EU level are needed

Increasing access to interventional cardiology in the Russian Federation

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Background

Russia has some of the highest rates of mortality from cardiovascular disease in the world. A new federal health programme was implemented in 2005, with an emphasis on increasing access to facilities for improved management of acute coronary syndrome across this vast, sparsely populated country. We report the first evaluation of this ambitious program.

Methods

Using data supplied to the Federal Health Ministry, we report trends and patterns of percutaneous cardiovascular interventions (PCI) by region for 2005-2009, with more detailed data on management of myocardial infarctions in 2009-2013, relating them to regional economic development and changes in mortality from myocardial infarction.

Results

PCIs per 100,000 population increased from 8.7 in 2005 to 71.3 in 2013, with considerable regional variation. In 2013 the highest rates were in the wealthiest regions, although not in remote regions dependent on oil and mineral extraction. Between 2009 and 2013 rates of thrombolysis in those with acute myocardial infarctions potentially eligible for treatment were unchanged at about 28% but rates of primary revascularisation with stenting rose rapidly, from 6.5% to 23.7%, again with much regional variation. In-hospital

mortality from myocardial infarction since 2009 has declined most in regions achieving highest rates of primary revascularisation.

Conclusions

The sustained investment in advanced cardiovascular technology has been associated with substantial increases in revascularisation in some but not all regions. However, rates remain far behind those in Western Europe. Ongoing research is examining the reasons for these variations and barriers to further expansion of services.

Key messages:

- The Russian Federal Health Program has achieved much progress but more needs to be done, especially in remote areas
- There is a need to find appropriate solutions to the challenge of delivering time sensitive treatment for acute coronary syndrome in remote areas

Incentives for blood donation - Evidence from Tyrol

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Background

To increase blood transfusion safety and to ensure the availability of sufficient blood donations, a major goal of the WHO is to establish a full voluntary-based non-remunerated blood donation system by 2020. Although new operation techniques plus medical and organizational innovations lead to a decrease in blood donation demand, the availability of blood products is endangered by a decline in donation numbers and seasonal shortages. Being part of a two paper series, the present paper investigates the impact of incentives on blood donation in order to help ensure supply.

Methods

From March to December 2014, 430 Tyrolean blood donors participated in an extended questionnaire study mostly based on an instrument developed by the University of Linz. In total, 430 donors participated. Of these, 193 were first-time (53.4% men) and 237 regular donors (47.7% men). Compared to the general donor population (62.6% men), women are over-represented as we excluded men in military service who receive 24 hours of extra free time when donating blood and thus a different motive structure is likely.

Results

While financial incentives or other direct or indirect remunerations (e.g. free meal) for blood donations are of little importance to the donors investigated, receiving detailed information about their health status is highly valued.

In fact, donors would be most interested in the results of blood tests performed after the donation, and would wish them to be rather exhaustive.

Conclusions

The data obtained suggests that performing more detailed tests with the donations and communicating the results to the donors for free would increase the attractiveness of donating blood.

Key messages:

- Blood donors are highly interested in receiving detailed information about their health status via blood test results
- Communicating the latter can be used to heighten the likelihood for blood donations

Quality of Maternal and Neonatal Health (MNH) care in for-profit private sectors in urban Bangladesh

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Background

For-profit private sector is increasingly contributing in MNH services in many developing countries. However, they operate beyond any regulatory frame-work that raises concerns about quality, cost and equity. In Bangladesh, 60% of facility deliveries are placed at private health sectors.

Methods

This cross sectional survey was conducted in 34 for-profit private hospitals providing MNH services in Sylhet City Corporation, during June to August, 2015. The last 3 months inpatient delivery case records were reviewed (n=1343) to assess technical aspects while facility survey (n=34) were done to explore the structural and outcome dimension of quality of services as part of an implementation research.

Results

The basic amenities and equipment's were available in most of the surveyed facilities. However, missing infrastructural components were; labor room (39%), neonatal care unit (79%) and breast feeding corner (92%). The median number of full time obstetrician, Anesthetist and Pediatrician was <1; and unregistered nurses (n=9) were more than registered nurses (n=3). WHO recommended waste segregation and disposal was existent only in 18% cases. The availability of process indicators as a proof to patient centered care were varied, bed side screen (55%), comment box (32%), BCC materials (15%), receptionist (100%) and displayed service price (15%). High caesarean delivery rate (80%) without supporting partograph (<1%) denote poor performance on evidence based practice. Irrespective of mode of deliveries, majority of them (67%) took place after 2pm. Reported maternal and neonatal complications were 12.5% and 21.5% respectively.

Conclusions

Observed quality indicators under all 3 dimensions were much deficient. Tendency of delivery being conducted after office time of public hospital indicate dual clinical practice that can jeopardize both public and private health system. The reasons behind unnecessary caesarean deliveries need to be investigated further

Key messages:

- For profit private health facilities are failed to provide quality of MNH care even in urban setting
- Policy level attention is required to safeguard health from any commercial motives

External evaluation of the Brazilian Primary Health Care Program. Are improvements being observed?

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Background

The Brazilian Primary Health Care, composed of Health teams (one physician, one nurse, one dentist, health technicians and community health workers), is part of the Brazilian unified health system, which was structured on the principles of universal coverage and health as a right of all citizens. The need for its improvement has made the government to invest, in the last years, in a monitoring and evaluation policy. The

Programa Nacional de Melhoria do Acesso e Qualidade da Atenção Básica (PMAQ-AB), standing for National Program for Primary Health Care Quality and Access Improvement, is responsible for evaluating the Health teams and has performed two external evaluation (2012 & 2014). PMAQ is organized in cycles, where health teams set goals and have a period of time to achieve them. In this program, health teams that present good quality levels of care receive more financial incentives from the government.

Methods

The present study used the information regarding the system organization to observe if there has been improvement on Primary Health Care over this period. Ten indexes were created based on the information available: Professional Valorization, Planning, Matrix Support, Patient Reception, Health Attention, Prenatal Care, Child Attention, Health Promotion, Home visit/Social participation, School Health. Additionally, an overall quality index was also created based on the mentioned indexes.

Results

A total of 17,202 ESF teams were evaluated in 2012 and 29,778 in 2014. Significant changes were observed in all indexes (t-test, $p < 0.001$), where all, but Matrix Support index, presented improvement over the two year investigated. The overall grade went from 64.23 to 71.40 (in a 0-100 scale).

Conclusions

It can be concluded that improvements in Health teams occurred and that PMAQ may be aiding this progress.

Key messages:

- Evaluation programs as PMAQ have the capacity to induce positive changes in health teams
- Financial incentives play an important role in evaluation programs results

A people-centred health systems approach to hepatitis C elimination in Europe

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Background

Health system weaknesses have the potential to undermine European responses to public health challenges like hepatitis C elimination. Countries can mitigate this problem by incorporating health system considerations into their planning.

Methods

After modifying the health system dynamics framework to incorporate the principle of people-centredness – which recognises individuals and communities as key health system actors – we used this framework to analyse the World Health Organization's draft Global Health Sector Strategy on Viral Hepatitis (2015). The analysis considered whether the 11 health system dimensions in the strategy incorporated any of five key characteristics of people-centred health systems.

Results

The strategy addressed at least one people-centred health system characteristic in each of the 11 dimensions. People-centred characteristics were mentioned most frequently in the context of service delivery (N=38), finances (N=10) and leadership/governance (N=9). The service delivery dimension of the strategy included numerous points related to the needs, priorities and values of intended service recipients. The financing dimension highlighted access to care and protection from financial hardship for people with limited resources. The strategy devoted extensive attention to the needs of people who inject drugs, but had much less to say about migrants, sex workers and men who have sex with men. While the importance of community participation in governance and

other health system dimensions was noted, there was little elaboration on what this means in practice. The significance of stigma and discrimination was also acknowledged but in non-specific terms.

Conclusions

From a people-centred health systems perspective, a major strength of the draft hepatitis strategy is its attention to community participation. Weaknesses include a lack of specificity about such participation and a lack of attention to some key populations.

Key messages:

- Applying a people-centred health systems framework to health strategies can clarify key challenges
- Decision-makers should use a health systems approach when developing and implementing national strategies and operational plans

Embedding physical activity in health services: the National Centre for Sports and Exercise Medicine

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Issue

Evidence shows that tackling physical inactivity at a population level needs to address the wider determinants, including the social and physical environment. A multidisciplinary perspective is needed to rewrite our strategic approach and address the need for research evidence to inform the implementation of

whole system approaches if population-level public health benefits are to be demonstrated.

Description of the problem

The need for a whole systems approach raises questions regarding the particular role that health services, including the UK National Health Service (NHS) should contribute. The National Centre for Sport and Exercise Medicine (NCSEM) in Sheffield is put forward as a case study to discuss some of the ways in which health systems can work in collaboration with other partners to develop environments and systems that promote active lives for patients and staff.

Results

The NCSEM in Sheffield, is one of three UK sites funded as part of the London 2012 Olympic legacy. Sheffield aims to reduce the burden of non-communicable diseases by improving the physical fitness of Sheffield's residents through the propagation of a city-wide philosophy whereby being physically active while commuting, at work, in NHS care and in recreation time is the norm rather than the exception. As a result of this strategy co-located clinical and research facilities have been established in community sports and recreation facilities and clinical pathways re-designed.

Lessons

Whilst the capital investment to develop new facilities was a catalyst to change, the main impact has been on the whole approach to integration of physical activity into all aspects of activity to address both prevention and management of chronic disease in a systematic way.

Key messages:

- Attempts to meet the challenge of integrating physical activity into all aspects of prevention and management of chronic disease requires a whole system approach
- Development of facilities and patient pathways that deliver health services for the prevention and management of chronic conditions are a key element of an integrated, whole system provision

8.O. Oral presentations: Novel approaches to develop useful health information

Improving numerical literacy for policy makers: the Figure Interpretation Assessment Tool (FIAT)

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Background

Every day numerous facts and figures related to health and healthcare reach us through all kinds of sources. Before this seemingly objective information reaches its user, it has often gone through a process of interpretation in reports, summaries, and news messages. With the often short space through which a figure is communicated, this complex process often gets lost in translation, leading to misinterpretation. This becomes problematic when figures form the foundation for policy.

A lack of understanding exists on the processes underlying the construction of figures on health and health care, revealing a need for a tool enabling systematic assessment of the use and

interpretation of figures, numbers, and statistics in the discourse on health and healthcare.

Methods

Two parallel methods were used to explore the use of figures on health and healthcare. The first method includes consultation with experts on the methodology behind data on morbidity, lifestyle, healthcare outcomes and healthcare expenditure, as well as science journalists. The second method includes a discourse analysis of multiple cases of figures on health and health care.

Results

Results reveal that there seems to be a disbalance between the amount of human resources put in the construction of the figures and attention paid to reporting practices and interpretation by users. Combined with methodological factors, underlying processes, such as the agenda of the funding institution has a large impact on the use of figures. A critical assessment shows that meta-information, essential for the understanding of a figure on health and healthcare is often lacking.

Conclusions

To address both the apparent as well as the underlying processes affecting the use of figures, the Figure Interpretation Assessment Tool (FIAT) is created to systematically assess both

evident and hidden influences on our interpretation of figures on health and health care.

Key messages:

- A discord exists between the construction of figures and the meaning given to them by its users, hindering interpretation of figures on health and healthcare by policy makers
- Results should improve the use of figures by policy makers, and support figure reporting practices through the Figure Interpretation Assessment Tool (FIAT)

Policy implications and use of the Work Disability Functional Assessment Batter (WD-FAB)

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Issue

As one of the largest social security disability programs in the world, the sheer size of the U.S. Social Security Administration (SSA) disability programs limits viable approaches to functional assessment. Disability applications undergo a 5-step sequential review conducted by state-based disability determination services. The WD-FAB provides SSA a consistent and efficient mechanism to capture functional profile scores. In addition to adjudicating new claims, the SSA conducts periodic reviews of existing beneficiaries. The WD-FAB may be used to assess function over time; and, to examine patterns of functioning relative to beneficiary characteristics, such as impairment, age, sex. Claims with anomalous patterns could be further examined by SSA.

Description of the problem

Over 7 years, the National Institutes of Health and Boston University developed a self-report functional assessment instrument using item response theory and computer adaptive testing (IRT/CAT). Instrument items were intentionally developed at the International Classification of Functioning, Disability and Health (ICF) activity level, whole person functioning. Use of IRT/CAT permits comprehensive assessment across 8 domains of functioning in about 15 minutes.

Results

The WD-FAB may be used to capture functional profiles at time of application and over time. In addition, the WD-FAB supports multi-modal administration including on-line; in-person and phone. The dynamic nature of IRT/CAT methodology supports replenishment and enhancement of instrument items over time. The instrument is also suitable for translation into other languages.

Lessons

The WD-FAB is a dynamic self-report functional assessment instrument that may further inform disability adjudication and may be useful to national social security disability programs around the world.

Key messages:

- Limited resources require efficient and consistent functional assessment
- The WD-FAB may be adapted by social security disability programs

Empirical analysis of the subdomain structure of the ICF

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Background

The Work -Disability Functional Assessment battery (WD-FAB) is a newly developed self-reported measure that used the International Classification of Functioning, Disability and Health (ICF) as the conceptual framework. The WD-FAB development process began with a large item pool to represent the nine broad 'Activity' subdomains in the ICF. Through a series of exploratory and confirmatory factor analyses, the WD-FAB items were empirically categorized into 8 distinct conceptual subdomains: Basic Mobility, Upper Body Function, Fine Motor Function, and Community Mobility, and, Communication and Cognition, Resilience/Sociability, Self-Regulation, and Mood States.

Objective: In this study we compared the domain structure of the Activity subdomains of the ICF framework using the empirically derived subdomain structure of the WD-FAB.

Methods

Two coders employed an ICF linking methodology that involved assigning each item in the WD-FAB to an ICF subdomain. A third party resolved discrepancies. Results were compared with WD-FAB factor analysis findings.

Results

While most items from the Basic Mobility, Upper Body Function, Fine Motor Function, and Community Mobility scales map onto the ICF Mobility Chapter, those scales also contain items that map to 4 other ICF Activity Chapters. The Communication & Cognition scale draws primarily from the Learning & Applying Knowledge, General Tasks & Demands, and Communication Chapters, yet also contains items that map to 3 other ICF Activity chapters. Both the Self-Regulation and Resilience/Sociability scales map to Interpersonal Interactions & Relationships, yet include Learning & Applying Knowledge, General Tasks & Demands, Self-Care, and Community, Social & Civic Life.

Conclusions

Empirical outcomes suggest the WD-FAB factor structure differs from the hypothesized ICF subdomains. The physical function scales show more alignment with the ICF Activity subdomains than the mental health functions subdomains.

Key messages:

- Empirical outcomes find the WD-FAB factor structure differs from the hypothesized ICF subdomains
- Physical function scales show more alignment with the ICF Activity subdomains than mental health

A practical web-based tool helps Swedish schools improve their meal quality

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Issue/problem

The near-unique system of free school lunches in Sweden is of interest to many other countries. In 2011, new legislation explicitly required that lunches should be nutritious, but no monitoring system was in place. There was a clear need for both data and a practical tool that schools could use to measure and improve meal quality.

Description of the practice

A unique web-based tool to measure school meal quality from a holistic perspective was developed and validated. It covers aspects of quality ranging from food safety and nutritional quality, to the meal service, how the school lunch is integrated with teaching and the overall school day, the dining environment, to the environmental impact of the lunch. Since 2012, schools can evaluate their school meal provision and receive automatic pedagogic feedback. Would schools adopt the tool? Would school meal quality improve?

Results

The tool is to date used by 37% of schools nationally, increasing steadily, and is rated easy-to-use by 92%. When aspects of meal quality at the first evaluation were compared to the most recent evaluation (between 2012 and 2014/15), results in the categories of nutritional quality, service and pedagogy and environmental impact have improved significantly since 2012. Adjusting for year of use, schools that had previously used the tool were twice as likely to meet the nutritional requirements. They also had slightly higher results in the categories service and pedagogy and environmental impact. These improvements were statistically significant ($P < 0.01$ for both).

Lessons

This innovative tool is feasible, provides much-needed local and national data on school meal quality, and appears to be effective in improving school meal quality. The data generated is enabling evidence-based policy-making. Although local adaptation is necessary, this type of tool has the potential to benefit other countries and settings.

Key messages:

- Automatic feedback appears effective at improving meal quality
- A web-based method of self-evaluation can provide data cost-effectively

Using cluster analysis to study the association between mother's age and her characteristics, Belgium

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Background

Maternal age is a factor known to be associated with different perinatal risks. However, it is important not to neglect the role

of potentially confounding variables, such as the biomedical and sociodemographic characteristics of the mother. The objective is to identify mothers profiles with similar characteristics, from a biomedical and demographic point of view, and to study the distribution of maternal age in different clusters.

Methods

This is a population-based study of birth certificates in two Belgian regions including 3,600 singletons in December 2014. A multiple correspondence analysis was conducted on ten biomedical and sociodemographic variables followed by a bottom-up hierarchical classification that allows grouping mothers in multiple clusters so that mothers in the same cluster are as similar as possible. Both the maternal age and the distribution of biomedical and sociodemographic variables were analyzed quantitatively and qualitatively among the clusters.

Results

Three clusters have been identified with 26.2% of mothers shown in the second cluster. In the second cluster, where the average age is significantly lower (28.3 years) than in the other two clusters (31.5 years and 31.4 years), the socio-economic profile of mothers is worse than in the other two clusters. As for biomedical profile mothers, they present more risk than mothers in the other two clusters.

Conclusions

The cluster analysis proves to be interesting because mothers profiles could be generated with an age distribution which differs between clusters. These mothers profiles will now be used to analyze the perinatal risks, in order to improve the care of women most at risk.

Key messages:

- The hierarchical classification analysis identified groups of mothers with similar characteristics with a distribution of maternal age which differs between these clusters
- The hierarchical classification on maternal characteristics allows studying perinatal health other than by analysing the individual characteristics

8.P. Skills building seminar: Interprofessional Collaboration: Communication and Language

Organised by: European Forum for Primary Care (EFPC)

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Chairperson(s): Cagri Kalaca - Turkey

Objective

A common understanding about the role of Communication and Language within Interprofessional Collaboration of the involved stakeholders.

Specific objectives

- The identification of factors that hinder and/or facilitate the development of shared language between health professionals working in primary care as part of the item-list after 3 months
- Sharing knowledge on the way Interprofessional Collaboration is developed within different health care systems in Europe and how language/terminology barriers can be overcome
- Stimulate the discussions between professional associations on what they can do to improve communication among themselves at practice level as well as at policy making level

- Increase the awareness about art and theatre, being a good way to improve communication and the use of language, for all stakeholders in the development of- and practicing in-primary care.
- Assess the impact of international comparison challenges in relation to selected primary care professions and their implications for further research and data interpretation.

Format

The Workshop will use 2 presentations and deliberately other formats like role-plays and theater to create more impact and engagement within the target groups.

Key messages:

- A common understanding about the role of Communication and Language within Interprofessional Collaboration
- Increase the awareness about art and theatre, being a good way to improve communication and the use of language

Terminology matters

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Purpose

Health services research is challenging because the systems differ widely. One still under-researched difference is the terminology used for health professionals. This study aimed to explore exemplarily the understanding of the term 'practice assistant' by Austrian GPs as well as their professional background and education. Additionally, we explored the meaning of our findings for health services research.

Methods

The study was designed as a sequential mixed-method research and is an add-on study to the QUALICOPC project in Austria. The qualitative phase was conducted by using semi-structured telephone interviews with GPs.

Findings

17 GPs from all over Austria participated in the qualitative part of the study. No uniform meaning of the term 'practice assistant' could be found among these GPs. Also professional background and education were found to differ widely ranging

from registered nurses to persons with primary education: "I employ four practice assistants. Two of them have the training course as medical secretaries and the other two work as secretaries and cleaners."

The results were even more diverse if compared to other countries with regard to their education, professional tasks, work autonomy and responsibilities.

Discussion

Our study results show that already regarding the term 'practice assistant' no uniform meaning could be found even within one country by GPs, particularly showing that not only the understanding differs widely but also the underlying education and actual responsibilities. These findings are highly relevant regarding health services research and policy making, especially, when trying to compare results with similar data from other countries or negotiating about workforce or patients' safety issues.

Video role-plays on Primary Care subthemes

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"Video role-plays on Primary Care subthemes". An interactive session by inviting participants to make comments on sketches. Their contributions will be used for further debate and training needs.

8.Q. Pitch presentations: Capacity building

Professional education in primary health care: experience and challenges in municipalities of Brazil

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Background

The training of health professionals constitutes a challenge for health systems in many countries. In Brazil, the Family Health Support Centers (FHSC) were established with the purpose of expanding the resoluteness of the Family Health Teams (FHT). Continuing health education is the main strategy for professional education. We analyze how the continuing education of FHT and FHSC professionals is developed in municipalities of Bahia, Brazil.

Methods

Qualitative research conducted in six municipalities of the state of Bahia, Brazil. Information was obtained through semi-structured interviews conducted using a script. In all, 43 workers of the FHT (physicians and nurses) and 40 FHSC professionals were interviewed – a total of 83 interviews. The interviews were recorded and transcribed, and the data were categorized using the Discourse Analysis Technique.

Results

Professionals had a limited understanding of continuing education as a critical and reflective educational process that is developed based on the everyday reality of services. Regarding the educational activities developed, the education process was revealed to be timely, fragmented and based on the vertical transmission model and the biomedical knowledge. The subjects addressed in the training were defined according to the priorities of the central level of government, ignoring local realities. FHSC professionals are little active in the

pedagogical support and training of FHT because they feel unprepared and because of the difficult articulation between the teams.

Conclusions

The educational actions experienced fall short of the professionals' needs. The need for greater awareness of managers and professionals to perceive education as a daily process that needs to be contextualized with the real problems of services and the development of mechanisms for the integration and articulation between teams are evident challenges.

Key messages:

- PHC in Brazil is underlied by a fragmented education model that is decontextualized from the local reality
- Critical thinking about local practices should motivate learning and make it transformative

A guideline on how to synthesize knowledge by reviews at the Public Health Agency of Sweden

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Issue

The merge between the National Institute of Public Health, the Institute for Communicable Disease Control, and parts of the National Board of Health and Welfare into the new Public Health Agency of Sweden (PHAS) in 2014 required a common policy on how to synthesize knowledge from the research literature.

Problem

Three main challenges needed to be considered. First, public health embraces theories and methods from various academic

fields (microbiology, medicine, epidemiology, sociology, psychology, philosophy, etc.). Second, the assignment encompasses quantitative knowledge on trends/distributions, determinants, and interventions, and qualitative knowledge on experiences of phenomena. Third, the time available for production and forming an opinion ranges from a couple of days to several years.

Results

A working group representing various areas was established, and a scoping review performed (Sep 2014-Feb 2016). Scientific studies on procedures (critical review, mixed review, umbrella review, rapid review, etc.) were appraised, existing guidelines (EPPI-Centre, PHI of Norway, Swedish HTA, etc.) scrutinized, and internal experiences (e.g. a pilot study on 20 reviews at PHAS) summarized. This resulted in a guideline following the logic of systematic (specific questions and standardized procedure) and scoping (broad questions and flexible procedure) reviews. Further, prerequisites and methodological steps were divided into comprehensive and limited conduct, and principles on how to consider health equality and cost-effectiveness in reviews presented.

Lessons

PHAS developed and implemented an applied review guideline, acknowledging a spectrum of scientific approaches. Main lesson learned, likely to be relevant for other public health organizations, considers the need of systematics and transparency within a mixed-method framework.

Key messages:

- A policy for evidence-based public health must consider a myriad of knowledge questions and limited resources
- Review guidelines gain from a restricted number of standard procedures permitting flexible utilization

Benchmarking the Charter for International Health Partnerships in Wales

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In 2014, the Charter for International Health Partnerships in Wales (the charter) was launched with support from Welsh Government and pledged to by the Welsh NHS.

The charter aims to strengthen commitment of all stakeholders to evidence-based practice, shared learning and international partnerships based on equality and the pursuit of mutual, tangible benefits, aiming to address the issue of a lack of resources, coordination and limited capacity as well as different policies and practices in place, covered by four foundations: Organisational Responsibilities, Reciprocal Partnership Working, Good practice and Sound Governance. One year after the launch a questionnaire was circulated to NHS Wales to evaluate its status, to learn from experiences of the collaborators responsible for implementation and to explore similar initiatives in Europe.

Questionnaire responses were followed up with telephone interviews to obtain more in depth qualitative information. Results suggest that the implementation process is in an early phase with respondents indicating the barriers to implementation included a lack internal of resources and coordination and the need for leads to have the international aspect of their job description formally recognised. Positive feedback indicated participants felt the charter is encouraging collective movement towards international engagement in Wales. No similar charters were found in other European member states.

A general implementation framework including phases, strategies and goals facilitating further implementation in a coordinated way is warranted. The charter has the ability to increase the quality of International Health Partnerships and

fits well within current European Public Health values and priorities and is therefore possibly transferable. A framework and toolkit for implementing the charter will be presented.

Key messages:

- The charter has the ability to increase the quality of International Health Partnerships fits well within current European Public Health values and priorities and is therefore possibly transferrable
- An implementation framework and toolkit is needed to ensure a consistent approach

You don't know what you don't know: a Skills Assessment to identify public health competency gaps

Maureen Dobbins

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Background

This tool was designed to help public health practitioners assess their knowledge regarding evidence-informed decision-making (EIDM) and their ability to incorporate research evidence into decisions. It is available through the National Collaborating Centre for Methods and Tools (NCCMT) website. The Skills Assessment tool may increase the uptake of EIDM in public health by identifying areas for improvement and offering appropriate resources for learning. It is an online resource that can be accessed by public health practitioners globally. The tool was launched in April 2016.

Objectives

The aim of the Skills Assessment is to provide a free, online tool that assesses strengths and weaknesses in knowledge and skills related to EIDM. The questions were developed by the NCCMT team, and are applicable to EIDM globally. There are three versions of the assessment each with 20 questions that are randomized, so that each time a user initiates the tool a different set of questions will be asked. Once the assessment is complete, there are suggestions for free online resources that target identified areas of weakness.

Results

Web analytics will be used to understand how the Skills Assessment is used, and by whom. Some basic demographic information is collected from users, and data such as number of users, attempts/user, completions, will be tracked as well as scores and time for completion. Data from the first six months will be presented.

Conclusions

The Skills Assessment was developed for public health practitioners and decision makers to understand individual strengths and weaknesses related to EIDM knowledge and skills. This is applicable for public health practitioners globally, and can be a useful tool for self-assessment for professional development and orientation for new employees.

Key messages:

- The EIDM Skills Assessment can identify areas of strength and improvement for using research evidence in public health decision making
- Accompanying resource suggestions can assist in knowledge and skill development

Outlook for future public health and health care in the Netherlands

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Issue

To provide a solid basis for policy making, every four years, the National Institute for Public Health and the Environment (RIVM) carries out the Dutch Public Health Status and Foresight Report. The seventh edition compiles an outlook on future public health and health care in the Netherlands. How do we do now and where should we prepare for?

Description of the problem

How healthy will we be and how healthy will we feel in the future? How will health expenses develop? To provide a plausible, integrated and consistent image of the future, we develop a trend scenario under the assumption of no new public health policies. This Trend scenario is the result of a step-wise scenario approach. The most important driving forces, key determinants of health and broad health impacts are systematically analyzed and projected until 2040 making use of various projections methods. The Trend scenario will be published in November 2016.

Results

The results of the Dutch Public Health Status and Foresight Report feed directly in the national and local policy cycles. Preliminary Trend Scenario results show that in 2040 40-50% of the Dutch population will be facing one or more chronic diseases. Coronary heart disease, diabetes mellitus, COPD, lung cancer and dementia will cause the highest burden of disease regarding Disability-Adjusted Life Years (DALY). However, the population living in good perceived health shows only a slight increase, while the population living with activity limitations remains stable, despite the ageing of the population. In 2040, health expenditures will have more than doubled compared to 2013.

We do not know how the future will unfold. Therefore we should explore developments based on past trends and explore uncertainties. This health outlook helps policymakers anticipate for the future. It provides a sound basis to facilitate and structure discussions about priority settings in public health.

Key messages:

- Identifying challenges for future public health and health care improves the public health policy making
- The Netherlands will face multiple future challenges regarding public health and health expenses

Using GRADE to develop the WHO guideline on verifying elimination of human onchocerciasis

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Issue

The Grading of Recommendations Assessment, Development and Evaluation (GRADE) approach was initially developed to support guideline development for therapeutic decisions and recently was expanded to address diagnostic questions. We used GRADE for a guideline on the decision to stop mass drug administration (MDA) and to verify elimination of a disease. This is the first documented use of GRADE for this type of guideline.

Problem

Human onchocerciasis is caused by the parasitic worm *Onchocerca volvulus* and causes skin disease and “river blindness”. Several previously endemic countries have

implemented MDA with ivermectin and successfully achieved elimination. Recently, the World Health Organization (WHO) updated its 2001 guidelines for the verification of elimination of onchocerciasis.

We developed an analytic framework to describe the pathway from MDA to surveillance and verification of elimination of onchocerciasis. We systematically searched for published and unpublished studies and constructed a “linked evidence” chain. We combined evidence from diagnostic accuracy and observational studies and judged the certainty of the evidence using the applicable GRADE method. We then developed GRADE decision tables to summarize all the evidence for benefits and harms, cost, feasibility, equity, and acceptability.

Effects

In a face-to-face meeting, the guideline panel used the decision tables to make either strong or conditional recommendations for or against each test under consideration. Where available evidence was of very low certainty the panel members relied on their personal knowledge of data that were not publically available (e.g., internal government or WHO field office reports).

Lessons

Using an analytic framework and GRADE allowed us to present diverse evidence to the guideline panel in a structured manner; however personal knowledge of programme data played a role in panel decisions although it was not captured in the GRADE evidence summaries.

Key messages:

- Providing evidence support for a WHO guideline on elimination of a disease required us to construct an analytic framework and combine multiple study types in a linked evidence chain
- The role of regular programme generated data (cf published studies) in informing WHO guidelines developed using the GRADE approach should be explored/defined

Training of students for the use and critical evaluation of mobile applications for health

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Background

Health and social care systems are facing an upsurge in chronic diseases and multi-morbidity as a consequence of population ageing as well as a growing need for supportive tools and practices affording elderly people active and independent living. Mobile applications for health (mHealth apps) undoubtedly carry large potential to improve health and wellbeing through empowerment of patients in taking responsibility for their own health while reducing the ever-growing healthcare costs. Likewise, mHealth apps also hold promise for innovative interventions and health promotion activities targeted at younger generations. Therefore, health professionals and students need to be educated and trained to identify and take into account advantages and limitations of mHealth apps, as well as to recognise the need for evaluation and certification of these applications.

Objectives

To train medical and nursing students in critical evaluation of mHealth apps in order to prepare them for advising patients about using such tools. Also, to make students aware of the great potential of eHealth apps but also the need for validation and certification.

Results

Fifth-year medical students were asked to download and test on their smartphone, then report about the features and limitations of different mHealth applications. Similar tasks

were given to the Master degree nursing students and first-year medical students. All students proved capable of testing mHealth apps and understanding the need for evaluation, validation and certification. Students successfully presented their findings and evaluation results, as well as critically analysed and discussed features of different mHealth apps during seminars within a Medical Informatics course.

Conclusions

Testing and evaluating mHealth apps are appropriate tasks for medical and nursing students, both undergraduate and graduate, that enable them to understand the need for validation and certification of such applications.

Key messages:

- Medical and nursing students need to be trained in critical evaluation of mHealth applications in order to envisage their potential and to understand the need for their validation and certification
- Students should develop positive attitudes but also critical views of new tools and technologies in order to be prepared for responsible and ethical use of mHealth apps in future professional practice

The Impact of Conflict on Medical Education: Institutional and student insights from Iraq

Sondus Hassounah

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This study surveyed all Iraqi medical schools and a cross-section of Iraqi medical students regarding their institutional and student experiences of medical education amidst ongoing

conflict. The objective was to better understand the current resources and challenges facing medical schools, and the impacts of conflict on the training landscape and student experience, in order to provide evidence for further research and policy development. Deans of all Iraqi medical schools registered in the World Directory of Medical Schools were invited to participate in a survey electronically. Medical students from three Iraqi medical schools were invited to participate in a survey electronically.

Of 24 medical schools listed in the World Directory of Medical Schools, 15 replied to an initial email sent to confirm their contact details, and 8 medical schools responded to our survey, giving a response rate from contactable medical schools of 53% and overall of 33%. Five (63%) medical schools reported medical student educational attainment being impaired or significantly impaired; 4 (50%) felt the quality of training medical schools could offer had been impaired or significantly impaired due to conflict. A total of 197 medical students responded, 62% of whom felt their safety had been threatened due to violent insecurity. The majority (56%) of medical students intended to leave Iraq after graduating.

Medical schools are facing challenges in staff recruitment and adequate resource provision; the majority believe quality of training has suffered as a result. Medical students are experiencing added psychological stress and lower quality of teaching; the majority intend to leave Iraq after graduation.

Key messages:

- A total of 197 medical students responded, 62% of whom felt their safety had been threatened due to violent insecurity
- Iraqi medical students are experiencing added psychological stress and lower quality of teaching; the majority intend to leave Iraq after graduation

PARALLEL SESSION 9

SATURDAY 12 November 2016 9:40-10:40

9.A. Oral presentations: Environmental factors in children's health**Individual and area level measures as determinants of childhood asthma in the UK**

Joana Morrison

J Morrison¹, TKN Nguyen², H Pikhart¹¹University College London, London, UK²Hanoi School of Public Health, Hanoi, Vietnam

Approximately 300 million people suffer from asthma worldwide. It is becoming a particularly serious problem in children. The UK has among the highest prevalence of asthma. Socio economic position and area-level deprivation are associated with a wide range of health and developmental outcomes in children, including asthma. This study aimed to examine associations between childhood asthma household socio-economic position and the Index of Multiple Deprivations (IMD) independently.

The analytical sample included 13,857 children from the MCS a representative birth cohort of children born in the UK between 2000 and 2002. Data were from the fourth survey when children were 7 years old. Multi-level logistic regression modelling was chosen. Individual level explanatory socio-economic variables and Index of Multiple Deprivation (IMD) - a measure of deprivation at the contextual level - were included. Data were linked at Lower Layer Super Output Area. Household income and IMD were important determinants of childhood asthma even after adjusting for individual risk factors. Children living in the lowest income quintile households had 25% higher risk of asthma than those families in the highest one, the risk decreased with each quintile. Children born with low birth weight had 40% higher risk of asthma. Obese children (OR: 1.66 (1.39-1.98)) also had higher risk. Breastfeeding was a protective factor.

This study confirms the presence of inequalities in asthma among children in the UK according to their income household income and neighbourhood deprivation. Children from families with low income living in more deprived neighbourhoods had higher risk of asthma. It suggests the need of for interventions which aim to reduce inequalities in household income and social environment (neighbourhood deprivation) for asthma prevention.

Key messages:

- Results showed clear gradients in asthma prevalence by household income and neighbourhood deprivation in the UK
- Multilevel methods allowed us to evaluate the independent effect of higherarchical levels of deprivation and asthma

Prenatal and postnatal exposure to polycyclic aromatic hydrocarbons and allergy symptoms in children

Wojciech Hanke

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Background

The studies indicate that exposure to polycyclic aromatic hydrocarbons (PAH) is associated with adverse respiratory and allergy outcomes. Exposure to PAH may impair the immune function of the fetus and subsequently be responsible for an increased susceptibility of children to allergy diseases. The aim of this study was to investigate the association between prenatal and postnatal PAH exposure and respiratory and allergy diseases during childhood.

Methods

Current analysis was restricted to 455 mothers and their children from Polish Mother and Child Cohort (REPRO_PL). The women were interviewed 3 times during the pregnancy in order to collect demographic, socio-economic, exposure and medical history data. Children's health status was assessed at age of one and two. 1-HP concentration as the biomarker of PAH exposure was analyzed in urine collected from women during the second and third trimester of pregnancy and from their children at 1 and 2 years of age. The analysis was performed using high performance liquid chromatography (HPLC). The associations between dependent dichotomous variables and urine concentrations 1-HP were analyzed by using logistic regression.

Results

Higher urine concentrations of 1-HP in mothers at 20-24 week of pregnancy increased the risk of more frequent respiratory infections (OR = 1.9; p = 0,02) in children during first year of life. In addition higher 1-HP concentrations in children's urine increased the risk of food allergy (OR = 5.7; p = 0,002) in children during first 2 years of life.

Conclusions

This study indicate that PAH exposure is the significant risk factors for airway infections and food allergy in children. Thus, reduction of human exposure to air pollution would in particular result in substantial health benefits for children.

Key messages:

- PAH exposure is the significant risk factors for airway infections and food allergy in children
- The reduction of human exposure to air pollution would result in substantial health benefits for children

Awareness-raising on air quality and health effects in primary school children

Beatrice Casini

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Background

MAPEC_LIFE is a project founded by EU Life+ Programme (LIFE12 ENV/IT/000614) which intends to evaluate the associations between air pollution and early biological effects in children. One of the objectives of the project is to raise children awareness on air quality and its health effects.

Objectives

An educational package, containing leaflets for teachers, a cartoon and three educational videogames, was created and validated for primary school students. In the first phase of the study, the package was set up for understandability and usability on small groups of children and teachers and then tested for pleasantness and efficacy in improving knowledge on 266 children who attended 6 primary schools in 4 Italian cities. A control group of 51 children received only explanations from teachers. In the second phase, the action of improving awareness was extended to 3800 children with the help of 190 teachers.

Results

Considering the differences between total scores before and after the educational activities a significant increase was observed in the first phase. The mean score in the post-knowledge test (11.01 ± 0.1186) was higher than the mean score in the pre-knowledge test (9.199 ± 0.1347) ($p < 0.0001$). The increase in knowledge for second graders ($p < 0.0001$) was higher than for third graders ($p = 0.0134$), indicating that this grade level should be the choice target. Moreover, in second graders the difference in the mean scores was greater compared with the control group (2.223 vs. 0.96, respectively), demonstrating the effectiveness of audiovisual tools.

In the second phase, the usefulness of the tools to promote new knowledge was evaluated positively by all teachers and videogames were greatly appreciated by the majority of children.

Conclusions

This intervention of environmental education and health literacy, approaching children with tailored messages and tools, appeared to be very useful, improving children knowledge and stimulating their interest.

Key messages:

- Our results confirmed prior evidence of the beneficial effects of computer games as instructional tools
- Computer games are able to strengthen and support the motivation to learn because they are attractive to students

Model for fighting undernutrition among 0-6 yo children in rural communities in Armenia

Hambardzum Simonyan

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Armenian demographic and health surveys in 2000, 2005, 2010 showed increasing chronic under nutrition (anemia and stunting) among 0-6yo children. According to World Bank, a 1% loss in adult height due to childhood stunting is associated with a 1.4% loss in economic productivity. In 2013 Fund for Armenian Relief of America started a program to fight the chronic under nutrition in 0-6yo children in Tavush - a poor region near Armenia's north-eastern border which has experienced intermittent military tensions for over 20 years.

As a need assessment a cross sectional study of 6m-6yo children (n=670) was performed, which included measurement of blood hemoglobin, intestinal parasitic infections, anthropometric measurements and survey among caregivers and a cross sectional study of 18-29 yo women (n=562), which included measurement of blood hemoglobin and self-administrated survey.

The prevalence of stunting among the 6-24mo children was found to be 12.1% in rural and 14.3% in urban communities. Among 6m-6 yo children the prevalence of anemia and helminthoses in the urban communities were 15.9% and 13.9% respectively, in rural communities - 20.8% and 25.8% respectively. Anemia among 18-29 yo women was 12.1%.

The first study identified key determinants associated with stunting in this vulnerable region. Consumption of diverse (at least 4) food groups was found to have a protective role on stunting.

The second study showed that, despite the relatively low rate of anemia, lack of knowledge among women of reproductive age about the women's health remains disturbing.

These findings led to the design of professional and community trainings on maternal and children's health, as well as multidimensional interventions - case management, balanced food provision in preschools, healthcare facilities improvement, community economic development, community education improvement.

Key messages:

- Need assessment for better understanding of problem
- Multidimensional approach for fighting the problem

Epidemiology of congenital anomalies of the kidney and the urinary tract: a birth registry study

Vitaly Postoev

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Background

Congenital anomalies of the kidney and the urinary tract (CAKUT) are common birth defects. The aims of our study were to estimate the prevalence and structure of CAKUT in Murmansk County during 2006-2011 and to explore their risk factors.

Methods

The Murmansk County Birth Registry was the primary source of information about cases and perinatal exposures. The study included 50936 singletons in the examination of prevalence and proportional distribution of CAKUT, while the multivariate analyses of risk factors included 39322 newborns.

Results

The prevalence of CAKUT was 4.0 per 1000 newborns [95%CI: 3.4-4.5]. There were six cases of isolated single kidney cyst (Q61.0), which is considered as a minor anomaly by the EUROCAT and, thus, the prevalence according to EUROCAT guidelines was 3.9 (95%CI = 3.3-4.4). Congenital hydronephrosis was predominant form in the structure of CAKUT (14.2% of all cases). Multiple urinary malformation was observed in 10% of cases. Moreover, a half of all malformations were diagnosed as "other congenital anomalies of kidney".

Based on the multivariate analysis, diabetes mellitus or gestational diabetes [OR=4.77, 95%CI: 1.16-19.65], acute infections while pregnant [OR=1.83, 95%CI: 1.14-2.94], the use of medication during pregnancy [OR=2.03, 95%CI: 1.44-2.82], and conception during the summer [OR=1.75, 95%CI 1.15-2.66] were significantly associated with higher risk of CAKUT.

Conclusions

The overall four-fold enhancement of the occurrence of urinary malformations in Murmansk County for the 2006-2011 period showed little annual dependence. During

pregnancy, use of medications, infections, pre-existing diabetes mellitus or gestational diabetes were associated with increased risk of these anomalies, as was conception during summer. The findings have direct applications in improving prenatal care in Murmansk County and establishing targets for prenatal screening and women's consultations.

Key message:

- Use of medications during pregnancy, diabetes mellitus or gestational diabetes, infections during the pregnancy, and conception during summer are associated with increased risk of urinary anomalies

9.B. Workshop: Ageing and Health

Organised by: EUPHA section on Public mental health, EUPHA section on Infectious diseases control, EUPHA section on Chronic diseases
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Chairperson(s): Jutta Lindert - Germany, Iveta Nagyova - Slovakia

The global population of people aged 60 years and older is expected to more than double, from 900 million in 2015 to about 2 billion in 2050. Accordingly, interventions to promote healthy ageing and adequate caring is a cross cutting Public Health challenge. These interventions need new concepts of caring that cross sectors, move outside a specialist's health care, and assume a framing of response. Caring for older individuals, must consider added levels of complexity and opportunity that incorporate culture, place, resource availability and individual life events. To respond to this need we designed this workshop from different fields of expertise – chronic conditions, infectious disease control, and mental health. In line with this, the first presentation will deal with the complexity of needs arising from having multiple chronic conditions in ageing populations. In particular, it will highlight the outcomes of the B3 Action Group on Integrated Care within the framework of the European Innovation Partnership on Active and Healthy Ageing (EIPonAHA). The second presentation will address the increasing impact of infectious diseases in the ageing world and rise of co-morbidity due to immunosenescence and frailty. This presentation will further discuss targeted interventions to enable an individual informed choice and increase the public health impact of vaccines in elderly. The third presentation will deal with the effects of stressful life events on depression, anxiety and hostility in elderly, with implications to inform prevention and intervention approaches. An audience discussion will conclude the workshop.

Key messages:

- Caring for older individuals, must consider added levels of complexity and opportunity that incorporate culture, place, resource availability and individual life events
- Ageing should be considered an opportunity rather than a burden

Meeting the challenge of ageing and multimorbidity Andrea Pavlickova

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Issue

The complexity of needs arising from having multiple chronic conditions – in combination with ageing population – requires urgent changes to model of care in Europe. It is therefore important to commit to opportunities to increase healthy life years throughout Europe.

Description of the problem

The European Innovation Partnership on Active and Healthy Ageing (EIPonAHA) considers ageing an opportunity rather than a burden, valuing older people and their contributions to society; and seeking to empower them and their communities through user-centred innovation and service delivery. The EIPonAHA is a voluntary collaboration of regions, companies, research institutions, and healthcare professionals, committed to find innovations that meet older people's needs by addressing a triple win: health and quality of life of European citizens; sustainable and efficient care systems and growth and expansion of EU industry.

Results

B3 members are implementing chronic disease management programmes in 44 regions and are focussing on scaling up and replication of their practices to reach the target of 50 regions, and cover 10% of the target population. The expertise of the B3 Action Group is reflected in a rich collection of over 100 good practices as well as set of other resources, collected throughout 2013-2015. The members have worked together to develop practical tools that support local services delivery, including maturity models, validated medical guidelines, risk stratification tools, citizen empowerment framework and others. In addition, by providing evidence and inspiration for policy-making, the Group has contributed to ensuring that integrated care is on the European agenda as one of the most promising solutions to assure the sustainability of the systems for health and social care.

Lessons

Ageing is an opportunity rather than a burden. There is “no size fit all” solution and response to the challenge of ageing population.

The willingness of older adults to receive vaccination against influenza, pneumococcal disease, herpes zoster and pertussis and the role of the general practitioners

Renske Eilers

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Background

The growth of the older adult population in most European countries will result in higher prevalence of vaccine-preventable infectious diseases. Promoting healthy ageing could include vaccination against vaccine-preventable-diseases.

Based on literature, pneumococcal disease, herpes zoster and pertussis can be selected as vaccine candidates. The most important factors to accept vaccination in this population are susceptibility, vaccine characteristics and recommendation of the general practitioners (GPs). However, the attitude of GPs towards implementing additional vaccinations is not necessarily positive. Two large cross-sectional population-based surveys were conducted to gain more insight in the factors for vaccine acceptance in older adults, as well as estimate vaccination rates and identify factors that predict the intention to offer additional vaccination of GPs.

Methods

A discrete choice experiment was conducted among Dutch older adults aged >50 years old using a mixed multinomial logit statistical model. RandomForrest analysis was used to predict intention to offer additional vaccination of GPs.

Results

High mortality, susceptibility of getting the infectious disease and vaccine effectiveness were the most important factors to accept vaccination among older adults. Estimated vaccination rates were 68.1%, 58.1%, 53.9% and 54.3% for pneumococcal, herpes zoster, pertussis and influenza vaccination, respectively. GPs attitude towards offering additional vaccination, towards vaccination as a preventive tool, towards the suitability of the GP to administer the vaccination and towards offering vaccination during an outbreak mainly predicts the intention to offer additional vaccination.

Conclusions

Older adults are most likely to accept pneumococcal vaccination of the candidate vaccines. Creating a positive general attitude towards vaccination is most important to ensure a positive intention of GPs to offer additional vaccination.

Life events and mental health

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Background

Depression, anxiety and hostility are associated with stressful life events.

Method

A community sample of men (n=1437) was prospectively followed up (1985, 1988 and 1991). Life events were assessed using Elders Life Stress Inventory (ELSI). First, we analyzed events, separately. Second, we grouped the events into the following clusters: financial/work, health related, relationship, loss, living situation, and marriage. Third, events were categorized into attachment and non-attachment related events. Multilevel mixed-effects linear regressions identified associations between events and depression, anxiety and hostility over the survey years.

Results

Any stressful life events in comparison to no-event had significant effects on depression (+0.05; 95% CI: 0.01 to 0.10; p < 0.011) and hostility (+0.05; 95% CI: 0.01 to 0.09; p = 0.013) but not on anxiety (+0.04; 95% CI: 0.00 to 0.07; p < 0.028). In case there were no stressful life events, depression or anxiety did not change, hostility decreased over time (-0.05; 95% CI: -0.08 to -0.01, p = 0.012).

Conclusions

The results highlight that relationships and attachment related events have an effect on depression, anxiety and hostility. The results inform prevention and intervention approaches.

9.C. Skills building seminar: TO-REACH - an international research program on transferring good models of care in Europe and beyond

Organised by: Istituto Superiore di Sanità (ISS), Italy, NIVEL, European Observatory on Health Systems and Policies, EUPHA section on Health services research

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Many countries explore similar solutions on how to organise health care in an equitable and efficient manner, thus contributing to the sustainability of the health system as a whole. It involves among others strengthening community and primary care, redesigning hospital care and de-institutionalising long term care with care provided closer to home, also providing more emphasis on patient involvement and self-management. Given these similarities it is crucial to learn under what conditions good practices, e.g. on prevention, integrated care or end-of-life care, can be transferred from one setting, region or country to the other. To help answer these questions a unique consortium of 29 governmental and research funding bodies plus research institutes, has expressed the ambition to systematically learn from the organisation of care in other settings: TO-REACH, Transfer of Organisational innovations for Resilient, Effective, equitable, Accessible, sustainable and Comprehensive Health Services and Systems. The consortium consists of partner bodies from across Europe (Austria, Finland, France, Ireland, Italy, Latvia, Malta, the Netherlands, Norway, Portugal, Romania, Slovenia, Spain,

Sweden, Switzerland, United Kingdom) as well as non-European funding bodies (Canada, Israel and United States) plus European level organisations including EUPHA. Overall objective is to prepare for a joint research programme that can provide insight into the transferability in the organisation of care between organisations, regions and countries. While such a research programme will not start before 2019 or 2020, the current preparatory phase is directed towards providing a common platform for governmental and research funding bodies to allow for networking, coordinating, and synchronising priorities and activities, also involving the research community in various ways.

The format of the workshop is as follows. First, the chairs clarify the objectives of the workshop as well as the added value for the EUPHA community and Europe as a whole. Next, the first presentation will clarify more about what TO-REACH is, what it aims to achieve and what influence the health (research) community can have on it. The second presentation will provide more information about its analytical framework, aimed to provide a knowledge synthesis on the identification, transferability and scaling up of good models of care. In between and after these presentations there will be sufficient time for discussions with the audience.

Aims of the workshop are:

1. To raise awareness among both policy/funding bodies as well as the research community about this new initiative and to discuss ways to provide support or get involved.

- To receive critical reflection on the overall framework of the initiative, including an identification of main topic areas to address, e.g. specific innovations in the organisation of care in one country worth transferring to the other.

Key messages:

- TO-REACH prepares for a research programme that will fund future research that raises intelligence about the transferability of solutions from one context to the other
- There is opportunity to engage with this activity, thus influencing future research agendas nationally and in Horizon 2020 and (for researchers) to prepare for future funding opportunities

TO-REACH: what does it aim to achieve and what influence can the health (research) community have?

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The TO-REACH consortium has a history which runs back to earlier EPH Conferences, among others with an exploratory preconference at the EP Conference 2014. In this presentation we will briefly sketch this history but will mostly focus on clarifying the short and long term goals of this initiative. A main longer term goal is to establish a future research programme, a so-called ERA-NET, which may then run as of 2019 or 2020. The ERA-NET instrument is part of Horizon 2020 and tops up funding from transnational calls for research, provided there is sufficient critical mass and the topic at hand has sufficient added value at European Union level. Actions in this preparatory stage should lead to this, among others by developing a Strategic Research Agenda and identify in which areas of care provision countries have most to learn from each other. As the ambition is also to align activities with other European level initiatives, such as Joint Programming Initiatives or Joint Actions, the added value also lies in fostering European research alignment and inspiring future research activities in the broad domain of health services and systems research, including regarding topics in regular calls of

Horizon 2020 or its successor, adding to its relevance for research groups outside partner countries. Based on these clarifications of what TO-REACH aims, we will also address the ways in which the research community can prepare for or get involved in the development of such a research programme.

Framework and knowledge synthesis on identifying, transferring and scaling up good models of care

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With its diversity, Europe is an ideal test bed for innovations designed to strengthen the sustainability and resilience of health care services and systems. To tap into this pool of innovation and experience TO-REACH will address four meta-questions that can guide future research within an ERA-NET: a) criteria for identifying good or innovative organisational practices, b) the conditions to transfer these to other sectors, regions or countries and the absorptive capacity needed in those recipient organisations and countries, c) the conditions to scale up pilot projects and initiatives to a national level, and d) the conditions under which such transferred or up-scaled practices contribute to performance enhancement of services, organisations and the system as a whole. In the presentation we will clarify how the conceptual framework will allow for evaluating if research in one country can be applied in another. In addition, by applying it to a number of case examples we will reveal the factors underlying their successful diffusion and implementation. The intelligence and recommendations generated from these activities will also provide added value to countries looking to change and improve service delivery, regardless of whether they are involved in this initiative. As stepping stone to the discussions we will also solicit critical reflection on the overall framework, including an identification of main topic areas to address, e.g. specific innovations in the organisation of care in one country worth transferring to the other.

9.D. Pitch presentations: Alcohol consumption studies and prevention practices

Monitoring system for a cohesive strategy for alcohol, narcotic drugs, doping and tobacco policy

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In 2011 a cohesive strategy for alcohol, narcotic drugs, doping and tobacco (ANDT) for the period 2011–2015 was adopted by the Parliament. The next strategy period applies to 2016–2020 and provides that work in the field of ANDT will continue to have a similar focus after 2015.

The strategy specifies the goals and direction of the ANDT policy and sets out national follow-up and evaluation structures. The aim of this policy is to facilitate state management of public support in the ANDT sphere and to assist the progress of better coordination and cooperation between agencies and actors. A monitoring system has been established to integrate standardized indicators to track developments in such areas as ANDT consumption and

harm, abuse and care consumption. Public Health Agency of Sweden has currently responsibility for the monitoring system. The monitoring system is based on data obtained from national registers and surveys with high quality. The indicators aim to describe the key areas for development in ANDT sphere such as availability, consumption, harmful use, access to health care and mortality. These are in turn linked to five of the six goals of ANDT strategy. Statistics are rarely available in some parts of the ANDT sphere such as doping. Long-term time series for some indicators are needed to follow up the development of ANDT.

A theoretical model that briefly describes and explains how the different parts of ANDT strategy interact is missing today. An important use of such a model is to facilitate the interpretation of the development by clarifying indicators in terms of causes, covariates and outcomes. Indicators need to be broken down at the regional and local levels in order to providing knowledge for municipalities who are an important target group for implementation of the ANDT strategy. Socioeconomic and gender aspects should permeate both for the implementation

of measures, including policies and regulations, as well as monitoring the development.

Key messages:

- The monitoring systems' indicators contribute to follow up the development of the ANDT strategy, but the available indicators do not provide a fully comprehensive picture of developments in each goals
- It is essential to include additional demographic- and socioeconomic indicators in upcoming development of the follow-up with focus on health inequalities

Alcohol consumption of German medical students: comparing study home and abroad

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Background

There is a strong association between current health behaviour of medical students and their counselling intentions. Available information regarding the health behaviour and self-rated health of international medical graduates is limited. We concern studying abroad versus in the home country is a potential contributing factor to the medical students' alcohol drinking patterns, especially excessive alcohol consumption (frequent binge or heavy drinking).

Methods

Our multicentre cross-sectional survey was conducted in German (Dresden, Munich) and Hungarian universities (Budapest, Pécs) in 2014. Medical students in their 1st, 3rd and 5th years in domestic and foreign academic training were invited to complete an anonymous questionnaire. In this analysis we report the results of German students (studying either in Germany or abroad).

Results

The mean age of our sample (n=1308) was 22.9 years (SD=3.6). Overconsumption of alcoholic beverages were reported by 15.6% of domestic students and by 33.9% of those studying abroad ($\chi^2=47.910$, $p < 0.001$). The first results of our binary logistic regression model indicate that studying abroad is a predictor of alcohol overconsumption (OR: 2.18 CI95:1.56-3.04, $p < 0.001$).

Conclusions

Our results support previous findings that students behave differently in the domestic higher education system than abroad regarding alcohol consumption. They seem to take over some lifestyle elements of the host environment (in our research alcohol related behavioural patterns). Further studies are needed to identify exact factors behind this phenomenon.

Key messages:

- Studying abroad seems to increase the probability of excessive alcohol consumption
- Higher educational prevention programs of harmful alcohol consumption should focus separately on domestic and foreign students to be more effective when teaching appropriate coping mechanisms

Stigma and low levels of knowledge about alcohol in older adults in the United Kingdom 2015

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Background

Alcohol is the third leading risk factor for disease and mortality in Europe and the World Health Organisation has identified alcohol harm among older adults as an increasing concern. Identifying levers for change could lead to the development of a more nuanced public health response.

Methods

76,342 general medical practice patients aged 50+ across the UK were sent a self-complete postal questionnaire to collect information about their alcohol use, knowledge and attitudes towards alcohol. Participants were categorised into three risk groups according to Alcohol Use Disorders Identification Test scores.

Results

16,678 people (22%) returned a completed questionnaire. Amongst those who drank alcohol, 3%, 17% and 80% were higher, increasing and lower risk drinkers respectively. 74% of participants were unable to correctly identify the recommended drink limits. 64% of increasing and 19% of higher risk drinkers were not worried about their drinking. 23% said that they would not know where to get help or advice. 43% think that people with alcohol problems have themselves to blame and 17% think that they should feel ashamed. Almost a quarter (24%) said that they would not tell someone if they had an alcohol problem.

Conclusions

Preventive strategies should include information and social marketing campaigns targeted at older adults to improve knowledge and help shed the stigma associated with alcohol problems in later life.

Key messages:

- Many older adults lack the information required to understand their risk of alcohol harm
- High levels of stigma identified in this study could prevent them seeking help

Drinking habits and subsequent antidepressant medication among middle-aged employees

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Background

Depression is an increasing cause of work disability among employees. Also heavy alcohol drinking is common and might contribute to mental health. We examined the associations between weekly average drinking, binge drinking and problem drinking and subsequent antidepressant medication among middle-aged municipal employees.

Methods

Baseline data were collected in 2000-02 by postal questionnaire among employees of the City of Helsinki aged 40- to 60 years (n=8960 response rate 67%). These data were linked with register data on prescribed antidepressant medication (ATC-codes N06A) derived from Social Insurance Institution of

Finland among those consenting (74%) to the data linkage. The study included 5185 women and 1421 men. Drinking habits included weekly average drinking, binge drinking and problem drinking measured by the CAGE-scale. Cox regression was used in the data analysis.

Results

Heavy average drinking was associated with subsequent antidepressant medication among both women (HR 1.60, 95% CI 1.21-2.11) and men (1.89, 1-32.2.70). Also binge drinking (women: 1.24, 1.09-1.43/men 1.31, 1.02-1.69) and problem drinking (women: 1.88, 1.65-2.13/men: 1.67, 1.30-2.15) were associated with subsequent antidepressant medication. Among men also non-drinking was associated with future use of antidepressant medication (2.06, 1.30-3.26). Adjusting for socioeconomic position and prior use of antidepressants attenuated the associations which however mainly remained after adjustments.

Conclusions

Adverse drinking habits were associated with subsequent use of antidepressant medication. Drinking habits should be assessed when preventing mental health problems.

Key messages:

- Heavy amount of drinking, binge drinking and problem drinking predicted subsequent antidepressant medication
- Drinking habits should be assessed when treating patients with poor mental health

Effects of pictorial warning labels on attitudes toward alcohol: A qualitative study of UK students

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Background

Alcohol warning labels are currently mandatory in 31 countries, yet the evidence base for their effect on alcohol consumption is weak. Warnings are typically text-based yet pictorial warnings might be more effective. The current research seeks to evaluate the applicability of pictorial warnings that encourage low risk drinking by considering health risk or social judgment themes across three different types of message: positive or negative reinforcements to drink less; quantitative facts or qualitative; with and without specific low risk drinking recommendations. The study aimed to determine which pictorial warnings were perceived to work best for UK undergraduate students.

Methods

Qualitative methods were employed whereby 5 focus groups (n = 30) and an individual concept mapping exercise (n = 58) were undertaken. Students who completed the mapping exercise were assigned to either 3 health or social warnings and were instructed to draw a map that represented their thoughts. A set of cards containing positive and negative reactions to the warnings were provided. Aggregate maps were compared across themes. Focus groups were analyzed using content analysis.

Results

Warnings that promoted positively keeping to low risk limits were perceived as ineffective. Students liked messages that provided them facts about health effects. Social judgment messages were less likely to be perceived as relevant but also less likely to induce reactance. Students felt that the current 'know your limits' advice was encouraging them to think of their own limit which was much higher. Students tended to count drinks rather than units. Students perceived the warnings as a good idea but one that wouldn't impact their consumption.

Conclusions

Alcohol warnings work differentially. Health messages have greater resonance with student drinkers. Warnings have the potential to induce reactance which reduces the likelihood of message acceptance. Careful design of messages is therefore needed.

Key messages:

- Greater consideration is needed on use of 'know your limits' as 'limit' primes students to think of limits in terms of their alcohol tolerance level. Students would prefer drinks to unit guidelines
- Warning labels that focus on health risks such as liver disease (versus social risks) are likely to be attended to by students

Effectiveness of alcohol pictorial warning labels: An experimental study on UK students

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Background

Governments are increasingly concerned about citizen's alcohol consumption. One policy intervention proposed in the UK is the introduction of pictorial warning labels. Yet little is known about the efficacy of such labels. University students represent a group who engage frequently in heavy episodic drinking and thus a target group for warning labels. The current research sought to understand the warning labels that would be perceived as believable, personally relevant and would encourage low risk consumption of alcohol.

Methods

Experimental methods were employed. A pilot study (n = 58) assessed views on 6 warning labels covering health (liver damage, accidents, diseases) and social consequences (embarrassment, drunk driving, being arrested). An experiment (n = 198) explored in-depth reactions to liver and accident health warnings using a within-subjects design. Repeated-measures ANOVA Analysis was undertaken.

Results

The pilot study showed that health warnings were perceived as more personally relevant than social warnings, but slightly less believable though believability scores were high. No gender differences were evident. The main experiment found no statistically significant differences in believability, personal relevancy or persuasiveness across the two warning labels controlling for gender and alcohol consumption. Seeing an alcohol warning didn't change attitudes towards keeping to low risk drinking guidelines. Overall, attitudes towards keeping to guidelines were neutral. Willingness to read alcohol warnings interacted with persuasiveness where those less willing to read were more persuaded by the accident versus liver warning.

Conclusions

Students found alcohol warning labels to be believable and of personal relevance. Over half stated they would read an alcohol warning label. Warning labels were applicable regardless of gender or consumption level. However, warnings failed to change attitudes and as a result may have limited practical relevance.

Key messages:

- Students find pictorial health warnings relevant and persuasive, yet such warnings failed to change attitudes towards low risk drinking guidelines in the experimental setting
- Over half (56%) would be willing to read alcohol warning labels if such policy were implemented

Sustaining alcohol management practices in community sports clubs: A 3 year follow-up

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Background

Sports club participants report elevated levels of risky alcohol use and related harm compared to the general population, making sporting clubs an opportune setting for intervention. An alcohol management intervention was previously found to be effective in increasing sports club implementation of alcohol management practices and reducing participant's risky alcohol consumption and related harms. Current literature suggests that there is a natural attrition of intervention effect once support ceases. We aimed to determine if clubs can sustain the implementation of effective alcohol management practices 3 years following intervention.

Methods

Community football clubs in urban and regional areas of New South Wales, Australia were followed over a 6 year period. Repeat cross-sectional surveys were conducted pre-intervention (2009, N=42), post-intervention (2012, N=28) and at follow-up (2015, N=25) for each club. Study outcomes were: the proportion of clubs sustaining the implementation of an adequate level of practice ($\geq 80\%$); and the mean number of practices implemented.

Results

The proportion (89%) of clubs implementing $\geq 80\%$ of alcohol management practices was sustained from 2012 to 2015, as was the mean number of such practices implemented by clubs.

Conclusions

The effect of an implementation focused intervention was sustained for 3 years demonstrating that theory and evidence informed implementation strategies can have a long-term effect on clubs contributing to improving community well-being.

Key messages:

- Sporting clubs are an opportune setting for alcohol management interventions
- Hard fought positive effects from theory informed/evidence based interventions can be sustained

Drinking patterns and alcohol-related harm: Disentangling their association by socio-economic status

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Background

There is uncertainty in the literature whether socio-economic disparities in the experience of alcohol-related problems are solely due to differences in drinking or also to non-drinking related factors. We aim at exploring the associations between patterns of alcohol use and alcohol-related problems, and compare them between groups of different socio-economic status (SES).

Methods

Data were taken from the 2012 Epidemiological Survey of Substance Abuse (ESA), a national survey conducted in the general population aged 18 to 64. Past year alcohol consumers were included in the analysis and were categorized into four drinking groups based on their drinking volume and their engaging in episodic heavy drinking (EHD). Groups were characterized by no EHD/low volume, no EHD/high volume, EHD/low volume, EHD/high volume. Alcohol-related problems were assessed using the number of symptoms of DSM-5 alcohol use disorder. The effect of drinking groups on alcohol-related problems was assessed and compared between SES groups using regression models.

Results

Preliminary results indicate SES disparities in the mean level of alcohol-related problems among men ($F[2, 249] = 14.7$; $p < .001$), and in the effect of drinking volume (males: $F[2, 249] = 4.6$; $p = .01$, females: $F[2, 249] = 6.2$; $p = .00$) and EHD (males: $F[2, 249] = 5.5$; $p = .00$, females: $F[2, 249] = 5.8$; $p = .00$) on problems when assessed independently. SES differences did not remain significant when controlling for drinking group as a combination of volume and EHD ($F[2, 249] = 2.47$; $p = .09$).

Conclusions

Socio-economic disparities in the general population with respect to alcohol-related problems seem to be due to differences in the type of drinking in which SES groups tend to incline.

Key messages:

- There are differences in the level of alcohol-related problems by socio-economic groups among men of the German general population
- Socio-economic differences in alcohol-related problems in the general population can be explained by differences in drinking patterns

9.E. Oral presentations: Food and nutrition policy

Trends in educational inequalities in obesity in 15 European countries between 1990 and 2010

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Background

The prevalence of obesity increased dramatically in many European countries in the past decades. Whether inequalities in obesity followed the same trend is less known. We systematically assessed and compared the trends in educational

inequalities in obesity in 15 different European countries between 1990 and 2010.

Methods

Nationally representative survey data from 15 European countries were harmonized and used in a meta-regression of trends in prevalence and educational inequalities in obesity between 1990 and 2010. Educational inequalities were estimated by means of absolute rate differences and relative rate ratios in men and women aged 30-64 years.

Results

A statistically significant increase in the prevalence of obesity was found for all countries, except for Ireland (among men) and for France, Hungary, Italy and Poland (among women). Meta-regressions showed a statistically significant overall increase in absolute inequalities of 0.11% points [95% CI

0.03, 0.20] per year among men and 0.12% points [95% CI 0.04, 0.20] per year among females. Relative inequalities did not significantly change over time in most of the countries. A significant reduction of relative inequalities was found among Austrian and Italian women.

Conclusions

The increase in the overall prevalence aligns with a widening of absolute but not of relative inequalities in obesity in many European countries over the past two decades. Apparently, key drivers of the obesity epidemic have affected lower educational groups more than higher educational groups. Efforts to combat the epidemic need a disproportionately larger focus on low educational persons.

Key messages:

- A widening of absolute but not relative inequalities in obesity occurs with an increase in overall prevalence of obesity
- Efforts to combat the obesity epidemic need a larger focus on lower educational groups

'Stakeholder views in the development of food and nutrition public policy in Australia'

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Optimising the development of food and nutrition public policy in Australia is essential to halting the increasing prevalence of obesity and associated non-communicable diseases. Developing policy in this space however, is often contentious due to the entrenched views of a diverse stakeholder group. The aim of this research was to explore these diverse stakeholder views, assess their impact on policy development, and make recommendations to optimise future food and nutrition public policies.

Structured interviews were undertaken with a purposeful sample of 76 stakeholders who were categorised into one of the following interest groups: government, public health sector, consumer groups, food and beverage industry and academia. Interviewees were asked about their views on food and nutrition public policy solutions, as well as their views on a variety of public policy principles including collaboration, transparency and the use of evidence. Interviews were transcribed and then analysed using the text-mining software Leximancer.

Preliminary results demonstrate markedly different views among stakeholders. Despite the array of concepts and their interpretations within the transcripts, government commonly emphasised the impact of vested and personal interests, public health on the role of the community, consumers on food products, industry on the need to engage everyone, and academics on the need for clear evidence. In addition, there were a number of convergent views including the need for enhanced collaboration.

These findings highlight the diverse stakeholder views and the inherent challenge in balancing these views for optimal food, nutrition and health outcomes. There is a need to further investigate the impact of these diverse views on public policy development, to optimise future action and ultimately improve public health.

Key messages:

- In preventing the increasing prevalence of obesity and associated non-communicable diseases, it is essential to optimise food and nutrition public policy in Australia
- Understanding diverse stakeholder views in the development of food and nutrition public policy provides a pathway for its optimisation

Dietary intake and food sources of added sugar in the Hungarian adult population

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Added sugar has become a focus of nutritional interventions and reformulation practices recently as it provides calories with little or no nutrients and can increase total energy intake leading to weight gain. The aim of the study was to examine the intakes and food sources of added sugars in the Hungarian adult population.

Intakes as well as food sources of added sugar were calculated using validated three-day dietary records in the National Diet and Nutritional Status Survey conducted in 2014. The sample was representative by age and gender of the Hungarian population aged ≥ 18 y. Linear regression was used to test for trends across the groups 'young':18-34y, 'middle': 35-64y, 'elderly':65+y.

The mean (SE) added sugar was 48.9 (1.5) g/day, representing 8.2% of the daily energy intake. Significant decreasing trends for added sugar intake, % energy from added sugar across age groups (young, middle, elderly) were observed. The added sugar intake from processed food was 37.4 g/day, 21.4 g/day and 13.0 g/day in the young, middle and elderly age groups respectively. Sugar sweetened beverages (49%), canned fruits and vegetables (15%) confectionary (10%) sugar sweetened dairy (10%) and bakery products (10%) were the top five contributors of added sugar intake from processed food in the whole sample.

A large proportion of the adult population, especially the younger generation consume high energy from added sugar. The main source of the added sugar were high energy and low nutrient density foods, particularly sugar sweetened beverages. Interventions targeting sugar reduction in these foods would reduce energy and added sugar intake with minimal impact on core nutrient intake.

Key message:

- These data can inform public health policy decisions and provide much needed data for food reformulation initiatives

Consumers' assessments of different categories of front-of-pack food labels

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Background

To address the health risks associated with unhealthy diets, governments around the world are seeking to implement food labelling policies to assist consumers make healthier food choices and avoid excess energy intake. This process has been fraught by strong industry resistance and a lack of evidence relating to the effectiveness of different food labelling systems in conveying nutrition information to consumers in a manner that is understandable and acceptable.

Methods

Ten focus groups were conducted with Australian children (10-17 years) and adults (18+ years) to assess how they processed three different forms of front of pack labels: the Daily Intake Guide (DIG), the Multiple Traffic Light system (MTL), and the Health Star Rating (HSR) system. The DIG is a voluntary industry scheme that is similar to the Guideline

Daily Amounts and has been used on products in Australian supermarkets for the last decade. The HSR is a more recent voluntary food labelling regulatory system developed by the government that was introduced in 2014. The MTL is currently being used in the UK and being considered for implementation elsewhere.

Results

Participants discussed at length the way in which they would/would not utilise the various front-of-pack labels on different kinds of foods. Most expressed a preference for labels that provide an interpretation of the healthiness of products (HSR and MTL) rather than labels that merely replicate information contained on the nutrition information panel located on the back of the pack (DIG). Many reported valuing the ability to sweep their eyes across numerous products to quickly assess the healthiest options. The HSR was noted to be the most effective label in allowing consumers to make rapid assessments.

Conclusions

This appears to be the first study to examine both children's and adults' responses to front-of-pack labels. The overall preference for the HSR suggests that the current government focus on interpretive labels is appropriate.

Key messages:

- Interpretive, holistic front-of-pack labels appear to be preferred by adults and children
- The Health Star Rating was preferred over the Daily Intake Guide and the Multiple Traffic Lights

Barriers to healthy eating in Switzerland: a nationwide study

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Background

Despite widespread dietary guidelines, many barriers can hinder healthy eating in the population. However, the literature remains scarce on this topic, and no study has assessed this in Switzerland.

Methods

Using representative cross-sectional data from the Swiss Health Survey 2012, we assessed, separately by gender, the prevalence of ten self-perceived barriers to healthy eating and their association with demographic and socioeconomic determinants; we used age- and multivariable-adjusted logistic regression, reporting the odds ratio for likelihood to identify each barrier according to demographic and socioeconomic determinants.

Results

The most prevalent barriers were "price" (43.2% in women, 35.8% in men), "daily habits" (39.8%, 37.5%), "fondness of good food" (38.8%, 51.0%), "time constraint" (34.8%, 29.0%) and "lack of willpower" (22.0%, 21.2%). Prevalence of most barriers decreased with age, increased for "fondness of good food" and remained constant for "price." After multivariable adjustment, obese people were more likely to report "fondness of good food" [OR (95% CI) for obese vs. normal weight women and men, respectively: 1.63 (1.38-1.91), 2.02 (1.72-2.38)]. Low-education people were more likely to report "fondness of good food" [mandatory vs. tertiary women and men, respectively: 1.93 (1.62-2.39), 1.51 (1.26-1.81)], but less likely to report "lack of willpower" [0.45 (0.38-0.55), 0.40 (0.33-0.49)] and "time constraint" [0.61 (0.51-0.73), 0.78 (0.63-0.96)]. Low-income people were more likely to report "price" [lowest vs. highest quartile for women and men, respectively, 1.65 (1.43-1.90), 1.47 (1.26-1.71)] but less likely to report "lack of willpower" [0.71 (0.61-0.82), 0.40 (0.33-0.49)].

Conclusions

Many barriers to healthy eating were highly prevalent; the most important determinants were age, obesity, education, and income, with different effects per barrier. This requires multifaceted interventions to tackle several barriers simultaneously.

Key messages:

- Several highly prevalent barriers prevent people from following healthy diets, and these barriers vary significantly across demographic and socioeconomic groups
- Given the role of diet in chronic disease development, we need urgent multifaceted interventions to tackle barriers to healthy eating in the population

9.F. Workshop: Cancer control in Europe - good evidence explored for higher quality of cancer care

Organised by: National Institute of Public Health of Slovenia
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Chairperson(s): Tit Albreht - Slovenia, Marc Van Den Bulcke - Belgium

Joint Action Cancer control aims at providing evidence for improved quality of cancer care services across Europe through exploration of good practices in several European countries. As particular foci of attention in this project four topics were put forward: comprehensive cancer control networks, patient care in community care settings, survivorship and screening. These topics will be elaborated in more detail in individual workshop presentations. A compilation of the findings will be put together as a guide for quality cancer control and should inform policy and decision makers of the possibilities to improve the quality of their respective cancer services through the implementation of the provided evidence of good practices.

Key messages:

- Improved cancer care through recommendations on four key topics in cancer care
- Quality of cancer care in Europe to be achieved through intense collaboration of European countries

Compilation of a high-quality Guide with operable policy recommendations for Member States: process, quality assurance and editing

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The general objective of work package 4 (WP4) is to coordinate the preparation of the 'European Guide on

Quality improvement in Comprehensive Cancer Control. Within WP4, a common methodology for preparation of the Guide is developed, the quality and coherence of the core chapters is ascertained, and the final Guide is compiled.

In order to achieve these goals, WP4 established a process for facilitation and follow-up of the development of the Guide. Additionally to elaboration of the core chapters where concerted policy recommendations are produced, WP4 also coordinates the writing of the overarching chapters such as introduction, summary and conclusions, thus leading to a high-quality Guide with operable policy recommendations for Member States. Two transversal issues were identified at the beginning of the JA: equity and cancer information. Dedicated experts support the WP leaders of the core chapters to maximize the application of these two topics in the policy recommendations.

As supporting tools to the core chapters, WP4 developed a methodology, templates and a guide for authors. The overall process is assisted by a Guide Coordination Committee (GCC), which includes the WP leaders of the core chapters, JA partners with expertise on specific topics, two external experts in policy guide compilation, representatives of the 'European Observatory on Health Systems and Policies' and the 'Joint Research Centre', policy makers of different Member States, and representatives of the EC. The GCC carefully revises the draft chapters and discusses - twice a year - the quality and coherence of the Guide and its final presentation. The revision process focusses on the materials and methods used in the chapters to assess whether these are sufficient to allow the development of widely accepted, evidence-based policy recommendations. Finally, WP4 is responsible to cross-check the coherence of the Guide with respect to nomenclature, references, recurrences or repetitions.

Survivorship – a challenging concept for the comprehensive cancer patient care

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Over the past decades, the number of cancer survivors increased substantially in most high-income countries, as a result of an increased cancer incidence and progress in early diagnosis and effectiveness of treatments. The 5-year global prevalence of all cancers concerns about 7.1 million people in Europe. Survivorship generates specific needs: either for those who are cured or for those who live with cancer as a chronic disease. We provide a list of 38 recommendations covering several topics across the cancer control continuum: clinical follow-up, management of late effects, tertiary prevention, supportive and palliative care, psychological support, social rehabilitation including back-to-work initiatives, self-management, clinical research in survivorship as well as cross-cutting issues about inequalities and children, adolescents and young adults survivors.

A European organizational survivorship care model is proposed for an integrated and personalised approach to cancer control and is summed-up in the following Key messages:

1. Cancer survivors' follow-up, late effect management and tertiary prevention needs to be anticipatory, personalised and implemented by means of care pathways, with active participation of survivors and relatives.
2. The improvement of early detection of patient's needs and the access to rehabilitation, psychosocial and palliative care services is required.
3. An integrated and multi-professional care approach with a coordination of community care providers and services are needed to implement a Survivorship Care Plan.
4. For children, adolescents and young adults (AYA) survivors, health and psychosocial consequences of cancer and its treatments need to be anticipated and addressed.

5. Cancer research in survivorship needs to provide more data on late effects as well as the added-value and the cost-effectiveness of supportive care, rehabilitation, palliative and psychosocial care interventions.

Cancer after-care in community care settings

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The advances in cancer treatment cause a constant rise in the number of cancer survivors and those patients in long remission periods. The importance of co-ordinating processes and patient pathways in cancer care has been increasing, and the collaboration between oncologists and GPs became crucial. Cancer after-care is the period of cancer care, when patients are in remission and have completed the planned disease-specific oncological care. They are monitored for recurrence and late effects of treatment. The organisation of this care differs largely across countries and may be organised through arrangements in hospitals and their outpatient departments, with primary care or in a combination of the two. We analysed clinical guidelines and current organisation of after-care in European countries for five cancer sites. Further, we explored the organisation and services in cancer after-care in five countries – Bulgaria, Denmark, Netherlands, Norway and Slovenia. We can observe large variations in the organisation of after-care across countries, many of which may be attributable to the difference in health care organisation. The latter are often a reflection of the patient preferences in a particular country. Concerning health care organisation, weight placed on primary care might be greater if there is a GP gatekeeping system in place. In such cases, GPs are by definition obliged to take over their patients' care after the completion of specialised oncological care. In contrast, this may be significantly different in countries where there is no GP gatekeeping function and there is a strong role for the specialist and hospital sector. Detection of recurrence seems the most important part of after-care. Compared to recurrence detection, long-term effects of cancer and prevention of cancer recurrence got less attention in the guidelines. Prevention recommendations are mostly not cancer specific, but more generic, applied on all non-communicable diseases.

Comprehensive Cancer Care Networks: A realistic model for optimising outcomes and minimising inequalities

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Currently cancer control is organized in different ways in different countries, but often also in different parts of the same country. A variety of patterns may be a good thing: as long as a system is sustainable and achieves the expected results, there is no reason to impose the same pattern everywhere. In Europe, the majority of cancer patients are treated in general hospitals or in dedicated institutions, such as Cancer Hospitals or Institutes; particularly in Comprehensive Cancer Centers (CCC). A CCC has many advantages, some of them obvious: concentration of oncology-dedicated qualified staff, larger volumes of patients enabling economies of scale, adequate numbers of patients with rare tumors that require special expertise, constant and easy opportunity for the personnel for being up-to-date, ability to design and to run clinical trials, expertise in epidemiology, oncology, cancer research, facilities for data management. New models of integrated cancer control aim to reconcile the expertise of high-volume referral centers with the greater accessibility of general hospitals. This can be done by network systems named Comprehensive Cancer Care Network (CCCN). It will exploit the strength of

individual Units within the network by fostering their synergy. By having multiple entry points, the network offers cancer control services to the entire population living in a specific area, so that inequities would be minimized, thanks to common principles, attitudes and guidelines among professionals. A CCCN may have several advantages: from avoiding duplications of facilities within a specific area, to the provision of a seamless care pathway even when patients have to be referred for complex treatment procedures. A CCCN gathers optimal conditions to conduct clinical and translational research, guaranteeing a critical mass of researchers and clinicians, patient's files and common platforms & SOP for tissue analysis, shared biological resources & bioinformatics facilities.

Evidence-based guidance for screening of six common cancer sites

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The purpose of this work package was to produce further advice and guidance for accurate implementation of cancer screening in the EU Member States in accordance with current European quality assurance guidelines for cancer screening. Challenges in screening implementation, addressed in this analysis, are related to issues in planning and gradual well-controlled introduction currently recommended programmes

in regions or settings where effective and cost-effective programmes do not yet exist; modifying or reorganising currently running programmes with new tests, treatments, policies or organisational models; and developing key strategic tools on evaluations needed for policy-making on possible new cancer screening programmes (other than for breast, cervical or colorectal cancer). There is a continuous need to develop further actions to ensure equal access to screening, taking account of targeting particular socioeconomic groups. The project team in screening explored the guidance for the three existing recommended screening programmes, i.e. for cervical, breast and colorectal cancer. Based on expressed controversies, challenges and upcoming evidence, they decided to explore the potential for three further screening programmes, prostate, lung and gastric cancer.

Cost-effective service screening programmes need integrated processes, monitored with standard key indicators throughout the screening chain, and integrated to outcome evaluation. Sustainable models for funding are still in focus in many Member States. Cancer control plans provide an essential mechanism where these issues can be further elaborated and integrated to planning for health services and cancer prevention. The potential new cancer screening programmes need to have new criteria laid for their implementation in order to fulfil system expectations, which today include appropriate HTA and quality assurance but also provide a balanced view of positive and potential adverse effects at the population level.

9.G. Oral presentations: Migrant and ethnic minority health nations and groups

Effect of Healthcare System information on healthcare-seeking behaviour among immigrants

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Background

Immigrants may face problems with access to the healthcare system due to e.g. lack of knowledge of how to navigate in the healthcare system. Danish municipalities provide a mandatory introduction and language program for newly arrived immigrants but no course of the healthcare system is offered. This may cause inappropriate healthcare-seeking behaviour which has been found previously. This study investigated whether there is effect of information about the Danish healthcare system on newly arrived immigrants' healthcare-seeking behaviour and healthcare use.

Methods

A prospective intervention study among 1,158 newly-arrived adult immigrants attending language schools in Copenhagen was carried out. Two intervention groups received a course or written information on the Danish healthcare system, respectively, while the control group received none. Survey data included case vignettes on healthcare-seeking behaviour and were linked to registry data on healthcare use and socioeconomic characteristics. Logistic regression analyses were performed.

Results

The course had positive effect on immigrants' healthcare-seeking behavior. In a case on chest pain, 15.7% were more likely to report appropriate healthcare-seeking behavior after

receiving a course, in a case on harmless flu, 74.0% were more likely to report appropriate healthcare-seeking behavior; this was true also for 43.2% who had received written information. In a case on depression, 11.8% were more likely to report appropriate healthcare-seeking behavior. Both intervention groups had lower use of emergency room the following year, for all other services we saw increase in their use.

Conclusions

Information on the healthcare system embedded in the language school program seems to facilitate immigrants' access to and use of healthcare. The results may form the basis of national changes in the municipal reception of immigrants and may be important for integration issues within healthcare in Europe.

Key messages:

- Previous studies have revealed inappropriate healthcare-seeking behaviour and use among immigrants
- Course on the healthcare system seem to improve the healthcare-seeking behaviour and use of healthcare services

Dementia burden among migrants in Denmark compared with Danish-born: a register-based cohort study

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Background

The burden of cognitive impairment has increased substantially as a consequence of population ageing. Ageing processes and morbidity patterns may vary according to country of origin, however little is known regarding cognitive impairment among the increasing numbers of ageing migrants in Europe. This study was undertaken to compare the burden of dementia among migrants and Danish-born.

Methods

A register-based, historical prospective cohort study. Refugees and family reunified immigrants (n=114,331) who had obtained residency in Denmark from 1993 to 2010 were included and matched 1:6 on age and sex with Danish-born (n=686,562). Personal identification numbers were cross-linked to the Danish National Patient Registry and the Psychiatric Central Register identifying all first-time dementia related hospital contacts between 1st of January 1994 to 31st December 2011. We estimated the incidence rate ratios (IRR) of dementia according to migrant status adjusting for age and sex in a Poisson regression. We further assessed the distribution according to type of dementia and main countries of birth.

Results

IRRs of dementia were slightly lower among migrants compared with Danish-born (0.91; 95% CI: 0.83-1.00). Family-reunified migrants had a significantly lower IRR for all-type dementia (0.65; 0.55-0.76) whereas migrants from Afghanistan had a significantly higher IRR (1.50; 1.09-2.08) compared with Danish-born. Migrants overall had a significantly lower IRR for Alzheimer's dementia compared with Danish-born (0.66; 0.53-0.83). Among family-reunified migrants the IRR was 0.48 (0.32-0.74). We found no significant differences in IRR for vascular dementia.

Conclusions

Incidence of dementia was significantly lower among family-reunified migrants but not among migrants from Afghanistan. Research is needed to identify factors including healthcare utilization, language and cultural barriers to diagnosis that may explain the lower incidence of dementia among migrants.

Key messages:

- Dementia incidence was significantly lower among family-reunified migrants, but not among Afghani migrants. Traumas associated with seeking refuge may be a risk factor for developing dementia
- Findings may reflect an overall low burden of dementia among migrants, however more research is needed to identify potential barriers in access to diagnosis for migrants groups

Ethnic variations in prognosis of patients with dementia: A prospective nationwide study

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Background

Data on dementia prognosis among ethnic minority groups are limited in Europe. We assessed differences in short-term (1-year) and long-term (3-year) mortality; and readmission after

a first hospitalisation or first ever referral to the day clinic for dementia between ethnic minority groups and ethnic Dutch population in the Netherlands.

Methods

Nationwide prospective cohorts of first hospitalised dementia patients (N = 55,827) from 1 January 2000 and 31 December 2010 were constructed. Differences in short-term and long-term mortality and readmission following hospitalisation or referral to the day clinic between ethnic minority groups (Surinamese, Turkish, Antilleans, Indonesians) and Dutch population were investigated using Cox proportional hazard regression models.

Results

Short-term and long-term risks of death following first hospitalisation with dementia were comparable between ethnic minority groups and the Dutch people. The risk of readmission was significantly higher only in Turkish (1.85; 95% CI, 1.27-2.69) and Surinamese (1.25; 95% CI, 1.01-1.53) compared with Dutch dementia patients. These differences were mainly explained by differences in comorbidities. There were no ethnic differences in short-term and long-term risk of death, and readmission among day clinic patients.

Conclusions

Mortality risk following a first dementia hospitalisation among ethnic minority groups is comparable to the Dutch majority population, but readmission risk tended to be higher among ethnic minorities particularly Turkish and Surinamese compared to Dutch. These differences were mainly explained by variations in comorbidities suggesting that prevention and effective management of comorbidities may help to reduce ethnic inequalities in dementia prognosis.

Key messages:

- Prognosis after a first dementia hospitalisation vary between ethnic groups
- The differences were mainly explained by variations in comorbidities suggesting that effective management of comorbidities may help to reduce ethnic inequalities in dementia prognosis

Are irregular migrants hospitalized for conditions preventable through primary care in Sicily?

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Background

Access healthcare services for irregular migrants is one of the main public health issues currently debated among European countries. Exclusion from primary healthcare services may lead to serious consequences for migrants' health. We analyzed the risk of being hospitalized for preventable conditions in the Sicily Region (Italy) among irregular migrants in comparison with regular migrants.

Methods

We performed an hospital-based cross-sectional study of the foreign population hospitalized in the Sicily region between the 1st January 2003 and the 31st December 2013. The first outcome was the rate of avoidable hospitalization among regular and irregular migrants. Second outcomes were the subcategories of AHs for chronic, acute and vaccine preventable diseases.

Results

85309 hospital admissions were analyzed and showed that irregular migrants have higher risk of incur in hospitalization for diseases preventable through primary and preventive care in comparison to regular migrants (Adjusted Odds Ratio 1.48,

95%CI 1.37-1.59). The risk associated with the irregular condition is higher for vaccine preventable conditions (Adjusted Odds Ratio 2.06, 95%CI 1.66-2.56) than for chronic conditions (Adjusted Odds Ratio 1.47, 95%CI 1.42-1.63) and acute conditions (Adjusted Odds Ratio 1.37; 95%CI 1.23-1.53). The trend of avoidable hospitalizations between 2003 and 2013 decreased both in regular and irregular migrants but faster for regular (Annual percent change -4.9%, 95%CI -6.5, -3.3) than for irregular migrants (Annual percent change -4.2%, 95%CI -6.9, -3.5).

Discussion

The results of this study point out that irregular migrants experience higher risks for their health in comparison with regular migrants probably due to a lack of access to the national healthcare service. Policies and strategies to involve them in primary healthcare and preventive services should be developed to tackle this inequality.

Key messages:

- irregular migrants experience higher risks for their health in comparison with regular migrants
- Policies and strategies to involve them in primary healthcare and preventive services should be developed to tackle this inequality

Genetic factors exist behind the increased risk to reduced HDL-cholesterol level in Roma population

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Background

Roma is the largest ethnic minority in Europe. In our previous study on the prevalence of metabolic syndrome and its components reduced HDL-C level was found significantly

more frequent in almost all age groups of the Hungarian Roma compared to the general population (Eur J Public Health 25:299, 2015). This fact in harmony with findings obtained in family and twin studies strongly suggests that plasma level of HDL-C is under genetic control. Our aim was to define whether genetic factors contribute to the higher prevalence of reduced HDL-C level and consequently to the increased susceptibility to atherosclerosis among Roma.

Methods

SNPs (N=22) affecting HDL-cholesterol level in genes LIPC(G), CETP, GALNT2, HMGCP, ABCA1, KCTD10 and WWOX were analysed in the Hungarian Roma (N=757) and general (N=1787) populations. Genetic risk scores unweighted (GRS) and weighted (wGRS) were calculated and compared within the study populations. In addition the correlation between wGRS and the prevalence of reduced HDL-C level was analysed in both study groups stratified by quintiles.

Results

Both GRS and wGRS were found significantly higher in Roma than in the general population (GRS: 18.6±3.4 vs. 18.1±3.3, p=0.001; wGRS: 0.54±0.10 vs. 0.52±0.11, p<0.001). Only 3% of subjects in the Roma population were in the bottom fifth of the wGRS (wGRS≤0.22) compared with 4.8% of those in the general population, while 7% of the Roma subjects were in the top fifth of the wGRS (wGRS≥0.7) compared with 3.5% of those in the general population (p=0.001). Furthermore the prevalence of reduced HDL-C level was significantly higher in the fifth quintile (with the highest genetic load) of the Roma population, than in that of the Hungarian general one (65% vs. 36.3%, p<0.001).

Conclusions

The Roma population has increased genetic susceptibility to reduced HDL-C level and consequently to atherosclerosis as it is indicated by higher GRSs values in comparison with that for the general population.

Key messages:

- High frequency of reduced HDL-C level among Roma seems to have genetic background
- Interventions targeting to improve Roma health status need to consider also the increased genetic susceptibility to atherosclerosis

9.H. Oral presentations: Risk behaviour in adolescents

Promoting reproductive health in adolescents: Implementation of the Health Belief Model

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Background

Over the last decade, increasing trends have been recorded in the spread of STDs and HIV infection. In developed countries these trends are located primarily in population groups with high-risk sexual behaviour

The purpose of this study is to investigate the knowledge and attitudes of teenagers towards STDs.

Methods

Participants were 260 adolescents attending public secondary schools in Cyprus, and 98 from public secondary schools in Greece. A perceptions and attitudes questionnaire was developed and distributed in accordance with the health belief model. An interactive seminar was performed according

to the needs of adolescents and evaluated with the same tool using a quantitative score scale for 3 outcomes (HIV, Hepatitis, Pregnancy/other STDs).

Results

Cyprus: After the intervention, perception of students on HIV issues has on average improved by 11 points (SD 5.8). This effect is statistically significant (p<0.0001) and the size of the effect is very high (Cohen's d=2.62). Similarly, average score on hepatitis improved by 9.6 units (SD=4) (p<0.0001) with a very high effect size (Cohen's d=2.89). For pregnancy and other STIs the improvement averaged 11.1 points (SD=5, 5) (p<0.0001) with also a very high effect size (Cohen's d=2.38).

Greece: After the intervention, there was a statistically significant increase in the perception for HIV (p<0.001) by 11.5 points, for Hepatitis (p<0.001) by 6.5 points and for pregnancy and other STDs (P<0.001) by 8.5 points. The effect size is very high in the three groups of perception (D=1.9, 1.69 and 1.36).

Conclusions

The beginning of sexual activity at an early age and misperceptions on STDs are some of the factors that affect

the sexual health of young people negatively. Sexual and reproductive health is shaped and influenced through specific socio-cultural variables (eg religion, family) and the school environment is a suitable context for relevant health promotion interventions.

Key messages:

- The health belief model can adequately predict adolescent attitudes towards STDs
- A short targeted health education intervention can improve adolescent STD awareness

Feeling that 1st intercourse was too early and associated risk factors among Belgian adolescents

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Background

The timing and context around the 1st intercourse are associated with risks of sexually transmitted infections and unplanned pregnancies. Negative experience may also affect long-term sexual health. We examined the associations of contextual factors around the 1st intercourse with the feeling that 1st intercourse was too early.

Methods

HBSC study is a WHO collaborative cross-national survey. Data were collected among 2,015 French-speaking Belgian adolescents aged 16-20 in 2014 who had already had intercourse. Variable of interest was about the feeling on the timing of 1st intercourse. Using logistic regression model, associations with age difference between partners, contraceptive use (including condom) and sociodemographic factors (for potential confounding effects) were assessed. Number of subsequent intercourse was included in model 2. The potential effect of time between the 1st intercourse and the survey was also included in model 3. Interactions with gender were tested.

Results

One in five adolescents (19.7%) reported 1st intercourse was too early. After adjustments, girls (OR: 3.0; 95%CI: 2.2-4.0), non-use of contraception (1.8; 1.1-2.9) and an older partner (≥ 3 years older: 1.7; 1.20-2.5 vs same age partner) were associated with feeling that 1st intercourse was too early. In the 2nd model, all these associations were unchanged and feeling that 1st intercourse was too early was associated with no other sexual intercourse since (3.5; 2.3-5.5). In the 3rd model, all the associations remained statistically significant and the feeling that 1st intercourse was too early was more frequently reported as the gap in time between 1st intercourse and the survey widened (1 year ago: 1.7; 1.1-2.9 – 2 years ago: 3.6; 2.2-6.0 – ≥ 3 years ago: 4.3; 2.6-7.1).

Conclusions

Feeling that 1st intercourse was too early was frequently reported, especially by girls and adolescents with an older partner. This feeling was associated with sexual risk behaviours and the time lapse.

Key messages:

- Having their first intercourse when they did not actually feel “ready” could place adolescents at higher risk of non-use of contraception (including condom)
- Education programs should help adolescents in assessing their ‘wantedness’ of 1st intercourse and in defending their decision, especially girls and adolescents with an older partner

Supporting Teenage Mothers: A Mixed Method Analysis of the Family Nurse Partnership in one UK site

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Background

Teenage pregnancy can lead to psychological distress and socioeconomic disadvantage. The Family Nurse Partnership (FNP) is an intensive nurse led home-visiting programme for first-time mothers under 19 years old and their babies, run by the English Government. This study examined key outcomes of the programme in one UK location. It used a mixed method approach, including mother’s own experiences of the programme.

Methods

Secondary data analysis was performed on data for 591 clients enrolled on the FNP. The data was routinely collected between 2007 and 2014. Information on demographic characteristics, key FNP outcomes and fidelity measures were examined. Comparisons were made with other available FNP studies. Interviews with FNP graduates were also undertaken to explore further effects the FNP has had on the maternal life course since completion of the FNP programme.

Results

A total of 347 (66%) mothers completed the programme. Attrition at all stages of the programme was lower than reported in other studies. Findings showed the programme had positive results in relation to key indicators. These included spacing of subsequent pregnancies – this study showed 1/3 of graduates had a subsequent pregnancy within 2 years compared to 2/3rds in another study; immunisation uptake (97% up to date at 2 years) and attainment of educational qualifications for mothers. Less positive effects came from smoking with 34% of mothers still smoking at 36 weeks. Interviews with the graduates are providing further insights into the impact of FNP on mothers post-graduation.

Conclusions

The findings suggest that FNP can deliver on key objectives, however it may not deliver on all of them. The researchers are working with the programme to support its development and to enhance the strengths and tackle areas where there are poorer outcomes.

Key messages:

- This research discovered significant positive outcomes from the programme e.g. a significant reduction in subsequent pregnancies & excellent uptake of childhood vaccinations
- Rigid fidelity to the original FNP model may be hindering some aspects of the service. Further development and evolution of the model is being undertaken and should be researched

Development of heavy drinking and psychological symptoms from adolescence to midlife in Finland

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Background

Even though heavy episodic drinking (HED) and mental health problems are correlated, no clear pattern has been found in their longitudinal associations. This study examined whether development of psychological symptoms differed between persons with different developmental paths of HED from adolescence to midlife.

Methods

Participants of a Finnish cohort study in 1983 at age 16 (N=2194) were followed up at ages 22 (N=1656), 32

(N=1471) and 42 (N=1334). HED was assessed with questions of frequency of intoxication (16-22 years) and having six or more drinks in a row (32-42 years). Using latent class growth analysis the participants were grouped to trajectory groups of HED: steady high, steady low, increasing, moderate with high start and moderate with low start. The psychological symptoms scale (16-42 years) covered five mental complaints (e.g. lack of energy). The latent growth curve of psychological symptoms was then estimated in the HED groups for comparisons.

Results

Results suggest that the general psychological symptoms trajectory grew linearly from 16 to 32 years, but declined after that. The steady high and steady low drinking groups had the highest and the lowest levels of symptoms respectively. The growth in symptoms was more gradual in women and did not exist in men, if HED was reduced after adolescence. In women the groups with change in HED trajectory (increasing, moderate with high or low start) did not differ in symptoms at age 42. In men frequent HED even in one life phase was

associated with a higher level of psychological symptoms in midlife compared to the groups where HED was at most infrequent.

Conclusions

Psychological symptoms increased in the transition from adolescence to adulthood in nearly all HED groups. Frequency of HED was temporally associated with the level of psychological symptoms. Combined mental health and substance abuse services should be developed in order to prevent alcohol and mental health problems simultaneously.

Key messages:

- There were differences in the development of psychological symptoms from adolescence to midlife between heavy drinking groups; the steady high drinking group having the highest levels of symptoms
- Decrease in the frequency of heavy episodic drinking after adolescence was associated with a more gradual growth in symptoms spanning to midlife

9.I. Oral presentations: Mental health at every age

Work stress, perceived control and alcohol consumption in Poland, Czechia and Russia: the HAPIEE study

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Background

The role of psychosocial factors such as work stress and personality, on health behaviours including alcohol consumption has been evaluated in the past. However, only limited literature is available on the interrelationship between work stress, personality and health behaviours. The aims of this analysis is to examine the role of perceived control and overcommitment in the relationship between work stress represented by the effort/reward imbalance (ERI) and alcohol consumption in three populations of Central and Eastern Europe and Russia where such an association has never been evaluated.

Methods

This analysis used data from the longitudinal population-based HAPIEE (Health, Alcohol and Psychosocial factors In Eastern Europe) study of men and women aged 45 to 69 years from Russia, Poland and the Czech Republic. Data from two waves of HAPIEE including 8,145 respondents with complete data were analysed by logistic regression and structural equation modelling (SEM).

Results

Higher ERI at Wave 1 was associated with higher levels of drinking in Wave 2 in age- and fully-adjusted models. Overcommitment was related to binge drinking in both sexes and to higher levels of drinking (in terms of volume) in men. SEM analysis suggests both direct and indirect effects through ERI of overcommitment on drinking outcomes. Lower perceived control was associated with higher levels of alcohol drinking. In SEM, perceived control partially mediated the effect of overcommitment on drinking and was negatively associated with ERI.

Conclusions

This analysis contributes to further understanding of the pathways by which work stress, represented by ERI, and personality constructs (e.g. overcommitment and perceived control) jointly influence alcohol consumption among older adults, and provides evidence essential for the development of policies and interventions.

Key messages:

- Psychosocial factors influence consumption of alcohol in three countries of Central and Eastern Europe and Russia
- Effort/reward imbalance and perceived control partially mediate the effect of overcommitment on alcohol consumption

Cohabitation and mental health: Is cohabiting as good for your mental health as marriage is?

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Background

Marriage is positively associated with better mental health. While research on the mental health of cohabiting individuals has increased in recent years, no consistent results have been found. Our aim is to assess whether the mental health of cohabiting individuals is comparable to the mental health of married individuals or to that of single individuals using longitudinal data on prescribed psychotropic medication.

Methods

We use data from an 11% random sample of the population permanently residing in Finland at the end of any of the years 1995 to 2007, with annual measurements of all covariates. Ordinary least squares and individual fixed effect models are applied to disentangle the relation between cohabitation and prescribed psychotropic medication, while controlling for relevant time-varying factors, such as education, economic activity and number of children. We focus on men and women aged 25 to 39 years in 1995.

Results

Descriptive results and the ordinary least squares model indicate that the likelihood of being prescribed psychotropic

medication was the lowest for married individuals, higher for cohabiting individuals, and highest for single individuals. After controlling for time-varying factors in the ordinary least squares model, the difference in likelihood of being prescribed psychotropic medication between cohabiting and married men and women disappeared. Further controlling for unobserved confounders by applying an individual fixed effects model did not change the non-significant difference in the likelihood of being prescribed psychotropic medication between cohabiting and married individuals, but it did decrease the difference between single and married individuals.

Conclusions

Overall, our results show that both men and women who are cohabiting do not have worse mental health than married men and women. This indicates that the initial difference found between cohabiting and married individuals is likely due to selection.

Key messages:

- Descriptive results suggest a gradient in prescribed psychotropic medication: it is lowest among married individuals, higher for cohabiting individuals and highest for single individuals
- Observed and unobserved factors explain the difference in prescribed psychotropic medication between cohabiting and married individuals, but not between married and single individuals

Burn out in university students: time now for implementing new public health approaches

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Background

The objectives were to determine the prevalence of burn-out (BO) and to identify associated compartment risk factors in university students.

Methods

A cross-sectional study was conducted in two French universities: Rouen and Paris-West in 2015. An anonymous self-questionnaire collected various information: sex, age, university curriculum, behavior risk, such risk of eating disorder and use of neuro-enhancement substances for exam preparation. BO level was measured using the Maslach Burnout Inventory with 3 levels: low, moderate and high level. The level of stress was measured using Cohen's Stress Scale.

Results

A total of 1134 patients were included (447 from Nanterre and 687 from Rouen). The mean age was 20.8 years old (SD = 3.6), the sex ratio M:W was 1:2. 15.3% of women presented a high BO status and 3.9% men ($p < 0.001$). The prevalence of high BO in the medical students was of 19.1%, 7.7% in psychology students and 0.4% in law students ($p < 0.001$). The mean stress level was of 13.25 (SD = 6.2) in the low BO group, 19.9 (SD = 5.9) in the moderate BO group and 24.4 (SD = 6.4) in the high BO group ($p < 0.001$). The regular use of energy drink before the exams was 3.8% in the high BO group, 4.2% in the moderate BO group and 8.4% in the low BO group ($p = 0.01$). The use of beta-blockers before the exams in the 3 groups was 0.4%, 0.4% and 0.2% respectively ($p = 0.02$). The use of cannabis before exams in the 3 groups was 1.2%, 1.2% and 3.3%, respectively ($p = 0.04$).

Conclusions

Prevalence of BO in medical students was high. The BO could have critical professional and personal consequences in medium and long term. To address this highly prevalent new

challenge, educators must first develop greater awareness and understanding of BO, as well as of the factors that lead to its development. Interventions focusing on generating wellness during medical training are highly recommended.

Key messages:

- Public health interventions should be taken to encourage vulnerable students to seek help for psychological problems, better management and efficient prevention
- Individual as well as institutional interventions should be targeted to prevent burnout among university students; especially in medical students

Organisational justice and insomnia: using observational data as non-randomized pseudo-trials

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Background

Organizational injustice may affect sleep quality, but previous empirical studies have not examined whether improvement in the psychosocial risk factors is associated with a beneficial change in sleep.

Aim

We examined the onset and removal of the exposure to organizational injustice (relational and procedural) in relation to subsequent changes in insomnia symptoms.

Methods

Participants were 24,287 Finnish public sector employees with data from three consecutive surveys between 2000 and 2012, contributing to a total of 36,189 observations. We applied a "pseudo-trial design" to determine temporality between deterioration in relational and procedural justice over the first two surveys, and onset of insomnia symptoms in the third survey. Similarly, we examined, if the improvement in the psychosocial exposures was associated with subsequent remission of insomnia symptoms. This design allowed us to examine whether removal of relational and procedural injustice was associated with better sleep in the third survey. Several social and health-related covariates were controlled for in generalized estimating equation based models, allowing to account for within person correlation.

Results

Onset of relational injustice was associated with subsequent insomnia symptoms (OR 1.15; 95% CI 1.02-1.30), whereas no association was found for procedural injustice (OR 1.08; 95% CI 0.95-1.22), after adjustments for sociodemographic factors, health behaviours, comorbid conditions, shift work and apnoea. Removal of relational injustice was associated with better sleep after full adjustments (OR 0.83; 95% CI 0.71-0.96). Removal of procedural injustice did not improve sleep (OR 0.91; 95% CI 0.77-1.06).

Conclusions

These results suggest that relational injustice can worsen sleep quality, while removal of relational injustice appears to improve sleep.

Key messages:

- Onset of relational injustice is associated with the onset of insomnia symptoms among people initially reporting good

sleep, while onset of procedural injustice appears to have little effect on sleep

- Since removal of relational injustice was associated with improved sleep, the results suggest that modifications of the exposure could help alleviate insomnia symptoms

Technology-based interventions for mental health promotion in later life: An evidence review

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Background

Given a changing demographic landscape, supporting healthy ageing is a public health issue. Recently, the role of technology-based tools in health promotion work has been highlighted. This systematic review analysed the available evidence on the effectiveness of technology-based interventions for the promotion of mental wellbeing among older adults.

Methods

The data originates from an evidence review project conducted by the National Institute for Health and Care Excellence (NICE) in the UK. Systematic searches were performed in 8 bibliographic databases and publications from the period 2003–2014 were considered. The target population was people

aged 65+ without extensive health or social care needs. Psychosocial interventions examining mental wellbeing and independence outcomes (e.g. life satisfaction, empowerment, social resources) were analysed.

Results

From the original review data material, 25 intervention studies were extracted covering technology use for educational purposes, computer/internet exposure or training, telephone/internet communication and computer gaming. The number of studies employing an RCT design and analysing comparable outcomes was low, resulting in the evidence strength being moderate and somewhat inconsistent. Four out of six studies with higher quality ratings (all focused on computer/internet training), reported statistically significant positive effects on psychosocial outcomes among intervention recipients.

Conclusions

The importance of digital inclusion and related training initiatives should be highlighted in the promotion and protection of wellbeing in later life. More methodologically rigorous studies are warranted, evaluating the influence of technology use in active and healthy ageing.

Key messages:

- Older adults must not be overlooked in the implementation of innovative health-promoting initiatives
- Effective technology-based interventions with a psychosocial approach can serve as best practice examples in this pioneer field

9.K. Workshop: Health impact quantification for a culture of “foresight”? Dyadic Workshop, part 2

Organised by: EUPHA section on Health impact assessment
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Chairperson(s): Rainer Fehr - Germany, Johan Mackenbach - The Netherlands

This is part 2 of a dyadic workshop on the quantitative modeling of health impacts resulting from policies and interventions within and outside the health sector. Here in part 2, there are presentations on three additional approaches, from a “tool-makers”/“tool users” perspective, and a summary presentation from a “policy perspective”, including tentative conclusions. Taking the two parts of the dyadic workshop together, a set of different approaches of quantitative modeling are presented and discussed. These real-life examples involve a considerable range of practical experiences with existing models and tools. The workshop compares and critically discusses them, and identifies appropriate steps forward. The discussion is planned to include the following questions:

- What was the (governance) question or problem that triggered the analysis?
- What model was applied, what data used?
- How were the following issues dealt with: (systemic) interactions, differential impacts/(in)equity, changes over time, uncertainty of estimates, visualization of results?
- How did decision-makers and/or the public react?

The (concluding) summary presentation focuses on the science-policy interface, from a practice/policy perspective.

Key messages:

- One step towards tapping the potential of health impact modeling for improving the health of the public is broadening the awareness of existing modeling tools and “good practice” examples

- Typifying tasks and challenges at the science–governance interface may help to identify situations in which health impact modeling can be deployed efficiently and successfully

Modelling the effect of food and smoking policies on the unequal distribution of the burden of coronary heart disease: IMPACT models

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Background and objectives

Our work at the Department of Public Health and Policy (U Liverpool) is driven by policy questions focused on what can be done to reduce social inequalities in health and their social determinants by elucidating pathways on the social production of disease, policies and preventive interventions. Although heart attack death rates will continue their decline, this will happen more slowly in socially disadvantaged groups. That represents an important and urgent target for prevention policies. The evidence base suggests that in order to prevent heart disease deaths, and reduce inequalities, interventions aiming to improve diet and lifestyle across the entire population tended to be more effective and equitable than interventions favouring individual behaviour change.

Approach

We developed a suite of models, IMPACT Food and SEC models, to explore several diet and smoking policies’ effectiveness to reduce the unequal burden of CHD mortality.

Results

Our findings suggest that the potential reductions in the burden and equity gains are huge. For example, a regulatory

policy to eliminate trans-fatty acids from processed foods in England would be cost-saving and equitable policy option to reduce the unequal social distribution of the burden. Similarly mandatory policies to reduce salt content in food was the most equitable and powerful strategy in our analyses. Increasing the intensity of current tobacco policies will have a substantial impact in smoking prevalence and to reduce the unequal mortality burden. Engaging with Public Health practitioners and Local Authorities in the northwest of England through the CHAMPS network gave us crucial insights on how to align our research with their reality of shrinking budgets.

Conclusions

Our studies show that “Upstream”, structural policies and interventions aiming to benefit the entire population, could have the greatest potential to reduce deaths, reduce social inequalities and generate net savings.

If your mission includes „foresight“, efficient modeling tools are needed

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Background

The NRW Center for Health (www.lzg.nrw.de) is legally required to support the state and local Public Health service comprehensively. The mission includes to identify emerging health risks, and spot new opportunities for health promotion. Hence, a capability of “foresight” is crucial and the institute – together with cooperant partners, e.g. U of Bielefeld – maintains a long-standing interest in modeling and prediction.

Approach

Over the years, needs for quantitative modeling kept emerging in fields such as drinking water privatization, demographic change, and falls prevention (concerning a housing subsidy program, we estimated that c. 3.000-8.000 hip fractures and 600-1.600 resulting deaths per year in NRW could be avoided by barrier-free housing or modification of existing housing stock). Models used implied different levels of sophistication; partially, the modeling took place in the framework of EC co-funded projects, incl. EPHIA (estimating the health effect of the European Employment strategy), ENHIS, RAPID. Specific efforts were directed at improving the data basis for modeling, e.g. within the Xprob cooperative project. To substantially analyse and improve the situation, an initiative to foster Public Health modeling was launched, together with institutions in UK and NL. The situations of modeling being helpful (or even needed) for supporting the Public Health service are numerous and divers, with the complexity of issues varying highly.

Conclusions

So far, quantitative modeling is not used often enough to firmly establish routine approaches at the science – policy interface. Many decision-makers (and indeed, Public Health professionals) are still unfamiliar with it, hesitating to recognize the inherent protective and promotive potential. As a general feature, adequate modeling requires time and effort; it would probably be used more widely if tools could be accessed and deployed with less effort, and results be grasped more easily.

The exposome and Health Impact Assessment

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Unraveling individual exposomes (i.e. the totality of exposures over a lifetime) would pave the way towards a new public health policy paradigm, focusing on precision prevention. Tools are needed which bring together external and internal exposures and take into account multi-level interactions, incl. with socio-economic and psychological modifiers. The INTEGRA project, using quantitative structure-activity relationships, produced a comprehensive computational platform that integrates multimedia environmental and micro-environmental fate, exposure and internal dose within a dynamic framework in time.

The applicability was tested on different types of chemicals including endocrine disruptors and carcinogen mixtures. Social and environmental (in)equity were dealt with by clustering the analyses among different population subgroups by age, gender and socio-economic status. Translating sub-estimates into population level health impacts allowed us to obtain statistically robust results which were taken up by the respective policy makers, including the European Food Safety Authority, the European Chemicals Agency, industrial actors and consumer organisations. Our analysis confirmed the need for a temporary Tolerable Daily Intake for Bisphenol A that is 10 times smaller than the previous one, in order to be thoroughly protective of all the European population. The recommendation was indeed taken up in the risk management decision-making process.

INTEGRA acts as a reliable connector for refined large-scale health impact assessment. It is underpinned by a large number of time-activity, behavioral and consumer choice databases as well as a number of multi-scale models. The HIA module efficiently extrapolates health impact from individual to population level while minimising residual uncertainty. Thus, exposome information is used for improved health risk and impact assessment taking into account different determinants/modifiers of individual exposure and susceptibility.

Modeling of health and disease in support of governance and decision-making - Conclusions

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All presentations in this workshop contribute recent examples of modeling health and disease in support of decision-making; they illustrate both the considerable potential and also major obstacles for successfully supporting governance. This presentation builds on additional experiences from related work, including on Urban Health; (Environmental) Burden of Disease; policies towards (mitigation of and) adaptation to climate change; environmental justice; and health assessments for assisting governance. CH is a member of the German Advisory Council on the Environment (SRU, www.umweltrat.de), an expert advisory body which assesses environmental conditions, problems, and political trends and points out solutions and preventive measures. RF was head of the NRW Center for Health (www.lzg.nrw.de) which provides support to the Public Health Service incl. local and regional level, as well as to State ministries. Building on our joint experience and integrative and transdisciplinary perspective, e.g. concerning departmental health plans, we try to typify tasks and challenges at the science – governance interface, to describe situations in which modeling health and disease can be successfully deployed, and – together with the other contributors and the workshop audience – to identify promising steps for the way ahead.

9.L. Oral presentations: Population groups and inequalities

Socioeconomic gradient in cardiovascular mortality in Eastern Europe and its possible explanations

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Background

Socioeconomic gradient in cardiovascular disease (CVD) exists in all modern societies but the main drivers of the gradient in different societies remain unclear. We examined the contribution of risk factors and other variables to the socioeconomic gradient in CVD mortality in four Eastern European populations.

Methods

We used data from a multi-centre cohort study in Novosibirsk (Russia), Krakow (Poland), Kaunas (Lithuania) and the Czech Republic (the HAPIEE Project). Among 15,333 men and 17,585 women (aged 45-69 at baseline) with complete data, 764 men and 348 women died from CVD during 7-year follow up. We also examined deaths attributable to smoking (n = 309) and alcohol (n = 110) and amenable to medical care (n = 444). Hazard ratios (HR) of mortality by education and material deprivation were adjusted for age and country (model 1) and additionally adjusted risk factors, lifestyle and treatments (model 2).

Results

Social gradients (in dose-response fashion) in CVD mortality were similar in all cohorts. In men, the hazard ratio of CVD mortality for university vs. primary education in model 1 was 0.51 (0.40-0.65) and 0.69 (0.53-0.90) in model 2. In women, the respective HRs were 0.49 (0.34-0.71) and 0.66 (0.43-1.02), respectively. For material deprivation, HRs for the worst vs. best tertile in men were 0.53 (0.43-0.65) in model 1 and 0.63 (0.50-0.78) in model 2; in women, the HRs were 0.53 (0.38-0.69) and 0.72 (0.52-1.01), respectively. There were pronounced social gradients in deaths attributable to smoking and alcohol and amenable to medical care.

Conclusions

Over one third of the social gradient in CVD mortality in these Eastern European cohorts was explained by variables reflecting established risk factors, medical history and treatment of risk factors. This is consistent with results on gradients in mortality attributable to smoking and alcohol and amenable to medical care and control of risk factors and offers clear targets for prevention.

Key messages:

- A modest set of covariates explains a substantial proportion of social gradient in CVD mortality
- The results suggest an important role of smoking, alcohol and medical care in social gradient

Social capital, academic well-being and school achievement: a longitudinal study in Finland

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Background

Family and school-related contextual factors have shown to impact on students' well-being and school achievement. Research on the associations between social capital and academic well-being and school achievement in adolescence is scarce and the results are inconclusive. We examined if social capital at the beginning of lower secondary school (age 13 years) predicts academic well-being and school achievement when graduating (age 16 years).

Methods

Seventh-grade students (N = 3696, 123 schools, 522 classes) answered a Health Survey and a Learning-to-Learn Assessment in 2011 and 2014. School social capital was evaluated by nine items on the relationships between students and teachers and by two items on students' mutual relationships. Family social capital was assessed by five items on how well mother and father knew about their children's activities. Academic well-being was assessed with the School Burnout Inventory, which comprises nine items. Academic achievement was measured by self-reported grade point average, GPA, at the seventh grade. At the ninth grade GPA was obtained individually from the national register of the basic education certificate. The data was analyzed by multilevel analysis.

Results

At the individual level the school social capital at the seventh grade predicted good GPA and low school burnout at the ninth grade (both p < 0.01) even when controlling gender and parents' educational status. At the school level, the mean of high family social capital at the seventh grade predicted high GPA and low school burnout at the ninth grade (both p < 0.001).

Conclusions

At the individual level school social capital, the positive and supportive relationships between students and teachers, predicts academic well-being and academic achievement while at the school level family social capital is important. Our results suggest that building school social capital is an important aspect of school health and education policies.

Key messages:

- School social capital predicts adolescents' academic well-being and academic achievement
- Building social capital should be taken into account in school health and education policy development

Socio-economic factors that stand at the basis of effectuating abortion on demand in Romania

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Background

The determination of socio-economic factors standing at the basis of the decision of effectuating abortion on demand, amongst general population and amongst Romany female population of Roumania.

Methods

- the identification of societal determinants of the decision of abortion;
- the description of the relations between the decision of abortion and the familiar status of the woman;
- the analysis of the relation between the decision of abortion and the economic conditions at the level of woman's sexual education.

Material and Methods

Descriptive transversal epidemiological study.

Period: February 2015 - February 2016.

830 women responded to a questionnaire regarding the material used the last time in the case of pregnancy interruption.

Results

About half of the interviewed women are aged between 17 and 29 years old. Of these 830 women, 79% come from urban environment, the rest of 21% coming from country side. Over 80% of these embrace the Christian-Orthodox religion and as many are of Roumanian nationality. The rest pertain to Romani minority. Almost 70% of them live with their husband or partner and the rest live alone. Only 33% are married and almost a half have never been married.

26% of the questioned women have acquired higher education, 11% of these are employed in the state sector, 18% in the private sector, with concern for the rest of the women, these not working at all.

Conclusions

Almost 70% of women have made a single pregnancy interruption on demand, while 16% of the total of questioned women have made 3 or more abortions. The most majority of the women aged between 20 and 21 invoked as main reason for the pregnancy interruption the lifestyle change, precarious economic situation, fear of being excluded from the Romani community.

Key messages:

- The abortion has on the one hand physical consequences, but on the other hand it has psychical consequences for a woman
- Unfortunately, many women become aware of what loss of pregnancy means only after the procedure

Reductions in housing benefit increases symptoms of depression in low-income UK households

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Housing security is an important determinant of mental ill health. We use a quasi-natural experiment to evaluate the mental health effects of the UK government's April 2011 reduction in financial support to help low-income persons rent private-sector housing (mean reduction ~ £1,220 per year (\$2,315)) to compare the prevalence of mental ill health before and after these changes. Data come from the UK Annual Population Survey, a repeated quarterly cross-sectional survey, and we focus our analysis on renters in the private sector, disaggregating between an intervention group receiving housing benefit (n = 36,859) and control group not receiving housing benefit (n = 142,205). The main outcome was a binary measure of self-reported mental health problems. After controlling for pre-existing time trends, we observed that, between April 2011 and March 2013, the prevalence of depressive symptoms in private renters receiving housing benefit increased by 1.8 percentage points (95% CI: 1.0 to 2.7) compared with those not receiving housing benefit. Our models estimate approximately 26,000 (95% CI: 14,000 to 38,000) people newly experiencing depressive symptoms in association with the cuts to housing benefit. Reducing housing

support to low-income persons in the private rental sector increases the prevalence of depressive symptoms.

Key messages:

- Reductions in housing benefit in the UK harmed mental health
- The impact of these cuts were greatest in the areas hit hardest by the reform

Child maltreatment and living standards in mid-adulthood: findings from the 1958 British birth cohort

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Background

Child maltreatment (abuse and neglect) has established effects on long-term mental health but less is known of its influence on adult life chances e.g. economic productivity. We aimed to establish associations of child maltreatment with such outcomes in mid-life.

Methods

We used 1958 British birth cohort data (N = 8,076) on child neglect and abuse (physical, sexual, physiological, witnessing abuse) and adult (45/50y) long-term sickness absence (LTS), not in employment, education or training (NEET), lack of assets, income-related support, poor educational qualifications, financial insecurity, manual social class and social mobility. Maltreatment associations were examined separately and combined as a score (0,1,2+), with and without adjustment for potential confounding factors.

Results

Abuse prevalence varied from 1% (sexual) to 10% (psychological); 5% were neglected. All maltreatments were associated with most outcomes, associations attenuated but largely remained after adjustment: e.g. for physical abuse the ORadjusted of LTS and NEET was 2.3(95% CI: 1.6,3.4) and 1.4(1.2,2.0) respectively. Sexual abuse and neglect groups were less likely to be upwardly mobile from birth to mid-adulthood (OR: 0.5(0.3,0.8) and 0.4(0.3,0.5) respectively). 10% of the population had one maltreatment, 6% had ≥ 2 , and there was a trend in risk of adverse outcome(s): compared to non-maltreatment, ORadjusted of LTS were 1.8(1.3,2.5) and 2.7(1.9,3.9) for one and ≥ 2 maltreatments respectively; and for NEET were 1.3(0.9,1.6) and 1.6(1.2,2.2) respectively. There was a graded association for ≥ 3 adverse adult outcomes, with ORadjusted of 1.4(1.1,1.8) and 1.7(1.3,2.3) respectively for those experiencing one and ≥ 2 maltreatments.

Conclusions

Childhood maltreatments have strong and robust associations with adverse mid-adulthood socioeconomic outcomes. The increasing trends in risk of poor adult outcome associated with higher number of maltreatments suggest they have an accumulating burden.

Key messages:

- Childhood maltreatments were associated with adverse socioeconomic outcome in mid-life
- Findings have implications for the future health of those exposed to maltreatment and potentially their children

9.M. Oral presentations: Hospital choice, public information and safety

Hospital choice matters: A 2006–2014 time-trend analysis of outcome variation in German hospitals

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Background

Cross-sectional analysis for different countries and medical conditions has shown huge outcome variation. Quality reporting systems have been put in place to reduce quality variation and improve hospital outcomes, but evidence on improved outcomes and reduced variation is limited and longitudinal analysis of outcome variation is rare to non-existent. An examination of outcome variation over time is critically needed.

Methods

Based on outcome data from 2006–2014 for 1600 hospitals, this study examines readmission and mortality rates for the emergency indications stroke, AMI and cholecystitis and the elective procedures pacemaker implementation, hip replacement, and PCI. Simple linear regressions with time as predictor variable and interquartile ranges (IQR) and box plots are used to examine trends in outcomes and outcome variation.

Results

Time trends vary by treatment area and indicator. Risk-adj. re-interventions after cholecystectomy (time coefficient of -0.1***), raw surgical complications for pacemaker implantation (-0.12***), and raw revisions due to complications after hip replacement have improved (-0.14***). Risk-adj. mortality for pacemaker implantation and hip replacement exhibit no trend. In contrast, risk-adj. mortality for PCI (+0.06**), stroke (+0.1***), and AMI (0.01*) has deteriorated. Similarly, outcome variation presents a mixed picture. For raw cholecystectomy re-interventions and pacemaker implantation complications, the IQRs have decreased by 1.6 and 0.7 pp from 2006–2014. For risk-adj. cholecystectomy re-interventions and pacemaker implantation mortality, improvement was small at 0.1 and 0.2 from 2012–2014. Outcome variation for the other treatment areas remained constant.

Conclusions

Outcome variation remains large. Policy makers, clinicians, and patients need to pay more attention to different hospital outcomes, through quality-related payment schemes but also better hospital choice based on publicly available information.

Key messages:

- After introduction of outcome transparency, outcomes have improved for some treatment areas (cholecystectomy, pacemaker implantation), but not for others (hip replacement, PCI, stroke and AMI)
- Outcome variation remains high for all examined conditions and highlights the importance of differentiating between good and bad quality hospitals

User clusters, click streams and barriers on Germany's public reporting portal Weisse Liste.de

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Background

Hospital benchmarking portals publish process and outcome data to facilitate hospital choice and strengthen quality

competition. Yet, evidence indicates that patients rarely use this information in their decision-making, partially due to complex and conflicting information. No studies exist that analyze how patients behave on portals and which information they seek out.

Methods

This study employs web-usage mining techniques on server log data of 55 million user actions from 2008–2015 from Germany's premier provider transparency portal Weisse Liste.de (WL.de). Clustering algorithms help to identify user types based on parameters like session length, referrer and page topic visited. Heat maps visualize sites with most traffic. Markov chains illustrate common click paths and premature exits. Post code and ICD search requests facilitate identification of geographical and treatment area usage patterns.

Results

In 2014, the WL.de portal had 2,098 daily users, with 714 leaving after only one click. Between 2008 and 2015, web page traffic grew at 17% annually. Users on average spent 10 minutes on the webpage, with 12.5 clicks and 50 seconds per click. 25% of all visits came from mobile devices, which had a 50% higher bounce rate than desktop devices. The top three searches in 2014 were coxarthrosis, gonarthrosis, and spontaneous delivery. Ten distinct user types were identified based on repeated sampling. Click stream analysis showed that 14% of users exit site prematurely after starting the search process and 5% of users exit after viewing pop-up explanatory notes.

Conclusions

Overall, WL.de usage is limited, but growing strongly. High bounce rates indicate the need to activate users on the homepage. Elective procedures generate the highest interest among users. But users are easily overwhelmed and impatient for concrete results, which results in a high abort rate. Users seem to prefer simple and fast results over a long multi-step, assisted search process.

Key messages:

- The study presents for the first time web-usage analysis of hospital benchmarking portal user data
- Users are impatient for results; they prefer fast results over a long, assisted search process

Meeting patient expectations: patient preferences and recovery after hip or knee surgery

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Background

Although patient centred care could help increase the value of healthcare, practice variations in hip and knee surgery suggest that physicians guide clinical decisions more than patient's preferences do. This raises the question whether treatment outcomes will still meet patients' expectations. This study investigated whether improvement on treatment outcomes measured by patient reported outcome measures (PROMs) match patients' importance ratings for these PROMs and fulfills patients' main expectations of surgery (i.e. pain relief or improved functioning).

Methods

All patients from 20 Dutch hospitals undergoing hip or knee surgery in 2014 were invited to a PROMs survey. Participants

were asked to rate the importance of each of the items of the HOOS-Physical Function Shortform (HOOS-PS) or the KOOS-Physical Function Shortform (KOOS-PS), the EQ-5D and the NRS pain.

Results

2776 patients completed the survey. The most common reason for surgery was improved functioning (43.7%). Although overall patients improved on all PROMs, patients who were unable to choose between pain relief and improved functioning improved more on the NRS pain and the EQ-5D than patients who primarily wanted to improve their functioning. For more than half of the items of the EQ-5D, HOOS-PS and KOOS-PS, patients' importance ratings were positively related to patients' improvement ($p < .05$).

Discussion

Patients consider most outcomes as important and mostly improve on them as well. However, the lack of a relationship between pain and function as reasons for surgery and improvement may suggest that the treatment results may not meet the patients' expectations of improvement on these outcomes. To achieve optimal value, tailoring treatment decisions using patient preferences and needs is vital. Additionally, the positive relationship between patient preferences and recovery of demanding functions suggests that engaging patients' interest in outcomes may help patients improve on these outcomes.

Key messages:

- As patients improved more on demanding outcomes if they considered these outcomes important, engaging patients' interest in outcomes may help patients make greater improvements on these outcomes
- Not all main reasons for surgery were linked to greater improvement on the matching outcomes. Tailoring treatments to patients' preferences may help to achieve optimal value

Safety Culture in Hospitals: A Quantitative Study

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Background

Hospital errors are a serious problem, killing more people annually than breast cancer or AIDS. Studies have shown that 2.9% to 16.6% of patients in acute care hospitals have suffered one or more adverse events and that approximately half of them could have been prevented. Our contribution is a pilot project belonging to the subject of patient safety, measuring the grade of patient safety in three hospitals. It is the first study of this kind conducted in Bosnia and Herzegovina and provides primary and exclusive insights into this important field.

Methods

The research is based on data which was first collected in an explorative and descriptive study. Individual qualitative narrative interviews were conducted with leading health professionals of the hospitals. The questionnaire was distributed to all hospital staff members with a response rate of 33%, so 100 questionnaires could be analyzed. The limitations of the study will be described in the presentation.

Results

The outcome dimensions "overall perceptions of safety" and "frequency of event reporting" gave significant insights into patient safety in hospitals. The latter showed that 32.3% did not report any events. In this respect, hospital management support for patient safety scored 55%. However, the overall perception of safety in hospitals was negative with almost 30%.

The lowest to average percentage of positive responses were on the composites of teamwork across hospital units (58%), communication (36%), handoffs (54%), non-punitive response to error (48%), feedback and communication (50%), and staffing (38%). The dimensions supervisor/manager (69%), teamwork within units (70%), and organizational learning (68%) generated the highest scores.

Conclusions

The study reveals generally low patient safety in the three hospitals analyzed in the research Project. It provides an insight into the grade of patient safety in the hospitals analyzed, pointing out various opportunities for improvement.

Key messages:

- The results of this study may support healthcare professionals to start a change process
- Appropriate strategies and instruments can be established to improve patient safety and quality

Efficacy comparison of three antiseptics for hand washing in operating room

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Background

Hand washing has been considered a measure of personal hygiene for centuries. An improper hand hygiene by healthcare workers is responsible for about 40% of healthcare-associated infections. Hand preparation is a critical element for healthcare safety in order to reduce microbial contamination of surgical wound in case of non detected break of the gloves. The aim of our study was to evaluate the efficacy of three antiseptics in reducing microbial load on surgeons hands: Povi-iodine scrub; EPG (Ethanol, Hydrogen Peroxide, Glycerol), and Marseille soap.

Methods

It was designed a single-center cross sectional study conducted in the University Hospital of Messina, from January to June 2013. We asked operators to put the fingertips of their right hand for 1 minute on the PCA medium, before washing with the three antiseptics, and after washing and drying. Drying was made using sterile gauzes or disposable wipes. Then, we measured the number of CFU per mL and calculated the percentage of microbial load reduction. Mann Whitney test was used to verify if the reduction of microbial load was statistically significant.

Results

210 samples were considered for statistical analysis. 42 were excluded because initial microbial load was lower than after washing. Washing with Marseille soap led to a reduction of microbial load of 64,3% (standard deviation 25,6), washing with Povi iodine scrub of 75,9% (s.d. 27,1), washing with EPG of 86,5% (s.d. 20,4). The reduction of the microbial load was statistically significant for each antiseptic.

Conclusions

Our study showed that washing with EPG had superior efficacy in CFU reduction. Hand washing cannot be considered the only measure to reduce infections: the anomaly of some results (initial microbial load lower than after washing) demonstrated that drying is an essential phase in the presurgical preparation. Therefore, hand hygiene must be part of a more complex strategy of surveillance and control of nosocomial infections

Key messages:

- We compared the efficacy in reducing microbial load reduction of three antiseptics used in operating rooms: EPG, povi-iodine scrub and Marseille soap

- We demonstrated the greater efficacy of the EPG, the antiseptic recommended by WHO

9.N. Pitch presentations: Impact and quality

Longterm impacts of disasters on European public health systems

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Background

Worldwide people are confronted with disasters. The types range from natural disasters to technological or man-made disasters. Depending on the conditions, a disaster may have different impacts on public health systems. Literature research revealed a severe lack of research concerning long-term impacts on public health issues.

Methods

Five disasters occurred in Europe were used for the in-depth analysis of long-term impacts on the public health system. A theory-based questionnaire was developed that served as guideline for the quantitative and qualitative data collection occurred by document analysis. For each case study interviews with seven experts who were involved in the disaster management were conducted. The interviews were analysed by GABEK (Holistic Processing of Complexity) in order to gain further information.

Findings

The analysis has shown that each disaster causes aftermaths in different fields. Most of the identified long-term impacts are the result of each disasters 'collected experiences and reflective analysis of operations and results. As the detailed analysis of each case study has shown, new structural, procedural, and legal concepts have been developed and implemented in elements of public health systems. Research has also shown that information relating to various impacts were not documented or specified.

Conclusions

A uniform and adaptive measurement system for specific questions of interest would support the assessment of long-term impacts. For the comparison of similar disasters the data reliability and validity can be facilitated. Because of the multiple dimensions that must be taken into consideration for an assessment, the participation of various stakeholders from different disciplines are needed.

Key messages:

- The assessment of long-term impacts of disasters on the public health system is characterized by absence of information and documentation
- For the identification and knowledge transfer of long-term impacts of disasters on public health systems high quality assessment analysis is needed

Monitoring health, well-being and service use with sample surveys in Finland – ATH study 2013 – 2015

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Background

Health, Well-being and Service Use - National Study of the Adult Finnish Population (ATH) monitoring system gives information on health and well-being together with the factors affecting them at national, regional and municipal level. Follow-up data on essential phenomena that are not found in registers were collected according to population groups. There is also a recognized need to distribute and communicate the survey results effectively to both researchers and decision-makers.

Methods

The ATH-study was conducted by questionnaire survey in 2013 – 2015 with sample of 169 500 Finns aged 20 years or more (response-rate 54% and adjusted weights). Information on residents' well-being, health and functional capacity were reported immediately to experts with maps, graphs, tables (www.terveytemme.fi/ath) and brief reports. The results were not only reported within administrative areas but also by urbanity and transit levels. This was possible using the geographical information (GIS) data for the ATH-participants.

Results

Sociodemographic and -economic, regional, area- and municipal-level differences in Finland were found in various indicators e.g. poor or worse self-rated health (municipal-level: Espoo 27% vs. Imatra 45%). The overall status of health in Finland has improved during the period 2013 – 2015. However health inequalities are significant. Similar differences were found in limited work ability, various health behaviour indicators, and use of service. These differences did not disappear completely although socioeconomic differences were accounted for. Local authorities have successfully included the results in decision-making.

Conclusions

ATH-study helps municipalities to cope with the statutory obligation to monitor residents' health and factors that affect it, by population groups. ATH-study is nationally and internationally valuable and comparable data and with GIS data it provides also new possible explanations to health and well-being differences.

Key messages:

- The ATH-study provides new knowledge and better understanding for the benefit of local governments and policy makers of factors related to residents' well-being and health
- The overall status of health in Finland has improved during the period 2013 – 2015. However health inequalities are significant

Impact of Medical Homes as a new model of Primary Health Care: a systematic review in the EU and EEA

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Background

The new 'Health 2020' European health policy framework urges the need to strengthen Primary Healthcare to improve

the equity, efficiency, effectiveness, and responsiveness of health systems. The Medical Home (MH) primary care model emerged in the US and has recently been implemented with different approaches in several European Countries with the aim of improving comprehensiveness, continuity of care and person-centeredness. This study aims to systematically retrieve and critically appraise the available evidence on the impact of this model in the European Union and the European Economic Area (EU/EEA).

Methods

We conducted a systematic review following the PRISMA guidelines. Studies published through November 2015 conducted in EU/EEA countries were identified by searching Medline, manual references listing and consultation with experts in the field. We included only studies that assessed MHs models in comparison with other models of primary care delivery. All possible quality, efficiency as well as clinical and economical outcomes were considered.

Results

3047 records were retrieved, 205 (6.7%) were selected at first screening, but only 2 papers met the inclusion criteria and were ultimately included in the review. The main reason of exclusion was being descriptive studies without quantitative comparison with other models. The two included studies assessed MH model implementation in Belgium on large national representative samples and reported increased quality of care and reduced costs in MH-based practices as compared to individual practices.

Conclusions

Although MH-based primary care services have been introduced in selected EU/EEA countries (including Italy, Belgium and Spain) scant evidence is available on their impact on clinical, economical and health services outcomes. In addition, in the context of different Health Systems, there is a lot of heterogeneity in MH models' implementation and it is difficult to define a single MH model definition.

Key messages:

- Medical Homes'- based primary care models have been introduced in selected EU/EEA countries but there is a lot of heterogeneity in their implementation in the context of different Health Systems
- Available evidence suggest that Medical Homes' models might be successfully implemented in EU/EEA, however long follow-up comparative studies should be carried out to measure their impact

Dietary inflammatory index does not modulate the association of Western diet with metabolic syndrome

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Background

The prevalence of metabolic syndrome (MetS) has been steadily increasing in countries of the Middle East, partly due to increased adoption of the Western dietary pattern and erosion of more traditional eating patterns. Chronic, low-grade inflammation has been proposed to mediate the association between the Western dietary pattern and MetS.

Objective: To investigate whether the inflammatory potential of the diet, as assessed by the Dietary Inflammatory Index (DII) modulates the previously observed direct association between the Western dietary pattern and the odds of MetS among Lebanese adults.

Methods

Data from the Lebanese National WHO Stepwise Survey were used to address the study objective. Analyses included socio-demographic, lifestyle, dietary as well as anthropometric and biochemical data of adult survey respondents (n = 331). The DII was calculated from 25 macro and micronutrients derived from a 61-item food frequency questionnaire. DII density (per 1000 Kcal) was used in data analysis. Dietary patterns previously identified in this study population were: Western, Traditional Lebanese and High Protein.

Results

The mean DII in the study population was -0.17 ± 1.41 . Subjects who were male, younger, non-married, smoked, and had lower education and physical activity levels had significantly higher DII. A strong positive association was noted between the Western dietary pattern scores and the DII ($r = 0.64$). As for the other two patterns, higher scores were significantly associated with lower DII values (Traditional Lebanese $r = -0.26$; High protein $r = -0.14$). No significant association was observed between the DII and MetS or any of its components.

Conclusions

The findings of this study did not support a modulatory effect of the inflammatory potential of diet on the association between the Western dietary pattern and MetS. The present findings are important to direct future investigations on diet quality and diet-disease relationships

Key messages:

- A strong positive association was found between the Western dietary pattern scores and the dietary inflammatory index
- The effect of the Western diet on metabolic syndrome is not modulated by the inflammatory potential of the diet

An examination of three models of Post diagnostic support (PDS) for dementia in Glasgow City

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Background

People with a new diagnosis of dementia in Scotland should be supported for the minimum of one year, using Alzheimer Scotland's 5 Pillar model. Guidance for PDS is not prescriptive in keeping with a person-centred ethos. The aim of this study is to describe different models of PDS in Glasgow City's three sectors in 2014/15.

Methods

A mixed method approach was used which included analysis of the data collected by each sector, a focus group and interviews with PDS linkworkers and other staff.

Results

Some Pillars were more easily achieved than others; for example the 4th Pillar, peer support, was not met by 42% of clients through their own choice, and this was consistently greater than the other Pillars, across all models. Stage of disease and socioeconomic make-up of the local population were raised as factors determining the form of PDS offered. Seasonal variation of caseload was also discussed, describing increases after the Christmas period. There was general agreement among all staff that 'caseload' was misleading and that a measurement of workload would be preferable. Agile/mobile working was preferred by linkworkers. All three models used a mix of supported self management workshops and one-to-one PDS, however variation between models was evident. Models varied by make-up of staff, using NHS linkworkers, third sector linkworkers (Alzheimer Scotland), or a mix of the two. Caseloads varied greatly between sectors. The proportion of clients with a personal care plan in place after 12 months varied by sector. Even within teams there was variation in

perceptions of PDS. In discussion it was clear that some felt the linkworker role to be one of signposting, while in reality the role often involved tasks well beyond that of signposting, and for longer than 12 months.

Conclusions

Guidance at the outset of the PDS programme was sparse. Variation between and within models should be investigated and learning used to inform guidance for future models of PDS.

Key messages:

- Current guidance for PDS for dementia in Scotland is lacking and the result is variation in methodology and delivery
- While PDS itself must be person-centred and therefore not too prescriptive, the model of delivery should be determined and made explicit

Patient empowerment and its association with chronic illness care in type 2 diabetes

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Background

The Chronic Care Model (CCM) proposes that quality diabetes care may be enhanced by planned proactive care, by community resources and self-management support. The Patient Assessment of Chronic Illness Care (PACIC) has been designed to assess implementation of the CCM from the perspective of the patient. When evaluating healthcare outcomes as concerns chronic conditions, such as type 2 diabetes, the importance of patient rated psychosocial outcomes – especially empowerment – has been highlighted. The aim of this study was to explore a) correlates of empowerment, and b) if PACIC is positively associated with empowerment when other important clinical and life-context factors are controlled for.

Methods

A cross-sectional mail survey, in 2011, of adults with type 2 diabetes in five municipalities in Southern and Central Finland (response rate 57%, n=2866). The data were analysed by means of descriptive statistics and multivariate logistic regression analysis.

Results

The preliminary findings suggest that patients with higher empowerment scores (DES-SF; over median) were older, more often female and married or cohabiting, had higher professional education, lower BMI and better glycaemic control, as well as more often had no diabetes related complications as compared with patients with lower empowerment scores. Factors independently associated with higher empowerment scores were female gender, higher education, feelings of energy, continuity of care (having a regular doctor) and higher quality of chronic illness care (PACIC), whereas diabetes related stress was inversely associated with empowerment.

Conclusions

The preliminary findings showed that empowerment was associated with better glycaemic control. The structure (continuity of care) and process of care (quality of chronic illness care), as well as sociodemographic and psychosocial factors, were independently associated with empowerment among adults with type 2 diabetes.

Key messages:

- Care congruent with the CCM as perceived by patients with type 2 diabetes – i.e. assessments of Chronic Illness Care (PACIC) – was positively associated with empowerment

- Healthcare personnel need to pay attention to sociodemographic and psychosocial factors in order to promote empowerment

Socio-economic position, surgical operations, and disability pension due to musculoskeletal disease

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Background

Socio-economic position is well-known determinant of disability pension due to musculoskeletal causes. It is also known that people with low socio-economic position do not always receive the needed treatments despite higher risk. The main objectives of this study are to analyze 1) how surgical operations are distributed among socio-economic groups, 2) how surgical operations are associated with risk of disability pension due to musculoskeletal diseases, and 3) do operations affect socio-economic differences.

Methods

This register-based study included 32,581 municipal employees of the City of Helsinki aged 20-60 years in 2000, who were initially healthy with no 14 days or longer sickness absence. Education, occupational class, and individual income were used as indicators of socio-economic position. Information on surgical and day surgical operations were analyzed. The outcome was disability pension due to musculoskeletal disease during follow-up until end of 2013. Logistic regression was used.

Results

The preliminary results show that socio-economic differences were large by occupational class (OR 7.43 among men and 5.94 among women, manual vs. upper white collar employees) and also evident by education. Surgical operations were equally distributed between socio-economic groups. As compared to no operations group, surgical operations increased (OR 1.45) and day surgical operations decreased (OR 0.62) the risk of disability pension among women. Practically, surgical operations did not reduce socio-economic differences.

Conclusions

Occupational class differences in disability pension due to musculoskeletal diseases were especially steep and consistent. Despite higher risk, lower socio-economic position employees did not receive more surgical operations. Measures to increase more targeted allocation of day surgery operations should be considered, as they reduced the risk of disability pension.

Key messages:

- Day surgery operations reduced the risk of disability pension due to musculoskeletal diseases
- Surgical operations in general had only minor effects on the socio-economic gradients

An integrated smoking intervention for mental health patients: a randomised controlled trial

Jenny Bowman: Jacqueline Bailey

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Introduction

Interventions with a potential population health impact are required to redress the disproportionate tobacco-related health burden experienced by persons with a mental illness. The efficacy of a smoking cessation intervention initiated within an acute psychiatric inpatient setting and continued post-discharge was assessed.

Methods

A two-arm, parallel group simple randomised controlled trial was undertaken across four psychiatric inpatient facilities in Australia. Participants (N=754) were randomised to receive either usual care (n=375) or a 4-month multimodal smoking cessation intervention (comprising pharmacological and behavioural strategies; n=379), upon discharge. Outcomes assessed at 6 and 12 months post-discharge were: 7-day point prevalence smoking abstinence (primary outcome); daily cigarette consumption, number and duration of quit attempts, nicotine dependence and readiness to quit (secondary outcomes).

Results

Abstinence rates were higher for intervention participants (16.9%) than controls (9.5%) at 6 months post discharge (OR

1.07, $p=0.03$), but not at 12 months (OR 1.02, $p=0.46$). At both 6 and 12 months post-discharge, intervention group participants were smoking fewer cigarettes per day ($p=0.005$), were more likely to have reduced their cigarette consumption by at least 50% ($p=0.02$), and to have attempted to quit one ($p=0.001$) or more ($p=0.002$) times, relative to controls.

Conclusions

Provision of 4 months of multimodal cessation support to all smokers following discharge from a psychiatric inpatient facility resulted in greater abstinence in the short term. Additional research is required to identify strategies for further promoting quitting behaviours and ultimately achieving sustained smoking cessation among persons with a mental illness.

Key message:

- The integrated intervention had positive and sustained effects on quitting behaviours, however only temporarily increased abstinence rates

9.0. Oral presentations: Methodology

Selecting indicators for the evaluation of European population health. A Delphi consensus study

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Background

This study was undertaken as part of EURO-HEALTHY consortium aiming to develop a Population Health Index, a multidimensional measure designed to evaluate the population's health across European regions. Underlying this index is the use of a population health approach that characterises the health of a population in multiple dimensions and indicators. To assure the integration of indicators from diverse areas of concern, the selecting process relies on the scientific evidence on health determinants and health outcomes complemented with expert opinion.

Methods

An enchaind two-round Delphi process was conducted to achieve consensus on the set of indicators considered relevant to evaluate population health. The panel consisted of 81 participants (51 consortium researchers and 30 stakeholders) representative of different areas of knowledge. A web-platform was established for implementing and monitoring the process. The panel was asked to indicate the level of agreement or disagreement with the relevance of each indicator, on a 5-level Likert scale. Consensus was pursued through two rounds (enchaind) and was defined by a certain level of agreement based on the following standards: absolute majority (agreement above 50%) and qualified majority (agreement above 75%).

Results

From the preliminary set of 130 indicators, participants reached consensus on 80 indicators related to the following health-related dimensions: i) Economic and Social Environment; ii) Demographic Change; iii) Health Behaviours; iv) Physical Environment; v) Built Environment; vi) Healthcare Services and vii) Health Outcomes. There was a higher degree of

convergence of group opinion on health outcomes, health behaviours and economic and social determinants.

Conclusions

Generated in a holistic and comprehensive approach of health, these findings should inform future research on population health measurement and on relevant indicators to evaluate population health at European regional level.

Key messages:

- The selection of a broad range of indicators from diverse areas of concern plays a crucial role in measuring population health and health inequalities
- The indicators selected through the Delphi process revealed the holistic nature of population health evaluation and valuable evidence from expert opinion representing trans-disciplinary backgrounds.

Prognostic value of a single item child health indicator (self-rated health) for health outcomes

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Background

Self-rated health (SRH) is a single item health status indicator widely used in child and adolescent social surveys although its prognostic value for future health status is documented primarily in adults and not in children and adolescents.

Methods

The KiGGS-cohort is based on the Health Examination Survey of Children and Adolescents 2003-2006 (age 0 to 17 years) and had a follow-up interview 2009-2012 with 11,996 participants. Longitudinal association of parent-rated-SRH (p-SRH, participants <=13 years) and child-rated-SRH (c-SRH, participants >=11 years) dichotomized as very good/good vs. fair/poor/very poor) with three incident KiGGS1 health-outcomes were investigated using logistic regression analyses: reported long-term health-related functional difficulties, parent- or self-reported chronic disease/health condition and (3) consultation of >=5 medical specialties in the last 12 months.

Results

Baseline p-SRH was very good/good in 94.4%, improved in 4.1% and deteriorated in 4.8%. C-SRH was very good/good in 85.6%, improved in 10.0% and deteriorated in 9.0% six years later. Fair/poor/very poor p-SRH for children aged 0-13 years at baseline was predictive for incident health-related functional difficulties (OR 3.51, 95% CI 2.31-5.34), incident chronic disease (girls OR 3.13, 1.96-5.00; boys OR 1.56, 1.05-2.34) and multiple consultations (OR 1.84, 1.20-2.83) (adjusted for age, sex and social status class). Similarly, C-SRH for adolescents aged 11-17 years at baseline was predictive for incident chronic disease (OR 2.06, 1.41-3.00) and for multiple consultations in girls (OR 2.60, 1.57-4.30) but was not predictive for multiple consultations in boys aged 11-17 at baseline and not predictive for functional difficulties in children aged 11-13 years.

Conclusions

P-SRH and c-SRH predict incident health outcomes in children and adolescents and are thus valuable single-item health indicators for health and social research.

Key messages:

- Evidence is growing to support the prognostic value of SRH in children
- As a single-item health indicator with prognostic value SRH is valuable for health and social research

The interdisciplinary research network GeUmGe-NET on sex/gender in environmental health research

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Background

The interdisciplinary research network GeUmGe-NET evaluates the current state of knowledge, underlying concepts, and methods used in research on sex/gender and environmental health. It aims to provide starting points for further development of methodology by integrating sex/gender concepts and to develop recommendations useful for environmental health monitoring, promotion, and protection. Researchers from environmental epidemiology, toxicology, environmental medicine, public health, gender studies and social-ecological gender research constitute the network.

Methods

Within the working area public health research on environmental health the rapid review-method was used to systematically assess the current state of consideration of sex/gender in research on social inequalities in environmental health. The search was conducted in PubMed starting in the year 2000. Data were extracted on general study characteristics and specific concepts or results of the integration of sex/gender dimensions. Due to heterogeneity of the included studies a narrative analysis was performed.

Results

Though 552 studies analysed social inequalities in environmental health, only 45 studies mentioned sex/gender in the abstract, 11 studies analysed it further. There was no consideration of theoretical sex/gender concepts. The biological dimension (sex) was predominantly addressed and analysed as effect modifier in multifactorial risk models. Explanatory approaches for identified differences in the included studies were also biological (sex) orientated. Even two studies demonstrated rigid gender stereotypes.

Conclusions

The systematic literature search confirmed the prior assumption that the conceptual implementation of gender in public

health research on environmental health inequalities and environmental justice is non-existent. The systematic integration of both biological and social dimensions of sex/gender and their interplay would enhance significance and validity of research.

Key messages:

- Systematic consideration of gender in research on environmental health inequalities and environmental justice is missing
- The interdisciplinary research network GeUmGe-NET aims to enhance integration of gender concepts into environmental health research

Beyond classical test theory-assessing function using item response theory/computer adaptive testing

Christine McDonough

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Issue/problem

The U.S. Social Security Administration (SSA) disability programs receive nearly 3 million new applications per year and must conduct periodic reviews of existing beneficiaries. Resource constraint coupled with the sheer size of the SSA disability programs demands innovative approaches to more fully inform decisions about work disability.

Description of the problem

Functional assessment surveys consistent with classical test theory require administration of a fixed set of questions to produce a total score, regardless of question relevancy to the respondent. Comprehensive assessment of whole person functioning across relevant activity domains would require a lengthy question set, potentially burdensome to respondents. To enhance instrument precision, classically-based assessments must narrowly define target populations, reducing generalizability and utility among populations possessing a range of health conditions and functional levels.

We wanted to know if it would be feasible to develop a self-report instrument that systematically, comprehensively, and efficiently assessed functional activity. Over the course of 7 years, the National Institutes of Health and Boston University developed a 313-item instrument using item response theory (IRT) and computer adaptive testing technology (CAT).

Results

The Work Disability Functional Assessment Battery (WD-FAB) covers 4 mental domains (mood and emotions; resilience/sociability; self-regulation; and, cognition/communication) and 4 physical health domains (basic mobility; upper body function; fine motor function; and, community mobility).

Lessons

The WD-FAB uses IRT/CAT methods to increase instrument precision and efficiency and produce 8 sub-domain scores in approximately 15 minutes. These scores may be tracked over time and used to detect aberrant response patterns.

Key messages:

- IRT/CAT is a promising approach to quickly and comprehensively collect self-reported function
- IRT/CAT scores may be examined over time to identify changes in function and aberrant responses

9.P. Workshop: Intercultural communication in health care

Organised by: Gesundheit Österreich; Austrian Ministry of Health; International Forum Gastein; European Association for Communication in Healthcare; University of Vienna - Department of Linguistics

Contact: peter.nowak@goeg.at

Chairperson(s): Pamela Rendi-Wagner - Austria, Dorli Kahr-Gottlieb - Austria

Communication competencies and cultural awareness in health care is increasingly seen as an area European health systems will need to direct more attention to in the future. The current very high influx of refugees and other migrants into Europe has boosted this need for intercultural communication skills and has heightened the pressure on health systems to offer specific training and practice. Cultural differences, similarly to differences in socio-economic background, often constitute challenges to clinician-patient communication, which in turn could lead to adverse health outcomes. In the case of newly-arrived refugees, language barriers, cultural prejudices and low (health) literacy levels often pose additional communication challenges in health care.

These challenges occur in a situation in which patient centred communication practice has already been discussed for decades without significant improvement in everyday communication practice, despite the fact that a broad body of evidence underlines the importance of good communication and intercultural skills in health care. These have positive impact on patients' state of health, on health-related behaviour, patient satisfaction, patient safety, health and job satisfaction of employees and on financial aspects of the health care system. Improving the quality of communication in health care therefore is urgently needed to further develop patient centred and efficient health care and the health literacy of the population. The current refugee movement may help to trigger and support the implementation of this essential reorientation in health care.

This workshop aims at providing

- an insight on how culture influences communication in health care,
- latest results from linguistic studies on the communicative barriers in intercultural communication and the use of interpreters in health care,
- examples of state of the art approaches in teaching cross-cultural communication to health care professionals
- main aspects of and lessons learned from the strategic development of communication in health care on a national health systems level

The discussions in the workshop will highlight the importance, challenges and opportunities in changing the communication culture and practice in a time of heightened intercultural challenges within European health care systems. It will deepen the understanding of how to achieve a real change of culture and practice of intercultural communication in health care on an individual professional level as well as on the level of regional and national health care systems. Pathways for improving the health literacy of multicultural populations will be introduced and discussed in the course of the workshop.

The workshop will be organised around four presentations including the experience of practitioners in intercultural communication, linguistic researchers, public health policy makers and experienced cross-cultural communication skills trainers.

Key messages:

- Developing (intercultural) communication skills is key to providing patient-centred health care and enhancing health literacy. This has become more urgent due to the current refugee movement
- The implementation of intercultural communication needs a multi-strategic approach including professional training, organisational development and, very importantly, national policy strategies

Intercultural communication - a practical introduction

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As a basis for our discussions, concepts and approaches in intercultural communication will be introduced. We will highlight in what way culture influences and shapes the way we communicate and how intercultural awareness and competence can supply us with tools for challenging communication situations in health care and beyond. In this workshop participants will be invited to engage in some practical intercultural communication training approaches, where we will look at intercultural communication concepts like high context versus low context communication or the differences between individualistic and collectivist cultures.

Linguistic research on intercultural differences and language barriers

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Linguistic research is cautious with the attribution of intercultural differences in communication, as the danger of premature generalisations on the basis of argumentative fallacies is not to be neglected. We will provide examples where allegedly intercultural differences (or prejudices) can be re-analysed more adequately as simple communicative barriers or consequences of poor rendition in non-professional interpreting. Some specific recommendations concerning the most frequent multilingual forms of interaction in medical communication, i.e. intercultural communication, professional, and non-professional interpreting, will be drawn from our findings to deepen the workshop discussion.

Methods for teaching cross-cultural communication

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Cross-cultural communication is difficult because one has to deal with one's own cultural assumptions and find a balance between stereotyping and perspective; teaching it requires specific skills, knowledge and an open and non-judgmental attitude. This presentation will discuss a variety of methods for teaching cross-cultural communication on the following topics: cultural awareness, how to involve a (professional) interpreter and how to communicate in a triad of patient – interpreter – clinician and communicating with patients with low literacy.

Developing a national strategy to improve communication in health care – key learnings from Austria

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Initiated by the national health target “Enhancing the health literacy of the population” a nationwide strategy was developed in Austria to improve the quality of communication

in healthcare. In close collaboration the main financier of the Austrian health care system developed the principles and action fields for a strategic shift. This was done on the foundation of a basic research on the state of art and actual practice of communication in health care in Austria. We will present the main steps of the process, the outcomes and lessons learned from this attempt to reorient health care to patient centred communication. Thus the necessary aspects of a strategic framework for the effective implementation of intercultural communication will be identified.

9.Q. Oral presentations: Further developing public health

Inequalities in HIV knowledge among Pakistani mothers: Results from Demographic Health Survey 2012-13

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Background

HIV epidemic is expanding in Pakistan, where majority of HIV cases are vertical transmission from mothers through infected husbands. It is expected that HIV infected women in reproductive ages will rise further in the country. Ignorance regarding disease among masses remains well established risk of transmission. We aim to explore socio-economic inequalities regarding HIV knowledge among Pakistani mothers in reproductive age group.

Methods

Pakistan Demographic and Health Survey, 2012-13 data was used (n=13558). Knowledge regarding HIV transmission, prevention, and available health services was assessed through 12 questions in the survey. No knowledge regarding HIV (wrong answers to all 12 questions) was used as outcome variable. Socio-economic profile of participants was assessed by the wealth index, and highest level of education. Inequalities were measured through logistic regression based Relative index of inequality (RII), and Slope Index of inequality (SII) on having no knowledge after adjusting for age. Separate analyses for urban and rural residence group were performed to compare the differences among the two groups.

Results

More than half of all participants (56.4%, n=7652) had no knowledge about HIV. According to the results, socio-economic inequalities in knowledge about HIV exist, and the poor and illiterate remain disadvantaged. Education related gap among rural dwellers is widest of all [Rural: RII=237 (95% CI 236.7, 237.2), SII=-2.69 (95% CI -2.93, -2.44)], [Urban: RII=8.93 (95% CI 8.69, 9.16), SII=-3.10 (95% CI -3.33, -2.86)]. Wealth related disparities also exist [Rural: RII=5.19 (95% CI 4.93, 5.44), SII=-3.40 (95% CI -3.66, -3.15)].

Conclusions

More than half of all Pakistani mothers of reproductive age group in the national survey had absolutely no knowledge about HIV. Significant knowledge related socio-economic inequalities exist, and the poor and illiterate remain at a disadvantage

Key messages:

- Improved HIV programs are urgently needed to create awareness about the HIV among population

- Educate mothers to mitigate issues like elevated risk of transmission, social stigma, and lower case reporting and treatment rates among women

Age at natural menopause: Results from the German Health Interview and Examination Survey

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Background

Menopause marks the end of women's reproductive life and is an important event connected to the personal well-being and health. The age at natural menopause is strongly related to health outcomes and is of public health interest. Menopause, occurring in too early or too late life stage, is known to be a risk for various diseases. In the current study, we describe the factors related to natural menopause for women in Germany.

Data and Methods

Data comes from the 'German Health Interview and Examination Survey for Adults' conducted by the Robert Koch Institute. The baseline was in 1997-1999 (t0) and follow-up in 2008-2011 (t1). We excluded women who experienced surgically induced menopause. Women aged 30 and above at t1 (n=1,512) are included in the analysis. We use cox proportional hazard regression to analyze the timing of menopause and investigate the factors that influence this timing. Information both from t0 and t1 is used such as socio-demographic characteristics, health behaviour and status information.

Results

The mean age of menopause in our sample was 49,7 years. The preliminary results from the cox regression did not show any significant influence of oral contraception or hormonal therapy use. Contrary to the expectations, age at menarche, number of live births and education level did not show any significant relation to menopause. However, obese women experienced significantly earlier menopause than women with normal weight did. Smoking and sport activity at baseline were also related to age at natural menopause. Further, we found a cohort effect, with the younger cohorts experiencing menopause at later stage in life.

Conclusions

The preliminary results showed that the modifiable risk factors, such as smoking, sport activity and obesity had the strongest association with age at natural menopause. These findings can help the identification of women at risk and implementation of appropriate health interventions aiming at better health outcomes.

Key messages:

- The younger cohorts experience menopause at later stage in life
- Modifiable risk factors had the strongest association with age at natural menopause

Academic ethics discourse on international health worker migration: a qualitative structured review

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Background

The international migration of health workers and ethical implications have long been debated in health policy literature. The ethics discourse in scientific literature, however, has not yet been carefully examined with a qualitative approach. This study seeks to answer: to what extent are the ethics of international recruitment targeted in existing peer-reviewed literature? It uses the findings to discuss practical implications regarding urgently needed equity creating health policy.

Methods

A qualitative structured literature review was conducted, searching PubMed and Web of Knowledge. Quality of articles was assessed using the Critical Appraisal Skills Program checklist for qualitative research. Outcomes measures were common themes, identified, coded and analyzed across the sample.

Results

Seven articles were analyzed, and predominantly targeted nursing and physicians. Thematic analysis revealed ethics to be discussed in relation to general overviews regarding the situation of health systems, and causes for migration. Proposed solutions ranged from global policies and financial agreements, to national and local changes. Implementation and evaluation schemes are critically lacking. Overall, the academic ethics discussion is limited, focusing mainly on the health systems level, and less on health workers and receivers as individuals.

Conclusions

The results show a lack of reflection on ethical concepts and limited discussion, suggesting scientific articles aim to inform policy within the current system, without necessarily proposing changes to the status quo. The current discussion may increase awareness and support incremental policy adjustment, but does not extend to a deeper discussion on equity necessary for improvement. Research is needed to inform innovative policy measures that can effectively respond to the impacts of health worker migration. Such evidence-informed measures are crucial for increasing health for all in a connected global world.

Key messages:

- Ethical recruitment as a concept is widely discussed, yet limited to an abstract systemic viewpoint that is difficult to translate into actual policy changes

- Innovative solutions beyond the recruitment status quo are still lacking from scientific discourse. Equity as a policy goal could be theorized more strongly by researchers

E-learning to improve healthcare professionals' attitudes and practices on breastfeeding

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Background

Breastfeeding training has a crucial role in increasing healthcare professionals' knowledge, skills and attitudes and in improving breastfeeding support. The collaboration between the Italian National Institute of Health, UNICEF and the Local Health Authority of Milan has led to the development of an on-line course on lactation and infant feeding practices, open to all healthcare professionals.

Objective

The objective of the e-learning program was to improve attitudes and practices of healthcare professionals. The course was composed of 2 e-books, 4 mandatory case studies and 4 optional learning activities. We compared attitudes and practices before (T0) and after (T1) the course using a 20-item questionnaire. The cohort was composed of all healthcare professionals who had: 1) passed the final knowledge test, 2) answered questions on attitudes and practices at T0 and T1, and 3) answered items about satisfaction. The differences between T0 and T1 were analyzed using Wilcoxon's signed rank test. Lower scores indicated more positive attitudes and more frequent professional practices favoring breastfeeding. Statistical analysis was conducted using SPSS version 15.0.

Results

The course had 26009 registrants and the final test was successfully completed by 91.3%. The eligible cohort was composed of 15004 participants. The course improved attitudes, while minor changes were observed on practices ($p < .05$). The main effects regarded the use of medications during breastfeeding (T0: 3.02 ± 1.29 , T1: 1.88 ± 1.08) and reported compliance with the International Code of Marketing of Breast Milk Substitutes (T0: 2.29 ± 1.24 , T1: 2.03 ± 1.21).

Conclusions

This high-coverage e-learning approach seems to be a useful tool to improve awareness and positive attitudes towards breastfeeding.

Key messages:

- Web-based educational interventions can reach an extensive number of professionals
- Web-based educational interventions can successfully complement the face-to-face and on-the-job learning experiences

PARALLEL SESSION 10

SATURDAY 12 November 2016 11:10-12:40

10.A. Skills building seminar: 50 shades of grey in scientific integrity

Organised by: EUPHANxt and EUPHA Section Ethics in public health
Contact: e.l.m.maeckelberghe@umcg.nl

Chairperson(s): Tjede Funk - EUPHANxt, Peter Schröder-Bäck - The Netherlands

Background

Researchers are passionate about science, and doing it right. Science is what keeps us going – the curiosity for how the world is built and how things come to exist – and if we want to explore that, we have to do it in a good way. That means methodologically and ethically good. Fraudulent behaviour in science is unacceptable and most researchers would never dream of straying from the methodological and moral norms of science.

Researchers, however, are just like ordinary people: they are honest, but every now and then, there are small choices they need to make that could endanger their honesty. There are many temptations to deviate from the norms of good science. These digressions undermine the trustworthiness of science.

Objectives

- Recognise ethical issues in daily research practice
- Discussing opportunities to deal with ethical issues in research
- Understanding and applying the principles of good research

Format:

There will be a short introduction to the workshop (15 minutes) setting the stage for the average day decisions that make each and every researchers work morally challenging.

During the workshop we will watch/play Integrity Factor. This is a film focusing on a PhD student at the beginning of her doctoral research and using a choose-your-own-adventure structure. The audience decides how to respond to realistic scenarios where there is potential for misconduct.

In this workshop, after each scene, the participants will discuss the options and decide together what to do in these specific

cases. They will learn a lot about the decisions they make, in what context they are set and why small deviations are often harder to deal with than blatant misconduct.

It promises to be a Very Interactive Workshop (VIW) where participants decide on the outcomes.

See: www.integrityfactor.nl

Key messages:

- Small temptations to deviate from the norms of good science can undermine the trustworthiness of science
- Scientific integrity is about the courage to openly discuss what 'good' research is about

'Do the right thing' in scientific research: short introduction

Els Maeckelberghe

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Errors arising from human fallibility occur in science. Scientists do not have limitless working time or access to unlimited resources. Honest mistakes can happen. Negligence however, does not fall in that category. When we talk about negligence, we refer to a person being sloppy. Haste, carelessness, inattention – any number of faults can lead to work that does not meet the standards demanded in science. When a scientist is negligent, he or she is not following the methodological rules of science. Deliberate dishonesty (e.g., fraud, falsification, plagiarism) is about not following the moral rules of scientific behaviour. While both deliberate dishonesty and negligence are harmful to science, the consequences will be different. Negligence can often be repaired; fraud is unrepairable.

10.B. Workshop: Factors influencing sexual orientation based disparities in physical health across Europe

Organised by: EUPHA proposed section on Sexual and gender minority health and Austrian Public Health Institute
Contact: arjanvanderstar@live.nl

Chairperson(s): Arjan Van Der Star - Sweden, Richard Bränström - Sweden

Reduction of health disparities is a fundamental goal of public health research and practice. Today many governmental public health agencies call for policy and intervention programs addressing specific needs of lesbian, gay, bisexual, and transgender (LGBT) individuals. Still, the public health consequences of discrimination towards LGBT individuals have only recently been a topic of investigation and current

knowledge in the area is limited. Recent findings points to a much higher prevalence of certain health conditions among LGBT people that calls for the urgent attention of public health researchers and professionals.

This workshop will give examples of studies of health differences and discrimination based on sexual orientation and gender identity, with representation from various fields of inquiry and parts of Europe. Richard Bränström from the Karolinska Institutet (Sweden) presents results that demonstrate that the fundamental cause theory (which posits that in societal conditions of unequal power and resources, members of higher status groups experience better health because of their disproportionate access to health-protective factors

compared with lower-status individuals) might be relevant to explaining sexual orientation health disparities. Results illustrating factors relevant to understanding sexual orientation specific health risk exposure among gay/bisexual men are presented by Karel Blondeel (Belgium) and Kristina Ingemarsdotter Persson (Sweden). From a different perspective, Igor Grabovac (Croatia), will present findings of LGB discrimination as a work environment issue.

The situation for LGBT individuals varies greatly across Europe. The level of acceptance for minority sexual orientations differs greatly by country, and in many countries, LGBT people are also subject to legal discrimination concerning basic civil rights, e.g. regarding recognition of same-sex unions. The wide differences in LGBT acceptance and differences in institutional discrimination make cross-European studies particularly suitable for the exploration of the consequences of structural discrimination on health. Our workshop aims to facilitate such initiatives.

Key messages:

- Resent research evidence show that both gay/bisexual men and lesbian/bisexual women have higher prevalence of illness compared with heterosexuals for high-preventable diseases
- Sexual minority specific studies demonstrate that factors such as sexual competence and cross-European travel patterns are of importance in the outline of preventive activities targeted at this group

Sexual orientation disparities in preventable disease: A fundamental cause perspective

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Background

To determine whether the fundamental cause theory (which posits that in societal conditions of unequal power and resources, members of higher status groups experience better health because of their disproportionate access to health-protective factors compared with lower-status individuals) might be relevant to explaining sexual orientation health disparities.

Methods

We used morbidity data for the years 2001–2011 from the Stockholm Public Health cohort, a representative general population-based study in Sweden. A total of 66 604 (92.0%) individuals identified as heterosexual, 848 (1.2%) as homosexual, and 806 (1.1%) as bisexual. To test fundamental cause theory we classified diseases in terms of preventability potential (low vs high).

Results

There were no sexual orientation differences in morbidity due to low-preventable diseases. In contrast, Gay/bisexual men (adjusted odds ratio [AOR]=1.48; 95% confidence interval [CI]: 1.13, 1.93) and lesbian/bisexual women (AOR)=1.64; 95% CI: 1.28, 2.10) had a greater risk of high-preventable morbidity than heterosexual men and women, respectively. These differences were sustained in analyses adjusted for covariates.

Conclusions

Both gay/bisexual men and lesbian/bisexual women showed higher prevalence of illness compared with heterosexuals for high-preventable morbidity.

Sexual competence as an indicator of sexual health, results from SIALON II, a European multi-country bio-behavioral survey among men who have sex with men

Karel Blondeel

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Background

Public health policies for MSM still focus heavily on the prevention of transmission of HIV and other STIs. The WHO proposes a shift towards policies integrating a holistic view on sexuality. New sexual health indicators, such as sexual competency, should be validated, assessing their utility to design, monitor and evaluate interventions to increase sexual well-being among MSM, including decreased risk behaviour.

Methods

Sialon II is a multi-centre biological and behavioural cross-sectional survey carried out among MSM across 13 European countries. This analysis includes data from four countries (Italy, Lithuania, Romania, and Slovakia) with a total of 1,305 participants, recruited through respondent-driven sampling. Sexual competency is measured as a composite of sexual satisfaction, safety and autonomy as set forward by WHO. We will evaluate the associations of both sexual competence as a composite variable and its components with sexual behaviour, sociodemographics and HIV/STI prevalence.

Results

We hypothesize that the construct of sexual competency is internally consistent. Sexual competence is negatively associated with sexual risk behaviours and HIV and STI prevalence. It is furthermore positively associated with access to HIV/STI services and with a congruent sexual identity.

Conclusions

When confirmed, we can conclude that sexual competence is a sexual health indicator that can be helpful in the design of targeted prevention strategies and interventions to decrease STI/HIV infection and increase the well being of MSM. More studies should integrate sexual competence to complement our findings.

Key messages:

- Sexual health indicators outside the biomedical realm suggest that investing in holistic sexual health programming will improve the well-being of MSM
- New indicators of sexual health are not merely a means to prevent transmission of STI/HIV, but should be an equally important health promotion goal in themselves

Sexual risk behavior and risk perception among Swedish men who have sex with men in Berlin

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Background

Berlin is a common vacation destination for Swedish men who have sex with men (MSM) and individuals newly diagnosed with HIV. The aim of the study was to gain deeper understanding of risk perception and sexual behavior among Swedish MSM travelling to Berlin.

Methods

In-depth interviews were conducted with 15 cis MSM (25-46 years old) recruited via chain referral between January and April 2016, and data was analyzed with content analysis.

Results

A variety of factors contribute to Swedish MSM going to Berlin. For some, sex is the main reason for choosing to travel to Berlin. Berlin is perceived as a 'sexual and homosexual city' providing venues where MSM do not have to care about reputation, status, and gossip as is the case at home. Darkrooms, sex clubs, and mobile apps facilitate new sexual experiences and more sexual partners than when being in Sweden. Notably, the practice of chemsex and drugs is associated with the Berlin party scene. The participants describe either a static or dynamic risk reduction approach, sometimes beyond condom usage including reversed serosorting and PrEP. These strategies consist of a complex matrix of knowledge, attitude, ethics, ideology, and level of ambition and willingness to compromise between pleasure and risk. All participants had been tested for HIV and STIs. The majority had been diagnosed with STIs.

Conclusions

The Swedish MSM travelling to Berlin and interviewed in this study constitute a highly sexually active group of MSM who experience and enjoy multiple partners and/or high-risk sexual behavior. Berlin provides a space for sexual liberation and norm breaking behavior but also increased vulnerability with contexts that facilitate HIV/STI transmission.

Key messages:

- This study suggests that Swedish MSM travelling to Berlin constitute a high-risk behavior subgroup of MSM at risk of HIV/STI
- Healthcare professionals should be alert to identify this group in order to tailor preventive measures to their needs

Are patients ready for lesbian, gay and bisexual family physicians - A Croatian study

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Background

Discrimination and harassment of lesbian, gay and bisexual (LGB) physicians from their colleagues and superiors have been reported. However there is little knowledge about the patients' attitudes and discrimination toward physicians.

Methods

A cross sectional Internet survey was conducted in urban Croatian regions. The participants were asked to answer questions regarding their socio-demographic status, the Attitudes Towards Lesbians and Gay Men Scale (ATLG), and whether they would refuse to see a LGB physician and, if so, why.

Results

Of the 1004 participants, 8.8% said they would refuse a male gay/bisexual physician while 7.9% would refuse a female lesbian/bisexual physician, and 7.3% would refuse both. The two most common reasons for discriminating were: "disaccord with political or religious beliefs" and "fear of being sexually

harassed". A logistic regression model showed that male sex, higher ATLG score and older age were associated with more refusals of male gay/bisexual physicians. Also, older age and higher ATLG score were associated with more refusals of female lesbian/bisexual physicians, while personal contact with LGB people was associated with fewer refusals of both groups. The observed prevalence of discrimination is significant.

Conclusions

The results suggest that discrimination and prejudice attitudes towards LGB physicians are widespread in Croatia, and are based on emotional reasons and stereotypical beliefs. Educational efforts should be directed towards changing misconceptions about LGB people.

Is work disability more common among same-sex than different-sex married people?

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Background

Research has shown that sexual minority individuals have much higher risk of somatic and psychiatric morbidity as compared to heterosexual individuals. However, it has so far been unclear if this elevated level of poor health co-occurs with higher rates of work disability.

Methods

Using Sweden's extensive and high quality nation-wide registers, we compared prevalence of work disability (sickness absence and/or disability pension), between same-sex and different-sex married women and men for two years, 1998 and 2008, and calculated odds ratios (OR) with 95% confidence intervals (CI) while adjusting for several confounders.

Results

Higher risk of at least one day of work disability was found among same-sex married women in both 1998 (OR: 1.48, 95% CI: 1.19-1.84) and 2008 (OR: 1.30, 95% CI: 1.15-1.47), as compared to different-sex married women. Same-sex married women also had higher risk of work disability for >90 days 1998 (OR: 1.59, 95% CI: 1.19-2.13) and 2008 (OR: 1.48, 95% CI: 1.31-1.66). Also, same-sex married men had higher risks, however, not somewhat lower in 2008, of at least one day of work disability (OR: 1.63, 95% CI: 1.45-1.83) and >90 days in 2008 (OR: 1.99, 95% CI: 1.74-2.28), as compared to different-sex married men.

Conclusions

This study provides novel results, demonstrating that the previously identified health disparity based on sexual orientation is also reflected in elevated levels of work disability among sexual minority women and men. This finding calls for research to identify the underlying mechanisms leading to this health disparity, and tailored prevention strategies both in clinical settings and on a broader societal level to remedy this health disadvantage.

10.C. Workshop: Organizing and financing public health services in the European region

Organised by: European Observatory and WHO EURO
Contact: bernd.rechel@shhtm.ac.uk

Chairperson(s): Ellen Nolte - United Kingdom, Elke Jakubowski - WHO Europe

This workshop will discuss findings of an ongoing study on the organization and financing of public health services in the European region, undertaken by the European Observatory on Health Systems and Policies and the World Health Organization Regional Office for Europe. The study seeks to contribute to the generation of more robust empirical evidence on the relative advantages and disadvantages of different approaches to organizing and financing public health services, an area which has lacked attention from policy makers and researchers alike. To this end it also aims to explore the relative effectiveness in addressing common public health problems, and options for how their effectiveness and performance should be measured, monitored and improved.

The study draws on (i) a review of available evidence, (ii) detailed descriptions of the organization and financing of public health services in nine European countries (England, France, Germany, Italy, Moldova, the Netherlands, Poland, Slovenia and Sweden) using a structured data collection template, and (iii) an exploration of how public health services in these countries are involved in addressing three 'tracer' public health problems (obesity, alcohol control and antimicrobial resistance) using document review and key informant interviews. The country reviews identify the main actors at national and subnational level, their responsibilities and role in public health decision-making, lines of accountability, the content of policies, the context within which public health policy responses are being formulated, the role of public health organisations in shaping and implementing strategies, funding mechanisms to support action, the workforce involved, and formal and informal mechanisms for intersectoral governance and collaboration. The exploration of 'tracer' public health problems aims to contribute to our understanding on how well different approaches to organizing and financing public health services work to address different types of public health concerns.

The workshop will present preliminary findings of the study on five areas: the organization of public health services, financing structures and levels, and how public health services are involved in addressing the three 'tracer' public health problems (obesity, alcohol control and antimicrobial resistance). The presentations will identify lessons learned so far and policy options. They will be sufficiently short for each to be followed by plenary participation and debate.

The workshop will be of major interest to public health researchers, practitioners and policy-makers from across Europe. It will be of relevance for the WHO in the context of implementing the European Action Plan for Strengthening Public Health Services and Operations, the European Commission for the implementation of its public health mandate and for many countries in the region aiming to develop or reform their public health services.

Key messages:

- The workshop provides a forum for discussing approaches to public health services in Europe
- It explores how they are involved in addressing some of the most pressing public health problems

The organization of public health services in Europe Elke Jakubowski

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Background

Policy-makers across Europe are in need of evidence on how to organize public health services to meet the population health challenges of today.

Methods

We conducted an in depth analysis of the organization of public health services in nine European countries (England, France, Germany, Italy, Moldova, the Netherlands, Poland, Slovenia and Sweden), using a structured data collection template and drawing on literature reviews and key informant interviews.

Results

Organizational arrangements for public health services differ widely between the nine countries, as does their scope. The historic focus was on health protection, with strong roots in infectious diseases control. Health promotion services were developed in the past three decades with marked variations between countries in scope, breath and depth of coverage. Organizational arrangements tend to be in line with the overall administrative structure of countries' health systems, with decentralized approaches in federal countries, sometimes leading to wide variation of organization or even fragmentation. There is a top-down approach in some countries, while others emphasize local governance, networks and intersectoral working, with implications for how public health problems are addressed. There are also differences in how far the private sector is involved through public-private partnerships, sometimes to the detriment of public health. A key challenge is the lack of capacity of designated public health organizations in terms of human resources, infrastructure and funding, with recent budget cuts in some countries further undermining capacity.

Conclusions

There are many examples of how public health organizations have responded to contemporary public health challenges and the need to go beyond the traditional focus of public health. Progress towards scaling up capacity and achieving intersectoral working with shared responsibilities may be hampered in the current context of limited resources.

Financing public health services in Europe

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Background

Mechanisms for and levels of financing for public health services in Europe are insufficiently documented and understood. Concerns have been raised in a number of countries over recent budget cuts.

Methods

Our study draws on (i) a review of grey and published evidence, (ii) detailed descriptions of the financing of public health services in nine European countries (England, France,

Germany, Italy, Moldova, the Netherlands, Poland, Slovenia and Sweden) using a structured data collection template, and (iii) a review of WHO, Eurostat and OECD datasets as well as national statistics.

Results

Levels of financing for public health services remain difficult to assess, but available data suggest that funding is low as a percentage of total health expenditure. Available data differ between international and national databases, further complicating a detailed assessment. Public budgets at national, regional and local levels (financed mainly through taxation and social health insurance) are the main source of financing for public health services. In some countries, such as Poland, private sources also play an important role. Allocation mechanisms frequently do not allow for medium- to long-term planning. Approaches that bring together health and other sectors for the funding of public health programmes remain rare, as does the use of taxes dedicated to public health. Countries such as England and the Netherlands have seen major budget cuts for public health services in recent years, while others (Italy, Germany) saw increases in funding, sometimes linked to new policy developments, such as the new Prevention Law in Germany. There are also major differences in financing levels and mechanisms within countries, in particular in decentralized systems.

Conclusions

The lack of sufficient and sustainable resources is a challenge for public health services in several countries, but there are also positive examples that can be emulated.

The role of public health services in addressing obesity in Europe

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Background

Obesity has been recognized to be among the core challenges for health systems worldwide, affecting around 260 million adults and 12 million children in the European Union alone. Effectively responding to this challenge requires an inter-sectoral approach in which public health services could be assumed to play a key role.

Methods

We conducted an in-depth assessment of the role played by public health services in addressing obesity in nine European countries by exploring their involvement in obesity policy, following the stages of the policy cycle: agenda setting, policy formulation, decision-making, policy implementation, monitoring and evaluation. We reviewed national policies and the scientific literature and carried out interviews with experts in each country.

Results

We found considerable variation among countries in how public health services address the burden of obesity. Not all countries have relevant national health policies in place. While regions may have some sub-national leverage to formulate and implement their own obesity strategies, appropriate coordination mechanisms between the national and the regional level are not always available. The input of public health services in devising policies (where they exist) is frequently small, with relevant agencies rarely taking a leading role in putting the issue on the agenda and formulating appropriate policies. Inherent weaknesses in the public health service infrastructure, along with the continued perception of obesity as a problem of lifestyle choices rather than regulation and obesogenic environments, might help to explain the current situation.

Conclusions

Public health services are so far insufficiently involved in addressing obesity in Europe. The problem is greatest where

the remit of public health services is narrow, where no national policies have been adopted, where the system is fragmented, and where obesity is still predominantly seen as an issue of personal choice.

The role of public health services in addressing alcohol control in Europe

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Background

Alcohol consumption is a major risk factor for the burden of disease and premature mortality in Europe and a range of policy measures against harmful alcohol consumption have been initiated. We aimed to understand the specific role of public health services in the development and implementation of alcohol control measures in nine European countries (England, France, Germany, Italy, Moldova, the Netherlands, Poland, Slovenia and Sweden).

Methods

We conducted an in-depth assessment of the role played by public health services in addressing alcohol control in the nine countries by exploring their involvement in agenda setting, policy formulation, decision-making, policy implementation, monitoring and evaluation. We reviewed national policies and the scientific literature and carried out interviews with experts in each country.

Results

Alcohol control policies differ widely across the nine countries, as does the involvement of public health services. As a rule, the Ministry of Health is leading on efforts and subordinated public health services play a marginal role in alcohol control policy development and implementation. There is a frequent focus on only some aspects of the problem, such as alcohol consumption among youth or during pregnancy, or drinking in public places. In federal countries such as Germany or Italy, there is wide variation in efforts across regions and municipalities. Public-private partnerships in Netherlands and England have undermined more effective measures and there is a powerful opposition by the alcohol industry in almost all countries. Cuts to funding for public health services in England and Italy have further hampered public health action on alcohol.

Conclusions

There are clear differences between countries in the involvement of public health services in alcohol control efforts, with less involvement in those countries that are lagging behind in these efforts.

The role of public health services in addressing antimicrobial resistance in Europe

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Background

Antimicrobial resistance (AMR) is recognized as one of the major health threats of our time. Through adoption of the Global Action Plan on Antimicrobial Resistance, all WHO Members States have committed to developing national action plans by 2017.

Methods

We conducted an in-depth assessment of the role played by public health services in addressing antimicrobial resistance in nine European countries by exploring their involvement in AMR policy, following the stages of the policy cycle. We

performed a document review of national policies and the scientific literature and carried out interviews with experts in each country.

Results

There is considerable variation among countries in how public health services address the growing threat of AMR. Only few countries have developed national AMR action plans, and relevant policies, such as banning over-the-counter sales of antimicrobials and the use of antimicrobials as growth-promoters in animals, are poorly enforced. Weak linkages exist between public health services from the top to lower levels (regional or local) and between public health services across sectors. Few countries have taken targeted actions in the veterinary sector. The input of public health services in

devising policies (where they exist) is frequently small, with relevant agencies rarely taking a leading role in putting the issue on the agenda and formulating appropriate policies; their role is often limited to data provision or monitoring.

Conclusions

Public health services are so far insufficiently involved in addressing AMR in Europe. An overall lack of national coordination, which could connect fragmented national initiatives and programmes contributes to a disproportionate response in the human and animal health sector. Clearer linkages between public health institutions at different levels, as well as clarity on roles and responsibilities, could strengthen public health services' involvement in addressing AMR.

10.D. Workshop: Effectiveness of Diabetes Self-Management Education Programs: a reality check?!

Organised by: Maastricht University

Contact: timo.clemens@maastrichtuniversity.nl

Chairperson(s): Kristine Sorensen - The Netherlands, Diane Levin-Zamir - Israel

Approximately 32 million people in the EU live with diabetes. Each year >300,000 Europeans die from diabetes and related complications. Treatment is costly, and costs 5- 15% of the total health expenditure of EU countries. Strongly associated with overweight and obesity, the increasing prevalence of the conditions worldwide, along with an ageing population the prevalence of diabetes and the associated cost of treatment are rapidly increasing. There is a need to strengthen the capacities of health systems in the EU to treat and care for diabetes patients, while promoting extensive self-care. The capacities of patients to manage their own illness and care process are a key determinant of treatment outcomes. To enhance these capacities, education on self-management and lifestyle modification for people with diabetes is widely recommended. Self-management education programs vary from individual education to more cost-effective alternatives, such as group education, support groups and self-help programs. IT-based programs can expand the capacity and reach of health care systems. However several questions must be addressed before the large scale implementation of such education can be recommended as part of a European comprehensive diabetes strategy.

The Diabetes Literacy project, funded by the EU, investigated a number of critical success factors of diabetes self-management education (DSME) in order to increase its effectiveness. It included:

- a systematic and comparative content analysis of the national diabetes strategies and frameworks across the EU Member States;
- an assessment of the comparative effectiveness of individual and group education, IT-based education, and self-help approaches to diabetes self-management education;
- an assessment of the costs of DSME programs in EU MS;
- an assessment of the organizational conditions within health services to offer effective DSME programs;
- an assessment of the implementation fidelity of current diabetes self-management programs.

By presenting the results of the 'reality check' of successful implementation of diabetes self-management education programs, the workshop will facilitate a discussion on the enabling

and hindering factors for advancing effectiveness of DSME programs.

Key messages:

- The Diabetes Literacy project documented and assessed the effectiveness of European diabetes self-management education programs on costs, patient outcomes, organizational factors and fidelity
- The assessment of European diabetes self-management education programs raises questions concerning the variety and impact of programs and how more can be done for people with diabetes

Comparative analysis of diabetes self-management educational programs in Europe

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Background

Various diabetes self-management education (DSME) programs have been developed in Europe and in other parts of the world. Due to a still increasing prevalence of diabetes and unprecedented economic constraints on health systems there is an even greater demand for effective programs. Based on a comparative analysis of DSME programs previously practiced, and currently implemented in the EU member states (EU MS), a guideline to design effective, low cost, and sustainable educational programs for different patient groups was developed.

Methods

The current status of DSME in EU MS and in Israel, the US and Taiwan was assessed from the data collected in Wiki tool (WT) during 2014 targeting patients and different stakeholders working in the field of diabetes care. The online questionnaire was available in seven languages at www.globaldiabetessurvey.com. Additionally, a systematic review (SR) was performed in PubMed by using combinations of key words related to DSME to include published data regarding DSME in Europe from 1981 to 2014.

Results

139 DSME programs have been reported in WT and 154 programs were collected from SR. WT shows that 38%, 60%, and 8% programs are for individuals with T1D, T2D and peer groups respectively. It also shows that 76%, 8% and 6%

programs are meant for adult, children and elderly age group respectively while 45% (and 32% for just EU MS) and 31% (20% for just EU MS) programs are tailored to the people with low literacy level and minorities respectively. Most of the interventions are delivered in groups while only few programs (7% WT vs. 19% SR) utilize computerized technology for teaching and learning.

Conclusions

The comparative analysis of the DSME actually used in EU MS reveals that there is a substantial improvement in different components of DSME programs compared to previously practiced (SR) studies. However, more use of ICT technology may be a relevant method to improve diabetes self-management and patients' health literacy.

Outcomes of different communication channels of diabetes self-management education programs

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Background

As diabetes requires extensive self-care, self-management education is widely recommended to enhance the effectiveness and reduce the costs of treatment. While many diabetes self-management education (DSME) programs exist, the relative outcomes of using different communication channels (individual, group, IT based, self-help groups) in education programs are not well researched. The observational study investigated the impact of communication channels on DSME program effectiveness, using an assessment tool allowing to measure indicators for different outcome levels in a two phase evaluation study of selected existing DSME programs in 9 countries.

Methods

Following a literature review of existing studies and schemes a Diabetes Self-Management Outcome Framework has been developed and a questionnaire including mostly existing validated instruments for measuring these outcomes of diabetes education. The instrument was translated into eight languages and used in Belgium, UK, Ireland, Germany, Austria, Netherlands, US, Israel and Taiwan. Data were collected in two-phases after an interval of 3 month from January 2015 to June 2015 on a sample of DSME programs in 9 countries.

Results

Multiple regression analysis demonstrated the effects of communication channels on selected outcome indicators for different outcome levels within the underlying Diabetes Self-Management Outcome Framework with special attention to the impact of different levels of health literacy of patients on effectiveness of programs.

Conclusions

This study is one of the first to investigate comparatively the effectiveness of four different channels of diabetes self-management programs in different countries with the same instrument. It provides novel results on how communication channels of diabetes education are associated with program effectiveness, which factors contribute to effectiveness, and how it can be enhanced, taking into account health literacy levels of patients.

Organizational conditions for providing effective diabetes self-management education programs

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Background

Across Europe diabetes self-management education (DSME) programs are established to facilitate learning opportunities for diabetes patients. Not only the design, type and way of implementation are key to the effectiveness of DSME programs but as well the degree to which the host organization is effective in achieving set outcomes. This study aimed to measure the organizational conditions that impact on the effectiveness and quality of DSME programs.

Methods

A literature review served as the foundation for the development of a logical model and a questionnaire to explore the conditions for organizational effectiveness of DSME programs empirically. To measure organizational effectiveness a case study involving in-depth interviews with ten managers from different healthcare provider organizations across Europe and a web-based survey were conducted using a questionnaire with 43 closed items.

Results

The literature review revealed ten dimensions for organizational effectiveness initially which was extended to 13 by a review of an expert panel. The revised logical model was the basis for the design of the interview guide and survey questionnaire. The case study with ten managers from DSME programs from Europe (BE, DE, DK; NL, PT, BE, UK) and Israel showed that the programs vary in terms of access for patients, the multi-disciplinarily of the staff, monitoring systems and follow-up mechanisms as well as evaluations systems. The survey results pointed out the importance of the responsiveness to specific patient groups and quality assurance mechanisms for the overall effectiveness of host organizations.

Conclusions

Insights from the study of organizational effectiveness are relevant for diabetes practitioners and service providing organizations to establish the organizational context of DSME programs in a way to have structures and procedures in place for routine service evaluations, patient monitoring and follow-up, easy access or the programs' quality assurance.

The impact of implementation fidelity on the effectiveness of DSME programs

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Background

While a variety of DSME programs are available, there is a lack of knowledge about the way in which these programs are actually delivered in practice. This paper presents a study assessing the impact of the implementation fidelity (IF), or the degree to which programs are delivered as intended, of DSME programs on program effectiveness

Methods

Data from 33 providers of DSME programs and 166 Type 2 diabetes patients participating in these programs were collected in 8 countries (Austria, Belgium, Germany, Ireland, UK, Israel, Taiwan and the USA). Providers completed a questionnaire assessing their adherence to the education program protocol and the factors that influenced their implementation, based on a conceptual model of IF. Patients answered a pre-post questionnaire assessing their diabetes related health literacy, self-care behaviour, general health and well-being. The effect of the providers' IF on the patients' outcome variables was estimated through logistic regressions and repeated-measures MANOVA, controlling for potential confounders.

Results

Adaptations to the program protocol with regard to program content, duration, frequency and/or coverage were reported by a minority of the health providers (39%). None of the factors

systematically influenced the providers' IF. Contrary to the expectations, adaptations of the program led to better, rather than worse, patient outcomes in comparison with total adherence.

Conclusions

This study is the first to investigate IF of DSME programs in different countries with the same instrument. Providers' adaptations of programs may have a positive influence on patient outcomes. Research on individual and context factors that may influence decisions to adapt the program should be further investigated.

Enhancing the cost effectiveness of diabetes self-management education provision in a European context

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Background

The cost-effectiveness of type 2 diabetes self-management programmes (DSME) has been difficult to substantiate. The lack of patient-level cost information at provider level, as well as differing national level costing practices, has hindered accurate comparisons at EU level. As a result it has been challenging to conduct comparative evaluations in terms of programme costs and effectiveness. Therefore, we assessed the cost-effectiveness of individual and group based DSME programmes in Europe, Israel and Taiwan.

Methods

Time-Driven Activity-Based Costing (TD-ABC), a bottom up costing methodology, was adopted to determine the cost of care activities and resource consumption within each process step related to DSME. The core activities conducted by a diversity of health professionals and administrative staff, in the provision of diabetes education for the duration of each specific programme, was recorded and analysed. The cost data was then combined with pre-post outcome data gathered from programme attendees to demonstrate the per-person programme cost relative to the outcome achieved.

Results

There are various methods of delivering patient education across and within the participating countries including individual, group based and peer led education provision. Variation exists in terms of personnel delivering the programme. Furthermore, the curriculum varied between and within countries, considerable differences in administration hours existed, and the number of patients taking part in each course differed. DSME were found to be cost-effective when the cost of care of the complications associated with type 2 diabetes were considered.

Conclusions

There are variations in costs in relation to the delivery of DSME both within and between countries. TD-ABC has the potential to identify unnecessary process steps and activities, it may therefore be an effective tool in making the business case for both the continuation and expansion of DSME.

10.E. Workshop: Environmental implications of food and nutrition policies

Organised by: WHO EURO and EUPHA section on Food and nutrition
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Chairperson(s): Joao Breda - Denmark, Christopher Birt - United Kingdom

In the context of the EU discussion on the current food policy and its effects on the provision of safe, nutritious, sustainable and affordable food, the joint organisers have arranged workshops at the last three European conferences on the pressing need for an international convention on healthy nutrition and on some key nutrition policy areas.

This year the organisers agreed to plan a workshop designed to explore the interplay of food systems, nutrition policies and environmental impacts. Accordingly, the objectives for this workshop are:

- to set the stage on the interplay between environment, food production, and human health (not only with regards to nutrition);
- to develop future scenarios in order to anticipate hypothetical challenges and possible solutions arising from different food systems;
- to explore in depth the science, and its role in the logical determination of future policy towards healthy and sustainable foods;
- to assess the importance of the local authorities and communities in facilitating and advocating for more sustainable food practices;
- to discuss how to reach a greater alignment of food production, health and environmental policy.

After an initial setting of the scene by Martin O'Flaherty, there will follow brief presentations, by experts in the relevant fields, on future scenarios related to changes in food choices and food

environments (Petros Maragkoudakis), on the role of nitrogen and its burden related to agriculture (Adrian Leip), and on local policy actions towards sustainable nutrition (Florence Egal).

Following these presentations there will be a final one on sustainable dietary guidelines, and whether they can really contribute to ecological public health; this presentation (by Tim Lang), also indicating some necessary directions for future policy development, will lead directly on to a discussion with encouragement for the maximum of audience participation.

Key messages:

- There is a lot of evidence on environmental impacts of food production, and the development of future scenarios provides a sense of urgency and require informed and deliberate policy actions
- Science and policy can work together towards more sustainable food production systems

Big problems require big solutions: Tackling the food environments to improve our health

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It is not surprising that structural modification of disease determinants at the population level is powerful. Public health can celebrate two centuries of successfully overcoming barriers to implement effective, structural policies for safe drinking water, clear air, safe motoring, immunisations, smoke-free public spaces and food contamination. All of these are

examples of structural interventions, acting at the population level, and powerfully shaping the environment where people live.

The efforts to improve our diets to prevent chronic diseases is increasingly including structural policies, as exemplified by salt content reformulation, the removal of trans-fats from processed food and the combination of fiscal, regulatory and educational interventions to tackle the obesity and diabetes epidemic. But these policies act on a complex environment. Food production and distribution systems, education, marketing, regulation and cultural elements all interact in shaping population diets. However, some of these “environments” are dominant; and particularly important is the role of “industrialization” on creating and sustaining epidemics.

This is a complex phenomenon. Innovative policy frameworks like NOURISHING and INFORMAS propose specific actions and indicators to monitor and modify the food environment, food systems and behaviour change, and could help in refining a global strategy to modify nutrition. But we need to be wary of excessive simplification, as these environments are deeply interconnected and it is difficult to predict the effects of perturbations to those systems will have on health, as the evolving story on low fat and sugar is illustrating.

The key issue is that we mostly know all what is needed and what the benefits will be in improving our diets. The new frontier is to understand the intricacy of human nutrition as a complex, reactive system that evolves quickly.

Tomorrow's food system; opportunities and challenges ahead

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Current issues like the prevalence of non-communicable diseases in Europe, natural resources scarcity, climate change or social inequities and their expected developments are pressing societies and decision makers to come up with smart and integrated solutions to these problems. Building a healthier, fairer, resilient and environmentally sustainable future food system will be part of those solutions.

The Joint Research Centre has conducted two foresight studies entitled “Tomorrow's healthy society - research priorities for foods and diets” and “Delivering on EU Food Safety and Nutrition in 2050 - Future Challenges and Policy preparedness” that support the above case. The studies followed a scenario building methodology with a time horizon of 2050; the possible future worlds described in these studies can be used as tools to visualise the future, identify the challenges and opportunities that lie ahead and therefore better prepare policy makers to address them.

This presentation will briefly summarise both studies. We describe the research needs and priorities needed to shape and cope with the 2050 food system and discuss nutrition and food safety related challenges that may be associated with a closed, more local and circular EU food system along with policy options that may help alleviating these challenges.

While we will focus on challenges and opportunities that could arise on the way to a more environmentally sustainable future food system, a common conclusion of both studies is that, given its complexity, the food system needs to be understood and addressed in a holistic manner. As such, the food and nutrition policy framework must consider health, social justice and environmental sustainability through an integrated approach. In turn, other policy areas must consider supporting a food system that delivers safe and affordable food, preserves the environment and contributes to food and nutrition security and to healthy lives for present and future generations.

The Food-Nitrogen-Environment nexus

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Nitrogen exists in a multitude of compounds, many of which are beneficial or even essential for ecosystems and human health. However, many forms of reactive nitrogen are detrimental for the environment or causing health problems. Unless nitrogen is bound as N₂, N is very reactive. As a consequence, one atom of N can contribute to several positive and negative effects – the so-called “nitrogen cascade”. The discovery of the Haber-Bosch process allowed to boost crop production and today feeds almost half of the global population. Synthetic mineral fertilizer is now the largest source of terrestrial new reactive N at 120 Tg N yr⁻¹.

Problems

Yet, nitrogen use in food production is inherently very inefficient and contributes to many environmental challenges we face: freshwater and coastal eutrophication, soil acidification, climate change, loss of terrestrial biodiversity, air quality problems. For Europe, the contribution of agriculture on the environmental problems has been estimated to be between 10% (water pollution: dissolved inorganic phosphorus) and 59% (water pollution: nitrogen), with a major share coming from livestock production systems, ranging between 69% (biodiversity) and 81% (global warming).

Possible solutions

Reducing N emissions is particularly challenging for agriculture which involve many actors and success requires a smart combination of technological and demand side solutions. Informative tools such as Nitrogen Footprint calculators try to ‘reach’ the consumer or engage people more actively. To distill ‘win-wins’ rather than ‘trade-offs’ in the call for environmentally sustainable diets on one side and healthy diets on the other side will be an essential focus of future research.

Sustainable food systems for health: jumpstarting the SDGs

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Background

As we embark on the UN Decade on Nutrition and in the wake of COP21 and Habitat III, sustainable food systems are high on the international agenda. There is now widespread awareness, in particular in the health and food and agriculture sectors, that unless we move beyond economic development and embark on a broader reflection on how to manage natural resources and ensure local livelihoods, we will not be able to address malnutrition and prevent NCDs, alleviate poverty, deal with urbanization, manage crisis, mitigate climate change or protect biodiversity.

Possible stakeholders

Local authorities will have a major role to play in the development of sustainable policies and programmes involving actors from different sectors and institutional backgrounds. The Milan Urban Food Policy Pact initiative has brought together so far around 50 European cities. The active involvement of the health sector and close collaboration with the food and agriculture sector will be essential for effective advocacy and good planning. But it also constitutes a major opportunity to highlight the role of the health sector, and more specifically the work of the WHO's Healthy Cities programme and Urban health programmes and initiatives at international, national and local levels

Possible solutions

The concept of sustainable diets offers an excellent entry point for sustainable development. We need to build upon and bring together the Health in All Policies approach, initiatives such as that of the Nordic Council of Ministers, the promotion of the Mediterranean diets, that of the right to food and social justice or linking climate change and nutrition. And the most pragmatic way to embark on joint action-learning will be at local level, building upon existing food practices and culture as well as innovative experiences.

Sustainable Dietary Guidelines: a test case for ecological public health

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The term “Sustainable Diets” (SD) entered the public health lexicon in 1987, but its translation into reality is proving slow. In its most pared-down formulation, SD means good nutrition with low carbon emissions. In more complex forms, it means eating within environmental limits while eating well for health and in a manner appropriate to economic, social and cultural circumstances. Whichever version of SD is adopted, policy-

makers have been surprisingly reluctant to translate the term into public advice.

This paper explores the reasons for the evidence – policy gap. Some is commercial; others professional and political. Why the reluctance when there is such robust agreement that the food system needs to dovetail with environmental, health and societal goals? Specifically, should national dietary guidelines become sustainable dietary guidelines? In 2015 the Paris Climate Change agreement and the UN Sustainable Development Goals provided the beginnings of a global framework for SD. The 2015 Milan Urban Food Policy Pact committed 100 world cities at the local urban level. So why is there reluctance at the national level?

The paper considers this multi-level policy picture. It charts some national, international and local attempts to chart policy direction. It argues that, however thorny, specific guidelines are required to shape both culture and the food system ahead. A new SDG2 strategy is needed: sustainable dietary guidelines for sustainable development goals. This is now a significant opportunity for the 21st century public health movement to inject ecological public health considerations into market economies and consumerist behaviour. For such guidelines to be of use, concerted policy pressure and support are needed from a broad alliance of civil society, academia, the public and even progressive elements in industry.

10.F. Round table: Policy papers as means of outlining selected topics in cancer control

Organised by: National Institute of Public Health of Slovenia
Contact: tit.albreht@nijz.si

Chairperson(s): Tit Albreht - Slovenia, Giovanni Nicoletti - Italy

This workshop aims to present evidence collected within workpackage 5 of the Joint Action Cancer Control in order to produce five policy papers on five different policy challenges in Europe. These topics were selected by priority voting by Member State representatives in 2014 and were then allocated for elaboration to different leaders on these topics. Each of the papers formed an expert group out of experts who responded to tender for experts early in 2015. Workshop will present, in an open discussion with short presentations of each of the five topics, their main recommendations and open challenges for the future development of cancer policies in Europe.

Key messages:

- Policy papers should draw attention and raise awareness about five prioritised issues
- Evidence supported papers should provide inputs for policymaking processes at the national level

Development of National Cancer Control Programmes in Europe

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Health systems can begin to respond to population needs by preventing, detecting and treating cancer only through adequate planning. The role of National Cancer Control Programmes (NCCPs) in national cancer policies has grown significantly in Europe during the last 15 years. In 2011, when a survey on the situation regarding the National Cancer Control Programmes in Europe was performed most countries

had a structured document describing the main processes of cancer care and cancer control activities and services. Main deficient areas were economics of cancer care and control, palliative care, psychosocial care and community support and rehabilitation. In the frame of CANCON Joint Action an Expert Group on NCCPs was established. Members of the group prepared a questionnaire, which was used to overview the current situation as of December 2015 concerning cancer documents in the EU countries, Iceland, Norway, Turkey and Montenegro. Based on the answers to the questionnaire the analysis/report is being prepared and it will be used as a baseline document for a position paper regarding the overview of the current situation on National Cancer Control Programmes in EU.

On the basis of the preliminary results of the survey it is possible to conclude that the situation regarding NCCPs in Europe is improving in comparison with the situation in 2011. The majority of European countries have adopted a national cancer programme, plan or strategy. Most of them have a single document, some of them more documents. Main deficient areas that were identified include financing, cancer resources (human resources, infrastructure, health technology, cancer specific expenditure), access to innovative cancer treatments but also governance, management, survivorship and psychosocial oncology care.

Public Health Genomics in Cancer

Marc Van Den Bulcke

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Cancer control as a major public health issue due to pathology strongly driven by genetic modifications is closely linked to a novel field in epidemiology wherein molecular data at population scale are integrated into new strategies both from a personalized medicine as a public health perspective. This domain is generally designated as ‘Public Health genomics’ (PHG).

PHG approaches require a close link of research and medical application. Technological developments in genomics are moving rapidly and clinical care and research are increasingly overlapping. For patients the difference is often not clear anymore, nor is the legal obligations and ethical frameworks in clinical care and research always easy to describe requiring thoughtful introduction of genomics in clinical settings. In conclusion, it is time for policymakers, health authorities and other public bodies to support resources that enable citizens, individually and cooperatively, to access, understand, interpret and make use of reliable information that supports personalised healthcare; to define metrics to measure stakeholder participation, particularly among citizens and their communities; to facilitate public dialogue on the value of personalized medicine and the necessary conditions for its success.

Here, we wish to propose guidance to three essential issues where PHG can substantially advance not only our understanding of cancer control but also support policy makers, citizens and cancer patients in particular, in their common fight against cancer: at first, the importance of strictly regulating stratified screening by genetic testing of high-risk cancer patients; secondly key issues to be addressed within the health care system when implementing genomics as such in medical care; and thirdly how to deal with ‘Direct to Consumer’ testing within the healthcare system.

Finding indicators to assess policies on prevention outcomes: the case of tobacco smoking

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Policy paper on effectiveness of prevention deals with the outcomes of prevention, namely: diet and nutrition; physical activity; alcohol consumption; tobacco control. The questions were related to policies and interventions implementing control of outcome prevention, indicators used to measure effectiveness of prevention and those present at the European level and a comparison between scientific and surveillance indicators.

The present abstract summarizes the first recommendations concerning “Tobacco smoking control”. A systematic review of reviews was conducted, considering the papers published between 2009 and 2015. From the analysis of the scientific literature the following elements emerge:

- Smoke-free workplace represents a cost-effective approach;
- Price and tax measures give positive results in the reduction of the prevalence;
- The health warnings on tobacco product and the pictorial warnings are quite effective in discouraging smoking initiation;
- Mass media campaigns cannot be easily monitored;
- Interventions of proven efficacy/effectiveness are:
- On the of school/university based interventions;
- counseling, telephone/mobile counseling;

- internet counseling, group-delivered behavioral interventions in achieving long-term smoking cessation, incentives, physician advice;
- expert systems, tailored self-help materials and individual counseling.

- the results the preliminary recommendations could be:
- Implement at the Member state level of the policies and interventions that have been demonstrated of proven efficacy/effectiveness.
- Member States should consider at least three dimensions for monitoring the impact: tobacco smoking prevalence; initiation rate; quit rate.
- If these indicators cannot be yearly monitored, we recommend performing an observational study after the implementation of the policy at the national level and a revision process of the indicators for the best fitting between policy/intervention and its monitoring.

Socio-economic inequalities in cancer care

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There are significant inequalities related to cancer incidence and mortality both across and within European countries and regions. These are reflected in inequalities across the cancer control continuum, including risk exposure, access to appropriate screening, significant variations in both the access to and the quality of appropriate cancer care, and the inequalities experienced by patients in accessing survivorship-rehabilitation services. These differences across Europe contribute to significant inequalities in cancer outcomes, both between countries and socioeconomic groups. While healthcare in Europe is delivered at national level, the many common roots of cancer inequalities between European nations merit consideration of a collaborative approach at European level. This Policy paper (PP) aims to raise awareness on inequalities between and within European countries and to use this information to both inform and foster a pan-European strategy to reduce cancer inequalities. A core writing group (CWG) from within WP5 of CanCON was assembled to draft the PP. A call was launched to invite external expert input into the production of the PP. A total of 25 experts from a wide range of relevant disciplines were selected. A literature review was performed to define the evidence base for cancer inequalities in Europe. A survey was developed to highlight exemplars of cancer equity policy development that could be shared to enhance best practice in European Member States (MS). A PP has been developed which provides a series of recommendations for reducing cancer inequalities in European MS. The key recommendations are divided in three clusters: Recommendations on capacity building for cancer control, Recommendations on (primary and secondary) prevention, and on the delivery of care.

Re-allocation of resources in cancer care in order to achieve better effectiveness

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When economy in trouble, many governments seek efficiency in health care. That’s when it is useful for health care

professionals to seek out low-cost technologies. In order to achieve this in a rational manner, they need to use adequate methodologies and techniques to clearly show the inefficiencies and potential gains in the system. It is a process that requires researchers and professionals from different areas of medicine, technology and health economics.

Re-allocation is often called disinvestment. It is a process of – partially or completely – withdrawing drugs, equipment, practices or procedures with low or questionable clinical value. This process should actually be an ongoing continued

process of eliminating outdated, inefficient and overpriced procedures, treatments and other interventions.

How to prioritize health care services? Should we seek automation to cut costs? Or avoid high cost medicines to attain sustainability in health care?

This policy paper will explore cost-value relation. What does re-allocation of resources in oncology mean in European setting just now and in forthcoming years? We will try to propose answers to these questions and put forward challenges for further discussions and research work in this challenging field.

10.G. Workshop: Health of minority children in Europe

Organised by: EUPHA section on Migrant and ethnic minority health and EUPHA section on Child and adolescent public health
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Chairperson(s): Charles Agyemang - The Netherlands, Danielle Jansen - The Netherlands

We live in an era of unprecedented human migration recorded in history, with the total number of international migrants currently estimated at 244 million in 2015, up from 173 million in 2000. High-income countries host more than two thirds of all international migrants. In Europe, according to Eurostat, there were 53.1 million foreign-born residents in the European Union (EU), about 10% of the total population in 2014. EU Member States are faced with a pressing need to address the resulting public health consequences of migration. Migrant children are a particularly vulnerable both in terms of psychological well-being and physical health. Many of these children have suffered multiple traumas such as the horrors of war, violence and bereavement. The risk of poverty is also much higher among migrant children than among nationals. Eurostat 2014 estimates, for example, show that while the at-risk-of-poverty rate for children of EU nationals was 19.0% in 2014, the corresponding rate for children with migratory background stood at 36.4%. Evidence suggests that a stable family environment contributes to healthy development among children. Migration can disrupt family environment with an adverse effect on the health migrant children.

Addressing the health needs of vulnerable groups of children is highly relevant as inaction will have a long-term negative effect on their health and contribution to society as a whole. So far, the attention on health care needs of ethnic minority and migrant children in Europe is mostly fragmented.

In an effort to address this pertinent issue, EUPHA section on Child and Adolescent Public Health (CAPH) and the section on Migrant and Ethnic Minority Health have joined forces.

The main aim of this workshop is to discuss the current health burden and challenges among ethnic minority and migrant children in Europe; and the policy response to addressing the health needs of vulnerable migrant children in Europe.

The themes of workshop include the health situation of current Syrian migrant children in Europe, birth outcomes of migrant children, overweight and obesity and approaches to improved nutrition practices among ethnic minority and migrant children.

The last part of the workshop will be focused on panel discussion of policy response to health needs of ethnic minority and migrant children in Europe. The panelists include high ranking policy experts from WHO-Europe (Dr Santino Severoni), Doctors of the World International Network (Dr Nathalie Simonnot) and International Organization of Migration (Dr Roumyana Petrova-Benedict) and academia (Prof. Raj Bhopal, Prof. Karien Stronks & Dr. Marie Norredam).

Key messages:

- Current health burden and challenges among ethnic minority and migrant children in Europe will be highlighted
- Policy response and gaps in addressing the health needs of the vulnerable minority children in Europe will be identified

A refugee camp in the centre of Europe: clinical characteristics of asylum seekers in Brussels in September 2015

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Objectives

In the summer of 2015, the exodus of Syrian war refugees and saturation of refugee camps in neighbouring countries led to the influx of many asylum-seekers in some European countries, including Belgium. This study aims to describe the demographic and clinical characteristics of this migrant and ethnic population, with children and adolescents as a particular vulnerable subgroup. Hypothesis is that among asylum-seekers in a huddled refugee camp – even in a well-developed country with all medical facilities – respiratory, digestive and other medical problems typical of refugee camps will emerge soon.

Methods

Using a descriptive cross-sectional study design, physicians of Médecins du Monde (MdM) prospectively registered age, gender, origin, medical complaints and diagnoses of all patients presenting to an erected Field Hospital in Brussels in September 2015. Diagnoses were post-hoc categorised according to the International Classification of Diseases.

Results

Of 4037 patients examined in the Field Hospital, 3907 were included and analysed for this study. Over 11% of patients suffered from injuries, but these were outnumbered by the proportion of patients with respiratory (36%), dental (9%), skin (9%) and digestive (8%) diagnoses. More than 49% had features of infections at the time of the consultation.

Conclusions

Asylum seekers arriving in a refugee camp in Brussels after a long and hazardous journey, suffer mostly from respiratory, dental, skin and digestive diseases. Still one of seven suffers from injury. These findings – consistent with other reports – should be anticipated when composing Emergency Medical

Teams and Interagency Emergency Health or similar Kits to be used in a Field Hospital, even in a Western European country.

Key messages:

- Asylum-seekers sheltering in Brussels soon develop respiratory, digestive and other diseases typical of refugee camps worldwide
- Over 11% suffers from injuries after the long hazardous journey

Are all immigrant mothers really at risk of low birth weight and perinatal mortality? The crucial role of socio-economic status

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Background

Increasing studies show that immigrants have different perinatal health outcomes compared to native women. Nevertheless, we lack a systematic examination of the combined effects of immigrant status and socioeconomic factors on perinatal outcomes. Our objectives were to analyse national Belgian data to determine 1) whether socioeconomic status (SES) modifies the association between maternal nationality and perinatal outcomes (low birth weight and perinatal mortality); 2) the effect of adopting the Belgian nationality on the association between maternal foreign nationality and perinatal outcomes.

Methods

Data are related to all singleton births between 1998 and 2010 whose mothers were living in Belgium (n=1,363,621). Perinatal mortality and low birth weight (LBW) were estimated by SES (maternal education and parental employment status) and by maternal nationality. We used logistic regression to estimate the odds ratios for the associations between nationality and perinatal outcomes after adjusting for and stratifying by SES.

Results

Compared to Belgians, we observed an increased risk of perinatal mortality in all migrant groups (p<0.0001), despite lower rates of LBW in some nationalities. Immigrant mothers with the Belgian nationality had similar rates of perinatal mortality to women of Belgian origin and maintained their protection against LBW (p<0.0001). After adjustment, the excess risk of perinatal mortality among immigrant groups was mostly explained by maternal education. After stratification by SES, we have uncovered a significant protective effect of immigration against LBW and perinatal mortality for women with low SES but not for high SES.

Conclusions

Our results show a protective effect of migration against perinatal mortality and LBW among low SES. Hence, this study underlines the crucial role of the socioeconomic status to analyze the association between migration and perinatal health outcomes.

A participatory approach to improved infant nutrition and complimentary feeding practices in British Bangladeshi families

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Background

The UK Bangladeshi population is one of the fastest growing, yet socio-economically disadvantaged ethnic groups in the UK. Nutrition in infancy determines child development and adult

health. Complimentary Feeding (CF) establishes early nutritional intake and self-regulatory behaviours. However, practices are complex and influenced by culture, environment and acculturation following migration. 12.5% of British-Bangladeshi children aged 4-5 years are obese, increasing to 23.7% by 10-11 years. In adulthood, South Asians are 2-4 more likely to develop type II diabetes in the UK.

Methods

We are working in partnership with the Bangladeshi community in Tower Hamlets to identify CF practices that affect the healthy nutrition of infant's aged 6 to 24 months. We conducted 5 systematic literature reviews of CF practices in South Asian communities. We are now conducting 10 Focus Group Discussions and 82 interviews with community members and professionals in Tower Hamlets under a socio-ecological framework. Results will inform the adaptation and acceptability of female facilitator-led women's groups with Participatory Learning and Action cycle (PLA), successful in Bangladeshi, Nepal and India.

Results

A systematic review noted different CF practices between South Asian groups. Greater acculturation encouraged formula feeding in the UK; formula milk was seen as better for the child and sweetened food were preferred as the 'first food'. Energy dense rice-based dishes and hand feeding were common. Preliminary qualitative findings confirm these practices in the UK.

Conclusions

We identified a need for more studies exploring CF practices in Bangladeshi communities and tailored advice for Bangladeshi families around diet and responsive feeding.

Key messages:

- Cultural practices influence infant nutrition, child development and long-term health
- Community mobilisation approaches help to inform culturally adapted support for healthy nutrition in minority populations

Overweight and obesity among Kurdish and Somali origin adolescents in Finland

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Background

Childhood obesity is significantly associated with increased cardiovascular risk and type 2 diabetes in adulthood. Overweight among adolescents is an increasing public health challenge in Finland. Approximately a quarter of adolescent boys and a fifth of girls are overweight. Overweight among migrant-origin adolescents has not been previously examined in Finland.

Methods

Cross-sectional data on 343 Somali and Kurdish origin 13-16 year-old participants of the Health and Wellbeing of migrant-origin adolescents Study (2011-2012) was used. Participation rate was 44% for Somali and 63% for Kurdish origin adolescents. Weight and height were measured during a health examination. Information on physical activity and dietary intake was collected with a questionnaire. Statistical analysis was performed with SAS 9.3.

Results

According to our findings, 4% of Somali boys, 26% of Somali girls, 16% of Kurdish boys, and 14% of Kurdish girls were overweight (BMI 25-29.9 kg/m²). Respective prevalence of obesity (BMI ≥ 30 kg/m²) was 6%, 7%, 10%, and 7%. Prevalence of daily physical activity was notably higher among boys than girls (8% vs. 3% among Somali and 11% vs. 5% among Kurdish boys and girls respectively). Eating snacks between-meals daily was common (33% among Somali and 26% among Kurdish adolescents), as well as daily use of

sweetened beverages (35% among Somali and 20% among Kurdish adolescents).

Conclusions

Prevalence of overweight and obesity varied significantly by migrant group and sex. Further research will focus on examining the contribution of life-style factors to these differences.

10.H. Workshop: Child health and equity

Organised by: Austrian Public Health Institute

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Chairperson(s): Sabine Haas - Austria, Marion Weigl - Austria

There is strong evidence that the (social) determinants during early childhood influence the development of cognitive, social and emotional skills in the early years as well as the long-term health and life perspectives (see for example results from the DRIVERS project: <http://health-gradient.eu/home/about-drivers/>). Consequently, it is necessary to address the (social) determinants during early childhood – most of all by reducing social inequalities during early childhood as well as by strengthening families to be better able to take good care of the children– in order to promote health equity during childhood and later on. Since the determinants are influenced by various sectors, intersectoral cooperation at policy as well as professional level is crucial to improve health equity. There are several ways to support this cooperation, one promising way is to implement early childhood intervention networks.

The aim of this workshop is to present different perspectives on early childhood programmes, including different sectors as well as research and implementation issues. The presentations will focus on:

- Interventions to reduce inequalities in health and early child development in Europe from a qualitative perspective: The success of early childhood programmes seems to depend on their flexibility - to adapt the interventions to the families' circumstances – and on the composition of the staff, but also on the degree of involvement of the parents.
- Can early childhood intervention networks support health equity in Austria?: The implementation of these networks in Austria shows that socially disadvantaged families and families facing different and mostly multiple burden/needs can be reached and supported in a systematic way, which results in a reduction of psychosocial stress and as a consequence contributes to health equity.
- Do families benefit from support offered by family midwives in Germany?: Evaluation/research shows that the impact of early prevention carried out by midwives depends on the constellation of risk factors and specific needs.
- Early childhood support systems in South Tyrol/Italy: Results of a needs assessment on early childhood interventions focusing on structural aspects as well as the parents' perception will be presented.
- Efficacy of an intervention in children's academic achievement with learning difficulties, living in social disadvantaged contexts in Portugal: Specific interventions seem to be able to support children living in a socially disadvantaged context and experiencing learning difficulties.

The topics discussed within this workshop complement each other, which makes it possible to get a good impression about the relevance of involving several sectors to increase child health and therefore to support health equity. Practical aspects of intersectoral cooperation will also be addressed.

Key messages:

- Significant differences in the prevalence of overweight and obesity were observed among migrant origin adolescents
- Overweight and obesity was particularly high among Somali origin girls

Key message:

- To improve child health equity intersectoral cooperation is crucial, including the health and social sector as well as the area of education

Interventions to reduce inequalities in health and early child development in Europe from a qualitative perspective

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Background

Families that face daily challenges due to their socioeconomic circumstances are not able to offer children a nurturing environment. Early years interventions may help interrupt intergenerational transmission of inequalities. The literature suggested the most effective approaches were those that addressed both child and parenting issues.

Methods

The study formed part of the DRIVERS Project. Qualitative research methods investigations were carried out. Data collection was performed by collaborating partner institutions included in the project. Twenty-five individual interviews and six focus groups were carried out with staff running interventions and with users; children, their family or both. A thematic content analysis was performed.

Results

The majority of families and children had disadvantaged backgrounds. Interventions reached beneficiaries using a variety of methods. Programmes provided activities to stimulate children's learning through structured play and provided support and assistance for parents. In these, parents were actively involved in activities.

Conclusions

Programmes described as being successful, delivered flexible services with activities carried out by multidisciplinary teams. Adapting to and understanding the families' circumstances and involving parents was seen by staff as important. This had a positive effect on children. It is important to provide access to a comprehensive range of quality early year services to reduce inequalities. These should be tailored to social and economic need and to recognise the knowledge and capacities of parents. Existing early years institutions and structures should be strengthened to promote cross sector working between the social, education and health sectors.

Key messages:

- The establishment of trust based relationships is a key enabler in programme delivery
- Parents should be empowered to develop their own capacities thus strengthening their ability to assist in their children's learning

Can early childhood intervention networks support health equity?

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Background

A model for early childhood interventions was developed for Austria in 2014 combining universal and indicated prevention. The objective of this model is to reach and support those families during pregnancy or within the first three years of a child, who live under burdened life circumstances. The indicated part in form of regional early childhood intervention networks is being implemented now in model regions in all nine Austrian provinces.

Methods

The evaluation focuses on the establishment of the regional structures as well as on the effects resp. benefits for families supported by the regional networks observed by experts and families. The data of the Austrian-wide documentation system is analysed, interviews and focus groups with experts and stakeholders are carried out. An online-survey addressing also partners from the regional networks as well as in-depth interviews and the photovoice method with families complete the data collection.

Results

Existing regional structures have an impact on the implementation of the model for regional early childhood intervention networks, therefore more specific minimum quality criteria are needed. Still, these networks are able to reach families in need due to poverty, psychic illness, social isolation, migrant background etc. Families as well as experts perceive a benefit of the programme as regard to reduction of burdens resp. increase of resources.

Conclusions

The model is able to reach and provide required services and interventions from the social and health care system to socially disadvantaged families. As this hasn't been possible in the past, it can be expected that the Austrian approach to early childhood interventions will contribute to health equity on the longer run.

Key message:

- The implementation research shows that the model of regional early childhood intervention networks is suitable to promote health equity

Do families benefit from support offered by family midwives?

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Background

In 2012, the Federal Initiative of Early Prevention was set up by the German Federal Ministry for Family Affairs to deal with family dysfunction and maladaptation of young children. One of these measures is the municipal implementation of family midwifery care. For further development more knowledge is required: Do families benefit from support offered by family midwives? What features have negative impact on the outcome?

Methods

An online questionnaire for family midwives and similar professionals is used to collect answers on aspects such as families' specific needs for help, the interaction between child and caregivers, aspects of daily life and household as well as

social support. Additionally, comprehensive information about possible influential factors of the outcomes were accessed: Family burden, child's pathology, evidence for psychic symptoms of the caregivers, migration and others. The questionnaire was given out three times and was filled in by 186 family midwives. All in all, data about 937 families were collected.

Results

Results on the prevalence of families' risk factors and their specific needs for support will be presented. Furthermore, the development of the outcome variables about the series of measurement will be discussed. Additional differential analyses on factors with either positive or negative effects of the outcome, i.e. families' burden, will be elaborated.

Conclusions

The study was designed to provide reliable data on psychological and social risks as well as specific needs of families who are supported by family midwives. Moreover, the findings may show evidence for specific clusters of features which go along with a more effective outcome of interventions carried out by family midwives.

Key messages:

- Midwives play an essential role in early childhood interventions in Germany
- Current research tries to provide more evidence on the specific effects

Efficacy of an intervention in children's academic achievement with learning difficulties, living in social disadvantaged contexts

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Background

The socioeconomic inequalities play a crucial role in many dimensions of child development. Their accumulation through the lifespan is of concern; especially in children because they are highly vulnerable. During childhood, the socioeconomic status exerts its effects on academic performance, mental health and cognitive performance. In sensitive periods, the repercussions can have consequences spanning generations, so they are critical for early intervention.

Research suggests that cognitive skills can be enhanced through direct interventions, so, the purpose of this study was to assess the efficacy of children's psychomotor enhancement program, diagnosed with learning difficulties (LD) that live in social disadvantaged contexts.

Methods

The sample include 60 children (27 girls and 33 boys), (8,19 ±1,14 years old) divided in two groups (n=26 experimental group; n=34 control group). A psychomotor intervention during 8 months (2 x week; during 45 minutes, each session) was applied to the experimental group. In the beginning and the end of the program, the teachers assessed the math's skills, and the intellectual development was evaluated by Raven progressive matrices.

Results

The results of the paired t test showed statistically significant improvements in the post-test, in intellectual development (p=0.033) and math's skills (p=0.001), only in the experimental group.

Conclusions

The psychomotor intervention program had an impact on intellectual development and math's skills of children with LD.

These results confirm the body/movement as an innovative approach to teach and learn math's, in order to reduce the high failure rates of children with LD, living in disadvantaged social contexts.

10.I. Workshop: Terrorist attacks and mental health

Organised by: EUPHA section on Public mental health
Contact: johan.bilsen@vub.ac.be

Chairperson(s): Johan Bilsen - Belgium, Jutta Lindert - Germany

Terrorist attacks intent to intimidate the general public by violent actions disrupting security and destabilizing the societal organization, often to achieve certain agendas. In some conflict areas worldwide, terrorism has been already a daily reality for many years. Last decades however, a new series of severe terrorist attacks has brought this issue also on top of the political agenda in countries previously rather exceptionally confronted with these actions. These violent actions bring about much physical casualty and death, which mostly can adequately be addressed by appropriate healthcare. Often overlooked, however, is their effect on the mental health and wellbeing, not only of the victims and direct witnesses of these actions, but also of people who were professionally involved in the aid for the victims, and in the population in general. There is increasing research evidence that terrorist attacks are not only associated with timely 'normal' psychological reactions such as distress and acute fear reactions but can also result in serious anxiety disorders and long term psychological problems such as posttraumatic stress disorder (PTSD). The consequences for public health are considerable and need to be addressed according the public health paradigm by discovering determinants, using reliable measurement, and targeting whole populations with effective preventing activities, with special attention for the most vulnerable groups. In this workshop we will elaborate on how the mental impact of terrorist attacks can be reliably measured in populations. Additionally we will present effective interventions to address different kinds of stress responses, and discuss the preventive possibilities and feasibility of it.

Prof. R. Deschepper will present data about the mental health impact of the terroristic attacks in March 2016 in Brussels on basis of a web-based survey among the general population in the week following the attacks. Prof. T. Heir will report about the prevalence and course of PTSD in a large group of employees following a workplace terror attack in 2011 in the governmental district of Oslo, using surveys on three different time periods. Dr. S. Vandendorren will inform us about the psychological status among victims, witnesses and rescue and police staff in three geographical areas in France affected by attacks in January 2015, using surveys and interviews. Associations between outcomes and possible determinant, such as (in)direct involvement, level of exposure, social support, care facilities, etc. will be discussed. Finally, Prof Y. Gidron will show intervention strategies proved to be effective in reducing acute stress responses and PTDS symptoms based on findings from 4 randomized-controlled trials conducted in Israel. The possibility and feasibility of population based prevention possibilities and a longitudinal mental health surveillance system will be discussed as well.

Key messages:

- The burden of psychological consequences of terrorist attacks is substantial among large groups in the population and has to be addressed by public health initiatives

Key message:

- The presentation aims to discuss different perspectives to teach children with LD, emphasizing the importance of embodied cognition as a teaching alternative approach

- There is increasing scientific evidence for effectiveness of new emerging and easily implementable interventions addressing psychological consequences of terrorist attacks

Impact on mental health of terroristic attacks: an explorative study after the 2016 Brussels attacks Reginald Deschepper

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Background

Studies on the impact on health of terrorist attacks in countries such as Israel and the US showed these attacks have substantial negative effects on mental health. The main effects are post-traumatic symptom disorders, depressive orders and severe anxiety. Some studies also found increased numbers of somatic problems. The aim of this study is to explore the impact on mental health in the week following the terroristic attacks of 22 March 2016 in Brussels.

Methods

Web-based survey among the general population. People were invited via the media (TV, radio, newspapers) and social media (Facebook, email. . .) to visit a website where they could fill out a questionnaire in Dutch, French or English.

Results

A total of 3633 persons completed the questionnaire. During the week following the attacks 30% experienced (very) much anxiety and 39% spent more than 3 hours per day seeking information about this terrorist threat. Thirty one percent indicated they felt (much) worse during that week because of the threat of terrorism. Eighty nine percent 89% of the respondents indicated they have you been bothered by at least one somatic problem and 24% these persons thought this was strongly or entirely related to the attacks and subsequent terrorist threat. During that week the majority felt at least one day 'nervous or on the edge' (81%), 'not being able to stop or control worrying' (61%), 'down, depressed or hopeless' (60%), or they had 'little interest or pleasure in doing things' (58%). Fifty three percent indicated these feelings were strongly or entirely related to attacks and subsequent threats.

Conclusions

This explorative study is a first indication that a substantial number of people wanted to react to an invitation in the media to participate in a survey on the impact of the terroristic attacks in Brussels. Mental as well as somatic problems were commonly mentioned and attributed to the impact of the attacks.

Psychosocial consequences of the 2011 Oslo bombing terrorist attack: highlights from research

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Background

It is well established that direct exposure to terrorism can result in post-traumatic stress disorder (PTSD). However, also individuals indirectly exposed to terrorism may develop symptoms of PTSD. Our research project examined the prevalence and course of PTSD in employees who were present and not present at the site of a workplace terror-attack, the importance of leader support and work environmental factors, and consequences in terms of sick leave.

Methods

Survey data from ministerial employees were collected 10, 22, and 34 months after the 2011 bombing in the governmental district of Oslo. A total of 3520 employees were initially invited to the study. Response rates were 56% (n=1970) at T1, 55% (n=1780) at T2, and 54% (n=1579) at T3 of eligible employees at each data collection. Data on sick leave were obtained from official records for the period 4 years before and 4 years after the terrorist attack.

Results

PTSD was six- to eight-fold more prevalent in employees present at the site of the explosion (24%, 17%, and 17% at the three time points, respectively) than in employees who were not present (4%, 3%, and 2%). Associations with leader support and work environmental factors will be presented, as well as data on sick leave.

Conclusions

Even some individuals who are indirectly exposed to terrorism may develop long lasting posttraumatic stress fulfilling the PTSD symptom criteria. Due to the large number of individuals that may be indirectly exposed to terrorism, even low risk of PTSD may result in high numbers of individuals with probable PTSD. Our findings have implications for the planning and implementation of health care services after large scale terror events

Mental health impact assessment among those exposed to the January 2015 Paris terrorist attacks

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Background

A series of terrorist attacks occurred in Paris in January 2015 including the massacre of the staff of the Charlie Hebdo magazine, the murder of two police officers and two huge police operations, involving hijacking. In total 17 people were killed and 20 injured. The regional unit of the French Public Health Institute conducted the "IMPACTS" study 6 months after the attacks to assess the mental health impact of these events among victims and participants and their access to care.

Methods

We implemented a cross-sectional design between June and September 2015 in the three geographic area affected by the attacks. The study population was defined as the exposed civilians (victims or witnesses) and the rescue and police staff involved in the response according to the exposure criteria A for PTSD of the DSM-5. A pretested questionnaire was used to collect data on socio-demographic characteristics, exposition level, PCL, PDEQ and STRS scales, MINI international neuropsychiatric interview on PTSD, anxiety disorders and

depression, and access to care. Interviews were conducted face-to-face with those who consented to the study by trained psychologists.

Results

We included 190 civilians (58 directly threatened by a terrorist, 82 indirectly threatened and 50 witnesses) and 232 rescue and police staff involved. Among civilians 18% reported symptoms of PTSD, 31% suffered from anxiety disorders and 10% from depression. Rescue and police staff reported symptoms of PTSD (7%) and anxiety disorders (14%). We noted an increasing frequency according to exposure. During the 48h following the attacks 39% of civilian had access to psycho medical care versus 35% of rescue and police staff.

Conclusions

The burden of psychological consequences of the terrorist attacks 6 months after the event was substantial and observed across all groups of exposure with a trend towards a dose response effect. A follow-up study is being done to assess long-term mental consequences.

Effects of a neuroscientifically-based intervention on acute stress and PTSD: report of four studies

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Background

Neuropsychology of trauma informs us that people who develop PTSD process the event in a fragmented manner, in mostly limbic and less frontal regions, which explains the thought intrusions, avoidance and excessive arousal. We developed the memory structuring intervention (MSI) that aims to shift the trauma processing to a more frontal, verbal and cognitive manner, later supplemented by vagal nerve breathing (VB).

Methods

We present findings from 4 randomized-controlled trails. In study (ST) 1, we randomized 17 Israelis after traffic accidents to the MSI or supportive listening (control). In ST2, we randomly assigned 34 Israelis after traffic accidents to the MSI or supportive listening. In both ST1 and 2, PTSD symptoms were blindly assessed 3 months later. In ST3, we added VB to the MSI and examined anxiety, heart-rate (HR) and pain in an emergency room in Israel. Finally, in ST4, we included 25 Belgians at risk for PTSD and also assessed the perceived traumatic experience (PTE) and verbal fluency, a marker of frontal activation, in the emergency room.

Results

In ST1, people assigned to the MSI had significantly lower PTSD symptoms than controls. In ST2, women benefited from the MSI while men from supportive listening. In ST3, the MSI + VB, but not the control group, led to reductions in anxiety, pain and HR. Finally, in ST4, the MSI + VB led to reduced PTE and prevented increases in HR, the latter seen in controls. Importantly, beyond groups, increases in verbal fluency positively correlated with reductions in PTE. We will provide examples of application to people exposed to terrorism and war in Israel.

Conclusions

These studies together support the effectiveness of a new emerging intervention, which has short-term effects on acute stress reactions and possible long-term effects on PTSD prevention. It is neuroscientifically based and easy to implement in emergency settings after terrorist attacks, during war and after disasters.

10.K. Workshop: Health assessments in support of decision-making

Organised by: EUPHA section on Health impact assessment, EUPHA section on Health services research, EUPHA section on Public health economics, EUPHA section on Public health practice and policy and WHO

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Chairperson(s): Rainer Fehr - Germany, Piedad Martin-Olmedo - Spain

The commissioning, production, and utilization of health assessments of various types (assessment of status/impact/technology/systems performance) is part of the working routine within the health sector and in other sectors, e.g. environment or economy. WHO, the European Commission, governments and agencies on all administrative levels are producers and users of health assessments which are meant to support knowledge transfer and evidence-based governance. Various sections within EUPHA deal with such assessments. Working together, these sections now strive to jointly produce comparative synopses, to analyse commonalities/differences across assessment types, to identify their specific strengths and weaknesses, and to utilize mutual learning opportunities. The sections also explore options for an advanced “toolkit” of assessments, supporting the science-policy interface – especially on intermediate and lower administrative levels which may be particularly short of manpower and resources.

Such assessments, in the future, may be recognized for securing best use of evidence for decision-making. From this perspective, they should be included into Public Health curricula on a regular basis, preferably in an integrated way. Similarly, ways should be explored to advance various types of assessments in joint projects, thus fostering useful “co-evolution”.

In coordination with the respective EUPHA sections, the issue (including Monitoring & Reporting, Health Impact Assessment, and Health Technology Assessment as well as their relations to epidemiology and Public Health practice/policy) was discussed in earlier workshops (EPH 2014, 2015) and endorsed in EUPHA section council meetings 2015 and 2016. A joint publication on health assessments is being prepared.

The suggested third workshop has three interrelated goals: (i) to complete the round of “basic” presentations, i.e. on Health Systems Performance Assessment (HSPA) and on Economic Evaluation. (ii) to continue exploring the role of health assessments for evidence-based governance and policy-making, acknowledging the existence of “evidence-centered” networks and initiatives (which so far do not focus on health assessments), and (iii), relatedly, to identify training needs and opportunities.

The format of this workshop is: 5 presentations (10 min each), each of them followed by brief discussion; 30 min discussion with the audience.

EPH 2014 conference: Workshop “Health Technology Assessment and Health Impact Assessment – Two key examples of health assessment” (EJPH vol.24, suppl.2, 20-1)

EPH 2015 conference: Workshop “Health assessments: Status and perspectives of basic and advanced approaches” (EJPH vol.25, suppl.3, 246-8)

Key messages:

- Based on 2014 & 2015 predecessors, the workshop illustrates how health assessments gain shape and visibility for evidence-based policy-making, both within and beyond the health sector
- The integrative notion of health assessments calls for novel, practice-based approaches for educational curricula, and can add significantly to the development of Public Health leadership

Health Systems Performance Assessment

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Background

For policymakers it is important to be able to make strategic decisions in order to meet desired outcomes. In order to be able to do so it is necessary to have an overview of the whole system and its outcomes. By benchmarking, insight can be gained in what works under which circumstances. With Health System Performance Assessment (HSPA) a ‘health check’ of the health system is provided.

Methods

HSPA can be performed at different levels. For these different levels appropriate information is necessary. How advanced the assessment is depends on the availability of the data and whether it should address the system as a whole or part(s) of the system. We searched for examples at a local, national and international level.

Results

Three examples of HSPA will be presented, one each from local, national and international level. These examples show the differences in the use of HSPA. Common thing is that existing sources and newly generated data are combined, e.g. administrative data with survey data.

Conclusions

Depending on the needs and resources, HSPA can be used in different ways and produces a variety of results. HSPA can encourage a dialogue, can reveal conflicting health system values or objectives, can help in setting priorities for better performance, can highlight data gaps or reveal problems with data quality. For HSPA, not the collecting of data is essential, but translating the data into policy information.

Do economic evaluations add value to health assessments in the decision-making process?

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Issues

Economic evaluations provide complementary indicators of health impacts both for evaluation of public health (PH) interventions and/or of various risk factors. The indicators from economic evaluation are widely available to support decision-making. Economic evaluations have started in the 19th century mainly for water resource management projects. The methodology has been extended to other issues such as education, road safety for instance. There are many types of economic evaluations in practise (cost benefit, cost effectiveness, social return over investment) however, they rely on evidence and data and should be adapted in order to be useful to determine the best allocation of resources in PH.

Methods

Economic evaluations have been applied in PH to quantify the overall monetary impacts of risk factors and interventions. The reports and recommendations drawn from the studies have been implemented by networks working in the field of health prevention and education. This presentation will illustrate economic evaluations on two very different topics, first, urban air pollution and second, hand-hygiene interventions against healthcare associated infections. Notwithstanding the effort of international networks in promoting economic indicators in PH, the implementation is not always straightforward. The

challenges related to population dynamics combined with low financial resources suggest that economic evaluations should be more often implemented in order to enable a better allocation of resources based on evidence, specifically in determining the most cost effective PH programs that have the greatest benefit for the population.

Results

Economic evaluations may contribute to enhance the effectiveness of decision making by providing information on optimal allocation of resources. It is crucial to adopt a multidisciplinary approach in order to develop a more robust and comprehensive framework for health assessment in the decision making process.

Evidence-informed Policy-making – Where is the place for health assessments?

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Background

Evidence-informed policy-making (EIP) aims to ensure that the best available data, information and research evidence are used to formulate policies to improve the health of individuals and populations. A large quantity of evidence is available; however, it is dispersed in various databases, of diverse quality, and is seldom synthesized and assessed in a way that responds to a specific policy question.

Methods

The presentation focusses on knowledge translation, the dynamic interface that links health information and research with policy and practice. Several methodologies and approaches such as health technology assessment, health impact assessment, health equity assessment, and health systems performance assessment can be classified according to the six steps in knowledge translation (KT). These tools are available to researchers and decision-makers to foster EIP. We will discuss how the methodologies and approaches described above are used in practice and under what circumstances. If they add value and, if so, how do we know?

Results

Our classification of methodologies show linkages where and why these approaches are being used to broker evidence into decision making. They differ in three key dimensions. First, the intervention of assessment can be broad from a concrete technology to an overall health policy or programmatic change. Second, the methodologies used to demonstrate that such interventions have impact or bring desired change and third, who is asking for such an assessment.

Conclusions

Evidence is of limited value until it is used to improve the health of individuals and populations. For policy-making to be well-informed, it is essential that systematic and transparent processes are applied when accessing and appraising the evidence. Health assessment tools can play a major role to make best use of existing evidence. However, policy-makers need to better understand where, why and when to use different health assessment approaches.

Fostering receptive policy settings for Health Assessments: power, process, and personality

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Context and goals

In order to increase the utilization of evidence from Health Assessments in policy and decision-making it is of vital

importance to understand the underlying logic of policy and decision-making processes. The goals of this presentation are (a) to contribute to exploring how the role and influence of health assessments can be increased for evidence-based governance and policymaking by presenting a recent framework for Evidence-Informed Policymaking (EIP), (b) sharing some aids for policy diagnosis, process management, and the allocation of different roles, and (c) identify training needs and opportunities.

Results

First, we provide an overview of differences as well as similarities in producing research and policy. While the differences help in understanding why evidence-based policy is not straightforward or self-evident, the similarities might help to actually create common ground and shared goals in specific cases. The recent EIP framework builds on this type of 'policy evidence', addressing four main components: (i) a co-productive mindset; (ii) alignment of goals, timing and authoritativeness; (iii) institutionalising intermediaries and partnerships; and (iv) enhancing stakeholder involvement for research impact.

Conclusions

Tools are available to help contextualise and embed health evidence from HA into a receptive policy setting in an early stage, understanding, influencing and mobilising the power resources of policy stakeholders, setting the stage for developing trusting relationships while ensuring the independent and unbiased production of health evidence, and using personality in distinguished roles of the expert, knowledge broker, process manager, policy entrepreneur, and boundary spanner. Besides cognitive competences these roles also require attitudinal skills and normative and reflexive capabilities. Together these building blocks of receptive policy settings present new challenges to training and education in public health.

Public health leadership and training opportunities for health assessments

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Health Assessments (HA) are powerful instruments which protect and promote health, and health equality. Constituting a complex and delicate field at the intersection of policy, practice and research, they require specific skills to be effective in communicating within different contexts and professions. Training public health professionals in leadership skills is a key component of health-systems strengthening. The aim of this presentation is to raise the awareness and stimulate the discussion about the meaning of contemporary public health leadership and its relevance in education and training based on an immersive and experiential case study.

We propose the Public Health Leadership Competency Model which can serve as a theoretical and evidence-based framework for leadership training for public health professionals dealing with HA. The content and context is best addressed through real life experiences of professionals. In an experiential case study, the participants receive a comprehensive training in leadership theory, next the case which unfolds along a pan-European disease outbreak. Following the evolution of events from when the outbreak is first notified until counter-measures are implemented, the participants have to research, process and use evidence and propose solutions including the knowledge and skills related to leadership, communication, dealing with power and negotiations amongst stakeholders at national and European level.

Public health leadership competencies can support effective inter-sectoral and interdisciplinary communication; therefore, Public health leadership training can benefit health

professionals working on and/or with HA. Experiential case studies can serve as an effective training tool towards leadership competencies for working in HA. Public health

leadership should be included in HA courses at the master and post-graduate level. Whether course designers and professionals are ready for that still remains a question for a debate.

10.L. Round table: Working with society: strategies and instruments addressing the governance challenge

Organised by: European Observatory, WHO EURO and EUPHA section on Public health practice and policy
Contact: mwi@obs.euro.who.int

Chairperson(s): Kai Michelsen – The Netherlands, Monika Kosinska – WHO Europe

Background

Civil society organizations (CSO) make a huge contribution to health and health systems. They provide evidence, contribute to policy development, exercise advocacy, help consensus building, act as watch dogs, provide services to members and to the public, engage in standard settings, act as self-regulators and are key in industrial relations in the health sector. They tackle a large variety of diverse health issues and represent the interest of different constituencies including citizens, patients and stakeholders.

International agencies have acknowledged the importance of CSOs. WHO's Health 2020, the new European Policy and Strategy for the 21st Century is building on inter-sectoral governance, promoting a whole-of-society approach. The European Commission has established the Health Policy Forum with 52 accredited umbrella organizations representing European stakeholders in public health and healthcare. The Health Policy Forum shall support policy making and implementation through consultation. And there are many national and regional governments that are aiming to strengthen health systems and improve the health of the population by reaching out to civil society.

But there is no common definition of CSOs across Europe and often not even within countries. It is therefore difficult to decide what counts as CSO and should be included in dialogue and collaboration. Contentious is the inclusion of trade association or the inclusion of organizations which have no clear constituency to represent. There is no common practice across Europe dealing with CSOs, which in some countries limits the effectiveness of policy making, service delivery and governance. There is no pool of shared experiences and no robust comparative research.

Objective

We combine various ongoing projects addressing the following objectives:

- Identifying with whom governments should work
- Clarifying what the specific contribution of CSOs might be
- Presenting structures and instruments that can facilitate dialogue and collaboration between governments and CSOs
- Understanding the contexts conducive to working with society and the investments necessary

The workshop's added value lies in the combination of thorough conceptual/theoretical foundation paired with preliminary results for case studies and practice experiences from the WHO in the European Region. It builds on two current research projects.

The format of the Round Table is therefore focusing on an introductory presentation (abstract 1) that lays out the conceptual underpinnings of the debate. This is followed by an in depth analysis of a case study (abstract 2). The following presentations are brief and are meant to provide the necessary

material for discussion. The chair will have the role as facilitator and bring the workshop participants on board. We will have sufficient time for involving them discussing the presentations and tabling their own first hand experiences.

Key messages:

- Civil Society Organisations contribute to health policy making, service delivery and the governance
- Empowering Civil Society Organisations and strengthening governments for joint dialogue and collaboration requires the use of appropriate instruments and structural investments

Strategies for working with society: what is it and what are the tools and contexts for success

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Objectives

This presentation proves an overview on the conceptual development and results of several literature reviews on four objectives: 1) Presenting a working definition of CSOs 2) Defining main types CSOs 3) Exploring instruments facilitating working with society 4) developing contexts conducive to CSOs.

Results

1. Civil society is the set of organizations (CSOs) that are primarily accountable to their members and those they serve rather than formal government or owners. In our definition accountability to its constituency is added as a key element it becomes a much clearer and applicable definition with practical usage. This means that the members/constituency of the CSO can change its mission, by laws and can elect presidents and replace secretary generals.
2. According to our literature review there are 10 main types of CSOs (causes, economic professions, faith based, ethnic/ascribed, local social health related, international other) falling in to four broader categories (Interest groups, communities, international, other)
3. There is an abundance of instruments to structure dialogue and collaboration between governments and CSOs ranging from contracts to stakeholder platforms.
4. There are four contexts that matter to CSOs. First and foremost the regulatory and legal context: it requires an effective, formal, transparent and efficient system for registering civil society organizations, which is in many countries not the case. Second, CSI are funded by a wide variety of mechanisms. The funding situation must be supported in terms of allowing the CSO to function but to remain independent and accountable to its constituency. Third, the political contexts: what does the government want civil society to do and how does civil society fit into the broader way of doing politics in a given country? Fourth, social contexts are multifarious, but civil society can fill in important gaps, will frequently do so unbidden and can be a key partner if supported.

Whole of Society governance: impressions from the Dutch National Prevention Program All about Health

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The Dutch National Prevention Program 'All about Health' (AaH) 2014-2016 has adopted a 'Whole of Society' (WoS) approach by engaging societal and business organisations as well as public authorities and services to pledge their commitment 'to the realisation of the EiH goals by conducting specific focused activities'. Our two-year evaluation focuses on the governance and organisational conditions for the coherence, spread, consolidation and accountability of health promotion activities in the pledges, and the functioning of the EiH arrangements.

This presentation focuses on the multiple case studies we conducted among six pledge networks in the NPP-AaH. We held 55 interviews with multiple partners and stakeholders at local and national levels, observed a number of network meetings and pledge events, and analysed underlying documents in the cases.

In some of the cases there is a quite advanced entrepreneurial network in which governments are only participating as an equal partner. In other cases we observe an early exploratory network, in which partners focus on exchanging knowledge and experience, and developing common ground. In network development over time in our cases, there seems to be no underlying model, no planned strategy, and it is not so much about tools and instruments nor outcome performance. Rather, it seems to be about accepting what we will not know, acknowledging interdependencies, building trusting relationships, improvising toward credible and trustworthy processes, and about learning from doing... and being transparent about it.

Building a consolidating infrastructure for a sustainable order of responsibilities and health impact takes time, effort and risk. Key words in network practices that partners involved regard as successful, seem to be improvisation, agility, acting, avoiding paperwork delays and creating immediately visible activities that change the working, living, caring or recreating environment.

Case studies from the international study on working with society: synthesis of preliminary Results

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Objectives

In this presentation we want to feed into the discussion a synthesis of preliminary results coming from 9 full case studies and 20 mini-case studies from all across Europe

Methods

we will use the framework set out in the first presentation to structure the preliminary results. The full case studies focus on CSOs dealing with the economic and financial crisis (food banks in cyprus), tobacco control in Poland, providing services to HiV/AIDS patients in Russia, trade-unions in Germany and Austria, Refugees in Turkey, Greek, Italy and Germany and European Pharma governance.

We will analyze the type of CSO (Interest group, communities, interantional, other), the particular contribution they are making (policy, service, governance) the instruments used to facilitate government/CSO collaboration and to what extend the specific contexts (regulatory/legal, financial, political and socia) are conducive to CSOs.

Conclusions

CSOs are a very heterogenous element in the healthcare arena. The case studies have illustrated they are able contribute enormously and fill gaps where governments cannot deliver e.g. because the social or political context does not allow. There are however limits to working with society. They may have conflicting ideas about policy development and agenda building; they may deal differently with systematic and anecdotal evidence and some of them are just not compatible with mandated government policy. For example with regards to vaccination, CSOs have played ambiguous roles some sowing confusion and doubts e.g. on measles or on HIVP. Some organizations representing citizens and patients have been criticized for in-transparency regarding their funding sources and lines of accountability, raising doubts that vested interest is using CSOs as a vehicle to undermine e.g. tobacco control policies or push certain medicinal products into the market place.

Perspectives from the ground: WHO country work, governance and civil society, some reflections

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In this short presentation we want to move from the theoretical frameworks and the case studies to the practical use of the concepts and experiences presented in this workshop. We want to reflect what lessons can be drawn from the research for practical work. How can we benefit from the evidence produced? How can we use the frameworks when working with countries to improve health and health systems.

10.M. Workshop: Strategies for diabetes prevention – does age matter?

Organised by: Austrian Diabetes Initiative

Chairperson(s): Bernhard Ludvik - Austria

Diabetes prevention in childhood and adolescence

Daniel Weghuber

Diabetes prevention in adults – is it too late?

Anita Rieder

Diabetes in the elderly: Does weight matter?

Monika Lecheitner

10.N. Workshop: Multimorbidity and integrated care: which priorities for European and national policies?

Organised by: EUPHA section on Chronic diseases
Contact: iveta.nagyova@upjs.sk

Chairperson(s): Julian Mamo - Malta, Andrea Pavlickova – United Kingdom

Rationale

An estimated 50 million European citizens suffer from multimorbidity, and this number will increase in the next decade. The complex healthcare problems of patients with multimorbidity and their need for continuous and multi-disciplinary care pose a great challenge to health systems and social services. Yet, the current organisation and delivery of care across Europe is not responsive to the care needs of people with multimorbidity, as it is disease-oriented and highly fragmented. Evaluations of several integrated care programmes for multimorbidity indicate that increased multiprofessional collaboration, polypharmacy management, and use of innovative technologies lead to improvements in patients' health status and quality of life, and can also lead to savings and health care systems sustainability. The development and implementation of patient-centered integrated care for people with multimorbidity can be fostered by policies and strategies at level of service providers and at level of national health and social care systems. This shift in organisation and delivery of care cannot be carried-out without support from policy makers.

Aim

The aim of this workshop is to accelerate improvements in care and support for people with multimorbidity by fostering effective transfer of research knowledge into healthcare practice and policy. The workshop will define what topics, actions and activities should be prioritised in addressing the challenges of multimorbidity at the European, but also national and regional levels.

Workshop structure

The workshop will consist of four presentations providing an overview of currently running EU-funded projects on innovative integrated care approaches for people with multiple chronic conditions, followed by an interactive audience discussion. The first presentations will describe the JA-CHRODIS multimorbidity care model and a platform for knowledge exchange. The second presentation will deal with the ICARE4EU products that provide concrete options for further development and implementation of patient-centered integrated care for people with multimorbidity. The third presentation, the SELFIE project, will discuss a novel framework that structures concepts in integrated chronic care for multi-morbidity, guiding the qualitative research and the multi-criteria decision analyses. The fourth presentation, the SCIROCCO project will address the challenge of scaling-up and transferability of good practices in integrated care. Further to the reflexion on the current knowledge base, an audience discussion and a guided group exercises will give attendees the opportunity to recommend their policy priorities to ease the plight of multimorbid patients.

Key messages:

- The growing prevalence of people with multimorbidity and their complex healthcare needs require a shift in organization of care to an integrated and patient-centered care
- This shift cannot be accomplished without effective transfer of knowledge to health policy makers

Addressing Chronic Diseases and Healthy Ageing across the Life Cycle (JA-CHRODIS)

Carlos Segovia

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Issue

Chronic diseases affect 8 out of 10 people aged over 65 in Europe. Approximately 70% to 80% of health care budgets across the EU are spent on treating chronic diseases. The prevalence of chronic diseases increases with age, and persons affected frequently have more than one chronic disease, many of them with common determinants. The burden of these diseases is not only economic, but also organisational and a challenge for policy making since they require the coordination of diverse actors in health and social care. Learning from each other across Europe opens new possibilities.

Problem description

JA-CHRODIS aimed at promoting the exchange of good practices on primary prevention, health promotion and management of chronic diseases across Europe. JA-CHRODIS has conducted: a) reviews of the scientific literature; b) reports on national prevention practices, models of care and plans; c) quality criteria for practices, and guides for training, and for national plans; d) study visits to selected cases in order to assess and foster the transferability of practices; e) a platform to upload and exchange good practices.

Results

The results of JA-CHRODIS have been assessed and are beginning to be used by 17 Ministries of Health across Europe. A multimorbidity care model has been defined, a guide to implement national diabetes plans designed, a large selection of good practices chosen, and a platform for knowledge exchange has been established.

Lessons

Chronic diseases share common health determinants and challenge health and social systems in a similar

way. They demand a system approach covering different diseases, health determinants and the reorganization of health care and its coordination with social care. In this context, exchanging good practices across Europe bears the hitherto unexploited potential to improve disease prevention, disease management, healthcare services, and to yield efficiency gains.

ICARE4EU, a Health Programme project (2008-2013) on integrated care for multimorbidity, targeted at policymakers

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Background

Care needs of people with multimorbidity result in a pressure on European health care systems in terms of the complexity of care delivery, manpower and costs. The ICARE4EU project (Innovating care for people with multiple chronic conditions in Europe) aims to contribute to the innovation of care for European citizens with multimorbidity by increasing and disseminating knowledge about potentially effective and efficient approaches.

Methods

The project employed various methods, including identification of innovative care practices (programmes) targeting patients with multimorbidity by country expert organizations in 31 countries; data collection through a country-level survey and a programme-level survey; and site visits to eight 'high potential' programmes. The project used a comprehensive dissemination strategy targeted at policymakers, including blogs, newsletters, publications in professional journals, country factsheets, case reports, presentations at conferences, and policy briefs.

Results

Innovative practices to improve care for people with multimorbidity were identified in 24 European countries. Data were analysed from 101 programmes, mostly operational at a local or regional level and initiated bottom-up. Programmes often contain elements of patient-centered care, but do not address all elements. Integration of care is mostly established within primary care and between primary and secondary care. Involvement of social care and informal care is occasional. Innovative financing mechanisms are not often applied, while the potential of eHealth is underused.

Conclusions

So far policies do not seem to have a specific focus on multimorbidity and room for new initiatives exists. ICARE4EU products provide concrete options for further development and implementation of patient-centered integrated care for people with multimorbidity.

This project has received funding from the Health Programme 2008–2013 of the European Union.

SELFIE, a novel Horizon2020 project on integrated care for multi-morbidity

Fenna Leijten

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Background

The rise in multi-morbidity (MM) is a growing public health issue and forms a challenge in the organization of care. A shift is required from disease-centered care towards person-centered integrated chronic care (ICC). The Horizon2020 project "Sustainable intEgrated care modeLs for multi-morbidity: delivery, Financing and performancE" (SELFIE) addresses this challenge by adopting a broad health economic approach to ICC of MM. This approach includes Multi-Criteria Decision Analysis (MCDA).

Methods

A scoping review of the literature and expert discussions were used to identify relevant concepts of ICC for MM, and structure these into a framework. The review included a targeted search of the grey literature and a search in 8 scientific databases. International and national expert meetings were organized with representatives of '5P' stakeholder groups: Patients, Partners (i.e., informal caregivers), Professionals (i.e., care providers and researchers), Payers (e.g., health insurers), and Policy makers.

Results

Concepts were extracted that were relevant for ICC for persons with multi-morbidity. These formed an initial framework that was adapted after discussion with SELFIE partners and 5P representatives. Concepts and their potential interrelations were mapped into the 6 WHO components of health systems: service delivery, leadership & governance, workforce, financing, technologies & medical products, and information & research. For each of these components the framework describes the key features of person-centered integrated care at the micro, meso and macro level.

Conclusions

A novel framework will be presented that structures concepts in integrated chronic care for multi-morbidity. That framework will guide the qualitative research and the multi-criteria decision analyses performed in SELFIE.

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 634288.

SCIROCCO: Scaling Integrated Care in Context

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Background

Grounded in the experience of the European Innovation Partnership on Active and Healthy Ageing, SCIROCCO addresses the challenge of scaling-up and transferability of good practices in integrated care across Europe. SCIROCCO aims to address this challenge by providing a validated and tested tool (B3 Maturity Model) that facilitates successful scaling up and knowledge transfer in integrated care in Europe.

Methods

The B3 Maturity Model (B3-MM) was derived from an observational study, based on the interviews with 12 European regions over 18 months. A wide spectrum of stakeholders was involved in the study: national and regional decision-makers, service delivery organisations, healthcare professionals, industry and academia. The outcomes of the study served as the baseline for the development of the B3-MM, including its dimensions, performance indicators and rating scale. SCIROCCO builds on these achievements and further tests validity and reliability of the B3-MM through Delphi study, a survey based on the Development Model for Integrated Care, non-participant observations and other methods. The B3-MM is also tested in real-life settings in the process of self-assessment, twinning and coaching of participating European regions.

Results

The B3-MM provides a tool for European regions to assess their progress and maturity in the provision of integrated care, including identification of strengths, gaps and areas for

improvement. It is intended to stimulate discussion, to encourage regions to share their experience of the journey, and to reach out to other regions who may be able to accelerate their journey towards integrated care systems, to meet future demands and expectations.

Conclusions

The B3-MM shows to be a useful tool to facilitate the knowledge transfer and flow of right information from transferring to adopting regions and thus accelerating the process of scaling-up and transferability of good practices in Europe.

10.O. Skills building seminar: Health information is beautiful: tools and approaches to visualize data and health indicators

Organised by: EUPHA section on Public health monitoring and reporting

Contact: Nicole.Rosenkoetter@lzg.nrw.de

Chairperson(s): Neil Riley – United Kingdom

Access to public available data and information as well as informative and attractive visualization in terms of graphs, maps, infographics, or videos is key for the uptake of facts in the general public as well as for evidence-informed policy making. This relevance is also recognized in population health monitoring that is primarily based on routine health statistics and health indicators.

Approaches to make data available and techniques for data visualization have a long history in population health monitoring. Well-known examples are the London Bills of Mortality from the 16th century or famous visualization approaches like John Snow's map of cholera cases in London in 1854 or Florence Nightingales polar diagram on mortality in the British army from 1856. Due to technological advances possibilities for storing, reporting and visualizing health data and indicators have of course largely increased. Nowadays online platforms for easy access, analysis and data retrieval are commonly used and interactive data visualizations and infographics are becoming increasingly popular.

The chances that these advances bear in terms of improved uptake of factual based knowledge come along with some challenges and questions regarding the required techniques, resources, skills and capacities. The EUPHA section of Public Health Monitoring and Reporting recognized this need and aims to hold a skills building seminar at this year's European Public Health Conference and the upcoming conferences. This series of skills building seminars on data visualization will cover topics like

- the design and technique behind online health information platforms,
- the design of informative graphs and maps,
- how to generate animated or interactive graphics, and
- the theory behind and the resources required to design infographics, info websites or explainer videos.

The series of skills building seminars on data visualization start with exploring online health information platforms. Questions we are dealing with are:

- What are the building blocks of these systems?
- Which technologies and programming skills are required?
- What kind of experts should be involved?
- How to improve user-friendliness of these platforms?
- Which audience uses the data and information provided?

Within this seminar three health information platforms are presented, one international platform and two national ones. The presentations will have a "How to..." focus which means that we go beyond a mere description of the front face of the systems. We are looking behind the scenes in order to improve

knowledge and capacity about users' needs, the routines involved and the techniques, skills and resources behind it. Room for questions will be given after each presentation and we devote 30 minutes for questions and the exchange of experiences at the end of the seminar. The seminar is targeted at everyone working in the field of population health monitoring and experts with an interest in population health research.

Key messages:

- Modern health information websites offer possibilities for data retrieval, data analysis and data visualisation as well as interpretation of health data
- Participants of this seminar will acquire knowledge about the design of health information websites, resources involved and how they can be developed according to user needs

WHO European Health Information Gateway

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The WHO European Health Information Gateway has been conceptualised as a one-stop health information shop for policy-makers, analysts, WHO staff and the public in the WHO European Region catering for different needs and skills. It offers an innovative approach for the presentation of key public health information made available by the WHO Regional Office for Europe.

The demonstration will take a look "under the hood", presenting technical building blocks of the Gateway, how they work, and with examples on how they come together to address the needs of various audiences. Elements that will be presented: (1) the Data Warehouse, its API (application programming interface) and examples of tools data scientists can use to make visualisations on the fly based on the data from the API; (2) the Gateway and its various components for information presentation and use, (3) approaches and examples to interactive infographic designs and data story communication, and (4) design and use of mobile apps for dissemination of health information. The presentation will emphasize a hands-on walk through and opportunity for participants to provide feedback.

The continuous design of all the tools has been influenced by the user research WHO Europe has conducted on its online data presentation tools and the Gateway is being adapted accordingly. The user research was conducted as a web-based audience of visitors to the WHO Europe web site who seek health information (n = 694), 12 follow up interviews with volunteers among survey respondents, as well as in-depth qualitative interviews with 12 stakeholders from strategic

collaborators and actors in the health information landscape in Europe. Recommendations of the research were: (a) making WHO data count, proactive engagement in strategic health information roles, development of user-oriented tools, and establishing communication services for health information users.

The health information toolset of the Norwegian Institute of Public Health

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The Public Health Act (2012) obliges the NIPH to supply counties and municipalities with some of the data needed to provide public health services for the population.

This is done through a set of health information tools, available online to the public:

1. Public health profiles for municipalities, counties and city districts. These small booklets give a brief overview of population health and risk factors, specialized articles on a new topic every year, and a public health barometer; a graphic device that shows key indicators for each municipality/county/city district with colour codes and symbols.
2. The two statistics banks NorHealth and the Municipal Data Bank. They make it easy to find and illustrate data for users without statistical knowledge: maps, time lines and bar charts. The banks have more indicators than the public health profiles.
3. Fact sheets: short articles, written in non-medical language, explaining and describing diseases and risk factors, illustrated with data from the statistics banks, updated in real time.

NorHealth and around 30 fact sheets are available in English. To improve user-friendliness, contact with potential users is important. In 2014, in-depth interviews were conducted with users from different areas, and an online user survey was done. The users wanted changes in functionality and specified more indicators which led to several changes implemented by the NIPH team. A new survey was done in 2016.

The information tools were primarily made for public health coordinators and advisors. According to the 2014 survey

(N = 216), 48% of respondents belonged to this group. Other users were administrators and planners, and health professionals.

Looking at the NIPH information tools together, one might say that the public health profiles present data from the statistics banks, while fact sheets explain what the data mean.

RIVM websites on their way to get more visual

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The Dutch National Institute of Public Health and the Environment (RIVM) has been improving its visual presentations on health information websites like VZinfo.nl, Municipality Health Profiles and Atlas Living Environment. This was done by using several types of data visualisation, such as graphs, (interactive) maps, infographics and one pagers.

Within the presentation we will give an overview on the building blocks of the RIVM health and environmental information websites, our capacity building efforts in data visualisation, as well as the applied technical resources.

First part of the presentation will be dedicated to a short demo of these websites. Each of these websites has its own target groups and its own level of interactivity (ability to adjust the visual presentation). Furthermore, each website has its own level of exploration and explanation possibilities. 'Exploring' in this respect means visitors are offered tools for analysing data and build their own interpretation. Explanatory websites and visuals on the other hand tell a story, by means of an infographic, or by providing an explanatory text along with a graph.

Capacity building regarding data visualisation is bundled within the DIVE-project (Data Information Visuals Explored): We share some good practice examples in data visualisation, experiences regarding the production of good, attractive, and interactive data visualizations, highlighting some information on the development of a 'good practice database' for data visualisations as well as a wizard that supports people in producing good data visualizations.

The third part of the presentation has a more technical focus. We work with i.e. High Charts, High Maps, D3 and Geoserver and will explain which choices we have made regarding the applied visualisation tools.

10.P. Skills building seminar: Knowledge translation in public health: Moving from evidence to policy and practice

Organised by: EUPHA section on Chronic diseases, EUPHA section on Public mental health and EUPHA section on Infectious diseases control

Contact: iveta.nagyova@upjs.sk

Chairperson(s): Aura Timen - The Netherlands, Jutta Lindert - Germany

Background

Knowledge translation (KT) is increasing in importance and use in the fields of medicine, rehabilitation research, and public health. KT is a relatively new term that is used to describe a relatively old problem — the underutilization of evidence based research in systems of care. Underutilization of evidence-based research is often described as a gap between "what is known" and "what is currently done" in policy and practice settings. Although decisions to develop and implement new programs and services must be grounded in best

practices, the methods and frameworks needed to inform knowledge and translate evidence into policy and practice are often considered time consuming and difficult to understand. KT involves more than distribution of practical scientific information and reliance on academic publication as a primary mechanism for disseminating results. KT implies an interactive and engaged process between the research and health systems (i.e. teams, populations, policymakers, and consumers). The highest quality evidence available is vital to the interactive process of moving knowledge into policy and practice in the complex world of public health; however the KT barriers typically faced by public health professionals can preclude a consistent implementation of the principles of evidence-informed decision-making.

Aim

The aim of this workshop is to contribute to capacity building in evidence-informed decision-making in public health. This

workshop seeks to provide public health professionals with both theory and practice on effective knowledge translation skills.

Workshop structure

The workshop will be in three parts:

- brief presentations delineating the process of KT (30 min)
- a guided group exercise (30 min)

a panel discussion on effective strategies of KT in public health (30 min)

Presentations

The workshop will start with a short introductory presentation on basic principles of knowledge translation and evidence-based public health, including barriers to knowledge translations and challenges faced by researchers. The second presentation will introduce the most recent activities of the WHO/Europe initiative the EVIPNet - Evidence-informed Policy Network. The third presentation will make the link between the new evidence emerging on non-communicable disease prevention with the European health policies.

Group exercise

A guided group exercise, carried out in a World Cafe setting, will give attendees the opportunity to develop hands-on tips and tricks to get familiar with effective knowledge translation skills.

Panel discussants

- Claudia Stein, Director, Division of Information, Evidence, Research and Innovation, WHO/Europe
- Gauden Galea, Director, Division of Noncommunicable Diseases and Promoting Health through the Life-course, WHO/Europe
- Silvio Brusafarro, EUPHA pillar lead Practice
- David Stuckler, EUPHA pillar lead Policy
- Katarzyna Czabanowska, EUPHA pillar Training and education

Key messages:

- Despite the many accomplishments of public health, a greater attention to evidence-based approaches is warranted
- Knowledge translation barriers typically faced by public health professionals can preclude a consistent implementation of the principles of evidence-informed decision-making

Getting research findings into practice and policy: Barriers and bridges to evidence-informed public health

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Issue

Public health researchers are doing exceptional job in making discoveries that has the potential to improve people's health and strengthen healthcare systems and economy but unless this knowledge is actually put into action, these benefits will not be realized.

Description of the problem

Evidence-informed public health (EIPH) is the process of distilling and disseminating the best available evidence from research, context and experience, and using that evidence to inform and improve public health practice and policy. Put simply, it means finding, using and sharing what works in public health. Yet, knowledge translation has been slow and inconsistent in public health. In clinical and health service contexts, knowledge translation strategies have focused on individual behaviour change, however the multi-system context of public health requires a multi-level, multi-strategy approach. Due to this complexity public health professionals

can preclude a consistent implementation of the principles of evidence-informed decision-making.

Results

This presentation will address the issues of effectiveness of knowledge translation strategies focusing on policy makers as well as the wider impact of KT on the quality of public health interventions together with the tools and training resources available to support this activity. Analytic tools (e.g., systematic reviews, economic evaluation) that can be useful in accelerating the uptake of EIPH will be discussed. Also challenges and opportunities (e.g., political issues, training needs) for disseminating EIPH will be highlighted.

Lessons

To conclude, despite the many accomplishments of public health, a greater attention to evidence-based approaches is warranted. The concepts of EIPH hold promise to better bridge evidence and practice. Public health professionals trained in implementation and dissemination science are needed to facilitate the translation of evidence into practice.

Knowledge translation of health research: Using evidence for policy in health and well-being

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Despite significant investments in health research worldwide, there remains a considerable imbalance between what is scientifically known and what is done in public health throughout the world. Moreover, the evidence informing policy makers on health, mental health and well-being, rather than traditional health information on death, disease and disability is only just emerging. The WHO Regional Office for Europe and its 53 Member States have adopted the Health 2020 policy which committed to 6 targets and 19 core indicators, including a target to enhance the well-being of the population. The latter is estimated by subjective and objective well-being indicators. However, in order to truly close the gap between evidence and policy, EVIPNet Europe – a regional arm of the global Evidence-informed Policy Network (EVIPNet) – was launched by the WHO Regional Office for Europe in October 2013. With a vision of a Europe in which high-quality, context-sensitive evidence routinely informs health decision-making, EVIPNet Europe supports governments through capacity building, tools, platforms and the fostering of multi-disciplinary country teams to translate evidence in to policy, thus reducing health inequalities and improving health and well-being for all by fostering a knowledge translation (KT) culture. The presentation will make the link between the new evidence emerging on well-being with knowledge translation platforms, tools and networks in Europe.

Prevention and control of noncommunicable diseases (NCDs) through evidence-informed public health

Gauden Galea

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Issue

The rising burden of non-communicable diseases (NCDs) challenges the public health sector to develop, support and implement effective interventions to reduce this global epidemic.

Description of the problem

The control of NCDs was addressed by the declaration of the 66th United Nations (UN) General Assembly followed by the World Health Organization's (WHO) NCD 2020 action plan. However, setting goals is not enough. To achieve meaningful outcomes, political and other public sector leadership and

effective knowledge translation at every jurisdictional level is needed to implement health-in-all-policies initiatives and to measure progress against set objectives.

Results

This presentation will illustrate the importance of knowledge translation with the goal of increasing the effectiveness of public health policies and services, relying on both quantitative and qualitative evidence. As brief case examples, several successful knowledge translation efforts will be highlighted to address challenges and further evidence-based decision-making. Examples will include fiscal interventions regarding tobacco and food introduced in several European countries.

The questions to be answered are as follows: What are the lessons learned from these interventions? Should we use price policies to promote healthier lifestyles? What was the effect of these natural experiments? Should other countries in Europe venture into this field?

Lessons

While countries have accumulated an impressive record of plans adopted, surveys completed, targets set, and commitments renewed, there are still justified calls for effective, coordinated, focused, and evidence-informed public health interventions that will strike at the determinants of the NCDs epidemic.

10.Q. Workshop: Governing skill mix changes in the health workforce: European comparative research

Organised by: Karolinska Institutet
Contact: ellen.kuhlmann@ki.se

Chairperson(s): Ellen Kuhlmann - Sweden

Background

Health workforce data and research have significantly improved, moving forward a debate on 'shortage' towards a more nuanced picture of imbalances of health workers. The question is no longer whether to re-allocate skills to changing population needs, but how this can be done in the most efficient and sustainable way. All countries have taken some action to change the skill mix. Yet 'skill mix' is an umbrella term including a number of different strategies, such as changing the composition of jobs, skills and competencies, shifting tasks within or between professional groups, and creating new jobs for non-medical providers. The policy tools and governance approaches vary across countries. Yet the effects in the health workforce and the role of governance are not systematically explored.

Objectives

This proposed workshop will bring together cross-country comparative research on health workforce development in Europe, using skill mix as connecting tie. One innovative momentum is the exploration of skill mix through different lenses of country and sector-specific demand, population needs, labour markets, professional tasks and competencies, thus making different policy levers and tools visible. Another innovation is the introduction of comparative methodological approaches. The collection of papers has three major objectives: to develop and strengthen EU comparison, to contribute new empirical data on health workforce development in relation to policy and governance, and to stimulate knowledge exchange and policy development in Europe. The format of the workshop comprises five research presentations (maximum one hour) followed by a plenary discussion (30 minutes). Presenters will highlight key messages to facilitate interactive discussion and problem solving.

Results

The presentations illustrate how countries relate workforce skill mixes to population needs, how policy can be supported by frameworks of indicators for comparison, and which enablers and barriers influence innovation and implementation of skill mix in primary care. When looking at trends in high-, middle- and basic-level occupations it seems that health systems with strong medical power and poor nurses' integration may constrain skill mix changes. In relation to task-shifting the level and locus of regulation can impact on practice uptake, role clarity and malpractice handling, and reimbursement levels play a particularly important role. Furthermore important is understanding how competencies

are acquired and identifying tools, processes and stakeholders across health services and systems levels which support health workforce governance.

Conclusions

The workshop adds value by developing a more detailed picture of how to govern change in the health workforce and promote an effective mix. The collection of papers brings the benefits of comparative health workforce research into sight and promotes an emergent field in Europe's public health research and policy.

Key messages:

- Skill mix changes are a key policy lever to improve health workforce governance
- Comparative research reveals policy tools and health system conditions that matter in improving skill mix

Relating skill mixes and case mixes at population level: indicators and cross-national comparison

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Background

Many European countries are faced with health workforce shortages, an ageing population and a changing disease burden due to increasing prevalence of chronic conditions, multimorbidity and mental health problems. Hence, many countries face the challenge to match the size and composition of their health workforces (skill mix) with the changing health needs of populations (case mix). Yet what skill mix policies are possible, and what their effects are on health system performance and population health, is largely unknown.

Methods

First, a scoping review on national-level skill mix policies and initiatives across all 28 European Member States was conducted. Then a comparative analysis was executed based on publicly available country data about populations, health problems, health systems and health workforce indicators. A typology of skill mix policy was constructed, based on the results of the scoping review, and explored empirically with cross-national country data.

Results

A wide diversity can be seen among countries with regard to the existence and type of skill mix policy initiatives and norms. Also, there is variety in the quality and specificity of cross-

national data to describe and understand the relationship between case mixes and skill mixes on population level.

Conclusions

Developing a typology or framework of indicators that classifies and relates skill mixes and case mixes at population level, can support (inter)national policies to optimize the match between health workforces and population needs. In this way, policy responses, tailored to the national context and requirements, contribute to improved population health and service provision.

Key messages:

- Changing case mixes at population level require adaptations in health workforce skill mix
- A framework of indicators can support policies to match workforce skill mix and population needs

Coordinating skill mix in primary care: a framework for comparing innovation strategies

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Background

With population ageing and frequent multi-morbidities, more patients require daily, long-term, chronic care as well as specialised and technologically advanced services in non-hospital settings. This study looks at how countries use skill mix innovations to adapt primary care to changing patient needs and proposes a framework for comparison.

Methods

Country case-studies based on literature reviews, expert interviews and national/international health workforce data, covering at least five European countries.

Results

To allow cross-country comparisons, this study will explore skill mix strategies in European health systems according to a two-dimensional framework: 1) how skill mix innovations change roles and interfaces in service delivery, and 2) which enablers and barriers influence innovation development and implementation. To capture the first dimension, we analyse how innovations change the roles of health professionals by enhancing existing roles or skills, substituting across professional groups, delegating tasks up/downwards, or introducing new tasks or profiles, and whether innovations change interfaces by transferring services from one setting to another, relocating services (same team, new setting), or liaising across sectors (trainers from one setting educate staff in another). Second, we examine how legislation, pay mechanisms, education, employment/working conditions, and political factors either enable or hinder skill mix innovations.

Conclusions

Given the diversity in skill mix strategies, innovation mechanisms and context-specific factors should be distilled to extend the scope for mutual learning.

Key messages:

- Skill mix innovation in primary care takes place across European health systems
- Context-specific mutual learning is possible in health workforce governance

Comparing trends in the job mix of the health workforce in Europe

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Background

Health workforce issues and the problems of maldistribution have moved up on the policy agenda, but they are still marginal in comparative policy. This contribution assesses trends in the job mix of top-, middle- and basic-level health workforce groups (doctors, nurses, care assistants) in four EU countries. The aims are to improve comparison and to identify policy levers for change in the job mix.

Methods

A matrix of five ideal types of health labour market development was created connecting labour market, welfare state/governance, and professions studies. Germany, Italy, Sweden and the United Kingdom serve to empirically compare different EU health systems. The analysis draws on selected indicators from available public statistics/OECD data and micro-data from the EU Labour Force Survey.

Results

The results reveal country-specific patterns and bring opportunities for policy interventions into view. First, there is a need for integrated health labour market monitoring systems to improve data on the job and skill mix of the health workforce. Second, a relevant number of health workers with fixed contracts and involuntary part-time are an important source for recruitment and retention. Third, a general trend towards increasing numbers while worsening working conditions was identified across our country cases. This trend hits care assistants, partly also nurses, the most. When looking at country patterns, no single factor can be identified, but strong institutionalized medical power seems to be a barrier for effective job mix changes.

Conclusions

The research illustrates how comparison can utilize available labour market statistics and identify governance conditions that improve the workforce mix.

Key messages:

- There is a general trend towards increasing numbers but worsening working conditions
- Health systems with strong medical power and poor nurses' integration may constrain job mix change

Governance and financing of task-shifting from physicians to nurses: cross-country comparisons

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Background

Countries are changing the composition of their workforce to respond to the rise in chronic conditions, provider shortages or waiting times. Task-shifting from physicians to nurses is increasing, yet there is limited research on the role of governance and financing on implementation.

Methods

Cross-country analysis based on an expert survey in 39 countries. Analyses focused on countries with Nurse Practitioners (NPs). Primary outcomes were characteristics of regulation and finance policies. Second, a literature review was performed to assess impacts on implementation, role clarity, patient safety and malpractice handling.

Results

Countries varied considerably. Most countries had the NP role regulated, at national (Australia, Ireland, Netherlands, New Zealand) or subnational levels (Canada, United States), except for the United Kingdom. In countries with regulation, restrictive laws were barriers, up-to-date laws enablers to the uptake in practice. Financing structures with no or very low

reimbursement rates hampered implementation (Australia, U.S.).

Conclusions

Regulation and financing policies play important roles, yet are rarely evaluated as to intended and unintended consequences. Within the European free movement zone, regulation is preferred over non-regulation as an entry point to facilitate cross-country recognition of qualifications.

Key messages:

- Level and locus of regulation can impact on practice uptake, role clarity and malpractice handling
- Financing models play an important role, particularly reimbursement levels

Health workforce competencies: a framework for comparison and tools for implementation

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Background

In order to increase people's access to universal healthcare coverage there is a need for a conceptual framework to understand governance of the health workforce. Governance involves understanding the complex interacting tools, processes and stakeholders. To aid health system stewards in their governing role, this review looks at the competencies expected of the health workforce to deliver accessible, acceptable, availability and quality services and un-packages governance

in terms of the tools, processes and stakeholders, which are needed to strengthen health workforce competencies.

Methods

This review draws from a purposive and multidisciplinary review of literature, expert opinion and country initiatives across the WHO European Region's 53 Member States.

Results

A number of relevant core competencies were identified in the literature for delivering services. The processes involved in securing such competencies can be mapped along the career cycle of the health professional, and various suggestions are made for what tools and stakeholders can be engaged throughout these processes. One important issue is to understand competencies as the product of a cycle, which involves support conditions at the levels of the health services and the health systems and how they are connected.

Conclusions

Government vision and oversight is needed to provide the right environment in which the identified processes, tools and stakeholder can be strengthened. Conversely, this un-packaging of processes, tools and stakeholders is helpful for governments to understand their role in securing a health workforce that is able to deliver on universal healthcare coverage.

Key messages:

- Health workforce governance involves understanding the interacting tools, processes and stakeholders
- Competencies are acquired as product of a cycle of health services and systems governance

4. POSTER WALKS

THURSDAY 10 November 13:50-14:50

1.R. Poster walk: Quality and efficiency in hospitals

The measurement of hospitals cost efficiency: a model for countries in transition

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Background

Countries in transition (CTs) are commonly characterized by limited health data reporting, in particular CTs whose healthcare financing systems are based on historical budget. This issue frequently hampers the applicability of models for measuring hospital performances. The study aims to present a model for the estimation of the cost efficiency in the inpatient care through basic dataset usually available in CTs and to test it on the Albanian hospitals system.

Methods

All the hospitalizations registered in 2013 (n=150,068) were classified in 3241 case groups (CGs) with similar clinical characteristics and resource requirement according to ICD-IX diagnosis codes, discharge ward specialization, and hospital category. For each hospital the mean cost (both direct and indirect) of the hospitalizations occurred within a group was calculated, and the lowest hospital mean cost for each group was chosen as target cost. Potential cost scenarios (PCS) were elaborated by applying these target costs to the hospitals' caseloads. PCS were elaborated for all the CGs (PCS1) and for specific CGs in which the cost of cases is recognized to be more homogeneous. Variance analyses comparing the current hospitals' costs (for the year 2013) with the PCS were performed.

Results

The cost in PCS1 represents the 58.5% of the current cost of all the hospitalization in the hospital system. In particular, small and rural hospitals registered the higher cost variances (on average PCS1 for this category represent the 43.6% of its current cost). The PCS for inguinal hernia repair and normal delivery represent the 56% and 50% of their respective current costs.

Conclusions

Results highlight a consistent efficiency gap across hospitals in the treatment of CGs that have similar clinical characteristics and resource requirement. The model shows similar results even when the most cost-standard groups are considered.

Key messages:

- The model provides a measure of the efficiency in hospitals through variables that are limited in number yet widely available in most of the countries in transition
- The model may assist in evaluating the impact of the introduction of a hospital case-based financial system

Clinical pathway for patients with cerebral lesions: A lean way to improve quality and efficiency

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Issue

Evidence-based decision-making has become the leading framework for hospital management. Clinical pathways are evidence-based tools supporting healthcare delivery by linking best scientific evidence and clinical practice.

Description of the problem

"Fondazione A. Gemelli" hospital developed several clinical pathways to pursue a continuous healthcare quality improvement. A new one for patients with cerebral lesion has been recently approved to reduce waiting times, hospital length of stay and to offer a leaner care. All professionals involved in the care of these patients led by the Clinical Governance Directorate cooperated for the project.

A flow-chart pathway has been designed on the basis of evidence and current practice in a diagram showing on the vertical axis the stages of care and on the horizontal axis the places of care.

Health professionals were divided into three teams carrying out: analysis of the epidemiological context of patients with cerebral lesion attending the hospital, design of the flow-chart pathway and definition of quality indicators useful for healthcare monitoring.

After joint meetings and debates of the working groups, the whole clinical pathway was approved by all of the involved professionals.

Results

A report with flowchart, description of the pathway activities and 15 indicators covering 5 quality dimensions was drawn up approved and shared by the stakeholders. Tumor Boards were introduced in hospital practice and multidisciplinary approach in medical management of patients was strengthened. Case management and integration between primary and secondary care were also implemented.

Healthcare efficiency, patients' satisfaction and outcomes were improved.

Lessons

Clinical Pathway is a valid instrument for addressing health needs and resources and to improve efficiency in terms of timing and resources. Commitment of all professionals involved in the pathway of care is indispensable.

Key messages:

- Time and resources use can be ameliorated by clinical pathway use
- Clinical pathway lead to achieves better clinical care and outcomes

Using hospital, available statistics in defining use patterns and health care needs

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Background

An important concern of health systems facing scarce resources is to cover the care needs with lower costs.

As population based surveys are less and less affordable, to use hospital data currently gathered for financial purposes and other statistics already available could result in update information and important savings for planning health care.

Methods

By using the national hospital database (hospitalization days, inpatient cases), statistical reports about incidence, hospital morbidity and populations, relied on multivariate statistics, correlation and multi-linear regression, patterns of use were identified, defining either gaps or overuse in 42 districts and 8 regions.

Results

The data included 5763652, 24157793 hospitalization days in chronic, acute care wards spent by 262300 and 3876170 inpatients. Correlation coefficient showed lower values (0,1-0,4) for acute and chronic wards of psychiatry, palliative care, higher (0,7-0,8) for laparoscopic surgery, oncology and gynecologic oncology and extremely high (0,91-0,97) for other acute care wards while a low or medium correlation was found for the majority of chronic wards. After a matching between type of disorders and the wards where most likely these could be assisted, rates by 1000 persons of target population (children, adults, fertile women, new born) were computed. Disparities between reported inpatients days and those expected were established so the services were qualified as appropriately, over or under used.

Conclusions

Using the hospital data on number of cases and hospitalization days plus resident population, incidence and hospital morbidity is a way of providing update and useful assessment of needs and their coverage. The main uses of multilinear regression - causal analysis, forecasting an effect and trend forecasting - are discussed.

Key messages:

- Hospital data collected for other purposes than needs assessment could be used in order to measure the care needs and care use patterns
- When such exploitation (of databases already available, gathered for other purposes) is performed, efforts for corroboration of information and cautions for biases identification become compulsory

Clinical audit as a quality improvement tool in emergency care. A systematic literature review

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Background

Clinical audit is a healthcare quality improvement process based on systematic review of care, implementation of change and further monitoring over time. The aim of this study was to investigate the level of application and effectiveness of clinical audit in the particular field of healthcare emergency.

Methods

A systematic literature search was carried out, from 2004 to 2015, by a specific search algorithm through PubMed and CINAHL databases. Resulting studies were selected by two reviewers independently according to title, abstract and full text. Inclusion criteria were: clinical audits in emergency area at both primary and secondary care level. Audits focused on training, healthcare professionals' perception or compliance to procedures/protocols, health economics or death analysis only were excluded from the review. From each article the following

information were extracted: first author and year of publication, study design, country and duration, study population, setting, main and specific objectives, indicators used and main results.

Results

Out of the 6164 retrieved studies 62 were finally selected, which were mainly carried out in Europe (51,61%) and Oceania (27,42%); 64,51% of audits were performed by a multidisciplinary team and 51,61% were focused on process, 33,87% on outcomes and 14,52% on both aspects; 88,71% were conducted at hospital and 11,29% at primary care level with various fields (e.g. cardiology, neuroscience) of application. Out of the 62 studies about 15% were complete audits (assessment and comparison with standard phase followed by improvement actions and monitoring over time).

Conclusions

Even in emergency clinical audit can be a valuable tool to assess clinical practice both in terms of process and outcome and improve healthcare quality, mainly at hospital level. Indeed in hospital medical records and data flows are available, hospital team are more cohesive than territorial ones and hospital is more organized than primary care.

Key messages:

- The culture of clinical audit as a healthcare quality improvement tool needs to be widespread and its systematic application to be implemented in all clinical areas and fields, and in all settings
- Clinical audit is an irreplaceable and indispensable part of clinical practice. All health professionals should share this idea and be motivated to act consistently with the results to be pursued

Overview on Diabetes' interspace mortality and hospitalization in Central Italy

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Background

Chronic diseases, diabetes in particular, are a major problem of Public Health for what concern mortality and hospitalization rates. The aim of this study is to evaluate the weight of it comparing death and hospitalization rates for cardiovascular problems between diabetic and non-diabetic populations.

Methods

We extracted from current Health data all the deaths and hospitalizations for cardiovascular diseases from 2010 to 2012 in the Local Health Unit 9 of Grosseto in Tuscany, Italy. We identify the diabetic population using hospital discharge and emergency care diagnosis, drugs consumption and outpatient clinics data. Then we calculated death and hospitalization rates of cardiovascular diseases for diabetics and non-diabetics. Finally we used odds ratio to compare the rates between the two groups.

Results

Mortality rates, for all cardiovascular diseases, are higher in diabetics than in non-diabetics (OR 4.82, $p < 0.01$), in particular for cardio-vascular and cerebrovascular diseases, respectively OR 4.56 and 3.39, both $p < 0.01$. The hospitalization rates are higher too in diabetics than in non-diabetics: for all cardiovascular diseases OR 15.90 $p < 0.01$, and in particular for cardio-vascular diseases OR 13.56 $p < 0.01$, atherosclerosis OR 19.90 $p < 0.01$, cerebrovascular diseases OR 8.07 $p < 0.01$, kidney diseases OR 13.11 $p < 0.01$, hypertension OR 4.16 $p < 0.01$.

Conclusions

Diabetes appears to be a major health problem against which it could be important to focus the attention of health policies

because of its impact on mortality and hospitalization rate, not only for well known problems like cardio-ischaemic diseases and cerebrovascular accidents, but also for others health problems like atherosclerosis, kidney diseases and hypertension.

Key messages:

- Mortality rates for cardiovascular diseases in diabetics are about 5 times higher than non-diabetics
- Hospitalization rates in diabetics are really higher than non-diabetics: kidney, cardio-ischaemic and cerebrovascular diseases: OR 13.1, 13.6 and 8.0, hypertension and atherosclerosis: OR 4.2 and 19.9

Medical needs in the treatment of paraplegic people in acute care hospitals

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Background

The topic of nursing paraplegic persons is very important in all clinics (acute care hospitals and rehabilitation) in Austria, especially regarding patient outcome. Its importance is due to significant communication and interface problems between acute care hospitals and rehabilitation clinics. The study aims at answering the question whether it is necessary to fulfill a so-called 'Care Pass' and pass it on to patients to guarantee improved care and treatment information. Patients are to have this "Care Pass" with them at all times, especially when going to acute care hospitals.

Methods

A standardized questionnaire was created and sent to 544 former patients of rehabilitation clinics. The response rate was 29.1 %. The respondents were selected according to their diagnoses (ICD-10 classification). In addition to statistical data and individual nursing needs, it was queried whether these needs were identified upon admission to an acute care hospital and whether or how these requirements were implemented after notification had been made by the patient or his/her relative.

Results

34.5 % of patients admitted in acute care hospitals were not asked for their specific needs. 55.4 % of patients and relatives provided only partial or no information. Answering the question of when this information had been implemented, 58.4% responded with immediately, 35.1% responded with after repeated requests and 6.5% with never. The survey analysis shows significant problems with bowel management, personal care, bladder management, transfer, positioning, pressure ulcer prevention and food intake.

Conclusions

Only a deficient collection of data regarding individual care needs was collected at admission. The care needs mentioned by patients or their relatives were inadequately implemented.

Key messages:

- The quality in terms of communication and qualifications in terms of the care for this particular group of patients in acute care hospitals must improve
- Concrete support from the professional area which has so far provided high-quality care for these patients is desirable

Hospital patient safety culture and beyond: Incident reporting trends in an Italian academic hospital

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Background

Incident Reporting (IR) is one of the most widely accepted tools for identifying and analyzing healthcare related risks; it is directly related with improvement of patient safety culture in healthcare workers. According to literature, doctors are known for being less committed to IR than nurses.

Objects and Methods

The aim of the study was to analyze professionals attitude to report and potential reporting trends during years 2010-15, comparing them to other more general risk indicators supported by existing routine databases, such as patients complaints/praises and professionals accidents at work.

Reporting rates, stratified by year and reporter profession, were estimated using the reported events/full time equivalent ratio. Personnel attitude toward self-reporting was also analyzed. Univariate and multivariate analysis were computed.

Results

A total of 8809 IRs were collected, corresponding to 1 every 77.7 discharges; reporting rates were 0.44 (95% CI: 0.42-0.46) for doctors, 0.40 (95% CI: 0.39-0.41) for nurses and 0.17 (95% CI: 0.16-0.18) for other professionals.

Among professionals, only doctors reporting rate increased significantly ($p=0.04$) from 0.29 (95%CI: 0.25-0.34) in 2010 to 0.67 (95%CI: 0.60-0.73) in 2015. In the same period, patients complaints decreased from 384 to 224 ($p<0.001$), while praises increased from 199 to 232 ($p=0.04$) and work-accidents remained constant. Multivariate logistic regression showed that self-reporting was more likely among nurses than doctors (OR 1.51; 95%CI 1.31-1.73) and for severe events than near misses (OR 1.78; 95%CI 1.11-2.87).

Conclusions

Contrary to previous literature, in our study doctors seemed to be more prone to report adverse events than nurses although nurses showed higher proportions of self-reported events. Doctor reporting rates increased significantly during the study period; as the other analyzed risk indicators suggest, this trend was probably due to personnel growing attention to patient safety issues.

Key messages:

- Incident Reporting is a direct marker of attention to patient safety
- Doctors can become more committed to IR than nurses, improving their level of attention to patient safety

The impact of accreditation for excellence on patient safety culture in an Italian hospital

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Background

The promotion of safety culture in hospital care is a requisite to reduce errors and to continuously improve the quality of care. Alongside patient safety programs, a quantitative evaluation of the safety culture in hospitals is essential to understand strengths and weaknesses of the system and to set up future investments. Therefore, Udine Academic Hospital (UAH) joined the Patient Safety Collaborative Alliance (PaSCAL) national survey in order to assess safety climate and evaluate the impact on it of the Joint Commission International (JCI) accreditation process.

Methods

The PaSCAl survey is based on a questionnaire made by the Agency for Healthcare Research and Quality (AHRQ), made by 52 items grouped in 12 areas. Sampled wards (medical, surgical and diagnostic) could differ between years. The survey was done in 2009 and 2015 with a sampled workforce of 793 and 587 respectively. The delivery was both electronic and paper based. The surveys were set before and after the first JCI accreditation (2010) and the second round (2014).

Results

Response rates increased from 16.6% (132/793) to 21.9% (129/587). 10 areas out of 12 had better scores. A significant ($p < 0.05$) increase of favorable opinions after the accreditation was found in the perception of patient safety (+16.1%); feedback and communication (+12.0%); adverse event reporting (+23.6%); teamwork between units (+12.7%). In 2015 no area was statistically far from the national benchmark, while previously patient safety (-11.1%) and teamwork between units (-14.7%) were significantly worse.

Conclusions

The questionnaire inquired the trust put by workforce in the hospital management and their wards. Before accreditation, key weaknesses were shown. Significant improvements on reporting culture were achieved. Education, followed by standardization of procedures and communication were the main efforts by our management. A “silos” mindset and a blaming attitude towards errors are still open challenges.

Key messages:

- The analysis of patient safety culture is a useful tool to monitor the effects of patient safety programs on workforce attitudes
- Among other strategies, accreditation for excellence can help increase patient safety culture in the context of public hospitals

Heavy costs of diabetic population in Central Italy for cardiovascular diseases hospitalization

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Background

Diabetes is one of the biggest challenges for Public Health nowadays, because of the great impact of this chronic diseases on comorbidity, deaths, and of course costs. The aim of this study is to evaluate the costs of diabetes in terms of hospitalization expenditure for cardiovascular diseases and compare them between diabetic and non-diabetic populations.

Methods

For this study we extracted from current Health data all the hospitalizations with related costs for cardiovascular diseases and diabetes-related issues from 2010 to 2012 in the Local Health Unit 9 of Grosseto in Tuscany, Italy. We identify the diabetic population using hospital discharge and emergency care diagnosis, drugs consumption and outpatient clinics data. Then we calculated costs for diabetics and non-diabetics. Finally we used Mann Withney test to compare the costs between these groups.

Results

Overall the total hospital expenditure for cardiovascular diseases from 2010 to 2012 was more than 63 millions of euro, 51,4% of which was spent for diabetics' hospitalization. Patients with diabetes had more frequently multiple hospitalization (OR 1.75 $p < 0.01$). Moreover hospitalization costs are higher for diabetics than in non-diabetics, especially for hypertensive cardiopathy, eye diseases, cerebrovascular diseases, infertility and kidney diseases (all of them $p < 0.05$).

Conclusions

More than half of the hospitalization costs for cardiovascular diseases are spent for diabetic patients. Hospitalization costs are only a part of the health expenditure for diabetes. Reducing the prevalence of this disease with prevention and health promotion should be a major target of public health, not only for the health of the citizens, but also for saving lives and resources.

Key messages:

- More than half of the hospitalization costs for cardiovascular diseases are spent for diabetic patients
- Diabetic patients have more frequently multiple hospitalization for cardiovascular disease (OR 1.75 $p < 0.01$). The average hospitalization costs are higher for diabetics than in non-diabetics ($p < 0.01$)

Hand hygiene compliance in an Italian hospital

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Background

Hand Hygiene (HH) is the most important factor of preventing health care-associated infections. We investigated the healthcare workers' HH behaviour

Methods

The research was conducted in all wards (medicine, oncology, out-patients departments, blood transfusion centre, cardiology, intensive care, surgical unit, surgery, hospice, first aid and maternal-child area). Four trained observers evaluated the HH practice of: physicians, nurses, healthcare assistants and other healthcare workers in 8 moments: before the visit without gloves, after visit, after body fluids contact, after removing gloves, before eating, before invasive and non-invasive procedures, after contact with patient's skin. The handwashing were divided according to: type (social/antiseptic) and the product used (soap/gel). To avoid observational bias we selected observers involved in ward's practices which gathered the data “secretly”. We used χ^2 test for comparisons between healthcare workers and wards

Results

The HH compliance rate achieved by all healthcare workers was 76.84%. The nurses showed better HH compliance than physicians ($p = 0.043$). Surgery had better performance than all units ($p < 0.05$), except intensive care and surgical unit. These latter showed higher performance compared to all other wards ($p < 0.001$). In addition: I) medicine showed HH compliance lower than: oncology ($p = 0.001$), out-patients departments ($p = 0.025$) and hospice ($p = 0.032$); II) cardiology lower than: oncology ($p < 0.001$), out-patients departments ($p = 0.018$), hospice ($p = 0.022$); III) first aid lower than: oncology ($p < 0.001$), out-patients departments ($p = 0.015$) and hospice ($p = 0.022$); IV) blood transfusion centre lower than oncology ($p = 0.004$). The antiseptic washes were 14.1%, the alcoholic gel was used for 7,4% handwashing

Conclusions

In the Center Italy hospital studied the HH compliance would seem better than national and international literature data. Nevertheless the differences between wards and healthcare workers should be overcome

Key messages:

- We found differences in hand hygiene compliance between healthcare workers, in particularly between nurses and physicians
- Our studied showed a lower use of alcoholic gel than soap

Changing epidemiology and impact of resistant bacteria in 2010-2015 in a French Teaching Hospital

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Background

Hospitals are a breeding ground for the spread of antibiotic-resistant bacteria (ARB). Control of ARB among health care facilities is part of the French national infection control programme and a growing public health concern.

Methods

Individual data from 220,342 consecutive patients hospitalized from 2010 to 2015, for at least 24 hours in Lariboisière hospital, a 654-bed Teaching Hospital in Paris, France were retrospectively analyzed. Data were extracted from hospital medical information system and from hospital bacteriology database. When a resistant bacterial strain was isolated from clinical specimens, patients were considered as ARB-positive (ARBp). To evaluate ARB epidemiology, ARB incidence rate per 1,000 patient-days (IR), percentage of ARBp patient-days (Ppos), median hospital stay after ARB positivity (MedHS) and in-hospital mortality (HM) were used as indicators. Results are reported for extended-spectrum beta-lactamase-producing *Escherichia coli* (EC), *Enterobacter cloacae* (CL) and *Klebsiella pneumoniae*, Methicillin-resistant *Staphylococcus aureus* (MRSA), multidrug resistant *Acinetobacter baumannii* (AB) and *Pseudomonas aeruginosa* (PA).

Results

A total of 8,036 positive samples in 3,591 ARBp patients (ARBpP) from 4,391 hospitalizations were found. EC, CL and KP showed increased IR over time. EC had the sharpest increase from 0.6 in 2010 up to 1.86 in 2015. MRSA IR remained almost stable at 0.44. AB and PA IR showed less regular patterns. Average IR was 0.34 for CL, 0.55 for KP, 0.06 for AB, and 0.02 for PA. Ppos rose only in EC ARBpP, from 1.29% to 3.15%. MedHS decreased for all ARB: from 14 to 13 days for EC, from 34 to 18 for CL, from 34 to 17 for AB. HM rose sharply in CL ARBpP (from 9.5% to 20%) and slightly in EC (from 7.6% to 10.9%). Highest HM was due to PA.

Conclusions

Our study highlighted marked changes in ARB epidemiology, showing need for a prospective hospital surveillance of dangerous ARB like PA but also frequent ARB like EC.

Key messages:

- Antibiotic Resistant Bacteria's epidemiology changed markedly in recent years with ESBL - *Escherichia coli*'s incidence growing steadily
- Although ARB incidence increased, active surveillance by bacteriology and infection control teams appeared to result in shortening the median hospital stay after ARB positivity

Trends in palliative care at the end of life in Belgium, 2005-2014

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Background

Due to ageing population, more people require palliative care towards the end of life. Recent studies compare palliative care use across Europe, but no studies investigate evolution in palliative care. Trends in palliative care provided by general practitioners (GPs) and specialist palliative care (SPC) services in the last three months of life are investigated in Belgium during 2005-14.

Methods

Retrospective population-based study. Between 2005 and 2014 (with exclusion of 2011-12), GPs of a nationwide representative epidemiological surveillance network (Belgian Network of Sentinel General Practices) weekly registered all death (≥ 18 years) and patient's received care in the last three months of life. Time trends (by score test for linear trend of odds) were examined by multivariate logistic regression adjusted for sex, age and cause of death.

Results

During 2005-14, 6555 non-sudden deaths were registered. GPs palliative care delivery increased from 52% (2009) to 62% (2014) (OR 1.46 (1.18-1.81)). The use of SPC services in the last three months of life rose from 39% (2005) to 57% (2014) (OR 2.82 (2.25-3.55)). SPC was mainly provided by in-house palliative care in nursing home (12% to 23%; OR 2.34 (1.77-3.10)), palliative care service for home dwellers (16% to 21%; OR 1.64 (1.22-2.20)), hospice/palliative care unit (13% to 11%; OR 0.84 (0.61-1.15)), hospital-based palliative care service (excl. palliative care unit) (7% to 9%; OR 1.36 (0.93-1.98)) and other SPC services (1% to 4%; OR 8.85 (2.95-26.5)). An increasing trend of odds was presented in palliative care by GPs ($p < .001$), SPC services ($p < .001$) and all SPC settings with exception of hospice/palliative care unit (respectively $p < .001$, $p < .01$, $p < .05$ and $p < .001$).

Conclusions

In Belgium, use of palliative care by GPs and SPC services at the end of life increased significantly during 2005-14. This study suggests that persistent efforts by policymakers, care providers and researchers have been effective.

Key messages:

- During 2005-14, palliative care at the end of life increased significantly in Belgium
- Efforts to improve palliative care use proved worthwhile through time

Gender differences in health expenditure determinants

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Background

Gender difference in the use of healthcare services is known, but its determinants are still unclear. This study examined how

patients/physicians characteristics could differently influence healthcare services' use among genders.

Methods

In 2009/10 questionnaire SF36 (8 scales: physical functioning-PF, physical role-PR, pain-P, general health-GH, vitality-VT, social functions-SF, emotional role-ER, mental health-MH) was distributed to 887 general practitioners' (GP) patients in Siena's province-Italy. GPs calculated, for each patient, Cumulative Illness Rating Scale (CIRS) which produces a severity index (SI) as the mean severity of coexisting illnesses. Information about patients gender, age, marital status, employment, BMI, smoking were recorded such as GPs' gender and age. Siena Province Local Health Unit 2012 data about pharmaceutical, diagnostic examinations/specialistic visits and hospital expenditures were obtained. Multivariate linear regression was fitted to investigate variables' effect on healthcare costs for gender.

Results

In males, hospital expenditure increased with higher SI ($p=0.003$) and female GP ($p=0.020$), $R^2=0.040$; diagnostic examinations/specialistic visits expenditure increased with higher SI ($p<0.001$) and lower GH ($p<0.001$), $R^2=0.172$; pharmaceutical expenditure increased with aging ($p<0.001$), lower education ($p=0.024$), higher SI ($p<0.001$), lower GH ($p=0.002$), $R^2=0.486$. In females, hospital expenditure increased with lower PF ($p=0.05$; $R^2=0.005$); diagnostic examinations/specialistic visits expenditure increased with higher SI ($p<0.001$) and lower GH ($p=0.001$) and P ($p<0.001$), $R^2=0.148$; pharmaceutical expenditure increased with aging ($p<0.001$), lower education ($p<0.001$), higher SI ($p<0.001$), lower GH ($p<0.001$), $R^2=0.352$.

Conclusions

Men's models better predict health expenditures. Difference in health expenditure determinants emerges mostly for hospital expenditure that in males is associated with severity whilst in females with perceived health

Key messages:

- Health expenditure determinants are different between genders. Health expenditure standard predictors, such as disease' severity, are more suitable to predict health expenditure in men than women
- In women, others factors other than severity of disease, such as perceived health, seems to influence the use of health services, in particular hospital care

Evaluation of economic efficiency and organization of medical aid to rural population in Kazakhstan

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Background

One of the effective ways for resource conservation, improvement of the quality and availability of medical care in rural areas should be a change in funding mechanism for rural health organizations.

Methods

Cross-sectional and full study was carried out in 14 RoK rural areas.

Object of the study-medical organizations, statistical data for 2013-15. Inclusion criteria-rural residents who were provided specialized medical care (SMC), exclusion criteria-non-rural residents.

Results

In 2015 517 860 rural residents (2013-546608) were treated in RoK, including 413025 (2013-391567) on hospital-replacing technologies (HRT). The number of ambulance calls-2897001 (2013-2914908). 41,0% patients were directed to day and night

care hospitals from PHC, 40,9%-from diagnostic centers, 14,2%-by ambulance, 21,7% on their own accord, 0,8% other types of assignment. Hospitalization types: emergency-72%(2013-74,9%), planned 27%(2013-25%). The growth rate of average cost of 1 case in 2015 in PHC-0,8(2013-0,6), emergency aid-1,1(2013-1,0), HRT-0,8(2013-0,6). Patients treated on HRT in day care unites of polyclinics-55,4%, in hospitals-36%, at home - 8,6%.

Correlation analysis was used to measure between the number of ambulance calls in rural population and volume of ambulance financing ($P<0.97$), between the number of diagnosis services and volume of financing these services ($P<0.9$), between the number of patients treated on HRT and HRT financing volume ($P<0.9$). Average absolute increase of workers a year in rural areas: in PHC-34 doctors, 682 nurses; in ambulance 23 doctors, 84 nurses; on HRT-9 doctors, 11 nurses.

Conclusions

After implementing UNHS in RoK availability and quality of medical care in rural areas are gradually increasing. Correlation analysis showed that the quality of medical care in rural areas is closely connected with financing volume. Structure of financing rural health care: 51,3%-PMC, 16,6% clinical and diagnostic services, 6,4 %-ambulance, 25,7%«SMC+HRT».

Key messages:

- In most Kazakhstan regions there are outstanding issues of financing medical care and pharmaceutical provision in day hospitals and home care
- The problem of rural health is the shortage of doctors and nurses. In RoK regions the average absolute growth of the number of doctors a year on SMC-1683 doctors (the growth rate 1,94), 7079 nurses

Public expenditure on health promotion and prevention interventions in Austria in 2012

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Issue/problem

Until the end of 2013, an overview of government-funded health promotion and prevention interventions in Austria was lacking. Likewise, current comprehensive data on government expenditures, categorized according to financial providers and/or intervention types had not been published.

Description of the problem

In order to strategically plan the use of financial resources in the field of health promotion and prevention, timely processed and detailed information on the corresponding government expenditures is essential.

The aim of our project was to provide the stakeholders with such information. The data collection instrument was revised in cooperation with a group of experts representing all administrative levels. At the federal, state and social insurance levels, all relevant public bodies were contacted for information on expenditures. At the local level, a random sample of municipalities was surveyed for expenditure in this field and the total expenditures on the local level were projected.

Results

Our analysis reveals that, in 2012, the government spent a total of 2.02 billion Euros, corresponding to 239.65 Euros per capita (of the Austrian population) on health promotion and prevention. Additionally, administrative bodies reported staff-related costs, which could not be monetarily assessed for all administrative levels.

Nearly three quarters (72.3 %) of these expenses were spent on tertiary prevention. Expenses for both primary and secondary

prevention accounted for 12.4 percent. The remaining funds were used on health promotion and capacity building (3.0 %).

Lessons

Due to its resource-intensive nature, collecting data on expenditures for health promotion and prevention is challenging for data providers. Nevertheless, periodic data collection would facilitate the consistent reporting of data and enable assessing the impact of recently implemented measures on health promotion activities as determined in the current health care reform process in Austria.

Key messages:

- Especially expenditures on health promotion and primary prevention show high growth rates in the period 2001-2012 which reflects the societal importance this topic gained in recent years
- We are convinced, that establishing an expenditure monitoring mechanism could facilitate joint activities of public and private institutions in the field by providing comprehensive information

1.S. Poster walk: Child and maternal health

Research on the eating habits of pregnant Romani women and mothers of newborns in Bulgaria in 2015

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Background

The health literacy and awareness of Romani women and those living in ghetto-like neighborhoods appears very low considering the malnutrition of Roma children and newborns. The lack of proper monitoring of pregnancy puts at higher risk the fetus and mother further jeopardized by bad eating habits and nutrition. The social marginalization is a major factor in the access to quality food for pregnant women and women in their first year after delivery. The following research was performed in the Roma neighbourhood of Maksuda, the city of Varna, Bulgaria.

Methods

Two methods of data collection were used to achieve the goals of the research. For collection of quantitative results a standardized questionnaire was performed. It contained "closed" questions suggesting optional answers. For the purpose of enriching the results, qualitative data was obtained using the method of focus groups.

Results

The self-reported assessment of the healthy eating shows that 95% of the women admit that do not eat healthy enough. Results show that very often consumed by children are ready-to-cook products as well as fast food, snacks, chips and sodas which are usually rich in preservatives. The majority of the participants (60%) have as a source of information on healthy eating their relatives and family. Some 20% admit that the information they get about food is from leaflets distributed by chain stores. 90% have not consumed fish in the past month.

Conclusions

The results show that the overall awareness of Roma women on healthy eating is very low and this problem is further deepened by poverty which is a major factor for the consumption of unhealthy food. Children suffer malnutrition because their mothers are not able to provide healthy food and lack knowledge of nutrition.

Key messages:

- The research work was supplemented by educational activities for all mothers who participated in the research. The training helped them better understand the necessity of varied diet
- The social exclusion is a major factor in the access to quality nutrition and healthy eating habits for both mothers and children

Noise exposure and the risk of gestational diabetes mellitus

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Background

Gestational diabetes mellitus (GDM) is a form of diabetes that occurs during pregnancy and usually goes away after delivery. However, GDM is still an important issue due to increased risks for type 2 diabetes in women after GDM and metabolic problems in offspring of diabetic pregnancy. Studies suggested associations between noise exposure and type2 diabetes, but there is no evidence whether noise exposure affects GDM. In this study, we investigated the association between noise exposure and GDM in Korean women.

Method

We analyzed the National Health Insurance Service–National Sample Cohort, a population-wide health insurance claim data. Study population was a total of 19,039 women with delivery between 2002 and 2012. GDM was defined as ICD-10 code O244. Noise levels were defined as daytime (07:00-19:00), night time (23:00-07:00), and all day exposure and were categorized into the quartiles of each time. Variables of interest included age, income, residential area, physical activity, smoking, drinking, blood sugar levels, and body mass index before getting pregnant.

Results

Women with GDM were more likely to be aged over 40 years old, have low income, to live in urban area, to be current smoker, and to drink alcohol, and to have high blood sugar level, and to be underweight at baseline than those without GDM. After adjustment for potential variables, pregnant women with the highest quartile of night noise exposure had an increased risk for GDM (OR = 1.27; 95% CI, 1.12-1.44) than those with the lowest quartile of exposure. However, exposure to day time or all day noise was not associated with the risk of GDM.

Conclusions

Pregnant women with high levels of night noise were at increased risk of GDM. Although this finding needs to be replicated, noise exposure may affect endocrine dysfunction during pregnancy.

Key messages:

- We investigated whether noise exposure is associated with the risk of gestational diabetes mellitus (GDM) among Korean women using a nationwide claim data
- Pregnant women with the highest quartile of night noise exposure had an increased risk for GDM (OR = 1.27; 95% CI, 1.12-1.44) than those with the lowest quartile of exposure

Inequality in health cares for children under the age of one in Bulgaria

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Background

Health care for children can have essential contribution for an equal start in life if they are directed to specific needs of different groups of the population.

Aim: To analyze the organized health service for children under the age of one and the factors, causing inequalities with focus on residence, education, ethnicity.

Study design

In three regions in south Bulgaria in order to represent three ethnicities – Bulgarian, Turkish and Roma were studied the opinion of the mothers (242), by “face-to-face” interview concerning preventive care for their children. Statistic methods- descriptive, for assessment and verification of hypothesis were applied.

Results

The health care for children in the cities is extensively better compared to that in the villages. $P < 0,001$. Most children from Roma origin receive insufficient health care service. $P < 0,001$. Statistically significant differences are established in the capacity of the activities of Children consultations concerning residence. The self-assessment of the mother’s knowledge from the villages for growing up children at early age is much lower than the one of the mothers from the towns $P < 0,001$. The educational level of the mothers has significant relation with the level of their knowledge. Mothers with lower educational level in 43% declare their need of additional training, but prefer non-medical sources. This is most common among Roma people- 84%. The biggest willingness to visit parent’s school have more educated women and with the lowest willingness- lower educated $P < 0,05$. The willingness is lower among mother from Roma origin, 55% of whom are in the group of the lower educated mothers. The more educated mothers receive more advice, while lower, educated tend to less $P < 0,001$, which is due to the language barrier.

Conclusions

The cumulating of several adverse factors- low education, ethnicity, lower populated residence- show that among families with young children there are underserved groups.

Key messages:

- The mission of the Public Health professionals is to reveal health inequalities in all segments of human life and to put them on the health policy agenda of all levels
- Both high level health policies as well as community level health education and organizational changes are important for the equal healthy start of life

Prevalence, knowledge & attitudes toward herbal use during pregnancy, labor and after delivery

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Background

Herbal medication use is highly prevalent. Lack of awareness regarding the possible dangers associated with the use of some herbs during pregnancy increases the risk of unwanted sequelae. No previous studies regarding herbal medication use among pregnant women have been conducted in Saudi Arabia. Aim: The main purpose study was to determine the prevalence of herbal medication use during pregnancy, labor and after delivery in Saudi Arabia. Study design: A

cross-sectional descriptive study was conducted over the 3-month period in 2015.

Methods

A self-administered questionnaire was distributed in 4 main hospitals and 3 primary health care centers. Data were collected from 612 participants and then analyzed. Descriptive statistics in the form of frequencies and percentages and chi-square test results were presented.

Results

Of the 612 participants, 25.3% used herbs during pregnancy, 33.7% used herbs during labor, and 48.9% used herbs after delivery. The primary motives behind using herbal medicine during pregnancy, labor and after delivery were to improve general health, to ease and accelerate labor and to clean the womb, respectively. There was a significant association between the use of herbs during pregnancy and prior use of herbs ($P = 0.001$). The majority of evaluated pregnant women used herbs in response to advice given by family and friends (52.9%). Herbal shops were the most common source of herbs (86.5%). Only 40.7% of the evaluated pregnant women disclosed their use of herbs to their doctors. There was uncertainty about the safety of herbal medication for general use.

Conclusions

There was a fairly high prevalence of herbal medication use among pregnant women in Saudi Arabia. Therefore, clinicians should make an effort to inquire about herbal medication use during pregnancy and to be aware of the evidence regarding the potential benefits and harms associated with this practice.

Nutritional status in a population of pregnant women

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Background

During pregnancy, a balanced diet is essential for normal fetal growth and to avoid deficiencies in pregnant woman. The aim of our study is to determine the nutritional status of pregnant women.

Methods

This is a descriptive study of a sample of pregnant women admitted in 2009 to the nutrition unit of the military hospital of instruction Mohammed V in Rabat. The recruitment was carried out by simple random with the list of pregnant women in the same service. Were included women at 12 weeks gestation, with no associated pathology and having a single pregnancy. For each woman a standardized food questionnaire with 24-hours recall was filled to study the energy inputs and 5 ml of blood was carried out to study the contribution of macronutrients (carbohydrates, fats and proteins), and elements (calcium, zinc and sodium) and vitamins (vitamin C, vitamin E, vitamin B1 and folic acid).

The objective of the study were clearly explained to women while respecting confidentiality and anonymity.

Results

Were included in our study 50 pregnant women whose age was 27 ± 6 years. Food survey revealed daily energy intake ($2116.8 \pm 98Kca$) lower than the WHO recommendations ($2250 \pm 50kcal$), it is the same for fat intake (28% of total energy intake AET) while carbohydrate intake (56% of AET) and protein (16% of AET) are slightly higher. Mean intakes observed for trace elements (calcium $673.5 \pm 60mg$, zinc $4.9 \pm 0.4mg$ and sodium $2511 \pm 140mg$) and vitamins (vitamin C $68 \pm 6mg$, vitamin E $3 \pm 0.4mg$, vitamin B1 $0.9 \pm 0.06mg$ and folic acid $239,17ug$) are lower than average nutritional needs.

Conclusions

Our study shows that the status of pregnant women studied is unbalanced. Food choices, nutrition education, information and proper monitoring are interesting during pregnancy.

Key message:

- The nutritional status of pregnant women shows the interest of information and education

Evaluation of maternal mortality in Afghanistan and neighboring countries

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Objectives

The objective of this presentation is to evaluate the maternal mortality rate in Afghanistan and compare with the neighboring countries in the same geographical region (Iran, Pakistan, Tajikistan, Uzbekistan and Turkmenistan).

Methods

The data from World Health Organization, UNICEF, UNESCO and Afghanistan Mortality Survey 2010 were used in this review study.

Results

Compared to the neighboring countries, Afghanistan has the youngest age population, a larger portion of the population lives in rural areas, women have the lowest literacy rate and the least participating in life working activity. Afghanistan, compared to its neighboring countries, has the highest total fertility and maternal mortality rates. Known causes of maternal mortality in Afghanistan are: severe bleeding and infections. Although the improvement of the health care services, the social and cultural structure of the society is still effecting the accessibility of women and mothers to healthcare services.

Conclusions

Compare to countries located in the same geographical region, Afghanistan besides having the lowest socio-economic development level, has the lowest value of maternal health indicators. There is an urgent need for raising the status of women and improving maternal health care services in Afghanistan in order to improve the maternal health indicators.

Key messages:

- Safe Motherhood is a Vital Economic and Social Investment
- Improve Access to Quality Reproductive Health Services

A framework and tool for the process evaluation

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Issue

Vulnerable: individuals derive less benefits from interventions than individuals who are not. Proportionate universalism appears to be a solution by implementing universal prevention activities addressing the whole population (UNIVERSALISM) and acting on each population category according to their needs (PROPORTIONALITY). However, the features of such interventions are as yet to be validated and an urgent need for research on this topic has been expressed.

Description of the problem

The PRALIMAP-INÈS trial proposes a school-based intervention to tackle social inequalities in overweight adolescents. One of the secondary aims is to evaluate the process and especially the feasibility of implementing inequalities-oriented interventions in the school setting. In health promotion programs,

intervention complexity, the number of actors and the influence of different setting contexts make it more complicated to analyze process data. The PRALIMAP-INÈS trial aims to document how schools implement the intervention and how the adolescents receives it with quantitative and qualitative measures of participation and intervention delivery. This methodology allows an estimation of intervention dose.

Results

Process data are collected through observation, interviews, and self-administered questionnaires from adolescents, the mobile team of healthcare professionals specialized in nutrition, school professionals and the research team. Overall, 36 schools participated, 1,418 adolescents were included and among them 845 participated in at least one activity, more than 250 professionals contributed to the program. An innovative tool (Prev@liss) was used for monitoring activities.

Lessons

The tool allows program development and facilitates implementation evaluation for public health professional.

Key messages:

- The framework and the tool can be used in any complex program evaluation
- The dose intervention adolescents receive will be estimated and used in “In treatment approach” analyses

Air pollution and health: study of citizen's attitudes and behaviours using multiple sources

Annalaura Carducci

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Background

In Italy, in December 2015 and January 2016, the routine air monitoring showed a peak of pollution (PM10 in particular) that caused alarm in many cities and was widely reported by mass media. After some weeks from this alarm, we tried to understand the people awareness towards air pollution and their positive behaviors, using different sources of information.

Methods

A questionnaire, asking attitudes and behaviours related to air pollution, was administered during an educational program in the context of EU funded MAPEC-life project. Parallel, a quantitative and qualitative analysis was performed on Internet search query data, on newspapers (two national and two local) and on Twitter. These two last kind of sources were collected and analyzed with qualitative analysis software.

Results

The media coverage of the theme of air pollution was very high at the end of 2015 and beginning of 2016, with 1.721 newspaper articles published in December-January, followed by a decay in interest (321 in February-March). The same trend was observed also in the internet searches (26.200 vs 6800) and in Twitter. The 57.69% of respondents believe that they can play high role in reducing air pollution but attribute the most important role to the political and environmental protection institutions. The percentage of adopting positive behaviours

(always or sometimes) ranged from 91.69% for separate collections of waste to 33.24% for use of public transport. The major obstacles against the adoption of positive behaviours were high costs and the lack of time (33.29%) and of institutional support (27.52%). Finally, participants consider relevant the role of children in promoting positive behaviours in the family (57.31%).

Conclusions

The study can be useful for future program of citizen education, but further research are needed on the perceived obstacles against positive behaviours.

Key message:

- The citizens' awareness on air pollution and their adoption of positive behaviours seems to need improvement, despite the high media coverage and the big interest shown towards this topic

HIV-screening in pregnant women: a systematic review of cost-effectiveness studies

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Background

Vertical transmission represents the major route of HIV infection for children; however, the preventive interventions available are extremely effective. Then, we aim to summarize the existing evidences regarding the cost-effectiveness of mother-to-child-transmission preventive screenings, in order to help policy makers in choosing the optimal antenatal screening strategy.

Methods

We conducted a systematic review of studies investigating the cost-effectiveness of HIV-screening addressed to pregnant women following PRISMA guidelines, using three databases: PubMed, Scopus and Cost-Effectiveness Analysis Registry (CEA).

Results

The final selection obtained 21 papers. Part of the studies assessed the cost-effectiveness of antenatal HIV-screening during early gestation. Others estimated the cost-effectiveness of HIV-screening in late pregnancy. The selected papers focused on both developed and developing countries, characterized by different HIV prevalence. The characteristics and methodology of the retrieved studies were heterogeneous. However, all studies agreed on main findings, outlining the cost-effectiveness of HIV-screening. Cost-effectiveness ratio improves increasing HIV burden. The major findings proved robust across the various scenarios tested in sensitivity analysis.

Discussion

Our review confirmed the cost-effectiveness not only of HIV antenatal screening, but also of rescreening in late gestation in both developed and developing countries. In fact, universal screening resulted cost-effective even with extremely low HIV prevalence. One of the most influencing parameter was women acceptance rate. Therefore, maximize screening coverage appears a priority worldwide. Further studies assessing the optimal HIV-test choice and the best testing sequence for confirmation, could be useful and of primary importance for the European public health agenda.

Key messages:

- Our review confirmed the cost-effectiveness not only of HIV antenatal screening, but also of rescreening in late gestation in both developed and developing countries
- HIV-screening for pregnant women resulted cost-effective even when the HIV prevalence is extremely low, common in

several European Countries, and can be considered as a prevention strategy in Europe

Growth trajectories and their associated risk factors among children in Scotland

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Background

Rapid weight gain during childhood has attracted some attention recently because of its short and long-term health consequences. The purpose of this study was to explore whether distinct growth trajectories could be identified among a cohort of children in Scotland. We also examined the maternal and child factors at age 7-8 years that are associated with demonstrating the distinct trajectories of growth.

Methods

We used data from birth cohort 1 of the Growing Up in Scotland study. Height and weight data (N=2 857) were available when the children were aged approximately 4, 6 and 8 years. For each child, monthly change in body mass index standard deviation score (BMI-SDS) was calculated to identify growth trajectories. Logistic regression was used to explore which of maternal or child risk factors were associated with belonging to the different growth trajectories.

Results

Five discrete BMI-SDS growth trajectories were identified: No Change, Early Decrease, Late Decrease, Late Increase and Early Increase. Relative to the No Change growth trajectory, maternal obesity (odds ratio (OR) = 1.81; 95% confidence interval (CI) 1.25, 2.62) and living in the most deprived quintile (OR = 2.57; 95% CI 1.50, 4.39) were associated with Early Increase trajectory. Maternal obesity (OR = 1.69; 95% CI 1.17, 2.45) and children who were never breastfed (OR = 1.39; 95% CI 1.00, 1.92) were at increased risk of belonging to a Late Increase trajectory, compared to No Change growth trajectory.

Conclusions

Maternal weight status, deprivation and breastfeeding were factors significantly associated with membership of the increasing weight status trajectories. These factors may be suitable for identifying high-risk populations for prevention, although the fact that the determinants of these factors are so complex support the need for population wide prevention.

Key message:

- Maternal weight status, deprivation and breastfeeding were factors significantly associated with membership of the increasing weight status trajectories

Power Napping as health promoting intervention at Austrian nursing schools

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Background

Power Napping has been identified as a method to increase concentration, performance and overall well-being at the workplace. Recently, two nursing schools implemented the possibility of power napping in an educational setting. The following study examined the impact of power napping on the students' health behaviour to elucidate a possible broader application of this method in Austrian high schools.

Methods

This cross-sectional cohort study included 201 participants completing a standardised questionnaire. The students were asked about their health behaviour and their use of power napping as well as the immediate effect on performance, concentration and well-being. Items were assessed on a scale of

0 to 10. Additionally, faculty was interviewed (n = 8) to gain an insight into the organisational procedures to facilitate power napping. Data is presented as median (25%;75% percentile). An alpha level of $p < 0.05$ was considered statistically significant. Qualitative content analysis (Mayring) was performed on interviews.

Results

Power Napping resulted in an improvement in performance score from 2 (2;4) to 8 (7;9; $p < 0,001$). Additionally, power napping increased the concentration score from 3 (2;4) to 8 (6;8; $p < 0,001$) and in well-being from 3 (2;5) to 8 (7;9; $p < 0,001$). Chi-square tests showed that there was no influence of power napping on night's sleep ($p = 0,655$), quality of sleep ($p = 0,426$) or existence of sleep disorders ($p = 0,876$). Interviews showed the effectiveness of involving the students in the process of implementation whereas financing was indicated to be hindering. The importance of giving the students information about power napping was emphasised.

Conclusions

Considering multiple beneficial aspects of power napping in nursing school an implementation at high schools in Austria seems feasible. Unfortunately, financial support for health promoting measures and modification of the established daily school routine is challenging.

Key messages:

- Power Napping significantly improves performance, concentration, and well-being of students at school
- Implementing this method as a health promoting intervention is highly beneficial

Relationship between pre-conceptual BMI and perinatal outcomes at public hospitals in Argentina

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Background

The relationship between pre-conceptual Body Mass Index (BM) and neonatal adverse outcomes has been a focus of global attention. Studies suggest that maternal low weight or obesity could predispose, not only to the onset of adverse events in the mother and her child during delivery, but also to the development of infant obesity in the newborn. The aim of the present study is to evaluate the association between pre-pregnancy BMI and peri-conceptual adverse outcomes.

Methods

We performed a secondary analysis of a database. For this study we reconstructed a retrospective cohort using data of 30,449 women who gave birth at 49 public hospitals in Argentina between 2010 and 2011. Outcomes included preeclampsia/eclampsia, low birthweight and premature birth. Logistic regression explanatory models were design for each outcome, adjusting for sociodemographic and clinical confounder variables.

Results

According to these models, maternal's pre-conceptual overweight and obesity increases the risk of developing preeclampsia/eclampsia (OR = 1.38 [IC95% 1.01-1.75]; 2.21 [IC95% 1.59-2.83]) in comparison with normal weight women. On the other hand, adult women with low pre-conceptual BMI have an increased risk of delivering a low birthweight newborn (OR = 1.73 [IC95% 1.45-2.06]) and an odds ratio of 1.66 (IC95% 1.28-2.14) of preterm birth. No statistical relation was found between pre-pregnancy BMI and adverse neonatal outcomes in adolescent women (age < 19 years).

Conclusions

This study confirms the relationship between maternal pre-conceptual anthropometric status and adverse neonatal outcomes in adult women. Nowadays, 15.5% of all births are born with low birthweight and 5% to 18% are born preterm.

Further studies are needed to design and evaluate cost-effective interventions focused on nutrition assessment and family planning to control pre-conceptual BMI and prevent neonatal complications.

Key messages:

- Controlling maternal's pre-conceptual BMI will contribute to improve infants' health and reduce child mortality by helping to prevent adverse events such as low birthweights and premature births
- Greater emphasis on nutritional assessment and control in women of reproductive age should be done to prepare them for future pregnancies and ensure an appropriate environment for fetal development

Alcohol consumption, perceived stress and plans to move abroad among university students

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Background

Intentions to move abroad have been found to be linked to a higher alcohol use and alcohol-related harm in the university student population. Leaving one's country can often represent a reaction to an unsatisfactory life and thus it can be hypothesized that those who perceive their life as stressful are more likely to have a plan to go abroad (PMA).

Objective:

To examine whether alcohol-related behaviour and perceived stress of university students are related to having a PMA.

Methods

The data from the study SLiCE (Student Life Cohort in Europe) were analysed. The sample consisted of university students from Czech Republic (16.6%), Germany (12.8%), Hungary (5.5%), Lithuania (41.7%) and Slovakia (23.3%); n = 2066, 69.7% women, average age = 18.68, SD = 0.17. A single item assessed students' PMA in the next two years. Logistic regression was applied to identify the factors influencing PMA, adjusted for country and sex. The AUDIT and PSS were used to identify alcohol-related behavior and perceived stress, respectively.

Results

15.3% of students reported having a PMA. The regression model explained about 13.5% of the variance in the PMA and correctly classified 84.6% of the cases. It showed that a higher level of alcohol consumption (OR = 1.066; 95%CI 1.001–1.135) and a higher level of perceived stress (OR = 1.046; 95%CI 1.008–1.086) were related to the PMA. The level of alcohol dependence and alcohol-related problems did not display a significant association with the outcome.

Conclusions

Students with a higher level of perceived stress and a higher level of alcohol consumption are more likely to report PMA. Due to the fact that our findings indicate that there is an association between PMA and heavy drinking, primary prevention professionals may benefit from paying a closer attention to this interesting phenomenon.

Key message:

- These findings indicate that alcohol consumption and perceived stress among university students may be associated with their PMA

THURSDAY 10 November 16:30-17:30

2.R. Poster walk: Interesting public health issues

Psychometric properties

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Background

Negative body image is expressed in one or more of the components of body image and is often characterized by dissatisfaction with appearance and engaging in behaviors such as frequent self-weighing or mirror checking, or avoidance of public situations.

Methods

For this study, samples of Hungarian adults were measured in the northwestern region of Hungary located in different wellness centers (spas) and offices over a two-year period (2014-2016). A total of (n = 126) males, age (32.11±10.29); and (n = 148) females, (33.20±10.40); (n = 274) completed the measurements and interviews. For this study, the “InBody720” (Biospace Co. Inc., Seoul, South Korea) Bioelectrical Impedance Analyzer (BIA) was used to assess body mass and composition (F%, M%). We used the “Body Shape Questionnaire”, Cooper, P., at al., (1987). The “Rosenberg Self-esteem Scale”, Rosenberg, (1965) has been applied worldwide for the measurement of general self-esteem for decades.

Results

We have found that the differences between the averages relative body fat have seen in various age groups are significantly relevant despite gender. age (1) [(28.57±8.67-age(2) 30.08±8.04 – age(3) 34.15±9.03)];p<0.00 All the answers included in the Body Shape Questionnaire (BSQ) show sign of differences apart from (BSQ 3,7,9,11). We haven't found any significant differences between various age groups. The level of the Rosenberg Self-esteem Scale (RSE) has found no significant connection with demographic data such as (age, gender).

Key messages:

- People who have certain psychological patterns, such as believing they should have perfect bodies
- or an increased tendency to compare themselves to others, are more likely to have low body satisfaction

Amazon Forest Interconnected: 530 students, 18 counties, 20 simultaneous professors

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The issues involving public health in Brazil have its history in the first half of the last century. We went through periods of military dictatorship with control over the Brazilian public health. The social movements have managed to change our social and political landscape, culminating with the creation of our health system. We currently offering an undergraduate degree in public health, training health workers who intend to integrate this healthcare system. One of the difficulties of the Brazilian Amazon is the geographic issue, with counties within 7 DAYS of distance in a boat trip. Which makes this normal teaching almost impossible. To resolve that, we created a degree course mediated by IPTV technology. This paper gives an report from the teachers in several functions within this

format, which possibly will be very useful in places where geographical and financial barriers may prevent the dissemination of knowledge. With the lack (or total absence) of Public Health professionals in the middle of forest, this activity now represents radical strategy to increase the number of professionals with understanding of the amazonians problems. 4 years of simultaneous classes, 20h per week, to 18 counties with 530 students coordinated by 20 teachers. The main virtue of this experience is perhaps the resumption of the collaborative work of a multidisciplinary nature. This experience can rise a new way to evaluate the investments made in education in distant places. Although It is necessary to rethink some dynamic issues of the classroom to facilitate learning. One of the most common problem was the activities developed by the assistant professors (locally) and the lack of understanding of all the technological tools provided. As a practice, it provided a new way of organization and dissemination of content via new technologies bringing the counties together an increasing the quality of life and health promotion in these areas so distant from the capital.

Key messages:

- A possible way to overcome financial and geographical barriers to disseminate the knowledge in public health
- Amazon Forest Interconnected: 530 students, 18 counties, 20 simultaneous professors - An Experience Report on a Graduation in Public Health via Internet Protocol Television (IPTV)

End user involvement in eHealth and innovative procurement practices: the case of DECIPHER PCP

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Issue/problem

Therapy adherence is a key factor in chronic diseases. eHealth tools provide support in increasing this rate. However, there is lack of agreement regarding the most appropriate approach for their development. This has generated a lack of alignment between supply and demand. The European Union has promoted the use of innovative procurement tools, as Pre-commercial Procurement (PCP), for solving these issues.

Description of the problem

eHealth technologies dissemination has been characterised by a lack of end user involvement (patients and clinicians) in R&D. Interoperability within and between health services is another important issue. This study defines a framework for the development of eHealth tools. It aims at increasing end user involvement, interoperability and data protection. Developed within DECIPHER PCP project, this study relies on PCP and usability concepts for developing an eHealth tools for type II diabetes.

Results

A consortium of stakeholders from 3 countries (Italy, Spain, UK) analysed issues related to interoperability and data protection. End users involvement allowed the identification of 5 main unmet needs related to type II diabetes care. A public tender for the development of a mobile technology for this disease was issued in 2014. 15 proposals were received and 3 will be selected for a final trial period. Selection is performed by eHealth experts and end users.

Lessons

End user involvement and interoperability emerged as key factors for the practical introduction of eHealth in the ICT infrastructure of health services and in increasing acceptability by patients and clinicians. Moreover, the lack of coherence between the ICT infrastructure of different European health services emerged as a serious barriers to the introduction of eHealth tools.

Key messages:

- In order to create the conditions for deploying the full potentiality of eHealth tools, higher attention must be devoted to interoperability and end users acceptance
- Lack of coherence between the ICT infrastructure of different European health services emerged as a serious barriers to the introduction of eHealth tools

Review of published articles on climate change and health in two francophone newspapers: 1990-2015

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Since the IPCC released its first report in 1990, an increasing number of peer-reviewed publications have reported the health risks associated with climate change. However, the media has been inconsistent in the attention it pays to the matter. This study aims to analyze the modalities and rhetoric of the discourse around the impact of climate change on health in the media in order to better understand its role in information dissemination.

A review of articles published between 1990 and 2015 was conducted in the francophone newspaper *Le Monde*. A detailed search strategy including specific climate and health terminology was used to search the newspapers' online database. 599 articles were identified as having referenced the terms related to climate change and health. Inclusion and exclusion criteria were applied to narrow the search to articles referencing the effects of climate change on human health and 189 articles were included in the final analysis. Data was extracted and categorized to create a structured database allowing for further investigation and analysis.

The review indicated that although 66% of the selected newspaper articles reference scientific evidence of the impact of climate change on human health, the focus on the topic is limited major political events or is circumstances relating to public health crises. Main findings also include that infectious diseases are the main health outcome highlighted in association with climate change. Lastly, the articles suggest that while developed countries have caused most of the greenhouse effect, the global south is more immediately affected. Overall, the reviewed articles underline the need for international cooperation in finding a solution to mitigate the effects of climate change on health. The manner in which scientific results are communicated and disseminated, impact individual and collective perceptions of the topic in the public sphere and affect political will to shape policy.

Key messages:

- This research aims to assess the modalities of the discourse around climate change and health in francophone media
- The results of this analysis will underline the modalities of the rhetoric of transparency and provide the basis for a perception study of media discourses

Are obstructive sleep apnea severity, sleep problems and anxiety associated with work functioning?

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Background

The impact of Obstructive Sleep Apnea (OSA) on morbidity and costs is significant. Studies show an impairment of daytime function including work functioning in OSA patients. Yet, little is known about the associations between OSA severity, sleep-related problems, anxiety and work functioning. Thus, we aimed to examine whether OSA severity, sleep-related problems and anxiety are associated with work functioning in OSA patients, and to investigate whether anxiety moderates the associations between sleep-related problems and work functioning.

Methods

We included 105 patients (70% male; mean age 47.62±9.79 years) with the diagnosis of OSA (Apnea-Hypopnea Index – AHI≥5) based on full-night polysomnography. All patients completed the Pittsburgh Sleep Quality Index (PSQI), the Epworth Sleepiness Scale (ESS), the Beck Anxiety Inventory (BAI), and the Work Role Functioning Questionnaire 2.0 (WRFQ). To analyse data multiple linear regressions and moderations were used.

Results

OSA severity, poor sleep quality, and anxiety were univariately associated with impaired work functioning. Anxiety was more strongly associated with impaired work functioning than OSA severity and sleep quality. After adding anxiety, the explained WRFQ variance rose from 16% to 22%. Anxiety significantly moderated the relationship between low and medium sleep quality problems and work functioning.

Conclusions

Anxiety was significantly associated with impaired work functioning. Moderating effect of anxiety on the association between sleep quality and work functioning was profound in patients with better sleep quality, while the effect of anxiety on the association between work functioning and sleep quality was negligible in the patients with low sleep quality.

Key messages:

- Many OSA patients experience sleep problems, thus it is essential to study their work-related outcomes
- Screening for anxiety and work functioning impairment and consecutive interventions may help to optimize standard treatment

SUV driving masculinizes risk behavior in females: a public health challenge

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Background

Involvement of Sport Utility Vehicles (SUV) in accidents especially with children is of increasing importance. Studies indicated a more risky behavior in SUV drivers and a public health concern. As women are using this vehicle type

increasingly the question arises if also women when driving a SUV are displaying a more risky behavior.

Method

In Vienna an observational study was conducted weekdays at the beginning of school term, when road safety campaigns are run. Three busy intersections were selected.

Results

Drivers of 43,168 normal cars and 5,653 SUVs were counted at the intersections during observation period. In total 13.8% drivers were unbelted, 3.1% were using a hand held mobile phone, and 2.5% violated traffic lights. Frequencies in SUV drivers were significantly higher. Male driver violated traffic laws more often than female drivers. Not using a seatbelt was twice as frequent in men as in women (16.1% vs. 8.0%). Driving a SUV made this difference smaller. For driving unbelted the odds ratio of SUV driving in women was 1.48, in males only 1.18.

Conclusions

Noncompliance with major traffic laws is still high and of public health concern. Women driving a SUV are adopting a risk behavior approaching that of males.

Key messages:

- For the first time, this study investigated gender aspects of the “SUV effect”. When driving a SUV, the risk behavior of women comes closer to that of men
- From a public health point of view awareness campaigns specifically targeting drivers of SUVs and tailored also to female drivers should be designed and implemented

Learning elements in rehabilitation among the working population with low back pain (LBP)

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Background

Persons with LBP are challenged in reorganizing life in a new context, and learning processes seem to be a keypoint. Research shows disease-, realization process and relational context are important for the outcome of rehabilitation. The purpose of this study is to identify learning elements in different positions to the working population with LBP undergoing rehabilitation.

Methods

Mixed methods were used to answer the research question. Based on Wengérs theory of learning an interview guide was developed. 7 participants were interviewed. The qualitative findings were quantified in a survey (N=40). To the analysis of learning elements Wengérs theoretical context was used.

Results

In the qualitative study 3 different positions of learning were identified: 1: minimum commitment with marginal participation. 2: minimum of engagement in learning with peripheral participation. 3: going from peripheral to central participation. To verify the identified 3 different positions of learning a quantitative questionnaire was conducted and the participants were asked to answer questions about learning elements based on Wengérs theory. The results indicate most agreement to position 2 & 3.

Conclusions

In this study 3 different positions of learning are identified. In the 3 learning positions the participants used different learning elements to develop meaningful negotiation in practice, create their own style and method to cope in rehabilitation. We suggest that future rehabilitation program include focus on the three positions of learning and that professionals are aware

of the consequences of the three different positions in rehabilitation to persons with LBP. It is appropriated that guidelines and training programs for rehabilitation to persons with LBP include the 3 different positions of learning based on Wengérs theory of learning. This can contribute to the fact that persons with LBP are less challenged in reorganizing life in a new context.

Key messages:

- Based on Wengérs theory of learning the study identified 3 positions of learning among the working population with LBP in rehabilitation
- Future rehabilitation should focus on the 3 positions

Genetic encoding of the International Classification of Diseases and the burden of Genetic Disorders

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Background

Genetic diseases are an important cause of infant mortality and morbidity and have a high impact on social-health system. About 50-70% of pediatric patients suffer from genetic disorders or diseases with a significant genetic component. At the time, the key role of genetics in understanding the biological basis of the disease has been well defined but its real impact remains to be defined. The aim of this study is to assess the impact of genetic disorders through the “genetic encoding” of the International Classification of Diseases-9th Revision (ICD9), currently used in Italy, in order to understand the implications for the healthcare system.

Methods

This study included the following activities: “Genetic” classification of the diseases according to scientific literature; “Genetic encoding” of disorders present in ICD9 using as resource the Online Mendelian Inheritance in Man (OMIM); Selection of ICD9 codes relevant for the study.

Results

The analysis of literature resulted in a “genetic” classification of 8 classes of diseases: Chromosomal anomalies, Monogenic disorders, Congenital Malformations, Mitochondrial diseases, Genomics diseases, Somatic cell genetic diseases, Multifactorial Disorders, Probably genetic disorders. According to the “genetic encoding” of the ICD9 about 29% of ICD-codes is “genetic”. The most represented classes are: Multifactorial Disorders (37,9%), Somatic cell genetic diseases (30,6%), Congenital Malformations (14%) and Monogenic disorders (10,6%).

Conclusions

Genetic diseases are quite common and costs for society and for the health system are very high. The ICD9 has some limitations: for example it does not include all genetic diseases currently known with consequent possible coding errors by clinicians and incorrect correlation with Diagnosis Related Groups. These results are of major interest for public health not only for assessing the burden of genetic disorders but also for priority setting in resources allocation.

Key message:

- Healthcare systems sustainability requires knowing the real impact of genetic diseases in order to support the health planning process and to make it more targeted and effective

STEC prevalence in raw milk cheese produced in Lombardia

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STEC (Shiga Toxin Escherichia coli) are a group of microorganisms responsible of severe human illness as Hemorrhagic colitis and HUS (hemolytic uremic syndrome). Raw milk, and dairy products made with raw milk, together with bovine meat, sprouted seeds are the food more frequently associated with episode of foodborne outbreaks. Since 2014 Sanitarian Authority of Lombardy Region established a monitoring plan to verify the prevalence of STEC in cheese produced with raw milk by different dairies throughout the whole region. 430 curd were collected during 2014, and analyzed for STEC detection according to ISO /TS 13136:2012 method, able to identify presence of STx genes, eae gene and top 6 STEC serogroups (O26, O103, O111, O145, O157 and O104). In cases of confirmed presence, or even in cases of presumptive presence, the cheese obtained from these curds was analyzed at the end of the specific aging period. In 64 curds up to 430 (14,88%) STEC was presumptive present, in 8 cases STEC was confirmed present (1,86%). (2 strains were eae +, none belonged to one of Top six serogroups). Regarding cheeses batches made from positive or presumptive positive curds, analyzed at the end of aging period, in 24 samples up to 169 (14,20%) STEC was presumptive present and in 5 cases (2,96%) was confirmed present. (1 strains were eae +, none belonged to one of Top six serogroups). Cheese batches confirmed positive or even presumptive positive were withdrawn and destroyed by the Regional Sanitarian Authority. STEC prevalence observed was comparable to data reported by the EU Reference Laboratory for E. coli, and it underlines the importance to maintain an active monitoring plan to verify the spread of this microorganisms. The decision of the Sanitarian Authority to apply the precautionary principle and to withdraw the cheese even in cases of STEC presumptive presence is justified by current scientific knowledge in order to preserve consumer safety

Key messages:

- STEC are a group of microorganisms responsible of severe human illness that can potentially contaminate cheese produced from raw milk
- Health Authority is keeping under review the potential risk for the consumer applying the precautionary principle

Frozen berries: use of a combined approach of freezing and ozonation to improve the food safety

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Background

During 2013-2014 Europe was interested by a multistate outbreak of hepatitis A and more than 1,300 cases were registered. The most probable cause of infection was the consumption of hepatitis A virus (HAV)-contaminated frozen mixed berries. In this work, it was verified the efficacy of freezing and ozonation (O3) on HAV, *Listeria monocytogenes* (L. m.) and *E. coli* VTEC spiked on frozen berries. Total pathogens destruction was not achieved.

Methods

Frozen mixed berries were put on sterile pierced vessels (100 g x vessel) and spiked without thawing (3 replicates x 3 pathogens x 3 treatments). The level of inoculum was 106 TCID50/ml for HAV and 105 cfu/ml for L. m. and VTEC. Control samples were treated with sterile physiological solution. Samples (25 g) were tested at T0 (inoculum), T7, T14 (1 and 2 weeks at $-20\pm 2^\circ\text{C}$) and at Tn + 1 (10, 30, 50 ppm of O3 for 10 minutes each).

Results

The average red fruits pH was 3.59 ± 0.19 , and no significant differences (t-student; $p > 0.05$) were observed after freezing and O3 treatments. A significant reduction of 1.54 ± 0.32 , 1.59 ± 0.12 and 1.92 ± 0.76 Log was observed for L. m., VTEC and HAV, respectively, in berries after 2 weeks at $-20\pm 2^\circ\text{C}$. No significant reduction was observed with 10 or 30 ppm of O3 for 10 min. Only after 50 ppm of O3, a significant inactivation effect was observed.

Overall, 2 weeks at $-20\pm 2^\circ\text{C}$ added to 50 ppm of O3 for 10 min, caused a Log reduction of 2.46, 2.48 and 3.87 for L. m., VTEC and HAV respectively.

Conclusions

The observed results indicated that the considered treatments were not sufficient to completely inactivate pathogens. VTEC seemed to be more sensitive to low temperatures than L. m. This effect was evident also for HAV, that appeared to be reduced by freezing. Ozonation was less affecting than expected. However, these preliminary data showed that freezing, combined with O3, could be a feasible instrument of decontamination. New tests need to be performed to optimize the inactivation conditions.

Key messages:

- Food safety is essential to guarantee high levels of health among consumers
- The use of ozone could be a powerful mean of decontamination without interfering with nutritional values of food

General Oral Health Assessment Index: A new evaluation proposal

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Background

Self-perception of oral health has been associated with patients' clinical characteristics. General Oral Health Assessment Index (GOHAI) is used to assess this variable. The present study was conducted to i) present the psychometric characteristics of the GOHAI applied to adults who sought dental care and ii) to present a new proposal for calculating overall scores on self-perception of oral health.

Methods

A total of 1,000 individuals participated (74.1% female; mean age: 40.7 (SD = 14.3) years). Confirmatory factor analysis (CFA) was conducted. The one-factor model, the three-factor model (physical function, psychosocial/psychological function, and pain/discomfort), and the second-order hierarchical model (SOHM) were evaluated. χ^2/df , CFI, GFI and RMSEA indices were considered. Average variance extracted (AVE), composite reliability (CR), and internal consistency were calculated. Concurrent validity was assessed using the Oral Health Impact Profile (OHIP-14). The invariance of the models was assessed.

Results

Three items of the GOHAI presented inadequate factorial weights ($\lambda < 0.40$) and were excluded. In the one-factor model, a correlation between errors 1 and 2 was inserted

(LM=81,771). The one-factor model and the three-factor model each presented an adequate fit to the sample. In the SOHM analysis, the trajectories were estimated between 0.078 to 0.095. Convergent validity was compromised in the models (AVE<0.05). Reliability was adequate, with the exception of the pain/discomfort factor. The GOHAI was invariant in independent samples, and the concurrent validity was adequate. The overall unweighted scores overestimated self-perception of oral health.

Conclusions

Both the one-factor and three-factor structures of the GOHAI were valid, reliable, and invariant for the sample after the exclusion of three items. The use of weighting of the regression weight matrix is recommended for calculating the overall score of self-perception of oral health.

Key messages:

- Oral public health field reflects efforts to evaluate the psychosocial impact of oral diseases. Thus, the assessment of psychometric properties of specific instruments are routinely necessary
- New methodology for calculating the overall score of GOHAI is proposed, being an interesting alternative to assess self-perception of oral health and its implication on the lives of individuals

Precariousness and dismissal: do employment laws protect labour market participants' health?

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Being in a precarious labour market position, whether employed or unemployed, can harm peoples' health. Yet, this association varies across welfare-regimes, suggesting policy context also matters. However, the specific policies which mitigate the health consequences of precariousness remain unclear as policies vary within welfare-regimes. In this paper we shed light on the policies that protect the health of precarious labour market participants. We test the hypothesis that legislation controlling severance payments and notice periods protects the health of employed and unemployed labour market participants. We constructed two cohorts of panel data before and during the European recession using data from 22 countries in the European Union Statistics on Income and Living Conditions (person-years = 338,000). We find more generous severance payments significantly reduce the probability that labour market participants, especially the unemployed, will experience declines in self-reported health, with a slightly weaker relationship for longer notice periods.

Key messages:

- We find more generous severance payments significantly reduce the probability that labour market participants, especially the unemployed, will experience declines in self-reported health
- The Great Recession attenuated (but did not remove) the protective associations of these employment protection policies with health

Distributed resources and care choice: formulation through the capability approach

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Background

Facing the problem of healthcare resource distribution under a severe healthcare budget constraint, care providers or

healthcare authorities are strongly required to cut costs, which could deter individuals from applying for certain types of care services. The study aims to clarify the differences in resources distributed to individuals by formulating empirical data on patients through the capability approach, with a special focus on the opportunity and process aspects of freedom while utilising care services.

Methods

A process aspect of freedom is captured by patients' decision making for care services (DM), while an opportunity aspect of freedom is by accessing social services (SS). Distributed resources, nursing services offered to patients, are assumed to be converted to DM and SS through each individual's utilisation ability of resources for DM and SS. A patient chooses an achievement point (a combination of DM and SS) within her budget set under her evaluation function of 'well recuperation'. Achievement in DM and SS and 'well recuperation' were studied through a questionnaire survey on 116 patients hospitalised at general acute wards in Sweden. Individuals were asked about their physical and mental constraints toward daily living activities through an EQ-5D-3L questionnaire (specifically to examine the dimensions of 'pain' and 'anxiety').

Results

The formulated choice set suggested that patients with constraints are less likely to achieve DM than those without any constraints. When individual evaluation is accounted for, the largest amount of resources is distributed to patients with physical and mental constraints, followed by those with physical constraints and those with no constraints.

Conclusions

The formulation through a capability approach, supported by empirical data, shows that physical and mental constraints of patients' can restrict their choice set with respect to the process aspect of freedom of care service utilisation.

Key messages:

- Capability approach can provide a theoretical background and empirical evidence to justify resource distribution in healthcare, accounting for individual differences in physical or mental conditions
- Patients with physical or mental constraints have a restricted choice set with respect to the process aspect of freedom of care service utilisation despite additional resource distribution

The effect of simulation information on self-directed learning, problem solving in Nursing Education

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Aim

This study was conducted to evaluate the effect of simulation knowledge level on self-directed learning and problem solving on nursing students.

Method

The study that was designed in cross-sectional correlation type was conducted on 189 students 100 (83.3%) of whom were students of medical vocational high school and 89 (55.6%) from faculty of medical sciences in Eskişehir in December 2015. Readiness to Self-directed Learning Scale and Problem-Solving Inventory were used. Wilcoxon signed ranks test, Mann Whitney U test and Kruskal Wallis test, and correlation analysis were used to analyze the data statistically.

Findings

In addition to total scores of knowledge level on simulation and readiness to self-directed learning of high school students, scores of self-control, willingness to learning and

self-management subscales, and scores of avoidant approach in problem solving were higher than university nursing students whereas self-confident approach scores of high school nursing students were lower than their university counterparts ($p < 0.05$ per each). Knowledge level of students using simulation at school, total score of readiness to self-directed learning, willingness to learning and self-management subscale scores were higher than the ones who did not use simulation, and scores of self-confidence approach to problem solving skills were lower than the ones who did not use simulator ($p < 0.05$ per each).

Conclusions

Simulation training is a significant technique for nursing education. It was found out that simulation knowledge level affected readiness to self-directed learning and conveying a self-confident attitude in problem solving.

Key messages:

- Simulation application is valuable for nursing education
- Simulation problem solving and self-directed learning are necessary qualities for nursing profession

Risk of transmission of KPC-producing *Klebsiella pneumoniae* in digestive endoscopy

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Background

Digestive endoscopy, in particular the use of duodenoscopes in endoscopic retrograde cholangiopancreatography (ERCP), was recently associated with clusters of Enterobacteriaceae Resistant to Carbapenems (CRE) infections/colonization, with increased morbidity and mortality in exposed patients.

Persistent contamination was attributed to the complex design of ERCP duodenoscopes and to breaches in the reprocessing protocol.

Methods

Following two cases of bacteremia due to KPC-producing *Klebsiella pneumoniae* (KPC-Kp) temporally related to ERCP in August 2014, in a large gastrointestinal endoscopy unit of a teaching hospital in Italy reprocessing activities were audited to ensure guideline compliance. After high-level disinfection/sterilization of 24 endoscopes (11 were duodenoscopes), contamination was assessed for high- and low-concern microorganisms in 4 sites (i.e. forceps elevator, flush of forceps elevator or air/water channels, flush and brush of suction and biopsy channel) of two distinct manufacturers (Pentax and Olympus) devices, according to the Interim Sampling Method, CDC 2015.

Results

The audit highlighted manual cleansing procedures inadequacy and consequently high disinfection/sterilization ineffectiveness: only 2 out of 11 duodenoscopes (18,2%) complied with the standards, whereas 8 (72,7%) had 1 or more sample site contaminated by low-concern microorganisms, and 3 (27,3%) showed high-concern microorganisms (*Escherichia coli*, *Klebsiella oxytoca*) 2 being contaminated by KPC-Kp in flush of forceps elevator. Procedures were established and training for staff was provided to ensure that reusable devices were cleaned and disinfected/sterilized according to the manufacturer's instructions.

Conclusions

Surveillance cultures suggested that current reprocessing procedures were not adequate and a plan for implementation was developed in particular when duodenoscopes were used on KPC-Kp colonized/infected patients.

Key message:

- Given the complex design of duodenoscopes, new reprocessing technologies and methods for real-time monitoring reprocessing adequacy represent urgent patient safety needs

2.S. Poster walk: Elderly health

Chronic Conditions and Risk Factors Among Older in Turkish Population

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Background

By 2020 nearly 50% of the population are projected to have at least one chronic condition (CC). Considerable attention has been directed toward designing treatment protocols to prevent or inhibit the progression of specific CCs. Our goal was to enhance understanding of the prevalence and risk factors of CCs and find areas where the necessary preventable measures should be taken to intervene the increase of CCs.

Methods

A cross-sectional analysis was conducted on a nationally stratified and clustered sample of 2425 aged 65 and older living in Turkey. Chi-square test, coefficient of associations and logistic regression was used to analyze the influence of sex, education, income, marital status, working status, BMI, general health status (GHS), tobacco/alcohol use, daily activity and

nutritional status on the risk of CCs. Approval for data use was taken from Turkish Statistical Institute.

Results

In the sample, 87.9% had at least one chronic disease. 54.6% had hypertension, 29.6% had arthrosis, 28.1% had enuresis, 26.9% had diabetes, 22.1% had coronary heart disease, 16.8% had COPD, 16.5% had asthma, 14.9% had renal, 12.5% had depression, 7.7% had Alzheimer disease. Significant associations were found between having a CC and education, working and marital status, sex, income. GHS was 81%, daily activity 51%, BMI 19%, tobacco use 10% and alcohol use was 7% associated with having a CC. According to logistic model, CCs were increased with being: female (1.992), ever alcohol user (1.390), doing routine (6.239) or heavy daily activity (4.288), having fare (4.659) or low GHS (42.847) ($p < 0.05$).

Conclusions

The most common CCs were hypertension, arthrosis, and diabetes. The sample had a high burden of chronic disease when compared with Europe. The risk of developing CC increases dramatically with the sociodemographic parameters. Better social support and primary care, especially coordination of care with secondary level services, could reduce avoidable disease rates.

Key messages:

- The quality of care among elderly should be assessed, how benefits should be structured, and control for high burden chronic disease programs should be directed
- Coordination of care, especially for elderly with chronic conditions, requires time and skill. Perhaps an incentive is necessary for physicians to perform this coordination-of-care function

Mortality prediction of 35 frailty scores in a 7-years follow-up study in elderly general population

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Background

Frailty is a state of vulnerability in elderly people, which is associated with a higher risk of mortality. Many frailty scores (FS) have been developed, but none of them is considered the gold standard. We aimed to compare the predictive ability of a list of FS with regard to total mortality in a general population sample of elderly in England.

Methods

We performed a prospective analysis of the association between 35 FS calculated in wave 2 of the English Longitudinal Study of Ageing (2004-2005) and all-cause mortality assessed up to 2012. The 35 FS were rescaled to the range 0 (no frailty) to 1 (frailty). Hazard ratios (HR) and corresponding 95% confidence intervals (95% CI) were calculated for each FS using Cox proportional hazards model. The added discriminative ability was studied with Harrell's C statistic (HC) as well as the net reclassification index (NRI).

Results

Data from 5,294 participants (44.9% men) were analysed. The mean age was 71.2 (SD: ± 8.0) years. The prevalence of cardiovascular disease and cancer was 13.7% and 9.3% respectively. The median follow-up was 7.1 years and the mortality rate was 326/10,000 person-years, with an overall number of 1144 deaths out of the 5,294 participants. In fully adjusted models with socio-demographic, lifestyle and comorbidity items, HR ranged from: 9.3 (95% CI: 5.6; 15.4) to 1.5 (95% CI: 1.0; 2.2). Delta HC ranged from 1.2% (95% CI: 0.7; 1.6) to 0% (95% CI: -0.1; 0.1) of improvement. The continuous NRI ranged from 0.02 (0.012; 0.029) to 0 (0; 0.002).

Conclusions

There is high variability in the association between FS and 7-year mortality. The FS most strongly related to mortality were the G8-Geriatric Screening Tool and the Edmonton Frail Scale. Although all FS show associations with mortality, their added discriminative ability seems modest. Our results will help to guide clinicians, researchers and public health practitioners in choosing the most informative instrument.

Key messages:

- While some FS are very strong predictors of all-cause mortality, however there is large variation between different instruments widely used in the literature
- Although the mortality prediction of some frailty scores is high, their ability to separate participants who die or survive within a full-adjusted model is limited

Effects of education on women's knowledge about breast self-examination and breast cancer

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Background

The study was led to detect risk factors regarding breast cancer among women and explore any possible changes in their knowledge and conducts after being trained about breast self-examination (BSE) and breast cancer itself.

Methods

The survey is a quasi-experimental study used in one group pretest-posttest design. Its population covers (n=94) the women enrolled in a course, September-December 2016, of Odunpazarı Public Education Center and Evening Art School. Sample selection was not used, and in the group there were totally 94 women enlisting in the course during the study aiming to reach every woman. Some variables regarding breast cancer (e.g. age, BSE, menopause, birth) were gained through a survey by researchers while their awareness of it and post-tests given a week after training.

Results

The group's age average is 37.28±10.98, and 75.5% of them are married and 30.9% had elementary education. 35.1% are housewives. 33% smoke and 10.6% had their first period below their 12s whereas 25.5% had it in their 14s and above. 17.6% bore their first child below their 20s but 7.4% above their 30s. 42.6% were informed to have no BSE, and 47.5% were unaware of it, and 45% stated that they did not as they thought it as inessential.

Subjected to no BSE and mammography before, those being a bachelor and climacteric were confirmed to have low awareness before their training (p<0.05 for each). Results obtained show that the score 27.28 ± 4.20 (min. 11.00-max. 34.00) of trainee women is much higher than that of 16.97±6.88 (min. 2.00-max. 29.00) by the others before training.

Conclusions

Trained women might be claimed to have gained increased awareness of BSE and breast cancer.

Key message:

- To improve woman's knowledge about bse and breast cancer, the health training programs and consulting strategies should be organized

Support of informed decisions on program participation within the Austrian breast cancer screening

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Background

Informed decision making relies on the quality of available information material. An information sheet is the only written material provided to all women who receive an invitation letter to participate in the Austrian breast cancer screening (BCS) program. It is biannually addressed to about 1.5 million women and therefore has a potentially high impact on informed decisions concerning program participation. This study aims to assess the information sheets comprehensibility and suitability to support informed decision making.

Methods

Five women who represent the program target group were recruited to test the usability of the information sheet by

means of the think-aloud protocol method. MAXQDA was used for content analysis.

Results

The language used in the information sheet was mostly understood by participants although some expressions and explanations (e.g. on interval carcinoma) caused misunderstandings. Participants widely understood the process of the screening program. The graphical presentation of the screening process supported comprehensibility and was well noticed. However the need to make a decision concerning participation was scarcely recognized or misunderstood. Women were not able to judge benefits and harms due to missing information on their magnitude.

Conclusions

While program procedures seem well explained some language improvements and specifications should be undertaken. Improvements concerning the presentation of benefits and harms and information about the need for decision making should comprise an elaboration on reasons for the necessity of decision making and the presentation and visualisation of the magnitude of benefits and harms. Due to first results the adaptation of the sheets language has already been initiated by the program management. Changes regarding benefits and harms will have to be addressed in the future in order to better serve the large target group as source for informed decisions on BCS program participation.

Key messages:

- The information sheet of the breast cancer screening program in Austria needs improvement in order to better support informed decision making on screening participation
- Especially information on the magnitude of benefits and harms should be included and clearly represented in graphics

Risk perception among vulnerable diabetes patients and citizens at risk in Copenhagen

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Background

Type 2 Diabetes is a highly prevalent chronic disease and a lifelong condition. Diabetes has been associated with higher risk in socially deprived subjects. With more than 95% of the daily self-management of diabetes conducted by patients themselves, patients must have the right self-care knowledge which includes a number of assessments, including perception of health risks in everyday life. The aim of this study was to explore the risk perception among socially vulnerable patients and citizens in Copenhagen city.

Methods

Qualitative content analyses based on in-depth semi-structured interviews with 45 socially vulnerable citizens and patients at elevated risk of type 2 diabetes - or diabetes complications, recruited in two districts with the highest incidence- and prevalence rates of diabetes and diabetes risk factors in Copenhagen Municipality.

Results

Both citizens and patients knew about potential risk factors of developing diabetes and they described themselves as being at risk either due to their family history, their overweight or their lifestyle. Others did not perceive themselves at risk as they attended regular checkups at the health clinic. Patients did not sense the diabetes, and were not affected in the same way by the discomforts caused by other conditions. They all described how lifestyle change seemed overwhelming, and for both groups, a fatalistic approach was expressed as neither risk nor healthy living were given much thought in everyday life. Other social and health issues influenced their daily decisions. Only

participants, who have had family members dying or suffering severely from diabetes complications, perceived type 2 diabetes as a serious health risk.

Conclusions

Being aware of one's risk does not translate into leading a healthy lifestyle due to other social and health issues in everyday life. Developing access to easy lifestyle changes for vulnerable persons has been initiated in the Municipality of Copenhagen.

Key message:

- Knowledge about risk does not translate into leading a healthy lifestyle due to other issues in everyday life. Lifestyle changes should be facilitated by upstream interventions

The impact of patient socioeconomic status on PPI in research

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Background

Patient and public involvement (PPI) is becoming increasingly important in the research process. However, PPI can be taxing and involved patients tend to have higher socioeconomic status (SES), who are easier to recruit, but are not representative of the general patient population. The aim of this study is to investigate the impact of patient SES (measured as level of education and health literacy) on PPI in the development of a clinical-behavioral intervention trial for breast cancer (BC) patients in follow-up.

Methods

This is a soon-to-be completed explorative qualitative study. We collect data from individual and focus group (FG) interviews, involving a panel of 8 BC patients, who have completed primary treatment. The panel is involved in developing the MyHealth intervention, a nurse-led self-management follow-up program for BC. It was established to represent various SES, with half of the panel having only basic school education. We interview participants at home before and after the FG to elicit patient perspectives on being involved, using the dimensions of the PPI theoretical framework by Gibson. We also administer the Health Literacy Questionnaire. Audiotapes of all interviews will be transcribed verbatim, combined with researcher documentation of PPI in MyHealth and analyzed using thematic analysis.

Results

We will present preliminary results on the impact of participant education level and health literacy on patient perspectives within the four PPI framework dimensions: 1. Did patients have a strong or weak voice? 2. Were patients heard? 3. Did patients get involved in one or many ways? 4. How much did PPI change the intervention?

Conclusions

This is the first study to examine the impact of patient SES on PPI in research. Our results may inform the development of systematic guidelines in the involvement and selection of patients for PPI in health research, with the aim of assuring research quality, while protecting patient and public interests.

Key messages:

- The socioeconomic background of involved patients may have an important impact on their contributions and the quality of PPI in health research
- Researchers need to be aware of this to ensure that decisions and policies based on the use of PPI are democratic and also applicable for members of the public with less-advantageous backgrounds

A systematic review on the effectiveness of interventions to reduce polypharmacy in the elderly

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Background

Older population is expected to represent almost 25% of whole Western population by 2030. Aging is frequently accompanied by chronic diseases; as a consequence, the elderly are often exposed to polypharmacy that has been associated with negative health-consequences. The aim of this study was to conduct a systematic review of the literature reporting on the effectiveness of different approaches to reduce polypharmacy in the elderly.

Methods

A comprehensive literature search of MEDLINE, Scopus and ISI Web of Knowledge databases was conducted. Clinical trial reporting outcomes of interventions aimed at reducing polypharmacy and his consequences in the elderly were included. Articles were excluded if the intervention involved single classes of drugs or single diseases.

Results

Seventeen studies were included, 13 conducted in community setting, 4 in hospital setting, and 1 in nursing home. Polypharmacy was defined in most cases as the contemporary assumption of at least 5 drugs. The majority of the interventions was carried out by pharmacists, alone (52.9%) or along with other professionals (23.5%). Interventions consisted in pharmacotherapy reviews based on various tools and software, and in some cases educational interventions for review-performers and face to face meeting with patients. Studies conducted in community-setting provided also a feedback to primary care physician. The outcomes included five categories: therapy's characteristics (e.g. number of drugs, appropriate prescriptions), patients' quality of life, health-related outcomes, costs, healthcare services' utilization. Therapy-related outcomes were those more affected by all types of interventions. As for the other outcomes, we observed contrasting results.

Conclusions

Interventions aimed at reviewing patients' therapy are effective in optimizing the use of drugs, and could be considered also to improve quality of life, healthcare costs, services' utilization, and health-related outcomes.

Key messages:

- Pharmacotherapy's optimization can improve various health outcomes and costs, and can improve patient's compliance with therapy
- Various healthcare professionals can cooperate in pharmacotherapy's reviews, giving value to different educational backgrounds

Polypharmacy management: an under recognized public health issue

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Background

Multiple chronic diseases in individuals increase the risk of inappropriate polypharmacy, an under recognised public health issue. SIMPATY (Stimulating Innovation Management of Polypharmacy and Adherence in The

Elderly) aims to develop change management tools to help integrate the management of polypharmacy into existing care systems. The objective is to describe programmes addressing polypharmacy and adherence in a sample of European Union (EU) countries, learn from their development, and design change management tools to support implementation in the EU

Methods

Mixed-method case studies were conducted at 9 sites in 8 EU countries via a review of existing polypharmacy and adherence policies, key informant interviews with those involved in policy development and implementation and, focus groups of clinicians and managers to validate preliminary results. Recognised change management principles (Kotter) and normalization process theory (NPT) were used in analysis.

Results

Preliminary analysis identified a wide range of programmes ranging from nothing identified (Greece, Italy, Portugal) to small pilots (Poland, Germany) to those scaling up (Spain, Northern Ireland) and national programmes (Scotland, Sweden). All agreed polypharmacy management is important. Barriers to implementation in cases with no programme included lack of multidisciplinary team culture, lack of strategic vision, scarce resources, and limited monitoring capacity. Cases with developed programmes had a higher density of change management and NPT constructs. Common elements included local origins of programme, reallocation of resources, and a clear strategic vision. Policy implementation and lack of clear indicators were cited as continuing challenges.

Conclusions

EU policies addressing polypharmacy management vary widely. The identified processes for development and implementation will inform the development of change management tools to support integration of polypharmacy management in the EU.

Key messages:

- Polypharmacy management policies accounting for local culture and resources are needed, with a focus on creating monitoring systems and identifying standard indicators
- Applying change management principles to help address an organisation's readiness for change is essential at onset and also as an iterative process to ensure implementation

Complementary and Alternative Medicines (CAMs) consumption along with standard therapy

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Background

Complementary and Alternative Medicines (CAMs) becomes part of conventional medicine, by filling therapeutic gaps and by broadening the scope of health care options. This is the first study in Croatia. The objective is to investigate the use of CAM beside the conventional medications prescribed by a physician.

Methods

Cross-sectional study. Six community pharmacies in large city (Zagreb) and one in a small town (Kotoriba). Distributed were 273 questionnaires over a 6-month period, with 243 completed questionnaires received (response rate 89,0%).

Results

The study was conducted on 243 participants who were 3-93 years old, 64 males and 179 females, refilling the prescription in five Zagreb's and one Kotoriba's pharmacy. Almost two-thirds of the patients (65.0%) were equal or more than 60 years

old and SD 23.0 years. In our study female predominate over male patients (73,7%:26,3%).

At the most of the medication purchasing, the number of CAM's is higher than number of drugs. Each patient buys on average 1,30 CAM on 1,00 medicine. The highest consumption of CAMs is in patients, which get prescribed medications in ATC group C. By getting 211 medications, they bought 293 CAMs.

Conclusions

At the most of the medication purchasing, the number of CAM's is higher than number of drugs. More than 70% CAMs bought by patients belong to three groups: B (blood and blood forming organs), A (alimentary tract and metabolism) and N (nervous system, i.e. analgesics). The highest consumption of CAMs is in patients, which get prescribed medicines in an ATC group C (cardiovascular system).

Key messages:

- The number of CAM's is higher than number of drugs
- The highest consumption of CAMs is in patients, which get prescribed medicines in an ATC group C (cardiovascular system)

Association of morbidity and mortality from cardiovascular diseases with heat and cold waves

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Background

Climate change will affect human health in many ways—mostly adversely. In healthy individuals, an efficient heat regulation system enables the body to cope effectively with thermal stress. Temperatures exceeding these efficient limits, both with respect to heat and cold, substantially increase the risk of death or morbidity.

Methods

The study population comprised all Kaunas population (2000–2010) aged ≥ 25 years, who were diagnosed AMI or who died due to IHD. The study population was stratified into 3 age groups: 25–54, 55–64, and ≥ 65 years. Cold waves was fixed when wind chill index is lower than -27°C for ≥ 2 days and heat waves when Humidex index is greater than 30°C for ≥ 3 days in a row. The associations of heat and cold waves with AMI morbidity and IHD mortality were evaluated by using a Poisson regression model ($P < 0.05$).

Results

Analyzing the impact of cold waves on the mean number of AMI events, it was determined that among men, had the greatest increase in the mean number of AMI events was 42% in the 55–64-year age group on the third day after a cold wave. Among women, the increase in the mean number of AMI events was greatest (96%) among 25–54-year olds on the fourth day after a cold wave. During heat waves, no increase in the mean number of AMI events was observed.

Analysis of the impact of cold waves on the mean number of events of death from IHD showed that men aged 55–64 years were most sensitive to such conditions on the third day after a cold wave: the increase in the mean number of events of death from IHD was 60%. During heat waves, the mean number of events of death from IHD did not increase.

Conclusions

During cold waves, the increase in the mean number of AMI events was greatest among 55–64-year-old men and 25–54-year-old women. The mean number of deaths from IHD mostly increased among men aged 55–64 years. During heat waves and after them, neither the mean number of AMI events nor the mean number of deaths from IHD increased significantly.

Key message:

- This abstract is a part of my dissertation, which was finished and defended last summer. It was a big job to me and now I want to make a presentation which data wasn't present in any conference

Polymorphisms of enzymes involved in hydrocarbons metabolism affect results of biomonitoring

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Coke plant workers are exposed to harmful substances, mainly polycyclic aromatic hydrocarbons (PAH). According to Polish norms, for workers exposed to PAH, only air monitoring is required, while in many countries monitoring of different biomarkers is established. The main examples are: 1-hydroxypyrene and 3-hydroxybenzo[a]pyrene, and the latter is considered to represent the fraction of carcinogenic metabolites. Genes coding enzymes involved in detoxification process of PAH molecules may carry different mutations, e.g. single nucleotide polymorphisms or deletions. 1-hydroxypyrene was extensively examined with respect to different mutations and for some populations genetic polymorphisms affected concentration of the metabolite.

The aim of the study was to examine the relationship between concentration of the 3-hydroxybenzo[a]pyrene in urine samples of coke plant workers and chosen mutations of CYP and GST genes.

Urine samples were analyzed using HPLC method while PCR methods were used for mutations' detection. 141 men, exposed to PAH, took part in the study.

Maximal value of biomarker concentration was $32,9 \mu\text{g/g}$ (median value was $4,8 \mu\text{g/g}$). For rs1048943 and rs4646903 mutations the average 3-hydroxybenzo[a]pyrene concentration was significantly lower than for the wild type variants, while for the GST genes individuals with null genes had higher concentrations of the biomarker. In addition, it can be assumed that the sampling time and the excretion profile may vary according to occurring mutations. If that hypothesis is correct, a low concentration of biomarkers cannot be interpreted as an effect of low exposure. Similarly, in the case of deletions in GST genes, a higher concentration may lead to the overestimation of environmental exposure.

Key messages:

- Genetic polymorphism can affect 3-hydroxybenzo[a]pyrene concentration and interpretation of environmental or working exposition
- More attention should be paid to confounders that alter exposure assessment

The knowledge attitude and practices of the farmers on safe use of pesticides in Adiyaman, Turkey

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Background

The purpose of this study is determining the knowledge of the farmers on the effects of pesticides, their ways of entering the body, toxic symptoms, and protective equipment; and examining their attitudes and applications towards pesticides.

It was also aimed to assess the efficiency of the training provided to the farmers on safe use of pesticides.

Methods

The study was conducted in two stages. In the first stage, a cross-sectional study was applied. The universe of the study consisted of the farmers living in the city center of Adiyaman. 384 farmers were contacted in this study universe. The second stage of the study was an empirical study including a pre-test post-test application with a control design. In this stage, 80 farmers were included in the study. The data of the study were collected with face-to-face questionnaires and marginal homogeneity test was used to analyze pre-post test data

Results

54.6% of the farmers were primary school graduates and the mean age was 51.16 ± 1.26 . They had been farming for 28.29 ± 12.8 years in average. 17.3% of the farmers stated that they had been poisoned due to pesticides in the past. 89.3% of the farmers stated that they approved the use of pesticides in the fight against harmful pests. It was also determined that 45.6% of them used gloves sometimes; and 46.6% of them used masks during application, although not regularly; they used boots at a rate of 73.4%, and protective suit at a rate of 80.7%, which is a great rate. Statistically significant increases were determined in the knowledge points and applications of the farmers, who were in the Study Group, when compared with the Control Group and with the pre-training and post-training values ($p < 0.01$).

Conclusions

It was determined that although the farmers had sufficient knowledge on safe use of pesticides, their practices did not reflect this. Significant changes may be obtained in the conscious and applicable behaviors of the farmers with the training provided.

Key messages:

- Farmers were aware of the harm of pesticides
- A face-to-face individual training applied once was effective

Difference in knowledge of stroke symptoms between female university students and middle-old age

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Background

Young people have chance to encounter a stroke patients as a bystander in an aging society. We have already reported a survey on knowledge of early stroke symptoms in middle-old age population, the Acquisition of Stroke Knowledge (ASK) Study. The aim of this study is to compare the difference in knowledge of early stroke symptoms between young adult and middle-old age.

Methods

We conducted a registered self-administered questionnaire survey on awareness of early stroke symptoms among women's university students, aged 18-28 years in Japan, in reference to ASK study, aged 40-74 years. Their knowledge about early stroke symptoms and response to a stroke attack were surveyed. Early stroke symptoms were chosen from among 10 listed symptoms with 5 decoy choices. "A response to a stroke attack" was chosen from 8 multiple-choice items. Data analyses were conducted by comparing with ASK study using chi-square test.

Results

Among 1490 students, 996 students participated in this survey. We analyzed 950 participants who correctly replied the questionnaire. The percentage of those who chose all 5 correct early stroke symptoms was significantly lower in the young adults than in the middle-old age (17.5% vs. 23.0%, $p < 0.001$). This significant difference was seen in 4 correct symptoms ($p < 0.001$), although "sudden visual disturbances in one or both eyes" was chosen more in the young adults ($p < 0.004$). Those who chose "immediately call an ambulance" as an answer to "a response to a stroke attack" in the young adults was significantly lower than those in the middle-old age (58.9% vs. 83.6%, $p < 0.001$).

Conclusions

The present study indicated that although the young adults showed the similar tendency in the knowledge of early stroke symptoms, the knowledge and the response to a stroke attack were lower than those in the middle-old people. Authors would like to appreciate the ASK study group.

Key message:

- Needs of public education about stroke for young population

THURSDAY 10 November 17:40-18:40

3.R. Poster walk: Food and nutrition policies and interventions

Nutrition-based healthy lifestyle pilot program for female hospital employees

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Background

Behavioral risk factors for chronic disease (i.e. smoking, unhealthy diet, sedentary lifestyle) are prevalent in hospital employees (HE). Female HE are at a particular risk given shift work and stressful work environment. Gender-tailored interventions may improve outcomes. Identifying effective methods

for increasing HL among HE can inform public health interventions in hospital-based and employee interventions worldwide.

Objectives

This study explored a gender-tailored nutrition-based healthy lifestyle (HL) program for female HE in a Jerusalem hospital, assessing outcomes of health behaviors and BMI. It consisted of 8 weekly sessions on the Mediterranean diet and HL monitoring, including physical activity (PA), with emphasis on providing tools likely to improve outcomes in women (social support, social and emotional eating, etc.). Participants completed surveys (asking about nutrition, PA and other HL parameters) and had BMI and blood pressure measured before and after the program. Program objectives included increased

adherence to the Mediterranean diet, increased PA, reduced smoking, and reduced BMI.

Results

48 women (ages 36-67) completed surveys. 46% were nurses and 25% from hospital administration. They reported increased consumption of vegetables (29.8%, $p < 0.01$) and fish (22.3%, $p = 0.07$), decreased consumption of pastries (49.3%, $p < 0.001$), and preference for poultry over meat ($p < 0.05$). Smokers reported reduced smoking ($p < 0.05$). A Stages of Change model indicated a 13% increase in maintenance of participants' PA habits upon completing the program relative to baseline ($p = 0.07$). BMI average was reduced by 1.1 kg/m² ($p < 0.01$).

Conclusions

This gender-tailored HL pilot program was effective in helping female HE improve adherence to the Mediterranean diet, reduce smoking, and achieve healthier BMIs. Tailoring HL programs to women may increase HL in female HE.

Key message:

- Gender-tailored nutrition-based healthy lifestyle programs can be effective at empowering female hospital employees to adopt healthy behaviors

Promoting healthy lifestyle among young families. The German network "Healthy Start – Young Family"

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Overweight/obesity are associated with several unfavorable health outcomes. In Germany, the prevalence of maternal and childhood overweight/obesity is increasing.

Medical and scientific societies, professional organizations (e.g. gynaecology, paediatrics, midwifery), and institutions combined together in the German-wide network "Healthy Start – Young Family Network" with the aim to support parents by providing consistent information on nutrition, physical activity and allergy prevention. Uniform nationwide recommendations serve as scientific basis for all activities. The network is financed by the Federal Ministry of Food and Agriculture. It started in 2009 as a project (2 project phases: 2009-2012/2012-2015) and has been institutionalised in 2016.

The network has published recommendations on nutrition and physical activity in pregnancy, infancy and early childhood. It develops, implements and evaluates the following activities: face-to-face training/education of health professionals, development and distribution of materials and media such as flyer, sticker, poster, and apps, as well as an extensive PR work. Between 2009 and 2015 the network distributed e.g. 4.5 million information materials, trained 3,500 health professionals, and sent bimonthly newsletters to 2,500 subscribers. With ca. 700,000 births per year, the network estimates to have reached every young family with at least one information material.

A constructive, continuous, and expedient cooperation between all actors with close contact to pregnant women and young families is indispensable in order to promote healthy eating and physical activity. Advice and recommendations given to the target group should be based on current scientific knowledge and free of any potential conflicts of interest.

Key message:

- The sooner the better: in order to promote a healthy lifestyle, young families need uniform, easy-to-understand information, which are close to their everyday life and free of conflicts of interest

Determinants of nutritional imbalance among UK university students: a cross sectional study

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Background

Poor dietary habits are associated with numerous preventable chronic diseases and premature deaths. Higher education students are considerably susceptible to adopting unhealthy dietary patterns, leading to an increased prevalence of overweight and obesity. This study identified determinants and barriers to healthy nutrition among UK students.

Methods

An online survey among a stratified and random sample [$n = 468$] of university students, comprising socio-demographic items and the Rapid Eating and Activity Assessment for Patients-Short Version scale, two student focus groups, and three staff in-depth interviews were conducted. Stratified by gender X² tests and multivariate LR analysis at 95% CI identified predictors of unhealthy diet. The qualitative data was thematically analysed.

Results

46% of respondents had unbalanced diets. A negative attitude towards shopping and cooking predicted dietary problems (OR = 1.9; 95%CI=1.0-3.6). Among women, problematic nutrition was significantly associated with school of study, and smoking (OR = 2.7; 95%CI=1.4-5.1). Black and Muslim women followed poorer diets. Financial problems (OR = 0.5; 95%CI=0.2-1.0), low mental wellbeing (OR = 3.2; 95%CI=1.4-7.4), and drug use (OR = 0.1; 95%CI=0.0-0.7) predicted poor diet among men. The multivariate regression model identified two schools (OR = 3.5; 95%CI = 1.5-8.2/OR=2.8; 95%CI=1.1-6.9), low mental wellbeing (OR = 1.7; 95%CI=1.1-2.7), and drug use (OR = 0.4; 95%CI=0.1-0.9) as predictors of unbalanced diet. By qualitative analysis, finances, academic pressure, time availability, and in-campus food offer were identified as university and societal barriers to healthful nutrition.

Conclusions

This study revealed poor diets in almost half of students and identified food choices shaped by environmental as well as personal factors. Universities should promote all aspects of healthy lifestyles. Managing stress exposure, offering inexpensive healthy food, and promoting healthy lifestyles is recommended.

Key message:

- An alarming number of students fail to reach dietary recommendations. Universities as hubs of student life should seek for minimising barriers and encourage individuals' healthy diets

Hospital food service: a comparative analysis of two foodservice systems at a Danish Hospital

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Background

Insufficient dietary intake is common among hospitalised patients and may affect prognosis negatively. Hence hospital meals are central in the treatment, and their efficacy in ensuring adequate intake is crucial. This study aimed to compare patients' dietary intake from a cook-serve buffet-

trolley serving system (BTS) to a new cook-chill pre-plated concept (CCP) allowing patients to choose from a static menu 24/7.

Methods

A quasi-experimental study was conducted at two orthopaedic surgical and a gynaecological surgical ward at a Danish Hospital. 57 patients (≥ 3 days) were served meals from BTS and the dietary intake was measured. After implementation of CCP on the wards, dietary intake was measured on 56 patients. Intake at mealtimes was assessed through a visual portion size assessment method and intake in-between meals was measured using a self-reported dietary record. The number of patients achieving an intake of $\geq 75\%$ of energy and protein requirements was compared between groups using a pooled two-proportion z-test. Nutritional risk was assessed according to NRS 2002.

Results

An energy intake $\geq 75\%$ of requirements was achieved in 68% of patients on CCP compared to 56% on BTS ($p = 0.199$) and protein intake $\geq 75\%$ of requirements was achieved on 55% of the patients on CCP compared to 53% on BTS ($p = 0.771$). An energy intake $\geq 75\%$ of requirements was achieved in 59% of the patients at nutritional risk on CCP compared to 33% on BTS ($p = 0.216$) and 59% reached $\geq 75\%$ of the protein requirements on CCP compared to 33% on BTS ($p = 0.216$).

Conclusions

A new foodservice system (CCP) which increases availability and choice of food 24/7 does not show a significant improvement of energy and protein intake in hospitalized patients and patients at nutritional risk. However, further evaluation of CCP is needed.

Key messages:

- Increased availability and choice of food does not significantly increase food intake among hospitalized patients
- Improving adequate food intake of hospitalized patients is complex and challenging

The demonstrated value of adult nutrition education programs

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Background

FOODcents was a community-based adult nutrition education program that ran in Western Australia for more than two decades. It was specifically developed to cater for the needs of participants with lower levels of nutrition literacy. The program aimed to improve participants' nutrition-related knowledge and change their food purchase and consumption behaviours. This study involved a two-year evaluation of the FOODcents program to assess whether the initial aims of the program were being met.

Methods

A multi-method approach was used to access a broad range of FOODcents participants. Surveys, focus groups, and participant observations generated data relating to various aspects of the program. More than 1,000 program participants were involved in the evaluation.

Results

Both the qualitative and quantitative data indicated that participants of the FOODcents program actively use their new knowledge to improve their diets. Reported fruit and vegetable consumption increased significantly and reported consumption of fast food decreased significantly post-course completion. Participants of lower socioeconomic status were more

likely than others to report favourable changes in their diets and nutrition-related behaviours.

Conclusions

The results suggest that community-based programs are likely to be an important component of comprehensive policies to address nutrition-related health problems and can be successful in increasing nutrition knowledge and healthy eating behaviours among adults.

Key messages:

- Participants in the FOODcents program actively use their new knowledge to improve their diets, with participants of lower socioeconomic status more likely than others to report favourable changes
- The results provide support for the use of community-based programs to increase nutrition knowledge and healthy eating behaviours among adults

Factors influencing children's consumption of unhealthy foods

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Background

Tackling the current high rates of childhood obesity is a global health priority. Given the consumption of unhealthy foods has been identified as a modifiable risk factor in the development of obesity, understanding the factors that influence the consumption of such foods is crucial to informing interventions. The present study aimed to examine and model the various factors associated with children's consumption of unhealthy foods to identify relevant important factors and inform the development of interventions designed to decrease intake of unhealthy foods and subsequent obesity.

Methods

More than 1000 parents from across Australia were recruited via web panel provider and responded to an online survey about their children's diets. They also provided information about their own attitudes to unhealthy foods. Structural equation modelling was used to test a model examining the factors contributing to unhealthy food consumption in children.

Results

Parents' attitudes to unhealthy foods emerged as a primary factor influencing children's consumption of unhealthy foods. Children's requests for unhealthy foods and perceived social norms relating to the consumption of these products also emerged as significant both directly and indirectly (via parents' attitudes to unhealthy foods).

Conclusions

The model tested in the present study provides important information that can be used to facilitate the development of programs that address the predictors of consumption of unhealthy foods in children. Interventions designed to tackle the consumption of unhealthy foods in children and subsequent high rates of obesity in this population segment are likely to benefit from the inclusion of information pertaining to child pestering and social norms and strategies to manage these.

Key messages:

- Developing interventions designed to decrease intake of unhealthy foods and subsequent obesity is important
- Addressing parents' attitudes to unhealthy foods, children's requests for these foods, and perceived social norms may be important targets for change

Children's requests for unhealthy foods: Influencing factors and implications for food consumption

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Background

Rates of obesity in children and adolescents represent a significant global public health issue. Although children's requests for unhealthy foods have been identified as an important factor influencing the quality of children's diets, little is known about the various factors influencing these requests. The present study aimed to examine and model the various factors associated with children's requests for unhealthy foods to identify relevant environmental factors and inform the development of interventions designed to address current high levels of child obesity.

Methods

An online survey was administered via web panel to 1302 Australian parent-child dyads. This survey contained various items that are proposed to be associated with children's requests for unhealthy foods. Variables identified as being significant potential predictors of children's requests for unhealthy foods and their subsequent consumption of these foods were incorporated into a model that included both parents' and children's reports of children's requests for unhealthy foods. This model was assessed via structural equation modelling.

Results

The analyses included a wide range of demographic, attitudinal, and behavioural variables. The model accounted for a substantial proportion of the variance in both parent-reported and child-reported unhealthy food request frequency. This model provides a comprehensive account of the ways in which various aspects of children's environments contribute to the extent to which they request unhealthy foods.

Conclusions

These results provide insights into the environmental variables that can be modified to reduce children's requests for unhealthy foods. Developing interventions to address these variables has the potential to improve children's diets and reduce their risk of child obesity. Such interventions also have the potential to increase family harmony, thereby enhancing families' quality of life.

Key messages:

- Various modifiable factors are associated with the frequency of children's requests for unhealthy foods
- Understanding the relative influence of these factors can assist in the development of effective interventions to reduce the risk of child obesity

Association between adverse childhood experiences and vegetable consumption in older age in Japan

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Background

In an ageing society, fruit and vegetable consumption is recommended to prevent non-communicable diseases. Food preference is considered to be determined early in life stage, and childhood family environment can play an important role for dietary habits. We aimed to assess the association between

adverse childhood experience (ACE) and fruit and vegetable consumption in older age among Japanese population to promote healthy aging.

Methods

Older people (i.e. 65 years old or more) without nursing care were recruited from nation-wide 30 municipalities in the Japan Gerontological Evaluation study 2013 project. Number of ACEs and current consumption of fruit and vegetables were evaluated via self-administered questionnaire. Poisson regression was employed to investigate the association adjusted for sex, age, other childhood circumstances, education, adulthood SES, access to vegetable stores, and health status.

Results

A total of 13,694 (60.6%) of 2,2592 individuals reported at least one of eight ACEs, and 409 (1.8%) reported 4 or more ACEs. In age and sex adjusted model, population with 4 or more ACEs were 1.82 (95% confidence interval [CI]=1.53-2.16) times less likely to consume fruit and vegetables compared to those without ACEs. In fully adjusted model, the association of ACEs with fruit and vegetable consumption remained significant with dose-response association ($p < 0.001$).

Conclusions

Individuals with ACEs were less likely to consume fruit and vegetables in older age among Japanese population. The dose-response association imply causal association between ACE and fruit and vegetable consumption. Health policy tackling ACEs may be beneficial to enhance fruit and vegetable consumption in later life.

Key messages:

- Adverse childhood experiences were associated with less consumption of fruit and vegetables in older age among Japanese population
- Health policy tackling ACEs may be beneficial to enhance fruit and vegetable consumption in later life

How much Italian children follow the Mediterranean diet?

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Background

The Mediterranean diet (MD) is considered one of the healthiest dietary models, which decrease the risk of chronic diseases and may modulate the organism early response to environmental pollution. In the last decades, Mediterranean countries are replacing the traditional diet with other less healthy eating habits, especially in children and teenagers. As part of the MAPEC_LIFE (Monitoring Air Pollution Effects on Children for supporting public health policy), a project funded by EU Life+ Programme (LIFE12 ENV/IT/000614) which intends to investigate the association between air pollution exposure and early biological effects in children, this study wanted to evaluate children diet style and the level of adherence to MD in over than 1000 children, in relation to their residence, lifestyle, social and family contexts.

Methods

During the two sampling campaign of the project, a questionnaire was administered to children's parents. The

diet section contained 116 questions, which investigate consumption frequency of different types of food. Total energy load and diet composition in micro and macro nutrients were calculated from consumption frequency and the Italian Mediterranean Index (IMI), ranged from 0 to 10, was calculated taking into account the intake of 6 typical Mediterranean and 4 non-Mediterranean foods. On the basis of IMI score, the adherence to MD was classified as low (≤ 3 IMI score), medium (4-5) and high (≥ 6).

Results

Diet analysis was computed on 1162 subjects with two complete questionnaires. The body mass index, calculated for each subjects, showed that the 28.9% of the children were overweighted, with some difference between different residence areas. As regards the adherence to MD, the 59.1% of the children were low adherents to MD.

Conclusions

The results of this study showed that most of Italian children did not follow MD and that the socio-economic characteristics seemed to not be associated with the diet style.

Key messages:

- About 30% of Italian children are overweight
- Most of the Italian children enrolled in the MAPEC_LIFE project did not follow the Mediterranean diet

Association between dietary intake of meat mutagens and risk of colorectal adenoma

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Background

A lot of epidemiological studies have indicated that high intake of meat is associated to an increment of colorectal cancer risk. However, the mechanisms behind this effect are still not completely known. One possibility is the involvement of mutagenic and carcinogenic heterocyclic amines (HCAs), which are produced in meat cooked at high temperatures and for long time. Recently, methods have been developed to estimate HCAs exposure in epidemiological studies. Therefore, in the present systematic review and meta-analysis we assessed the association between the intake of different HCAs and the risk of colorectal adenoma, which is a well-established precursor of colorectal cancer.

Methods

Relevant studies were identified through PubMed and Web of Science, up to December 2015. Pooled risks were estimated by a random effects model. Heterogeneity and publication bias were analyzed by chi-square based Cochran's Q-I2 statistic and funnel plot asymmetry, respectively.

Results

From the 16 articles selected we extracted the OR/RR/HR estimates with 95% confidence intervals for the highest versus lowest category of intake of the following HCAs: DiMeIQx (2-amino-3,4,8-trimethylimidazo[4,5-f]quinoxaline), MeIQx (2-amino-3,8-dimethylimidazo[4,5-f]quinoxaline) and PhIP (2-amino-1-methyl-6-phenylimidazo[4,5-b]pyridine). The colorectal adenoma risk was significantly associated with the intake of DiMeIQx (OR: 1.17; 95% CI 1.07-1.23; $p < 0.0001$), MeIQx (OR: 1.16; 95% CI 1.07-1.25; $p < 0.0001$) and PhIP (OR: 1.22; 95% CI 1.15-1.30; $p < 0.0001$). Dose-response analysis is actually in progress.

Key messages:

- The dietary intake of meat mutagens (HCAs) increased the risk of colorectal adenoma
- The HCAs formed during the cooking of meat may be responsible for its pro-carcinogenic properties. Changes in

meat preparation practices limiting the production of HCAs may prevent colorectal cancer

Is reducing salt consumption and replacing it with potassium chloride acceptable for consumers?

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Objectives

The study objectives included sensory evaluation and consumer analysis of meat products with different salt content and with replacement of sodium chloride (NaCl) with potassium chloride (KCl).

Methods

We designed two studies in Kraków and Olkusz, later outcomes combined for analysis. Participants must have been healthy, not vegetarians and non-smokers. The sensory analysis included two tests – paired samples test and ranking test. In paired samples test participant received two samples of ham and had to indicate which one was more salty (salt content 1.6% with: 99% NaCl and KCl 67% - NaCl 33%); there were seven pairs of samples and the test was done correctly, if participant seven times correctly indicated the same sample as more salty. In ranking test assessors were provided with four ham samples and had to put them in order from the least salty to the most salty (salt concentration 0.8%, 1.1%, 1.3%, 1.6% for NaCl only). Consumer analysis included choosing from two sample of ham (NaCl only and KCl-NaCl) the one more palatable in their opinion.

Results

The study included 98 adults, 57% were female. 20 participants properly performed paired samples test and indicated difference in saltiness. Most of the participants (78%) did not feel the difference between NaCl only salt and KCl-NaCl salt.

In ranking test 24 of the participants correctly indicated levels of saltiness in ham samples. 74% of consumers accepted ham with salt concentration lower than 1.6%. In consumer analysis 55% of participants preferred ham with NaCl only, 31% preferred NaCl-KCl ham, 14% did not answer.

Conclusions

Consumers do not detect gradual reduction in sodium content in processed food. Potassium chloride is good sodium substitute in ham. Up to 78% consumers in this study did not feel the difference between ham sample with NaCl and KCl. Use of potassium chloride is a solution to reduce sodium content in ham by 30% or more.

Key messages:

- Consumers do not detect gradual reduction in sodium content in processed food. Potassium chloride is good sodium substitute in ham
- Up to 78% consumers in this study did not feel the difference between ham sample with NaCl and KCl. Use of potassium chloride is a solution to reduce sodium content in ham by 30% or more

Determinants of colic vegetable consumption: a population study in Wallonia

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Background

Against the backdrop of an increasing prevalence of obesity, the Food4Gut project seeks to encourage the consumption of foods that are rich in a specific fibre called 'colic nutrients' in Wallonia (the French-speaking part of Belgium). To that effect, it is necessary to document the behavioural epidemiology of vegetable consumption and identify the determinants of colic nutrient consumption.

Methods

A questionnaire measuring the prevalence of (colic) vegetable consumption and its determinants, based on the Theory of Planned Behaviour, compensatory health beliefs, and the Transtheoretical Model, was administered to a representative sample of the Walloon population using a mixed approach (1000 online questionnaires and 200 face-to-face interviews). The questionnaire was validated in a pilot sample of 472 university students.

Findings

The pilot study showed that students consumed vegetables on average 5 to 6 times per week, with moderate intention to consume more in the future. Colic-rich vegetables such as leek, artichoke, Jerusalem artichoke and salsify were consumed less frequently and there was a weak intention to consume more. The main predictor of vegetable consumption was habit. Attitudes predicted the intention to eat more vegetables, but for the less known colic vegetables subjective norms also influence intentions. The results for the representative sample are expected to be in the same direction and will be the main focus of the presentation.

Discussion

The results of both the pilot study and population study indicate that vegetable consumption is to a large extent influenced by habit and familiarity. These results can inform interventions to increase the (colic) vegetable consumption of the population.

Key messages:

- The results indicate that vegetable consumption is to a large extent influenced by habit and familiarity
- For the less known colic vegetables additional determinants influence intention to consume

Burden of overweight and obesity in Saudi Population: Results from Global Burden of Disease stud, 2010

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Background

Previous studies have sporadically described mortality and morbidity due to obesity in Saudi Arabia. In the current study DALY, YLD, and YLL values from the GBD study (1990-2010) were analyzed individually, to obtain summary indices of the burden of high BMI in Saudi Arabia.

Methods

This is a secondary analysis of published data, which is part of the GBD study for 1990 and 2010. Results for mortality rates, years of life with disability (YLD), years of life lost (YLLs) and disability-adjusted life years (DALYs) due to "high body-mass index" among the Saudi population were extracted, graphed, analyzed and discussed in a manuscript.

Results

The overall burden of obesity has doubled since the year 1990. Percentage of deaths, DALYs, YLD and YLL among the Saudi population increased remarkably from around 9%, 5%, 6% and 5% in 1990 up to 17%, 11%, 10% and 13% in 2010, respectively. In 1990, high BMI associated mortality (19%)

was highest in the age group (50-69 years) of Saudis from both sexes and lowest (10%) in the (15-49 years) group. Twenty years later, mortality risk has increased and the impact is distributed among all age groups (27% for 50-69, 15% for 15-49, and 17% for those older than 70 years). Women showed consistently a higher mortality rate due BMI than men. The burden of disease and disability due to high BMI remarkably increased (around 200%) in the overall Saudi population from 1990 to 2010 with the highest reported for the 50 to 69 age group. The 50-69 years age group, and in particularly women, appear to have contributed the most to burden of disease associated with high BMI during this period.

Conclusions

High BMI is the leading risk factor in Saudi Arabia. Modifying lifestyle behaviors, raising awareness of the danger of obesity, and increasing public outreach are suggested. Saudi women as vulnerable group, mostly affected by this condition, need to be targeted with interventions to minimize mortality, disease, and disability.

Key messages:

- The results provide evidence to re-orient public health priorities by targeting this leading risk factor which is largely influenced by behavior
- The collaboration of several stakeholders is required to reduce the future burden from obesity

Food intake in a sample of first to fourth grade elementary school children in Serbia

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Background

Insufficient intake of fruits, vegetables and dairy and high intake of sugar and fats are major concerns of children's food intake in many European countries. Data on food intake of Serbian school children are very scarce since there have not been conducted many research that evaluated food intake of Serbian school children so far.

Methods

The sample included 268 first to fourth grade children from two elementary schools in a local community in Northern Serbia. Data about intake of food groups (grains, vegetables, fruits, dairy and meat) and sugar and fats were collected for three days by a combination of 24-hour food recall and food recognition questionnaire. χ^2 test was used to analyse differences in food intake according to grade, gender and body mass index. Values $p < 0,05$ were considered statistically significant values.

Results

One third (32,8%) of participants consumed recommended number of servings of grains. Only 3% of participants consumed recommended number of servings of vegetables and 25% of participants reached recommended number of servings of fruits. Recommended number of servings of dairy food group reached only 20,9% of participants. 68,9% of participants consumed recommended number of serving of meat food group. Almost all (92,5%) participants exceeded recommended amount of sugar and fats. Significantly more fourth grade students ($p = 0,01$) and boys ($p < 0,01$) consumed recommended amounts of grains. Significantly more boys ($p = 0,02$) reached recommended number of servings of dairy. Normal weight participants ($p = 0,04$) were significantly more likely to meet recommended number of servings of vegetables.

Conclusions

Majority of children in this study did not meet recommendations for intake of vegetables, fruits, dairy and grains and exceeded recommended intake of sugar and fats.

Key message:

- This study confirmed that low intake of fruit, vegetables and dairy and high intake of sugar and fats present major concern of children's dietary intake

3.S. Poster walk: Evidence informed policy and health systems organisation

The Rise of Transnational Non-Governmental Organisations engaged in European Public Health

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Background

The non-governmental organisations (NGOs) engagement in European policy processes is important for societal participation and, therefore, serves to tailor public health policy outcomes to the needs of the European population. This research analysed umbrella organisations, networks of NGOs and European NGOs that interact across national borders to influence the European policy process, defined as transnational NGOs (TNGOs). It questions whether they rose in the field of European Public Health (EPH) as a consequence of the Treaty on European Union (TEU), which presented the first legal European health mandate in 1992.

Methods

This research analyses those TNGOs, which are registered in the EU transparency register. A selection of TNGOs primary engaged in EPH policy processes was achieved by using a set of in- and exclusion criteria. The founding years were incorporated in an analysis of the development of TNGOs in relation to the TEU.

Results

142 Organisations were eligible for this research, whereof 50 were founded before the ratification of TEU. The data suggests relations of these foundations to the treaties that introduced EPH related fields earlier than TEU. In the two decades after the first drafting of TEU in 1990, the average number of yearly-founded EPH related TNGOs was quadrupled compared to rates before 1990. 60% of all TNGOs in EPH were founded in this timespan.

Conclusions

The data support the theoretical assumption that TNGOs start to grow and engage when policymaking exists in the respective field. Nonetheless, there are other factors influencing the foundation of TNGOs, as some foundations cannot be related to opening up a policy field. In particular TEU opened up a large field of policymaking in EPH that highly stimulated the formation of EPH related TNGOs.

Key message:

- NGOs engaged in policymaking occur as a consequence of opening up policy fields on European level, this can be exemplarily seen in TEU for the area of EPH

Patients' Mobility among Italian Regions: implications for hospital services planning and evaluation

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Background

The study of patients' mobility is useful for health planning identifying deficiencies in care supply. The Italian health system, with 21 different regional realities, can be taken as a microcosmic test bench. Our study aims to: describe the trend of hospital patients' mobility among the Italian Regions and identify the factors implied in mobility.

Methods

We used hospital discharge data (HDR) from 1998 to 2014. The study was carried out using: 1) the Gandy's Nomogram (NdG), a graphical tool that assesses the power of attraction and the escape's containment of hospital regional networks; 2) vector analysis; 3) trend analysis with Cuzik's test, 4) panel data analysis, multiple logistic regression model.

Results

The mean number of annual admissions, in Italian hospitals, was 11.424.319 decreasing from 2001 to 2014, 7% occurred 'in mobility'. We have drawn the different paths of patients' mobility by Regions and observed critical situations almost in Regions of Southern and Island Italy, compared with Regions of the Centre-North. Moreover we analyzed the factors implied in the mobility, highlighting that attractions are influenced by the hospitalization rate in private structure (p 0.02), by percentage of graduated in a region (p 0.01), and by the number of hospital beds/10.000 inhabitants (p 0.02); while escapes are influenced by GDP per capita (p 0.02), by the number of hospital beds/10.000 inhabitants (p < 0.01) and by the sanitary expense per capita of the region (p 0.01).

Conclusions

We have shown the potentialities of the NdG, applicable at micro level but also on a large scale in the analysis of hospital patients' mobility. Regional trends provide information about policies adopted by hospitals and possible corrective actions. Panel data analysis provided informations about factors influencing attractions (hospitalization in private structures, % of graduated, hospital beds) and escapes (GDP per capita, hospital beds and sanitary expense per capita).

Key messages:

- The Gandy's Nomogram is a useful tool applicable at micro as at macro level in the analysis of hospital patients' mobility, in order to improve health policies
- Attractions are influenced by hospitalization in private structures, % of graduated and hospital beds in the attracting Region; escapes by GDP, hospital beds and sanitary expense

Experiences from the implementation of a rural community outreach team in South Sudan

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Issue

South Sudan is among least developed countries in sub-Saharan Africa. Health care is mostly delivered by non-

physician health workers and maternal and infant death rates are extremely high. In the Alur region, a particularly deprived area of W. Bahr El Ghazal-State (population ca. 38,000), Austrian Physicians for Rural Medical Care in Africa set up a project to strengthen primary health care by implementing a community outreach intervention. Reported experiences should support further development of model-PHC-regions in similar settings.

Description of the problem

The Alur project was implemented by Rural MedCare with funding from Austrian Development Agency and Caritas Austria. From June 2014 - November 2015 the project aimed at: 1) Establishment of community outreach to improve health outcomes (child/ maternal mortality) 2) Measures to improve health care-competencies and stabilization of workforce depletion (on-job training, improvement of working conditions).

Results

MoUs with authorities were signed, a project site adapted and renovated, a Community Outreach Team (1 manager, 2 midwives, 2 health workers, 1 birth attendant) recruited and employed. From Jan. 2015, the team delivered Community Outreach Interventions on a regular basis ($n > 80$, > 4000 patients). Basic care was delivered for birth attendance, postnatal and newborn care, infections, surgical problems. Planned advanced training activities did not take place as the local partner could not deliver. Supportive supervision was given during international site visits.

Lessons

Despite positive project results, the communication and capacity to steer project issues from abroad remained a challenge. Local support (church and private) was needed to fill missing functions between local and international project management.

Key messages:

- Primary health care delivery could be improved in a deprived area of rural South Sudan through implementation of a COT program
- International support for training and transfer of project results are important for sustainable impact

Effectiveness of healthy village program using community based participatory research in Korea

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Background

Since more people and resources congregate in cities, urban-rural gap in health field is worsening in Korea. To tackle this inequity, we provided a health promotion program for people in rural areas, applying the principles of health promotion and community participation. This study was to evaluate effectiveness of health promotion program using CBPR (community based participatory research) for people in vulnerable rural areas in Korea.

Methods

The health promotion program adopting the principles of CBPR was provided for community members of three villages in Kyung-sangbuk-do province from 2012 to 2014. A nearby village was assigned as the control. Their health problems were identified by surveys, focus group interviews, photovoice and so on. The provided programs were smoking cessation, exercise, nutrition, etc. The participants were periodically educated about voluntary participation and health behaviors.

Results

The current smoking rate of three villages decreased from 13.6%, 14.0%, 16.5% to 12.5%, 13.0%, 7.7% respectively and

that of control village also decreased from 17.6% to 10.7%. The walking rate of three villages increased from 24.7%, 47.4%, 49.4% to 30.0%, 56.6%, 61.5% respectively but that of control village decreased from 35.1% to 26.8%. The exercise rate of three villages increased from 9.9% to 41.6% ($p < 0.01$). The utilization rates of village halls in three villages increased by 6%p, 12.8%p, and 26.5%p contrary to the control village ($p < 0.01$). The percentage of respondents who believed that voluntary participation would solve the health problems increased from 54.8% to 90.8% in three village and the control village less increased from 50.0% to 73.2%.

Conclusions

The application of CBPR in healthy village projects for vulnerable rural areas in Korea was effective in health behaviors (especially, exercise rate) and community participation.

Key message:

- The CBPR in healthy village was effective in health behaviors and community participation in Korea rural area

How to make research results useful for policy-makers and practitioner in public health?

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Issue

The number of systematic reviews is rapidly increasing in the public health sector. However, decision-makers and practitioners often lack time to read and sometimes lack competence to interpret research results. A structured and transparent means to support use of systematic reviews in practice was required by the Public Health Agency in Sweden (PHAS).

Description of the problem

In order to improve the utilization of systematic reviews there is a need to develop formats adapted to the target groups, in this case mainly decision-makers and practitioners in the public health field in Sweden. The PHAS developed a design for summarizing systematic reviews in one-page format and written in plain language. The format was pilot-tested in three fact sheets, labelled "Viewpoint Public Health", with as different topics as health-care-associated infections, mental health problems among children and adolescents, and implementation. The design was evaluated by measuring number of visits and time spent at specified web pages, downloaded fact sheets, and by a focus group with representatives for potential target groups. Further, the working process was evaluated by interviews with analysts and managers at PHAS.

Results

Feedback was in general positive and an interest for continued production of "Viewpoint Public Health" was shown. Both the main web page and the three fact sheets had a comparatively high level of visits and downloads during the pilot period and the members of the focus group expressed satisfaction with the new format. The internal working process however was in need of some development.

Lessons

A design for summarizing systematic reviews in one-page format adapted to the target groups seemed to be a feasible means to facilitate uptake of research findings by decision-makers and practitioners in the public health field in Sweden.

Key messages:

- A structured and transparent means to support use of systematic reviews in public health practice is required
- A one-page design with plain language directed to the target groups might be a way forward

Healthy districts in vienna: healthy ideas for the district

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Issue

The Viennese Department of Health Promotion (WiG) developed a program “Gesunde Bezirke” – “healthy districts” which takes place in seven districts. A fundamental activity of this program is the promotion and encouragement of initiatives of local residents. The purpose of this activity is to essentially give the participants the opportunity to put these “local initiatives” into action. These activities are funded with a budget of max. 300 € and are accompanied throughout their developmental process till their implementation.

Description of the problem

These initiatives represent a participatory instrument contributing to a health promoting formation of the living environment and to the improvement of the residents well-being. Consequently this approach also addresses the level of effectiveness of this participatory instrument, regarding the participation of the residents in the community – based health promotion.

Results

56 initiatives were carried out over a period of two years, concerning topics such as nutrition, physical activity, mental health and healthy living environment(s) and reached 1700 residents. The evaluation results show that there is potential of health promoting improvements regarding the living environment through local initiatives. These local initiatives contribute to the empowerment, capacity building and social networking of the residents. Additionally the activities that are taking place indicate the promotion of equal opportunities on a behavioural and setting level by getting through to the target group.

Lessons

The resident’s engagement can be developed through appropriate accompanying and networking structures. An equally important factor of this project is the low-threshold treatment of submission and conveyance processes.

Key messages:

- The promotion of these “initiatives” is an effective health promoting concept
- The promotion of these “initiatives” is considered essential for engaging health promoting processes and community participation

Better learning from crises with evidence-based evaluation strategies

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Problem

Public health institutes (PHI) manage emergency response to chemical or nuclear accidents and infectious disease outbreaks. To learn from previous experience PHI regularly evaluate accidents and large exercises. What evaluation methods perform best for these situations is unknown.

Project

This project aims to develop a systematic evaluation approach revealing underlying weaknesses of the response system. From the broad range of existing evaluation methods, we selected essential items for a concise method to allow PHI to increase their institutional learning capacity, strengthen internal collaboration and collaboration with partner institutes.

Method

In a first literature review we mapped the broad range of existing evaluation methods, and in a second the practical use of root cause analysis (RCA) methods. Using Hazard Analysis Critical Control Points (HACCP) we selected CCPs for evaluation. Two suitable RCA- methods were selected, applied and results compared to previous evaluations of emergency responses, to assess the added value of RCA.

Results

RCA was presented as particularly suitable to expose underlying weaknesses but entails labour-intensive processes. There is large variation in available RCA- methods. A few were suitable for organizational evaluation, of which we selected 2 for comparison. Preliminary results of the comparison show that issues identified with HACCP were largely in accordance with the problems identified in the previous evaluation. However, recommendations derived from RCA were more concrete and attainable than those from standard evaluation methods. Secondly, as a team exercise RCA was shown to encourage collective ownership of the emergency response system.

Lessons

With acceptable workload for the response team, a trimmed RCA can yield valuable advice for system improvement and is a useful addition to emergency response evaluation. Moreover, it provides a platform for communication and mutual understanding between partners.

Key messages:

- A trimmed and highly selective root cause analysis can provide a useful addition to emergency response evaluation
- In order to maximize effectiveness and efficiency, RCA should be tailored to the intensity and type of crisis, and to the extensity and performance of the responses

Indicators for evidence-informed policy making and policy phases in the Italian and Danish context

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Background

Public health policies are often not evidence-informed by scientific literature, expert know-how, stakeholders. The European project Research into Policy to enhance Physical Activity (www.repopa.eu) developed an internationally validated list of 25 indicators to assess the presence of evidence informed policy making. When contextualizing the indicators in Italy and Denmark it was necessary to first determine in which policy phases the indicators were most useful.

Methods

Italian and Danish policy makers and researchers (n=27 Italian, 17 Danish) with competences in fields related to physical activity and health were asked by an online questionnaire to assign each indicator to one or more policy phases (agenda setting, formulation, implementation and evaluation) and comment their choice. An indicator was considered useful in a phase if it reached consensus by two thirds of the respondents. Indicators not reaching consensus level in any of the four phases were debated again at national experts meetings.

Results

Both in Italy and Denmark, establishing criteria and procedures to assess whether the policy is evidence-informed was assigned to the policy formulating phase. In Italy, using evidence briefs and scientific articles were assigned to both agenda setting and formulation; working in partnerships with

research institutions in the evaluation phase. In Denmark 18 out of 25 indicators were seen useful during the policy formulation phase. Some indicators were considered relevant on all administrative levels (local, regional, national).

Conclusions

In both countries most of the 25 indicators were attributed to one specific policy phase; others were evaluated as suitable for more policy phases.

Key messages:

- Evidence-informed policy making indicators seem to provide a tool usable for different policy phases
- Contextualization of indicators by bringing perspectives of local stakeholders is necessary to develop tools for decision makers usable at national and local level

Stewardship approach in comparing cross-country policy intervention results challenges and options

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Background

Stewardship in evidence-informed policy making guides integration of research knowledge and practice; it emphasizes the importance of adjustment to local contexts and needs. The purpose was to study if a stewardship intervention could increase the integration of research knowledge and practice in physical activity policymaking. This presentation will focus on the comparability of country results.

Methods

Six stewardship-interventions of physical activity policy making in Denmark (DK), Italy (IT) and the Netherlands (NL) adjusted their intervention components to the locally salient needs. In DK the emphasis was on strategic cross-sector collaboration, in IT on knowledge and research translation, and in NL on strengthening neighborhood sports and physical activity planning and development. The common outcome was improved evidence-informed policy making, measured by both common and context specific measures; further, process evaluation was used to understand the intervention process.

Results

The interventions did increase awareness, appreciation, critical thinking and also requests for research knowledge among policy makers. Some differences between countries were found: in DK and IT similar patterns were seen in the increased use of knowledge from research and target groups; in NL the use of both of these knowledge types either decreased slightly or varied.

Conclusions

Even when policy making traditions and systems are different in DK, IT and NL, the stewardship-interventions showed promising results in the access, requests and use of research knowledge, in using stakeholder knowledge as well as needs and values of the policy target groups. This study contributes to the across-country research on complex policy interventions, which allow needs-based and contextually tailored intervention contents; in which the process and functions are made similar; and in which integrity means consistency with the theory or the change process.

Key messages:

- Stewardship approach helps to develop participatory interventions which are relevant and meaningful in local contexts
- Locally tailored, stewardship-guided and needs-based interventions can be compared across contexts

Governance and youth participation in local policy making – The case of health policies in Denmark

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Background

An evidence-informed approach to public health policy making can support tailor made health-enhancing physical activity policies (HEPA) at the local level. Youth is often a core target group of physical activity policies and their participation in the policy making also should be seen as a potential way to make policies through including their views and preferences in the policies. This research aimed to examine the role of youth in developing HEPA policies in Odense and Esbjerg municipalities in Denmark and how the policy making culture supported their participation.

Methods

A qualitative research strategy was applied to examine these two case studies. Data was collected under the REPOPA Project (Research into Policy to enhance Physical Activity) through semi-structured interviews (N = 11), analysed through content analysis and supported by analysis of 123 background documents.

Results

Youth were not directly included in developing healthy public policies in Odense and Esbjerg municipalities mainly due to lack of tradition and supportive mechanisms for including youth in policy making. The mechanisms and pathways to facilitate their involvement were lacking from both communities. Youth was involved in policy making only through adult representation. These adult stakeholders became part of participatory governance in developing the healthy public policies in both Odense and Esbjerg municipalities.

Conclusions

Youth participation in local HEPA policy making in Esbjerg and Odense did not meet the Danish principle of participatory policy process and good health system governance.

Key messages:

- Mechanisms to facilitate youth participation in policy making in the study communities were lacking
- The Danish goal of improved participatory policy making at the local level was not met

Defining domains of evidence-informed policymaking: pathway from frameworks to indicators

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Background

Public health policymaking needs to be based on research evidence, contextual priorities and resources. After 10 years of research, we still lack a clear research-based pathway from theoretical frameworks to practical tools to assess the level of evidence-informed policy making (EIPM). The aim is to present the pathway from EIPM frameworks to indicators within physical activity policies.

Methods

The setting was Research into Policy to enhance Physical Activity (REPOPA) project, a five year study on integration of research evidence and 'other kinds of evidence' in real world policymaking in six European countries (Denmark, Finland, Italy, the Netherlands, Romania, and United Kingdom). The

EIPM frameworks guiding the study included: trans-disciplinary decision making framework, knowledge to action cycle, health promotion paradigm and stages of knowledge utilization. Contents analysis of the total of 21 HEPA policy documents and 86 stakeholder interviews were used to define the domains of EIPM in the six REPOPA countries.

Results

The following eight domains of EIPM in physical activity policies were identified: use of best available research evidence; integration of research evidence with contextual needs; involvement of relevant stakeholders; involvement of relevant societal sectors; attention to equity issues; outcome, process and context evaluation of the policy; acknowledging systems approach in policy development and existence of supporting structures for EIPM. These domains formed the basis for intervention development in the REPOPA project as well as the first phase of developing, validating and contextualizing measurable indicators for EIPM using Delphi process.

Conclusions

The framework-guided process, empirical defining of the domains in real-world policies and among stakeholders as well as further development of indicators and validating them provided a transparent pathway from frameworks to indicators.

Key messages:

- This study contributes to EIPM endeavor by suggesting a set of domains as a basis for indicators development
- The domains identified are the first step towards practical tools, indicators and guidance for evidence-informed policy making

Health Evidence™: A public health knowledge repository disseminating evidence to decision makers

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Background

Despite increased expectations for and advances in evidence-informed decision making (EIDM) in public health in recent years, challenges to achieving evidence-informed public health continue to exist.

Launched in 2005, Health Evidence™ strives to make evidence easily accessible through an online knowledge repository.

Results

The thehealthevidence.org repository of 4,500+ systematic reviews provides free, user-friendly access to a searchable repository of quality-appraised systematic reviews evaluating the effectiveness of public health interventions. thehealthevidence.org receives over 91,000 visits per year from over 193 countries, providing over 1,650 links to free access full-text reviews and 950 links to full-text Cochrane reviews. Users spend an average duration of 6:23 mins per session and average nearly 2 mins on each page. Users build capacity and understanding of critical appraisal by viewing a detailed quality assessment for each review. Open and free monthly author-led webinars attract an average 167 registrations and 83 attendees, increasing review article page views by 1255.1%. The @Health Evidence Twitter account posts over 85 Tweets per month disseminating review evidence from the repository to 5900+ followers, increasing access to a review on day-of Tweeting by 2,659%.

Conclusions

An online repository of quality appraised systematic reviews is easily accessible to the public health workforce and builds capacity for decision makers to identify and apply best available evidence to program and policy decisions.

Key messages:

- An online knowledge repository makes evidence easily accessible; reducing redundancy and saving time
- Increasing capacity among public health decision makers improves the provision of effective services and population health outcomes

FRIDAY 11 November 8:30-9:30

4.R. Poster walk: Living conditions as determinants of health

From Ottawa to Nairobi: adolescent's wellbeing and the health promotion trigger of health literacy

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Background

Time trends in mortality from cerebrovascular accidents in Portugal have decreased from 273 (%000) in 1976, to 72 (%000) by 2010. These results are consequence of several stakeholders' interventions such as CINDI (Countrywide Noncommunicable Disease Intervention) that in Portugal was carried out by the Fundacao Professor Fernando Padua (FFPP). These health gains are at risk today (e.g. increase on smoking rates, weight gain). To face these aggravations, the FFPP launched a program to foster health promotion among adolescents by the increase of health literacy (HL). Presentation of preliminary results help define a base line for intervention.

Methods

A quantitative explanatory cross-correlated study based on a sample of 110 adolescents from the Portalegre region of Portugal was collected in a school setting, after ethical procedures were

followed with CAWI and SASI methods. Measurement of adolescents HL was implemented with the HLS-EU-PT[®] survey, the Portuguese version of the European Health Literacy Survey instrument adapted to adolescents (www.literacia-saude.info).

Results

Reliability analysis of HLS-EU-PT dimensions show an internal consistence (Cronbach's alpha coefficient) of 0.93 (Health Care), 0.92 (Disease Prevention) and 0.95 (Health Promotion), while the global instrument presents a value of 0.94. Inadequate HL (7.5%) and problematic HL (29.3%) show that about 36% of respondents have limited HL. Participants were more likely to take up measures to promote health if they had higher levels of HL.

Conclusions

The results enhance the reliability of the translation and validation process to Portuguese of the HLS-EU survey when applied to evaluate adolescents HL. HL seems to play a role in health promotion. Further research must investigate HL potential at this age range and how it should be developed in the school curricula.

Key messages:

- Despite ameliorations in health indicators such as mortality from cerebrovascular accidents in the last 30 years we face

today in Portugal the rising of critical aspects that jeopardize health gains

- The purpose of this research is to evaluate how health promotion by the means of health literacy could be an allied to counteract the downgrade of health indicators in a school setting

Financial literacy for Roma – How to determine health of Roma communities?

Eva Nemcovska

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Background

The Project's direct beneficiary population was the Roma community in the selected European countries, specifically in the following six countries: Slovenia, Italy, Bulgaria, Slovakia, Serbia and Greece (all with a large Roma population) during the years 2012 – 2016.

Aim

The main aim of the project is to raise the level of financial literacy among Roma adults which will enable the specific target group to learn an ability that can benefit whole generations.

Results

The main outcome of the lifelong learning program was based on exploring the financial management practices of Roma families in order to understand the priorities, strategies and contents for the financial literacy training course foreseen by the project. The training programme for financial literacy for the Roma of the FINALLY project is based on the results of the Needs Assessment Research. The needs assessment widely documented the usefulness and opportunity of financial literacy education in order to support Roma adults in better facing the challenges that their current situation exposes them to in partner countries. The research revealed specific financial literacy needs for the Roma population that justify its implementation. We developed innovative learning and teaching resources named FINALLY Toolbox both for learners and trainers with a transnational core and, if required according to the needs assessment, regional particularities that give added value to the resources developed. The main deliverables are: Training Course Curriculum, Trainer's manual with Guidelines for Finally Toolbox use, Workbook for Financial literacy for the Roma, Didactical game.

Conclusions

This area of practice is concerned with improving the health and wellbeing of populations and reducing inequalities by using health promotion and community development approaches to influence the lifestyle and socio-economic, physical and cultural environment of populations, communities and individuals.

Key message:

- People need to make an important, life-changing financial decision and the emotion generated by the negative life event that precipitated the decision, drives some to financially unhealthy choices

Neighbourhood context and allostatic load

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Background

A number of studies suggest that residing in a deprived neighbourhood is associated with poorer health, independent of individual socioeconomic circumstance. Environment can, however, contribute to health inequalities in a myriad of ways. Interdisciplinary research at the social-biological interface is necessary to better understand the complex social and biological interactions that contribute to social and geographical health inequalities. Set within the relative deprivation thesis, this paper empirically models a curvilinear association between neighbourhood context, operationalized as an index of concentration at the extremes (ICE), and allostatic load (AL), a composite measure of health. ICE captures both concentrated advantage and disadvantage on a single scale, thereby recognising the importance of the proportional imbalance between affluence and poverty within a neighbourhood, as proposed by the relative deprivation thesis.

Methods

This study utilises geocoded data collected at waves 2 and 3 of Understanding Society: the UK Household Longitudinal Survey. Understanding Society represents a unique opportunity to study the interplays between biology, place and individual circumstance in a nationally representative sample. Multilevel models tested the association between neighbourhood context and AL with cross-level interactions between individual level resource and neighbourhood context introduced to model the relative deprivation hypothesis. AL was computed as a sum score across 9 biomarkers with a higher score indicative of poorer health.

Results

Results operated in the expected direction with poorer individuals residing in neighbourhoods with greater heterogeneity associated with increased AL scores.

Conclusions

Findings from this paper support the relative deprivation thesis, that being, residing in an area characterised by greater inequality is more detrimental for disadvantaged individuals than those residing in an area marked by less inequality.

Key messages:

- This is the first study to empirically model a curvilinear association between neighbourhood context and allostatic load, interacted with individual level resource
- Residing in an area characterised by greater inequality is more detrimental for disadvantaged individuals compared to those residing in an area characterised by less inequality

Health Literacy and Body Mass Index in rehabilitation patients: cross-sectional study, Austria 2015

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Background

Health Literacy (HL) is the ability to find, understand, judge and apply health information in daily life. According to the European Health Literacy Survey (2011) 57% of Austrians have limited HL. The study found out, that they show less participation in health promotion activities, make risky health-

related decisions, show higher morbidity and have lower therapy motivation. So far no analysis of HL of rehabilitation patients, who often indicate chronic diseases and overweight or obesity, has been indicated. The objective of this research project is, to assess the HL among rehabilitation patients of a neurological and orthopaedic clinic and analyse the correlation between health literacy and overweight or obesity.

Methods

A cross-sectional study among 169 (n) patients, using an extended version of the Health Literacy Survey questionnaire with 16 item, was realized. The analysis contains a descriptive specification of the study population as well as uni-, bi- and multivariate analysis.

Results

29% of patients indicate an inadequate as well as 38% a problematic and only 33% have sufficient HL. That means, that 67% of rehabilitation patients have limited HL, even worse than in the Austrian sample. 70% of participants are overweight or obese and only 30% can be categorized as normal weight. Unlike in the Health Literacy Survey, where a weak association between Body Mass Index and HL has been identified, the analysis of rehabilitation patients shows no significant difference concerning the HL in persons with normal weight and overweight or obesity ($t=,34$, $p=,73$; 95% CI= $-,92$ to $1,31$). However persons living with diabetes have significant lower HL than non-diabetic rehabilitation patients ($t= 3,12$, $p=,00$; CI= $,50$ to $2,56$).

Conclusions

In Austrian rehabilitation patients as in the population, health literacy is low. Consequently, there is a need for action to improve HL also during rehabilitation. Further research on diabetes and HL is needed.

Key message:

- The study showed, that rehabilitation patients have limited HL, which underlined the need for specific programs to improve HL in rehabilitation clinics

Psychometric properties of the Gay-Friendliness of Neighbourhood Scale in New York City

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Background

An increasing body of research in social and spatial epidemiology suggests that neighborhood contexts are potent drivers of population health and health disparities. However, relatively little research has been devoted to theories and instruments to measure homophobia, or gay-friendliness, on the neighbourhood level. At the same time, vast health inequities in men who have sex with men (MSM) have repeatedly been shown to exist across urban neighbourhoods. To our knowledge, this study is the first to develop a scale to measure the gay-friendliness of neighbourhoods.

Methods

An initial 17-item scale was administered as part of a larger questionnaire to a subsample (n=75) of the P-18 cohort, a longitudinal study among young MSM in New York City. The original scale's underlying structure was assessed using polychoric factor analysis and measures of internal consistency. Validity analyses examined associations between respondents' GAFN scores and a diverse set of other relevant neighbourhood perceptions, personal experiences, and health outcomes.

Results

Reliability analyses suggest that a revised 6-item scale with 2 underlying dimensions be used. These latent variables correspond well with existing theories of stigma materializing in personal experiences of victimizations and perceptions of structural discrimination, or prejudice. In this sample, the new scale is meaningfully and significantly ($p<0.05$) associated with respondents' perceptions of neighbourhood safety, worry about alcohol and drug use, and mental health outcomes.

Conclusions

The revised 6-item "Gay-Friendliness of Neighbourhood" Scale exhibits satisfactory reliability and validity to be applied as a measure of neighbourhood-level homophobia, or gay-friendliness, in New York City. Further studies are warranted in order to replicate its psychometric properties and investigate differential scale functioning in other urban contexts and by demographic characteristics such as ethnic groups.

Key messages:

- The development and psychometric validation of the GAFN Scale enhances our understanding of the mechanisms underlying contextual influences on sexual minority health and well-being
- Upon further validation, the GAFN Scale could be utilized to identify neighbourhood-level challenges to all-encompassing public health and to empower local MSM communities

The effect of employment condition on perceived health status in Italy in the period 2009-2012

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Background

In Italy, as elsewhere in Europe, the recent economic crisis has caused the increase of the unemployment as well as the contraction of the consumption.

Many studies, involving European countries, investigated on the relationship between employment condition and perceived health status. Here we focus on this relation in the context of the Italian society.

Methods

We used data from the European Union Statistics on Income and Living Conditions (EU-SILC). The study was performed on individuals living in Italy, aged more than 16 in 2009, and with a complete pattern of four repeated waves. The total sample size amounts to 4848 individuals and 19,392 observations (4 observations per interviewed person). The perceived health status is measured through a polytomously-scored variable with five ordered categories. The effect of employment condition on the perceived health status is controlled for some individual characteristics, such as gender, age, marital status, and ability to make ends meet. To properly account for the longitudinal structure of data, we estimated an ordered logit model with random intercept.

Results

Results show a statistically significant negative effect of unemployment condition on the perceived health status (OR=0.828, $p<0.05$), whereas no significant difference is observed with respect to the other categories of workers (full and part time workers, retired, students). Moreover, females, aged persons, low education level, and economical uncomfortable situations negatively affect the perception of the health status.

Conclusions

A better personal or familiar economical situation improve the level of perceived health status. The health selection effect,

known as endogeneity, is one of the limit of this study: it causes inputs and output of the model being not perfectly linearly independent.

Key messages:

- Unemployment strongly affects perceived health status of individuals
- Higher educational level produces a better perception of health status

Community engagement in practice in the UK: a systematic mapping review

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Background

The National Institute for Health and Care Excellence (NICE) in the UK commissioned a mapping review of current and emerging UK community engagement practice to inform their updated guidance.

Methods

Given the difficulties of identifying studies via traditional electronic database searches we focused on: Specialised research registers and websites; search results and forwards and backwards citations from recent relevant systematic reviews; website searches of relevant organisations; and direct calls for evidence via networks of contacts with community practitioners and groups. Records were screened independently by more than one reviewer, and included if published after 2000, relevant to the UK and evaluated or described community engagement in public health. Included records were coded for type, level and extent of community engagement, indicators of disadvantage, health issues and outcomes.

Results

316 articles (227 research/ evaluation studies) were included. Evidence was dominated by: qualitative and mixed methods studies; initiatives targeting health inequalities via socio-economically deprived areas and groups, and via “hard to reach” groups. Community level outcomes (e.g. improved housing) and wellbeing outcomes (e.g. improved self-esteem) were most commonly addressed, and community mobilisation/ action and community partnerships/ coalitions were the types of community engagement most commonly employed. Community engagement initiatives for “hard to reach” populations were most likely to use targeted and/ or peer or volunteer approaches.

Conclusions

Community engagement initiatives in the UK include a substantial proportion who are at risk of health inequalities but who are not routinely fully represented in health equity profiles/ audits. Consideration should continue to be given to these “marginalised” groups, in terms of both initial engagement and measurement of impact.

Key messages:

- Community engagement initiatives in the UK go beyond targeting the most obvious indicators of inequality and seek to engage some of the most marginalised, disadvantaged or excluded population groups
- Different approaches are used for different health issues and population groups e.g. peer involvement for individual behaviour change; community mobilisation for community level outcomes

Participation of marginalized communities in changing harmful practices: early marriages among Roma

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Background

Health is one of the fields where the Roma community, and especially Roma women, faces the most severe exclusion: higher rates of child mortality, lower life expectancy, etc. One of the most serious results however of the low level of health awareness and the high level of marginalization is the phenomenon of early marriages and the early births, respectively.

Description of the problem

A key concept of the practice presented is that marginalization is not a matter of social conditions, but directly refers to (the lack of) community mobilization and development. Since 2011 Center Amalipe, a national Roma organization, has been introducing community monitoring on Roma women and children healthcare services, an initiative supported by AMHI, Open Society Foundation. It is used as an approach for strengthening community-informed and driven advocacy to improve health service delivery and health outcomes. The actual monitoring is preceded by various community mobilization activities in the field of healthcare. Two rounds of monitoring using standardized tools looking at women, children’s health, and emergency medical services are conducted every year to follow the change in the quality of services due to the monitoring, community involvement and advocacy activities. Results are shared with the community and institutions for taking further actions. The practice is a complex approach for reducing health inequalities, improving the health status and reducing harmful traditional practices which have direct impact on Roma women health situation.

Results

A survey carried out in these communities in March and April 2015 on the level of early marriages and births shows clear relation between applying the method and reducing the number of early marriages and early births.

Key messages:

- Introducing the community monitoring approach is a tool to empower Roma women and reduce the health inequalities they face
- Introducing the community monitoring approach is a tool for overcoming harmful traditional practices which deteriorate Roma women health

Youth living in Roma communities and their beliefs related to intimate partner violence

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Background

Intimate partner violence attracts the attention of public health professionals who are looking to explore its predictors such as economic situation and life satisfaction. Particularly, the focus is on young people who represent the target population for community interventions so this study examined to what extent judgmental beliefs and attitudes related to intimate partner violence are present among young women and men (15-24 years old) living in Serbian Roma settlements.

Methods

Data came from the 2010 Multiple Indicator Cluster Survey conducted in Serbia. Associations of judgmental attitudes with a wide range of socio-demographic factors and life satisfaction were tested using univariate and multivariate logistic regression analyses.

Results

One third of men and one quarter of women believed that under certain circumstances men are justified to be violent towards wives. In univariate models, in both men and women, judgmental beliefs were associated with lower educational level, lower socio-economic status and being married, while satisfaction with friendship among women and satisfaction with school among men had protective effects. In multivariate models, among women all factors remained to be significant predictors of judgmental beliefs (education: primary OR 0.51, 95%CI 0.32-0.79, secondary OR 0.15, 95%CI 0.06 -0.38, compared to no education ; marital status: formerly married OR 0.38, 95%CI 0.18-0.79, never married OR 0.56, 95%CI 0.36-0.95, compared to currently married; wealth index: poor OR 0.57, 95%CI 0.35-0.93, rich OR 0.51, 95%CI 0.28-0.91, compared to poorest). For men, only the wealth index was significant (richest: OR 0.40, 95%CI 0.18-0.87, compared to poorest).

Conclusions

Violence prevention activities have to be focused on promoting gender equality in vulnerable population groups such as Roma, especially through strengthening their education and employment.

Key messages:

- Social development programs that are focused on keeping youth within schools as longer as possible, and teaching them positive gender norms and values, should be priority for action
- The results should be in the focus of primary violence prevention campaigns, whose benefits would certainly exceed investments, with long-term positive effects on the well-being of the society

Risk and protective factors of problematic internet use in the context of prevention

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Background

Problematic internet use (PIU) is a new health related phenomenon characterized by a condition in which internet use interferes with life activities and decreases quality of life. This creates a challenge for prevention since the risk factors are most likely to be psychosocial but have not been established yet. This study aims to explore whether psychosocial risk and protective factors, whose role has been established in other health related behaviors, will be equally relevant for problematic internet use.

Methods

The data used in this study are from the international study SLiCE (Student Life Cohort in Europe) and included 476 university students (78% female) studying in Slovakia who completed questionnaires on problematic internet use, depression, trait optimism, personality factors (Big Five) and social support. A stepwise linear regression model was used to explore the relationship of these risk and protective factors with PIU controlling for socio-demographic variables. This was followed by testing the interaction to look for moderation effects.

Results

The analysis revealed that depression was positively related to PIU [$\beta=.199$, $p=.01$]. Then extraversion [$\beta=-.138$, $p=.05$] and

optimism [$\beta=-.105$, $p=.05$] were related to PIU negatively. The whole model accounted for 15.3 % of variance in PIU. Moderation analysis did not produce significant results.

Conclusions

The findings have shown that depression seems to be the strongest risk factor for problematic internet use and trait optimism has a protective effect. In addition, personality factor extraversion was found to be associated negatively with problematic internet use. Surprisingly, social support did not play a significant role. Overall, it was found that the most significant risk and protective factors were depression and personality traits.

Key message:

- Problematic internet use seems to be associated with risk and protective factors which have been found relevant to other health related behaviors

Feasibility of a web-based intervention for sustaining alcohol management practices in sports clubs

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Background

Participants of sports clubs are often involved in elevated levels of risky alcohol consumption and alcohol-related harm compared to the general population. Interventions to improve club implementation of alcohol management practices have been found to be effective in reducing such risky consumption and harm. However, sustaining the effect of such an intervention can be resource intensive. A solution may be web-based support, with potentially lower cost and greater ease of access, compared to face-to-face modes. We aimed to determine the feasibility and acceptability of such a mode of intervention.

Methods

A telephone survey was conducted with community-level football club administration staff in metropolitan and regional areas of New South Wales, Australia. The telephone survey utilised The Technology Acceptance Model (TAM) to measure perceived usefulness, ease of use and intention to use a web-based program for sustaining alcohol management practices.

Results

46 community football clubs participated in the survey. The majority (98%) of clubs reported access to the web and use of electronic devices when undertaking club management tasks. Clubs agreed/strongly agreed that a web-based alcohol management program would be useful (83%) and easy to use (72%). Intention of use was significantly positively associated with the program's perceived usefulness and ease of use, as well as club size, with larger clubs reporting greater intention to use the program.

Conclusions

A web-based alcohol management program appears feasible and acceptable to sporting clubs and may provide a low cost and accessible mode of support for sustaining alcohol management practices at community football clubs.

Key messages:

- Sustaining the effect of a multi-strategic alcohol management intervention is resource intensive
- Web-based interventions, if feasible, can address known limitations of face-to-face interventions

Determining the relation between social media use and sleep quality in university students in Turkey

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Background

Today, social media sites are very common and used extremely much. This situation influences the lifestyles of people. This influence is also observed in human health. The purpose of this study is determining whether social media use has an influence on sleep quality or not.

Methods

The study was conducted on students who were studying at various faculties at Inonu University; and the Cross-Sectional Study Design was used in it. Questionnaires were applied to 397 students in our study. The distribution of the participants among the faculties was calculated according to the number of the students in weighted style. The dependent variables of the study were the points received from the Pittsburg Sleep Quality Index (PSQI) which was developed by Buysse et al. in 1989. If the total point is higher than 5 in the index, it shows "Bad Sleep Quality". The Mann Whitney U and Kruskal Wallis Tests were used in the analyses.

Results

The average age of the students who participated in the study was $20,89 \pm 2,05$. The average daily social media use amount of the students were found as $3,26 \pm 2,72$ hours. The rate of the students whose sleep quality was bad was 56,4%. The sleep quality of the girl students were less than those of the boys' ($p < 0,05$). Among the faculties of the university, the Faculty of Theology was determined as having the worst sleep quality with a median value of 7 (min-max:1-17); and the Faculty of Fine Arts was determined to have the best sleep quality with a median value of 3,5 (min-max:3-8) ($p < 0,05$). As the daily duration of social media use and the weekly frequency of it increases, the sleep quality decreases ($p < 0,05$).

Conclusions

It has been determined that the sleep quality of more than half of the university students is bad. The use of social media in students influence sleep quality in a negative way. Student activities that will increase social interactions must be developed instead of social media use.

Key messages:

- Social activities that might influence sleep quality of university students in a positive manner must be developed
- The excessive use of social media disrupts the quality of sleep

Associations between dietary macronutrient composition in pregnancy and birthweight

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Contact: fsss@leeds.ac.uk**Background**

The developmental origins hypothesis posits that term infants who are small for their gestational age are at a high risk of developing chronic disease in adulthood as a consequence of poor adaptation to an adverse in utero environment, including nutrition. The aim of this study was to explore the associations between energy compositions from macronutrients consumed during first trimester of pregnancy and birthweight.

Methods

A prospective cohort of 1276 pregnant women aged 18-45 years provided a 24h dietary recall from the first trimester. Smoking habits and alcohol consumption were also assessed by questionnaire. A multiple linear regression model explored associations between percentages of energy derived from protein, fats and carbohydrates consumed in first trimester with birthweight as an outcome measure. The model was adjusted for confounders such as smoking, alcohol consumption, maternal weight, height, ethnicity, parity at booking, gestational age at delivery and gender of neonates.

Results

Each 1% increase in energy derived from carbohydrate consumption was associated with an increase in birthweight of 2.65 g (95% CI 0.10 to 5.20 g, $p = 0.04$). However, each 1% increase in energy derived from fat consumption was associated with a decrease in birthweight of -3.62 g (95% CI -6.61 to -0.63 g, $p = 0.01$). Unlike previous evidence supporting a possible impact of energy percentage derived from protein, no association was found in this cohort.

Conclusions

These preliminary results suggest a mutual relationship between percentages of energy derived from dietary fats and carbohydrates in maternal diets affecting birthweights of infants. The clinical relevance of this is uncertain, but further research is required to identify the optimum balance between energy percentages derived from dietary carbohydrates and fat intakes.

Key messages:

- Unsupervised macronutrient intakes during pregnancy could be one of the potential factors affecting birthweights of infants
- Increased attention should be given towards maternal dietary patterns during pregnancy

4.S. Poster walk: Public health at large

Anthropology in global public health emergencies: the case of Ebola response

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Contact: ruth.kutalek@meduniwien.ac.at**Issue**

Anthropologists consider historical, economical, social and cultural factors that might influence the response to emergencies. They also take into account vulnerable populations and

otherwise "invisible" people. However, anthropologists have only rarely been involved in disaster and emergency response, with the notable exception of the recent Ebola epidemic in West Africa, where they have been employed as cultural brokers, studying affected peoples' coping mechanisms, social and cultural perspectives of the disease, or critically analyzing the response itself.

Problem

In this presentation we reflect on the role of anthropology in public health emergency response, drawing from experiences and engagements in the Ebola epidemic in West Africa 2014-2016. We will present findings from being part of response

teams in two large organizations, and from participant observation in the latest flare-ups in Liberia and Sierra Leone.

Results

The outbreak has severely impacted on essential functions of communities. The very nature of the disease that made public health directives necessary (e.g. “no-touch policy”, isolation of suspected case and quarantine of households) has led to social disruption in many affected communities. We will present how communities were engaged in emergency preparedness and response and in what ways local practices have been taken into consideration. We will make suggestions for future EVD response, informed by an applied social science perspective.

Lessons

Engaging anthropologists in responding to global public health emergencies enables organizations and response teams to understand socio-cultural challenges that impact on any emergency response. Public health emergencies highlight themes that are at the core of anthropology work, such as local response and resilience strategies, and the necessity of community engagement.

Key message:

- The Ebola outbreak has proven the necessity of culturally sensitive responses in a setting where public health systems are overwhelmed

Social wellbeing for persons with an acquired brain injury, receiving assistance allowance

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Background

The aim of the study was to analyse the experienced social wellbeing among persons with acquired brain injury who receive assistance allowance from the Swedish Social Insurance Agency.

Methods

The social wellbeing outcomes studied were social contacts, living as others, feeling safe, having control over one’s life and good living conditions. Those having an acquired brain injury were contrasted to other groups of people with severe disability, receiving assistance allowance. Logistic regression was used for analysis. The population consisted of a survey panel of 2740 persons, receiving assistance allowance in Sweden, over 16 years of age of which 969 persons reported to have an acquired brain injury.

Results

A strong relationship was found between good living conditions, ensured by personal assistance, and having an acquired brain injury (OR 3.24; 95% CI 1.24-8.40) in bivariate analyses. In multivariate analyses the relationship became stronger between good living conditions and having an acquired brain injury (OR 3.60; CI 95% 1.24-10.47), as well as between control over one’s life (OR 3.60; CI 95% 1.24-10.47). When all five aspects of social wellbeing were combined, the social wellbeing seemed to be strongly associated with acquired brain injury in multivariate analysis (OR 1.28; CI 1.01-1.63). No gender differences were found.

Conclusions

People with an acquired brain injury tend to experience better living conditions and control over their lives than their counterparts with other physical and intellectual impairments. Due to the large number of proxy-respondents who participated in the survey, it remains to be studied how the positive experience of personal assistance is extended to family members.

Key message:

- Good living conditions and control over one’s life experienced by persons with acquired brain injury, who receive assistance allowance from the Swedish Social Insurance Agency

Motives and barriers to blood donation – Evidence from Tyrol

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Background

To increase blood transfusion safety and to ensure the availability of sufficient blood donations, a major goal of the WHO is to establish a full voluntary-based non-remunerated blood donation system by 2020. Although new operation techniques plus medical and organizational innovations lead to a decrease in blood donation demand, the availability of blood products is endangered by a decline in donation numbers and seasonal shortages. Being part of a two paper series, the present paper investigates the motives of and barriers to voluntary blood donation in order to help ensure supply.

Methods

From March to December 2014, 430 Tyrolean blood donors participated in an extended questionnaire study mainly based on an instrument developed by the University of Linz. In total, 430 donors participated. Of these, 193 were first-time (53.4% men) and 237 regular donors (47.7% men). Compared to the general donor population (62.6% men), women are over-represented as we excluded men in military service who receive 24 hours of extra free time when donating blood and thus a different motive structure is likely.

Results

Using factor analysis with Varimax rotation, motives were reduced to five factors with decreasing importance: (1) pro-social behavior, (2) trust and interest, (3) enjoyment of life, (4) peer pressure and (5) socio-religious motives. Time, physical exhaustion after work and a focus on career showed to be relevant hindrances. No significant differences could be detected between first-time and regular donors.

Conclusions

Knowing motives and barriers to blood donation can help in establishing a voluntary non-remunerated blood donor system. We identified several motives and barriers but only investigated donors. Future research should extend the investigation also to non-donors.

Key message:

- Motives and barriers to blood donations should be considered when establishing a blood donation system

Blood or Injection Fear Scale: Portuguese version and psychometric properties

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Background

The blood/injection phobia may carry important consequences to health of populations. The development and validation of specific instruments to assess this phobia are necessary. The aim of this study was to propose a Portuguese version of the Blood or Injection Fear Scale (BIFS) and assess some

psychometric properties in a representative sample of public health service users in Ribeirão Preto, São Paulo, Brazil.

Methods

The BIFS is composed by 20 items divided in two original factors (fear of blood and fear of injections). The translation and back-translation of the BIFS was performed by independent bilingual reviewers. A final version of the BIFS was proposed. The content validity was assessed in two steps by an independent panel of 28 judges. The content validity index (CVI) and the content validity ratio (CVR) were estimated. The factorial validity was assessed in a sample of 1,055 subjects, being 79.7% female and mean age of 40.6 (SD=15.2) years through exploratory and confirmatory factor analysis using polychoric correlations. The analysis was implemented on R and Mplus softwares.

Results

According to the CVI and CVR results, the BIFS was considered adequate by the judges to its application in the target population and the items 1, 4, 8, 11, 15 and 18 were considered essential by the judges. A strong correlation between the items was observed in correlation matrix, except for items 2 and 19. According to the results of the AFE, the items of BIFS can be grouped into up to 5 factors. Thus, three models were tested in the AFC, and the best fits were detected for the models with 3 and 5 factors.

Conclusions

The Portuguese version of Blood or Injection Fear Scale proposed in this study was easy to understand and apply in primary care service users sample and showed adequate psychometric properties. The BIFS represents an alternative in the assessment of the fear of blood and / or injection in context of collective health in Brazil.

Key messages:

- The blood/injection phobia is an important variable in public health field that needs to be investigated due to their important impact on health promotion and preventive medicine in populations
- There are few specific instruments to assess blood/injection phobia in scientific literature and this study provides an alternative to assess this variable in the Brazilian population

Journey to testing experienced by adults diagnosed with HIV at age 50+ years

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Background

In the UK, new HIV diagnoses in adults aged ≥ 50 years are increasing. This age group are more likely to receive a late HIV diagnosis (CD4 count < 350 cells/mm³ within 91 days of diagnosis) than younger adults. Late diagnosis is associated with poorer health outcomes, increased risk of HIV transmission and higher treatment costs.

This research explores the journey to testing experienced by adults diagnosed with HIV at age ≥ 50 years, from the perspective of patients and healthcare professionals providing care for this group.

Methods

Qualitative interviews with 11 adults (age range 50-67 years) diagnosed with HIV at age ≥ 50 years and 12 sexual health/HIV HCP.

Results

The targeting of sexual health resources towards younger people was identified as a key contributor to the high proportion of adults aged 50+ years diagnosed at a late stage of disease. Older adults not belonging to a group targeted by HIV prevention and testing campaigns (black Africans or men who have sex with men) were considered most at risk of delayed testing.

Late HIV diagnosis was associated with a lack of HIV awareness or acknowledgement of personal risk. It was also linked to symptom identification before diagnosis, multiple attendances at general practice or hospital, and misdiagnosis. The non-specificity of certain HIV symptoms was noted as a significant challenge for non-HIV specialists, including general practitioners, to diagnose HIV. This was particularly the case in low HIV prevalence areas and when patients did not belong to HIV 'risk' groups.

Early HIV diagnosis was associated with self-initiated testing at sexual health clinics, having high levels of HIV awareness, and understanding personal risk. Having a prior history of STI/HIV testing, and identifying as MSM were also linked to early diagnosis.

Conclusions

To promote early HIV detection, HIV awareness needs to increase across all age and sexual risk groups. Non-HIV specialists also need to consider HIV as a possible diagnosis.

Key messages:

- HIV awareness needs to increase across all age and sexual risk groups
- Non-HIV specialists need to more readily consider HIV as a possible diagnosis, even when patients do not belong to 'risk' groups targeted by HIV testing and prevention campaigns

Intervention to increase preventive care in mental health services: reasons for limited effect

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Background

Addressing the physical health needs of people with a mental illness is a recognised priority; however, mental health services provide sub-optimal levels of preventive care to address modifiable health risk behaviours. In the context of a clinical practice change intervention to increase the provision of preventive care within community mental health settings having limited effect, the current paper explores staff reported factors that may explain the limited effectiveness of the intervention.

Methods

Cross sectional telephone interviews were administered to clinicians of 19 community mental health services prior to and following an intervention that aimed to increase the provision of preventive care for four health behaviours. Clinicians reported the availability and usefulness of preventive care intervention supports, attitudes towards the provision of preventive care, and barriers to the provision of referrals to behaviour change services.

Results

Most intervention supports were perceived to be available and useful. Supports perceived to be most useful included nominated support people, manager support, a resource pack of forms and handouts, and a list of referral services. Following the intervention, there was an increase in positive responses to 3 of 10 attitudinal items. Clinicians remained negative regarding client interest in improving their health risk behaviours; with less than half of respondents indicating clients were interested. The most frequently reported barrier to the provision of referral was client disinterest, reported by 38% to 51% of clinicians.

Conclusions

The intervention was unable to increase clinician perceptions of client interest in changing their health behaviours. Future attempts to increase such care should include strategies

tailored to increase clinician awareness of client interest in behaviour change.

Key messages:

- Increasing preventive care in mental health services will likely require a greater tailoring of strategies to the mental health service context
- Strategies addressing mental health clinicians' perceptions of client disinterest in behaviour change may be required

Cities and the questions of health equity: A study of multidimensional healthcare access in India

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Background

Emergence of Urban-Villages inside Indian cities is the recent phenomena. These spatial entities are villages that are being encroached by expanding cities. The Urban villages in India are inhabited by native villagers, migrant labourers and other low paid skilled workers. The population characteristics, needs and values system in these urban villages are far apart from that of mainstream urban societies. In this scenario a question of equity of access of health care system- primarily designed to cater the needs of mainstream urban population—pose a major challenge to city governance. To address the problem a measurement of level of access of healthcare system by Urban-villages is required. This research attempts to measure level of healthcare access in Urban-villages in Delhi.

Methods

This study conceptualized healthcare access as a multidimensional concept and attempts to measure households' healthcare access in Urban-villages and in Planned Residential Neighborhoods (PRN) of Delhi, India. Data was collected through household survey in 8 urban-villages and 3 PRNs. To provide a brief statement of various dimensions of healthcare access, a composite index of accessibility (based on Categorical PCA) was designed. This composite index covered Geographical, Economic and Socio-cultural Access. Levels of healthcare access were further linked to the households' characteristics through Partial Proportional Odds regression model.

Results and Conclusions

Households located in PRNs had high level of access of health care over all the three parameters (Geographical, Economic and Socio-cultural). On the other hand households located in urban-villages fared poorly over different parameters of access. In analyses of determinants of health access location of households was found to be most significant factor. This study suggests developing an inclusive urban healthcare system that might cater the need of all in a city.

Key messages:

- Indian cities have a number of subgroups of population as minorities that have low access of existing urban health care system
- Indian cities need a comprehensive and inclusive health care system to cater the needs various subgroups of populations with different social norms, value system and economic capacity

Inequalities in female mortality from reproductive system cancers in Lithuania

Lithuania

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Background

The aim of this study – to analyze the trends in mortality from reproductive system cancers (RSC) among females aged 30+ years and to determine urban/rural inequalities by cut points over the period of 1995–2014.

Methods

Information on deaths from RSC (ICD–10 codes C50–C58) among females aged 30+ years in 1995–2014 was obtained from Statistics Lithuania. Mortality rates were age-standardized using the European standard. The regression model was used to identify the best-fitting points, wherever a statistically significant change in mortality occurred.

Results

Female mortality from RSC was 1.13 times lower in rural than urban areas in 1995 ($P < 0.05$). Such a trend was observed until 2000 when mortality rates in urban and rural areas became equal, and in 2010, mortality in rural areas was 1.21 times higher than that in urban. During 1995–2014, female mortality from RSC decreased by 1.0% per year on average ($P < 0.05$). Female mortality varied unevenly – there was one statistically significant cut point in 2011. Female mortality, declining by 0.69% per year on average during 1995–2011, in 2011–2014 decreased annually by even 3.96% on average ($P < 0.05$). Changes in female mortality from RSC in urban and rural areas during 1995–2014 were similar, showing a decrease of 1.23% and 0.61%, respectively, on average, and no statistically significant cut points were documented.

Conclusions

Female mortality from RSC is decreasing. However significant inequalities between urban and rural areas remain. This requires actions in eliminating health inequalities problem in the country. For achieving this goal, Lithuania has started the project “Development of the Model for the Strengthening of the Capacities to Identify and Reduce Health Inequalities“, which is financed by the Norwegian Financial Mechanism 2009–2014 Program “Public Health Initiatives”. It is expected, that outcomes of the project will considerably improve the situation with health inequalities in the country.

Key messages:

- Female mortality from reproductive system cancers is decreasing in Lithuania, however territorial differences remain
- The undergoing health inequalities project can facilitate in tackling this public health problem in the country

Capacities of public health specialists in tackling inequalities at municipal level in Lithuania

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Background

Many functions in monitoring and reducing health inequalities in Lithuania are delegated to municipal level public health institutions. The aim of the study was to evaluate administration capacities of public health specialists in tackling health inequalities at municipal level in Lithuania.

Methods

A cross-sectional survey was conducted in 2015 with a sample of 150 health care specialists from administrations of municipalities and public health bureaus in Lithuania.

Results

Only 30.1% of respondents declared, that health inequalities measures are included in strategic planning documents of their institutions. The similar proportion emphasized, that monitoring (31.0%) and reduction (39.7%) are mentioned in annual plans of activities of their institutions. 42.0% stated,

that health inequalities measures are implemented in the practice. Only 55.8% of public health specialists reported, that measures for health inequities monitoring and reduction are financed by their institutions. Specialists from public health bureaus more often than ones from municipalities declared that these measures are included in institutional annual plans (34.2% vs 20.6%, $p < 0.05$). The similar trend was observed with practical implementation of health inequalities reduction measures (48.2% vs 23.5%, $p < 0.05$). 32.7% of respondents positively evaluated organization's capabilities in health inequalities monitoring and 87.8% emphasized the need for improvement of health inequalities monitoring. Majority of respondents (93.8%) agreed with the need for capacity development in health inequalities and 88.4% agreed that there are good possibilities for this.

Conclusions

Results have showed, that administration capacities of public health specialists from municipalities and public health bureaus are not adequate for monitoring and tackling health inequalities.

Key message:

- There is a need for capacity building of public health specialists in area of health inequalities monitoring and reduction

The costs and benefits of Roma Health Mediation in Bulgaria and Romania

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Background

Roma Health Mediation (RHM) is implemented to reduce health disparities in several European countries. Programs differ, but in general, mediators are members of the Roma community who are trained to provide basic health and entitlements education, and to facilitate Roma access to health care. This abstract describes a recently completed study regarding the costs and benefits of RHM in Bulgaria and Romania.

Methods

This research was undertaken via 3 different prongs: (1) Review of process indicators related to RHM in Bulgaria. (2) A cost-effectiveness analysis of RHM in Romania. (3) Review of financial and technical support provided to RHM in Bulgaria and Romania by selected international governmental and non-governmental organizations.

Results

In 2015, there were about 170 Roma Health Mediators in Bulgaria. Mediators facilitate vaccination coverage for children and perform other health promotion activities typical of community health workers (CHWs). There are no outcome data on RHM effectiveness from Bulgaria, so the evidence base regarding the cost effectiveness of vaccinations and other CHW health promotion activities in other contexts will be summarized.

Mediation was determined to be ineffective on a population level in Romania. Decentralization has entailed great instability in mediator supervision and employment. In addition, the current number of mediators employed (about 380) is unlikely to be adequate to ensure population level impact. Results will be presented.

Various international organizations have provided technical assistance to mediator training and ongoing support.

Conclusions

While it has potential to deliver cost-effective services, RHM program implementation has been too fractured and limited to ensure population level impact. International assistance provides important inputs, but has not been able to alter the fundamental obstacles of inadequate governmental funding and decentralization-related management challenges.

Key message:

- Data are inconclusive on the population level benefits of mediation. This is likely because the programs, as implemented, are insufficient to meet need

Health insurance status of the Roma population in Bulgaria

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Background

According to data from the last census in Bulgaria (2011), Roma constitute 4.5% of the country's population, meaning, 325,343 people. This study analyzes the problems associated with the lower health insurance coverage of the Roma in Bulgaria compared to the majority population. About 45% of the Roma in Bulgaria do not have health insurance compared to 85% of the general population. Lack of health insurance among Roma has a negative impact on the overall health system in Bulgaria. This study analyzes health insurance coverage and access to health care among the Roma population older than 18 years of age and living in small towns in Bulgaria, and examines the inequalities between Roma and non-Roma in these fields.

Methods

In March and April, 2016 a cross sectional study was conducted among eighteen Roma families residing in two small towns of Bulgaria. Information was collected by face to face interview conducted in the homes of the Roma people by Roma students at the Medical University of Plevn, Bulgaria. A questionnaire constructed for the purposes of the study was used.

Results

Lack of health insurance among Roma in Bulgaria is related to (1) unemployment: 47% of the women surveyed are unemployed, compared to 23.1% of the men, and (2) income – 33.3% of all respondents have no income. It was found that around 63% of the adult Roma population does not have health insurance. In 14.3% of the families health care was denied to adult members due to lack of health insurance and in 50% of the cases this was done by general practitioners. Moreover, in 80% of the cases, the Roma were required to pay for a health service, mostly for those provided by specialists (66.7 %).

Conclusions

The results confirmed lower health insurance coverage among the Roma population in Bulgaria compared to the general population. Roma use more often emergency care, rarely visit a GP or a specialist due to lack of health insurance or the need to pay for medical services.

Key messages:

- Lack of health insurance leads to significant problems in the Roma population
- Lack of health insurance defined Roma as a risk group for the development of socially significant diseases

Between sense of mission and professional burnout: Integrating paramedics into healthcare systems

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Background

The rate of Israeli paramedics leaving the profession has been increasing in recent years.

Goals: To examine the factors related to paramedics leaving the profession in Israel.

Methods

1. Online survey among paramedics who left the profession. Questions included demographics, job satisfaction, and reasons for leaving or remaining in the profession.
2. In-depth interviews with 15 paramedics who left the profession.

Results

250 paramedics who left the profession responded (73% left after 5 years after completing training and 93% after 10 years). Choosing the paramedic profession was based mainly on an idealistic sense of mission and eagerness to help, yet extrinsic factors impeded their devotion to the paramedic profession: lack of career options, extensive and strenuous physical demands accompanied by unrewarding salaries, unusually long work hours and shift work that negatively affected their family and personal life.

Conclusions

Work conditions, mainly the lack of opportunities for promotion, lack of professional prospects and inappropriate compensation for hard work are crucial factors in the paramedics decision to leave the profession.

Health Policy Implementation: A joint committee of the Ministries of Health, Justice, Finance and the MDA should be established for the purpose of improving the conditions and modalities of employment of paramedics and providing appropriate emotional support for paramedics who are exposed daily to work under extreme stress and human suffering. The joint effort can greatly reduce rates of leaving, training costs and costs incidental to turnover as well as increase job satisfaction. Moreover, regulating the profession and granting authorization for additional medical procedures/treatments (e.g. physician assistant) can create opportunities for advancement and diversity at work that will help retain paramedics in the profession, not only in pre-hospital settings but also in public health and health promotion sectors.

Key messages:

- Rates of leaving the profession of Israeli paramedics are the highest recorded in the world
- Better understanding of works' motivation will contribute to better integration of paramedics into healthcare systems, not only in pre-hospital setting

Physicians' work with assessment of work capacity in sickness certification – a review

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Background

'Work capacity' is a key issue in physicians' work with sickness absence but the concept is poorly defined from a clinical perspective. The aim of this study was to investigate the scope and content of existing research on physicians' clinical practice when assessing work capacity.

Methods

We conducted a systematic literature search using 32 different search terms related to 'work capacity evaluation' and 'sick

leave' in PubMed, Scopus, CINAHL and 4 other databases (limits: English, all years up until 2016), which generated 1994 unique articles. From these, based on title and abstract, all articles discussing physicians' work with sickness certification (SC) were included (n=104); 1874 articles were excluded, including those discussing disability claims or other extensive assessments.

Results

Included articles were categorized into groups based on overall themes: 1) Experiences of and attitudes to SC (n=36), 2) Clinical practice in SC (n=41), 3) Role and communication in SC (n=5), 4) Guidelines (n=12), 5) Other (n=10). Almost all articles were written after 2000. Country of origin was predominantly Sweden, Norway and the UK. Most studies addressed general practitioners. Physicians' clinical practice in SC was examined almost entirely in quantitative terms via questionnaires, sickness certificates or written information about consultations. Thirty-two articles focusing on work capacity were found. Of these, 7 articles examined physicians' understanding and experience of work capacity, mainly through interviews, 8 articles examined their clinical practice, mainly in quantitative terms, 9 articles were guidelines, 6 articles discussed implementation of methods or checklists and 2 were reviews.

Conclusions

We found few studies of physicians' clinical practice of assessing work capacity. Work participation is an increasingly important public health issue and physicians' clinical practice of assessing work capacity needs further examination and conceptualization.

Key messages:

- Despite the fact that assessing work capacity is a key issue in physicians' work with sickness absence, there are only a few studies specifically addressing the subject
- Work participation is an important public health issue, and the clinical practice of assessing work capacity needs further examination and conceptualization

Smoking cessation pharmacotherapy products in Armenia

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Background

Framework Convention on Tobacco Control (FCTC) Article 14 states that countries should make available different types of tobacco dependence treatments, which are "the provision of behavioral support or medications, or both, to tobacco users, to help them stop their tobacco use". The aim of this research was to assess the availability and affordability of tobacco cessation medications in Armenia.

Methods

The research included two components: pharmaceutical market research (desk review and cross-sectional survey in pharmacies in Yerevan) and qualitative research among pharmaceutical company representatives. A structured questionnaire was used for the survey with pharmacists (n=42) and in-depth interviews were moderated using a semi-structured guide. Based on the study findings, affordability of smoking cessation interventions was assessed.

Results

Only Nicotine gum, Cytisine and Varenicline were registered in Armenia. Among the surveyed pharmacies (n=42), 30 (71.4%) had at least one smoking cessation product. Varenicline was not available in any of the visited pharmacies. Nicotine gum was found in 3 pharmacies (7.1%) and 29 (69.1%) pharmacies mentioned having Cytisine. The representatives of pharmaceutical companies agreed that only

limited number of smoking cessation products was available in the Armenian market and explained this fact with low demand for those products. Using the affordability calculator presented in the West et al paper, we revealed that pharmacotherapy with Cytisine was the most affordable among pharmacotherapy intervention.

Conclusions

Armenia's progress in FCTC Article 14 was less than satisfactory. Only few recommended smoking cessation medications were registered in Armenia and only limited number of them were available in the market. Situation in the market was of the major obstacles for consistent and effective

tobacco dependence treatment in Armenia, a country with one of the highest smoking prevalence in the European region.

Key messages:

- Armenia's progress in FCTC Article 14 was less than satisfactory. Only few smoking cessation products were available in Armenian pharmaceutical market explained by low demand for these products
- Sustainable infrastructure needs to be developed to ensure wide accessibility, availability, and affordability of smoking cessation products in Armenia

FRIDAY 11 November 11:10-12:10

5.R. Poster walk: Chronic and non-communicable diseases

Vision related quality of life among adult population living in Nagorno Karabagh

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Introduction

Visual impairment and blindness are major public health problems causing significant suffering, disability, loss of productivity, and diminishing quality of life for millions of people. This study explored the vision related quality of life (VRQoL) in the adult population of Nagorno Karabagh (NK).

Methods

The project team conducted a cross-sectional interviewer-administered survey along with free eye screenings among adult residents of Hadrut and Martuni regions of NK in 2014 - 2015. National Eye Institute Visual Functioning Questionnaire - 25 (NEI VFQ-25) was used to assess VRQoL. The study sample included 531 participants.

Results

The mean age of participants was 60.1 years (SD = 13.7), ranging from 18 to 90. The majority of the participants were female (71.4%). The most frequently diagnosed eye disorder among the study participants was cataract (33.8%). The prevalence of moderate and severe visual impairment was 7.0% and 0.8%, respectively. Almost 2.8% (15) of patients were blind. The mean global scores of VFQ-25 for blind, visually impaired, and not visually impaired patients were 30.9 ± 20.2 (SD), 51.7 ± 21.77 (SD), and 74.0 ± 16.47 (SD), respectively. The highest mean VFQ-25 scores were found for the subscales of Color Vision (92.9 ± 17.57 (SD)), Social Function (89.6 ± 19.50 (SD)), and Peripheral Vision (82.6 ± 23.86 (SD)), while the lowest mean VFQ-25 scores were found for the subscales of General Health (25.6 ± 18.69 (SD)), General Vision (50.1 ± 15.61 (SD)) and Role Limitations (57.6 ± 36.13 (SD)).

Conclusions

This was the first study which explored VRQoL among residents of NK. We found higher prevalence of visual impairment and blindness, and lower VRQoL in NK compared to the rates in Eastern Mediterranean and European regions. The VFQ-25 scores declined with the increase in the level of visual impairment.

Key message:

- We found higher prevalence of visual impairment and blindness, and lower VRQoL in NK compared to the rates in Eastern Mediterranean and European regions

The role of SMS reminders to increase the hypertensive patients' adherence to medication

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Background

Adherence to long-term therapy for chronic illnesses in developed countries averages 50%. The aim is to develop a three P system (patient-physician-pharmacist) where is possible the mutual communication related to timely medication taking with SMS reminders. It improves adherence, especially the precision with which patients follow their prescribed regimen.

Methods

A 33-item self-administered questionnaire that included a convenience sample of 635 individuals who were buying drugs for the treatment of chronic diseases is used. Study subjects were divided into two groups, with adherent defined as a "yes" response to the statement that they "never fail to take their medication on time." The cross-sectional survey was conducted at 106 Zagreb, Croatia pharmacies and the questionnaire was filled out by the study subjects.

Results

Non-adherent subjects prevailed over adherent subjects in this study population (n = 370 non-adherent; 58.3% vs. n = 265; 41.7%). The most common diagnoses were diseases of the circulatory system (n = 500; 36.8%) and endocrine, nutritional and metabolic diseases (n = 285; 21.0%). The great majority of study subjects reported forgetfulness ("I just forgot") as the main reason for skipping drug doses, followed by being away from home and shortage of the drug (having consumed it all).

Conclusions

Nonadherence to medication is a growing concern to patients, physicians, healthcare systems, and other stakeholders because that it is prevalent and associated with adverse outcomes and higher costs of care. There is usually no single reason for medication nonadherence, and therefore must be a comprehensive approach to improve adherence. Research on adherence has typically focused on the barriers patients face in taking their medications. Short text messages are the most effective way to encourage adherence to drugs. Common barriers to adherence are under the patient's control, so that attention to them is a necessary and important step in improving adherence.

Key messages:

- Adherence to long-term therapy for chronic illnesses in developed countries averages 50%
- Improving adherence by SMS reminder

Prevalence of Elevated Cholesterol in Portugal: National Health Examination Survey Results (2015)

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Background

High cholesterol level is a major and modifiable cardiovascular (CV) risk factor. This study aims to estimate the prevalence of elevated cholesterol in the Portuguese population based in the direct measurement of total serum cholesterol.

Methods

The First National Health Examination Survey (INSEF) is a cross-sectional epidemiological study representative of the Portuguese population using a random sample (N=4,911) aged between 25 and 74 years. Data collection included physical examination, blood collection and personal interview. Serum from participants' blood samples was used for total cholesterol measuring, using the enzymatic method in accordance with international quality standards. Elevated cholesterol (EC) was defined as having a total serum cholesterol concentration ≥ 190 mg/dL or reporting taking lipid-lowering medication. EC estimated prevalence was stratified by sex, age, educational level and employment status. Adjusted prevalence ratios (aPR) were estimated using Poisson regression.

Results

The overall prevalence of EC was 63.3 % [95 %CI:61.2-65.4]. Significant differences in EC prevalence between age groups were found: prevalence was twice higher among groups aged 55-64 (80.1 % aPR =2 [1.8-2.3]) and 65-74 (79.2 % aPR= 2 [1.7-2.3]) when compared to 25-34 (38.4 %). No significant differences were observed according sex, level of education, and employment status. 43.3 % [38.9-47.8] of the individuals taking lipid-lowering medication showed EC.

Conclusions

INSEF results showed that 63.3 % of the Portuguese population aged between 25-74 years had total cholesterol above the desirable level. Among those under treatment, almost half was also EC. Although total cholesterol level should be evaluated considering other CV risk factors, lowering total cholesterol levels may contribute for reducing the burden of CV diseases in Portugal.

Key messages:

- In Portugal 2/3 of adult population (25-74 years) has total cholesterol above desirable levels
- Lowering total cholesterol levels may contribute for reducing the burden of cardiovascular diseases

Geographic variations of cardio metabolic risk factors in Luxembourg

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Background

Cardiovascular disease and associated behavioural and metabolic risk factors constitute a major public health concern at global, European and national level. Many reports worldwide have documented different risk profiles for populations with demographic variations. This study aimed to examine geographic variations in the top leading cardio metabolic risk factors in Luxembourg, to provide an overall picture of CVD burden across the country.

Methods

The analysis was based on data from the nationwide ORISCAV-LUX survey, 2007-2008, including 1432 subjects, aged 18-69 years. A self-reported questionnaire, physical examination and blood sampling were performed. Age and sex-adjusted risk profile maps were generated using multivariate Bayesian geo-additive regression models, based on Markov Chain Monte Carlo (MCMC) techniques, to evaluate the significance of the spatial effects on the distribution of a range of cardiometabolic risk factors, namely, smoking, high body mass index, high blood pressure, high fasting plasma glucose, alcohol use, high total cholesterol, low glomerular filtration rate, and physical inactivity.

Results

Higher prevalence of smoking was observed in the northern regions, higher overweight/obesity and abdominal obesity clustered in the central belt, whereas, hypertension was spotted particularly in the Southern part. Bayesian maps revealed that subjects residing in Luxembourg canton were significantly less likely to be hypertensive or having overweight/obesity, whereas they were less likely to practice physical activity of ≥ 8000 MET-min/week. These patterns were also observed at the level of Luxembourg municipality.

Conclusions

This comprehensive analysis, based on a representative nationwide sample, showed a remarkable geographic variation in the prevalence of principal cardiometabolic risk factors. The findings provide opportunities to improve current preventive measures and allocate appropriate resources to reduce health inequalities.

Key messages:

- Mapping risk factor prevalence geographically allows to locate at-risk communities and provide insight toward tailored preventive interventions
- Mapping risk factor prevalence geographically helps to narrow gaps in cardiovascular risk

A comparison of different Insulin Resistance indices for the prediction of the Metabolic Syndrome

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Background

Insulin resistance (IR), an integral part of the Metabolic Syndrome (MetS), is estimated to be highly prevalent and underdiagnosed globally, contributing to increased risk for chronic diseases. We aimed to compare the ability of different IR indices (HOMA-IR, QUICKI, McAuley and fasting glucose) in predicting MetS taking into account the two most widely applied MetS definitions.

Methods

Analysis was based on 762 subjects from the Cyprus Study, with complete data on all variables (46.6% male; mean age=60.5±10.2). IR index estimation was based on published equations using fasting glucose, insulin and triglyceride levels. MetS was estimated based on the International Diabetes Federation (IDF) and the National Cholesterol Education Program Adult Treatment Panel III (ATP) definitions.

Results

Prevalence of the MetS with ATP III criteria was 36.7% vs 59.3% with IDF ($p < 0.001$). When looking at the predicting ability of IR indices for MetS classification according to ATP III, the McAuley index was significantly better (AUROC: 0.85, $p < 0.001$) compared to HOMA-IR (AUROC: 0.79), QUICKI

(AUROC: 0.79) and fasting glucose (AUROC: 0.77), which had very similar prediction curves. When IDF criteria were used (central obesity as a prerequisite), no differences were found between the four IR indices ($p = 0.5$), with a similar AUROC for all (~ 0.92), which was however better than the AUROC for the ATP III definition.

Conclusions

All four IR indices were shown to predict MetS well, and especially when using the IDF classification. When the ATP III definition was used, the McAuley index had the best AUROC. We have previously shown the McAuley index to be more strongly associated with carotid atherosclerosis in the same population, suggesting that at least when using the ATP III definition, this might be the best choice of IR index. Choosing the most appropriate index for IR could provide more accurate risk profiling for MetS and CVD and reduction in risk with appropriate management.

Key messages:

- Insulin Resistance indices (HOMA-IR, QUICKI, McAuley and fasting glucose) are good predictors for Metabolic Syndrome, especially when using the International Diabetes Foundation classification
- McAuley index was the best predictor for Metabolic Syndrome as defined by ATP III. Choosing the most appropriate IR index could provide more accurate risk profiling for Metabolic Syndrome and CVD

Factors related to good treatment adherence in asthma patients in Latvia in 2015

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Background

Adherence to asthma medication treatment has been reported to be less than 50%. Beliefs about asthma medication, cognitive and emotional perceptions may help to identify patients with good adherence to treatment in clinical practice. This study aimed to assess whether beliefs about asthma medication, cognitive and emotional factors are related to good treatment adherence of asthma medication in a sample of asthma patients in Latvia in 2015.

Methods

Beliefs about asthma medicine, cognitive and emotional factors related to asthma were determined in a cross-sectional, self-administered survey of patients attending outpatient pulmonologist practices in Latvia. The validated Beliefs about Medicines Questionnaire (BMQ) and the Brief Illness Perception Questionnaire (brief IPQ) were used. Treatment adherence was assessed using the Morisky Medication Adherence Scale. The total sample size was 352 patients. Logistic regression models were used to predict good adherence to asthma treatment.

Results

The less the patients agreed with the statement “without asthma medication my life would be impossible” the lower the possibility of good adherence to asthma treatment (OR 0.78; 95% CI 0.63-0.98). Furthermore, the less concerned the patients were in regard to constant use of their asthma medication (OR 1.33; 95% CI 1.10-1.61) or long term effects of their medication (OR 1.33; 95% CI 1.08-1.62), the higher the chance of good treatment adherence. Cognitive and emotional perceptions of asthma were not statistically significantly related to good adherence to asthma treatment in our study sample.

Conclusions

Concerns of the asthma medication and some beliefs about the medication correlate well with good asthma treatment

adherence in Latvian patients. Screening asthma patients using the BMQ may help to identify asthma patients that may benefit from interventions targeting their concerns and beliefs about their medication.

Key messages:

- Concerns of the asthma medication were related to good treatment adherence in Latvian patients
- Beliefs about Medicines Questionnaire may be used to identify patients with poor treatment adherence

Stevens Johnson Syndrome: identification of the risk factors in a rare disease

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Objective

Stevens-Johnson syndrome (SJS), toxic epidermal necrolysis (TEN) and mixed syndrome define a rare disease with a high mortality rate characterized by destruction and detachment of the skin epithelium and mucous membranes that can be caused by an adverse reaction to drugs. Objective: To describe the situation and study the risk factors of SJS in Valencia Region (VR) for the period 2007-2013,

Methods

An observational epidemiological study was realized. Patients with the codes 695.13, 695.14, 695.15 of ICD9-MC and L51.1, L51.2, L51.3 of ICD10 were selected from the Rare Diseases Registry of VR (RDR-VR). Data validation was performed by reviewing clinical documentation. Prevalence and probability of confirmation were calculated and a descriptive analysis was developed.

Results

77 patients were identified. After the review 57 cases were confirmed, 10 were discarded, 9 were dubious and 1 can't be revised. Prevalence was 0.09/10,000 habitants and probability of confirmation was 67.9%. The mean age of detection by the RDR-VR was 54.4 years. 59.6% were men and 47.4% were residents in the province of Valencia.

SJS was mainly due to pharmacological treatments (70.2%). The mean time of exposure to these drugs was 12.5 days, being ibuprofen the most frequent drug.

The regular skin extension affected was 10-30% and the mean of hospital stay was 21.1 days. 45.6% was recovered without sequels and 22.8% did it with sequels (gastrointestinal was the most affected system). Vital status was valued up to a year after the skin reaction and was observed that 29.8% of the cases died. The cause of death in 52.9% of the deaths was TEN and in 41.2% was SJS.

Conclusions

This study has established the current situation of SJS in the VR using the RDR-VR. It has also deepened in the knowledge of these severe skin reactions to drugs, allowing the future design of measures about prevention and early diagnosis of this disease, aspects of special interest for rare diseases.

Key messages:

- Stevens-Johnson syndrome (SJS) is a rare disease characterized by destruction and detachment of the skin epithelium and mucous membranes that can be caused by an adverse reaction to drugs
- Prevalence was 0.09/10,000 habitants and probability of confirmation was 67.9%. SJS was mainly due to pharmacological treatments (70.2%), being ibuprofen the most frequent drug

Web-based platform for exercise prescription for patients with diabetes: Diabetes em Movimento®

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Issue

Most of the population with diabetes is sedentary, although physical activity being part of all international algorithms to treat type 2 diabetes (T2D). Age and anthropometric profile and diabetes comorbidities difficult exercise prescription for these patients. This work aims to present a web-based platform designed to support exercise prescription for patients with T2D by health professionals.

Description

This platform was developed under Diabetes em Movimento®, a Portuguese project to promote physical activity and exercise for patients with T2D, and is available online at www.diabetesemmovimento.com. Medical doctors can choose exercises from a database of images and videos, edit the exercise prescription parameters (type, mode, duration, intensity, weekly frequency, sets, repetitions, etc.), and built a home-based exercise program that can be printed and delivered to the patient. Exercise database has three aerobic exercises (walking-based), 32 resistance exercises (performed only with a chair, a pair of water bottles filled with sand, and a gymnastics ball), nine flexibility exercises, and several recommendations that can be selected and incorporated in the exercise program according to diabetes comorbidities of each patient. Exercise intensity is prescribed according to Borg's scale of perceived exertion. There are also three default exercise programs with different exercise volumes.

Results

Results are preliminary. This platform was launched in March 2016 and in the first month reached about 500 Portuguese medical doctors, mostly family doctors. We are monitoring the number of registrations and the number of exercise programs produced. We aim to fight sedentary behavior in patients with T2D by promoting physical activity counseling and exercise prescription.

Lessons

Home-based exercise programs with high applicability exercise strategies and low cost material resources can be prescribed in clinical settings with the support of this platform.

Key messages:

- Physical activity promotion and exercise prescription in clinical settings should represent a priority to prevent and control type 2 diabetes
- Web-based tools and technologies can greatly contribute to enhance physical activity participation

Predictive factors for Health-related Quality of Life in Congestive Heart Failure: systematic review

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Background

Improvement in treatment of congestive heart failure (CHF) has resulted in a decrease in mortality and hospitalisations in patients with CHF. However, no cure is available which makes better management of CHF of paramount importance. Therefore, the H2020 HeartMan project was developed to

provide accurate advice on disease management adapted to each patient through the use of a Decision Support System (DSS), telemonitoring and a mobile application. Recently, health-related Quality of Life (HRQoL) has gained increasing attention since it was shown to be related to mortality. The aim of this study was to identify key predictors of HRQoL in CHF patients. This information will be used to develop the DSS for HeartMan.

Methods

MEDLINE, Web of Science and Embase were searched in February 2016 for the following combination of terms: heart failure, quality of life, health perception and functional status. Systematic review of literature was done by two independent reviewers considering citations on stable ambulatory CHF patients and reporting on predictors of HRQoL.

Preliminary Results

Fifty-four studies out of 7355 citations were included for further data extraction and quality appraisal. Sixteen distinct categories clustering different types of variables were found, with demographic characteristics, mental health, functional status, comorbidities and physical capacity as the most important categories. Within the abovementioned categories, age, depression, New York Heart Association (NYHA) class, gender, comorbidities and social support were the most frequently cited decisive variables explaining the variance of HRQoL.

Conclusions

A wide variance in predictors for HRQoL has been described in literature with demographic but also mental health characteristics being the most important categories. The underlying relation between these distinct categories should be further explored and taken into account in the development of the DSS for HeartMan.

Key messages:

- A wide variance in predictors for HRQoL in patients with CHF has been described in literature with demographic but also mental health characteristics being the most important categories
- Underlying relations between categories of predictors for HRQoL in patients with CHF should be further explored and taken into account in the development of the Decision Support System for HeartMan

The impact of evacuation on treatment and control of hypertension after Fukushima nuclear accident

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Background

After the Fukushima Nuclear Power Plant Accident in 2011, proportion of hypertension has increased in the victims. Adequate systolic/diastolic blood pressure (SBP/DBP) control due to treatment is important to prevent them from cardiovascular disease, now all evacuees have been exempted from medical cost. We examined trends in the impact of evacuation on treatment and control of hypertension, 2011 to 2014.

Methods

Study participants were men and women aged 40-84 years lived in the evacuation zones due to radiation accident in Fukushima, Japan (2011; n = 16,790, 2012; n = 21,950, 2013;

n = 22,473, 2014; n = 23,194). Age-standardized proportion of hypertension (SBP/DBP \geq 140/90 mmHg, or antihypertensive use), treatment (antihypertensive use), and control (SBP/DBP <140/90 mmHg in participants who receive treatment) were calculated by the direct method using the 2010 census in Japan. Comparing them with non-evacuees, the proportion ratios (PRs) and 95% confidence intervals for treatment and control in evacuees were calculated, respectively, by Poisson regression with robust error variance adjusted for covariates in each year.

Results

The age-standardized proportion of hypertension, treatment, and control have increased and reach 48.0%, 66.0%, and 67.4% in non-evacuate men, 51.1%, 73.9%, and 66.9% in evacuate men, 41.0%, 73.5%, and 66.3% in non-evacuate women, and 43.6%, 76.0%, and 71.3% in evacuate women in 2014, respectively. These proportion in evacuees tend to be higher than those in non-evacuees. However, the adjusted PRs showed small difference between evacuation statuses. The range for PRs of treatment and control were 1.01-1.06 and 0.90-1.04 in men and 1.01-1.06 and 1.05-1.09 in women in 2011-2014, respectively.

Conclusions

The proportion of treatment and control of hypertension have increased regardless of evacuation status.

Key messages:

- After the disaster, the proportion of treatment and control of hypertension have increased in victims, 2011 to 2014
- Policy of free medical cost in evacuees has small impact on treatment and control of hypertension

Vitamin D levels, HbA1c and lipid profile in newly arrived Eritrean refugees in Switzerland

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Background

The number of migrants from Eritrea in Switzerland grew from 1,799 in 2010 to 9,966 in 2015. Data on risk factors for chronic non-communicable diseases in this population are lacking. We report preliminary findings from vitamin D levels, glycosylated haemoglobin (HbA1c) and lipid panel among Eritrean refugees who arrived in 2015 in Switzerland.

Methods

Cross-sectional study among asymptomatic Eritrean refugees aged \geq 16 years who arrived in Switzerland after in 2015 and were recruited via cantonal refugee registries. Venous blood samples were analysed for lipid panels (total cholesterol (TC), HDL cholesterol (HDL-C), LDL cholesterol (LDL-C) and Triglycerides (TG)), HbA1c and 25-hydroxy vitamin D (Vit-D). In addition, anthropometric indices of height and weight were recorded. The study started in January 2016 and recruitment is still on-going aiming at 300 participants.

Results

Among 62 participants recruited till June 15th 2016 (53 male), median age 23(interquartile range: 19-28), 36(58%) had severe (<25nmol/L) and 23(37%) had moderate (25-50nmol/L) Vit-D deficiency. None of participants had normal Vit-D levels. Median (interquartile range) values for TC, LDL-C HDL-C and TG were 3.9 (3.2-4.4), 2.2 (1.7-2.7), 1.2(1.0-1.4) and 0.9(0.7-1.2) respectively. TC/HDL-C ratio was \geq 3.0 in 40(65%) of participants. Median HbA1c was 5.0% (4.9-5.1). None had HbA1c values \geq 6.0%. Median body-mass index

(BMI) was 20kg/m² (19-23), only 3 had BMI \geq 25kg/m², and 9(15%) were underweight (BMI<18.5kg/m²).

Conclusions

All presumably healthy Eritrean participants had insufficient Vit-D levels; more than 2/3 had severe Vit-D deficiency. Apart from low levels of HDL-C, the lipid-panel of participants was favourable.

Key messages:

- These preliminary data indicate that routine supplementation of Vit-D may be considered in Eritrean refugees living in Switzerland
- Routine supplementation of Vit-D may be considered in Eritrean refugees living in Switzerland

Better insight into gender-specific diabetes self-management for more effective diabetes services

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Background

Typically, diabetes self-management programmes distinguish between type 1 and type 2 diabetes without considering any gender-specific aspects. However, an analysis of sex and psycho-social factors is necessary not only to cover obvious biological differences, but to increase the effectiveness of diabetes counselling and digital self-management services. The project "Gender-specific Diabetes Self-management" (2014-2016) explores these factors and provides insight for individualised recommendations.

Methods

Between March and June 2015 diabetes patients from the Medical University of Vienna (Dep. of Internal Medicine III, Div. of Endocrinology and Metabolism, Austria) were investigated about gender-specific symptoms while blood sugar and stress levels are changing, and, about their motivation to change life-style and to use digital diabetes services (focus groups and online questionnaire; N = 70; 64% female, 36% male). The patients were grouped into those suffering from gestations diabetes and menopause (f only), and, from hypoglycaemia and heart diseases (f and m).

Results

Different preferences for women and men in terms of life-style changes: Typically, men prefer sport and need encouragement for healthy food, whereas women are more inclined following diet advice. Women need encouragement and different options for physical exercises (Pref.:jogging 2%f vs. 13%m; moderate walking 86% f vs. 58% m; swimming 34%f vs. 4%m; cycling 18%f vs. 38%m).

Stress can have a high impact on glucose levels: Women and men report different physical and emotional symptoms for it and follow different coping strategies.

An online service for diabetes self-management needs high usability for both women and men.

Conclusions

The study serves as input for developing personalised diabetes self-management and digital diabetes services based on two pillars: gender-sensitive monitoring of diabetes-relevant patient data and personalised recommendations for fostering life-style changes.

Key messages:

- Changing one's life-style is a very individual challenge. Insight into gender-sensitive diabetes self-management will

improve the effectiveness and acceptance of any such public programme and service

- One size does not fit all in chronic diseases self-management. Awareness about gender-specific coping strategies and recommendations can enrich effectiveness of prevention and monitoring programmes

Regional differences in heart failure hospitalizations in Slovenia 2004-2012

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Background

Heart failure (HF) with high mortality and low health related quality of life presents an important public health concern. HF mortality rates display significant inter-regional differences in several countries, while data for Slovenia and other Central or east European countries are lacking. Thus we aimed to evaluate differences in HF hospitalization rates, HF readmissions and mortality between regions.

Methods

HF hospitalization data were obtained from National Hospital Discharge Registry coupled with National Death Registry between 2004 and 2012. Annual age and sex standardized main HF hospitalization, first HF hospitalization, HF readmission

and mortality (30-day and 1-year) rates (per 100,000) were calculated for each statistical region. Regional differences in mortality and HF readmissions after first HF hospitalization were evaluated using multiple log binomial regression adjusted for age, sex, year of admission and comorbidities.

Results

We recorded 156,859 HF hospitalizations (55,522 main and 43,606 first HF hospitalizations). Main and first HF hospitalization rates displayed large differences between regions: 709 vs. 399 for main HF hospitalizations and 511 in vs. 195 for first HF hospitalizations, $P < 0.001$. Both 30-day 1-year HF readmission and mortality rates were different between regions (up to 115% for HF readmission and 137% for mortality, $P < 0.001$); however few regions had significantly different relative risks for developing HF readmission or mortality.

Conclusions

In Slovenia there are large regional differences in HF hospitalization, readmission and mortality rates. In regions with high HF burden, targeted public health policies and prevention programmes to reduce HF burden are therefore needed.

Key messages:

- This study shows large regional differences in HF hospitalization burden in Slovenia
- In highlighted regions, targeted public health policies and prevention programmes to reduce HF burden are warranted

5.S. Poster walk: Risk behaviour in adolescents and young adults

Barriers to mental health help-seeking behaviour in adolescents in Malta

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Background

Adolescents are subject to biological and psychosocial changes that make them vulnerable to mental disorders. Left untreated these may lead to adverse long-term consequences. The aim of this study was to identify and explore barriers to seeking help for mental health problems in adolescents in Malta. The relationship between depressive symptoms and help-seeking behaviour was also studied.

Methods

A mixed methods design was used. A cross-sectional school-based survey was carried out among 14-15 year olds using two-stage cluster sampling. A self-administered questionnaire comprising the Patient Health Questionnaire-9, the General Help-seeking Questionnaire and the brief version of the Barriers to Adolescents Seeking Help scale was used. The second part of the study utilised a qualitative approach and consisted of four semi-structured interviews with general practitioners.

Results

494 adolescents participated in the survey giving a response rate of 72.8%. More than half were reluctant to seek professional help for mental health problems and 73% preferred to seek help from family members. The most frequently reported barriers to seeking professional help were the need for autonomy (65%) and embarrassment (53.7%). Fears of seeking professional help increased with depressive symptom severity scores (Spearman's correlation

coefficient=0.492, $p < 0.01$). Poor mental health literacy and stigma in adolescents and parents, as well as factors related to mental health service provision were barriers identified by the general practitioners.

Conclusions

In the context of mental health help-seeking behaviour, professional help is unappealing to adolescents especially to those with higher depressive symptom scores. Initiatives to strengthen prevention and early intervention through multi-sectoral collaboration involving the family, schools and the health sector are necessary. Tailoring health care services to better address adolescents' needs is a priority for public health policy.

Key messages:

- This study provides insight into the mental health help-seeking behaviour of 14 to 15 year old adolescents in Malta
- The findings have implications for interventions to facilitate mental health help-seeking amongst adolescents living in Malta

Active youth - active mobility of adolescents in public spaces in Vienna

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Introduction

The project investigates possibilities and opportunities of mobile devices to assess active mobility and the spatial context where the

young are physically active. To analyze the complex mobility and activity patterns of the young an interdisciplinary approach connects the perspectives of landscape and traffic planning, social science and sport sciences. For scientists as well as practitioners (urban planning, health promotion), the aim of Active Youth is to develop an applicable set of methods to analyze human-powered mobility and to stimulate active mobility of the young through geo-based gaming on mobile devices.

Methods

Before and after an intervention where different geo-based methods were experienced, mobility patterns of 35 pupils, 15 to 17 years old, out of two public schools in central and suburban Vienna were recorded by accelerometer (Actigraph GT3X+) and the smartphone-app Moves. Additional data was acquired by an analogue activity diary, an online questionnaire and feedback-workshops. The data were analysed by a multilayered triangulation.

Results and discussion

The findings show, that the youngsters of both environments were more physically active and more likely to meet the WHO-recommendation for physical activity on weekdays than at the weekend. On weekdays only few youngsters were cycling, most of the pupils choose to walk as active mobility. The movement patterns of active pupils show more complex active mobility patterns within the city and use more different types of open spaces (streets, squares, parks) whereas inactive pupils mostly use streets for their active mobility and are only actively mobile if necessary e.g. on their way to school.

Whereas normally higher socioeconomic status leads to higher levels of PA, especially girls in suburban Vienna benefit from a more mobility friendly environment. The results indicate that geo-based games and mobile devices are seen as possibilities and support the activation of adolescents for more PA.

Key messages:

- Geo-based methods activate adolescents for more PA
- Different profiles of movement patterns of the young

Negative expectancies of alcohol use and Program Unplugged Participation

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Background

Unplugged is a universal substance use prevention program for early adolescents. Its effectiveness has been confirmed in several European countries. The theoretical background of the program is based on social and cognitive skills enhancement. The aim of this contribution is to explore the effectiveness of program Unplugged participation with regard to program related variables - perceived cognitive improvement and assertiveness in relation to negative expectancies of alcohol use, 12 months after the program implementation (T2), controlling for gender and perceived negative consequences of alcohol use (T1).

Methods

Representative sample of 1298 elementary school pupils (Mage=11.52; SD=0.61) participated in the study. Data regarding negative expectancies of alcohol use (ESPAD), perceived cognitive improvement, assertiveness (Cognitive Autonomy and Self-evaluation questionnaire) were collected immediately before the program implementation (September 2013; T1) and 12 months after the program implementation. Linear regression was used for data analysis.

Results

Linear regression model was significant and explained 14.9% of variability of the dependent variable. The model showed that the main effects of participation in Unplugged ($\beta=-0.316$; $p=0.004$) were in negative expectancies of alcohol use. Perceived cognitive improvement was also negatively

associated with the dependent variable ($\beta=-0.117$; $p=0.003$). Gender ($\beta=0.251$; $p=0.016$) and negative expectancies of alcohol use (T1; ($\beta=0.435$; $p<0,001$)) also significantly contributed to the model.

Conclusions

The results point to the importance of mediation and moderation analysis focusing on psychological mechanisms of the program effectiveness. They further highlight the importance of non-behavioral indicators of program effectiveness as well as implementation of gender specific prevention strategies.

Key message:

- This study contributes to the knowledge regarding evaluation of substance use prevention programs and promotes the importance of gender specific approaches in prevention

Mediators of lifetime prevalence of alcohol use and its accessibility among early adolescents

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Background

While there is consistent research evidence that early initiation of alcohol consumption is associated with accessibility of alcohol, relatively little attention has been paid to mechanisms underlying this association. The aim of this study was to examine whether accessibility of alcohol is associated with lifetime prevalence of alcohol use directly but also indirectly via mediators and with respect to gender differences.

Methods

In the first wave of the longitudinal study (APVV-0253-11), a representative sample of 1096 early adolescents (mean age 11.52; SD=0.61; 54.3% girls) indicated their lifetime prevalence of alcohol use (dichotomized: 0-not used, 1-used) as an outcome variable, accessibility of alcohol as independent variable, and expectations of the effect of alcohol use (positive, negative) and emotional regulation as mediators. Regression analyses were used and mediation effect was tested via Sobel test.

Results

The accessibility of alcohol was directly associated with lifetime prevalence of alcohol use for both genders (boys 95% CI = 1.23-1.47; girls 95% CI = 1.21-1.42). Mediation analyses showed that lifetime prevalence of alcohol and accessibility of alcohol use were mediated by emotional regulation for boys ($z=2.09$; $p<0.001$) and by positive expectations for girls ($z=2.31$, $p<0.001$).

Conclusions

This study supports the importance of direct association between alcohol accessibility and lifetime prevalence of alcohol and shows on the importance of indirect effect of boys' emotional regulation and indirect effect of girls' positive expectations in this relationship.

Key message:

- We stress the general importance of the role of public health policy concerning the issue of alcohol accessibility for juveniles, which is directly related to the use of alcohol

Familial determinants of alcohol use among adolescents in Lithuania: HBSC cross-sectional survey 2014

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Background

Understanding the role of the family in shaping adolescent substance use behaviours has been given recently the increased attention in context of high level of alcohol consumption in the country. The study was aiming to investigate association between alcohol use and a range of familial factors in Lithuanian adolescents.

Methods

The questionnaire survey was carried out among adolescents (N = 3696) aged 13- and 15-years in Lithuania in spring 2014 in the framework of the cross-national Health Behaviour in School-aged Children (HBSC) study. A standard HBSC questionnaire was applied and used anonymously to obtain information about drinking of alcoholic beverages and family life (family structure, communication in the family, parental monitoring, parenting style, etc.). Logistic regression analysis was used to assess association between variables.

Results

Respondents from non-intact families were more likely to be weekly drinkers (OR = 2.13, 95% CI = 1.78-2.54) and more likely to be exposed to drunkenness (OR = 1.51, 95% CI = 1.29-1.77) compared with intact families. Among adolescents living in an intact family the following familial factors were significantly related with increased risk for regular use of alcohol or frequent drunkenness: father's and mother's low monitoring (OR = 1.73, 95% CI = 1.25-2.39; OR = 2.34, 95% CI = 1.70-3.21), father's authoritarian-repressive (OR = 2.48, 95% CI = 1.43-4.29 and mother's permissive-neglectful (OR = 5.11, 95% CI = 2.94-8.87) parenting style. Therefore, rare family time together and rare electronic media communication with parents showed an opposite effect than the research hypothesis.

Conclusions

Higher prevalence of alcohol use among adolescents of Lithuania is associated with a non-intact family structure as well as weaker parental support. Positive family life practices (parental monitoring and parental support) are critical components to be incorporated in the alcohol use prevention programs for adolescents in Lithuania.

Key messages:

- Understanding the role of the family in shaping adolescent substance use behaviours has been given recently the increased attention
- Positive family life practices (parental monitoring and parental support) are critical components to be incorporated in the alcohol use prevention programs

The relative associations of neighborhood and school social capital with adolescent alcohol use

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Background

Alcohol drinking among Japanese adolescents is still a public health concern, although it has been declining recently. Adolescent drinking might be influenced by not only individual-level factors, but also contextual-level factors. Previous studies found that social capital at neighborhood might be associated with population health. Yet, whether neighborhood social capital and school social capital can be simultaneously associated with health-risk behaviors, such as alcohol use, remains uncertain. This study examined the relative associations of neighborhood-level and school-level social capital with alcohol use among Japanese adolescents.

Methods

Self-administered anonymous questionnaires were distributed to 3,386 students (aged 15-18 years) at high schools across

Okinawa, Japan in 2012. Alcohol use was measured by current drinking in the past month. Social capital was measured by cognitive components of school and neighborhood social capital. Contextual-level social capital was measured by aggregated school-level and neighborhood-level individual responses, respectively. We estimated cross-classified multi-level models to the data with students cross-nested in 30 schools and 37 neighborhoods.

Results

About 14% of the variation in drinking was attributable to differences between schools and 1% was due to differences between neighborhoods. In the cross-classified model examined school-level and neighborhood-level variances simultaneously, the variance between neighborhoods was estimated to be zero. School social capital was negatively associated with drinking, whereas neighborhood social capital was not associated with drinking.

Conclusions

The school-level associations with adolescent drinking may have greater impact than the neighborhood-level associations with that.

Key message:

- The understanding of the relative associations of different social contexts is useful to provide adolescent drinking prevention efforts

Unravelling the black box of tobacco policies at schools and their impact on adolescents' smoking

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Background

Secondary schools increasingly attempt to avert and stop adolescents from smoking by implementing and enforcing school tobacco policies (STPs). Notwithstanding the popularity of STPs, the scientific evidence about their true impact remains largely inconclusive. This systematic realist review aimed to understand why these inconsistencies in evidence occur by identifying and refining the mechanisms that explain how and why (i.e. black box) STPs decrease or do not decrease adolescents smoking behaviour.

Methods

We performed a systematic search through academic literature between January 1991 and 2016. We identified 41 articles, reporting on both quantitative and qualitative evidence, for inclusion.

Results

Evidence showed that STPs may decrease youth smoking as these make them (i) want to avoid the sanctions associated with smoking, (ii) feel fewer social pressure to smoke, (iii) develop anti-smoking personal beliefs, and (iv) experience more control over the decision not to smoke. The impact of each mechanism, however, depends largely on the extent to which connected counter-mechanisms occur. For example, adolescents do not want to avoid the sanctions when they perceive no personal threat for the sanctions. Another example is that adolescents may not develop anti-smoking beliefs when they experience contradictions between school's non-smoking messages and actual practice.

Conclusions

The findings demonstrate that it is crucial to monitor and act on how adolescents experience and deal with STPs in order to make STPs truly effective.

Key message:

- It is crucial to monitor and act on how adolescents experience and deal with school tobacco policies in order to make STPs truly effective

Trends in smoking behavior in adolescents and young adults in the Netherlands

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Background

As most current smokers start smoking before their 18th birthday, adolescence is the primary target group for smoking prevention. However, recent declines in youth smoking prevalence rates, due in part to increasingly stronger youth access laws, might lead to an upward shift in the age of smoking initiation. This study aims to assess whether such a shift is occurring, through analysis of smoking initiation in four subsequent birth cohorts in The Netherlands.

Methods

This study used cross-sectional data from the National Health Survey 2010-2013 in The Netherlands. Using retrospective questions on smoking, we constructed the smoking history of four 5-year birth cohorts (1980-84 to 1995-99). Main outcome measures were smoking prevalence per age and age of smoking initiation. Differences between birth cohorts were analyzed using logistic regression.

Results

We found a decrease in smoking prevalence in subsequent cohorts from 1980-84 to 1995-99. No decline occurred between the 1985-89 and 1990-1994 cohorts. The majority of smokers initiated smoking between 12 and 16 years of age, with 16 years as the peak age of initiation. This age pattern did not change between cohorts. Age patterns were stable for both males and females, and in low and high educational groups.

Conclusions

Even though smoking prevalence rates declined over time, age of smoking initiation did not shift. This would suggest that young adolescents remain the most important target group for tobacco prevention measures.

Key messages:

- The results suggest that the decline in youth smoking prevalence of the most recent birth cohorts will translate into declining smoking prevalence rates at older ages
- The fact that no shift in age of smoking initiation has taken place, confirm that smoking prevention measures should remain targeted at the youth below 18 years

Bimbloteche: an early-literacy bottom-up program in the town of Chivasso

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Background

Low literacy skills link to social & health inequalities. Shared reading aloud practices are effective in increasing community literacy and shaping both strong parental relationship and neural networks in children. Early literacy programs have shown to be effective if inclusive of the whole community, providing tools for resilience. Inspired by Nati per Leggere, a joint network of librarians, teachers, parents and a local pediatrician started Bimbloteche, a program aimed at increasing early literacy in 0-5 children.

Objectives

Bimbloteche is a book loan integrated with training activities for both teachers and parents. Training focuses on: i) quality of relationship during shared reading aloud practice, ii) its frequency iii) its duration iv) how to choose a book and v)

how to organize a training event for parents. It is structured in 3 cycles lasting a year each, starting from September 2016. The project settled in nurseries and kindergartens, is included into the schools' curricula. Program evaluation use a mixed method approach. Quantitative evaluation aim at measuring changes in parents' reading habits by means of a pre-post comparison through the BABAR tool. A qualitative description approach shade a light into subjective experiences. Process and liking evaluation are also conducted. Following a public tender, a private corporation funded the activities.

Results

the whole community was involved into shaping an inclusive evidence-based community empowerment-training program aimed to reduce social inequalities. All the 22 city schools except one joined the program, allowing the involvement of more than 1000 children. A total of 14 teachers from 5 schools have concluded the first wave of training, satisfaction rating scored the highest.

Conclusions

An evidence-based early literacy promotion program was set within the community. Bimbloteche is a multidisciplinary bottom-up community network program, enriched with a mixed method evaluative approach.

Key messages:

- An inclusive, reproducible, community-based process is tuned to improve parental shared reading aloud habits and quality
- Teachers as the main node, receiving and transmitting knowledge and skills

Intimate partner violence among Croatian university students

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Background

Intimate partner violence (IPV) is a significant public health problem. Globally, the prevalence of IPV among students has been estimated to range from 17 to 45% for physical assaults within last year and women are far more likely to experience sexual and physical violence than men are. The aim of this study was to examine the prevalence of IPV among Croatian university students and its interconnections with gender, faculty field of science and repetition of a year of study.

Methods

Within this cross-sectional study, a validated, anonymous questionnaire was self-administered to cross-faculty representative student sample of Josip Juraj Strossmayer University of Osijek, Croatia in April 2015. General demographic data, as well as data on academic features and data related to IPV among students were collected.

Results

The study sample included 880 students, the average age being 22 (range 19-54), 33.9% males and 66.1% females. 67.7% of the students reported that they had experienced IPV, specifically: 74.5% of male and 64.3% of female students (χ^2 -test; $p=0.002$); 63.9% of students within the biomedicine and health field of science, 73.0% of students within the technical field of science, 68.7% of students within the biotechnical field of science, 65.2% of students within the social field of science and 81.7% of students within the humanities field of science (χ^2 -test; $p=0.036$); 73.5% of

students who repeated and 66.1% of students who did not repeat a year of study (χ^2 -test; $p = 0.057$).

Conclusions

IPV represents an important public health challenge among university students in Croatia. Students are at a formative period in their lives, especially in relation to the development of appropriate patterns of behavior with an intimate partner. For purposes of primary prevention of IPV, it is vital to increase our understanding of this challenging and complex issue because IPV during university period can establish patterns that persist over a lifetime.

Key messages:

- IPV is an important public health problem among university students in Croatia. It is crucial for efficient primary prevention of IPV to better understand this challenging and complex issue
- Bearing in mind that IPV during university period can establish patterns that persist over a lifetime, it is crucial to educate students about IPV because they are in formative period of their lives

FRIDAY 11 November 15:10-16:10

6.R. Poster walk: Cancer

Lifestyle effects of colorectal cancer screening. Population-based survey study in Finland

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Background

The European cancer screening guidelines recommend colorectal cancer (CRC) screening for 50-74-year-olds. CRC mortality can be reduced with screening, but it is yet unclear if CRC screening affects various lifestyle related factors. Due to population-level nature of screening, even minor adverse effects in health related lifestyle might have relevance for public health. A national programme for CRC screening with repeated faecal occult blood (FOB) testing followed by colonoscopy for test positives has been running in Finland since 2004. Our aim is to clarify, if screening is introducing harmful effects on colorectal cancer risk related life style, thus reducing the potential benefit of an otherwise feasible screening programme.

Methods

A population-based random sample of 10648 Finnish adults born in 1951 living in the municipalities voluntary involved in CRC screening programme were sent a lifestyle questionnaire in 2010. In 2011, the 60-year old cohort was independently randomised (1:1) for their first ever CRC screening (invited) or control group (not contacted). The questionnaires were repeated in 2012 for all. From both survey rounds, 2508 pairs of completed questionnaires were available for analysis from the screening group and 2387 from the control group. The outcome was 2-year change in total lifestyle score of CRC risk related lifestyle factors (smoking, alcohol consumption, physical activity, diet and BMI).

Results

Preliminary results indicate that total lifestyle scores improved likewise in the screening group and in controls suggesting favourable changes for CRC risk in both groups. There was no difference by participation, either: the change in score did not differ in those participating screening compared to those invited, but not participated screening.

Conclusions

Present study found no unfavourable changes in total lifestyle in the studied age group after CRC screening. However, life style counselling could be included in screening setting.

Key messages:

- Invitation or participation to colorectal cancer screening was not found to have a adverse effect on colorectal cancer risk related lifestyle in a population-based survey study in Finland
- Potential lifestyle change after colorectal cancer screening should be evaluated programme-wise. In Finland, this does

not affect the cost-benefit ratio of the colorectal cancer screening programme

Cancer mortality by migrant Background in the 2000s in Belgium: patterns and determinants

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Background

A growing, ageing migrant population challenges health systems in Europe. Cancer as a chronic disease is an important study topic for ageing societies. With high cancer occurrence and a large share of migrants and their children in the population, Belgium is an interesting research area. Belgian migrant health research has shown an important role of socio-economic position (SEP) and migrant generation for several causes of death. We study cancer mortality by migrant background for large migrant groups and their offspring in Belgium, and take SEP into account. This is the first Belgian study to take site-specific cancer mortality as its outcome. Few European studies have combined migrant generation and SEP in migrant health research so far.

Methods

We use individually linked census-mortality follow-up data for the period 2001-2011. Cancer mortality of first (FG) and second generation (SG) Italian, French, Dutch, Moroccan and Turkish migrants is compared with that of Belgians. We used indirect standardization and log-linear Poisson regression stratified by gender for those aged 25-84. SEP is accounted for. All cancers and the most common causes of cancer deaths in Belgium are researched.

Results

There is site-specific diversity in cancer mortality differences between natives and migrants. ISMRs generally increase with generation (e.g. 275.7 [256.4-296.1] to 594.4 [472.8-738.1], all cancers in Moroccan men). SEP mainly lowers RRs (e.g. 0.79 [0.71 - 0.88] to 0.47 [0.42 - 0.52], lung cancer in FG Turkish men).

Conclusions

Results generally point to a disadvantaged position of SG migrants in terms of cancer mortality compared with FG migrants of the same origin. The SEP-effect observed warrants SEP-oriented policy measures.

Key messages:

- SG migrants have higher cancer mortality levels compared with their FG counterparts from the same origin group
- SEP plays an important role in observed cancer mortality differences for most cancer types

Mammography screening program in Austria. Survey Results

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Background

In 2014 a mammography screening program was implemented in Austria. Ever since then, women between 45 and 69 years are actively invited in a two year period to participate in the program; women at the age of 40+ and 70+ can opt in. Certified radiology institutes with appropriate experience, staff and a double-check system of the diagnostic result provide the mammography screening directly without a referral from a physician.

Our study focused on gathering information concerning the level of knowledge about facts of breast cancer screening by the female staff of the Austrian Social Security Institutions.

Method

We developed an online-survey containing 18 questions that was sent to 15,035 female colleagues within the Social Security Institutions in Austria. The survey was conducted in January/February 2016.

Results

4,270 women answered the survey, which means a response rate of 28%.

The questions about definitions of screening, breast cancer screening, test accuracy of mammography and general questions about the program were answered correctly by 70–90% of the respondents.

Estimations about the incidence and mortality rate of breast cancer and overdiagnosis due to screening were answered correctly by 40–50% of the respondents.

7% of the respondents estimated the false positive rate within 10 years correctly, the age-of-highest-benefit was estimated correctly by 10% of the respondents.

Conclusions

The level of information about the breast cancer screening program is quite high within the Social Security Institutions in Austria but overestimation of screening benefits and underestimation of screening harms are quite common.

The benefits and harms of breast cancer screening should be communicated in a more understandable way to women in order to enable them to decide prudently.

Key messages:

- About half of the respondents are aware of overdiagnosis in breast cancer screening
- Only 1 out of 14 women is informed of false positive rates and 60% of the respondents overestimate the reduction in mortality due to participating in the breast cancer screening

Efficient gastric cancer prevention through serum pepsinogen and helicobacter antibody testing

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Issue

Promoting gastric cancer prevention, i.e., achieving increased participation in cancer screening within the general population is an important task of municipal public health authorities in Japan. Upper gastrointestinal series (UGI) participation rates have hitherto been low.

Description of the study

The study aims to clarify the effect and economic efficiency of gastric cancer risk screening for inhabitants who had not previously undergone a UGI. In Machida City (430 thousand population), risk screening was introduced in Fiscal Year (FY) 2014. Participation in risk screening and the outcomes (fiber

gastroscope [FGS] referral and results) were analysed by UGI participation history, which included regular participation (undergoing a UGI every year, in the recommended periods); irregular participation; and no participation (not undergoing a UGI for 3 years).

Results

In FY2014, 25,808 inhabitants (mean age 62.6 years, male 37%) participated in the risk screening. The risk screening participation rate in the targeted population was 15.9%, significantly higher than that of UGI (1.8%–2.1%). A total of 9,486 participants were recommended for FGS, and 7,196 underwent the procedure. Gastric cancer was detected in 139 participants. The detection rates for screening participants (regular-participants: 0.19%, irregular-participants: 0.63%, no-participants: 0.43%) were significantly higher than that of UGI (0.09%–0.12%). The cost-effectiveness ratio of expenses per cancer detection was 5,691 thousand JPY (50.1 thousand EUR, FY2013) for UGI and 870 thousand JPY (7,650 EUR) for risk screening, and the incremental cost-effectiveness ratio of introducing risk screening was 764 thousand JPY (6,720 EUR) per life saved.

Lessons

Risk screening improves the convenience of participating in gastric cancer prevention. This simple, economically efficient screening method will contribute to gastric cancer prevention in East Europe, where gastric cancer has increased recently.

Key messages:

- Gastric cancer risk screening significantly improves cancer prevention among those who have not regularly or never undergone a UGI
- Serum pepsinogen and helicobacter antibody testing increases cancer detection rate and is demonstrated to be more cost-effective than UGI for gastric cancer screening within the general population

Determinants of general practitioner's cancer related gut feelings – a prospective cohort study

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Background

General practitioners (GPs) use gut feelings to diagnose cancer in an early stage, but little is known about the predictive value of gut feelings and how this is influenced by patient and GP characteristics.

Methods

Prospective cohort study of patients in 44 general practices throughout the Netherlands, from January 2010 till December 2013. GPs completed a questionnaire regarding gut feelings, patient and GP characteristics, if they noticed a cancer-related gut feeling during patient consultation. Follow-up questionnaires were sent 3 months later requesting information about the patient's diagnosis. Chi-square, uni- and multivariate logistic regression and multilevel analyses were performed.

Results

A gut feeling (N = 366) is most often triggered by weight loss (24%, N = 85) and rare GP visits (22%, N = 76), but none of the triggers were predictive of cancer in a multivariate analysis except for patient's (P = 0.01) and doctor's age (P = 0.04). Most GPs (95%) acted immediately on the gut feeling, either referring to a specialist or by performing additional medical tests. The average positive predictive value of cancer related gut feeling was 35%. This increases with 2% for every year a patient becomes older, and with 3% for every year a GP becomes older.

Conclusions

GP's gut feeling for cancer proves to be a useful tool in diagnosing cancer and its relative high predicting value increases

if the GP is older or more experienced and when the patient is older. The value of GP's gut feeling needs more attention in guidelines and medical training concerning cancer.

Key messages:

- Professional experience enhances development of cancer related gut feelings
- The value of GP's gut feeling needs more attention in guidelines and medical training concerning cancer

Colorectal Cancer Screening in WHO European region: differences among countries by income level

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Background

In WHO European Region colorectal cancer (CRC) is the first tumor with 471,000 new cases per year and a mortality rate of 28.2 per 100000 population. WHO European Region is composed by 53 countries. Large-scale studies have found a considerable reduction in mortality due to the adoption of population-based screening programs with cost-effectiveness.

Methods

We consider the income level for each country referred to pro capita gross national income (current US\$) as indicated by World Bank. High income: \$12,736 or more divided into OECD group (Organization for Economic Co-operation and Development) and non-OECD; upper middle: from \$4,126 to \$12,735; lower middle: from \$1,046 to \$4,125. These data were implemented using available literature, single state ministerial web pages, data from Globocan 2012 and World Cancer Registry, X edition.

Results

Of the 24 high-income OECD countries, 17 (71%) have CRC organized screening, while only 6 of 10 States (60%), belonging to group high-income non-OECD countries, have an organized screening. The majority of countries with a high income are members of European Union (EU), where a 2010 European Parliament resolution invited single States to adopt the screening prevention programmes.

Of 12 States with upper-middle income just 2 (17%) have an organized screening, another 17% (no. of States=2) have internal regional differences with a substantial mix of organized and spontaneous screening, 25% (no. of States=3) have just spontaneous screening and 41% (no. of States=5) there are not evidences of screening or unknown status. Of the 7 lower-middle income States, just one has an active CRC screening programme. There is no evidence of screening activity for the other six countries.

Conclusions

The data suggest a wide inequality among different European countries. Increase of life expectancy and the progressive improvement of quality of life make reasonable a major diffusion of preventive strategies.

Key message:

- Adoption of screening programmes reduces incidence and mortality of CRC. The increase of screening coverage should be a main objective of each country

Occupational Exposures and Genetics in Urinary Tract Cancers: A Systematic Review and Meta-analysis

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Background

This study represents an attempt to synthesize the current knowledge on the relationship between genetic polymorphisms, occupational exposures and urinary tract cancers.

Methods

We carried out a literature search in MEDLINE, ISI Web of science, and SCOPUS online databases of all articles published in English language up to February 2015. Meta-analysis was performed in order to provide summary estimates for the association between a certain genetic polymorphisms, occupational exposures and bladder (BC) or kidney cancer (KC), when appropriate.

Results

Thirteen studies on BC and six on KC were deemed eligible for the review. Concerning BC, an overall OR of 2.07 (95% CI, 1.38-3.09) for those with GSTM1 and an OR of 2.07 (95% CI, 1.38-3.09) for those with GSTT1 Null Genotypes carriers was reported when exposed to polycyclic aromatic hydrocarbons (PAHs). NAT2 slow genotype carriers had an OR of 3.59 (95% CI, 2.62-4.93) for BC when exposed to aromatic amines (AAs) and an OR of 2.07 (95% CI, 1.36-3.15) when exposed to PAHs.

Concerning KC and pesticide exposure, the meta-analysis reported an OR of 4.38 (95% CI, 2.28-8.41) for GSTM1 present genotype, an OR of 2.59 (95% CI, 1.62-4.15) for GSTT1 present genotype and an OR 6.51 (95% CI, 2.85-14.89) for combined effects of GSTM1 and GSTT1 active genotypes.

Conclusions

This meta-analysis indicates a possible association between the variant genotypes of GSTM1, GSTT1, NAT2 and SULT1A1, occupational exposures to AAs or PAHs and development of BC. Our results suggest that polymorphisms in GSTM1 and GSTT1 genes could influence risk for developing KC in individuals occupationally exposed to pesticides.

Key messages:

- development of BC is possibly associated to the variant genotypes of GSTM1, GSTT1, NAT2 and SULT1A1, occupational exposures to AAs or PAHs
- polymorphisms in GSTM1 and GSTT1 genes could influence risk for developing KC in individuals occupationally exposed to pesticides

Association between Mediterranean diet and gastric cancer: Results of a case-control study in Italy

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Background

High Mediterranean diet adherence is associated with reduced risk of overall cancer mortality as well as a reduced risk of incidence of several cancer types, especially cancers of the colorectum, breast, and head and neck. However, only a few studies investigated the association between gastric cancer risk and adherence to the Mediterranean diet.

Methods

A case-control study was conducted at the Gemelli Hospital of Rome, Italy. A total of 226 cases and 444 controls were interviewed. Dietary intake was assessed through a validated food frequency questionnaire that collected information on over 25 food items. A Mediterranean diet score was used to evaluate the level of adherence to the traditional Mediterranean dietary pattern. Odds Ratios (ORs) and 95% confidence intervals (CI) were estimated for increasing levels of the score using multiple logistic regression models.

Results

We reported a reduced risk of gastric cancer for increasing adherence to Mediterranean diet (OR=0.86; CI: 0.77-0.96). Risk estimates were consistent across strata of age and gender. With reference to single specific components of the Mediterranean diet, we also found a high consumption of fruit (OR=0.75; CI: 0.67-0.84), vegetables (OR=0.64; CI: 0.53-0.75) and legumes (OR=0.87; CI: 0.66-0.98) to be significantly associated with lower risk of gastric cancer.

Conclusions

Our study showed that following a Mediterranean dietary pattern may have beneficial effects on gastric cancer risk. Data on the association between Mediterranean diet and gastric cancer risk, although scarce, are promising. Efforts towards the prevention of gastric cancer by dietary recommendations could directly lead to substantial reduction of morbidity.

Key message:

- High adherence to Mediterranean diet may be associated with gastric cancer

Methodological features of prostate cancer screening models – A review of simulation models

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Background

Although Prostate-Specific antigen (PSA) screening is currently the most used prostate cancer (PCa) screening method, its benefits are still controversial. In absence of empirical data on the lifetime consequences of screening and potential overdiagnosis, which is difficult to assess in empirical studies, mathematical models are frequently used to assess the benefit-harm balance of PSA screening. Such models differ in methodological features and provide controversial results. The goal of our study is to conduct a systematic review which will answer (1) What are the necessary features that should be included in models evaluating the benefit and harms of PCa screening? and (2) How can those affect the model-generated benefit-harm results?

Methods

We performed a systematic literature search for studies modeling the effect of PSA screening in PUBMED up to March 2016. For extracting methodological features, we applied a set of criteria based on identifying key variables or processes that a PCa screening model should have to provide a comprehensive and unbiased benefit-harm evaluation.

Results

We identified 41 articles based on 28 models. 24 of those used a stage-shift approach to model the screening effects. Health-related quality of life (HRQOL) was considered in nine models. Six of the models explicitly modeled the preclinical phase and only ten models controlled for overdiagnosis. Nine models validated the clinical incidence, stage distribution at clinical diagnosis and survival against published data.

Conclusions

PCa screening models differ in important methodological aspects. Understanding the consequences of using some features will enable easier interpretation of the results and improvement in future modeling.

Key messages:

- Methodological features of prostate cancer screening model affect the predicted benefit-harm balance of screening
- Prostate cancer screening model should account for over-diagnosis and HRQoL

The burden of rare cancer among adults in Austria, 2000-2012

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Background

Burden of rare cancer is seldom studied, although in Europe rare cancers represent about 22% of all newly diagnosed cancers each year.

Methods

All malignant cancer cases diagnosed in 2000-2012 in patients aged ≥ 15 years were derived from the Austrian National Cancer Registry and classified according to the RARECARE entities (65 first and 218 second-layer entities, version December 2015). Cancers showing an average annual crude incidence rate $< 6/100,000$ in 2000-2012 were defined as rare. Relative survival was calculated for 2000-2004 and 2005-2009 based on follow-up until December 31st 2014. Reference date for prevalence was December 31st 2012.

Results

Each year about 7 000 rare cancers were diagnosed, which is 18% of all newly diagnosed cancer cases per year. 84% of all second-layer entities (183) were rare, 13 entities were not observed, and 2 entities (epithelial skin tumours) were not collected. Rare haematological, digestive, and head and neck cancers were most common comprising 57% of all rare cancers. Five-year relative survival remained stable in 2000-2009 at 53% for all rare cancers, varying from 22% (digestive cancers) to 93% (male genital cancers). 60 000 patients with a rare cancer were alive at the end of 2012 (19% of total cancer prevalence).

Conclusions

In Austria, almost one in six cancer cases among adults is a rare cancer. This is in line with the European results. Taking into account that this group consists of at least 183 different entities indicates the challenge that health care faces. Therefore increased awareness among clinicians and policy makers is needed, leading to improvement of diagnostics and treatment by (inter)national cooperation and concentration of care. Preferably, the next national cancer plan should focus on rare cancer.

Key messages:

- 18% of all newly diagnosed cancer cases per year are rare cancers among adults in Austria
- 183 different rare cancer entities indicate a big challenge for clinicians and policy makers

Personalized prostate cancer screening accounting for individual risk factors and preferences

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Background

The benefit-harm balance of prostate cancer (PCa) screening is influenced by individual risk factors, preferences, and specifics of the applied screening algorithm. We used the ONCOTYROL Prostate Cancer Outcome and Policy (PCOP) model to identify optimal screening strategies with respect to individual family history, age, disutility weighting, and life-shortening co-morbidity.

Methods

The PCOP model is a state-transition micro-simulation model simulating the consequences of PCa screening and treatment on duration and quality of life. Evaluated strategies included no screening, one-time screening at different ages, and interval screening at different intervals and age ranges followed by immediate treatment. Sensitivity analyses were used to identify strategies maximizing quality-adjusted life expectancy (QALE) for each combination of individual risk factors and disutility weighting. Screening was also evaluated in combination with biennial active surveillance (AS) delaying treatment of localized cancer until progression to Gleason score ≥ 7 .

Results

In men without elevated familial PCa risk, no screening was the preferred strategy, independent of age, disutility weighting and life-shortening co-morbidity. In contrast, men with elevated familial risk gained QALE depending on their risk and preference constellation. Optimal screening strategies varied as well. AS improved the benefit-harm balance of some screening strategies. However, strategies gaining the most QALE in men with familial risk gained less when combined with AS.

Conclusions

Based on our model assumptions, PCa screening is beneficial for men with familial predisposition only. However, benefits of screening depend on individual risks and preferences. AS may reduce benefits of screening, when gains by averted over-treatment are outweighed by losses due to delayed treatment.

Key messages:

- PCa screening may be beneficial for men with elevated familial PCa risk, but not for men with average PCa risk
- Decisions on PCa screening should incorporate individual risks and preferences

Effects of health-prone behavior concerning breast cancer on blood pressure control in hypertensives

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Background

A specific health-prone behavior, such as individual frequency of breast cancer screening, may affect other aspects of subsequent health status, such as blood pressure control. If it is assumable, intervention to a specific health behavior may change other aspects of health status.

Methods

This study was conducted as sub-analyses of intervention study regarding public education for breast cancer screening. Participants for analyses were 738 hypertensives (SBP ≥ 140 or DBP ≥ 90 , or on anti-hypertensive) at baseline survey in 2012. They were divided into three groups by history of breast cancer screening, never [reference group], irregular, and regular; with annually/biennially check-up at baseline. Better control of blood pressure was defined as SBP < 140 and DBP < 90 at follow-up survey in 2014. Logistic regression analysis was performed to estimate odds ratios (ORs) and 95% confidence intervals (CIs) of better control of blood pressure by history of breast cancer screening adjusting for age, BMI and SBP at baseline and w/o public education. Similar analysis was performed to estimate the effect of intervention about public education regarding breast cancer screening on blood pressure control.

Results

At baseline, SBP of each group did not have significant difference; 144.9 ± 17.6 mmHg for 'never' group, 143.7 ± 15.3 for 'irregular' and 141.4 ± 16.5 for 'regular' ($p = .11$). Proportions of better control of blood pressure at follow-up survey were 43% (164/382) for 'never' group, 44% (95/214) for 'irregular', and 59% (83/142) of 'regular'. Multivariate adjusted OR (95% CI) of better control of blood pressure were .98 (.68-1.42) for 'irregular' and 1.67 (1.09-2.57) for 'regular'. Any significant effect of public education about breast cancer screening on blood pressure control was not observed.

Conclusions

Health-prone behavior in cancer screening affected subsequent blood pressure control. However, two years public education of cancer screening did not have an impact on them.

Key messages:

- Health-prone behavior of cancer screening affected subsequent blood pressure control
- Short-term public education of cancer screening did not have an impact on blood pressure control

Regional lung cancer incidence trends in Croatia : emergency for public health intervention

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Background

Recent data show that more than one quarter of adult inhabitants of Croatia are everyday smokers. The aim of this study was to determine trends of trachea and lung cancer incidence in Croatia, Zagreb and Split-Dalmatia County (SDC) and compare them between regions, to stress importance of comprehensive tobacco control program.

Methods

Incidence data for the period 2001 – 2013 were obtained from the Croatian National Cancer Registry and European Health for All Database. For calculating incidence rates per 100.000

persons we used Censuses from years 2001 and 2011. Age-standardized rates of lung cancer incidence were calculated by the direct standardization method using the European Standard Population. To describe incidence trends we used joinpoint regression analysis.

Results

Lung cancer incidence rates in men show declining trend. Joinpoint analysis showed a significant decrease in the incidence for all regions, with estimated annual percentage change (EAPC) for Zagreb of -4.3%, for Croatia of -2.3%, and for SDC of -1.6%. In women there is an increasing trend. Joinpoint analysis showed a significant increase in the incidence for Croatia with EAPC of 1.6%. There was no significant increase for Zagreb and SDC. In terms of both sexes, joinpoint analysis showed a significant decrease in age-standardized incidence rates for Croatia with EAPC of -1%. There were no significant results for SDC and Zagreb.

Conclusions

This study shows there is an increase in female lung cancer incidence rate and a decrease in male lung cancer incidence rate. Those findings correlate with decreasing trend of smoking prevalence among men and increasing trend among women. Despite all of that, Croatia is still among the European countries with the highest lung cancer incidence. These **Results** stress importance of smoking prevention and cessation policies especially among women and young people.

Key messages:

- Croatia is among the EU countries with the highest lung cancer incidence
- That raises question about introducing screening in high-risk population and comprehensive tobacco control program

6.S. Poster walk: The 'Health for All' aspect of health promotion

How undergraduate students perceive the health professionals' role in smoking control in Montenegro

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Background

Some health professionals consume tobacco despite the knowledge about health risks and the role model they have in the society. The research objective was to determine potential predictors of students' attitudes toward the role of health professionals in smoking control.

Method

Total of 822 health professional undergraduate students (involvement rate was 92% and the response rate was 98%) have been included in the Global Health Professional Students Survey's in Montenegro from October 2010 to March 2011. Multiple logistic regression analysis was done with a threshold of statistical significance at $p < 0.05$.

Results

In the last 30 days, 25% of respondents had used tobacco. During the past year, 38% smokers consumed cigarettes inside the faculty premises. The importance of providing educational material to patients as a support to smoking cessation was learned by 45% of smokers and 53% of non-smokers ($p < 0.05$) but only 35% of smokers and 28% of non-smokers had received formal training on how to instruct patients to give up smoking ($p < 0.05$). Total of 64% smokers and 82% non-smokers ($p < 0.001$) believe that health professionals who smoke cigarettes are less favorable to advise patients to stop smoking. These are 5-fold more likely students aged 25-29 years and by 72% less likely students at the sixth year of undergraduate studies. Also, among them are by 52% less likely those that think that health workers do not need special training or techniques for smoking cessation and by 43% less likely students who think that smoking should not be banned in restaurants.

Conclusions

Majority of health professional students share the attitude that health professionals who smoke cigarettes are less favorable to advise patients to stop smoking.

Key messages:

- It is important to address smoking habits of health professional students regarding the role they will have in the society
- The undergraduate health professional students need tobacco-specific education

The health and economic consequences of smoking among teenagers

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Background

In this research, a sample of high-school pupils was analyzed for analyzing the habits in terms of smoking. The results were quite alarming, because more than half of the respondents smoked at least once. The percentage of students that regularly smoke at school increased for both genders towards final grades with 27%. The consequences of this phenomenon on health are visible on long term when the most difficult disease might appear- the cancer. On the other hand, the economic consequences are observed not only on short time, when the distribution in students' expenses changed in favour of cigarettes, but also on long run when they will have to spend money to solve the health problems determined by smoking.

Objectives

-describing the characteristics of the studied batch of teenagers
-identifying risk behaviours correlated to passive and active smoking

Methods

The study is a cross-sectional analysis

-the information were provided by using a questionnaire comprised of 25 questions

-the study was conducted between the 1st of March 2015 and the 1st of May 2015

-data was collected from 110 respondents, grades IX to XII, enrolled at the 'Alexandru Ioan Cuza' High School, Focsani

Conclusions

-frequency of constant smokers is on a rise in 2015 and is directly correlated to the level of education

-out of the batch of smokers the greatest percentage (18.5%) is the moderately smoking students (2-10 cigarettes/day) and the lowest the heavy smokers (8.5%)

Key messages:

- In this research, a sample of high-school pupils was analyzed for analyzing the habits in terms of smoking
- The consequences of this phenomenon on health are visible on long term when the most difficult disease might appear-the cancer

Prevalence and motivations of electronic cigarette users in university students in France and Hungary

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Background

Objectives were to measure the prevalence of e-cigarette use, to identify health-risk behaviours, to identify the motivations on e-cigarettes among university students in France and in Hungary.

Methods

A multicentre cross-sectional study was conducted in two major university students' campuses in France (Paris, Rouen) and in Hungary (Budapest, Miskolc). The students completed a questionnaire about the use of electronic cigarette, opinions, motivations of e-cigarette use and behaviours (smoking, alcohol consumption, eating disorders).

Results

A total of 2055 students were included: 1134 in France (687 in Rouen, 447 in Paris) and 921 in Hungary (769 in Miskolc, 152 in Budapest). The prevalence of current tobacco use 24.3% in France and 19.1% in Hungary ($p=0.02$). The prevalence of ever-use e-cigarette was of 23.0% in France and 27.0% in Hungary respectively ($p=0.11$); the prevalence of current use was respectively 5.7% and 3.9% ($p=0.08$). The main motivations of e-cigarette users were stopping or limiting tobacco consumption (respectively in France and Hungary, 38.1% and 18.3%, $p<10^{-4}$), and pleasure to taste e-cigarette (39.3% and 6.2%, $p<10^{-4}$). 28.7% of students in France and 23.7% in Hungary declared dangers of e-cigarettes for oneself ($p=0.03$), 32.9% of students in France and 14.5% in Hungary reported danger for others ($p<10^{-4}$). The significant behaviours associated with ever-use e-cigarette were current smoking, cannabis use and binge drinking.

Conclusions

In France and Hungary, the main pattern of e-cigarette use was similar. The ever-users have an experimenter's profile with sensation seeking. These findings are important to target the students for different awareness and prevention campaigns.

Key message:

- The students most likely to try e-cigarettes are those who engage in other substance-related risk behaviours including regular smoking, binge drinking and cannabis use, especially in freshmen year

Industrial tobacco dusts' exposure chronic impacts on workers' health

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Background

Tobacco industry develops rapidly, employs millions workers worldwide, increasing incident of workers' health problems caused by tobacco dusts' exposure (TDE). TDE may lead to tobaccosis that is difficult to detect due to the prolonged occurrence. The aim of this study was to determine the chronic impacts of TDE.

Methods

This study used an analytic cross sectional approach, and recruited 108 non-smoking indoor tobacco industry workers at Jember, Indonesia. They were classified into three groups based on TDE length of time; T0 (0–5 years), T1 (6–19 years), and T2 (≥ 20 years). Data were collected by questionnaire to evaluate workers' health history and vital signs' examination to evaluate workers' general health. As an addition, Ankle-Brachial Index (ABI) and hematological changing were being measured.

Results

Health history result showed that the problems occurred on the body entrance of tobacco dust, e.g. respiratory, eyes and skin disorder, and these problems were more common in T0 group. General health result showed about half workers had tachypnea and high blood pressure in T1 and T2 group. ABI measurement showed no arterial disease, but it was significantly lower in T1 group compare to T0 group. The Somers' D correlation test between TDE length of time and hematocrit level showed a strong negative correlation value of -0,776 and significance value of 0.000. Low hematocrit level indicated the suppression of bone marrow that was possibly caused by nicotine effect from TDE. Before showing a decline in T2 group, hematocrit level was first incline from 4 years to 10 years' exposure, possibly caused by the compensation ability on extra-medullary hematopoiesis.

Conclusions

Industrial TDE chronic impacts on workers' health similar to chronic impacts of nicotine exposure and the study of hematological changing pattern is suggested to be developed as screening examination of tobaccosis because it is applicable annually on workers' general health examination.

Key messages:

- Tobacco dusts' exposure had a long negative chronic impacts on workers' health but by hematological examination, it was possible to detect since 4 years' exposure
- Support in reducing this industrial pollutant is needed, i.e. government policy intervention and improvement on occupational disease prevention

Smoke-free outdoor public areas - a report from the Public Health Agency in Sweden

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Background

Exposure to passive smoking can be harmful to health and visual exposure can contribute to people's notion that smoking is socially acceptable, especially among youth. The Swedish government commissioned the Swedish Public Health Agency to investigate the presence of tobacco smoke and proposed measures to reduce passive smoking in public areas.

Methods

Smoking in public areas indoors were already regulated, therefore the focus of the agency's investigation were outdoor areas. The work entailed a survey of the public's exposure to smoke and their support for smoke-free environments as well as literary reviews on the spread of smoke outdoors and effects of regulations of outdoor smoking. The work also included a

compilation of international experiences and a panel discussion with stakeholders.

Results

Results show that tobacco smoke occurs in public places outdoors and that the public are exposed. The most common area of exposure was entrances, pavements and patios. A majority of the public and panel members were positive towards smoke-free areas outdoors. Smoking outdoors has already been restricted in many other countries.

Conclusions

The agency concluded that there are reasons to introduce smoke-free areas outdoors as a part of tobacco prevention work with legal means. Specifically, the agency have found that there are reasons for making entrances of public building, areas surrounding public transportation, patios, playgrounds, sports grounds and outdoor arenas smoke-free. An implementation of smoke-free areas outdoors would require further juridical investigation.

Key message:

- Extension of smoke-free public areas to some outdoor settings is suggested as a means to reduce passive smoking

Maternal smoking during pregnancy and placental abruption risk in Northwest Russia; a MCBR study

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Background

Placental abruption is a pregnancy complication that leads to separation of placental lining from the uterus before delivery. Two-thirds of placental abruptions are accompanied by fetal or neonatal complications, which includes preterm delivery. International studies show that maternal smoking increases the risk of placenta abruption, but the evidence from Russia is limited. We studied whether maternal smoking influences the risk of placental abruption development in Murmansk County, Northwest Russia.

Methods

We conducted a cohort study with data from the Murmansk County Birth Registry (2006-2011) and included singleton pregnancies (N=50,698). Placenta abruption was classified according to the International Classification of Diseases tenth revision (code O45). Information on maternal smoking was self-reported and defined as “smokers”, “smokers who quit during pregnancy”, and “non-smokers”. The number of cigarettes smoked daily was categorized as none, 1-5, 6-10, and ≥ 11 . Associations between factors were studied by logistic regression and adjusted for maternal age, education, marital status, ethnicity, residence, parity, alcohol abuse, and year of delivery. Additionally, tests for trends were used for ordinal variables.

Results

A total 1.2% (95%CI: 1.1-1.3) of women had a placenta abruption during current pregnancy. An increased risk of placental abruption was found among smokers (OR_{adj}=1.28 95% CI: 1.04-1.57) compared with non-smokers. We also found linear relationship between number of cigarettes

smoked per day during pregnancy and the risk of placental abruption (OR_{adj}=1.15 95%CI: 1.01-1.32).

Conclusions

Maternal smoking is associated with placental abruption risk in Murmansk County. Moreover, we found a positive linear association between number of smoked cigarettes per day and risk of placental abruption.

The association of tobacco control policy with trends in smoking in 33 provinces of Indonesia

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Background

Smoking is a substantial public health issue in Indonesia, as in many other developing countries. Though progress has recently been made in tobacco control policy, there are important differences between provinces in the extent of tobacco control, e.g. regarding smoke-free public places. This study aimed to assess whether such differences are related to province-specific levels of smoking between 2007 and 2013.

Methods

Regional trends in smoking were estimated by using the regionally representative data from nation-wide survey carried out in 2007, 2010, and 2013. A review of both national and provincial policies was made to identify tobacco control policies during 2004–2013. Based on this review, the Tobacco Control Scale (TCS) was calculated for each region in 2013. A regression analysis was used to assess the association of provincial TCS with prevalence of current smoking (decomposed into ever smoking and ex-smoking) and heavy smoking.

Results

Provinces with a high TCS score in 2013 had a higher level of current smoking prevalence in 2013 (OR = 0.89; CI95%:0.88-0.9). The same association, though weaker, was observed for previous years (e.g. OR = 0.95; CI95%:0.94–0.97 for 2007). In 2013, these provinces had lower rates of ever smoking (OR = 0.92; CI95%:0.91-0.94) and higher rates of ex-smoking (OR = 1.16; CI95%:1.13–1.19). A significant association was also found among heavy smoking status (OR = 0.92; CI95%:0.88-0.96 in 2013).

Conclusions

Stronger tobacco control policy at provincial level was associated with lower prevalence of current and heavy smoking, and high prevalence of ex-smoking. This study suggests that tobacco control at provincial levels, in addition to national levels, are important to reduce prevalence of smoking.

Key message:

- This is one of the first studies in the context of developing world to illustrate the potential impact of tobacco control at local or regional settings

The social patterning of smoking in Portugal: 2005-2014

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Background

Last evidence for Portugal showed that smoking was more concentrated among low socioeconomic (SE) status men. Among women, the scenario was the opposite. Since 2007, important reinforcements of the tobacco legislation have been implemented, which may have affected the smoking patterns. This study investigates the evolution of SE inequalities in smoking from 2005 to 2014.

Methods

We used data from the last two Portuguese national health interview surveys: 2005 (N = 35,229) and 2014 (N = 18,204). We measured inequalities in daily smoking and smoking cessation among people older than 15. We plotted income inequalities using Lorenz curves. We also measured educational inequalities using logistic regressions and linear regressions, adjusting for age, and stratifying by sex.

Results

The concentration curves showed that smoking was more common among the low-income men, and that inequalities increased between 2005 and 2014. Among women, the social patterns of smoking were still favouring the worse off, but the gap reduced from 2005 to 2014. The smoking cessation was however more likely in those with more income, both in men and women, in 2005 and 2014.

The men with no education had a twice higher risk of smoking than those with higher education in 2014 (OR = 2.14, $p < 0.01$), being the inequality higher than in 2005 (OR = 1.93, $p < 0.01$). Lower-educated women had a lower odds of smoking in 2014 (OR = 0.43, $p < 0.01$), but the inequality was lower than in 2005 (OR = 0.25, $p < 0.01$). Low SE status women were equally likely to quit in 2014 and 2005.

Conclusions

Inequalities among men against the worse-off have increased, and inequalities among women against the better-off have decreased, for both daily smoking and smoking cessation. These findings question the equity consequences of tobacco control policies.

Key messages:

- Between 2005 and 2014, inequalities in smoking against the worse-off have increased among men, and against the better-off have decreased among women
- These findings question the equity consequences of the strong reinforcement of tobacco control policies implemented in Portugal in 2007

Smoking status is inversely associated with overall diet quality: findings from the ORISCAV-LUX study

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Background

Relationships between food consumption/nutrient intake and tobacco smoking have been described. However, little is known about the association between smoking and overall diet quality.

Objective: To examine the associations between eight diet quality indices; the Diet Quality Index-International (DQI-I), Recommendation Compliance Index (RCI), Dietary Approach to Stop Hypertension (DASH) score, Energy Density Score (EDS), Dietary Diversity Score (DDS), Recommended Food Score (RFS), non-Recommended Food Score (non-RFS), and Dietary Inflammatory Index (DII), with smoking habits.

Methods

Analyses were based on a sample of 1351 participants in the Observation of Cardiovascular Risk Factors in Luxembourg survey, a nationwide cross-sectional study of the adult population aged 18–69 years. FFQ-based nutritional data were used to compute selected diet quality indices. Descriptive

and linear regression analyses were performed to examine the relationship between diet quality indicators (dependent variables) and smoking status (independent variable), after adjustment for several covariates.

Results

Compared to other groups, heavy smokers had significantly higher prevalence of dyslipidemia (83%), obesity (34%), and unfavorable glycemic profiles. About 50% of former smokers had hypertension. Diet quality of current smokers of at least 20 cigarettes per day was significantly poorer than those who never smoked independent of several socioeconomic, lifestyle, and biologic confounding factors (all $p < 0.001$). Heavy smokers (>20 cigarettes/d) were less compliant with national dietary recommendations, expressed by RCI, DQI-I, and RFS. Smokers consumed a diet associated with a pro-inflammatory profile and self-reported less dietary diversity in their food choices.

Conclusions

This study provides new evidence concerning an inverse relationship between the intensity of tobacco consumption and overall diet quality.

Key message:

- Efforts aimed at smoking cessation should take into account nutritional habits, which could increase overall intervention effectiveness

Alcohol attributable hospitalizations in resident population of Friuli Venezia Giulia Region, Italy

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Background

Alcohol is a preventable risk factor for morbidity. This study aims at quantifying the morbidity related to alcohol consumption in the resident population of Friuli Venezia Giulia (FVG) Region, Italy, (approximately 1.200.000 inhabitants).

Methods

Hospitalizations of residents with ICD-9-CM discharge codes for alcohol related diseases and conditions from 2001 to 2013 were identified in the hospitalization database included in the Regional Repository for MicroData. Alcohol related diseases and conditions were defined according to the US Centers for Disease Control and Prevention (CDC) Alcohol Related Disease Impact (ARDI) classification. Alcohol attributable hospitalizations were identified on the basis of ICD-9-CM codes and quantified applying to the number of persons hospitalized at least once for each cause the corresponding ARDI Alcohol Attributable Fraction (AAF).

Results

Hospitalizations for alcohol related diseases accounted for 1,2% of all hospitalizations, of these 16.131 (0,6% of total) were for causes totally (TA) and 16.184 (0,6% of total) partially (PA) alcohol attributable. The leading causes of TA hospitalizations was alcoholic liver cirrhosis (42,5%), followed by alcohol dependence syndrome (23,1%) and alcohol abuse (15,6%). The leading causes of PA hospitalizations were supraventricular cardiac dysrhythmia (20,8%), liver cirrhosis (14,5%) and epilepsy (8,9%).

Conclusions

Hospitalizations for chronic diseases, requiring high health care resources, were prevalent. Public health policies aimed at reducing alcohol consumption may reduce morbidity and hospitalization costs.

Key messages:

- Hospitalizations due to alcohol attributable disease are mostly chronic causes
- Prevention policies aimed at reducing alcohol consumption are fundamental to reduce morbidity

Characteristics of the Drunk Drivers of 2014 Driver-Behavior Improvement Program-Ankara, Turkey

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Background

The share of road-traffic-accident-deaths is 2.4% of total deaths, driving-under-the influence(DUI) is responsible from 0.02% of driverfaults causing road-traffic-accidents in Turkey. DUI law gives a blood-alcohol-content limit of 0.05 and breaching the drink-driving-limit is punishable with a six-month driving-ban first-time, two-years-driving-ban plus compulsory attendance (4.5 months) to “Improvement-of-Driver-Behavior-Program-IMDBPRO” conducted by Health Ministry for the second-time with monetary-penalties.

Objective: The aim of the study is to define sociodemographic features of the drunk-drivers (DD) to develop policy for decreasing DUI.

Methods

This descriptive study consisted records of 835 IMDBPRO attendants of the capital province-Ankara in 2014.

Results

General-profile of the study-group are: 98.2% male, 37.1% between ages 30-39, 34% had minimum 12 years of education, 42.8% had a valid license for 10-years minimum, 41.6% unskilled-worker, 79.4% middle-income-group, 61.8% married, 64.4% have children, 71,3% drink alcoholic-beverages from-time-to-time, 4,5% ever-used addictive-substances, 6% declared mental-health-problem, 33.2% perform physical-exercise usually. During the driving-ban period, 48,6% of them declared that they drive a car at least-once.

Conclusions

In combating crashes involving-DD, it is essential to adopt a multi-faceted approach combining legislation and enforcement with others. This pioneering attempt gave us insight to improve the DUI-programs and policies. Our report and re-designed data-collection-form was submitted to the Health Ministry. A national-program to reduce the number of road-crashes involving alcohol is a long-term-commitment with many components such as implementing/strengthening-legislation, the enforcement of drinking and driving-laws, punishments and sanctions for offenders, and targeted-public-information with the help of these studies that defines the target DUI population for campaigns/community-programs.

Key messages:

- By defining the target DUI, it may be possible to develop more precise programs and policies
- In combatingcrashes involving DD, it is essential to adopt a multi-faceted approach combining legislation and enforcement with others

“Rewarding Change: The REACT Project on Your Campus” Tackling alcohol-related harm in a strategic way

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Background

Throughout the past twenty years, national policies have noted the importance of students when tackling alcohol consumption. Recently, efforts to support a sector-wide approach to alcohol have continued with the formation of REACT (Reducing Excessive Alcohol Consumption in Third-level). REACT aims to develop a National Accreditation and Award System for third-level institutions, rewarding an institution’s efforts to reduce alcohol-related harm.

Methods

A range of methodologies were used in the development of this programme. Firstly, a systematic review of available action plans in school, university and community settings was undertaken. Secondly, key stakeholders from each national institution were invited to a Knowledge Exchange Forum where the Delphi Consensus Method was utilised to encourage the input of all members. Finally, content analysis of this Knowledge Exchange Forum was undertaken to determine the final list of action points.

Results

The final list of mandatory and optional action points incorporate both practical and intervention level measures to produce environmental change. These include the need for a steering committee, an online brief intervention tool and a monitoring system for alcohol harm indicators. Members noted the need to “put in place structures for commitment” and implement “interventions for change” but were concerned about the role of the institution as “governor” or “protector” along with the “resources” required. Finally, members noted concerns around the institutions “public relations” surrounding their students’ alcohol consumption.

Conclusions

The REACT Award provides a structure to translate policy into practice and tackle the excessive consumption and related harm associated with alcohol among university students in Ireland.

Key messages:

- The REACT Project outlines a clear methodology for public health practitioners attempting to reduce excessive alcohol consumption among university students
- The REACT Project provides an award and accreditation scheme which acknowledges the work of institutions as they tackle alcohol consumption

Reducing Alcohol Related Harm - Evidence-based Good Practices Tool Kit

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Joint Action on Reducing Alcohol Related Harm is an initiative under the EU health programme to take forward the work in line with the first EU Strategy on alcohol related harm. The work is carried out through a cooperation by expert organisations from 32 European countries. RARHA’s Work Package 6 aims to present a Tool Kit of interventions that have demonstrated their effectiveness, transferability and relevance. In the communication with MS representatives and WP 6 partners we decided to collect the examples of good practices appertain to one of the three groups of interventions: Early interventions, Public awareness and School-based interventions. Using RARHA’s network and CNAPA we have searched for professionals experienced in alcohol related interventions, with a good overview and knowledge on interventions in their country, to provide reliable data at country level. In order to assess the collected examples we have developed the Assessment criteria based on an existing Dutch system for evaluating health-based interventions. The interventions were

assessed based on the following criteria: a. Intervention is well described, b. Intervention is implemented in the real world/feasible/transferable, c. Intervention has a theoretical base and d. Intervention has been evaluated. There are four levels of evidence-based depending on the design of the studies that were looking into the effects of the intervention.

48 cases were collected, 43 with basic evidence base, of which 26 were accepted into the Tool Kit (57%). From these eleven Early Interventions (52%), seven Public Awareness Interventions (78%) and eight School Based Interventions (62%) were accepted. The printed Tool Kit with accepted interventions will be presented and delivered. Recommendations for preparing the good practice approaches arising from our work in RARHA will be presented in detail.

Key message:

- The Tool Kit will facilitate exchange between MS public health bodies and provide practical guidance on the preparation and adoption of evidence-based interventions to reduce alcohol related harm

Alcohol among Students of Social Work Study Programme

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Background

The objective is to examine the experience with alcohol use and related risk behaviors among students at the Faculty of Social and Economic Studies, University of Jan Evangelista Purkyně in Usti nad Labem, with special attention on the differences between the study programs. According to the previous studies from other universities and the HBSC studies,

the Czech youth use alcohol extensively. The students of social work study program are trained to care about disadvantaged groups, including those with high alcohol use. It is supposed that the helping professions need to have a higher resistance to the psychopathological behavior. Is there any difference between the students of social work and the students of other study programs (business management, financial management, regional studies)?

Methods

The research design is a cross-sectional questionnaire survey; the questionnaire is composed of selected questions from the ESPAD 2007 questionnaire, the CAGE test, and some own questions. The data were collected in 2015. The sample consists of 373 students (293 females, 80 males), from which 165 respondents are students of social work, 206 are students of other study programs, 2 respondents with missing information on study program.

Results

In total, 93.3% of the students had consumed alcohol in the last thirty days (96.4% of the students of social work; 90.8% of students of other study programs). 18.4% of the students reached a score higher than 1 in the CAGE test (14.9% of females and 31.3% of males; 16.5% of social work students and 19.2% of those from other study programs). After consuming alcohol, 26.4% of students had an experience with sex they regretted and 23.8% had an experience with unsafe sex.

Conclusions

It seems that better information on social problems related to alcohol use does not influence the behavior of social work students. The similar results were found for the social work students in Bratislava and Banska Bystrica (Slovakia).

Key message:

- Preventive measures should be applied even to the university students that are well-informed about problems associated with the alcohol use

FRIDAY 11 November 16:40-17:40

7.R. Poster walk: Austerity and outcomes

Raising equity in prevention policy making in Italy: Results of an assessment of the 21 regional plan

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Background

In the recent years, Italian health policies increase their aware on health inequalities (HI) issues. A clear political commitment aimed at reducing HI was included in the National Plan for health prevention and promotion (2014-2018) (PNP). During 2015 each Italian Regions (IR) elaborated and approved by law its prevention plan (PRP) according to the PNP. To support this process a factsheet for each IR describing educational inequalities (EI) in the exposure to risk factors (RF) was provided. To assess the level of adherence to the national direction, an evaluation of the 21 PRP was performed.

Methods

A checklist for the evaluation of the PRP was developed and discussed with experts. Both the systemic approach and the programs section of each PRP were independently evaluated by a reviewer. Frequency of success was calculated for each dimension investigated in the 21 PRP. An overall score assessing the regional level of adherence to the national

recommendation was computed and compared to the size EI in the exposure to the RF targeted by the PRP in each IR.

Results

21 PRP and 194 programs were assessed. 13 PRP considered the need to address HI and 8 declared to have used quantitative information on HI for priority setting. 8 PRP monitored the magnitude of HI, but only 6 decided to set specific actions tackling such disparities. Overall 4 IR failed to comply with the national recommendation to include equity in the PRP, while 14 faced the challenge with different level of engagement in equity. The adherence to the equity recommendation and the size of inequalities in exposure to RF were not correlated.

Conclusions

In a short time it has been possible to push the IR to incorporate the issue of equity in prevention in the majority of their PRP, thanks to the special effort of dissemination of evidence on HI tailored to each IR. However, evidence of high level of HI is neither sufficient nor necessary to encourage decision makers to raise equity in their agenda.

Key messages:

- Our results showed that more than half of the Italian Regions adhere at different level to the national directions on equity issues
- This first evaluation provides a snapshot of the Italian commitment on HI issues in the prevention policy

Capacity building in reducing health inequalities in Lithuania: needs of public health professionals

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Background

Health inequalities are considered as important attention is given for tackling this public health challenge. This study aims to investigate the needs of public health professionals in capacity building of monitoring and reducing of health inequalities in municipalities.

Methods

A cross-sectional survey was conducted in 2015 on a sample of 150 health care specialists from administrations of municipalities and public health bureaus in Lithuania. The scale from 0 to 5 was used for the assessment. Average scores and standard deviations were used in data analysis.

Results

Respondents have identified planning of activities (4.15), development and running of public health projects (4.12) as a key factors for effective monitoring and reducing of health inequalities at municipal level. Reducing of health inequalities has been identified as the most relevant topic for professional development (4.10). Other desirable themes for professional development were project management (4.0), decision making (3.96), and monitoring of health inequalities (3.91). Public health professionals have emphasized that main problems in reducing health inequalities are insufficient intersectional collaboration (73.3%), uncertain model of programs implementation (52.0%), absence of clear objectives (42.7%), shortage of skilled professionals (42.7%) and short-term programs (40.0%).

Conclusions

The study stressed shortcomings in monitoring and reducing health inequalities in Lithuania. In order to facilitate in tackling health inequalities, the project "Development of the Model for the Strengthening of the Capacities to Identify and Reduce Health Inequalities" has been launched, which is financed by the Norwegian Financial Mechanism. It is expected, that project will facilitate as accelerating factor for reducing health inequalities in Lithuania.

Key message:

- The strengthening of partnership among public health professionals and employment of action plan is obvious in order to reduce health inequalities in municipalities as well as country level

Inequalities in oral health: Results from the First Portuguese National Health Examination Survey

Liliana Antunes

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Background

Dental cavities and gum diseases are among the most prevalent preventable diseases worldwide. Social determinants play a key role as it is well established that poor health is higher among the most disadvantaged. This study aimed to describe preventive oral hygiene habits of the Portuguese population and assess socioeconomic inequalities in oral preventive care.

Methods

In Portugal, the First National Health Examination Survey was conducted in 2015. Oral hygiene habits and use of oral health services were assessed in a random sample of 4911 individuals (25 to 74 years old) by personal interview. Brushing teeth 2 or more times per day and before bed was defined as regular teeth brushing and regular visits to the dentist was defined by going to the dentist in the last year before the interview for check-up or routine treatment. Poisson regression was used to estimate adjusted prevalence ratios (aPR) of regular teeth brushing and routine visits to the dentist according to sex, age group, education and employment status.

Results

Regular teeth brushing was reported by 65% of interviewed individuals and 34.2% reported regular visits to the dentist. Women (aPR=1.4 [95%CI 1.3-1.5]) and higher education were associated with regular teeth brushing (aPR=1.7 [1.5-1.9]) and visiting the dentist (aPR=2.5 [2.0-3.1]) while unemployed were less likely to visit the dentist (aPR=0.7 [0.5-0.9]).

Conclusions

Around 2/3 of the Portuguese population reported regular teeth brushing, meaning that 1/3 has inadequate oral hygiene habits.

Public health interventions that focus on the most disadvantaged population subgroups are required to promote better oral health.

Key message:

- Oral Health programs and services should include different socio-economic groups and life course approaches

Changes in socioeconomic determinants of prescribed and non-prescribed medicines use in Austria

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Background

Consumption of prescribed and non-prescribed medicines can be impacted by a number of factors in the health care system as well as in society. Economic development such as a global financial crisis might also affect medicine utilization. The study aims to survey possible socioeconomic inequalities in medicine use in Austria as of 2014 compared to 2006/2007 against the institutional background.

Methods

We analysed cross-sectional data from the second wave (2014) of the European Health Interview Survey and compared it with results from the first wave in 2006/2007. Multivariate logistic regression analyses were performed in order to determine the association between the socioeconomic status (measured by education, income, and employment status, controlled for age, gender, health status and outpatient visits) and utilization of prescribed and non-prescribed medicines in Austria.

Results

Preliminary results indicate an increase in the overall consumption of medicines and in non-prescribed medicines and a decrease in the utilization of prescribed medicines. According to our preliminary findings for both 2006/2007 and 2014, people with higher education were more likely to consume non-prescribed medicines, whereas people with lower education were more likely to utilize prescribed medicines.

Conclusions

These preliminary results are in line with findings about socioeconomic determinants in other areas of health resources,

confirming that higher educated people likely consume more health resources paid out-of-pocket such as non-prescribed medicines. The stable pro-worse-off education gradient for prescribed medicines over the years suggests that past pharmaceutical policies in Austria were able to contribute to equitable access to prescribed medicines.

Key messages:

- Since 2006, Austria has seen decreasing use of prescribed medicines and increasing use of non-prescribed medicines, but a stable education gradient
- The results suggest growing inequity in the consumption of non-prescribed medicines

Access to health services for migrants in Turkey

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During the last decade migration has become one of the most important social, political and public health problem in Turkey. In Turkey by March 2016, there are 265.494 refugees and asylum seekers based on United Nations High Commissioner of Refugees (UNHCR). On top of that there are 2.715.789 Syrian refugees also living in Turkey. The new law that has been published in April 2013, that is named "The Law for Foreigners and International Protection"; provides national health assurance also to asylum seekers while previously it was only available for refugees. This study aims to find out and define the problems of migrants in reaching to health services after the establishment of the new Law and to determine problems experienced by health workers including medical professionals and non-medical professionals (front desk receptionist, registration desk or paying agents), who are working in the health sector. This is a descriptive study which includes qualitative data. Study design is based on semi-structured interviews with refugees in Istanbul at the Human Resources Development Foundation (HRDF). Interviews with the conditional refugees took place at the HRDF Istanbul office between 06.11.2015 and 08.01.2016. Among 30 people interviewed 14 (46,67%) were from Iraq, 12 (40,00%) from Iran, others were from Somali, Sudan, Central African Republic and Ethiopia. When we analyze their UNHCR status 11 (36,67%) among them got the "Refugee" status and average of waiting time was $24,18 \pm 9,96$ months to get this status. On health issue the main problem mentioned from interviewers was not knowing the rights. The society in Turkey is changing and the health problems are going to be much more diversified and there for health services has to attune to this evolution. Even though there has been done big steps regarding access to health and health insurance coverage, still most of the conditional refugees do not know their rights and where they can have the information about it.

Key messages:

- The society in Turkey is changing and the health problems are going to be much more diversified and there for health services has to attune to this evolution
- Even though there has been done big steps regarding access to health, still most of the conditional refugees do not know their rights and where they can have the information about it

Refugee Health Awareness and Empowerment Program in Hamburg, Germany: "REFUGIUM"

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Issue

Germany received about 1 Mio refugees in 2015. They mostly live in camps, and have specific health needs. Living conditions, stigma and exclusion as well as insufficient access to adequate health care lead to trauma and foster the development of posttraumatic stress disorder as well as diseases. This is why we developed a peer to peer activating multi-lingual health awareness program.

The problem is that refugees have no sufficient information about the German health care system and feel paternalized. So how can we empower refugees? How can we activate, transfer and complement their knowledge about health to stay healthy?

Results

We developed a practical peer-to-peer health awareness intervention program together with refugees and with students of refugee background from September 2015 to July 2016. Evidence-based information is assembled in flyers and communicated in peer-to-peer workshops facilitated by students and refugees together. Content focuses on access to local health care and rights to care, mental health, physical activity, nutrition and hygiene. Flyers and peer facilitator manuals have been developed in 8 languages. The intervention raises awareness about primary, secondary and tertiary prevention, regarding the most important dimensions of refugee health.

Problems faced are multilingual content management, winning refugees to become facilitators, and managing the high expectations of our facilitators during training. Positive results are empowerment, multilingual flyers and training manuals. Lessons learnt are that refugees are very interested in prevention and in maintaining and improving their mental health. We integrated mental health in a holistic setting approach that is empowering, and non-paternalistic way.

Key message:

- REFUGIUM empowers refugees in a multilingual peer-to-peer health awareness program through a health promotion, prevention and resource oriented approach

An integrated and multidisciplinary approach in taking charge of migrant in the ASL RM4

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Issue

In the territory of the ASLRM4 insist 5 centres for migrants with about 1200 guests. The governative Accommodation Centre for Asylum Seeker (CARA) of Castelnuovo di Porto (CNP), hosts the largest portion of migrants: in april they were 900, among which 102 females and 20 minors.

Description of the problem

The migrants represent a fragile population from the health viewpoint and, although the mean age is between 18 and 35 years, it is necessary an integrated approach to take charge of these subjects.

Results

Through the constitution of the ASL Plan Migrate to Health and the connection between the Districts, the departmental Services and the governmental or private Structures that manage health activities in the Centres, it is guaranteed an assistance as global as possible. This includes medical visits, nursing, release of health card for "foreigners temporarily present" (STP), dedicated clinics carried in the Centres by the general practioners, facilitated pathway to specialist visits, cultural mediators. Particular importance is given to prevention that sees training moments and mutual confrontation as well as an extensive vaccination activities. For that purpose in 2015 were vaccinated 740 migrants

for a total of 868 vaccines; in the first four months of 2016 the vaccinated migrants were 354 and the vaccinations have been 391. All subjects were offered polio vaccination and post-exposure tetanus; to children and people with chronic diseases have been offered all vaccinations given by the Vaccination Prevention Plan of the Lazio Region, included flu, pneumococcal and hepatitis vaccines. Vaccinations were performed with various organizational methods in the different Districts.

Lesson

In the CARA of CNP the vaccination activities in the Center and the close link between the ASL operators and the CARA staff have allowed a widespread activities of information that led to vaccine coverage higher to 80% in a population subject to strong mobility.

Key messages:

- The migrants represent a fragile population from the health viewpoint needing an integrated approach
- The close link between ASL and CARA operators led to vaccine coverage higher to 80%

Does socioeconomic status influence risk of gastrointestinal infections in the community in the UK?

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Background

Infectious intestinal diseases (IID) are common, leading to diarrhoea and vomiting as well as more serious health problems, affecting around 25% of people in the UK each year with an estimated cost to society of £1.5 billion. Many infections are known to vary by socioeconomic status (SES) however the role of SES in risk of GI infection in developed countries is not well understood. This study therefore aims to investigate the role of SES in the risk of developing an IID in a large nationally representative UK community cohort.

Methods

Longitudinal analysis of a prospective community cohort study following 6,836 participants in the UK in 2008-9. Participants reported symptoms of IID experienced which were then categorised as episodes of IID or not using a standardised definition. The incidence of IID and risk ratios by socioeconomic status measured by individual occupation, were calculated whilst adjusting for follow-up time and potentially confounding demographic factors.

Results

In this representative UK sample, results indicate that IID incidence was significantly lower in routine/manual occupations compared to managerial/professional occupations (166.3/1,000 person-years (95%CI 140.0-197.4) vs 235.4/1,000 person-years (95%CI 216.6-255.8), IRR 0.71 (95%CI 0.58-0.86)). In the fully adjusted analysis, the rate of IID was significantly lower in individuals with routine/manual occupations compared to managerial/professional occupations (HR 0.74, 95%CI 0.61-0.90).

Conclusions

In this large community study in the UK lower SES was associated with lower incidence and risk of IID. This finding may be partially explained by differences in recognition of IID

symptoms by SES however, further research will be conducted to explore the role of healthcare seeking behaviour and other potentially mediating exposures to complement these results and help to explain the relationship between SES and IID.

Key messages:

- This study found that lower SES was associated with lower incidence and risk of IID which may be partially explained by differences in recognition of IID symptoms
- Further research into the role of healthcare seeking behaviour and other potentially mediating exposures such as the environment, travel, diet and eating outside of the home will be conducted

Socioeconomic inequalities in obesity prevalence: Portuguese Health Examination Survey results

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Background

Obesity is recognized as a serious public health issue, both as a disease in itself and as an important risk factor for cardiovascular diseases and diabetes. The First Portuguese National Health Examination Survey (INSEF 2015) aimed at obtain in-depth knowledge about health status and determinants and contribute to the reduction of health inequalities. The goal of this analysis was to estimate the prevalence and to assess socioeconomic inequalities in obesity, through direct measurement of weight and height.

Methods

INSEF is a nationally representative cross-sectional prevalence study conducted on 4911 adults aged 25-74 years old, in 2015. It included physical examination, blood collection and personal interview. INSEF participants' height and weight were measured according to European Health Examination Survey procedures. Obesity was defined as body mass index ≥ 30 kg/m². Poisson regression was applied to estimate prevalence ratios (aPR) of obesity according to sex, age group, education and employment status, adjusted for confounding.

Results

Overall national prevalence of obesity was 28.7%, [95% CI 26.8; 30.6]. The prevalence of obesity was higher among females (32.1%, aPR =1.3, [1.2, 1.4]) than males (24.9%). Prevalence was higher in 65-74 years old age group (41.8% vs. 12.5%, aPR=2.4, [1.5, 3.6]) compared to the 25-34 years old group. Individuals with no education or first grade basic education had double the prevalence of obesity than those with higher education (14.7% vs 43.1%, aPR=2.1, [1.6, 2.8]).

Conclusions

Obesity affects 287 per 1000 adults aged 25-74 years old in Portugal. INSEF provides evidence that a higher prevalence of obesity is found in older individuals, with lower education levels. Public health interventions that focus on specific population subgroups are required for obesity prevention, namely, throughout health literacy strategies.

Key messages:

- In Portugal, the number of individuals affected by obesity remains high
- Public health interventions are required to promote obesity prevention, namely, throughout health literacy strategies

Social inequalities in health in older women

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Background

Little research attention has been paid to social inequalities in health in older women on the account of the assumption that social circumstances become less diverse with advancing age.

Methods

Data from a cross-sectional health survey in Norway of 6380 women aged 70 to 103 were analysed. Logistic regression was applied to analyse variation in health by socioeconomic factors.

Results

Analyses showed that disadvantaged socioeconomic status (low educational level and previous manual or never been in paid work) was significantly associated with poorer health outcomes, whether measured as self-assessed poor health, limiting long-standing illness and depression. The social gradients in health were consistent and pronounced. Educational inequalities in health increased with advancing age, indicating that educational disadvantages may accumulate through life and increase differences late in life. Social inequalities in health persisted upon adjustments for age and medical conditions (cardiovascular disease, cancer, musculoskeletal conditions). Income (no data) may lead to social differences in health, but pensions in Norway are universalistic and generous, hence material deprivation was not likely to explain the health differences.

Conclusions

Social inequalities in health among older women are persisting, and could not be explained by age or medical conditions. Older women in lower social positions had poorer health than women more favourably placed. The study adds to the understanding of consistent associations between previous social disadvantages and poor health at older ages. Maintaining health in old age and reducing health inequalities by avoiding that those in poorer social conditions suffer worse health in later life than those socially better positioned, is a public health issue. Rightly so, as current health and welfare policies have a long term effect on health and any current produce of health inequalities might prove difficult to level in the future.

Key messages:

- Persisting social inequalities in older women
- Increasing educational inequalities in health with advancing age

Psychical violence against women in the Province of Vojvodina

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Background

Psychical violence against women is a serious social and public health problem in all parts of the world which has consequences on health. The aim of this study was to examine the prevalence of psychical violence against women and its associations between demographic and socioeconomic determinants in the Province of Vojvodina.

Methods

Research was conducted as a cross-sectional study on a sample of 1356 women aged 20-65 years in Vojvodina, as a part of the Health Survey in Serbia, 2013. The research instrument was a questionnaire. Psychical violence in the last 12 months was analyzed at the workplace, as domestic violence and on the

street. The association between demographic (age, type of settlement) and socioeconomic factors (DHS Wealth Index, education), and psychical violence was examined using univariate and binary logistic regression.

Results

Out of total sample, 59.9% of women were from urban area, the high level of education had 15.8% of women and 27.6% had a low education. Every eighth women was exposed to psychical violence (13.1%): at the workplace violence was reported by 56 women (5.0%), domestic violence by 72 women (5.9%), on the street by 39 women (3.4%). The type of settlement and education level were shown as predictors of psychical violence at the workplace, while age and Wealth Index were not. Women with high level of education have 3.4 times higher chance to be exposed to psychical violence compared to women with low education (OR = 3.43; 95%CI 1.20-9.80), while women from urban area have 2.8 times higher chance to be exposed to psychical violence compared to those who are from a rural area (OR = 2.76; 95%CI 1.34-5.68). Domestic violence and violence on the street did not show significant association with demographic and socioeconomic determinants.

Conclusions

The results indicate significant prevalence of psychical violence against women and the necessity of better understanding of the problem in order to protect women's health.

Key messages:

- The psychical violence against women is a significant risk factor for women's health and requires special approach by the public health sector in problem solving
- Recognizing violence against women by health care professionals and adequate intervention is necessary in the prevention of disorders of women's health

Development of area-level census-based indices of socioeconomic deprivation: review

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Background

After a long history in the UK, including traditional (e.g. Townsend) and more complex i.e. Index of Multiple Deprivation of 37 indicators organized in 7 domains, several European countries have started to develop composite indices of the socioeconomic standing of areas.

Methods

Literature search with three groups of terms to define the subject: deprivation index etc, the purpose: develop, construct etc, and the level of aggregation/type of data: small-area, community, census etc. Selection criteria: development of new area-level index of socio-economic deprivation (not use of existing indices or other constructs) using aggregate post-1999 census data (not surveys), developed countries, English language.

Results

With the exception of a Swiss study that involved 1.27 million overlapping neighbourhoods of 50 households, across 15 European studies and 7 from elsewhere, level of aggregation and coverage ranged from a set of communities within a single city or cities to >30000 small-areas nationwide. Choice of census variables (range 4-52) was commonly based on availability and/or previous studies, and less on theoretical approaches. Principal component analysis was commonly employed to select the final set of variables in the composite index (range 4-49) with or without use of weights. In terms of validation, most studies included an assessment of the social gradient in all, cause-specific or premature mortality or other health outcome, or correlation with an established index. Across indices, most common variables in descending order

were unemployment, educational attainment, income, overcrowding, occupational status, lone-parent households or demographic composition variables.

Conclusions

Certain aspects of deprivation, such as income, employment and education are better represented in composite indices rather than other domains, such as health, access to services, crime and living environment, most likely a result of data unavailability.

Key messages:

- Area-level indices of deprivation are an important tool for policy and research
- Important domains of deprivation are not always captured in these indices

Systematic scoping review of proposed explanations for “excess” mortality in Scotland

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Background

This systematic scoping review was commissioned by NHS Health Scotland as one of a number of projects to investigate reasons behind ‘excess’ mortality in Scotland compared to other parts of the UK. It aimed to identify explanations for (1) the high mortality in Scotland, or parts of Scotland relative to comparable populations (2) excess mortality between otherwise comparable populations.

Methods

Ten electronic databases were searched in November 2014, plus searches of relevant websites and a structured internet search. Potentially relevant records were screened by one reviewer with a random 10% double screened. Data was extracted into the categories: Countries compared; Study design; Outcomes reported; Hypotheses proposed (if any).

Results

27,723 articles were screened and 837 included (1) Half of the 305 included studies mentioned deprivation or deprivation-related artefacts as an explanation for excess mortality in Glasgow or Scotland. The next largest category (29%) related to health behaviours. Other significant explanations related to political attack, effects of policies, health services supply and demand, deindustrialisation, different culture of substance misuse, possible mechanisms, migration, lower social capital, poor housing, life course effects, artefacts of measurement and the external physical environment.

(2) In the international literature (n = 532), the largest category related to health behaviours (37%), with deprivation featuring in 32%. Other significant explanations related to health services supply and demand, income inequalities, artefacts of measurement, political attack or effects, social capital, different culture of substance misuse, and genetic differences.

Conclusions

There is a great deal of relevant literature offering explanations for “excess” mortality. Further research that includes validity assessment of these studies would be necessary to understand the reasons more fully and to ascertain which are the most robust.

Key messages:

- Further research might focus on the links between “downstream” (e.g. health behaviours), “midstream” and “upstream” levels of explanations for excess mortality both in Scotland and internationally
- It would be of interest to explore similarities and differences between upstream influences, health behaviours and linked outcomes in Scotland and in eastern European countries

Avoidable mortality in time of crisis (2006-2012 Italian regions different experience)

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Issue

The period between 2008 and 2014 was characterized by an intense economic and financial crisis that began in the US and later run over Europe, however, are not yet clear the impact on the population health and health systems.

Description of problem

The goal of our research is the evaluation of such impact on different Italian Regions using the Gross Domestic Product (GDP), the unemployment rate, the number of families below the threshold Relative Poverty, the Gini Index, and as health indicator the Avoidable Mortality. This retrospective study was conducted between 2006 and 2012 using data from Italian National Institute of Statistics (ISTAT), subdividing by area the standardized rates of ‘Avoidable Mortality’ divided in the following areas: Prevention and health promotion NOT Sanitary competence, Health promotion of health service competence, Collective prevention, Early diagnosis and therapy, Basic health care, Hospital care, Health care ‘in toto’. Each indicator was analyzed using a non-parametric test for trend across ordered groups. To correlate the variation of economic indicators with avoidable mortality was used panel data analysis.

Results

The economic indicators show two subintra crisis phases (2008-2009; 2011-2012). Some Regions (Trentino A.A. and Tuscany) seem less vulnerable to the economic impact on the health system and show a reaction capability of their organizations, while other regions are suffering the most. Interesting observations appear comparing the different components of Avoidable Mortality, showing a variable time lag specific of each health areas. The latency of avoidable mortality depends to health area examined, some areas allowing rapid assessment, while for others it is not yet possible to determine the real impact of the economic crisis.

Lesson

Already high unemployment values and inequality exacerbated by the crisis, seems make faster the rise of Avoidable Mortality which signs of weakness in different areas of the health system

Key messages:

- The economic crisis seems to have an impact on the population health increasing the levels of avoidable mortality
- The southern regions are suffering in almost all health areas

7.S. Poster walk: Mental health and urban health

Improving the understanding of policy-makers regarding the major factors affecting population health

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Background

Health inequalities have been increasing in Europe, namely within urban areas, reinforcing the need to advance knowledge of policies with the highest potential to address them. This challenge requires the 1) recognition that a broad range of social, economic and environmental factors influence health and 2) measurement of population health in multiple dimensions and criteria and on various geographical levels, from national to local. Two research projects (GeoHealthS – applied to Portugal and EURO-HEALTHY - applied to European regions and 10 metropolitan areas) produce evidence on the role of a multidimensional tool supporting health inequality analysis and illuminate the major factors affecting population health.

Methods

The Population Health Index (PHI) is based on a socio-technical approach that introduces transdisciplinary research taking into consideration not only a set of indicators for health determinants (e.g. economic, social, demographic, behavioural, environmental, health care services) and health outcomes (mortality and morbidity), but also the points of view of stakeholders and experts from various areas of knowledge. The index was applied to the municipalities of Lisbon Metropolitan Region (LMR), EURO-HEALTHY case study, using data from 2011. The results were integrated in a WebGIS platform.

Results

The PHI show the health performance of each municipality in overall terms, in health determinants and health outcomes. The geographical analysis reveals inequalities in major areas of concern related to the social, economic and environmental determinants of health. As for the health outcomes, the majority of LMR municipalities perform below the reference values on mortality and morbidity.

Conclusions

Through the integration of the index outcomes in a WebGIS platform, local policymakers had the opportunity to understand what factors were contributing to the health performance of the municipality and which priority action is needed.

Key messages:

- The PHI is a useful measure to analyse population health accounting not only the health outcomes but also the broad range of economic, social and environmental factors affecting population health
- A WebGIS platform provides comprehensive snapshots of population health, supporting health inequalities analysis and raising awareness on the major health problems of each geographical area

Cancer and depression – A comparison of cancer survivors with the general population

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Background

An increasing number of people in Europe are living with cancer, either as an active disease or as a past experience. The experience with a life threatening disease may be expected to have a deteriorating effect on mental health and well-being. Our study compared self-reported symptoms of depression in people who currently or previously have experienced cancer with self-reported symptoms of depression in the general population.

Methods

Our study was based on the European Social Survey 2014 with representative samples from 21 countries. Depression was measured by an 8 item CED-D Scale, analysed in two ways, as a continuous variable and as a dichotomous variable with a cut-point of 1. The main explanatory factor is the threefold classification of the sample into people currently had cancer, people who previously have had cancer, and people who never have experienced cancer.

Results

People who at the time of the interview had cancer, reported more symptoms of depression than people who previously have had cancer, and people who never have experienced cancer reported fewer symptoms of depression than the former groups. The adjusted odds ratio (OR) for comparing respondents currently with cancer to respondents who never have had cancer was 2.22 [1.94, 2.54], and for respondents who previously have had cancer, OR = 1.38 [1.21, 1.57].

Conclusions

As to be expected respondents currently suffering from cancer show more symptoms of depression and are much more likely to score above the cut-point of 1.0. Respondents who have recovered from cancer, however, scored only slightly higher on the CES-D Scale, although they still have an increased probability of scoring above the cut-point compared to respondent who never had experienced cancer.

Key message:

- People currently with cancer are more depressed than the general population. Those who have recovered from cancer are, however, more similar to the general population in terms of depression

When abilities and job demands no longer match: work instability in common mental disorders

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Background

Sick leave due to common mental disorders (CMD) such as depression and anxiety disorders is increasing in Europe. Although risk factors and consequences are well described, less is known about how the work capacity starts to change. Inspired by the concept of work instability, previously explored in relation to several chronic somatic disorders, this study explores work instability in CMD.

Methods

Departing from grounded theory and a theoretical sampling frame, we recruited 25 participants who were diagnosed with depression or anxiety disorder (F32-39, F41 or F43 in International Classification of Diseases, 10th revision), currently working or on sick leave less than six months. Individual interviews were carried out, using a thematic interview guide. An iterative phase of data collection and constant comparative analysis proceeded.

Results

Work instability has previously been defined as a state in which the consequences of a mismatch between an individual's abilities and demands of their job can threaten continuing employment. Relating to CMD, we found that work instability is reflected as a process prior to work disability, during which the balance between abilities and demands starts to fluctuate. This process is characterized by experiences of how the normal work flow – and recovering strategies – are challenged, leading to a multidimensional destabilization that the person struggles to rebalance. This process of work instability concerns changes beyond medical symptoms or productivity outcomes. Rather, it means a complex interaction between person, tasks and relating environment, at and outside work.

Conclusions

The process of work instability captures a novel understanding of reduced work capacity in CMD, which incorporates a dynamic balance between person and environment. Given the commonness and complexity of CMD, illuminating new aspects of their impact on working life is essential for public health.

Key messages:

- The concept of work instability is explored as a novel approach to understand CMD in working life
- Work instability is viewed as a process of destabilization at and outside work, and between person and environment

Does mental health promotion in students have sustainable effects?

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Background

Mental health problems are common among students in tertiary education with one in three suffering from depressive symptoms. Student mental health services are relevant settings for interventions. Still, many intervention programs are not based on the best available evidence. We aim to assess the effects of mental health-promoting and preventive interventions in tertiary students and their sustainability over 3 months. Further, the implementation quality will be evaluated.

Methods

Eight databases were systematically run for RCTs. Screening and data extraction were conducted independently by two authors according to Population-Intervention-Comparator-Outcome components and inclusion/exclusion criteria. Quality of selected studies were rated by using a validated assessment tool. Data analysis encompassed qualitative synthesis and meta-analysis. The PRISMA-statement guided the reporting.

Results

Out of 5892 screened records, 33 studies with outcomes on mental wellbeing, academic performance and mental distress were included in the review. The interventions have been categorised into three different types:

1. CBT-related, N = 13, mainly of moderate quality n = 7 and delivered on the selective level n = 11. Seven interventions showed significant improvement at follow-up ≥ 3 months.
2. Mind-body-related, N = 13, mainly of moderate n = 8 and low n = 4 quality and delivered on the universal level n = 12. Two interventions showed significant improvement at follow-up ≥ 3 months.
3. Psycho-educational-related studies, N = 7, mainly of low quality n = 6 and delivered on universal level n = 6. Six interventions showed significant improvement at follow-up ≥ 3 months.

Conclusions

CBT-related interventions delivered to students at risk for mental health problems and psycho-educational-related interventions delivered universally seemed to be most sustainable, though the quality assessment of the latter was low. A meta-analysis and an implementation assessment will deepen our results.

Key message:

- So far, comparing mind-body-, psycho educational- and CBT-related interventions, the two latter seem to be sustainable, however the CBT-related appear to be of highest quality and most promising

Suicide prevention: a case of Lithuania

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Background

Suicide is a key public mental health challenge affecting people through the life time. Suicide rates for more than two decades are at the epidemic level in Lithuania and on a European level - SMR 29/100 thousand population and twice higher than the EU average. The main risk group is the middle aged men living in rural areas (SMR is almost 86/100 000 population). However trends of the recent years show growing suicide rates among young people (3 times increase from 4.8 to 13.7 deaths per 100 000 population in recent years in the age group 9-19 years) and elderly women (SMR is 20.5/100 000 pop.). Prevalence of risk factors is high as well, e.g. level of bullying, violence and other. Urgent actions for comprehensive suicide prevention in Lithuania are needed. Several suicide prevention pilots based on different policy approaches – push or pull – are being implemented in the country.

Methods

Descriptive analysis of national administrative data on mortality, consumption of health care services, synthesis and analysis of suicide prevention approaches and practices will be presented.

Results

Suicide mortality rates remain very high in the European context. Identified risk groups allow targeting suicide prevention policy approaches more specifically.

Conclusions

Comprehensive suicide prevention and responsive health system contribution is needed to manage the suicide mortality trends in the country.

Key messages:

- Suicide mortality trends in Lithuania for two decades remain the highest in Europe and are among the highest in the world
- Comprehensive suicide prevention and systematic response is needed to manage the suicide mortality trends in the country

Mental health and resilience among newly arrived Eritrean refugees in Switzerland

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Background

In 2015, majority refugees arriving in Switzerland came from Eritrea. In their home-country or during their journey to Europe refugees experience psychological and physical stress. Such trauma may predispose refugees to mental health disorders. In this study Eritrean refugees who arrived <12 months ago in Switzerland are screened for mental health status and resilience.

Methods

Refugees aged ≥ 16 years are recruited via cantonal refugee registers and screened using three standard scales for mental health assessment: The Patient Health Questionnaire Somatic, Anxiety and Depression Syndrome (PHQ-SADS), Post-Traumatic Stress Disorder Check List-Civilian version (PTSD-CL-S), and 14-Item Resilience Scale (RS-14). Survey started in January 2016, recruiting immigrants who arrived in Switzerland in 2015. Currently recruitment is on-going to achieve sample-size target of 300.

Results

Up to June 15th 2015, 62 participants (53 male, 9 female) have been enrolled, median age was 23 years (inter-quartile range: 19-28). Applying threshold of ≥ 30 on PTSD-CL-S, 26 (42%) suffer from PTSD symptoms. Most indicated their journey to Europe as specifically traumatising, particularly crossing the Sahara desert (12; 20%). Anxiety and anxiety attack were reported by 8(12%) and 7(11%) respectively. Eight (13%) reported symptoms of depression and another 7 (11%) reported somatic symptoms (≥ 10 on PHQ-SADS). Reported resilience was generally high with 60(97%) scoring ≥ 65 on RS-14.

Conclusions

More than 1 out of 3 presumably healthy Eritrean refugees report symptoms of PTSD, particularly in relation to traumatising experiences during their journey to Europe. Despite high rates of PTSD participants scored high in resilience. Further qualitative studies are needed to explore PTSD, resilience, and its interrelation in Eritrean refugees.

Key message:

- While many Eritrean refugees report symptoms of PTSD, other psychiatric disorders appear to be rare and most refugees report strong resilience

Mental health, smoking and poverty in the UK

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Introduction

People with a mental disorder are more likely to be unemployed, receive benefits and be living in relative poverty than those without mental health problems. There is also extensive evidence that smoking prevalence is substantially higher among people with mental disorders than in the general population. Smoking is associated with financial deprivation, and it is therefore likely that smoking prevalence in poor adults with mental disorders is higher still. This study aimed to quantify the extent to which smoking exacerbates poverty in adults with mental disorders in the UK.

Methods

Two English survey datasets, the 2007 Adult Psychiatric Morbidity Survey and the 2013 Health Survey for England, were used to estimate the prevalence of mental disorder, poverty and smoking. These data were extrapolated to the full UK population using mid-year UK population estimates for 2014 from the Office for National Statistics.

Results

It was estimated that 46% of poor adults with a common mental disorder (CMD), 46% of those currently taking psychoactive medication, and 52% of those with a long-standing mental disorder are current smokers. An estimated

900,000-1,200,000 adults in the UK with a CMD are living in poverty and are current smokers. An estimated 135,000 adults with a CMD are officially above the poverty line, but would be defined as living in poverty if their income were assessed after their expenditure on tobacco. The average annual expenditure by poor smokers with a mental disorder was estimated to be in the region of £1200 (approximately 1500 Euro); sensitivity analysis which took into account likely underreporting of cigarette consumption suggested that this figure may be closer to £2200 (approximately 2800 Euro).

Conclusions

Smoking creates a significant financial burden for an already deprived group. Further research is required to explore whether the additional financial strain of nicotine addiction worsens or prolongs mental illness.

Key messages:

- Smoking exacerbates poverty for a large proportion of adults with a mental disorder
- In the UK, 46% of poor adults with a common mental disorder, 46% of those currently taking psychoactive medication, and 52% of those with a longstanding mental disorder are current smokers

Climate change and health: scoping review of scientific literature 1990-2015

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Introduction

For 28 years, the Intergovernmental Panel on Climate Change (IPCC) has been assessing the potential risks associated with man-made climate change. Though interest in climate change and health is growing, the implications arising from their interaction remain understudied. Generating a greater understanding of the health impacts of climate change could be a key step in inciting some of the changes necessary to decelerate global warming. A long term and broad overview of existing scientific literature in the field of climate change and health is currently missing in order to ensure that all priority areas are being adequately addressed. In this paper we outline our methods to conduct a scoping review of published peer-reviewed literature on climate change and health between 1990 and 2015.

Methods

A detailed search strategy will be used to search both the PubMed and Web of Science databases. Specific inclusion and exclusion criteria will be applied in order to capture the most relevant literature in the timeframe chosen. Data will be extracted, categorized and coded to allow for statistical analysis of the results.

Results

A searchable database of climate change and health publications will be developed and a manuscript will be compiled for publication and dissemination of the findings. We anticipate that this study will allow us to map the trends observed in publications over the 25 year time period as well as identify gaps in climate change and health research.

Conclusions

The threats posed by climate change to human health may be reduced by research and investments in climate adaptation and mitigation strategies. Our long-term review of the literature on climate change and health may serve as a first step in establishing the foundations for a scientific research agenda for

the future of our health in the presence of a rapidly changing global climate.

Key messages:

- This research was established to review published literature on climate change and health by conducting a scoping review and systematically categorizing the literature within a database
- There are numerous health benefits arising from climate mitigation and adaptation strategies and so it is of critical importance that the health impact is accounted for in future investment decisions

Trends in mortality from Alzheimer's disease in the European Union

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Background

With the progressive aging of the European population, diseases related with older people as Alzheimer's disease have a significant impact in the quality of their lives. The aim of this study is to investigate the trends of mortality of Alzheimer's disease in the countries of the European Union (EU) in the period 2002-2012.

Methods

In this observational study, data for Alzheimer's disease deaths in people over 50 years old between 2002 and 2012 in the European Union were extracted from the statistical office of the EU (Eurostat). 2013 European Standard Population was used as reference to calculate age-standardized mortality rates (ASR) per 100,000 inhabitants. Joinpoint Regression software was used to analyze changes in trends in the study period.

Results

Between 2002 and 2012, more than 83,000 deaths for Alzheimer's disease were recorded in the EU. In this period, mortality was higher in women than in men. Deaths per 100,000 population increased in women from 28.89 to 47.08, and in men from 26.41 to 38.72, with a significant annual percent change ($p < 0.05$) in both cases. The Joinpoint regression analysis identified significant changes in the trend of the EU (5.7%), and in several countries. In men, a constant and significant increase of 4.6% has been recorded in the EU, and 19 countries showed significant increases of the ASR, being the highest increase in Romania, while 2 countries (Germany and Greece) showed significant decreases. In women, the increase in the EU was 6.1%, and 21 countries showed significant increases, being the highest in Romania. On the other hand, no countries showed a significant decreasing trend.

Conclusions

Our results indicate an increasing trend of Alzheimer's disease in the EU, especially in elderly women. Therefore, improving the comprehension of the illness in the community and preventive measures in order to mitigate the effects of Alzheimer's disease in the society should be addressed by the correspondent departments.

Key message:

- Alzheimer's disease is having a gradually increasing impact in the elderly European population. This investigation shows the patterns of the disease in the European Union in the last years

Climate change and health in policies

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Climate change is considered one of the biggest threats to human health of the 21st century. The link between climate change and health has received relatively little attention in the media, in research and in policy-making. A long term and broad overview of how health is represented in the legislation on climate change is missing in the legislative literature. It is unknown if and how in legal clauses addressing climate change, the argument for health is referred to in national and European legislation. Integrating scientific based evidence into policies regarding the impacts of climate change on health could be a key step to inciting the societal changes necessary to decelerate global warming. This may also drive the implementation of new strategies to mitigate the consequences on health systems.

To provide an overview of this issue, we are analyzing the Global Climate Legislation Database provided by the Grantham Research Institute on Climate Change and the Environment. This institution was established in 2008 at the London School of Economics and Political Science. The database consists of (updated till 1 January 2015) legislations on climate change in 99 countries around the world. This tool offers relevant information about the state of climate related policies.

We will use the database to specifically and systematically analyze the 829 identified legislations for how health is represented as a relevant aspect of climate change legislation. We are conducting explorative research of national and supranational legislations and anticipate health to be addressed. The goal is to highlight how often, in what specific terms, which aspects of health or health risks of climate change are mentioned in various legislations. The position and recurrence of the mention of health is also of importance. Data is extracted with complete quotation of the sentence about health, allowing in a second step to offer a qualitative analysis of which aspects of health are more represented.

Key messages:

- Health is a potentially excellent motivator to change individual behaviour and climate policies
- Evidence of health impacts should be quantified and integrated in mitigation as well as adaptation policies

Ambient temperature and daily emergency ambulance calls in Japanese elderly: a time-series analysis

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Background

Although the association between temperature and mortality has been widely studied, the association between temperature and morbidity has been less studied. To evaluate the impact of ambient temperature on morbidity, we conducted a time-series analysis by using the daily data of emergency ambulance dispatches in Okayama, Japan.

Methods

The subjects were 51,945 residents (aged ≥ 65 years) of the city of Okayama who visited hospital emergency departments between January 2006 and December 2010. We derived data for mean daily temperature from the Japanese Meteorological Agency. Using Poisson regression analysis, we calculated rate ratios (RRs) and their 95% confidence intervals (CIs) for cause-specific ambulance calls adjusting for suspended particulate matter, ozone, long-term time trends in hospital admissions, same-day relative humidity, day of the week, etc. Results The mean of daily temperature was 15.7 °C. When the temperature was higher than 25 °C, RR per 1 °C increase of same-day temperature was 1.07 (95% CI: 1.02–1.13) for respiratory diseases, whereas no clear association was found with cardiovascular diseases. In further analysis, we found that RR for pneumonia and influenza was 1.07 (95% CI: 0.99–1.15) and no clear association was found for chronic obstructive pulmonary disease. When the temperature was lower than 7 °C, the pattern was reversed; no clear association was found with respiratory diseases, whereas RR per 1 °C decrease was 1.04 (95% CI: 1.02–1.06) for cardiovascular diseases. Furthermore, RR for transient ischemic attack was 1.07 (95% CI: 1.04–1.11), and no clear associations were found for ischemic heart diseases and arrhythmia.

Conclusions

Our findings imply that higher temperature increases the risk of respiratory diseases (particularly, pneumonia and influenza) under heat environment and that lower temperature increases the risk of cardiovascular diseases (particularly, transient ischemic attack) under cold environment.

Key messages:

- By using the daily data of emergency ambulance dispatches in Okayama, Japan from 2006 to 2010, we conducted a time-series analysis to assess the association between ambient temperature and morbidity
- Higher temperature increases the risk of respiratory diseases under heat environment and that lower temperature increases the risk of cardiovascular diseases under cold environment

Violence against women: experiences and understanding of healthcare providers in Malatya, Turkey

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Background

Violence against women is a serious public health issue and is associated with significant adverse health outcomes which is growing more and more in the world and in Turkey. Health care providers have increased their role in understanding and managing cases of women who have experienced violence. The aim of this study is explore physicians', nurses' and midwives' experiences and understanding violence against women in health care centers.

Methods

Physicians, nurses and midwives working at the 28 health care centres in Malatya city in east of Turkey are participated in this cross sectional study. 512 health care providers completed a questionnaire form in the research. The survey asked whether violence against women specific education was provided to learners.

Results

Of the health care providers 71,3 % had faced with violence against woman or suspicion of violence during his/her career. 77,1% of working person hadn't taken education about violence directed at woman before graduation. After graduation it was determined that 31,6 % of the staff hadn't taken the education about the violence against woman. 74,3% of doctors, 73,2 of nurses, 67,5 of midwives had faced with violence directed at woman or suspicion of violence. 81,8 % mentioned that they would inform the authorities. Regarding the barriers to identify violence, healthcare workers mentioned the lack of an institutional policy. Nurses presented more favorable attitudes towards women living in violence situation.

Conclusions

Most of the health care providers experienced cases of violence against women throughout their working lives. it was found that, health care providers is insufficient in understanding the indications of violence against woman.

Key messages:

- Health care providers frequently faced violence against women cases
- There must be institutional policy about violence against women at health care centers

SATURDAY 12 November 8:30-9:30

8.R. Poster walk: Young children

Evidence and ethics - public health ethics made easy for students

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Background

Evidence and ethics, two essential components of public health decision making, are mostly separate curriculum items for public health students. Like this both remain abstract and will hardly be useful in practice.

Objectives

An innovative Bachelor of Science (Epidemiology and Health Education and Promotion) course provides competences to answer the questions: 'How do we know what we know?' and 'Is knowledge enough for decision making in public health?' It combines the locally applicable evidence basis of public health

action but also the basics of theory/philosophy of science and applied public health ethics using locally salient health challenges as examples. The course of 4 credit points (7.5 ECTS) contains 10 double lectures and 10 two-hour group work or problem-based learning sessions; it comes with three exams and correct or model answers to both group work tasks/exam questions.

Results

The course (2013-2015) has so far been taught for three cohorts of 19-22 years old Saudi female students (n = 199) at Princess Noura Bint Abdulrahman University, Riyadh, Saudi Arabia. The academic learning results are encouraging in this group of students coming from rather traditional school system. The students rate the course and teaching very high; they have learned to critically reflect and discuss and understand how knowledge is contextual; they have received competences for their careers but also for their social encounters in general since they have learned to argue,

debate and understand different perspectives. From the teachers' perspective, it has been very positive and also great fun to tailor the practical examples into the local context; in this work, students have functioned as guides.

Conclusions

The public health decision making competences of the students can be improved to meet the 21st century public health challenges by applying this innovative curriculum, which can also be tailored to different learning environments, cultures and levels of teaching.

Key messages:

- Combining use of evidence and ethics in teaching can provide competences urgently needed in public health decision making
- This course developed by University of Southern Denmark could be adjusted and implemented also in European countries to enhance public health ethics

Regional variations in stillbirth and relation between extramarital birth and stillbirth in Bulgaria

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Background

Stillbirth rate is essential indicator of population health and is much more common than presumed. By definition stillbirth is the death of the fetus after 28 completed weeks of pregnancy /WHO/. For the European region this indicator is around 7 ‰. The rate in Bulgaria is comparable - 7.34‰ /2014/. There are very big differences between different regions in our country. These trends take place on the background of continuous process of increasing proportion of births from unmarried women.

This report aims at investigation and comparative analysis of indicators of stillbirth and extramarital births in Bulgaria for 15 years period

Methods

Data of Bulgarian National Statistical Institute and WHO Regional office database “Health for all” were used to calculate the stillbirth indicators and proportion of extramarital stillbirths among the total number of stillbirths for the period 2000-2014.

Results

Despite the technological progress of contemporary medicine the level of stillbirths remains almost unchanged - 7.48 ‰ for 2000 and 7.34‰ for 2014. Regional variations in the country ranged from 14.97 ‰ in Vidin, 15.67 ‰ in Lovech, 12.49 ‰ in Kardzhali district to 2.57 ‰ in Gabrovo, 2.70 ‰ in Smolyan and 3.90 ‰ in Sofia.

The causes of many stillbirths remain unknown. One of the factors that increase the risk for a stillbirth is the marital status of the mother. Proportion of extramarital stillbirths for the country is 74.70% for 2014 but there are several districts with 100%.

Conclusions

Extramarital births and stillbirth rate in Bulgaria seems to be related. There are persisting regional differences in stillbirth rate in Bulgaria – potential explanation includes health inequalities and welfare differences. More complex study design is necessary to reveal the causation of stillbirths including mother's marital status.

Key messages:

- Improved antenatal care for unmarried women - family planning, education, and poverty alleviation, can help reduce risk factors for stillbirth

- The costs of stillbirth need to be taken into account when considering whether interventions to prevent stillbirth are cost-effective

Traffic noise and adverse births outcomes in Madrid

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Background

Exposure to noise may be associated with increased stress. Stress has been hypothesized to affect fetal growth through the endocrine system. Moreover, there is evidence for an increased risk of hypertension in subjects exposed to noise, which could increase the risk of adverse pregnancy outcomes. Using a time-series analysis we investigated the short-term acute effects of ambient noise levels over aggregated daily counts of births.

Methods

Daily counts of preterm births (<37 weeks of gestation), low birthweight (<2.5Kg) and newborn deaths (24h after birth) were collected from hospitals in Madrid City through 2001 to 2009. Acoustic Pollution in dB(A) analyzed were: Leq_d, equivalent diurnal noise level and Leq_n, equivalent nocturnal noise level. Daily mean concentrations (µg/m³) of PM_{2.5}, O₃ and daily temperature (0C) were used. Linear trends, seasonality, autoregressive components and the day of the week were controlled too. Autoregressive over-dispersed Poisson regression models were performed. The environmental variables were included with short-term lags (from 0 to 7 days) in reference to the date of birth .

Results

There were 24,586 preterm births, 22,943 low birthweight and 1,217 newborn deaths. Leq_d mean value was 64.6 dB(A); Leq_n mean value was 59.4 dB(A). Estimated effects are reported as the relative risk (RR) associated with an increase of 1 dB(A). The strongest association between Leq_d and all the adverse birth outcomes variables was reported for lag 0. RR were 3.2% (1.9% – 4.4%); 6.3% (4.8% – 7.8%) and 6.00% (2.1% – 9.5%) for preterm births, low birthweight infants, and new born deaths respectively, with no changes in the effects of noise levels at lag=0 after adjusting for PM_{2.5}, temperature and O₃.

Conclusions

Our results may be explained by high levels of ambient noise in the short-term, which could bring childbirth forward prematurely. This result is in relation to low birth weight, and this last factor is in relation with newborn deaths.

Key messages:

- Exposure to noise may be associated with increased stress
- High levels of ambient noise in the short-term, which could bring childbirth forward prematurely

Interaction effects of unintended pregnancy and maternal age on infant abuse in Japan

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Background

Shaking and smothering in response to infant crying are life-threatening child abuse and often result in death. Unintended pregnancy can not only result in adverse outcomes both to the mother and to her newborn, but also become a risk for child maltreatment. Yet, few studies have investigated the impact of unintended pregnancy on shaking and smothering towards infants. This impact can vary depending on maternal age, considering that it is one of the major risk factors for shaking

and smothering. This study aims to investigate the interaction effects of unintended pregnancy and maternal age with shaking and smothering among caregivers of 3-4 month infants in Japan.

Methods

Retrospective cohort study design was employed. A questionnaire was administered to caregivers participating in a 4-month health checkup in 11 municipalities in Aichi prefecture to assess their parenting situations. The questionnaire data was combined with data from pregnancy notification forms, registered at municipalities (N=6,056). Logistic regression analysis was used to examine the association of unintended pregnancy and maternal age with shaking and smothering.

Results

The prevalence of shaking and smothering at least once in the past month was 1.9% and 1.6%. Of the sample, 25.4% reported unintended pregnancy and 8.6% were younger than 25 years old. We found that young mothers (under 25 years old) with unintended pregnancy were 2.1 times more likely to shake or smother their infants than older mothers with planned pregnancy (CI: 1.17– 3.90), while young mothers with planned pregnancy were not significantly associated with shaking or smothering.

Conclusions

This study revealed that young mothers had the greatest risk for shaking and smothering when their pregnancy was unintended. It underlined the importance of examining whether pregnancy is unintended or not in pregnancy notification forms and reinforcing prevention efforts for young mothers with unintended pregnancy.

Key messages:

- This study examined the association of unintended pregnancy and maternal age with shaking and smothering towards infants, using prenatal and postnatal data collected in Aichi, Japan
- This study found that mothers with unintended pregnancy who were under 25 years old were 2.1 times more likely to shake or smother their infants than older mothers with planned pregnancy

Can early childhood intervention networks support health equity?

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Background

A model for early childhood interventions was developed for Austria in 2014 combining universal and indicated prevention. The objective of this model is to reach and support those families during pregnancy or within the first three years of a child, who live under burdened life circumstances. The indicated part in form of regional early childhood intervention networks is being implemented now in model regions in all nine Austrian provinces.

Methods

The evaluation focuses on the establishment of the regional structures as well as on the effects resp. benefits for families supported by the regional networks observed by experts and families. The data of the Austrian-wide documentation system is analysed, interviews and focus groups with experts and stakeholders are carried out. An online-survey addressing also partners from the regional networks as well as in-depth interviews and the photovoice method with families complement the data collection.

Results

Existing regional structures have an impact on the implementation of the model for regional early childhood intervention

networks, therefore more specific minimum quality criteria are needed. Still, these networks are able to reach families in need due to poverty, psychic illness, social isolation, migrant background etc. Families as well as experts perceive a benefit of the programme as regard to reduction of burdens resp. increase of resources.

Conclusions

The model is able to reach and provide required services and interventions from the social and health care system to socially disadvantaged families. As this hasn't been possible in the past, it can be expected that the Austrian approach to early childhood interventions will contribute to health equity on the longer run.

Key message:

- The implementation research shows that the model of regional early childhood intervention networks is suitable to promote health equity

Modifiable mediators on the association between child poverty and health in Japan

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Background

In Japan, it is an urgent need to elucidate modifiable mediators on the association between child poverty and health to prevent child illness, such as severe caries.

Methods

Questionnaire were disseminated all the students of 1st grade of elementary schools (6-7 years old) in Adachi City, Tokyo, Japan (N=5,355). Caregivers of the students were requested to respond the questionnaire. Questionnaire included annual household income, material deprivation for children (e.g. not having stationary), and difficulty to pay lifeline utility cost (e.g. tap water or gas). Child poverty was defined either household income below 3 million yen (around 25 000 euro), existence of material deprivation, or experience of difficulty to pay lifeline utility cost. Child caries was assessed by school dentist. Having 5 or more caries was defined as severe caries. Binary mediation analysis was employed to assess the magnitude of mediators on the association between child poverty and severe caries.

Results

In total, 4291 caregivers returned valid responses (response rate: 80.1%). Among them, 24.8% met the criteria of child poverty. Further, 19.7% of children under child poverty, while 10.1% of children without child poverty, showed severe caries. Binary mediation analysis revealed that total effect of child poverty on the severe caries was accounted to 15%, and 60% of the total effect were mediated through lack of flu immunization, frequent intake of sweeten juice, skipping teeth brushing or finalization of brushing by caregivers, or skipping breakfast.

Conclusions

Child poverty doubled severe caries among children aged 6-7 years old in Japan. We found modifiable risk factors, such as juice intake or teeth brushing, explained up to 60% of total effect of child poverty on severe caries, which can be used as rationale in school public health to prevent child caries from poverty.

Key messages:

- Child poverty doubled 5 or more caries among children aged 6-7 years old in Japan
- We found modifiable risk factors, such as juice intake or teeth brushing, explained up to 60% of total effect of child poverty on severe caries

Patterns of health-seeking behaviour among first-time parents with extended home visiting in Sweden

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Background

Immigrant families often experience uncertainty in contact with health care services. Child health services in Sweden offer health promotion and prevention to children 0-5 years. Children are referred to other facilities with concerns about ill health. In 2013-14 child health services and a parental advisor from the social services conducted extended home visiting program offering parents 5 extra home visits, in a disadvantaged area in Stockholm. This study aimed to increase the understanding of the patterns of health-seeking behaviour with child health services among first-time parents during this program.

Methods

Records of unplanned contacts (drop-in or telephone) of 100 children with the child health nurse were analysed using a hermeneutic method.

Results

81% of the families had a total of 299 extra contacts, most had only few and 19% had five or more contacts. Drop-in visit was most common; phone was used only by families that spoke Swedish. The most common reason for contact was concerns about growth/feeding. All children who had many contacts got a medical diagnosis later on.

The families preferred to seek personal contact for their concerns about the child's physical health. The current child health organization does not meet these needs, which may lead to a risk of delayed medical diagnosis and many health care visits for some of the children. The analysis also suggests increased health guidance in this multicultural context, which could be developed further in the home visiting program by focusing health literacy.

Conclusions

The challenge to the health care organisation is to meet the needs of families in a multicultural context, as a suitable arena for addressing children's basic physical illness in the study area is currently lacking. This may delay medical diagnosis of some of the children. The extended home visiting program could be a forum to develop health literacy among parents, to promote children's health in the longer term.

Key message:

- The health care organisation does not adequately meet the needs of families in a multicultural context. A suitable arena for addressing children's basic physical illness is currently lacking

Preliminary results of a 2016 oral health screening program in the primary schools of Udine, Italy

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Background

Oral health has a major impact on quality of life and healthcare costs. Most oral diseases have an early onset in childhood and can have permanent consequences, like early tooth loss. In the area of Udine there are no complete data available about the compliance to the World Health Organization (WHO) goals set for 2020. Therefore, the city council with the Udine Health District and the University of Udine started in 2016 a dental screening program set in public primary schools.

Methods

Starting from January, all first graders (aged 6 or 7) of the primary schools in Udine were recruited. By March, 28 institutes (530 children) had been contacted for the initiative, which also included health promotion lessons. The score used was the DMFT (Decayed Missing Filled Teeth), needed to assess the proportion of caries-free (CF%) children (DMFT = 0) and the Significant Caries (SiC) Index. Other items were national origin, hygiene frequency, previous dental visits.

Results

Attendance rate was high (496; 93.6%). The average DMFT score was 3.06, with a caries-free percentage of 46.4% and a SiC index of 8.06. Children from foreign families had significant ($p < 0.001$) worse scores: DMFT of 5.67; CF% = 21.6%, SiC index of 11.44. This result was significantly related to a lower average frequency of daily oral hygiene (1.51 vs. 1.97 times) and the prevalence of previous dental visits (-12.5%). No gender differences were shown.

Conclusions

The first results have shown that improvements have to be made to reach the WHO goals for children of that age (DMFT <0.4; CF% = 90%; SiC index >3). A sign of inequality has been seen in the group of children of foreign origin, which needs further assessment for reasons of income or culture. Other analysis involving malocclusions and family habits are under investigation.

Key messages:

- Oral health inequalities need to be tackled at an early age
- An alliance between public administration, health services and research must be sought to make better use of epidemiological data for political choices

An audit of frequent attenders at North Manchester General Hospital paediatric emergency department

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Introduction

Previous work has shown that frequent attenders (FAs) account for 3-8% of attendances to paediatric emergency departments (PED) and have lower levels of physical and mental.

North Manchester General Hospital (NMGH) PED sees nearly 30,000 children each year and serves a population where levels of poverty and child mortality all considerably higher than the England average.

The aim of this work was to identify characteristics of FAs presenting to the PED, in order to inform the possible future development of public health-type interventions to better manage their care.

Methods

Retrospective audit of data on children (aged <16 years) presenting to the PED at least 12 times between 1st September 2012 and 31st August 2015. The data collected included: arrival date, age, time spent in department, discharge destination, and primary diagnosis.

Results

Approximately 2.4% of the PED activity was generated by 144 children, presenting to the department 2,161 times over the three year period. The mean number of attendances per child was 15. Most children were younger than 4 years old and were most commonly discharged without the need for follow up. The majority of patients were diagnosed with medical conditions and a subset of those patients presented with exacerbations of long-term conditions such as asthma and epilepsy. One child in five presented with an injury. Mental health problems generated a small proportion of all attendances and were made almost entirely by adolescent FAs.

Conclusions

This audit identified subpopulations of FAs such as patients with exacerbations of long-term conditions, frequent injuries or psychiatric illness. Their needs could be addressed by public health-type interventions and individualized care plans, with an aim of improving FAs' health and improving resource allocation. Further data analysis is ongoing.

Key message:

- Majority of FAs are younger than 4, attend with medical conditions, and are discharged without the need for follow up

Developing an intervention to diminish socioeconomic differences in health behaviors in preschool

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Objectives

In order to avoid the widening of socioeconomic inequalities in health, effective interventions are needed. Preschool-aged children are a valuable intervention target, since sedentary behaviors, physical activity (PA) and dietary behaviors, jointly called the energy balance-related behaviors (EBRBs), are established in early childhood. The preschool as a setting can be useful when diminishing SES inequalities in EBRBs. The intervention can be delivered to the whole target population, with the intensity adjusted to the needs of children from low SES backgrounds. The DAGIS project aims to develop a multi-component setting-based intervention to diminish SES inequalities in pre-school children's EBRBs.

Methods

Before implementation of a six-month intervention in years 2017-2018, a comprehensive needs assessment is conducted between years 2014-2017, including following stages: a) focus group interviews for parents and preschool personnel in 2014 to recognize the influential factors of EBRBs, b) several pilot tests in years 2014-2015, c) a comprehensive cross-sectional study in years 2015-2016 (N = 900 children in 66 preschools) recognizing the SES differences in EBRBs and factors associated with these differences, d) development of practical methods throughout the stages, e) testing the practical implementation of the intervention, workshops for target groups arranged in years 2016-2017.

Results

The first two phases of needs assessment have indicated that the combination of multiple levels of analysis and diverse methodologies (e.g. surveys, observations) is necessary in the cross-sectional study. This extensive survey enables to identify factors that promote healthy EBRB's in children at home and at preschool, which will lead to an evidence-based developed intervention.

Conclusions

The several phases of the needs assessment in the DAGIS study will give the best abilities to be able to plan an effective intervention diminishing inequalities in EBRBs.

Key messages:

- DAGIS project aims to develop a multi-component setting-based intervention which will diminish SES inequalities in pre-school children's health behaviors
- Several phases of the needs assessment in the DAGIS study will give the best abilities to be able to plan an effective intervention diminishing inequalities in health behaviors

The effects of blood low level heavy metals on short height: a propensity score matching analysis

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Background

The adverse effect of blood heavy metals (lead, total mercury, methylmercury and cadmium) on children's growth has been concerned. Applying the propensity matched case-control study, the associations between blood lead, total mercury, methylmercury and cadmium and the short height were assessed.

Methods

283 elementary school students, who have visited to pediatrics clinics of 3 university hospitals at Busan metropolitan city for evaluation a regular health checkup or consultation for growth, have voluntarily participated to the study from Apr 2013 to Oct 2013. 58 cases were defined that child's heights were less than 10 percentile according to standard growth curve for Korean child. After considering the covariates (age, sex, birth weight, delivery methods, numbers of sibling, maternal age at birth, maternal education level, father's education level, current smoking status of father, and parents' mean height) using propensity score matching, 48 case-control pairs were selected. The mean children's age was 114.1 ± 21.1 months and 115.8 ± 20.9 months (range, 6–56 months) in the cases and controls, respectively ($P = 0.6373$).

Results

The mean (\pm standard deviation) lead levels in the cases and controls were $1.94 (\pm 1.39)$ $\mu\text{g/dL}$ and $1.54 (\pm 0.68)$ $\mu\text{g/dL}$, respectively. The statistically significant higher lead levels was showed in the case group than the control group ($P = 0.0005$). Besides the mean cadmium level in the cases (0.58 ± 0.14 $\mu\text{g/L}$) was higher than in the controls (0.53 ± 0.17 $\mu\text{g/L}$), the means difference between the cases and controls showed marginal significance ($P = 0.0653$). The mean total mercury and methylmercury levels did not differ between the cases and controls.

Conclusions

Considering covariates via propensity score matching analysis, the blood lead was related with the short height.

Key message:

- The blood lead was related with the short height

Participation in pediatric day surgery, what it means for children and parents

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Background

Anxiety and fear are common experiences for children and their parents in pediatric care. It is important for both the children and parents to participate in the care team to increase trust and reduce undesirable effects, i.e. increased need for painkillers and sleeping disorders. Thus, the aim of this study

was to increase the knowledge of children's and parent's experience and preferences of participation in the context of pediatric day surgery.

Method

Data were collected through two sets of narrative interviews with children (n=10) and parents (n=20) with experience from pediatric day surgery. Qualitative content analysis was chosen to describe the variations, differences and similarities in children's and parent's experiences.

Result

Receiving preparatory information, lack of information and wanting to have more and detailed information, are factors that have an important influence on participation of children and parents. Healthcare professionals and how they interact with the children and parents have significance for experiences of being listening to, feeling confident, feeling involved in decision making and being seen as an resource. Poor adaption based on children's and parent's needs and their wishes for

distraction are examples of how the environment influences experiences of participation.

Conclusions

The needs emerging from the children's and parent's narratives in this project can be used for the design of information and preparation strategies for parents prior to their child's surgery. This could contribute to that parents receive information about what to expect how they can prepare and how they can support their child in conjunction with the pediatric day surgery.

Key message:

- Interaction with health care professionals is important and they therefore have to develop a shared vision for themselves, the parent and the child for successful pediatric day surgery

8.S. Poster walk: Traditional and innovative approaches to disease surveillance and modelling

Amenable mortality in European Regions for the last fifteen years

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Background

Amenable mortality has recently been taken up as a public health theme at EUROSTAT since it provides information regarding the quality and performance of healthcare. This indicator has been available at country level for the European Union since 2011. Yet, little is known about the geographical distribution of the indicator at NUTS 2 or temporal trends in the last fifteen years. The aim of this paper is to present a proxy to the EUROSTAT amenable mortality indicator and to discuss how amenable mortality is distributed at regional level and how it has evolved.

Methods

Using the list of causes of death considered amenable by EUROSTAT, we selected those available on the European shortlist of causes of death. The number of deaths from these causes was collected for the same age groups as specified on the EUROSTAT' amenable mortality indicator. After sum up the deaths, the annual average mean of the Standardized Mortality Rate was reached for all NUTS 2 since the period 1999-2001.

Results

Amenable mortality is decreasing in Europe. However the rate of change differs by country and by regions contained. There are geographical inequalities of amenable mortality. In the last period of analysis Eastern Europe presents clusters of high mortality amenable to healthcare, while central-western Europe presents clusters of low mortality. However, these countries register high internal inequalities among their regions. Moreover, the administrative border of France and Austria present a clear delimitation of these countries when considering their neighbourhoods.

Conclusions

Monitoring the amenable mortality indicator is of increasing importance in the EU. Although this indicator is a proxy, it is important to identify why: 1. administrative borders play a major role in the geographical distribution of amenable

mortality; 2. there are countries presenting significant inequalities between regions.

Key messages:

- Although amenable mortality is decreasing, the rate of change is not the same for all NUTS 2
- There are geographical inequalities that are only visible at the regional level, especially in central-western countries

What Case & Deaton saw, and what they missed. A data visualisation commentary on Case & Deaton (2015)

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A recent paper from the economists Anne Case and Angus Deaton, in the journal PNAS, generated a great deal of attention outside that journal's usual readership.

Alongside mainstream media attention, the paper and some of its key findings came to the attention of the statistician and blogger Andrew Gelman, who in a series of blog entries reanalysed some of the data used by Case and Deaton to explore and correct for an aggregation bias severe enough to undermine one of the paper's key claims.

This presentation, based on our recent commentary piece in the *International Journal of Epidemiology*, is in two parts:

In part one we will discuss Case & Deaton's paper, both as an academic paper and as a mainstream media phenomenon, and the contribution that specialist technical bloggers such as Gelman make to advancing and improving health research and the scientific process more generally.

In part two we argue and demonstrate that effective data visualisation methods, in particular level plots of mortality rates arranged by year and age, would both have avoided the aggregation bias, and allowed many other important patterns within and differences between age groups, ethnic groups and genders in the USA to have been identified. For example, using the same source of data used by Case & Deaton, we were able

to identify declining motor vehicle fatalities after the 2008 recession in young adults, high rates of alcohol-related mortality amongst older Hispanic males, and persistently high rates of violent deaths amongst young Black males.

We conclude by arguing that both: 1) platforms for disseminating work-in-progress such as Gelman's blog; and 2) methods for complex data visualisation, such as the level plots we employ; should be recognised as having vital and complementary roles within the health sciences, and that without such tools flaws in extant research can take longer to identify and correct, and important patterns in health data can go unnoticed.

Key messages:

- Academic blogging was able to quickly identify and correct an aggregation bias in a very impactful public health article
- Better data visualisation would have avoided the cause of the aggregation bias and identified more important information in the data available

Death ascertainment and mortality reporting procedure in EU assessed within CENTER-TBI project

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Background

Cause of death ascertainment and reporting is very important for the evidence itself as well as for the public health. Epidemiological analysis of mortality enables identification of population groups in risk, designing targeted preventive measures and determining the most effective treatment factors. Death is certified by a specialized physician and reported through the Death Certificate to relevant institution and eventually to national statistics office.

Methods

We surveyed, analyzed and described the death certification and reporting procedure in all countries of European Union within the international project on traumatic brain injury (CENTER-TBI - Collaborative European NeuroTrauma Effectiveness Research in TBI). We collected the data through a questionnaire designed for the survey. We have analyzed the collected information and identified potential spots of data error, loss or misinterpretation.

Results

The following steps were identified as potential weak points in the process of death certification and reporting: lack of training of death examining and certifying physicians; no control mechanism in place to monitor the performance of the examining physicians/coroners (namely the accuracy of cause of death ascertainment and their referral of the body of the deceased to the autopsy); inconsistency in nomenclature and coding of examining physicians/coroners and statistical officers

Conclusions

Lack of monitoring and quality control of death ascertainment and reporting procedure, together with inadequate training of death examining and certifying physicians make the informative value of mortality data doubtful. International guideline for quality improvement of this procedure would strengthen mortality surveillance system.

Key messages:

- Death ascertainment and reporting procedure needs an international guideline for quality improvement
- International guideline for quality improvement of death ascertainment would strengthen mortality surveillance system

Driver-dependent factors and the risk of pedestrian's death after a road crash

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Background

This study aims to determine the strength of association between driver-dependent characteristics and the risk of the pedestrian's death after a collision with a motorized vehicle.

Methods

From the Spanish database of road crashes with victims (a nationwide police-based register) we selected all 203,622 collisions between a pedestrian and a motorized vehicle in Spain from 1993 to 2013. The dependent variable was pedestrian's death within the first 24 hours. Exposure variables were driver's age, sex, nationality, years in possession of a driving license, type of driver (professional or not), visual defects, psychophysical circumstances (DUI, distracted, tired, others), use of safety devices, speed-related infractions, other infractions, and reason for driving (work-related, other). As possible confounders we considered pedestrian-related characteristics, type of vehicle and environment-related variables.

Analysis: First we used a multiple-imputation procedure to obtain 50 files in which missing values were replaced by their corresponding imputed values. Then we used the mim program of Stata to combine the results of the multivariate Poisson regression models constructed for each file, in order to obtain adjusted incidence rate ratios (IRR) and their 95% confidence interval (95% CI) for each category of driver-related variables.

Results

Driver characteristics related with a higher pedestrian risk of death were speed-related infractions (IRR: 2.50; 95% CI: 2.34-2.66), psychophysical conditions (1.59; 1.45-1.75), visual defects (1.22; 1.09-1.28) and male sex (1.21; 1.13-1.30). Driver age was inversely related with the pedestrian's risk of death. The remaining variables did not show any significant association.

Conclusions

Except for age, the remaining driver-dependent factors associated with a higher risk of pedestrian's death are also the factors classically associated with a high risk of a driver being involved in a crash.

Key messages:

- Several driver-dependent variables are associated with a higher intrinsic severity of a crash involving a pedestrian
- Except for age, driver-dependent variables are also classically associated with a higher risk of a driver being involved in a crash

Migrant Health: syndromic surveillance of newly arrived. Tuscany, 2015-2016

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Background

By virtue of the conspicuous flow of migrants in Italy, health authorities had to implement their syndromic surveillance in order to prevent potential risks to the community. In July

2015, the Local Health Unit of Arezzo (Tuscany), in collaboration with local organs of Interior Ministry, activated an operational procedure for this surveillance by carrying out visits at an ad hoc 24-hour outpatient clinic, immediately upon arrival and before the allocation in reception centres. We report the first 8 months experience.

Methods

We collected the data of health migrant surveillance carried out from July 2015 to February 2016 in Arezzo. The health visits to migrants were carried out by a physician in collaboration with a nurse and a cultural mediator. During the visit the doctor was required to fill out a standardized reporting form with personal and health data. If necessary, the physician predisposed the transfer of the migrant to the emergency room. Reported data were entered in a database and processed by descriptive analysis.

Results

In the studied period, 539 migrants were been subject to health surveillance. The health problems most frequently detected were: 50 cases of skin lesions including 24 scabies; 18 infections of the upper respiratory tract and 7 of lower tract; 14 cases of injuries/burns; 11 cases of cough and 8 cases of fever. Migrants who were sent to the emergency room were 48. To 3 migrants who have been visited upon arrival and with no symptoms it was successively diagnosed a tuberculosis infection.

Conclusions

The newly arrived migrants were generally found in good health. During active surveillance were not detected potential health emergencies, however our study suggested that health surveillance is need in the short and in the long term for the possible reactivation of latent diseases.

Key messages:

- Newly arrived migrants are generally in good health, resenting of the so called “healthy migrants effect”, a form of self-selection for which only those who are in good health decide to emigrate
- Results of surveillance shown the need for implement public health interventions both in the immediacy of the arrival of migrants and in the long term for possible reactivation of latent diseases

Trends in Chlamydia in Switzerland 1988—2015: challenges in interpreting surveillance data

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Background

Sexually transmitted Chlamydia trachomatis, although often asymptomatic, can cause serious urogenital infections and infertility. Mother-to-child transmission can lead to conjunctivitis and pneumonia in infants. In Switzerland, all newly diagnosed laboratory confirmed cases of chlamydia are subject to mandatory reporting to Cantonal Medical Officers and the Federal Office of Public Health since 1988.

Methods

We have analyzed the data of 127'817 laboratory confirmed cases notified during the period 1988 to 2015. We analyzed trends in number of cases, sexual distribution and age of reported cases.

Results

During the years 1988 to 1998, on average 2859 cases were notified per year (range 2493 to 3531). After a dip 1999 (2123 cases) annual numbers steadily increased and reached 10'290 in 2015. Estimated incidence rose from 29.8 per 100'000 in 1999 to 124.9 per 100'000 in 2015. The proportion of women fluctuated around 70.0 % (range 64.9 % to 76.9 %). Overall, 1135 cases were among newborns aged 0 to 3 months (0.9 %), resulting in an incidence of 52.9 newborn cases per 100'000

births. The proportion of these cases with presumably mother-to-child transmission in relation to the total number of cases decreased over time.

Conclusions

The number of notified chlamydia cases has increased fourfold in Switzerland since 1999. Not affected by this rise are newborn cases. Due to the large number of diagnoses, only collection of laboratory data with age and sex attributes is feasible. It is therefore currently unknown what proportion of the increase in numbers can be attributed to changes in testing or reporting behavior or a real rise in incidence, respectively. From 2016 onwards, the laboratories are requested to report the proportion of samples tested positive, separately for diagnostic testing and blood donor screening. Further studies providing insight into the dynamics of chlamydia testing are needed for a better interpretation of the surveillance data.

Key messages:

- The number of laboratory confirmed Chlamydia cases has increased fourfold from 1999 to 2015
- The surveillance data alone are insufficient to determine to what extent this increase reflects an actual rise in Chlamydia incidence in the population

Evaluation of air quality and tuberculosis in Turkey by geographical information system

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Background

Tuberculosis (TB) is an important public health problem in Turkey and its incidence shows regional disparities. Environmental factors influencing TB are necessary for the prevention and control. This study aimed to examine the relationship between ambient air pollution and TB during 2010–2011.

Methods

This ecological study used tuberculosis data of 2010 and 2011 that obtained from Tuberculosis Fight in Turkey, 2014 Report. The mean concentrations of ambient particulate matter (PM) with an aerodynamic diameter $\leq 10\mu\text{m}$ (PM10) between December 1, 2009 and November 30, 2010 were obtained from Turkish Statistical Institute air quality statistics. TB and air pollution data were visualized by ArcMap 10.4 using areal interpolation technique in Geostatistical Analyst. Friedman test and correlation analysis was used to examine possible relationships.

Results

Air pollutant data were obtained from 113 stations in 81 provinces of Turkey for mean 319.5 ± 34.2 days in 2010. Mean PM10 level was 67.2 ± 20.9 , and highest levels were found in winter (79.3 ± 32.7), followed by fall, spring and summer ($p < 0.001$). The categorization according to the Air Quality Index of US Environmental Protection Agency (EPA) revealed that quality of air in 26 stations was good, in 78 stations was moderate, and in 9 stations is unhealthy for sensitive group. The areal interpolation of TB cases revealed a high-risk zone in Black Sea, Marmara and Northern Aegean regions, which corresponds to north and west band of Turkey. Poor negative correlations were found between PM10 levels and TB incidence rate ($r = -0.268$, $p < 0.05$), and TB prevalence ($r = -0.276$, $p < 0.05$).

Conclusions

Poor correlations between PM10 levels and TB figures suggest that air pollution is not a significant determinant in epidemiology of this disease. But seasonal changes in air pollution might still possess a risk in respiratory system diseases.

Key messages:

- Exposure to ambient air pollution have been associated with increased tuberculosis rates, but how they are associated is not well understood
- A significant association was not found between PM10 pollutant and risk of TB

The quality of the Finnish Register on Induced Abortions and Sterilisations

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Background

Population-based health registers are widely used in health monitoring, statistics, and research in Finland. This study assessed the coverage and quality of the Finnish Register on Induced Abortions and Sterilisations and comparability of Care Register for Health Care for induced abortions and sterilisations.

Methods

Ten out of 67 public hospitals performing induced abortions and sterilisations were selected for the study. The data on induced abortions and female sterilisations performed during three randomly selected months in 2011 were collected in hospitals and compared to the data found in the Register on Induced Abortions and Sterilisations and in the Care Register for Health Care. The sample represented 43.1% of all induced abortions and sterilisations in the whole country during the study period.

Results

The coverage on data on induced abortions was assessed to be very good: 97.1% of induced abortions were found in the register. The coverage on data on sterilisations was less satisfactory: 91.0% of sterilisations performed were reported into the register. More detailed comparisons of the variable data showed good to very good completeness and validity for the main diagnoses or procedures. The coverage of the Care Register for Health Care was found also to be satisfactory, but less complete than the information in the topic-specific register.

Conclusions

Due to its high completeness and validity, the Register on Induced Abortions and Sterilisations forms a good base for research and assessment of health care practices. The Care Register for Health Care seemed to be a good source in measuring volumes of hospital use, main diagnoses and procedures, even though the registration of single diagnoses or procedures may be less ideal for research.

Key messages:

- Evaluation of quality and validity of health data is essential
- The Finnish Register on Induced Abortions and Sterilisations forms a good base for research and assessment of health care practices

Estimation of the number of individuals living with hepatitis C-infection in Sweden

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Background

WHO estimates that between 130 and 150 million individuals live with a chronic hepatitis C infection around the world, and up to 4 million people get infected each year. In Sweden about 2 000 cases of hepatitis C (HCV) are notified each year. A new treatment, DAA, for HCV has been available since 2014. Since its cost is much higher than for previous ones, it will initially be offered only to persons with severe liver disease. Before carrying out cost-effectiveness analysis of treating all cases, however, we first need to know the number of persons currently living in Sweden with a HCV infection. Since HCV infection can be asymptomatic and, can spontaneously clear, and individuals be re-infected after clearance, there is no direct way of retrieving the number of persons currently living with HCV from the surveillance system of notified cases. We therefore estimated the number of persons living with HCV under different assumptions.

Methods

The number of HCV-notifications between 1990 and 2015 was retrieved from the Swedish national surveillance system of communicable diseases. Using the population registry we then excluded those who had died, emigrated or in any other way were missing. From the treatment registry and previously published Swedish studies, we obtained rates of individuals who had been treated, had spontaneously cleared the infection, and had cleared but were re-infected. By directly applying those rates to the number of notified cases, we estimated the number of persons living with a diagnosed HCV.

Results/Conclusions

Between 1990 and 2015, 60 000 cases of HCV were notified. Of those, we estimated that between 30 000 and 35 000 individuals were living with a HCV-infection by the end of 2015. These numbers will be used in the near future for conducting a cost-effectiveness study of the new treatment.

Key messages:

- Hepatitis C causes a large amount of suffering throughout the world. The new treatment now available, DAA, can help lowering the prevalence and incidence of the infection
- By estimating the number of individuals living with HCV, which is done in this paper, a cost-benefit model for treating all infected individuals can be obtained

Case Library: modelling of influenza pandemic scenarios

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Background

When an influenza pandemic is emerging, results from different possible scenarios are key to guide policy decisions. A number of scenarios can be simulated beforehand and the outcomes stored in a case library, with easy and quick access. By having readily available estimations on vital characteristics of the pandemic outbreak, with and without intervention measures, the case library will support decision policy making.

Methods

We developed a dynamic simulation model in which the population is divided into four states: susceptible, exposed, infected and recovered. Linked differential equations decide the rate of the dynamic flow between these groups. The model simulates the course of influenza in the Swedish general population and medical risk groups, divided into age groups. The infected state is furthermore divided into four sub-states, to better forecast the need for health care. The contact frequency between different ages is based on published results from observational studies.

Results/Conclusions

The project is a work in progress. Each simulation will produce weekly numbers of infected people, hospitalizations as well as

people requiring intensive care, people absent from work, and deaths, all grouped by age. Simulations will be run for five basic scenarios in which four core epidemiological parameters are varied. The case library will be stored in a database containing the results of the simulated scenarios, with and without interventions such as vaccination and antiviral drugs. There will also be a readily available simulation model that quickly can be modified and adapted to the current pandemic. We believe that a case library will support policy decision making in times of urgency and enhance transparency.

Key message:

- In the event of an emerging influenza pandemic, a case library, containing estimations on vital characteristics of simulated scenarios with and without interventions, can aid decision policy making

Prediction models to identify workers at risk of sick leave due to low back pain in Dutch Industry

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Background

Low back pain is a major cause of the sick leave (SL) among construction workers. A prediction model could detect workers with increased risk on sick leave and could reduce SL or prevent it. Prediction models for SL due to low back pain specifically in healthy workers are lacking. The aim of this study is to develop a model based on factors measured in occupational health checks to predict SL due to low back pain among Dutch construction workers. Two techniques for reducing the model for daily practice are evaluated.

Methods

Occupational health check data of 32383 (22648 manual and 9735 non-manual) construction workers were linked to SL data during 1 year follow-up. The prediction model was developed using logistic regression analysis in manual workers and validated in non-manual workers. This model was reduced with two techniques: the opinion of 52 occupational physicians or statistical backward selection. The performance of all models was evaluated with calibration (Hosmer-Lemeshow test) and discrimination (area under the receiver operating curve, AUC) measures.

Results

During follow-up, 178 (0.79%) manual labour and 17 (0.17%) non-manual workers were on SL due to low back pain. The model did not accurately predict the SL risk and the AUC = 0.670 [95% CI 0.628-0.713] among manual workers. The expert based reduced model had an AUC=0.613 [95% CI 0.453-0.774] and the statistically reduced model had an AUC = 0.713 [95% CI 0.603-0.823] among non-manual workers.

Conclusions

Discrimination by the expert based reduced model was not significantly better than the statistically reduced model. However, discrimination was not sufficient to identify healthy workers at risk of SL due to low back pain. We need additional tools to identify SL due to low back pain in construction workers.

Key messages:

- The statistically reduced model performed better than the expert based model
- Dutch occupational health surveys provide insufficient data to develop practically useful prediction models for sick leave due to low back pain

Automatic identification of public health related Turkish tweets

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Background

People started to instantly share news/opinions through social media platforms like Twitter. Public health related concerns/news are also shared, especially on Twitter, so there is an increasing research attention on tweet analysis to track public health events. This study presents a software application that automatically detects public health related Turkish tweets, together with its performance evaluation result on a genuine tweet set.

Methods

First, we built a public health ontology in Turkish so that the ontology concepts (terms) can be used by our application. The ontology is built semi-automatically where related Wikipedia articles are automatically processed to extract some concepts which are later revised by the authors and the remaining concepts are manually included. The concepts are from four classes: (1) generic public health terms (2) diseases (3) generic medications (4) adverse drug reactions. We implemented an application in Java, which utilizes the existence of the ontology terms in a given tweet to determine whether it is related to public health or not.

Results

The application was evaluated on a randomly sampled set of 1,000,000 tweets published between February, 25 and March, 16, 2015. The application identified 1,052 tweets (~0.1%) as related to public health. To evaluate this outcome, the authors labeled these tweets and it was found that 819 tweets are related to public health while 233 tweets are not, hence, the precision of the application is 78%, which is a promising result. 386 of the correctly identified tweets (~47%) report upper respiratory tract infections like common cold, flu, laryngitis, swine flu, and sinusitis, as expected due to the period of our set.

Conclusions

Social media texts stand as a valuable source of instant information about public health events. Our ontology and application, with future enhancements, could be beneficial to public health experts who need to track public health events in a timely manner.

Key messages:

- Social media analysis can help track public health events
- Related software applications can be developed to be used by the experts for this purpose

SATURDAY 12 November 9:40-10:40

9.R. Poster walk: Children and adolescents

Validation of the Early Development Instrument to identify vulnerable children in German preschools

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Background

Early childhood is a key developmental phase with implications for social, academic and health outcomes throughout life. In Germany, a nationwide standardised documentation of children's development and health in early preschool is currently missing. The Early Development Instrument (EDI) is a teacher-completed questionnaire covering five developmental domains. It has been validated internationally with adoption in more than 10 countries. We aim to evaluate the psychometric properties of the German version of the EDI in Germany.

Methods

The EDI was translated and backtranslated. A pretest with five preschool teachers was performed and cultural validity assessed. For further validation, we recruited 23 preschools in south-west Germany with around 1000 eligible children (3-6 years). We will assess internal consistency, re-test reliability as well as factor structure with a planned sample of about 570 children. Associations between the EDI and 1) the German version of the Strength and Difficulties Questionnaire (SDQ) and 2) the revised version of the Dortmund Entwicklungs-screening für den Kindergarten (DESK 3-6 R) will assess concurrent validity.

Results

Besides the final German EDI we will present the pretest results regarding comprehensibility of items, appropriateness of prompted skills, acceptability of the questionnaire in preschools as well as the barriers during recruitment. The first results of reliability and validity assessments will also be shown.

Conclusions

There is a lack of nationwide data about the development of preschool children in Germany. The EDI might for the first time provide local authorities in German-speaking countries with comprehensive information about school readiness in preschools.

Key messages:

- The validation of the German EDI version aims at increasing the knowledge about preschoolers' development and health in German-speaking countries
- Such data would enable international comparisons regarding early child development

Construction and pretest of a national youth cohort questionnaire – the FOCA cohort

Merete Labriola

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Objectives

The aim was to pre-test the Danish National Youth Cohort (The FOCA-cohort). The FOCA-questionnaire was developed

during 2015 and the beginning of 2016, and consists of 96 questions capturing sociological, psychological and health related components of importance for future educational and work life trajectories. The questionnaire covers seven topic areas; 1) Demographics, material conditions and social status, 2) School and education, 3) Family context, 4) Health and wellbeing, 5) Peer context, 6) Psychosocial factors and 7) Health behaviour.

Methods

A pre-test of the questionnaire was conducted in order to evaluate in advance whether the questionnaire caused problems for the respondents. In March 2016 the pre-test was completed on a sample of 51 representative respondents of the target group from two schools in different municipalities. The respondents were chosen for the purpose of mirroring the final target group, and to cover a broad segment of subgroups.

Results

The pre-test showed, that the questionnaire in general was positively accepted regarding the applicability, comprehensibility and completeness of the questionnaire.

The time span for completing the questionnaire varied from 23 to 63 minutes with an average of 37 minutes. The majority of respondents indicated that the questionnaire was adequate in its design, with regards to the length and the time spent on completing the questionnaire.

Conclusions

The questionnaire survey will be conducted among 15.000+ 14-15 year olds during 2017 and is coordinated with a similar survey in Norway, enabling future comparative life course epidemiological studies of educational and work life trajectories.

Key messages:

- Pre-test of a baseline questionnaire for an upcoming survey among 15.000+ 14-15 year olds in Denmark
- The survey is coordinated with a similar survey in Norway, which will enable future comparative life course epidemiological studies of educational and work life trajectories

Health needs assessment in Jerusalem schools - a comparison between Arab and Jewish children

Keren Greenberg

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Background

School-based health interventions (SHI) allow upstream prevention of high risk health behaviors and acquisition of positive health habits. Health needs assessments are essential for effective SHI design and implementation. This study consisted of a health needs assessment of Arab and Jewish students. This exploratory study can inform SHI in the different sectors in Israel and worldwide.

Methods

Participants were 5th and 6th grade students from 21 randomly sampled Jewish and Arab schools in Jerusalem. 1,073 students completed questionnaires including items on health and risk behaviors, mental and physical health.

Results

70% of students consumed less than the recommended amount of fruit and vegetables and 70% engaged in less than the recommended amount of physical activity (PA). 25% of Arab boys and 10% of Jewish boys smoked >1 cigarette, and

nearly half the Arab boys smoked a water pipe (hookah). 78% of Jewish students and 69% of Arab students reported more than the recommended amount of daily screen time. Increased screen time was associated with increased consumption of unhealthy food ($p < 0.001$). PA and eating breakfast were associated with life satisfaction (LS), both $p < 0.01$. High LS was associated with decreased mental and physical symptoms ($p < 0.01$). Analysis of differences in health issues between the Jewish and Arab sector revealed that alcohol use, lack of PA, and low fruit and vegetable consumption were more prominent in Jewish students than in Arab students ($p < 0.05$, $p < 0.001$, $p < 0.01$, respectively), while smoking, violence, and unhealthy food consumption were more common in Arab students (all $p < 0.001$).

Conclusions

For both sectors, decreasing screen time may reduce unhealthy food consumption, and increasing health behaviors may impact children's mental and physical health. SHI in different sectors should target the identified health issues and utilize the identified potential pathways for behavior change

Key messages:

- Students from different sectors within the same city have different health needs.
- SHI in different sectors should target the identified health issues and utilize potential pathways for behavior change

Impact of low household income on lung function among school-aged children in Japan

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Background

Children living in low-income families may have toxic exposure, which induce poor development of lung function. However, little has been reported on the impact of low household income and lung function among children in Japan. Objective: To elucidate the impact of low household income on lung function among school-aged children in Japan.

Methods

Population-based sample of 976 children (5-17 years of age), living in and around Tokyo, Japan, from J-SHINE (Japanese study of Stratification, Health, Income, and Neighborhood) study was analyzed. The forced expiratory volume in 1 second percentage (FEV1%) was measured to assess lung function. Income and other potential covariates including children's status (age, BMI, number of siblings), parental status (age, height, BMI, educational status, smoking status, employment status), and annual household income were assessed through questionnaire. Low income was defined as less than 3 million JPY per year. Multiple regression analysis was used, adjusting for potential covariates.

Results

11.7% of children showed poor lung function (i.e. FEV1% less than 50%). Male children living in low-income family showed significantly lower FEV1% (crude coefficient: -14.4%, $p < 0.01$), the same is true after adjusting for parental smoking status (adjusted coefficient: -12.9%, $p = 0.02$), comparing with children living in middle-income family.

Discussion

Low-income children showed significantly lower FEV1%. Prevention and early intervention is necessary to help development of lung function among children under poverty.

Key messages:

- Low-income children showed significantly lower FEV1%

- Prevention and early intervention is necessary to help development of lung function among children under poverty

Sociodemographic inequalities in adolescents' health-related behaviours: the case of Sweden

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Background

Earlier research suggests that socioeconomic inequalities in health-related behaviours exist among young people, but with less clearcut patterns than among adults. The aim of the study is to examine to what extent sociodemographic inequalities in health behaviours in terms of alcohol use, smoking, physical inactivity, and regularly skipping breakfast and lunch, exist among adolescents in Sweden.

Methods

The data were obtained from the Swedish Living Conditions Survey (ULF) and its child supplements (Child-ULF) from 2008-2011 ($n = 4001$). Health-related behaviours were reported by adolescents aged 10-18 years and information on socio-demographic characteristics was derived from parents and from official registers. Binary logistic regression analyses were conducted.

Results

Clear sociodemographic inequalities in health-related behaviours were shown. Compared with their peers with parents in upper non-manual occupations, adolescents in working-class households were more likely to smoke (OR 1.53, $p = 0.033$), to be physically inactive (OR 1.54, $p = 0.004$), and to regularly skip breakfast (OR 1.78, $p = 0.000$) and lunch (OR 1.42, $p = 0.011$). Adolescents in households lacking a cash margin were more inclined to smoke (OR 1.47, $p = 0.033$) and to skip breakfast (OR 1.62, $p = 0.000$) as well as to skip lunch (OR 1.31, $p = 0.041$) than those in better off households. Not living in a nuclear family was linked with a higher risk of drinking alcohol (OR 1.57, $p = 0.002$), smoking (OR 2.32, $p = 0.000$), and skipping breakfast (OR 1.54, $p = 0.000$) and lunch (OR 1.55, $p = 0.000$). Adolescents with foreign-born parents were more likely to be physically inactive (OR 1.67, $p = 0.001$) and to regularly skip breakfast (OR 1.55, $p = 0.002$) compared with those whose parents were born in Sweden.

Conclusions

Sociodemographic inequalities in health-related behaviours clearly exist among adolescents in Sweden, along lines of household social class, financial strain, family structure and parental country of birth.

Key messages:

- Sociodemographic inequalities in health-related behaviours exist among adolescents in Sweden
- This is true for alcohol consumption, smoking, physical inactivity as well as dietary habits

Trends in excessive body weight, physical activity and screen time in Czech adolescents (2002-2014)

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Background

This study examined trends in overweight/obesity, physical activity (PA), and screen time (ST) among Czech adolescents over a 12-year study period.

Methods

Nationally representative samples concerned 19,940 adolescents (9,760 boys and 10,180 girls) aged 10.5–16.5 years from the Czech Health Behaviour in School-aged Children (HBSC) questionnaire-based surveys conducted in 2002, 2006, 2010 and 2014. Trends in the prevalence of overweight/obesity, meeting the recommendations for moderate-to-vigorous PA (MVPA) (≥ 60 minutes/day), vigorous PA (VPA) (≥ 30 minutes in ≥ 4 days/week), and excessive ST (>2 hours/day) were assessed using logistic regression.

Results

A significant increase ($p < 0.001$) in the prevalence of overweight/obesity between 2002 and 2014 was evident both for boys (18.3% \rightarrow 24.8%) and girls (8.3% \rightarrow 11.9%), although in girls it peaked in 2006 and declined later on. Compared to 2002, in 2014 we observed a significant decrease ($p < 0.001$) in meeting the MVPA recommendation in boys (32.2% \rightarrow 25.6%) and girls (23.2% \rightarrow 19.2%). A significant linear decline was revealed also in meeting the VPA recommendation between 2006 and 2014 among boys (45.8% \rightarrow 42.2%, $p < 0.01$). However, we found the percentage of girls meeting the VPA recommendation to linearly rise in the same period (24.4% \rightarrow 33.6%, $p < 0.001$). Moreover, in boys we observed a significant linear increase ($p < 0.001$) in excessive ST on weekdays (75.1% \rightarrow 88.8%) and weekends (78.3% \rightarrow 91.9%), while in girls an increase in excessive ST on weekdays and weekends stopped in 2010.

Conclusions

The notable increase in overweight/obesity with concurrent increase in excessive ST and decrease in PA in Czech adolescent boys, provides evidence highlighting necessity of public health efforts to implement obesity-reduction interventions.

Key messages:

- A burning need to develop effective obesity-reduction interventions arises, particularly in boys
- Increase in VPA participation, as observed in girls, might be a promising part of such interventions

Systematization of conceptual approaches for overweight and obesity prevention in children (SkAP)

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Background

Childhood overweight and obesity as well as related diseases are one of the most serious public health challenges of the 21st century. Since prevention of overweight/obesity needs high priority, there is a high number of interventions with multiple subjects, target groups and approaches for different settings in Germany. In order to provide a systematic overview SkAP aims at developing a catalogue of descriptive indicators, which can be used to analyze conceptual approaches of interventions on prevention of overweight/obesity in children.

Methods

A systematic literature search on generic and setting specific quality criteria for the conception of overweight prevention and on the determinants of overweight/obesity was conducted. PubMed, Medpilot, PubPsych, Cochrane, Cinahl and Google

Scholar were used as primary databases, as well as publications from relevant health promoting organizations. Year of publication (2009 to 2015) and setting focus (family, kindergarten, school and community) served as inclusion resp. selection criteria.

Results

Based on the results of the literature review, a comprehensive descriptive catalogue has been developed. It includes the following dimensions: setting, conceptual approach, target group, good practice requirements for the conception of universal prevention, and determinants of childhood overweight/obesity.

Conclusions

In the second phase the descriptive catalogue will be tested and applied for the systematization of conceptual approaches of existing interventions on the prevention of overweight. Expected results can be used to describe the German landscape of overweight prevention in settings and to identify gaps that need to be filled with further Public Health actions.

Key messages:

- The project contributes to the improvement of childhood overweight/obesity prevention by focusing on setting-specific approaches
- It provides an analytical method for systematization of conceptual approaches of health promotion and prevention

Identifying common health determinants of oral diseases and obesity in pre-adolescents

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Objective

Obesity and oral diseases are particularly frequent in disadvantaged children and are bound to environmental determinants and behavioural risk factors. This descriptive survey evaluated the oral health, stature-weight status and related risk factors in a representative sample of 1304, 12 years-old New Caledonian children.

Methods

Dental caries, gingival status, chewing efficiency and presence of oro-facial dysmorphologies were clinically recorded at school. The body mass index (BMI) and the waist to height ratio (WtHR) were calculated. Participants responded to a questionnaire concerning socio-demographic and behavioural variables, experience with dental care and reported oral symptoms. Children were categorized into 4 groups; Oral Diseases (ODG), Overweighed (OG), Overweighed and Oral Diseases (ODOG) and Healthy group (HG) and a multivariate analysis was conducted using mixed-effects multinomial logistic regression models.

Results

($n = 1201$) showed that 36.6% of the children were healthy, 27.3% had oral diseases (ODG), 19.7% were overweighted (OG) and 16.5% were affected with both conditions (ODOG). Ethnicity, tooth-brushing frequency, smoking habits were significant risk factors for the ODOG and ODG groups as compared with HG. The OG was influenced only by ethnicity. The daily use of sweet drinks was not a significant risk factor.

Conclusions

This study showed that the prevalence of both oral diseases and overweight was high, indicating the need for a global health policy. Ethnicity was found to be a common determinant, to be thoroughly considered in health promotion programs integrating oral health in NC.

Key messages:

- The prevalence of oral diseases and overweight is high in New Caledonian pre-adolescents
- Health promotion programs integrating oral health, adapted to high-risk native populations are needed

Family matters in obesity treatment for children and adolescents

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Obesity in childhood and adolescence significantly expedites the development of long-term health consequences such as type 2 diabetes and cardiovascular disease - which are now affecting people at younger ages. An increasing number of interventions focus on involving the child's/adolescent's family in the treatment as a way of securing contextual and long term effects. However, methods for involving the family seem rather diffuse and often there is no genuine family involvement generated. The objective of this study is to explore challenges and potentials for creating genuine, positive and appropriate family involvement in obesity interventions for children and adolescents.

Methods

10 families participating in the "Family-package": a lifestyle intervention in a Danish community setting, were randomly selected for in-depth semi-structured family interviews that took place in their homes. The interviews were analysed and interpreted following hermeneutic guidelines. We used a theoretical construction focussing on self-observation, horizons of significance, expectational structures, and social imaginaries.

Results and Conclusions

Family involvement is a complex matter often characterized and hampered by unclear structural relations and contrasting needs and expectations within the family. Supportive and obstructive behaviours often co-occur. Therefore, more family involvement is not necessarily in itself beneficial. Family members often describe confusion about their roles and responsibilities in relation to the obesity problem and this may result in (unintended) family conflict. A way of approaching the challenges of intra-familial communication is to look at contextual conditions for developing a shared family identity. When family members experience considerable stress associated with their identities and roles, it is the mutual understanding of roles and interconnected relationships that affect their interpretation and response to the role.

Key messages:

- Family involvement is a complex matter often characterized and hampered by unclear structural relations
- Family members often describe confusion about their roles and responsibilities in relation to the obesity problem

Desktop HIA: reduction of availability of sugar sweetened beverages in Upper Austrian schools

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Quite a lot of food and beverages contain added sugar. The consumption of products like sugar sweetened beverages and sodas has a major impact on the overall consumption of sugar and thus, calories of a person. Studies and reviews show that the (over)consumption of sugar sweetened beverages leads to obesity and other diseases like type 2 diabetes among children

and adolescents but also among adults. A common strategy to reduce the consumption of sugar sweetened beverages is reducing the availability of these beverages in schools. The research question of the desktop HIA asked whether this strategy would have an impact on the overall consumption of sugar sweetened beverages among pupils in primary and secondary schools in Upper Austria.

In the course of this desktop HIA, data were analysed and national and international literature was researched to get an overview of the evidence. The results of this research were discussed in workshops with experts and players of relevant fields like Upper Austrian school administration, nutritional science, grocery trade, public health, etc. This group of people assessed the potential positive and negative impacts of an availability reduction of sugar sweetened beverages in primary and secondary schools in Upper Austria and deduced recommendations for improving the strategy.

The major result of the desktop HIA is that the sole reduction of availability of sugar sweetened beverage in primary and secondary schools does not have any impact on the daily overall consumption of sugar sweetened beverages of concerned children and adolescents. However, if the availability reduction is combined with supportive measures like appropriate pedagogical programs and interactive workshops for the pupils, a realistic chance to change their drinking behaviour (also outside school) exists.

Key messages:

- The sole reduction of availability of sugar sweetened beverages from primary and secondary schools has no impact on the overall consumption of sugar sweetened beverages among children and adolescents
- The desktop HIA is an appropriate instrument to analyse potential health outcomes of policies and offers the chance to improve these policies

School principals' about adolescents' lifestyle issues and school efforts to solve them

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School - an important health promotion place that can deploy a variety of wellness programs and encourages the whole school community and each of its members to participate in the development of general health education programs, cooperation between schools and programs. In health promotion process among adolescents special attention must be paid to the children's activities competences and active involvement of children in health promotion activities through teamwork approach. However and parent should be actively involved to these actions through modern and innovative measures.

Methods

Cross-sectional data were collected in 2010 and 2014 as the part of WHO International Health behavior in school-aged children (HBSC) study in Lithuania (N = 238). Surveys were filled by school principal or deputy.

Results

In one third of school environment prevails criminality, manifestations of alcoholism and drug addiction, constant heavy traffic. At school community, the biggest problems referred to: bullying among students (37.8%); smoking on school grounds (31.0%); physical conflicts-fights (11.9%); adolescents are tend to feel chronic fatigue (19.1%). 80% of schools have strategic action plans in health promotion, but only part of them (69%) could clearly identify them. Only half of the Lithuanian school communities (54.5%) actively invite parents to join the school-based health promotion activities. In most of schools, main form to identify students' opinion about their school

programs and strategies in field of health education is based on "passive-democracy" - questionnaire surveys (97.6%); through online school sites (56.5%); opinion-offer boxes (38.6%).

Conclusions

Health promotion component is more passive experience, rather than a continuous all-encompassing action in Lithuania schools.

Key messages:

- The most urgent problems at schools communities are bullying, physical conflicts, smoking and pupils experienced chronic fatigue
- Health promotion programs at Lithuania schools are more passive rather than actually implemented

Introducing Tabata intervals and stability exercises in school children by a school-based study

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Background

Earlier studies have shown that children of today have a decreased strength in the upper body and trunk. They are also less physical active than children have been before, which causes an increased risk for the health in the future. The aim of the present study was to examine if a 4 min Tabata interval session, with stabilizing exercises, every school day have any effects non-physical performance, strength and stability in schoolchildren. The second aim was to explore the teachers' experiences to integrate the Tabata training under school lessons.

Methods

The study was conducted as an intervention study with a mixed-method approach.

Forty-two children aged 7-9 years, 23 girls and 19 boys participated, and additionally, 13 children were recruited as a control group. The study was conducted during class hour and was performed in the classroom. After the completion of studies and the physical tests were conducted an interview with the teachers of the children who had participated in the Tabata study. The interviews gave the teachers the opportunity to share views about the intervention.

Results

The Physical tests showed significant increases in only two tests after the intervention period. A significant increase number of the push-ups ($P < 0.05$) and push-up (knee) ($P < 0.05$) were shown. The teachers' experience of the study were that it had worked well with the study. In terms of the study has several positive aspects emerged: Important elements of movement in the classroom! Has given both the children and me energy! I think it's been interesting to see the change in the pattern of movement of several children!

Conclusions

All of the physical tests that showed a significant increase had a similar exercise included in the Tabata session. The teachers agreed that it has worked well to integrate Tabata intervals in classroom.

Key message:

- Tabata intervals and stability exercises in school children by an intervention programme could be one method to increase the children's interest to physical activity and ultimately to better health

Multigenerational playgrounds – an approach promoting physical activity and community health

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Background

A lack of exercise can be diagnosed for all generations in German-speaking countries, therefore it is necessary to develop generation linking and health-promoting offers. A multi-generational playground is an exercise activity for multi- and intergenerational usage. The aim of this work was to identify existing evidence concerning best practice criteria for multi-generational playgrounds.

Methods

A semi-systematic and selective literature research in databases (PubMed, Science Direct, Google Scholar), the library of FH JOANNEUM and on the internet, was conducted. Grey literature was obtained by e-mail-requests which had been sent to experts. Literature, in English and German, which was filtered by predefined inclusion/exclusion criteria, from 2000-2015, got implied into the review.

Results

Overall 43 sources of 7 countries were included in the review. The origin of multigenerational playgrounds is China. It does not exist a uniform term for multigenerational exercise activities. In this work a term and definition was defined and used. For a successful implementation 9 success criteria could be identified: location, equipment, infrastructure, equipment description, public relations, participation of future users, exercise lessons with professional instruction, already developed guidelines and required certification. To avoid possible problems ahead, during or after the implementation it is necessary to take care of the description of multigenerational playgrounds, the sometimes linked utilization and the difficulty of multigenerational usage, liability and possible vandalism.

Conclusions

Although it does not exist a uniform term for multigenerational playground, the 9 identified success metrics show how a practice-based project has to be structured. Furthermore, there is a demand for scientific research regarding the health sector as well as the tourism and marketing sector.

Key messages:

- A lack of exercise can be diagnosed for all generations in German-speaking countries, therefore it is necessary to develop generation linking and health-promoting offers
- Multigenerational playgrounds support a healthy lifestyle by using the advantages of intergenerational exercise activities. Implementation should follow the identified nine success criteria

9.S. Poster walk: Infectious diseases

Occurrence of Salmonella 4,[5],12:i:– in mollusks in Northern Italy and its antibiotic-resistance

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Background

The research of Salmonella sp. in shellfish harvesting areas is mandatory in all European MS for shellfish harvested in class A areas. The Shellfish Monitoring plan in Emilia Romagna has been implemented since 1997. *S. enterica* serovar 4,[5],12:i:–, which is a monophasic variant of *S. Typhimurium*, is becoming a serious public health problem in Europe. It is listed between the ten most common Salmonella serovars isolated from humans in the European countries. It has been isolated from pork, poultry, beef and vegetables.

Methods

Since 1997 have been analyzed a total of 10762 samples. It was applied ISO method.

Serotyping was performed by using commercial antisera. Antibiotic-resistance has been carried out according to Kirby-Bauer method.

Results

In the study area *S. enterica* serovar 4,[5],12:i:– was isolated for the first time in 2004 and 2009 in seawater and in molluscan shellfish respectively. Its isolation increased further and, from 2004 to 2015 22 Salmonella enterica serovar 4,[5],12:i:– have been isolated from seawater and 5 from mollusks.

The susceptibility to antibiotics has been tested for 27 serovars against. 23 antibiotics belonging to the classes of aminoglycoside antibiotics, chloramphenicol and derivated, cephalosporins, quinolones, penicillins, polymyxin, sulfonamides, tetracyclines, β -lactam antibiotic, and β -lactamase inhibitor. 14 out of 27 (51,8%) strains showed a resistance to six or more antibiotics; 2 strains show resistance to 3 drugs; 2 strains show resistance to 2 drugs; 7 strains showed resistance to 1 drug, and only 2 strains were sensitive to all the antibiotics tested.

Conclusions

Mollusks are not the most important source of Salmonella infection in humans but the increasing isolation of Salmonella enterica serovar 4,[5],12:i:– in these products should not be ignored. The widespread habit of eating raw or undercooked mollusks is a hazardous behaviour that increases tremendously the public health concerns.

Key messages:

- Salmonella enterica serovar 4,[5],12:i:– increases its potential as a public health problem
- The growing isolation of *S. 4,[5],12:i:–* from mollusks represents a considerable threat to human health

Spatial and temporal evolution of cases of lower respiratory infections in Morocco from 2009 to 2013

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Background

Lower respiratory infections (LRI) are a source of significant morbidity and mortality in addition to the costs incurred either directly or indirectly.

Our goal is to study the spatial and the temporal distribution of lower respiratory infections and to determine the high risk areas of transmission from 2009 to 2013.

Methods

Our study is retrospective and descriptive, data was brought from the Moroccan Ministry of Health specially the database of epidemiological survey of LRI, mapping was done on the Philcarto 5.7x software and according to the 16 regions of Morocco, analysis search of space clustering was performed on 9.4 SaTScan

Results

Our study showed that 2011 was the most endemic year in Morocco with 249106 cases (20.95%) of LRI during the 5 years with an incidence of 6.1%.

The region of Casablanca was the first concerned by cases of lower respiratory infections, followed by the region of Marrakech then Rabat.

Two significant clusters (risk areas LRI) were detected in our analysis the first cluster included the regions of Gharb, Tangier, Rabat, Taza, Casablanca, the relative risk was equal to 1.73, the second cluster included area of Souss, Marrakech and Tadla with a relative risk equal to 1.07

Conclusions

We propose to complete with prospective and comparative studies to investigate the specific risk factors of LRI in the region of Casablanca.

The Conference of the Parties (COP 22) will be held in Marrakech in December 2016 with the main topic 'mitigating the effects of climatic change and adaptation innovation', it will include the possible solutions to solve problems of climatic changes which are a major cause of chronic respiratory diseases.

Key messages:

- A sojourn in the area of Casablanca exposed to a great risk of catching an LRI
- Morocco should increase its efforts in the fight against the LRI targeting areas with high risk of infection as the region of Casablanca

Tailored communication to hard-to-reach groups–A pilot in a Somali community, Sweden, on vaccination

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Issue

Immunizations and a high vaccination coverage are of major public health importance to prevent diseases. The risk of an

outbreak is high in a Somali community, where the MMR (Measles, Mumps and Rubella) vaccination coverage is low (70%). Using WHO's methodology Tailoring Immunization Program (TIP), fear of autism was identified as the main barrier for vaccination. Innovative tailored communication interventions were piloted to tackle the MMR vaccine hesitancy, which can be adapted for other hard-to-reach groups.

Description of the problem

The aim is to reach a vaccination coverage of 95% for MMR in the community. The primary objective is to examine if the tailored interventions reaches the targeted community and secondly if these interventions leads to changes in attitudes and behaviours. Therefore, innovative tailored communication packages have been developed: (i) oral, visual information and public seminars in Somali; (ii) a parent peer-to-peer group training; (iii) updating seminars on vaccine hesitancy for the Child Health Clinics (CHC) staff. The intervention is being implemented and evaluated throughout 2016.

Results

Preliminary results show that the tools are well received by the parents, the community have been active in the interventions with an increasing participation rate, 14 mothers completed peer-peer training and all CHC staff attended the seminar sessions. RE-AIM (Reach-Effectiveness-Adoption-Implementation-Maintenance), has been identified as a framework to evaluate the interventions.

Lessons

Collaboration with health care professionals and established structures in the community is effective for dissemination of information. The TIP is a useful tool to identify susceptible groups and design tailored interventions.

Key message:

- Implementation and evaluation of tailored communication interventions as tools to motivate changes in parental attitudes is of importance to increase vaccination coverage in hard-to-reach communities

YouTube Italian videos on vaccinations: a content analysis

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Introduction

In Italy there is a large public debate about the utility of vaccination and the current decrease of vaccination rates is a matter of concern. The influence of the Internet on vaccination decision-making was also demonstrated. In recent years, YouTube has become increasingly popular as a video-sharing platform to disseminate health-related information. The aim of the study was to analyze the content of Italian YouTube videos about immunization.

Methods

An observational study was conducted searching for YouTube videos in January 2016 by using the keyword "vaccinazioni". We included videos in Italian on vaccination in children and recently posted (2014-2015). The selected videos were described according to source, clip length, number of views, comments, likes, dislikes, shares, and topic. Videos were classified as either positive or negative according to tone of the message (pro-, anti-vaccination, ambiguous or neutral).

Results

A total of 123 videos were selected. Overall, the source of videos was health institution in the 30% of cases. Videos pro-vaccination were 62 (50%), anti-vaccination 28 (23%), neutral 18 (15%) and ambiguous 15 (12%). Videos pro-vaccination

had a higher number of views compared to those unfavorable (1602±6544 vs 1483±2735; $p < 0.001$). The mean length of the videos was 15.40±33.56 min and videos which supported vaccinations were shorter than those with negative tone (6.7±13.4 min vs 28.6±44.0 min; $p < 0.001$). Videos anti-vaccination were liked more by viewers than positive ones (4.0±25.1 vs 15.9±30.0; $p < 0.001$) and had more comments (2.2±4.7 vs 0.7±2.5; $p < 0.001$).

Conclusions

Most of the videos were positive in tone, but those that disapproved immunization were the most liked. Considering the increasing number of web users, health institutions should invest in more effective communication strategies in order to correctly guide public opinion about vaccination.

Key messages:

- The number of videos on vaccination is high as the number of viewers. This is an area important to monitor considering the potential of web tools for influencing public awareness and opinions
- This study highlights the opportunity for public health to use Web2.0 tools as YouTube videos to communicate accurate and credible information regarding vaccination

A health promotion campaign to improve flu vaccination adherence among Italian medical residents

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Background

In Italy annual flu vaccination is highly recommended for health care workers (HCW) but coverage is usually unsatisfying. The compliance is even worse among medical residents (MRs) and this is shown by both the literature and our experience: in the flu season 2014-15, only 6 MRs (0.6%) were vaccinated, three times less than senior colleagues. This study aims to analyze the impact of a specific campaign put in place in the last flu season on vaccination coverage among the MRs of a large Teaching Hospital in Rome.

Methods

During the 2015-16 flu season, the Hospital Management together with the Occupational Medicine Service started a campaign to raise the awareness about immunization through active invitations by personal email and posters in strategic places. Furthermore they duplicated the locations in which the MRs could be vaccinated: one in the hospital building, as in the previous year, and a new site at the occupational surveillance ambulatory in the University.

Results

99 out of a total number of 1064 MRs (9.3%) belonging to 46 specialties were vaccinated, 8.7% more than in the previous season ($p < 0.001$). The highest vaccination coverage was found among MRs of Hematology and Urology (54.5%) and of Infectious Diseases units (53.8%). However, in about 50% of specialties no one was vaccinated. MRs belonging to surgical specialties showed a lower, but not significant, compliance with respect to colleagues from medical specialties (6.2% vs 10.9%).

Conclusions

Seasonal flu vaccination among HCWs is important to protect patients as well as themselves and their loved ones. Considering that MRs represent the next generation of HCWs, they should be sensitized about the importance of preventing the spread of influenza in hospital population. This

study highlights an initial and promising increase in MRs flu vaccination coverage following the introduction of simple strategies to promote the awareness and uptake of vaccination.

Key message:

- A close cooperation between the hospital management and the occupational medicine service could represent a good starting point to improve flu vaccination adherence among MRs

Compliance with malaria chemoprophylaxis in travelers: a systematic review

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Background

More than 200 million cases of malaria with more than 600,000 deaths per year occurred worldwide. The growing number of people travelling to tropical destinations led to an increased number of imported malaria cases in developed countries. Adherence to chemoprophylaxis is influenced by many factors such as age, nationality, and reasons for travel. The aim of this review was to assess and classify the main reasons for not or low adherence with malaria chemoprophylaxis (CP).

Methods

We included in our study all the articles found in PubMed using these terms: “Adherence AND prophylaxis AND malaria AND travel”. We then conducted a second literature research using the Mesh-terms “medication adherence”, “patient compliance”, “malaria”, “prevent measures”. We excluded not pertinent studies and articles not in English, French or Spanish.

Results

We considered 76 studies. The adherence to CP varied from 99.3% to 3%. Among military personnel working in endemic countries the adherence to CP varied from 93.8% (Japan soldiers) to 30% (U.S. soldiers). Adherence to Mefloquine was higher than to Chloroquine or to Chloroquine-Proguanil. The most common reasons for low or not adherence with CP were: fear of side effects, forgetfulness, travel duration, incorrect information, low risk perception and inappropriate health advice.

Conclusions

A better commitment from health personnel in order to increase the awareness of malaria risk among travelers seems to be necessary to prevent cases of imported malaria. It is also useful to discuss with travelers on the potential side effects of each medication in order to identify the most suitable for each individual and to increase CP adherence.

Key messages:

- This systematic review let us determinate the main reasons of low or not adherence with malaria Chemoprophylaxis
- Increasing adherence with malaria Chemoprophylaxis in travelers represent the main intervention in order to prevent cases of imported malaria

A systematic review aimed at studying the influence of educational attainment on HAART compliance

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Background

The introduction of Highly Active Antiretroviral Therapy (HAART) has definitely improved the quality of HIV patients' life, although its benefits depend on a strict compliance to therapy. Compliance can be considered as a dynamic process influenced by several variables that include some modifiable determinants such as education. The knowledge of its influence on compliance can lead to change the approach to the HIV patients. The aim of this study is to understand if educational attainment conditions HAART compliance.

Methods

The present search represents an update of a previous review on the same topic. Studies were selected using Boolean strings in PubMed and Scopus as databases. A snowball analysis was executed too in order to widen the number of articles. Inclusion criteria were: post-HAART era (1996), concerning adult patients (≥ 18 years), written in English. A data abstraction form was used to abstract and to record study details by two researchers. Methodological quality of studies was furtherly evaluated through Newcastle-Ottawa Scale (NOS).

Results

Out of 3502 articles, 32 observational studies (10 cohort and 22 cross-sectional) were included in the review. Total sample regarded 19321 people. In 41% of studies adherence was assessed through self-report, in 34% through interviews and in the rest (25%) adherence was measured through other methods or combined ones. 37% of selected studies were conducted in Developing and Emerging Countries (mostly African or Asiatic ones). In 58% of these studies and in 30% of studies set in Developed Countries a low level of education was found to influence HAART compliance.

Conclusions

Our research suggests that education attainment is an important factor to be considered in strategies aimed at improving HAART compliance in both Developing and Emerging Countries and Developed ones, although educational systems can not be compared completely.

Key message:

- HAART compliance is a complex process in which socio-economic determinants have to be considered in order to improve it

World's final steps in ending Polio: Pakistan's current standing on IPV introduction

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Background

In current crucial times, when polio legacy displays the largest synchronized global “SWITCH” from trivalent OPV to bivalent OPV; Inactivated Polio Vaccine introduction (IPVI) into the routine immunization (RI) program remains a critical step. Since its launch in 2014, all South Asian countries have introduced IPV in RI schedule. Scheduled start date for Sindh, Pakistan was 5th October, 2015. However, little is known about the current standing of IPVI at RI centers in the country. We aim to report the initial results of the study aimed to examine the status of IPVI at public sector RI centers in Sindh, Pakistan.

Methods

The survey was conducted at public sector RI centers in Sindh, Pakistan, which were selected through multistage cluster sampling (n = 169). The sites were examined for availability of IPV vials, availability of IPV buffer stock, recording of monthly RI IPVI target children and coverage reports; and knowledge of vaccinators regarding IPV schedule in the RI program. Descriptive results are reported as proportion and frequencies.

Results

Complete data was collected from 144 sites excluding missing information. Only 5% (n=8) of the centers initiated IPV administration on assigned date (October 5th 2015), while 6.25% (n=9) of the centers have not initiated IPV administration till December 2015. Almost 16% (24) of the RI centers surveyed had no IPV available at the time of visit. Further, 11% (16) of the RI centers did not have recommended buffer stocks of vaccine available. With regards to reported coverage of IPV, discrepancies were observed among 22% of the monthly reports of IPV coverage. Among vaccinators 8% did not responded correctly to the IPV administration schedule.

Conclusions

Several gaps exist at service delivery level. The initial findings of the study may be used to devise effective corrective action plans that are required urgently to ensure smooth rollout of the vaccine.

Key message:

- With regards to IPV in RI schedule in Pakistan, several gaps exist at service delivery level

Knowledge of antibiotic therapy among dental students in Polish medical universities

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Background

Antimicrobial resistance has become one of the biggest issues in medicine and public health worldwide. The reason for this problem lies mainly in the overuse or imprudent use of antibiotics. Due to the frequent prescription of antibiotics in dental medicine, dentists' knowledge of antibiotic therapy is particularly important. The aim of the study was to evaluate the knowledge of antibiotic therapy among students just before taking their final examinations in order to graduate.

Methods

A questionnaire consisting of 28 questions was developed to be completed by respondents (May-June 2015). The study group comprised a total of 752 dental students from ten medical universities in Poland.

Results

The majority of respondents (93%) believed that antibiotic resistance is now a major problem. Approximately half of the respondents considered that dentists use antibiotics too often. One-fifth of the students believe that antibiotic prophylaxis preceding tooth extractions in patients with orthopedic implants is always recommended and 42% believed that the

indications for prophylaxis were dependent on the risk factors present. Almost all the respondents indicated as acceptable the use of penicillins and cephalosporins in pregnant women and 73% were aware of the possibility of deleterious effects of fluoroquinolones on cartilage in children. However, only 15% correctly selected the appropriate antibiotics to be used safely in lactating women.

Ninety percent of the respondents would like to expand their knowledge on antibiotics. More than half of the respondents believe that these issues have not been discussed sufficiently during their studies.

Conclusions

The study revealed the diverse knowledge among dental students regarding the use of antibiotics.

Key message:

- The study results indicated the need for broader education of dental students in respect to antibiotics and the risks of their misuse

Identification of different malaria patterns due to *Plasmodium falciparum* and *Plasmodium vivax*

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The identification of epidemiological pattern of infection with *Plasmodium falciparum* and *Plasmodium vivax* in malaria-endemic area, where multiple episodes are common, is important for intervention programmes. A longitudinal cohort study based on weekly house-to-house visits was conducted between in 2,040 children less than ten years of age, living nearby the Gilgel-Gibe hydroelectric power dam reservoir in order to determine factors associated with increased *P. vivax* and *P. falciparum* incidence. Multivariate frailty models were applied (using time-to-first malaria episode data and time-to-recurrent malaria episode data), allowing the estimation of adjusted hazard ratios (AHR) of potential risk factors (gender, age, proximity to the dam reservoir, and season) for species-specific malaria incidence. Of 2,040 children in 96 weeks of follow up, 864 children experienced at least one malaria episode: 685 due to *P. falciparum* in 548 children, and 385 due to *P. vivax* in 316 children. *Plasmodium vivax* and *P. falciparum* malaria incidence rates were 8.2 (95% CI: 7.3-9.1) and 14.6 (95% CI: 13.4-15.6) per 1,000 children per month, respectively. According to the time-to-recurrent event models, children aged ≥ 7 years had a lower risk of presenting *P. vivax* episodes (AHR = 0.6; 95% CI: 0.4-0.9), but a higher risk of *P. falciparum* episodes, when compared with children under ≤ 3 years (AHR=1.2; 95% CI: 1.1-1.6). In addition, *P. vivax* (AHR = 2.7; 95% CI: 2.2-3.5) and *P. falciparum* (AHR = 16.9; 95% CI: 14.3-20.2) episodes were respectively 2.7 and 16.9 times more frequent in the dry season than in the long rainy season. The analysis of all malaria episodes (first and recurrent episodes) in the malaria cohort suggests different species-specific patterns of malaria disease in children, with mild seasonality in the incidence of *P. vivax* episodes mostly observed in younger age groups, and with marked seasonality in the incidence of *P. falciparum* episodes mainly seen in older children.

M type of Clinical Isolates of Group A *Streptococcus* in Pleven (Bulgaria) and vaccine development

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Background

Group A streptococcal (GAS) infections of the pharynx are the most common bacterial infections of childhood. Early attempts of preventing streptococcal infection by immunization date from the 1940s. At the present stage there are several variations of streptococcal vaccine but only 26-valent M protein based vaccine has been clinically trialed. The aim of this study is to do M serotyping of GAS strains, isolated from children with sporadic forms of acute streptococcal tonsillitis and to determine the coverage of vaccine isolates with the experimental vaccine.

Methods

We performed a prospective epidemiological research in the town of Pleven (Bulgaria) in 2014. One thousand three hundred and thirty children with acute tonsillitis have been examined. Lancefield group of the isolated streptococci in pure culture medium was determined using the standard latex agglutination test. The isolated GAS have been identified by M serotype using conventional methods in the National Reference Laboratory of National Center of Infectious and Parasitic Diseases, Sofia (Bulgaria).

Results

The proportion of isolated beta-hemolytic streptococci was 10.29%, of which GAS prevail (8.63%). Serotyping of GAS showed circulation of 20 M serotype in Pleven region, dominated by M25 (24.4%), M12 (11.3%) and M8 (11.3%). The theoretical coverage of experimental vaccine was defined as the proportion of isolates in the region to those contained in the 26-valent M protein based GAS vaccine. The vaccine contained ten (38.46%) of the isolated M types. However the most common serotypes M25 and M8 were not included.

Conclusions

The results of this study show that the use of this vaccine in Bulgaria would be ineffective because there are no correspondence between the vaccine strains and the dominant strains in the region. The significant differences in M type distribution require an alternative reformulation of the vaccine in different parts of the world.

Key messages:

- The determination of the dominant M serotypes in society and vaccine development are an essential part of streptococcal infections surveillance
- Epidemiological surveillance of streptococcal infections requires introduction of effective preventive measures to the level of public health

The web based national vaccination competence education modules, the experiences of students

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Background

In Finland about 3000 nurses (public health nurses, PHNs, nurses, midwives) are graduated per year. Nurses are in a key role carrying out the National Immunization Program, NIP. The web-based vaccination competence education modules (Basics 2 ECTS, Advanced 1 ECTS) has been created to ensure high standard vaccination competence. The modules include theory, assignments (f.ex. cases, pop-up cases), video materials and lectures, online links to THL Vaccination web pages, portfolio and National Electronic Exams.

The development of the modules was carried out (2013-15) by three Nursing education units of University of Applied

Sciences, UAS's and Medical Specialists of National Institute for Health and Welfare (THL). In Finland nursing studies are provided in 22 UASs. By paying a little fee all UASs can use these modules maintained by Helsinki Metropolia UAS in Moodle digital learning environment. Technical and substantive support for education is available for teachers by expert teachers.

Objectives

Harmonizing the education is aiming to strengthen the vaccination competence of nurse students and nurses. Translating the modules to Swedish (second official language) has been planned. Feedback of students and teachers has been collected by webropol surveys during 2015-2016.

Results

About 3000 students have completed the studies. Altogether 311 students and teachers from 11 UASs has given feedback of the modules. The methods, content and virtual learning were perceived very successful. Students liked the possibility to do studies temporally flexible. Students expressed the need for labs in the schools where labs were not provided. Teachers average estimate of the quality of the training modules (scale 1-5) was 4.6. Teachers gave some suggestions for the content and assessment criteria of the portfolio.

Conclusions

The web based national vaccination competence modules and exams in electronic format are easy to use and very well accepted by students and teachers.

Key messages:

- Both teachers and students have perceived this homogenous and broad model of vaccination education very necessary. Training has been implemented widely by very well planned implementation process
- Uniform education models harmonize the education. If nurses are in a key role carrying the NIP we can highly recommend to create some kind of similar educational models for nurses if possible

Use and misuse of antibiotics among students in Serbian province Vojvodina

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Background

Increased use of antibiotics has contributed to the emergence of bacterial resistance, in hospitals and in community settings. Antibiotics are efficient drugs to fight bacterial infection, but they are believed to undermine immunity. The aim of this study is to explore the knowledge and patterns of antibiotics' use and misuse among students in the North Serbian province of Vojvodina.

Methods

A pilot study was conducted among 60 students of different profiles, enrolled at the University of Novi Sad, the largest University in Vojvodina. They were asked to fill in an anonymous questionnaire about their knowledge and use of antibiotics.

Results

The results show that 97% of the students have used antibiotics at least once in their life and almost half of them (44%) used antibiotics as self-medication. Moreover, when self-medicated, only half of the students (51%) have confirmed that they have always read patient information leaflets, while one third (33%) read leaflets only occasionally, and 16% never read the leaflets. Almost one third, i.e., 32% of the students have changed the antibiotics' dose during the treatment and 70% have terminated the prescribed therapy before the doctor recommended doing so. Although only 3% of the students consider self-medication with antibiotics a good practice, 37.5% believe

that self-medication of antibiotics, i.e. antibiotics "misuse" is an acceptable practice. Furthermore, 38% believe that antibiotics are intended for viral infection and apply them for non-bacterial infection symptoms.

Conclusions

The results indicate that students do not have adequate knowledge about the use of antibiotics, nor are they aware of the dangers of antibiotics' "misuse" caused by low compliance.

Key messages:

- Antibiotics' "misuse" has been observed among 44% of the students in Vojvodina, while 38% believe that antibiotics should be applied in viral infections
- Health education is required among students

SATURDAY 12 November 11:10-12:10

10.R. Poster walk: Health services research

An overview of health services research in France between 2010 and 2015

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Background

The main objective of this study is to provide a better understanding of health services research in France, which is one of the priorities for public health research planning. This field can be difficult to define, considering its heterogeneity and the fact that the knowledge produced is not only academic, but also has a strong connection with decision-making.

Methods

A bibliometric analysis was conducted in order to identify the main poles in knowledge production, the authors' networks and the subjects of research. This analysis was strengthened by the conduct of semi-structured interviews with researchers and institutional players.

Results

In France, several research teams dedicated to health services research exist in the main cities. However, this does not seem to be sufficient to build a critical mass of researchers and most of the time the teams have a disciplinary basis. The bibliometric analysis reveals the objects studied and group them into categories based on co-occurrence of keywords. The interviews also show that the definition of "health services" is unclear and underline the porosity of boundaries between research, expertise and evaluation. Furthermore, the field does not seem to be well understood by its evaluators, which makes the maintenance of interdisciplinary teams complicated. The interdisciplinary projects tend to leave little room to social science disciplines.

Conclusions

This study explains the structure of health services research in France and the obstacles faced by the researchers. It allows a discussion with the stakeholders on how these barriers can be broken down.

These preliminary results will be completed by an analysis of the relationships between researchers and decision-makers, in a field of research connected with the needs of policy-making.

Key messages:

- This overview provides a better understanding of the emerging field of health services research in France, a priority for public health research planning
- This work points out the main obstacles to health services research development and allows a discussion with the stakeholders on how these barriers can be broken down

Management of services of frequent attender in primary health care and the interface with social care

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Background

The healthcare system is under reform and one goal is the integration of services between health and social care in Finland. An estimation that 10% of the population who are most in need of primary health care (PHC) services use 80% of the services challenges to recognise the frequent attenders and to improve the coordination of services.

Methods

General practitioners (GPs) and registered nurses (RNs) working in PHC units received a survey related to a case of a 36-year-old, long-term unemployed woman with the symptoms of depression and ill health. Patient data shows that during the past year she had visited the emergency room at least 9 times (various symptoms including intoxication). The survey focused on professional skill-mix and the care management in her treatment. 43 of 62 key informants responded to the survey.

Results

A physician-nurse working pair mentioned being in charge of the care by 22%, RN by 9%, GP by 9%, and some other health care worker by 7% of the key informants, while 53% reported that no single person was in charge of the process. The skill-mix of care included GP (100%); RN (73%); RN, special focus on psychiatry (44%); psychologist (40%); and /or social worker (29%). Usually, the treatment pathway will start for an appointment with RN (70%). The supporting services for the patient to manage her conditions varied, but lifestyle counselling by RN (53%) or by GP (47%) as well as group based lifestyle counselling (44%) were mentioned. Patient's active involvement to make a treatment plan was used by 56% of respondents but a written treatment plan delivered less often (27%).

Conclusions

Care processes standardized by the vignette of the patient with a lot of need of services reflect variation in treatment practices. The integration with social services was not common. There is room for improvement of the evidence based practice to involve the patient in the treatment plan.

Key messages:

- The coordination between health and social care services is a challenge for patients who need a lot of services and there is a risk that such patients' fall through the net

- Results from a qualitative vignette study suggest that there is room for improvement to involve the patient in the treatment plan in Finnish PHC

Transforming care, engaging communities: conversation with the public on service change across UK

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Background

The goal of Health for All requires health services to change and develop in line with emerging evidence of models of healthcare that prove effective and equitable. In practice, major changes to health services, such as the closure of hospitals, can be deeply unpopular and challenging for health systems to achieve. In 1999, political devolution in the UK created the potential for significant policy divergence between England, Scotland, Wales and Northern Ireland. Despite evidence that this 'natural experiment' has seen meaningful changes in policy approach, surprisingly little research has compared policy in the four countries. We compare and contrast the countries' approaches to achieving meaningful public involvement within difficult and sometimes unpopular decisions on major service change.

Methods

This comparative qualitative study – consisting of a desk-based review of policy documents from the four health systems, plus qualitative interviews with key policy actors and stakeholders in all four countries – explores perceptions of how policy can best support health services to involve the public and patients in service change.

Results

We demonstrate that, despite some commonalities of process, the increasingly divergent health systems in each of the four nations take distinctive approaches to involving the public, particularly when it comes to who is permitted to speak for citizens within the decision-making process.

Conclusions

We present key lessons learned in each health system, and draw out more general recommendations for the enduring health policy dilemma of conducting constructive conversations on unpopular frontline service changes.

Key messages:

- The devolved national health systems of England, Scotland, Wales and Northern Ireland engage the public on service changes differently
- The study enabled the identification of strength and weaknesses of each nation's NHS engagement with the public

Healthcare quality and patient safety in the Intensive care units of Yerevan hospitals

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Background

Internationally, quality of care serves as a marker of patient safety. However, quality and safety have received little attention in research completed within the Former Soviet Republics. Specifically, limited evidence describes how quality and safety are perceived by stakeholders in Armenian

healthcare and whether those perceptions correspond to international definitions.

The objective of the study was to understand how healthcare quality and patient safety in the Intensive Care Units (ICU) of Yerevan hospitals are understood and defined by the stakeholders of the system.

Methods

22 semi-structured qualitative in-depth interviews were conducted with policy makers, ICU physicians, nurses, hospital administration representatives, and real-time patients' family members, recruited from three Yerevan hospitals.

Results

The respondents separated "real" and "ideal" situations in health care. Hierarchical control and culture of blame defined the "real" situation. Whereas to achieve the "ideal" situation, the urgent need to have clearly defined quality standards and transparent flow of information was emphasized. According to the patients and their family members, patient-centered care, emotional support, access to care, communication and information were among the most desirable attributes of quality.

Conclusions

The stakeholders involved in the provision of healthcare and patients' family members demonstrated two different perspectives on quality and safety. The clinicians, administration representatives, and policy makers emphasized that without clearly defined standards quality and safety wouldn't be achieved. While the patients and family members' understandings of quality and patient safety are mainly derived from a hope for a caring attitude of the clinicians. The accessibility of care, patient rights, and their engagement in establishing quality of care are still to be achieved.

Key messages:

- Blame and vertical control are main driving forces of quality and safety initiatives in ICUs
- Clear standards and interventions to modify the blaming culture are needed to achieve tangible results on matter

Relational continuity in primary and secondary care in the Catalan national health system

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Background

Patient-doctor relational continuity has been neglected by recent policy in different countries, although argued to be very relevant in the context of increasingly fragmented and depersonalized healthcare services. The aim is to analyze relational continuity with the GP and the specialist and its influencing factors from the viewpoint of users of the Catalan national health system (Spain).

Methods

A descriptive, qualitative study was conducted using semi-structured interviews with patients (49) attended to in three healthcare areas with different service management models. Interviews were recorded and transcribed. A thematic content analysis was conducted segmented by study area with a mixed generation of categories and triangulation of analysts.

Results

Patients across the three healthcare areas studied generally perceive that consistency of personnel in primary care exists given that they are usually seen by the same GP over longer periods of time and rarely by locum doctors. Patients of all areas indicate inconsistencies of specialists but do not consider that to be problematic. Patients who perceive consistency of primary and secondary care personnel generally describe that they have established an ongoing relationship characterised by mutual accumulated knowledge and personal trust. Consistency of personnel is perceived to depend on organizational factors (appointment making system and size of primary care centre); whilst an ongoing relationship is developed when stability of personnel, frequency of visits and a combination of factors related to physicians (technical quality, patient-doctor communication and commitment to patient care) are present.

Conclusions

Perceptions of the existence of relational continuity are similar in the selected healthcare areas; however differ depending on the care level. Various factors related to the organization and physicians must coexist to be able to establish an ongoing relationship.

Key message:

- Different organizational factors influence consistency of personnel; which—together with various factors related to physicians—is a prerequisite for creating an ongoing relationship based on trust

Is provision of family medicine units in Turkey between 2010 and 2014 on an equitable basis?

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Background

The aim of the study is to evaluate if the allocation of Family Medicine Units (FMUs) appropriate to justice. Information that is produced by this study will be the basis for oversight of the equity in the distribution of resources to deliver primary health care services.

Methods

It is an ecological study and has been done by using data of Ministry of Health, Ministry of Development and Turkish Statistical Institute.

The Robin Hood Index (RHI) has been used as a measure of inequitable distribution. RHI is defined as the number of population per Family Medicine Unit divided by infant mortality rate. The Index of Turkey's value is assigned a value of 1, and the value for each province is calculated accordingly relative to National value.

Student t test, Pearson and Spearman Correlation tests have been used for analysis.

Results

The mean of population per FMU is 3576 ± 187 (3113 – 4076) in 2010 and 3499 ± 236 (3055 – 4317) in 2014 and the decrease is statistically significant ($t = 3.699$, $p = .000$).

In 2010, the Robin Hood Index ranged from 0.65 (relatively under-served) to 2.29 (relatively over-served). Thirty-seven of 81 provinces (45.7%) have a Robin Hood Index <1 (relatively under-served). In 2014, the Robin Hood Index ranged from 0.39 (relatively under-served) to 1.93 (relatively over-served). Thirty-nine of 81 provinces (48.1%) have a Robin Hood Index <1 (relatively under-served). There is a strong correlation between the socio-economic development ranking of provinces and RHI of them in both years. While the socio-economic development ranking of provinces is increasing the RHI is decreasing (2010: Spearman $\rho = -.465$, $p = .000$; 2014: Spearman $\rho = -.685$, $p = .000$).

Conclusions

The distribution and provision of new FMUs are unequal in Turkey. Although the significant increase in provided FMUs from 2010 to 2014, contradictorily to the founding legislation the population per FMU is still high and 48 % of provinces are relatively under-served in 2014.

Key messages:

- The distribution and provision of new Family Medicine Units are unequal in Turkey
- In terms of fairness, in delivering of Family Medicine Units, the health status, socioeconomic development and population trends in time of provinces should be respected

Changes in quality of care for migrants during the economic crisis. Health workers' perspective

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Background

During the economic crisis, Spain introduced major changes to its National Health System(NHS) which include drastic cuts in public health expending, translated into reduction in resources through the Royal Decree(16/2012). The decentralized nature of the NHS allowed regions to respond differently to this policy. Objective: To compare changes in quality of care for migrants during the economic crisis in two Spanish regions from health workers' perspective.

Methods

Qualitative descriptive-interpretative study performed in two areas of Catalonia and Madrid (Nov.2014-Nov.2015) based on semi-structured individual interviews with a theoretical sample of secondary care doctors (Catalonia n=12; Madrid n=9). Thematic analysis was carried out and segmentation by region. Data quality was ensured through triangulation.

Results

Professionals in both regions perceive that quality of care has not decreased during the crisis mainly due to their personal effort. However, quality of care problems emerges in both regions related to reducing the time available for patient due to cutbacks. On one hand, technical quality of care, in Catalonia, professionals request more invasive diagnostic tests which require less additional paper work, in Madrid, more inadequate referrals to the emergency room to avoid the bureaucracy require for undocumented migrants (without health card). In Catalonia, they refer the need to prioritize health problems leaving on long waiting time or unresponsive the less complex one. On the other hand, interpersonal quality, in Catalonia, professionals refer that treatment to patients has worsened due to their workload, in Madrid, they refer the deterioration in communication since reductions in inter-cultural mediators.

Conclusions

While professionals in both regions considered that quality of care has not decreased, they identify problems in both technical and interpersonal quality of care in the context of the crisis specifically related to cutbacks.

Key messages:

- In both regions professionals considered that quality of care has not decreased mainly due to their personal effort
- However they also identify changes related to both technical and interpersonal quality attributed to cutbacks

Effect of Healthcare system information on immigrants' knowledge of the healthcare system

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Contact: ssj@sund.ku.dk**Background**

Equity in access to healthcare is one of the fundamental values in the Danish healthcare system. However, previous studies have revealed healthcare utilisation differences between immigrants and Danish-born and inappropriate healthcare use by immigrants. Explanations for these differences have been proposed, including barriers in access to healthcare, in particular unfamiliarity with the healthcare system. To overcome unfamiliarity, this study investigated whether there is effect of information about the Danish healthcare system on newly arrived immigrants' knowledge of the healthcare system.

Methods

Quantitative data from 2012 and 2013 stemmed from a prospective controlled intervention study among 1,158 newly-arrived adult immigrants attending language schools in Copenhagen. Two intervention groups received a course or written information on the Danish healthcare system, respectively, while the control group received none (current situation). Survey data included true or false facts questions on knowledge about access to the healthcare system as well as self-assessed knowledge. Registry data included socioeconomic characteristics. Analyses were performed using logistic regression.

Results

After receiving the course, more reported knowledge of who to contact in case of an emergency (OR, 2.59, 95% CI, 1.51-4.43) but there were no statistically significant effect on self-reported knowledge of who to contact in case of illness or on own effort to not becoming ill. We observed no statistically significant effect on the self-reported knowledge among the group who received written information.

Conclusions

Healthcare system information seems to affect knowledge of the healthcare system to some degree among immigrants and thus contribute to reduce migrant-related disparities in access to healthcare. An adequate and appropriate healthcare-seeking behaviour can serve as an indicator of the integration of immigrants within the area of health in society.

Key messages:

- Navigation in a new healthcare system may be a challenge
- Healthcare system information may affect knowledge of the healthcare system among immigrants and thus contribute to reduce health disparities

Innovating care for people with multiple chronic conditions in Europe project evaluation

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Background

The European project 'Innovating care for people with multiple chronic conditions in Europe' (ICARE4EU) aims to identify, describe and analyse integrated care programmes for people with multiple chronic conditions in order to improve multidisciplinary chronic illness care in Europe. The project evaluation assesses the validity of its results, technical performance, governance and management. ICARE4EU is financially supported by the Health Programme 2008-2013 of the European Commission.

Methods

Qualitative and quantitative methods are used involving a variety of process, outcome and output indicators. Data sources: project deliverables (reports, meetings, website, log-book, case studies monitoring templates, etc.); focus group discussion with project team; interviews with country coordinators or managers.

Results

All project deliverables have been completed. Consistent flow of information is available from the project partners and website allowing for timely data gathering and analysis. Communication among the partners is effective including discussion, feedback and alignment of activities and products. The project lead has coordinated all activities, provided all necessary information, including a logbook; and monitored the development of the project in a timely and effective manner. Dissemination has been active with consistent increase in the website usage, indicating increasing interest. However there is unequal spread across Europe. The extended qualitative 'external feedback' assesses not only the partners views but also the observation, experience and position of related / involved parties such as integrated care managers and country coordinators.

Conclusions

Until now, the ICARE4EU has been successful in achieving its objectives and proving its deliverables. Further analysis, synthesis and triangulation of the quantitative and qualitative data will allow drawing conclusions on the results' validity, its performance and its impact in a European context.

Key messages:

- The ICARE4EU project has successfully identified, described and analysed integrated care programmes for people with multiple chronic conditions across 31 European countries
- Monitoring and evaluation are key elements in delivering a research project and need to include both quantitative and qualitative indicators

Geriatric intermediate care and transitional care for frailty-related patients

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Background

As a result of demographic change and increase in life expectancy challenges in providing health care for our eldest are predicted. Due to these changes hospitals and geriatric care facilities have to face patients with complicated clinical disorders as well as unstable, multi-morbid elderly patients with cognitive restrictions. Geriatric patients require a longer period of convalescence, which demands the development of special care facilities between hospital and long-term care. This study addresses the improvement of geriatric care for unstable, multi-morbid elderly patients with cognitive restrictions discussing the establishment of a Geriatric Intermediate Care Unit.

Methods

Literature research was conducted to extract criteria describing the target group. Existing geriatric care facilities were

examined, if they could meet the needs of these patients. Moreover, currently existing Intermediate Care Units were reviewed. Afterwards eleven experts in the field of geriatric care within German-speaking countries were interviewed about the clientele, the performance content, entry and exit criteria and existing limitations in implementation.

Results

The results of this study show that geriatric patients are treated best within an Integrated-Care-system including a Geriatric Intermediate Care Unit in which patients are given a longer period of convalescence and are scanned and transferred to the suitable long term care facility, rehabilitation or home care.

Conclusions

For the purpose of developing such units further research is needed not only in defining the clientele but also concerning accurate demand. Furthermore the term "Geriatric Intermediate Care Unit" has to be discussed in the German-speaking countries to find a standardized definition.

Key messages:

- The development of a Geriatric Intermediate Care Unit supports the best point of care for the demands and needs of this special group of geriatric patients
- A joint definition and strategy within Europe is aimed at to be found in order to establish an effective geriatric intermediate care unit

Monitoring the performance of local health authorities in start of long term care program in Toscana

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Background

The prompt recognition of needs for long term care (LTC) and management of the elderly disable patients remains a challenge among health organizations. An evaluation process requires time and good organizational approach. This study explores the relationship between the evaluation process and hospitalization before the start of a LTC program, comparing different local health authorities (LHAs).

Methods

Data from administrative flows in Toscana, Italy, were used. The observation period was January 1, 2012 and December 31, 2013. Inclusion criteria were age >65 years. Poisson regression analysis was performed to estimate the Rate Ratio (RR) of hospitalization before the start of the LTC, adjusting for age, sex, disease severity, presence of chronic conditions, number of drugs and care network. Deviation from means coding was used to create a dummy variable for each LHA. Thus, RR compares the rate of hospitalization of each unit compared to the regional average.

Results

In this study 12 LHAs with 11498 patients were included. There is a wide variation in the rate of hospitalization among LHAs, with RR ranging from 0.30 (CI95% 0.22-2.39) to 2.26 (CI95% 1.83-2.79). Results suggest that there are five LHAs in which patients have significantly higher RRs of acute hospital admission than the baseline. On the contrary there is one LHA that has significantly smaller RR of acute hospital admission than the regional average in Toscana.

Conclusions

The results showed wide differences among LHAs in the rate of hospitalization of patients destined to LTC. These findings can

encourage the application of this methodology for public reporting in the assessment for entry in a LTC program.

Key message:

- Monitoring the performance of local health authorities is giving us possibility to understand if evaluation procedure for start of long term care program is effective or needs to be improved

Trends between 2009 and 2014 in advance care planning for older people in Belgium and the Netherlands

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Background

Advance care planning (ACP) is of particular importance for older people and those at risk of cognitive decline at the end of life. While ACP has gained attention from practice and policy-makers over the past decades, there are no studies evaluating trends in physician's awareness of patient preferences.

Methods

Retrospective survey regarding deceased patients among a cohort of representative nationwide GP sentinel networks in 2009, 2010, 2013 and 2014 in Belgium and the Netherlands. Patients who died non-suddenly aged 65 years or older were included in the study. GPs were asked about patient preferences for a medical treatment at the end of life; whether or not a proxy decision maker was known; and whether or not this proxy decision maker was consulted if a situation arose where this was necessary.

Results

GPs were aware of a preference for a medical treatment at the end of life increased in Belgium (n=2785) for 27% of decedents in 2009 to 40% in 2014 and in the Netherlands (n=1083) from 53% to 66%. Awareness of a preference for a proxy decision maker increased in Belgium from 29% in 2009 to 43% in 2014 and in the Netherlands from 30% to 57%, with the preference being recorded in writing in a fifth to a third of cases in both countries (borderline significant decrease in the Netherlands from 28% to 25%, p=0.05). These trends were significant in all studied patient groups. In the majority of cases where the situation arose, proxy decision makers were consulted at the end of life in both countries (71%-96%), though Dutch GPs more often indicated that no such situation arose (61%).

Conclusions

GPs were much more frequently aware of their patients' preferences in 2014 than in 2009 in both countries, which suggests that increased attention to ACP is bringing rapid change

Key messages:

- Between 2009 and 2014, physician's knowledge of patients' preferences regarding care at the end of life increased significantly in both Belgium and the Netherlands
- Rapid improvement in advance care planning is possible, with some indicators doubling in only 6 years

Preventable proportion of Intubator-Associated Pneumonia in Italian ICUs: a G-computation analysis

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Background

Intubator-Associated Pneumonia (IAP) is a common health-care-associated infection with significant mortality, morbidity and healthcare costs, and rates have been proposed as a potential quality indicator. An increase in the IAP rates was shown by the "Italian Nosocomial Infections Surveillance in Intensive Care Units (ICUs) network" (SPIN-UTI) (Agodi et al., 2013). The aim of the present study was to estimate the preventable proportion (PP) of IAPs in ICUs participating in the fourth edition of the SPIN-UTI project.

Methods

From October 2012 to July 2013 patient-based surveillance data were collected according to the ECDC HAI/ICU protocol (vs. 1.2). Using the parametric G-formula for time-to-event data, we estimated the expected number of IAP and the IAP incidences that would be realized if ICUs with higher IAP incidence rates in the database had the same IAP incidence of

reference ICUs (the top 10th percentile ranked ICU for the IAP incidence distribution), after adjustment (i.e. standardization) for patients and ICU characteristics. The PP of IAP was calculated as observed cases minus expected cases divided by observed cases.

Results

A total of 1840 intubated patients from 17 ICUs were enrolled. Overall, IAP incidence was 11.7 per 100 intubated patients and IAP rate was 11.8 per 1000 intubator-days. In the unadjusted model the PP of IAP was 0.82 (CI95%: 0.78-0.86); the PP was 0.47 (CI95%: 0.40-0.54) after standardization for case-mix.

Conclusions

Based on European surveillance data collected by the National ICU networks, more than 52% of ventilator-associated pneumonia could have been avoided (Lambert et al, 2014). Similarly, in the SPIN-UTI network, if IAP rates of ICUs with higher infection rates could have been reduced to that of the 10th percentile-ranked ICUs, then about 47% of IAPs could have been prevented by the implementation of preventive measures.

Project realized with financial support by Ministry of Health – CCM.

Key messages:

- Healthcare-Associated Infections are major patient safety issues in hospitals, especially in Intensive Care Units where an increase in the intubator-associated pneumonia rates has been shown
- In the Italian SPIN-UTI network about 47% of IAP cases could have been prevented by the implementation of preventive measures as strategic bundles

10.S. Poster walk: New developments in health literacy, healthy lifestyles and health promotion

Global health for all. Health relay in Wallonia

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Background

In Belgium, more than 99% of the population is covered by health insurance. Moreover measures are foreseen for people who can't pretend to this health insurance like asylum-seekers. Nevertheless, part of the population still does not access to health care when needed and solutions have to be found.

Description of the problem

The political will is to increase access to health care by financing a structure especially dedicated to integration of marginalised people in the classical system of care. Focus is put on global care. Social, physical and mental troubles are taken into account. This political will goes with a strategy of epidemiological data collection.

Results

Health Relays (HR) are sustained in seven cities in Wallonia. In one year, they helped about 1500 persons (0.05% of the population).

Holistic approach is a success. 80% of the patient came with health problems and about a third came with social needs. Main reasons for consulting are alcohol and drugs abuses followed by depression and bucco-dental issues. 63% of the patients are covered by the national health insurance. Most of them live alone. Among women, one out of four lives with a partner and one out of three lives with children. Most of the patients have no (or live too far to access) general practitioner.

Lessons

Figures show that HR make a necessary job for many people. Without that structure, some people, even covered by a health insurance, would never benefit the health services they have right to. It shows the vulnerability of some people and families to access traditional health care.

As the data collection will grow up, it will allow monitoring needs and particularities of HR across the time, allowing adjusting regional support if needed.

Key messages:

- State support to a structure especially dedicated to a holistic approach of the most vulnerable people is part of the universal health coverage objective
- Universal health coverage is not just a matter of financial access. it is also a question of global approach of the poorest

Professional qualifications and health promotion: training in the Residency Program in Health

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Background

The search generating is on the need to assess the contribution of the programs in Multiprofessional Residency in Health to promote competence to act in a multiprofessional team and interdisciplinary compromised with the promotion of health in Brazil. Also wonders what the impact of the programs of

Multiprofessional Residency in Health, deployed in Minas Gerais/Brazil, in the training of specialists to act in the public health.

Methods

Quantitative-qualitative study, with literature review, documentary research and field, with 12 Programs of Multiprofessional Residency in Health developed in Minas Gerais/Brazil, developed in institutions of education/universities. The participants were the subjects who make the programs of residence (tutors, preceptors, teachers and residents). was used a questionnaire (Google forms) forwarded to the subjects (online). The analysis and interpretation of the data was based on the analysis of content.

Results

It was found that the residence programs investigated meet what provides the legislation with 5.720 hours, two years duration and prioritize the training based on different, interdisciplinarity, integrality, Integration teaching-service-community and the production of knowledge and its dissemination. However, the subjects indicate the precarious conditions of infrastructure and the low number of employees as factors difficulting to enlarge the impact of this proposed training.

Conclusions

The residence programs are important spaces of continuous training, differentiated and relevant to change the models of health care/present in the daily lives of the Brazilian health network. Such programs has favored the insertion of qualified health professionals in the labor market, preferably graduates and evidenced the linkage between the network of attention to health, the Ministry of Health and Education.

Key message:

- This work contribute to reflections on the training of health professionals and their qualification for the multidisciplinary and interdisciplinary practice in the context of promoting the health

Workplace health promotion in Bulgaria – reality, achievable goal or unwanted difficulty?

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Background

Workplaces should provide opportunities for employees to improve their health and well-being. Responsibility for the employers is to develop effective workplace health programs to reach this goal. The aim of the study is to observe characteristics of workplace health promotion in Bulgaria emphasized on the attitude and the scope of activities for improving health of active age population.

Methods

Data were collected by direct individual self-administered questionnaire among 250 employees and semi-structured interview with 9 company managers in a study representing different Occupational Health Services. The questionnaire consists of questions about: a) knowledge and attitude to the workplace health promotion concept, b) planning and implementation of health promotion activities, c) result's evaluation. Data analysis and interpretation were consistent with the Workplace health model.

Results

More than 3/4 of the respondents estimate that health promotion activities have been carried out at their workplace but staff participation in planning and the outcome evaluation have been confirmed by 44.5% only. Over 90% of companies implement strict control on the factors of physical environment and maintain them in the limit values, take actions to

smoking restriction, and control the use of personal protective equipment. Promotion of healthy eating by canteen food report about a half of observed subjects. One of three companies offer sport facilities for employees. According to the company managers, employees are not always interested in the process of planning and carrying out these activities and financial support by the Government is often insufficient.

Conclusions

Workplace health promotion in Bulgaria is limited mainly to legally regulated requirements. Full range of health promotion activities is restricted mainly by organizational and financial difficulties. Establishing partnership between the parties concerned also is not always effective.

Key messages:

- Workplace health promotion is an innovative approach for public health improvement. Health of active age population is a shared responsibility of employers, employees and the Government
- Workplace health promotion includes a wide range of health-related activities. Their fulfillment should be supported by legislative, financial, organizational and educational measures

Satisfaction of the employees with educational aspects of workplace health promotion in Bulgaria

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Background

The Tannahill model defines Health promotion as a wide range of activities in three overlapping spheres: health education, disease prevention and health protection. Health education is a process of communication with individuals or groups aimed at changing knowledge, beliefs, attitudes and behavior in a direction which is conducive to improvements in health and workability. The aim of this paper is to discuss the educational aspects of workplace health promotion in Bulgaria and the employee's satisfaction with organization and fulfillment of health education activities.

Methods

Data were collected by direct group self-administered questionnaire during the annual trainings of workers on health and safety at work. Trainings are obligatory according to the Bulgarian legislation and have been organized by Occupational Health Services. Generally, 120 employees in three focus groups were included in the study representing different Occupational Health Services. Questions about the themes, time and duration of the training and the effectiveness of methods used have been included in the questionnaire.

Results

Study results ascertain that more than 80% of the respondents consider that the process of health education fosters to build-up a positive attitude to health. The majority of the subjects under study would like to receive more information about opportunities to influence the health determinants, not just closely specific information regarding their workplace, as usually being offered to them. Two-thirds of observed people opined that a convenient time, favorable environment for implementation and interactive methods of teaching and training determine health education effectiveness. They prefer examples of good practice to be provided and discussed rather than theory.

Conclusions

Health education should be relevant to expectations and needs of employees. Preliminary studies of the interests and information needs of the audience should be made.

Key messages:

- Health education is an important part of workplace health promotion. It is a tool for improvement the interest of active age people to health as a positive and holistic concept
- To be effective, health education activities should be attractive, practice-oriented and relevant to working conditions and specific information needs of the employees

What motivates older employees to be physically active at work? Using the Experience Sampling Method

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Background

Increasing retirement ages brings the challenge to keep our older employees sufficiently physically fit to perform their work. As a first step in the development of preventive strategies, this study investigates current (physical) activities, satisfaction and energy levels of older employees during working hours.

Methods

Six older employees were asked to wear an activity sensor for a working week to objectively track their physical activity. Additionally, we used the Experience Sampling Method (ESM) on a smartphone. Via this method we asked the participants every hour to elicit their (work) activities, the level of energy obtained from performing this activity and to rate their daily level of satisfaction. Afterwards, semi-structured interviews were conducted for further understanding.

Results

On average, participants rated their overall level of satisfaction (7.20 ± 1.44) and obtained energy (6.2 ± 0.59) over the day higher when being more physically active (≥ 108 min.) compared to the days that they were less physically active (≤ 107 min.) (satisfaction 6.77 ± 1.68) (energy 5.80 ± 0.70). The top three activities on days that participants were physically active is: 1) face-to-face meetings, 2) answering e-mails and 3) (lunch) walks. On the less physically active days: 1) face-to-face meetings, 2) writing reports and 3) answering e-mails. The interviews revealed that interventions to support taking sufficient breaks and to prevent sitting, might be most needed.

Conclusions

Being physical active during a work day is related to higher levels of satisfaction and obtained energy. Being physically active seems to be achieved by (lunch) walks and is indicated as needed by older employees. These are important starting points for developing supportive strategies.

Key messages:

- ESM provides an in-depth understanding of people's activities and associated feelings
- Physical activity supports the feeling of satisfaction which is hypothesised to be related to work-ability

Barriers and determinants of physical activity among UK university students

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Background

Association between high physical activity (PA) levels and lower health risks and between sedentary behaviours and higher health risks have been consistently identified in scientific literature. This study investigated determinants of physical activity among UK university students.

Methods

Online Survey among Middlesex University London UG students with stratified random sampling strategy ($n=468$) to assess students' PA levels. Stratified by gender bivariate analysis and multivariate logistic regression were used identify risk factors of suboptimal PA. Additionally, two students' focus groups and three university stakeholders in-depth interviews, were conducted.

Results

60% of respondents were insufficiently active. 89% do not use the university gym due to lack of time (40%), price (30%), and embarrassment (11%). PA was significantly associated with Gender – woman had lower PA levels (OR = 2.8; 95%CI = 1.2–6.2); Ethnicity – black and mixed ethnicity students had lower and higher PA levels, respectively; not using the university gym (OR = 2.8; 95%CI = 1.2–6.3). Stratified bivariate analysis showed that underweight and obese women had lower PA levels; disabled men had a fivefold risk for insufficient PA (OR = 5.1; 95%CI = 1.03–24.92); males living with their parents during term were more active. Multivariate model withheld three variables, gender, gym use and smoking – smokers were less active (OR = 2.1; 95%CI = 1.0–4.3). Qualitative results showed finances, academic pressure and university systems as barriers for PA.

Conclusions

PA is associated with various factors, gender being the most important. Regular moderate/vigorous PA appears as protective factor against smoking. Lack of time and cost were institutional barriers for PA. Universities must implement strategies to reduce cost, increase accessibility and improve students' time management capacity to include PA in their routines. Furthermore, tailor made and outside gym sessions may help in achieving optimal PA.

Key message:

- Students' PA levels are low and likely to compromise their health. Universities are in a strategic position to influence their choices and should incorporate strategies to increase their PA levels

Physical activity levels in Bogota - Colombia, characteristics of a society at risk

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Background

The reduced levels of physical activity produce a high impact on health. Sedentarism is one of the most common risk factors nowadays (Warburton. 2010) This study aims that health professionals promotes the increase physical activity levels as part of healthy life styles. Some studies around the world show the effects of the increments in physical activity levels, reducing health problems related to chronic non-communicable-diseases (Hrabac. 2016). According to the National Administrative Department of Statistics and the Secretary Health of Bogotá - Colombia in the last 10 years, myocardial infarction caused 54% of dead and 10% of these were related to sedentary lifestyle.

Methods

This research is a descriptive, transversal study with non-probabilistic sampling, in 980 sedentary people who practiced

outdoors aerobics during recreational activities in Bogota. Fitness and physical activity condition was evaluated through a validated test. Other parameters included the assessment of sociodemographic data, morphological and anthropometrics characteristics with size, weight, BMI, adipometric for bioimpedance. Flexibility with sit and reach test, abdominal with push up test and upper-limbs force with sit up test, and heart-lung resistance with leger test.

Results

Twenty nine percent of participants evidenced obesity, and 24 % of participants showed overweight. For body fat levels, 48% of the participants were above the percentile 50. A 100% of individuals had deficits in flexibility. Cardiopulmonary endurance showed that 58% of individuals had levels below VO₂ consumption average (35 ± 41mL O₂/Kg/1min).

Conclusions

These indicators evidenced lower levels of physical condition from Bogotá inhabitants. It is also recommended the implementation of public policies to improve the levels of physical condition in order to increase quality life levels whit higher indices of cost-effectiveness relationship.

Key messages:

- Sedentarism
- Physical aptitude

Community task forces to increase physical activity: chances and pitfalls in a German study, 2015-16

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Background

Physical inactivity remains a major public health concern worldwide. Community-based interventions for specific target groups can be effective in increasing physical activity. For development and implementation of interventions, it is recommended to build partnerships with community stakeholders. In a project in rural communities, we aimed to explore how community stakeholders can work together to develop context-sensitive physical activity interventions addressing adult men (50+).

Methods

In two Bavarian communities, we established and facilitated task forces of community stakeholders, e.g. representatives of sports clubs, the municipality and local companies. They hold monthly meetings (six to 20 participants/meeting), which are still ongoing. All meetings are documented using standardized field notes. A content analysis of 15 protocols has been conducted so far, focusing on opportunities and challenges of this participatory approach.

Results

The diversity of task force members facilitates the access to various groups, e.g. shift workers, inactive sports club members. Local knowledge and network of participants help to identify relevant partners. However, the participants are not comfortable with taking over responsibility and expect the research team or the municipality representatives to carry out arising tasks. In addition, competition between different sports providers renders it difficult to agree on a common strategy. Not all sports providers were open-minded to develop innovative interventions to reach men 50+. The fact that not all members attend meetings regularly delays the progress and impedes the identification of leaders.

Conclusions

First results indicate that the establishment of community task forces to promote physical activity bears challenges, especially regarding the assumption of responsibility. It may be beneficial to identify potential leaders in the beginning and to involve them in the facilitation of the task force.

Key messages:

- Community task forces for physical activity are helpful in accessing target groups and identifying relevant partners
- However, the development of innovative interventions can be impeded by self-interests and competition between participants

Improvement of social network resources and self-rated health in a deprived neighborhood

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Objectives

Research has demonstrated that living in a deprived neighborhood contributes to the occurrence and development of poor health. Research has demonstrated that social networks are fundamental resources in preventing poor mental health. Neighborhood relationships and networks are vital for sustaining and improving quality of life. However, to determine potentials for public health action, the health impact of various types of network resources need to be explored, and the association between socioeconomic position and self-rated health needs to be analyzed to determine whether it is partially explained by social network resources. This is the main aim of this paper.

Methods

Cross-sectional data from one deprived neighborhood located in Denmark were collected in 2008 and 2013 using a postal health survey. The target group was defined as adults older than 16 years. In 2008, 408 residents participated in the survey, and 405 residents participated in 2013. Our main explanatory variables were indicators of socioeconomic positions and social network resources. The analyses were conducted using univariate and bivariate analyses and multiple logistic regressions.

Results

The results showed that there was a significant decrease in respondents being involuntarily alone during the period from 2008 to 2013. A moderate impact of the association between disposable income and self-rated health was found, showing that low income residents with a better social network also have slightly higher odds of having good self-rated health compared to residents with higher income.

Conclusions

This investigation is the first Danish study that repeats a health survey in the same neighborhood to measure possible improvement in health among residents. More longitudinal research is needed in the future to explore the complex relationship between social network resources, social capital and health in neighborhoods.

Key messages:

- Health promotion initiatives in neighborhood have an impact on being involuntarily alone
- There exists challenges for Health promotion initiatives in deprived neighborhood in DK

The identification of gaps in secondary evidence on health promotion addressed to elderly persons

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Background

Increasing participation of elderly population in modern societies is a source of great challenges for health and social systems. Health promotion and disease prevention interventions may have a significant effect on health status of older people. The main objective of this paper is presentation of potential gaps in secondary evidence in the area of health promotion interventions addressed to audiences 65 years old or more (65+).

Methods

The results of the scoping review of secondary evidence on the effectiveness of health promotion and related interventions addressed to older adults (55+) and elderly persons (65+) published from 2000 to April 2015 were further explored. From these reviews, only these which analysed health promotion activities, combined with other general areas (primary prevention, screening, and/or social support) or alone, and designed for the subjects 65+ were selected. The analysis was focused on elicitation of publication trends and identification of targeted areas which were not or were addressed less frequently.

Results

Among 334 systematic reviews analysing the interventions related to health promotion, primary prevention, screening and social support, there were 66 which were classified to health promotion (as exclusive domain or in combination with other general area) and which were addressed specifically to persons of at least 65 years old. Potential areas which were covered the least frequently or not covered by reviews encompassed: addictions (n = 1), sleep quality (n = 1), psychosocial functioning (n = 1), social isolation (n = 0), social participation (n = 0) and elderly abuse (n = 0).

Conclusions

Although the secondary evidence on health promotion and related interventions addressed to population 65+ is growing, there are still blind spots not covered by adequate systematic review or/and meta-analyses. Identified deficient areas are potentially important for wellbeing of elderly persons in the context of social interactions.

Key message:

- Although general issues included in health promotion strategies designed for elderly persons are adequately represented by secondary evidence, there are still important gaps in evidence

The role of basic psychological needs in the risk of eating disorders among university students

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Background

According to the Self-determination theory, basic psychological needs dissatisfaction can lead to the development of substitutional needs or compensatory behavior, such as body dissatisfaction (BD) and unhealthy weight control (UWC). A limited number of studies has addressed this issue. Further research is necessary to uncover whether these associations function same among both sexes. This study aims to create a model explaining the risk of eating disorders (RED) by BD and UWC while considering the role of basic psychological needs satisfaction (BPNS).

Methods

302 Slovak university students (52.3% females; mean age=21) completed Contour Drawing Rating Scale, The Body Shape Satisfaction questionnaire, The balanced measure of psychological needs, Eating attitude test, a screening tool for detecting RED and reported frequency of UWC strategies online. Structural equation modeling was performed.

Results

The tested model fitted the data well and explained 50% of variance of RED among females and 83% among males. The model was statistically equivalent for both sexes. Most relevant direct and indirect associations are presented: direct association between BPNS and BD (females: $\beta = -.29$, $p = .01$; males: $\beta = -.36$, $p = .01$), BD and RED (females: $\beta = -.42$, $p < .001$; males: $\beta = .19$, $p = .01$), indirect association between BPNS and UWC (females: $p = .001$; males: $p = .04$) through BD and between BPNS and RED (females: $p = .003$; males: $p = .01$).

Conclusions

Higher BPNS has been found to be related to lower BD. Moreover, it may decrease UWC and RED. In comparison to previous findings, our results provide a more comprehensive model of disordered eating emphasising protective role of basic psychological needs among females and males as well. Prevention strategies aimed at decreasing body dissatisfaction and disordered eating may benefit from the inclusion of psychological needs satisfaction.

Key message:

- This study provides evidence for the protective role of basic psychological needs in body dissatisfaction and disordered eating development not only among female but also among male students

Current understandings of health literacy in childhood and adolescence - a systematic review

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Background

There is limited knowledge and academic consensus regarding the capacities a child or adolescent should possess for make sound health decisions challenges the operationalization of health literacy (HL) interventions and measurements. Hence, this project aims (a) to scope existing concepts, models and definitions of child/adolescent HL; and (b) to perform a content analysis, identifying how well characteristics and dimensions related to the target group are captured.

Methods

A literature review was conducted using six bibliographic databases and following the PRISMA guidelines. N = 32 articles were selected for full-text analysis. A content analysis was performed to compare and syntheses the various HL definitions and concepts along multiple meta-categories identified.

Results

The search identified N = 12 definitions and N = 21 concepts aiming at children/adolescents with little consensus regarding the HL components. While there is a strong focus on personal attributes and actions that individuals should perform, there are inconsistencies regarding the interrelatedness with social and cultural factors. Especially the role of age, risk patterns as well as developmental and structural factors promoting or limiting the genesis of child/adolescent HL and the acquisition of relevant skills and knowledge have been poorly incorporated in current concepts.

Conclusions

HL concepts are multidimensional. Yet, most models fail to capture unique characteristics of their target group as well as specific contextual influences, e.g. power relations and risk

patterns. Future conceptual and operational efforts need to focus on both the (1) individual skill level, including the capability to derive meaning from information and to actively undergo health promoting actions, and (2) the social practice level, namely the interaction with different agents in daily life, e.g. parents, peers, media.

Key messages:

- Contribution to the HL knowledge base by synthesizing available HL understanding for children and adolescents
- Identifying conceptual challenges and gaps related to the operationalization of health literacy in children and adolescents in practice and for future health promotion interventions

Maternal health factors and lifestyles among a sample of Portuguese children

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Background

Gender inequalities in the distribution of resources is still deeply associated with poor health and reduced welfare of women and children. The aim of this study consisted in analyzing maternal and neonatal factors of mothers of a sample of children from 3 to 10 years old.

Methods

A cross-sectional study was designed with a total of 1617 children from public schools, from the two main school groups of Tondela and Vouzela, Portugal. The final study sample was built with a total of 1365 mothers of children aged

between 3 and 10 years old. Data collection was accomplished by the distribution of a self-administered questionnaire to the mothers of the children. Prevalences were expressed as proportions and the comparison of proportions was performed using the Chi-square test.

Results

Children who live in rural areas presented a higher birth weight (≥ 2500 grams) compared to those who live in urban areas (rural=93.7% vs urban=90.8%, $p = 0.04$). Older pregnant women presented a higher prevalence of the first medical appointment before the 8th week of pregnancy (before the 8th week of pregnancy=96.5% vs after the 8th week of pregnancy=94.4%, $p = 0.04$) as well as a higher prevalence of medical appointments during pregnancy (< 6 medical appointments=94.1% vs ≥ 6 medical appointments=97.2%, $p = 0.02$) when compared with younger pregnant women. Mothers with a higher educational level (> 9 th grade) showed a higher prevalence of breastfeeding (no = 48.0% vs yes=58.0%, $p = 0.009$) and their children presented a higher prevalence of fastfood consumption (no = 54.8% vs yes=64.9%, $p = 0.002$) when compared with mothers with lower educational level.

Conclusions

The maternal factors are associated with socio-demographic variables such as residence area, age and the educational level. The behaviors developed during pregnancy may influence the lifestyles of the children, considering the importance of maturity and training of mothers in maternal and neonatal care.

Key messages:

- The maternal factors are associated with socio-demographic variables
- The behaviors developed during pregnancy may influence the lifestyles of the children, considering the importance of maturity and training of mothers in maternal and neonatal care

5. POSTER DISPLAYS

A-posters - Poster Display: All for Health

Requirements of and qualifications of Health and Safety Workers' Representatives, literature review

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Introduction

The participation of workers in the discussions and taking measures to ensure healthy and safe work conditions by employers is a compulsory element of modern Occupational Health and Safety (OHS) politics. In such a way, people who are directly affected by the presence of gaps are involved. However, despite of that, in Bulgaria there are no clear criteria for selection of workers' representatives.

Methods

We set a goal to investigate the existence of requirements for the position of an OHS representative of workers in European countries, based on the available official regulations and on the Global Database on Occupational Safety and Health Legislation (LEGOSH) of the International Labour Organization.

Results

The representatives of OHS workers implement their work on Health and Safety at Work as part of their working time and are paid as an employment. The employer is obliged to assure training of the representatives within their working time. The training should be done before the beginning of the implementation of their duties in Bulgaria, Spain and Romania. In most of the countries the representatives of workers should undergo additional periodical trainings, at least once per year, which aims at expanding their knowledge and skills. In France there is a requirement for at least 1 year practical experience, what is not given in other countries.

Conclusions

The requirements for the position of OHS representative of workers are generally low, there are no requirements for level of education, and few countries have a requirement for practical experience and passed training. On the other hand the training is provided by the employer, which raises questions about its quality. Creating an independent system for qualification of the workers' representatives on health and safety, would add and help the adequate participation of workers in the ensuring healthy and safe working conditions.

Key messages:

- The criteria for the position of representative of workers in health and safety at work are low
- A further independent qualification for the workers' representatives in health and safety at work will complete the education they currently receive

Building Global Citizenship capacity in the NHS in Wales

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Welsh Government is committed to their global responsibility, highlighted most recently through the adoption of the 'Well-being of Future Generations (Wales) Act 2015, the first legal commitment to the Sustainable Development Goals (SDGs). NHS Wales also recognizes the importance of developing Welsh health workers as Global Citizens as demonstrated by

their commitment to the Charter for International Health Partnerships in 2014. Whilst global citizenship resources exist for school-aged pupils, there are no resources for health professionals. The development of health-focused global citizenship training would be a unique resource with the potential to increase awareness of international engagement and global social responsibility in the NHS. To explore perceptions and interest in global citizenship, the International Health Coordination Centre (IHCC) circulated a scoping questionnaire to the 10 Welsh NHS Health Boards and Trusts. To ensure participants had an accurate and similar understanding of the concept of global citizenship, a fact sheet was provided to inform the questionnaire. 81 responses were collected from a wide range of NHS professions and groups in all 10 Boards and Trusts. Results showed strong interest in the health of those living overseas with a high level of empathy and a responsibility to the health issues faced in other nations and how this potentially impacts the NHS (>95% of positive responses). 90% of participants indicated they would like to develop professionally in the field of Global Citizenship through continued professional development combining both online and workshop sessions. The scoping demonstrated a strong appetite for global citizenship training across the NHS in Wales. This resource will enhance learning, empathy and increase understanding of the importance of global and environmental responsibility, in addition to the sustainable development agenda and connections to population health and wellbeing in Wales and abroad.

Key messages:

- There is interest in Global Citizenship among NHS staff in Wales
- A dedicated resource would support the work of NHS staff in Wales and abroad

Knowledge and the influence of Health Ministry of Campaigns in a community deaf in Brazil

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Deafness urged the deaf to understand and interact with the world through visual experiences, culminating with the development of its own culture mainly manifested by the use of a sign-visual language, the Brazilian Sign Language – LSB. In Brazil, the promotion, protection and health rehabilitation are carried out in an integrated manner with the care and preventive actions and are the responsibility of the Unified Health System, which must fit the characteristics of the population, adapting to the principle of equity.

To verify the knowledge and influence of the Ministry of Health campaigns in promoting the health of the deaf community. Methodology: qualitative study of exploratory and descriptive, conducted with 09 deaf fluent in LSB, aged 18-25 years living in Brazil, through semi-structured interview on the understanding of campaigns Ministry of health and its influence in promoting the health of these people.

The campaigns of the Ministry of Health, in most cases, have their disclosures through texts, drawings and educational videos. From the perspective of the deaf community, it was highlighted that many campaigns fell into oblivion; most have not been able to recall at least one of them, as the Portuguese writing is a second language for the deaf. Noteworthy is also that the campaigns which have less text and more pictures and

images were the most remembered by them, as this is a gesture-visual language more easily understood and memorized than texts in Portuguese.

Whereas LSB was recognized and legitimized in law, the deaf community daily faced with the need and the lack of information in their mother tongue and in that sense, the Ministry of Health campaigns when making through the use of few images more written texts, minimally reach the deaf user community of sign language. In this sense, it is necessary to r communication visual in order to meet the specific characteristics of the population, thereby ensuring equity of access to information on health.

Key messages:

- Public Health
- Brazilian Sign Language – LSB

Legislating for the health and well-being of future generations in Wales

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The Wellbeing of Future Generations (Wales) (WFG) Act 2015 is ambitious legislation that enables a step change in the way public services tackle health and societal problems. It follows the Welsh Government's commitment in 2011 to legislate for sustainable development through its Programme for Government (PfG). The WFG Act includes clear requirements for public bodies to share a common purpose, by setting seven wellbeing goals focused on improving social, economic, environmental and cultural wellbeing. The Act embraces a participatory approach and was informed by a yearlong national conversation with the Welsh public about the "Wales We Want". It requires public bodies to act collectively, plan for the long-term, involve people and communities in decision making, prevent problems occurring and take a joined-up approach. Monitoring and accountability structures include the establishment of a Future Generations Commissioner, who will scrutinise progress against National Indicators and report against the United Nations International Sustainable Development Goals. The Act represents a milestone for public health, with health and equality goals on par with goals for the environment and economy and a clearer articulation of the social and economic determinants of health. Public Service Boards will prepare local wellbeing plans based on wellbeing assessments that will not only focus on 'need' but capture community assets and strengths. WG will be outlining how it will progress the wellbeing goals through an integrated approach in its new PfG. Lessons so far: i) Legislation is arguably one of the most powerful tools to direct long term policy goals; ii) A participatory approach can inform policy and legislative content, (iii) Leadership and improved capability is necessary at a national and local level to secure and sustain action, (iv) Monitoring, reporting and accountability structures are required to realise a step change in the way we tackle societal challenges.

Key messages:

- Legislation enables public bodies to tackle societal challenges such as health, inequalities and climate change
- A participatory approach, leadership, monitoring and accountability are required

Primary school students in the incidence of hypertension and tachycardia and related factors

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Background

Hypertension is the most important risk factors that increase morbidity and mortality, it is down to the beginning of childhood. Evaluation of health screening done for specific periods of school age are important factors in predicting the risk of hypertension. This study aimed to determine the Eskişehir hypertension prevalence and associated factors in a primary school student.

Methods

The cross-sectional study, a primary school located in the central province of Eskişehir on March- April 2016 501 (69.2%) students of blood pressure, pulse, height and weight measurements are made, VKI was calculated. Blood pressure evaluation; published by the American Academy of Pediatrics, 'The Fourth Report on the Diagnosis, Evaluation, and Treatment of High Blood Pressure in Children and Adolescents' was based on. Age, gender and blood pressure measurements compared with normal point under 90 percentile, 90-95 ones prehypertension among percentile, 95th percentile and above but 99 is smaller than percentiles hypertension, 99 percentile and those on was defined as malignant hypertension.

Results

6.0% of students malignant hypertension, 14.2% had hypertension, prehypertension was determined in the 29.7%. 42.5% of students bradycardia, tachycardia were identified in 20.8%. Students average of 92.97 ± 11.15 pulse (min.64; maks.132), systolic average of 106.24 ± 10.72 (min.80; maks.140) and diastolic average of 68.67 ± 8.81 (min.50; maks.100) was measured. The prevalence of hypertension and tachycardia are more female students than male students (each; $p < 0.001$).

Conclusions

Half of all primary school students in hypertension, tachycardia was found in one in five.

Key messages:

- Hypertension is a common health problem in childhood
- Childhood should lead to the provision of interdisciplinary cooperation for the protection and hypertension should perform routine applications recommended for early diagnosis

Insufficient sleep hours associated with varied types of risky riding behaviors among motorcyclist

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Background

Motorcycle crashes accounted for one third of all road traffic deaths in Southeast Asian countries, where motorcycles are frequently used as primary transportation. Lack of sleep, and risky riding behavior both had be known to increase the crash risk, the study aims to explore the association between insufficient sleep hours and the different types of risky riding behaviors among motorcyclists.

Methods

A cross-sectional study was conducted to recruit 458 motorcycle riders aged over 20. Demographic characteristics, health condition, sleep hours, substance use, and risky riding behaviors which include speedy (11 items); control (12 items); distracted (8 items); and errors, i.e. slips, lapses, and mistakes (5 items) were collected via a structured questionnaire. Given the non-normal distributions of the scale scores, a log-transformed score of risky behaviors was applied to determine the difference between varied sleep hour groups.

Results

Overall, 169 (36.8%) motorcyclists sleep less than 6 hours per night in the past month, and tended to have experience of nod while riding than motorcyclist with 6 sleep hours and more (23.4% vs. 10.4%, $p < 0.005$). Inadequate sleep hours in the past month were more likely to have elevated total score of risky riding behaviors (mean \pm SE:3.70 \pm 0.67 vs. 3.53 \pm 0.67, $p < 0.005$). Comparing to rider who sleep over 6 hours, motorcyclist lack of sleep was significantly associated with speedy (mean \pm SE:2.79 \pm 0.76 vs. 2.59 \pm 0.75, $p < 0.05$), equipment control (mean \pm SE:2.64 \pm 0.66 vs. 2.46 \pm 0.73, $p < 0.05$), and errors-related risky riding behaviors (mean \pm SE:1.22 \pm 0.73 vs. 0.97 \pm 0.72, $p < 0.05$), but not significantly associated with distracted riding behaviors.

Conclusions

Motorcyclist lack of sleep was more likely to have more risky riding behaviors, especially for speed, control, and errors-related risky behaviors. Future study is needed to clarify the role of inadequate sleep on risky riding behaviors in order to develop an intervention on traffic injury.

Key message:

- Motorcyclists who sleep less than 6 hours were more likely to reveal more risky riding behaviors, especially for speed, equipment control, and errors-related risky behaviors

B-posters - Poster Display: Health for All

Predictors of quality of life in Korean older adults with arthritis: perspective of physical activity

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Background

Physical activity is associated with quality of life in older adults. But less is known whether this relationship exists in older men and women who are with arthritis. thus, the purpose of this study was to investigate if physical activity level was related to quality of life in older adults with arthritis.

Methods

The subjects of this study were 491 non-institutionalized older adults who were diagnosed with arthritis whose age were above 60. The data was from 6th Korean National Health and Nutrition Examination Survey (KNHANES 6-2, 2014). The content of the interview included demographic data, occupational and leisure time physical activity and the EuroQoL. The data were analyzed by ANOVA, chi-square, hierarchical multiple regression using SPSS window ver 20.0.

Results

In the results, the prevalence of physical activity level was 40.1%, low, 45.6% middle, and 14.3% high. Quality of life index (EuroQoL five dimension questionnaire, EQ-5D) was higher in high and middle level of PA compared with low level of PA ($F = 14.55$, $p < .01$). Mobility, self-care, usual activity, pain/discomfort, anxiety problems were more common in low level of PA than middle and high ($F = 12.92$, $p < .01$; $F = 16.2$, $p < .001$, $F = 19.63$, $p < .001$, $F = 18.09$, $p < .001$, and $F = 6.86$, $p < .05$), respectively. All differences between groups remained significantly after adjusting age, gender, marital status, education, self-rated health, and number of chronic diseases.

Conclusions

Older adults with arthritis had a low level of physical activity. Despite of arthritis condition, the elderly with the higher level of PA and the more flexibility exercise tend to have high level of quality of life. Our results indicate that increased attention regarding physical activity levels is need to enhance quality of life for the seniors with arthritis.

Key message:

- To improve quality of life for older adults, entire range of physical activity should be considered rather than ACSM recommended PA level

Mental health and SES: a comparative study of the general and prison population in Belgium

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Background

Prison-inmates are known to have a higher prevalence of (severe) mental illnesses than the majority population. Furthermore, mental illness is also closely related to having a lower socio-economic status, people with a lower SES being more susceptible to mental health illnesses. We investigate how being in prison affects the relationship between low SES and mental health.

Methods

Data from the Belgian National Health Survey in 2008 (general population) and Health Profile of Detainees-study in 2015 (prison population) was used. Mental health was measured by the probability of having a sleeping disorder, lifetime suicidal ideation and lifetime suicide attempts. SES was estimated by the educational attainment of the respondents. Logistic regression was conducted to evaluate the influence of SES and being in prison on mental health.

Results

Preliminary results confirm that both low SES and being in prison have a deteriorating effect on all three indicators of mental health. The odds for the probability of having a sleeping disorder are 1,6 higher for people with a lower SES [95%-CI: 1,5-1,8] and 6,8 higher for prison inmates [95%-CI: 4,4-10,5]. Similarly they are significantly more likely to have thought about (low SES: Exp(B)=1,1; 95%-CI[1,0-1,3]) (inmate: Exp(B)=4,1; 95%-CI[2,6-6,7]), and to attempt (low SES: Exp(B)=1,5; 95%-CI[1,3-1,8]) (inmate: Exp(B)=7,4; 95%-CI[4,1-13,4]), suicide. At this moment, no evidence was found that being in prison reinforces the negative effect of having a low SES on mental health.

Conclusions

The subject of mental health in prisons should be of main concern to policy makers. In the aftermath of the Health Profile of Detainees-study an expert group, consisting of the responsible policy makers and researchers, was instituted to address the health problems of inmates in Belgium. The adaptation of mental health promotion to the specific penitentiary context is one of its priorities.

Key message:

- This was the first study to describe the mental health status of Belgian detainees and to compare them to the general population

Health for all - situation of sexual health in Germany

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Issue

Health Reports in European countries and in other continents deal not well-grounded with sexual health, although sexual health receives an increasing importance in all countries. Sexual health is no longer subordinate to reproductive health but it is now a separate category. The progress of the establishment of sexual health and existing problems are presented for Germany.

Description of the problem

2002, the WHO has initiated a process of clarification on the position of sexual and reproductive health within the definition of „health”. The work result of several ‘technical consultations’ on sexual health was published as ‘challenges in sexual and reproductive health’ in the year of 2006. In subsequent years, the discussion of ‘sexuality’ extended as a human right to ‘Developing sexual health programs - a framework for action’ (WHO 2010) and a recent definition „Sexual Health “on the website of WHO, 2015. How fast can WHO member states such as Germany implement these recommendations?

Results

In the coming months, a health report is published ‘Sexuality of man’ in Germany, where an overview of the historical development of sexuality in Germany is given over the past 100 years; the current situation of sexual health is presented in the course of life. Sexual forms as heterogeneous masculinities: intersectional approaches, homosexuality, sexual varieties and variations are made possible by an open view of society on sexuality and sexual health. But there are also limits of sexuality as child abuse and crimes against sexual self-determination, which will not be tolerated by society.

Lessons

Focus of development lies in the individual sexual self-determination, for example, for intersex and transgender people. At the same time further intersectional sexual educational offers are required.

Key messages:

- The strengthening of research and training capacities and increasing the levels of sex education are the most important tasks in Germany
- The coordination of all forces in the field of promotion of sexual health is very important, too

Deprivation, sport facilities, physical activity: the obesogenic environment of Portuguese children

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Background

Physical activity (PA) is linked to environment. Local environment can create opportunities/constraints to people daily choices, thereby shaping PA. Availability of PA facilities vary with socioeconomic (SE) levels with deprived areas

offering fewer opportunities for healthy lives. This study investigates whether the availability of PA facilities varies in SE contrasting areas of Lisbon and how it impacts on children’s sports activity (SA).

Methods

Between March and July 2009 data on 944 children aged 3-10 yrs of private/public schools of Lisbon were collected. Children were geocoded at the address level using a GIS. Number of PA facilities (parks, green areas, swimming pools, sport centres, playgrounds) within a 0.5 km buffer zone around each geocoded participants’ address were collected. Data on children’s SA was obtained through a questionnaire. A neighbourhood deprivation index was created by standardizing 3 variables – unemployed people; unskilled employed; overcrowding – and assigned to each children address. Availability of PA facilities and levels of children’s sports activity in terciles of area deprivation were compared and tested using qui-squared test.

Results

Considering terciles of neighbourhood SE status, PA facilities showed low availability in the most deprived areas ($p < 0.05$). Children’s SA showed a similar social gradient and children from more adequate areas were significantly more active than their peers ($p < 0.00$).

Conclusions

PA facilities are scarce in deprived neighbourhoods and their children are more sedentary than the others. Obesogenic environments emerge in the most deprived neighbourhoods constraining the possibilities for an active, healthy life. Increasing the opportunities for PA could help residents of deprived areas in promoting their health.

Key messages:

- Improving the local environment may be an efficient and enduring strategy for improving health
- Investing in a healthy, active neighbourhood is both a question of public health and environmental justice

Nudging: Behavioral Sciences applied to the Big Four Public Health issues and health inequalities

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Alcohol consumption, smoking, nutrition, and physical activity - the big four health issues – present challenges for the public health across Europe and beyond. More than half of the OECD adult population is overweight or obese, tobacco kills nearly 6 million, and alcohol 3.3 million people each year. The application of behavioral sciences, or nudging, into health policy-making is a cost-effective approach that attempts to help solve the big four health issues in a subtle, deregulatory way of choice architecture. The research question of this study is: What is the relationship between nudging in the big four public health issues and health inequalities?

The analysis of nudging is based on a systematic literature search conducted in Medline via Ovid, Embase, and TRIP database. We unlisted 62 articles and handsearched 25 more. We used the narrative analysis and we set no inclusion criteria for the study participants and the study setting.

The British Behavioral Insights Team created a framework called EAST, used in this research, proposing that nudges should be Easy, Attract, Social, and Timely. We found that nudging works best with those already heading the direction of the nudge, but we found no studies on nudging and health inequalities.

Nudging is a useful deregulatory tool that brings value for money. Because nudging focuses more on downstream factors of health inequalities, it has the potential to complement the

already existing structures of incentives and legislature. It is useful both as a preventative as well as a policy developing tool. Thus far, among many, public health recommendations include: serving alcoholic drinks in smaller glasses; making smokers know that majority of them want to quit; or helping first time mothers to quit smoking. Nudging in the big four health issues is a cost-effective and deregulatory tool that can complement the existing structure of incentives and legislature and, if governments target it well, reduce health inequity.

Key message:

- Nudging in the big four health issues is a cost-effective and deregulatory tool that can complement the existing structure of incentives and legislature and, if targeted well, reduce health inequity

Rating the mammography screening program. Survey results

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Background

In 2014 a mammography screening program was implemented in Austria.

Ever since then, women between 45 and 69 years are actively invited in a two year period to participate in the program; women at the age of 40+ and 70+ can opt in. Certified radiology institutes provide the mammography screening directly without a referral from a physician.

Our study focused on gathering information concerning the rating of the screening program by the female staff of the Austrian Social Security Institutions.

Methods

We developed an online-survey containing 18 questions that was sent to 15.035 female colleagues within the Social Security Institutions in Austria. The survey was conducted in January/February 2016. One question asked about rating in 5 different answer categories of “very good” to “very bad” as well as another possibility - „can’t judge”. Additionally a comment field to state the reason for this voting was provided.

Results

A response rate of 28% was achieved. Rating the screening program itself, 22% of the women chose “very good”, 36% “good”, 23% “neutral”, 5% “bad” and 1% “very bad”. 13% chose “can’t judge”, indicating they were not able to judge the program.

Highest positive ratings were given from women at the age of 60-70. Women at a younger age voted “no judgements possible” or “neutral” most. The highest votes for “bad” were given from women at the age of 40-60.

The possibility of free of charge screening was the main reason for positive ratings specified in the comments-field. The current 2-years-interval and the age limit were responsible for the worst ratings. We also detected some misunderstandings about the access of mammography for risk groups or with suspicious pathology within these comments.

Conclusions

Women that are automatically included in the new breast cancer screening program generally gave higher ratings than those not automatically included. The free-text comments revealed common misunderstandings.

Key messages:

- Women automatically included in the program rate it better
- The information about benefits and harms has to be clearer and some misunderstandings have to be solved by better information

Knowledge about mammography screening. Survey results

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Background

In 2014 a mammography screening program was implemented in Austria. Ever since then, women between 45 and 69 years are actively invited in a two year period to participate in the program; women at the age of 40+ and 70+ can opt in. Certified radiologists provide the mammography screening directly without a referral from a physician.

Within this study we calculated the total score and numbers of correctly given answers and false interpretations by the female staff of the Austrian Social Security Institutions regarding the Austrian breast cancer screening program.

Methods

An online-survey was sent to 15.035 female colleagues within the social security institutions in Austria. The survey was conducted in January/February 2016. All persons who answered the survey were included in this calculation of total scores. For each correctly answered question one index point could be achieved. Multiple choice-questions were divided by the number of correct answers and in total one point could be reached for the whole question. No points were given for wrong answers.

Results

4.270 women answered the survey, which means a response rate of 28%. In general 18 questions about the information status and level of knowledge concerning the breast cancer screening program were included in this survey, resulting in a possible total score ranging from 0-18 points. Most of the participants show results which range from 6,5-12 points, the mean value was 10,23 points. 121 women (3%) reached 0-3 points, 146 women (3%) reached 3,5-6 points, 982 women (23%) reached 6,5-9 points, 2.107 women (49%) reached 9,5-12 points, 876 women (21%) reached 12,5-15 points and 36 women (1%) reached 15,5-18 points. Physicians achieved a slightly higher score than administrative employees or blue collar worker

Conclusions

The level of information about the breast cancer screening program is quite high within the Social Security Institutions in Austria with an average number of reached points of 10,23 out of 18.

Key messages:

- The provision of information about the breast cancer screening program should be a continuous process of closing the knowledge gaps
- A tendency towards higher information level by higher education level could be observed

Screening for perinatal depression in Slovenia by a community nurse – a pilot study

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Objective

Maternal mental health and wellbeing in perinatal period has a life-long influence on child’s health and development. Mothers and children can benefit greatly from early detection and treatment of mental health problems.

In a project addressing health inequalities financed by a Norwegian financial mechanism, we piloted a feasibility of screening for perinatal depression by a community nurse.

Methods

Experts from the National institute of Public Health provided piloting protocol for mental health screening using Edinburgh Postnatal Depression Scale 4 to 6 weeks after birth. During

April and October 2015, 32 specially educated community nurses carried out the screening. All mothers with new-borns in two piloting areas, one urban and one rural, were included in the study. We collected anonymous results of the screening and preformed focus group discussions with nurses.

Results

Community nurses visited 289 families on regular new-borne preventive visits. They reported 285 screening results, only 2.8% of the mothers had positive result, which was surprisingly low according to previous Slovene and foreign studies.

In focus group discussion, community nurses have stated that they believe mental health issues are relevant for detection that mothers were willing to participate in the screening but some of them gave socially acceptable answers. Especially unemployed mothers have feared of the results influencing their future employment options. Some community nurses have reported lack of privacy during their visits to perform this kind of screening effectively.

Conclusions

Our study suggests that mental health issues in the perinatal period still carry a lot of stigma, which also influences screening results. Home setting during a community nurse visit does not seem as the most appropriate setting for this screening.

Public health actions are needed to reduce the stigma of mental health problems and other possibilities for perinatal screening have to be explored.

Key messages:

- Perinatal mental health issues still carry a lot of stigma, which should be addressed
- Community nurse visit does not seem as the most appropriate setting for perinatal mental health screening

Meeting the rise in demand for care: U.S.A.'s primary care community clinics use of care teams

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Background

The implementation of the national healthcare reform called The Affordable Care Act (ACA) in the United States has caused millions of low-income non-elderly adults to gain health insurance coverage. As a result, there has been an increase in demand for care by newly insured patients. All primary care providers (PCPs) have been impacted by the increasing demand for care. PCPs called Federally Qualified Health Clinics (FQHCs) are known to serve many uninsured low-income patients and have experienced an increase in demand for care from newly insured patients. This study investigates FQHCs' strategy to meet the demand for care due to the rise associated with the increase number of people gaining health insurance.

Methods

Semi-structured interviews were performed with executive and middle management FQHC administrators from California, Arizona, and Texas. The 60- minute interview was ethically approved by the University of Edinburgh and was conducted during July- September 2015.

Results

A total of 23 interviews were completed. All FQHC administrators reported their clinic experiencing an increase in demand for care. Due to limited capacities as a result of workforce shortage, space, and resources, FQHCs have managed meeting the rise in demand for care by implementing care teams. Care teams constitute various clinical and non-clinical providers working together to manage the care and overall health of their patients. Administrators discussed the strength and weaknesses and its impact on integrating care in their clinic.

Conclusions

The rise in demand for care associated with millions of uninsured patients gaining health insurance coverage from the

ACA has caused FQHCs to experience a challenging task to provide timely and appropriate services. Due to factors such as limited capacity and strategic decisions to deliver care a certain way, some FQHCs have focused on using the care team model to meet the rise in demand for care.

Key messages:

- The study identified the strategy of using care teams by a network of American primary care providers called FQHCs to meet the rise in demand for care
- Care teams may be an effective method of delivering care to meet demand and integrating primary care

Dementia education programme for non-professionals: An evaluation of its effectiveness

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Issue

Currently 46.8 million people worldwide suffering from dementia. According to forecasts this number will almost double every 20 years. From the public health point of view, it is imperative to establish a system in which people affected by dementia and their caregivers live in a community that promotes participation and autonomy to the greatest possible extent. One of the main objectives of the Austrian Dementia Strategy is to improve knowledge, skills and expertise of informal and formal caregivers by providing appropriate training.

Description of the problem

The Albert Schweitzer Institute for Geriatrics and Gerontology established a low-threshold dementia education programme for non-professionals to learn about the basics of dementia and how to deal with those affected. The main objectives were to raise awareness and to inform about local advice and support facilities. A psychiatric nurse designed a 4-hours education programme. In February 2016 30 voluntary readers and employees of a library attended the programme. 3 months later a survey was conducted to measure its effectiveness and sustainability.

Results

The results of the survey show that the programme succeeds in improving social skills of non-professionals and helps them strengthening their understanding for behavioural problems of people with dementia. Furthermore a reading circle in a nursing home of the Geriatric Healthcare Centres was established.

Lessons

The success of these programmes depends on the workshop-character, on the lecturer's expertise in dementia and on the costs. Lessons learnt were that a clear dissemination strategy for the education programme is necessary to arouse interest.

Key messages:

- Dementia education programmes assist non-professionals to develop a better understanding of dementia and to defeat the stigma attached to it
- The programme encourages a safe handling of non-professionals interacting with those affected to promote participation and autonomy to the greatest possible extent for people with dementia

Media – a tool for improvement of the health of the Roma Community

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Issue

The Roma community faces a lot of barriers in the implementation of their health rights. They face inequalities in healthcare, stereotypes, and informal payments charged by health professionals. They also lack access to information about ongoing changes in the health sector. Roma face and with populism activities related to them who exist just on the paper, without implementation. From another side we have and bad Laws solutions in Health and Social policy who are serious barriers for Roma community and other marginalized group (Health insurance, Health participation for social beneficiaries, Dentist services are expensive for children from 7-14 years) and are against rights of the patient and Constitution. Role of NGO is to address the problem, too shall understanding for this issue and to canalize energy who will led to change.

Description of the problem

A Media program has been launched in the municipality of Delcevo and implemented during the period June 2012 – June 2016. Through media we address the barriers what Roma community face in access to health services and we looking way for overcome. Depend from advocacy goal we use different methodology from traditional tool Radio (community show, debate, interview with health professionals and community leaders), TV and bulleting, and new Media Internet activism, website e.t.c.

Results and conclusions

Results include a change in the mentality of the communities and successful advocacy for issues of common interest related to access to healthcare. Through Media component like additional tool used in work with community for making changes we will present 5 national initiatives for change in health area and Roma rights, results of our advocacy, and best practice of our work (changes of local and national level)

Key messages:

- Only empowered community can address the problems and find solution for them
- Citizen initiative and Advocacy is possible just for the real problems of community and you must to find real tool to address the problem

Coordinated care initiatives in Norway and potential fields for improvement

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Issue

Many countries have a growing elderly population whose healthcare needs are costly. Well-coordinated services can improve the quality of care, reduce costs, and enable the elderly to live comfortably at home. The Holistic Patient Care at Home initiative (HPH: 2009-present) in mid-Norway is a general care pathway that helps patients access municipal health services post-discharge. It employs detailed checklists to assess patients' needs and monitor their progress. The Everyday Rehabilitation at Home initiative (ERH: 2013-present) in South-East Norway promotes sense of mastery and independence in activities of daily living by providing patients with intensive rehabilitation. The lessons learned and good practices identified from these initiatives can help inform coordinated care efforts in other parts of European.

Description of the problem

Eight case studies involving health professionals, managers, patients, and informal caregivers from HPH and ERH were conducted to examine whether the initiatives have: a) encouraged collaboration and enhanced person-centeredness

and safety in care delivery? b) promoted users' and staff's satisfaction?

Results

HPH and ERH performed well in terms of: the staff's interactions with and knowledge about users' needs, the quality of the work environments, and the systematic ways in which the initiatives' activities were discharged. Weaknesses included poor communication and collaboration between some sectors of the health system, poor involvement of users and carers in care planning, lack of safety training for users and carers, inadequate respite for carers, and understaffing.

Lessons

Common workspaces and good routines for communication and data sharing can enhance collaboration within and across health sectors. Poor support for informal carers may hasten institutionalization, which is costly. The success of coordinated care initiatives, not only in Norway, also depends on adequate funding and rigorous program evaluation.

Key messages:

- HPH and ERH are positive and much needed initiatives that are promoting collaboration in service delivery in Norway, but they are yet to emerge as mature well-functioning coordinated care models
- HPH and ERH contributed to good interactions between staff and patients, improved staff's skills in assessing patients' needs, and nurtured a positive work environment for staff

Moving Generations – Building bridges between children and older adults by means of psychomotricity

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Issue

Scarce evidence exists in literature of intergenerational health promotion interventions and public health practice in general. In the present project, "Moving Generations", intergenerational health promotion has been implemented and is evaluated in order to determine potential effects and feasibility of an intergenerational weekly psychomotor multi-center intervention in 8 Austrian centers (either kindergarten or long-term care).

Description of the problem

"Moving Generations" is an ongoing project (2014–2016) that brings together children (aged 3 to 6) and older adults (60+) in a weekly psychomotor intervention program. Psychomotricity was chosen as its underlying principles fit to those of health promotion, such as a focus on resources. 16 institutions belonging to 8 different providers are involved. The project highlights gender and intercultural aspects and aims – by means of training of involved staff – at sustainability.

Results

Preliminary qualitative data show the following aspects: (i) acceptance by the target groups that were participating with joy, concentration and volition, (ii) an increase in intergenerational contacts both inside and outside the psychomotor intervention groups, (iii) feasibility of the program even with severely impaired older people or children with limited language skills and (iv) sustainable cooperation between the institutions. Quantitative data regarding active engagement, self-efficacy and mutual appreciation will be available in summer 2016 and will be presented at the conference.

Lessons

Manifold factors influence the outcomes such as spatial and organisational conditions, composition of participants, communication patterns between involved actors, availability of well qualified staff (trained for the requirements of both target groups) as well as the materials used.

Key messages:

- “Moving Generations” has established intergenerational contacts while addressing health and the well-being between generations
- Psychomotricity offers a feasible frame for intergenerational group activity in the settings of kindergartens and long-term care as the needs of both target groups are considered

Study of health literacy and health behavior in Almaty City and Almaty Region, Kazakhstan

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Background

One of the challenges for public health policy is the development of the effective interventions to enhance health literacy of the population and improve health outcomes. To do so a baseline level of the population health literacy should be researched.

Methods

We conducted a cross sectional study among residents of Almaty city and Almaty region using a comprehensive internationally validated tool - HLS-EU-Q. A total of 2000 potential respondents at the age of 18 y. o. and over who attended primary healthcare organizations during the period of study were randomly recruited to participate in the survey. After checking the correctness of the anonymous questionnaires 905 urban and 826 rural questionnaires were included into the analysis. Health literacy indices were calculated and main socio economic and behavioral determinants were identified.

Results

In Almaty city GHIL in men was 34.0 ± 8.6 and in women - 33.49 ± 9.4 . There was no significant difference in HL levels in men and women.

In Almaty region GHIL was 35.7 ± 9.9 in men and 34.0 ± 9.6 in women. GHIL was significantly higher in men than in women ($p < 0.05$).

45.5% of urban and 42.1% of rural respondents had limited general health literacy (GHL).

General HL (GHL) in both samples was higher in respondents who exercised at least 30 minutes per day several times a week than in respondents who didn't exercise at all ($p < 0.005$).

General HL (GHL) in both samples was higher in respondents who never smoked than in those who used to smoke and quit ($p < 0.05$).

Conclusions

The study highlighted mutual influence of health literacy and health behavior, the results can serve for the development of the effective public health interventions to improve population's health outcomes.

Key messages:

- Health literacy was higher in respondents who exercised regularly
- Health literacy was higher in respondents who never smoked

Knowledge radiology staff about the radiation which is used for diagnosis in Diyarbakir, Turkey

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Background

The number of radiological investigations is rapidly increasing in parallel with improvements in medical technology. Almost all adult patients admitted to hospital today will have at least one chest x-ray, multiple radiological tests. In this study, the survey was developed in order to identify the knowledge of radiology staff regarding the ionizing radiation exposure and their attitudes towards radiology applications.

Methods

In this descriptive study, the participants was composed of radiology doctors, radiology technicians, radiology nurses and assistants who were working in radiology units of hospitals located in Diyarbakir province in southeast of Turkey. The survey was applied to 202 radiology staff.

Results

90,6% and 83.7% of radiology staff were not aware of the annual MADLs (maximum allowable dose limits) respectively for patients and for themselves. Moreover, 82,2% of them did not have any idea about the level of ionized radiation due to abdominal computed tomography (CT) equals to the level of radiation due to PA lung examinations. In case of other techniques in which ionizing radiation is used, 41%, 32%, 34% and 30.5% of participants knew that ionizing radiation is used respectively in mammography, CT, angiography and scopy. Of all radiology staff, 91% and 89.5% of them did not know that ionization radiation is used in respectively in ultrasonography and magnetic resonance imaging. Of all participants 21,9% of them stated that they did not use dosimeter.

Conclusions

It was specified by radiation staff that since they did not rely on the results of dosimeter, they did not use it. In order to increase the knowledge and awareness of radiation staff regarding the radiation safety, in-service training programs are required.

Key messages:

- Level of knowledge the effects of radiation used for diagnosis of the radiology staff was inadequate
- Radiation safety courses should be compulsory in health-related schools

Improving health of people with intellectual disabilities using the SO-Healthy Athletes Program

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Background

Prevalence of physical diseases in people with intellectual disabilities (ID) occurs 2.5 times more frequently than in healthy people. Besides symptoms that correlate with diseases, people with ID are also more prone to chronic diseases (obesity, DM, arthrosis, etc.) and they are also not as physically fit. These impairments can influence professional and social participation

Objectives

Special Olympics has offered competitions for people with ID and has developed several healthcare programs. This Healthy Athletes (HA) Program, which meanwhile consists of 8 parts (Fit Feet, Fun Fitness, Health Promotion, Healthy Hearing, MedFest, Opening Eyes, Special Smiles, Strong Minds), is

offered for all athletes. Hence, it is also going to be an essential part of the World Winter Games for about 3,500 athletes in Austria (Schladming and Graz) in March 2017. Besides screenings, which assess the health status of athletes, the HA Program 2017 places specific focus on behavioural prevention (education stations and workshops).

Effects

People with ID cannot usually attend such assessments in their everyday life, due to lack of self-motivation, lack of comprehensible information and barriers in their respective health care systems. The fact that the HA Program is offered during a sports event and can be attended together with team colleagues and supervisors, and that health professionals who help with this event, are well prepared to handle the athletes and also have prepared the individual stations according to the athletes' needs, results in a high international attendance of this program.

Conclusions

The screening programs assess very well the health status of people with ID; they are, however, like all screening programs more pathogen focused. Therefore, it is the intention of HA to strengthen the resources of athletes and to influence the health status and level of performance in sports sustainably by providing education stations and workshops.

Key message:

- The Healthy Athletes Program offers easy access to screenings and education stations for people with ID, to improve the health status and performance level in a sustainable way

5-year experience in ethical analysis of public health cases in Medical University Pleven

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Background

Training in case analysis is vital part in bioethical education. It develops moral sensitivity and helps medical students to distinguish diseases' different social impact both on the individual patient and the public.

The aim of this report is to present and analyse the results of 5-year application of original methodology for ethical analysis of public health cases among students in Medical University of Pleven.

Methods

In the period 2010-2015 a 4-step model of case analysis (dilemma definition, data clarification, ethical discussion, and decision) was applied by 562 students. Assessment was performed through originally developed tool.

Results

In total 418 Bulgarian students and 144 international students were covered by the educational programme for the referred period. The method for case analysis was applied to cases concerning general Public Health Ethics problems, resource allocation issues and research ethics (161 case analyses altogether). Other bioethical problems were also included. Highest achievements were registered in research ethics cases: 49 students successfully analysed their cases in this field. Students who analysed general Public Health Ethics cases (4.1%) and Resource allocation cases (15.8%) showed very good results in mastering and applying the method to these topics.

Female students proved to have higher results in case analysis than male students. The percentage of students in English training program who showed sufficient results is higher compared to Bulgarian students (31.9% to 4.3% accordingly). However, the percentage of international students with very good results is over two times lower compared to Bulgarians (51% to 21.6%).

Conclusions

Case analysis skills are important for students in view of the decisions concerning public health they would come across in their future practice. Experience in case analysis contributes to professional confidence and change of perspective when facing public health ethical challenges.

Key messages:

- Training of future Public Health specialists and physicians demands complex theoretical and practical skills for which the method for ethical case analysis is conducive
- Training in case analysis not only enhances moral sensitivity of students towards Public Health but it also helps to identify common mistakes and address them in education

KostBar: Capacity building of parents, communities and settings concerning healthy nutrition

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Parents/grandparents have a significant influence on eating habits but are often neglected as partners in nutrition programmes.

The NGO Styria vitalis (Austria) supported by 'Gemeinsame Gesundheitsziele', implemented "KostBar" 2015/16 in two urban districts of Graz with a population predominantly LSES. It addresses parents/grandparents with children aged from 4 to 14. The targets were to explore the needs and questions of parents about nutrition, to reach, motivate and enable them and to raise potentialities within settings and communities for healthier nutrition.

Project activities were various and included around 1000 participants:

- Outreach work: traveling with the KostBar trailer bike through parks, neighbourhoods, schools
- Multiple ways of capacity building (peer picnics, cooking shows, sugar free weeks, nutrition talks, radio-shows, articles)
- Participative development of programmes with African and Muslim communities
- Financial support and expert resources to enable stake holders and communities
- Know-how-Transfer between cooperation partners
- Improving local structures

Information is not enough. Changing problematic eating habits depends on the experience of personal benefit. Combined working on structures, like better community food supply, is supporting institutional players in their tasks. Health for all in communities needs flexible strategies based on more precise analyses of the sociocultural background of target groups, structures and settings. Personal relationships, key persons and oral communication are vital when approaching people eminently those from collective cultures. Long-lasting relationships for health promotion need time, mutual trust, expertise and continuity which often is a contradiction to project frames. Continuous adaptation of the process, time tables and cooperation partners was essential for the success of KostBar.

Key messages:

- There are heterogeneous, flexible approaches in communities to improve nutrition awareness of parents and kids with LSES. Furthermore communities can integrate nutrition into their innermost tasks
- Health promotion in culturally diverse communities must pay more attention and react to the fact that people are socialised either in individualistic or collectivistic cultural systems

Care Living Labs Flanders: seeking a methodology to upscale innovations in elderly care

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Background

Challenges in elderly care are associated with a raise of public health and health system issues in many western countries. In 2012, the Flemish Minister of Innovation launched the policy program 'Care Living Labs Flanders' (CLLF). The program aims at stimulating needs based innovations in a participative and an open innovation perspective. The program differentiates "platforms" and "projects". Platforms are conceptualized as living labs (LL) with panels of elderly people on which projects can develop and test (social) innovations in a "real life environment". In the program six platforms host 23 projects. After an initial funding period, platforms should become sustainable infrastructures and provide (value-adding) support services to projects. The types of services were not defined in detail at the launch of the program. This contribution helps to understand what participating project partners in the CLLF expect from a platform.

Methods

Data were collected from representatives of different sectors. In the self-developed questionnaire a number of services were listed. Data were analyzed using SPSS.

Results

Project partners primarily value a platform as a "matchmaker" of organizations from different sectors. They expect a platform to be an 'open infrastructure' allowing access to different types of partners. Platforms should provide support to projects in the preparatory phase; help to understand the different "logics"; support the search for funding; provide access to a test population and coach in the valorization of the project.

Conclusions

In order to enhance health system innovations in elderly care the CLLF program is an experimental, but promising policy initiative. It supports the development of regional platforms that have to provide supportive services to enhance the development of innovations in elderly care. The learning experience provides insight in what a LL could provide as services to enhance these innovations in a participatory way.

Key messages:

- The Flemish care living lab policy program learns a number of relevant lessons on how living lab platforms could support the development and upscaling of social innovations in elderly care
- This research provides an understanding of the types of services a platform should offer in order to enhance open and social innovations

Job stress status and the influencing factors of staff working at a medical center in Malatya Turkey

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Background

Job stress is a barrier in performing normal functions of an employee in work life, and influences productivity. In this study, the purpose is determining the job stress levels of the research assistants and the nurses of a medical center, and examining the relevant factors.

Methods

The study was conducted in cross-sectional study design on the research assistants and nurses working at Turgut Ozal Medical Center in 2015. The minimum sampling size of the study was calculated as 385 The "Job Stress Assessment Scale", which was

confirmed in terms of validity and reliability, was used in the study. The independent variables of the study were some characteristics and job properties; and the dependent variables were the job stress levels. Receiving high points from the scale shows that the job stress is high.

Results

32,1% of the individuals were research assistants, and 67,9% were nurses. 42,2% of the employees were working at internal medicine department; 18,6% worked at surgical medicine; 23,2% worked at intensive care units; and 5,1% worked at emergency departments. The average point of the research assistants received from the scale was 82.13 ± 16.30 ; and it was 79.80 ± 14.13 in nurses. The difference between was not found to be statistically significant ($p > 0,05$). It was determined that 54,8% of the doctors, and 46,5% of the nurses were more stressful. The average point revived from the scale by the participants, who considered that they did not receive satisfactory payment, was found to be high ($p < 0,05$). The average points of the emergency medicine and surgical unit employees were found to be higher than the other units ($p < 0,05$).

Conclusions

It was determined that the job stress of the employees who worked at surgical units and emergency units was higher. It was also determined that low payment levels increased the job stress. The number of the staff working at surgical and emergency units must be increased, and their workloads must be decreased.

Key messages:

- Job stress in doctors and nurses is a common syndrome
- Receiving low payment and working at emergency and surgical units are among the factors that increase job stress

Mental health and substances abuse: effects of job instability among Italian workers under40

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Background

Economic changes brought flexibility to rule the labour market all over the world. Studies outlined the high prevalence of mental disorders between precarious workers. We aimed to investigate the possible risk factors (including job condition and perception) associated with mental disorders (depression and anxiety) and addiction to substances (alcohol, drugs, nicotine).

Methods

A cross sectional study will be carried out among 1000 subjects aged 20 to 39 in Torino (Italy). Demographic data, job condition and perception were investigated, as long as 9-item Patient Health Questionnaire, the General Anxiety Disorder, the Alcohol Use Disorder Identification Test, the Drug Abuse Screening Test and Fagerstrom Test for nicotine dependence were used to assess the mental health and addiction status.

Results

To date, we have preliminary results elaborated from a sample of 160 subjects (response rate 100%, 50% were females, mean age was 27 ± 6 years). Around 40% were students, 15% permanent employees, 20% fixed-term, 28% had other type of employment and only 3% were unemployed. Around 52% perceived their condition as stable while the other defined themselves as precarious. Concerning the mental health and addiction outcomes, around 60% of respondents declared to present at least low depression symptoms while 16% suffered from anxiety disorders. Additionally, 15% was alcohol abuser, 30% used illegal substances and 52% were smokers. As results, to perceive the own occupational status as precarious seems to be statistically significant associated ($p \leq 0.05$) with

depression, anxiety, alcohol abuse and smoking habits. Interestingly, students, if compared with the other categories, seem to be less addicted to alcohol and illegal substances ($p \leq 0.05$).

Conclusions

In line with current European statistics, perceived job instability seems to be a risk factor for mental disorders and substances abuse. We suggest the public mental health agenda consider this issue as a priority.

Key messages:

- Precarious job seems to be associated with depression, anxiety, alcoholic and smoking habits
- Precarious young people can be considered as fragile population for mental health

Political ideology and stigmatizing attitudes towards depression in Sweden

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Background

Few studies on political ideology and stigmatizing attitudes towards mental disorders have been conducted with a specific focus on depression. Also, such adverse stereotyping attitudes tend to be sensitive toward cultural difference and societal change and to our knowledge no study has so far been conducted in a country with a universal welfare system like Sweden. The aim of the present study was to examine if political ideology and party affiliation was associated with stigmatizing attitudes towards depression in Sweden.

Methods

The study was based on a web-based citizen panel, hosted by the University of Gothenburg, comprising 3175 respondents in Sweden. Stigma was measured with the Depression Stigma Scale (9-45), political ideology with a left-right ideology index (Cronbach's alpha .68), and party affiliation with vote in latest national election. ANOVAs and linear regressions were conducted. All analyses were stratified for gender and education.

Results

A linear regression analysis established that right-wing ideology was associated with more stigmatizing attitudes towards depression ($B=.68$, $SE=.03$, $t=17.24$, $p<.0001$), adjusted R^2 .11 for women and .15 for men. Similarly, an ANOVA analysis showed that more conservative party affiliations was associated with more stigmatizing attitudes towards depression ($F(8,2920)=38.5$, $p<.0001$). Sub-analyses also revealed that more stigmatizing attitudes was associated with higher self-stigma.

Conclusions

This study contributes by 1) observing an association between political ideology and party affiliation, and stigma towards a highly prevalent mental disorder like depression, in contrast to the broader concept of mental health, 2) observing this association in a country with extended welfare systems. Future studies should investigate how political ideology and these attitudes might be associated with people's view of the design and expenditure of the national social insurance, in relation to depression.

Key messages:

- The previously observed association between right-wing ideology and stigmatizing attitudes towards mental disorders was here observed in relation to the highly prevalent disorder of depression

- That right-wing ideology and conservative party affiliation was associated with stigmatizing attitudes towards depression in a country with a universal welfare system complement previous research

A technology supported self-management program to promote physical activity in older adults

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Background

Many attempts have been made in the past years to develop and implement (technology based) interventions that support (pre-)frail older adults to increase their physical activity levels. One of the challenges herein is to stimulate older adults to be physically active by providing support tailored to their personal needs and preferences. LIFE faces this challenge as it intends to be a personalized self-management platform to enhance physical activity of older adults. The aim of this study is to identify user needs and requirements for LIFE.

Methods

Twenty-two care professionals (i.a. physiotherapist, GP, social worker) and 38 older adults participated in (group)interviews to identify user needs. Based on the results, mockups and a scenario were developed. Subsequently, these were presented to 24 older adults and 6 care professionals in (group)interviews to identify requirements for LIFE.

Results

Being physically active is not a goal in itself for older adults. Social contacts and staying independently as long as possible motivate them to be physically active. LIFE should motivate older adults to become active and support them to stay engaged in activities. According to older adults, this requires personalized advice that is geographically local and takes into account the varying activity preferences and physical limitations. Safety and ease of use need to be guaranteed. Visiting nurses, nurse practitioners, physiotherapists and occupational therapists (as part of multidisciplinary teams) could offer LIFE, support its use and monitor progress of users.

Conclusions

Based on these results, it seems wise to offer personalized advice as older adults' needs and preferences regarding physical activity differ. LIFE could be embedded in the practice of various professionals.

Key message:

- If further development of LIFE successfully incorporates the requirements identified in this study, LIFE could potentially increase physical activity levels of older adults

Cash transfer scheme and economic burden on maternity in India: lessons from Jananai Suraksha Yojana

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Background

Conditional Cash transfer scheme is low income countries' response to call for improving the access and utilization of healthcare delivery. Janani Suraksha Yojana (JSY) or safe

motherhood scheme is India's instrument to improve the utilization of maternal healthcare by reducing the out of pocket expenditure (OOPE) of households. This scheme provides cash incentive of \$22 to the mothers delivering in public health facility. This paper attempts to estimate maternity expenditure, i.e., direct/medical and indirect/non-medical expenditure incurred by households due to maternity and also examine the extent to which JSY payment reduces the catastrophic OOPE burden of households.

Methods

The study used data from a household survey in India. Women who gave birth within a year prior to the survey were interviewed. The study collected direct and indirect expenditure incurred on various components of maternity. Degree and variation in catastrophic impact of households' maternity spending was computed as share of maternity payment in total income, and its overshoot in relation to a specific expenditure threshold, across categories. Binomial logistic regression models used to study determinants of catastrophic expenditure and whether JSY has any role in influencing the expenditure pattern.

Results and Conclusions

Incentives of JSY was not enough to reduce a substantial amount of OOPE. The poor and marginalised had to pay informally to obtain services from public hospitals. The JSY reduced only 2.1 percent of OOPE share of household income which was also found to be regressive as the poor had to pay more than the rich. Incentives of JSY helped only 8.1 percent households to escape from suffering catastrophic burden. Thus, the JSY was found to have achieved limited success in reducing economic burden of OOPE on maternal care. Periodical revision of the JSY amount and strengthening supply side of public health system will be needed to reduce the OOPE of maternity.

Key messages:

- JSY as a cash transfer scheme has achieved limited success in reducing economic burden of maternity in India
- JSY is a well-designed scheme with the potential to bring desired changes in the maternal health care scenario in India. However, implementation agencies need a major revamp for its success

New strategy for public health policy in Kazakhstan

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Problem

The health care system of Kazakhstan is at the threshold of great reforms. It is necessary to conduct structural changes in every field of health care. The first stage of public health policy development is to settle health care tasks. The issues of new public health emerge on the second stage of development.

Description of the problem

The Government of the Republic of Kazakhstan has adopted many National programmes on health care reforming but these programmes haven't been successfully introduced. Over the last several years the Government has increasingly focused its' attention on public health policy in an attempt to address many of the population health problems. The Development Strategy was entitled "Kazakhstan - 2050" and series of the important state programmes identified the prevention of disease and the health promotion as a key element in health policy areas. Quantifiable targets were set across a wide range of population health issues.

Results

Although recent data show that Kazakhstan has improved on some measures of population health, many public health challenges remain due to problems associated with rapid economic growth, corruption, and persistent inequities. It is

evident that these challenges will be solved by intersectoral collaboration across social policy arenas. Under the terms of the latest policy decrees the health structure across the country is being analyzed, not only to reflect the Health for All strategy, but to also reflect the Governments' apparent desire to deliver a more effective, and locally based health promotion programme.

Lessons

Many problems of leadership, intersectoral cooperation, solidary responsibility for health, development of civil society need to be solved. To aim the society at the final result, to assess the effectiveness with clear criteria, to direct agreed activity of all interested parties. All these are new challenges for public health policy in the country.

Key message:

- Policy-makers and public health specialists should work out new conceptual approaches to develop new public health in the context of emerging sustainable development policies

Healthy Study Start – A sustainable health promotion project for freshmen

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Transition from school to university is a critical and vulnerable period for young adults. International research shows that beside the high academic pressure and challenges in the new education system, this period is also associated with lifestyle changes like increased alcohol consume, unhealthy eating, physical activity decline and with weight gain in the first year of university.

The teaching-project Healthy Study Start aims at the promotion of health resources and reduction of strains in the study entry phase. The intervention package includes structured transmission of information, outdoor-pedagogical training, peer-mentoring and lecturer-mentoring. The program lasts three days and takes place in the first study week. After the successful piloting in 2013 with occupational therapy students, the program was enrolled and evaluated in 2014 in non-health related fields of study like civil engineering and management. More than 120 students participated in the program in 2014. The students rated the program very positive regarding the experienced effect: Using a rating scale from 1-4, the aspects "coming closer in the student group" (mean 3.8), "get support in the study entry phase" (mean 3.65) and "get the opportunity to clarify questions and uncertainties regarding the study start" (mean 3.65) were rated as the top-3 effects of the program. Peer-mentoring was rated as the most popular component with a mean value of 1.35 on the school mark scale, followed by the outdoor-pedagogical training (mean 1.46).

Healthy Study Start is a feasible and valuable program to support students by entering the new system university, regardless of their field of study. Since 2015 this program is embedded in the curricula of study programs. Because of the growing number of undergraduate university students all over Europe, it will be important to include this target group in public health agendas. The presented project gives an example how this can be done in a sustainable way.

Key messages:

- Entering university is a critical phase for young adults regarding health behaviors and stressors
- Students as a growing part of the young population, has to be addressed in public health policies

Promoting and sustaining the concept of family medicine in Tajikistan

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Issue

With the collapse of the Soviet Union, the Republic of Tajikistan inherited a health system that placed strong emphasis on inpatients care and the importance of narrow medical specialists. Tajikistan channels only low levels of public funding into health. Coupled with high levels of informal payments, this situation means that large parts of the population struggle to access appropriate health care in times of need.

Description of the approach

Since 2003 the Swiss Agency for Development and Cooperation supports the Ministry of Health and Social Protection (MOHSP) to establish a sustainable concept of family medicine through a multilevel approach:

1. Family medicine service delivery is facilitated through stronger management and more transparent planning at rayon and primary health facility level.
2. Family doctors and nurses undergo a specialised training in family medicine, reinforced by continuous medical education activities.
3. The concept of family medicine is promoted at primary level through engagement of village councils and community groups.

Results

A business planning tool has been developed and, by 2015 was used across all rural health centres in the six project supported rayons. MOHSP has recently established a new department to facilitate a wider roll-out, while the Post Graduate Medical Institute has developed a management training course for rayon level health managers.

60% of the villages in the six rayons have operational community groups involved in health planning and monitoring, as well as the promotion of healthy lifestyles.

Lessons

Policy level change, combined with interventions at rayon, facility and community level has led to ever greater acceptance of the value and sustainability of the concept of family medicine in rural Tajikistan.

Key message:

- A multilevel approach is needed to establish a rational and integrated concept of family medicine. Community engagement stimulates demand for accessible and patient-centred service delivery

Addressing corruption in the Austrian healthcare sector: new insights into a hidden agenda

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Background

There is mounting evidence that corruption in the healthcare sector lowers the effectivity and efficiency of medical services. Therefore, combating corruption has become of increasing interest among healthcare policymakers worldwide. In Austria, there is still a lack of empirical studies in the field of national corruption research, a necessary precondition for the development of effective anti-corruption measures. The main objectives of our research are to gain a better understanding of the extent, forms, causes and consequences of corruption in the Austrian healthcare sector on the one hand and to analyze

existing anti-corruption measures regarding their capacity and effectiveness on the other hand.

Methods

Our research method relies on an extensive literature review and a qualitative study including interviews (n=17) with several healthcare and anti-corruption stakeholders. The data were analyzed by means of MAXQDA 12, a powerful qualitative data analysis software. Based on our findings we developed a set of hypotheses that need to be verified in further quantitative research.

Results

Despite a perceived decline in public tolerance of corruption in healthcare and a generally increasing awareness, we assume that corruption in the Austrian healthcare sector is still perceived. We discover several causes of common corrupt practices at the macro, meso and micro level and exhibit their interdependency within a framework. We doubt the effectiveness of some present anti-corruption measures, in particular due to the lack of enforcement. Raising awareness, fostering compliance and reducing public tolerance of corruption seem to be central to fighting corruption in the longer term. The stated results are preliminary.

Conclusions

We discuss the theoretical and practical implications of our findings and present new approaches for the better prevention and control of corruption within the national healthcare system. Our results may be transferred to other countries.

Key messages:

- Our research may have important implications for policies that aim to improve the efficiency and effectivity (quality and safety) of medical services
- We address the empirical gaps in the field of national corruption research and present new approaches for the better prevention and control of corruption within the healthcare system

Parental willingness for their school-aged children to receive the human papillomavirus vaccine

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Background

Poland is one of eight EU countries where HPV vaccination has not been introduced as a mandatory immunization program and paid vaccination is the only option. HPV vaccination coverage in adolescent girls is estimated at 5-8%. Objectives: To determine willingness regarding vaccination among Polish parents and correlate the anticipated uptake of HPV vaccination for their adolescent children.

Methods

Self-administered questionnaires were completed by parents of teenagers from 3 randomly selected schools in Zgorzelec (Poland). Logistic regression analysis was performed to identify predictors in regard to the intention of parents to have their children vaccinated.

Results

The response rate was 91%. Of the 450 respondents (median age 42 years, 70.1% females), 85.1% (95%CI:81.5%-88.1%) intended to have their children undergo vaccination against HPV. The most common sources of HPV knowledge were television (53.8%), internet (41.4%) and leaflets (32.4%). Only 31.3% of parents identified HPV as a sexually transmitted pathogen, 36.0% - as a risk factor of cervical cancer. In multivariable modelling, parents who had positive attitudes toward vaccines (OR 3.0; p<0.005), those who had ever heard of HPV (OR 2.0, p<0.02) and those employed (OR 1.7, p<0.03) were more likely to have their children vaccinated. Parents who were concerned about the

side effects of HPV vaccine (OR 0.6, $p < 0.04$) were less willing to have their children vaccinated.

Conclusions

Most of the parents surveyed obtained information regarding HPV from non-professional sources which may influence their knowledge level; however, most were in favor of their child being vaccinated against HPV. Uptake of HPV vaccination may be maximized by: improving attitudes toward the safety and efficacy of vaccinations and improving knowledge related to the role of HPV in cervical cancer etiology.

Key messages:

- Assessment of parental support level and predictors regarding HPV vaccination of their children revealed the need for continuing education campaigns to increase HPV awareness and immunization
- Understanding parents' perspective on HPV vaccination would facilitate planning for tailored future interventions oriented to increase immunization coverage

The perceptions and readiness of Polish medical students regarding the implementation of PrEP

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Background

Evidence has demonstrated the efficacy of pre-exposure prophylaxis (PrEP) for HIV prevention, but concerns persist with its use. Little is known about willingness to prescribe PrEP among future medical professionals in Eastern Europe.

Objectives: To determine the willingness of Polish medical students to prescribe PrEP.

Methods

Between October 2015-April 2016 an anonymous survey was conducted among 146 final year medical students of the Pomeranian Medical University in Szczecin, Poland, through the use of self-administered questionnaires. Multivariable models were utilized to determine characteristics associated with prescribing intentions.

Results

Response rate was 100%. Median age was 25.5 years, 65.1% were women. The majority (78.8%) were willing to prescribe PrEP; 90.4% felt it should be recommended for discordant couples, 70.5% - that it should be recommended for MSM. The belief that 'PrEP would generally be of benefit rather than disadvantage' (OR=2.7, 95%CI=1.1-6.9), female gender (OR=2.9, 95%CI=1.2-7.1) were positively associated with willingness to prescribe PrEP on univariable analysis; the latter was the strongest predictor on multivariate analysis. Participants cited potential increase in high-risk behavior (74.0%), development of antiretroviral resistance (65.8%) and cost (61.6%) as major concerns about prescribing PrEP. Only 9.6% of participants felt 'very familiar' with PrEP; 51.4% felt that information on PrEP had not been adequately distributed among students.

Conclusions

Polish final year medical students demonstrate high level support for PrEP, while expressing implementation concerns; the best candidate for PrEP is felt to be those in an HIV-serodiscordant relationship. To improve the acceptance of PrEP among future practitioners, the development of tailored education/training programs oriented to minimize their concerns is required. Although interventions should cover all students, males should be a group of special interest.

Key messages:

- Assessment of final year medical students' support level and predictors regarding PrEP revealed the need for continuing

medical education to prepare future physicians for this prevention strategy

- Understanding future medical providers' perspective on PrEP would facilitate planning for future implementation in Poland

Determinants of mental health in Lisbon Region in a period of economic crisis. A multi-level study

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Background

Scientific evidence has shown that mental health of the population is influenced not only by the individual attributes, but also by their place of residence characteristics. This study aims to assess the association between individual and contextual determinants with poor mental health (PMH) in Lisbon Region.

Methods

A survey was applied to a sample of 1,608 respondents in four counties of Lisbon region, in 2014-2015. Individual-data, including biological, socio-economic, behavioral, health status characteristics and satisfaction with place of residence, was linked to contextual-data (socio-economic and built environment indicators) at parish-level. Focus on PMH, as a first approach it was developed a multiple multilevel model only with sociodemographic characteristics (model 1) and then, a second model including other individual characteristics and some contextual characteristics (model 2).

Results

An important proportion of people had reported PMH (35%). Model 1 (accuracy of 65.1%) had identified the following characteristics related with PMH: females (OR=2.3), older people (OR=1.2), not married (OR=1.2) and lower education level (OR=1.4).

Model 2 revealed that less than good self-reported health status (OR=3.3), meagre financial situation (OR=1.8), major concern with health expenses (1.6) and unemployed family (OR=1.5), had shown higher odds ratio and, in the presence of them, the classical ones (model 1) lose significance (except Sex). Additionally some contextual determinants were identified, namely urban areas, satisfaction with residence area and social capital neighbourhood (accuracy of 74.3%).

Conclusions

Sociodemographic risk factors for PMH are in agreement with literature. Nevertheless when included other individual risk factors, namely health status and variables directly related with financial crisis, the first ones lose significance. Contextual variables (satisfaction with residence area and social support) were also identified as important.

Key messages:

- Critical situation in a period of financial crisis: 35% had reported poor mental health
- Sociodemographic risk factors lose importance in the presence of financial crisis variables. Contextual variables were also identified as important

Socioeconomic Inequalities and Self Assessed Health: Turkish Case

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Background

Examining the effect of socioeconomic-inequalities-in-health with self-assessed-health(SAH) is not new but there is very few empirical evidence of this association in Turkey. Survey-of-Income-and-Living-Conditions(SILC) data is never used for this purpose.

Objective: To determine health-related socioeconomic-factors' effect with SAH for 2006 and 2010.

Methods

Turkish-Statistical-Institute conducting SILC since 2006 as a part of EU-SILC. The target population is 16 and over. SAH was used as outcome-measure, the independent-variables are gender, age, income, education, urban-rural residence. Decomposition-of-Concentration-Index(CI) was employed in order to disentangle the main contributors-of-inequalities in SAH.

Results

CI for 2006 SAH was -0.170. Decomposition of CI: 73.1% of inequality in SAH was generated by income, 53.9% by education, 0.8% by rural residency. The effect of gender-age groups was -25.8%. CI for 2010 was -0.167. Decomposition of CI indicated: 77.2% of inequality was generated by income, 45.3% by education, 1.7% by rural residency. The effect of gender-age groups was -27.9%. The analysis showed a gradient-effect-of-income for good assessed-health.

Conclusions

Policies and programs should include all key sectors of society not just the health sector in order to decrease inequalities. Research on health-inequalities has been substantial, although more needs to be done to inform policy in a better way. This study provided empirical evidence that income-negatively-influences health: the lower the income-group, the poorer the perception-of-health since richest quintile get the 45.9% of the total income-a highly skewed distribution. Besides, lower-level of education had a further negative-effect on health-perception. Understanding and acting on socioeconomic health-inequalities has proven to be a difficult task. Despite the great health-improvements, the findings presents evidence on persistence of social health-inequalities in Turkey.

Key messages:

- Policies and programs should include all key sectors of society not just the health sector in order to decrease inequalities
- The findings presents evidence on persistence of social health-inequalities in Turkey

Social exclusion and the use of healthcare services in Poland

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Background

Social exclusion causes disruptions in the functioning of individuals in many dimensions including health. In the context of the Polish social system people benefiting from social assistance represent a group particularly vulnerable to the adverse effects of social exclusion. Bearing that in mind it is necessary to determine the patterns of use of health services and associated access restrictions.

Methods

The research was carried out in 2015 among a random sample of 501 beneficiaries of Centres of Social Assistance from the area of three cities in Poland - Chorzów, Zabrze and Bytom. Studies were conducted using own questionnaire. Response rate for the entire study was 75.8%. Among the respondents, the majority were women 54.3% and people aged 50-65 and 35-49 (respectively 37% and 35.9%).

Results

Respondents showed relatively high demand for health care services. More than 57% of respondents utilised primary care services in the last 12 months before the survey. In the case of specialized care this percentage amounted to 53.2%. At the same time research showed the existence of significant problems with the use of dental services. More than 40% of the respondents declared that they do not use dental care at all, and over 26% visit dentist less than once every two years. Study participants suffered also from inability to use healthcare services. Most respondents were not able to use dental services (over 46%) and primary care services (34.5%). In the case of specialized care, this percentage was slightly over 19%. Disturbingly high percentage was also revealed in the case of hospital services - more than 20%. Most frequent cause for not using healthcare was long waiting time and being afraid of pain or being diagnosed with serious illness.

Conclusions

Surveyed group has a relatively high demand for medical services.

Number of unmet health needs suggests strong demand for improving system solutions.

Key messages:

- Survey shows higher than average demand for healthcare services among beneficiaries of social assistance in Poland
- Number of patients declaring inability to use healthcare suggests demand for adopting solutions that can better address specific needs of vulnerable groups

An empowerment-oriented health education programme for people with intellectual disabilities

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Background

People with intellectual disabilities are often affected by specific health risks and face multiple barriers in health care. Yet, health promotion and education programmes are seldom targeting or including this group.

As part of a participatory research project a health education curriculum was developed and implemented in a workshop for adapted work (sheltered workplace) in Germany. Theoretical basis for the curriculum were principles of participation, emphasis on competence, and the involvement of participants as peer-multipliers and peer-researchers.

Objectives

Our main objective was to test if a health education programme for people with intellectual disabilities can support participation in workplace health promotion and in health research.

A qualitative practice research approach was used to evaluate the programme.

Results

Over 9 month 12 participants took part in weekly health classes. As main results we can state that the health communication in the workplace was highly increased through the education programme and that the participants were empowered to act for better health in different ways. The participants engaged in health panels and in embedded research projects about healthy diet and noise. Through weekly information sheets set up in plain language and through participants who acted as peer-multipliers health was made an important topic in the company.

Conclusions

Participatory and action-oriented health classes seem to be appropriate for including employees with disabilities in workplace health promotion. The education programme was

also successful in serving as a guideline throughout the participatory research process.

Key messages:

- Although people with intellectual disabilities are often overlooked in health promotion and education, they can benefit from tailored activities in various ways
- Health interventions can benefit significantly from participation of people with intellectual disabilities

Patterns and costs of interstate patient mobility: a review of decentralized healthcare in India

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Introduction

Decentralization of healthcare has been a main approach of planning to achieve the goal of 'health for all' in India. However, data shows that to a large population required medical care is still not accessible. Considering limited resource, and previous experiences it is argued that decentralization is not the best strategy in India. This research critically analyse decentralized health system through study of interstate patient movement and inequality of access of care due to constraints in patient mobility. It suggests regional medical hubs and subsidized patient movement as alternative policy measures in place of decentralized healthcare system.

Methods

Data used in this study was collected in 2014. This sample survey collected information on 57456 cases of hospitalization. In study, all hospitalization case were further divided into two categories i.e. 1) cases treated in home state; 2) hospitalized care received in other state. The hospitalization cases were further categorized on the basis income, gender, location and other characteristics to analyze the constraints in patient movement.

Results and Conclusions

Around 16% of the total patient moved to other states for hospitalized care. The cost of transportation was four fold and other non-medical expenses were three fold higher in case of interstate movement. Poor patients, females and patients located in hilly regions were less in share in total moving patient. In the light of findings of this study it was concluded that decentralization strategy in Indian healthcare planning has failed, forcing patient to move. However since there exist a number of constraints in the movements issue of inequity of access also emerge. This study suggests that government should focus in developing a number of regional medical hubs and assist patient to reach to their nearest hub. This strategy may prove cost effective and more feasible than decentralized health care for all the states in India.

Key messages:

- Decentralised healthcare system in India has failed to provide equitable healthcare to its citizens in different states
- Development of Regional medical hubs and subsidized patient movement to these hubs may be an alternative strategy to decentralized healthcare system

Analysis of suicide rates in the Slovak Republic in the period 1993-2014

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Background

Suicide rate is an important public health indicator of overall population's well being. The highest risk of suicide is observed

in men of working age and older. As there was no information published on the situation in suicide rates in the Slovak Republic so far, in our research we analyzed the mortality database from the period 1993-2014.

Methods

We obtained the data for this study from the mortality database of the Statistical Office of the Slovak Republic. We have calculated crude and standardized annual suicide rates. We have analyzed trends of suicide according to age and sex by joinpoint regression and relative risks by negative binomial regression.

Results

In the period 1993-2014 in total 14102 suicides were committed in the Slovak Republic (85.4% were men). The overall average age-standardized suicide rate (SR) for the study period was 11,62 per 100,000 person years, the highest is in men aged 65+ (35,77 per 100,000 person years) and it increases with age. Risk of suicide is 6 times higher in men than in women. Joinpoint model shows stable or decreasing trend of suicide rates from 1993 – 2007, but increasing after 2007. This increase corresponds with increasing unemployment rate of that period in the Slovak Republic.

Conclusions

Compared to the OECD and EU27 nations, the suicide rate in Slovak Republic is slightly below the average. Men of working age or in retirement have the highest suicide rate. Awareness raising strategy aimed to improve recognition of suicide risks would enhance suicide prevention.

Key messages:

- Suicide rate in Slovak Republic is below the OECD and EU average
- Men of working age or in retirement have the highest and increasing suicide rate

How effective are community-based health promotion programmes? Insights from realist evaluation

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Background

Community-based health promotion (CBHP) programmes can yield sustainable and transformational changes to complex problems such as intergenerational transmission of social exclusion. However, investments in these projects are held back by lack of evidence on their effectiveness. The realist evaluation (RE) framework is regarded as a promising approach to improve understanding of how programmes generate their outcomes and the way they interact with their context. We look at two CBHP programmes to reflect on how RE can help relate their interventions to their outcomes.

Methods

We applied the RE approach to: "Football United" a sports for development programmes aiming to support refugee and newly arrived young people and families in their transition into Australian society and to, "Together, health for all in Pays de Redon –Bretagne Sud" a French programme to improve local capacities in addressing the social determinants of health in decision- and policy-making processes. Analyses were conducted on the basis of data collected through semi-structured interviews, documents, observations, etc.

Results

In both cases, application of the RE perspective highlighted difficulties in identifying the context-mechanism-outcomes configurations that are at the core of the approach. We clarified the definition of mechanism that was initially repeatedly confused with that of intervention/activity. Whereas both programme theories were quite straightforward,

they required a whole array of activities critical in shaping the conditions for the implementation of the interventions.

Conclusions

Our results echo other critics of the conceptual apparatus of the RE approach. While the RE has proven promising in linking CBHP interventions to their outcomes, practitioners still need better tools to grasp the complexity and the dynamic of changes brought on complex systems of actors.

Key messages:

- CBHP programmes can yield sustainable transformational change to complex situations but current evaluation approaches often fail to bring evidence on their effectiveness
- For the sake of knowledge transfer, theory-based evaluation approaches such as RE also need to capture the broad array of supporting activities of CBHP programmes

Community health newsletters as a health promotion tool for ultra-Orthodox Jewish women

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Background

Women in low socio-economic, religious, cloistered communities often have lower levels of health knowledge and behaviors. Ultra-Orthodox Jewish (UOJ) women in particular engage in fewer health behaviors and are not exposed to traditional media as a health information source. Currently, there are no known health promotion interventions (HPI) targeting this population. This study addresses the question of whether tailored health newsletters (HN) are a feasible and acceptable mode of HPI in UOJ women. Findings will inform PHIs in this and other low socio-economic, religious, cloistered populations.

Methods

HNs were distributed bimonthly through a bottom-up, multi-faceted community HPI implemented through indigenous women's groups in a homogeneous UOJ Hasidic community in Israel. Based on community focus groups and surveys, HN content included culturally-tailored health articles for women and their families, recipes, quick tips, and motivational stories. Through a process evaluation of this HPI, all group leaders (GL) were asked to complete phone surveys assessing multiple HPI components. HN-related items included distribution, reception, reasons for non-distribution, and feedback.

Results

66 (93%) OJ female GL completed surveys. 48 (72%) distributed HNs in their groups; of the 538 women in the groups, 474 (88%) took them. Primary reasons for non-distribution were GL-based (i.e. forgot, not interested) or technical (i.e. late delivery, postal issues). 71% of GLs had positive feedback (i.e. practical, encouraging and motivating content, good recipes, attractive) and 29% negative (i.e. group members' disinterest, irrelevant to group's age).

Conclusions

This study indicates that HNs are feasible and acceptable means for HPI with OJ women and that most women are pleased with this media. Culturally tailored HNs are a feasible, acceptable, and welcome mode of HPI with OJ women and potentially other low socio-economic, religious, cloistered populations.

Key message:

- Culturally tailored health newsletters are a feasible, acceptable, and welcome mode for health promotion with OJ women and potentially other low socio-economic, religious, cloistered populations

Unmet needs for health care in Portuguese population in 2014

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Background

Study of health needs has been used to identify vulnerable groups but also to evaluate and design health programmes. Belonging to this wide group, health care needs have been recognized as the most expensive one. This work aimed to estimate unmet needs for health care (UNHC) in Portugal and to analyse their association with demographic and socio-economic factors.

Methodology

2014 Health National Survey used a representative sample of 18204 individuals aged 15 or more years. Cases that reported health care needs within previous 12 months were selected to determine UNHC for financial, distance or (waiting) time reasons. Prevalence of UNHC was calculated and adjusted prevalence ratios (aPR) were estimated using Poisson regression.

Results

In the Portuguese population 20.4% (95%CI 19.4-21.4) reported an UNHC due to time, 8.9% (95%CI 8.2-9.6) for financial reasons and 2.0% (95%CI 1.7-2.4) because of distance.

Women [aPR 1.3 (95%CI 1.21-1.51)], divorced [aPR 1.37 (95%CI 1.14-1.64)] and unemployed [aPR 1.29 (95%CI 1.08-1.54)] showed higher UNHC for financial reasons. Unemployed [aPR 1.97 95%CI 1.27-3.90] and retired [aPR 2.51 (95%CI 1.26-5.12)] referred higher UNHC for distance reasons.

Belonging to the highest home income quintile and reporting a very good health status showed lower UNHC due to financial [aPR 0.26 (95%CI 0.19-0.35); aPR 0.53 (95%CI 0.34-0.85)], time [aPR 0.82 (95%CI 0.67-0.99); aPR 0.52 (95%CI 0.39-0.68)] and distance reasons [aPR 0.41 (95%CI 0.22-0.77); aPR 0.21 (95%CI 0.06-0.71)].

People who had health insurance or health subsystem had less UNHC due to time [aPR 0.74 (95%CI 0.65-0.83)] and distance [aPR 0.60 (95%CI 0.39-0.93)].

Conclusions

One in five Portuguese had an UNHC for waiting time reasons. Self-reported very good health status, having health insurance or health subsystem, and being in highest quintile of home income seems to be related with satisfaction of health care needs. Divorced, unemployed and retired people tend to have higher UNHC.

Key messages:

- Excessive waiting time is the most referred reason for unmet health care needs in Portugal
- Unmet health care needs seems to vary accordingly socio-demographic status

Management of Breakthrough cancer pain (BTcP) in Italy: needs and options

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Breakthrough cancer pain (BTcP) is a transitory exacerbation of pain on a background of well-controlled pain with a rapid onset and a short duration. Conventional analgesic drugs are generally not effective. Currently, there is controversy among healthcare professionals and patients regarding the use of

opioids for BTcP. This study was aimed to present a literature review to analyze the BTcP management in Italy.

A literature review was performed during the period October 2014-March 2015 by consulting the main electronic databases and institutional websites. Specific key words and MeSH terms were used.

There is a lack of precision about important aspects of BTcP including classification, epidemiology and assessment. In Italy epidemiological data reported a prevalence of 59.2% and high heterogeneity among the setting observed: lower rates were reported in hospitals (39.9%) and higher in hospice (80.5%). BTcP episodes generally occur from 1 to 4 times a day, but specific tools for diagnosing need to be developed. Furthermore BTcP intensity is underestimated. BTcP uncontrolled or poorly controlled can cause consuming of more health care resources and represents a social cost in terms of patient and caregivers' productivity.

Traditionally oral opioids represent the only strategy for treatment with a lot of prejudices that can cause ineffective and inadequate dosage. New drugs have been developed to have rapid onset (10-15 minutes) and good tolerability, nevertheless their consumption are still very low in Italy. After the introduction of the law 38/2010 local networks of palliative care and pain management are implementing in several Italian Regions and university training courses are established to managing analgesia and palliative care among medical practitioners.

Considering the high prevalence of BTcP observed and the underuse of available therapeutic options, Italian healthcare service needs to develop new approaches to improve quality of palliative care for patients.

Key messages:

- For the management of BTcP patient's characteristics, time of onset, intensity, location and particular features need to be accurately assessed and palliative care structures should be strengthened
- New drugs can achieve successful outcomes in order to get a better management for patients, doctors and caregivers

Health for all: Monitoring of Roma children health in Bulgaria

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Background

Approximately 10% of the total population in Bulgaria is Roma people, making it the country with the highest percentage of Roma population in the European Union. The health status of Roma people in Bulgaria is very bad influenced by their low educational level and social isolation. Roma population finds it more difficult to give an objective assessment of their health condition and explain what they suffer from especially Roma children. The restricted way of life in the Roma community could become an obstacle for medical professionals who have to deal with many myths and prejudices. It is difficult to be implemented any health promotional program for this ethnic group. As a result the Roma children health is getting worse every single year and the population of this ethnic group is growing up rapidly.

Methods

There are some municipal programmes for children and families' support in vulnerable groups living at risk on the territory of Sofia. We are trying to monitor and analyze the health status of the Roma children by regular check-ups done by young medical doctors or GPs in Sofia municipality. Individual interviews with the Roma mothers are used as well and the results are analysed.

Results

218 Roma children were monitored and covered by this project for a period of 7 months already. The project is still going on and the first results are quite interesting. 69% are ready to participate in the program until its end. Some health problems have been identified. The restricted way of life in the Roma community is a challenge, as well as some of the views of "old school" pediatricians which do not comply with the recommendations of WHO.

Conclusions

Inequitable distribution of GPs across the country, which hinders access to health services for vulnerable populations. Absence of an integrated medical and social approach in servicing children with chronic diseases/disabilities. An ineffective system of monitoring, rehabilitation and care for preterm infants.

Key messages:

- Absence of an integrated medical and social approach in servicing Roma children with chronic diseases/disabilities
- An ineffective system of monitoring, rehabilitation and care for preterm infants

C-posters - Poster Display: European public health

Effect of solitary eating and mobility limitation on depression in the Korean older adults

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Background

The purpose of this study is to investigate the effects of solitary eating and mobility limitation on depression in Korean older adults.

Methods

The subjects of this study were 2,085 older adults whose age was above 60 from the data of 6th Korea National Health and Nutrition Examination Survey (KNHANES 6-2, 2014). The data were analyzed by ANOVA, chi-square, hierarchical logistic multiple regression using SPSS Window ver 20.0.

Results

The rate of solitary eating was higher in female ($p < .05$), the older ($p < .05$), the widow ($p < .05$), the lower education ($p < .05$), lower economic status ($p < .05$). As for mobility limitation, female, the age of older than 70, the subjects with lower education, Medicaid beneficiary, the widow, and the person without own house tended to have higher mobility limitation ($p < .05$). Seniors eating alone has higher level of depression and mobility limitation than seniors eating with companies ($p < .05$). After adjusting age, gender, marital status, education, In the final multiple logistic regression, variables which affect depression in elderly population were female (OR = 1.895, 95% CI: 1.367-2.628), widowed (OR = 1.836, 95% CI: 0.859-3.922), Medicaid beneficiary (OR = 2.332, 95% CI: 1.290-4.216) and mobility limitation (OR: 3.343, 95% CI: 2.351-

4.754). Solitary eating was not significant predictors of depression in older adults any more in the final model.

Conclusions

Although solitary eating is increasingly viewed as a risk factor in nutritional risk for the aged, which affects on depression in later life, the effect of solitary eating on depression should be considered with mobility limitation. Accordingly, it will be needed not only to make effort to reduced solitary eating but also to employ the strategy of mobility limitation management for older adults.

Key message:

- Mobility limitation should be considered first in the matter of depression of older adults rather than solitary eating

The 3rd cycle of the Brazilian National Programme for Improving Access and Quality of Primary Care

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Background

The Brazilian National Programme for Improving Access and Quality of Primary Care (PMAQ-AB) was established by the Ministry of Health (MOH) in 2011. Its main objective is to encourage the expansion of access and improvement of primary care quality and create patterns comparable in national, regional and local levels - in order to allow greater transparency and effectiveness of government actions. As part of the program, an external evaluation is performed by the Higher Education Institutions (HEIs), focusing on primary health care teams, oral health teams, and family health support teams. Two cycles have already taken place (2012 & 2014). In order to give continuity to these evaluative actions, the MOH is inducing the 3rd program cycle, which includes a multi-center external evaluation in 2016.

Methods

With respect to methodology, this is an investigation (survey), with application of a single national survey and will take as a parameter what was applied in the previous PMAQ-AB cycles. The questionnaire is organized into 3 major modules: infrastructure conditions; teams work process and care organization; users satisfaction and perception of services.

Results

A total of 3,856 teams will be evaluated in 2016. For the fieldwork in RN and CE, 120 interviewers and 24 field supervisors will be hired and trained. A qualitative studies will be performed after the completion of the national survey, with specific topics using case studies. We intend to present the methodology, as well as describe the advantages, disadvantages and challenges of such endeavour from the perspective of Universidade Federal do Rio Grande do Norte (UFRN) -paired up with Fundacao Oswaldo Cruz Ceara and other RENASF partners-, which is one of the HEIs working with the MOH, for the external evaluation of PMAQ-AB.

Conclusions

The understanding of those challenges, as well as the advantages and disadvantages of this type of evaluation may help the organization of other similar researches.

Key messages:

- Several challenges are faced on a evaluation research of this scale
- Large scale health service evaluation research need to be well planned

Knowledge level of medical students about Zika virus disease in Malatya, an eastern city of Turkey

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Background

Zika Virus Disease (ZVD) is an infectious disease which is caused by the bite of a mosquito species, in tropical and subtropical regions. The aim of this study is to determine the knowledge level of medical students about ZVD.

Methods

The study is a descriptive type cross-sectional study which carried out on students in Inonu University Faculty of Medicine. Total number of the students was 1380 at the time of study. The sample size was calculated as 301 using the formulation for minimum sample size in the condition with a known-population size.

The stratified and simple random samplings were used as sampling methods. All participants were requested to fill a 28-question questionnaire. Each correct answer given to each of 20 questions about ZVD, was evaluated as five point. Points were summed up and the score was reflected on a scale of 100 points. Final scores were recognized as the "ZVD knowledge score". Student t test, One Way ANOVA and Bonferroni test as post hoc were used to compare the groups.

Results

The mean age was 21.83±2.36, 55.8% of the students were female and 98.3% were single. Half of the students knew the transmission ways of Zika Virus. The most recognized symptoms among the students are fever (53.8%) and conjunctivitis (29.1%). 51.7% of the students knew that ZVD during pregnancy could cause to microcephaly in babies. 1 in 3 of students knew that there are only symptomatic treatments but not a specific treatment for ZVD. Only 16.9% of the students knew the nonexistence of a vaccine for ZVD. ZVD knowledge scores were 36.67 ± 28.18 and 35.62 ±28.19 in females and males, respectively (p>0.005). ZVD score in 6th class was 47.58±21.86 and 29.64±26.04 in 1st class which was significant (p<0.05).

Conclusions

There wasn't significant difference between genders regarding ZVD scores. ZVD scores in 6th class were significantly higher in that of 1st class. Students have more information about the diseases as the educational year passes.

Key messages:

- The knowledge level is low according to our results. In all pandemics, the knowledge about the symptoms, prevention and treatment options should be given in extra sessions
- The lack of education should also be eliminated to protect medical students

International commercial surrogacy – how to address ethical implications

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Background

Technological and research advancements have allowed for new possibilities in reproductive medicine. Surrogacy – a woman bearing a child for another individual or couple – has become more frequent in the European Union but remains a controversial and complex topic. Diverse national legal provisions lead to cross-border arrangements that include

monetary compensation (international commercial surrogates, ICS) and evoke a multitude of ethical concerns. ICS are neither sufficiently addressed by national institutions nor regulated in a global context. Since this negligence may harm all persons involved in ICS, it is vital to address and properly regulate surrogate motherhood to ensure an ethically responsible practice.

Methods

This project goes beyond the previously administered legal focus and explores the research question: What are ethical implications of international surrogacy and which recommendations can be given when developing an international regulatory framework? It evaluates ethical repercussions in light of principles established by the UNESCO Universal Declaration on Bioethics and Human Rights. Theoretical conclusions are complemented by qualitative expert interviews in the fields of ethics, law and reproductive medicine.

Results

Human rights and the bioethical principles of dignity, integrity, benefit and harm, autonomy, consent, equality and non-discrimination are violated. Key necessities are legal regulation, national authorities for approval and monitoring systems, education and information campaigns, clinical-ethical guidelines, policies towards the empowerment of women and ongoing discussion.

Conclusions

To address the complex ethical implications of ICS, proposed national policy measures should be developed and international collaboration should be strengthened. Parties involved shall be protected and respected in terms of their human rights and bioethical principles.

Key messages:

- ICS cause complex ethical implications that potentially endanger, exploit or discriminate against involved parties
- Through proper regulation, people can access innovative ARTs while the occurrence and negative effects of circumvention tourism in reproductive medicine will be reduced

Survey of dose-area products in-taken by patients during medical exposures in South-Western Romania

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Background

This study tackles an extremely important theme for public health, medical exposure to ionising radiations representing the main source of exposure for the population. As medical exposure is usually associated with the risk of appearing stochastic effects (cancers), it is necessary to reduce them, especially the useless ones. The aim of the study is both practical, i.e. knowing the in-taken doses during the radiological procedures to be able to apply measures of reducing them to the lowest possible reasonable level, and theoretical due to finding new information.

Methods

This study was carried out in four counties in south-western Romania over a four year period between 2012 and 2015, registering the evolution of radiological examinations and the average values of the dose-area product for five types of radiological procedures (skull, thorax, lumbar spine, pelvis and urography).

Results

The number of medical exposures increased significantly in 2013 and 2014, but it slightly decreased in 2015.

The average values of the dose-area product varied between 0.352 și 0.598 Gyxcm² for the thorax radiography (the national values being between 0.361 și 0.628 Gyxcm²). The highest

exposure was registered for the intravenous urography, the average values of the dose-area product being between 3.95 and 6.45 Gyxcm² (national values being between 4.572 and 7.961 Gyxcm²).

Conclusions

The values of the dose-area product resulting in the study are comparable to those found at national level ($p < 0.001$). The lack of reference values for the dose-area product per type of procedure, emphasises the fact that all EU member states should establish common reference values aiming at reducing the population exposure through medical diagnosis.

Key messages:

- The prescribing physicians will have to justify each procedure taking into account the benefit-risk balance
- The practitioners must choose the method and parameters suitable to the procedure

Comparative analysis of the Health Insurance Market in Germany and Chile

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In Germany and Chile, private health insurance has been shaped by its co-existence with statutory social health insurance. The segmentation of both insurance markets has created important consequences for equity, fairness and financial protection. Due to market failures in health insurance markets and differences in the regulatory frameworks governing public and private insurers, choice of public or private coverage has produced strong incentives for private insurers to select risks leading to risk segmentation, thereby compromising equity in funding health care, heightening the financial risk borne by public insurers and lowering incentives for private insurers to operate efficiently. The degree of conflict arising from this co-existence varies in Germany and Chile, though policy goals remain ultimately the same. In addition, recent reforms in both countries reflect the aim to improve the financial protection of privately insured through regulation. However, despite new reforms, the concern about risk segmentation is yet unresolved. We will describe the origins and development of the co-existing schemes and provide an overview of the market performance of private health insurance, followed by a comparative assessment of the impact of private insurance on financial protection, equity and risk segmentation.

Key messages:

- How does the health insurance market in Germany compares to Chile
- Does private insurance increase health inequalities in a mixed system?

Freshwater fish-borne parasitic zoonoses in Italy

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Background

Fish-borne parasitic zoonoses are widespread all over the world. In 2010 EFSA emphasized the need to define the risks for the consumers through epidemiological studies on fish-borne zoonoses, with special reference to those linked to the freshwater environment such as human opisthorchiasis by the metacercariae of liver flukes *Opisthorchiidae* and human diphyllorhynchiasis by the plerocercoids of the cestodes *Diphyllorhynchium* spp. In order to identify the fish species and the lacustrine environments considered at risk for transmission of *D. latum* and *Opisthorchis felineus* to humans, a parasitological survey has been carried out in Northern Italy.

Methods

A parasitological survey on zoonotic parasites has been carried out in the period 2013-2015 on 1937 fish belonging to 14 species sampled from Como, Iseo and Garda Lakes in Northern Italy.

Results

Plerocercoids of *D. latum* have been found in European perch, pike and burbot in Iseo and Como Lakes. No metacercariae of *O. felineus* have been found in the fish examined. Fish from Garda Lake were all negative.

Conclusions

Our results show that European perch from Iseo and Como Lake is the species with higher risk for transmission to human, being often consumed raw as a traditional dish in local restaurants.

O. felineus has not been found in Northern Italy unlike the Central Italian lakes where it is endemic. The application of the procedures provided by the EU Regulation 1276/2011 and the Decree of Italian Ministry of Health (2013) on the appropriate treatment for consumption of raw fish products is achieving some results as shown by the decreased occurrence of human cases due to fish parasites, as reported by several physicians. In addition the Italian Ministry of Health has produced specific recommendations to fill the gap in the EU legislation to address the risk of human opisthorchiasis due to the high resistance and the small dimensions of the metacercariae in fish.

Key messages:

- Fish-borne parasitic zoonoses are increasing worldwide
- The enforcement of the EU and Italian legislation contributes to reduce the occurrence of human cases due to consumption of raw fish

Family smoking cessation in Romania using pregnancy as a window of opportunity

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Background

Maternal smoking is one of the most modifiable factors with clear adverse effects for the fetus and the entire family. This study will culturally adapt, enhance, and test the efficacy of an evidence-based pregnancy and postnatal couple intervention for smoking cessation

Methods

PERSIST is an ongoing partnership between a research institution and the two largest state-owned obstetrics and gynecology clinics in Cluj-Napoca, Romania. The study will build on the Motivation and Problem Solving (MAPS) approach, a novel strategy

successful in preventing smoking relapse postpartum in the US, enhanced by targeting the couples' smoking behavior and focusing on dyadic efficacy for smoking cessation. The smoking prevention randomized controlled trial intervention will begin at the first prenatal visit, will include a postpartum component, and will target primigravid smokers and their partners. The primary outcome is maternal smoking cessation.

Results

Currently, the intervention is its formative phase (adapt/enhance), which includes qualitative and quantitative data collection to inform the trial scheduled to begin in 2017. Fifteen interviews conducted so far with pregnant smokers and ex-smokers revealed a wide range of partner involvement and support with quitting, ranging from not at all involved to extremely supporting partner. These are preliminary results.

Discussion

PERSIST has a large potential for dissemination and adoption into the Romanian national STOP SMOKING program that includes a quitline. We anticipate strong potential for the future adoption of proactive counseling for couples referred by prenatal health providers, as an extension of the existing quitline in the Romanian universal public health system.

Key messages:

- Pregnancy and postnatal proactive quitline counselling has potential to increase smoking cessation during and around pregnancy
- Pregnancy and postnatal proactive counselling can be built into the the Romanian Stop Smoking national program

Perceptions about infection and treatment STI/HIV in a community deaf of Brazil

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Introduction

Prevention of STD/HIV transmission is a key action to control these diseases and therefore a matter of public health. This issue is complex and more sensitive when it comes to minority, as in the case of the deaf community. In this population, the Brazilian Sign Language - LSB is defined as a language of visual-motor mode coexisting with the Portuguese language, it is the mother tongue and the Portuguese second language.

Objectives: Check with the deaf community and user of LBS awareness on the prevention of STD/HIV transmission.

Methodology: qualitative study was conducted with 09 deaf individuals, aged 18-25 years living in Brasilia DF, Brazil fluent in LBS, not affected by any STD. The interview questions addressed in depth the concept of STD/HIV and the form of transmission of these diseases.

Discussion

Regarding the theme STD/HIV, there was the knowledge of the respondents on the subject, yet most restricted to the virus that causes AIDS and some gonorrhoea. prevalent diseases such as HPV and syphilis or were mentioned during interviews. As for the contagion, not all were able to inform and some even restricted the transmission to the sexual act. The demand for medical treatment was highlighted as fundamental to the selection of treatment for these diseases. When it approached the treatment of AIDS, some admit the possibility of cure, inform about the importance of sexual abstinence and inform the delay in treatment. All covered there communication barriers as the issues related to the transmission of STDs, and treatment for these health problems.

Conclusions

It appears that there is knowledge of the subject, but short of that required for proper prevention of these diseases among the deaf population. The perception of deaf demonstrates the need of health practices are guided in their needs, which could be possible through the creation of advertising materials on

information, education and prevention of STD/HIV developed in Sign Language.

Key messages:

- information, education and prevention
- Brazilian Sign Language - LSB

Health promotion for the elderly in Portugal: analysis of institutions within Pro-Health65+ project

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Background

The challenge of an aging population in Europe could be tackled with a strengthened cooperation between Institutions within and between European countries. This study focused on analysis of institutional arrangements in health promotion activities targeted at the older population (HP4O), in sequenced life stages, in Portugal within the Pro-Health 65+ project.

Methods

Three versions of a questionnaire were administered to several HP4E experts at national, regional and local level to assess HP4O activities performed. Three areas were investigated by each questionnaire: the HP4O activities performed; the characteristics of each activity; the effects of activities. The HP4O experts (with at least 3 years of experience in the HP4O field) were selected because they had published important studies on the subject, or because they had been signaled by other experts, and through the analysis of institutional websites of Portuguese government.

Results

Institutions involved in HP4O are the Directorate-General of Health (DGH), the Regional Health Administrations and the Groups of Health Centers. Besides, a central role in HP4O is played by the Private Institutions for Social Solidarity (IPSS). The Ministry of Health and Ministry of Labour, Solidarity and Social Security are involved in financing and promoting projects of HP4O. The DGH created the National Program for the health of elderly people that aim at promoting healthy aging, tailoring care to needs of elderly, promoting the development of enabling environments. At local level, Municipalities and Freguesias might coordinate specific HP4O activities with a key role of NGOs and IPSS, such as Santas Casas da Misericordias that aim at preventing isolation, loneliness and inactivity.

Conclusions

The growing number of elderly people is a major challenge for the Portuguese health system so, in order to avoid inequities and inequalities, health promotion for the elderly is considered as an important strategy to implement.

Key messages:

- Health promotion for the older population in Portugal is considered an important topic
- A systematic strategy to tackle Health promotion for older population is not in place in Portugal

Rethinking environmental-public health education framework to prepare experts for future challenges

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Issue

Public health is recognized lately as an important societal issue. Fast changes in our environment, demographic and migration impacts are often influencing public health in unpredicted ways.

Description of the problem

Environmental public health experts should demonstrate the leadership towards a sustainable way of living. Moreover, the health care system still focuses on consequences, instead of prevention.

Results

Not many young health professionals are interested in public health compared to other medical disciplines. At the Medical Faculty UNS, 10% PhD students are interested in Public Health. Less than 50% of those are concerned by environmental health. At the School of Public Health ULB, 10% master students are registered in environmental health.

We investigated student's opinions by anonymous questionnaire, during the process of their education. According to preliminary results, they have knowledge and understanding of the importance of environmental health. Although, they do not project themselves, as citizens, or as professionals, over the current priorities.

Lessons

Education process creates new knowledgeable professionals with skills to deal with a wide range of topics (migration, climate change, air pollution, new urban challenges, nutrition and physical activity, chronic and rare diseases...) and to collaborate with a large variety of professionals and citizens. Prevention should remain at the center of their education.

The future professionals are citizens as well, in that sense, they owe to lead towards a more sustainable future.

The education process in environmental public health is the perfect mechanism to integrate prevention, leadership, inter-professional collaboration, and transdisciplinary approach.

Key messages:

- Public health and environmental health professionals have to tackle the multiple challenges in our changing world
- The education process should aim to better prepare them to anticipate and foresight future priorities

Self-management booklet for patients with chronic diseases in South Africa: a feasibility study

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Background

Self-management education is generally considered a key treatment modality for patients with chronic diseases. However, most self-management education materials emanate from developed countries and may not be suitable for use in resource-poor contexts. The aims of a feasibility study was (a) to determine if a patient-held individual care plan booklet for diabetes and hypertension could be integrated into existing chronic care services, and (b) to explore the patients' and providers' experience using the intervention.

Methods

A study was conducted in a community health Centre in Tshwane, South Africa. A convenient sample of 53 patients were recruited to participate in using of a prototype care plan booklet. Data collection at the end of the intervention included interviews on the use, feasibility and acceptability of the booklet – two focus groups and one individual interview with

patients (16 participants) and two focus groups and two individual interviews with healthcare providers (eight participants).

Results

The themes emanating from the analysis were categorized according to areas commonly explored in feasibility studies. Providers and patients found the booklet highly acceptable and recommended further implementation and expansion, with some reservations related to other areas. Further adaptations to the booklet were suggested, including translation into local languages. With regard to demand and practicality some participants commented on the fact that users would be older people with less schooling and who are more reluctant to read. Participants were generally positive about integrating the booklet into consultations and treatment plans, whereas some providers referred to duplications in record keeping and the possible effect on time and workload.

Conclusions

If the suggested changes are incorporated into this individual care plan booklet it could be a useful intervention in the treatment care plan of chronic disease patients in primary health care.

Key messages:

- It is feasible to integrate an individual care plan booklet into existing chronic care services
- Patients and providers found benefits in using the booklet

Microbiology of sands and its impact on human health

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Issue

Recent studies suggest that sand constitute a reservoir potential pathogenic microorganisms at beach sites, sandboxes and recreational areas world-wide, leading to public health threats, health costs and economic losses. Recreational water quality monitoring mainly focus on bacterial indicators that cause gastro-intestinal (GI) illness.

Description of the problem

The most recent European bathing water directive indicates that areas surrounding recreational water constitute a possible contamination source. However the directive lacks the 2003 WHO recommendation of sand monitoring, especially in regions where beach users stay mainly on the sand due to low water temperatures.

Recent epidemiological studies and data collected during a 5 year beach sand monitoring program of the Portuguese coast support this recommendation.

Changes

Given the diversity of microbes found in sand, further studies are needed to identify the most significant aetiologic agents of disease and to relate these to human health risk. Although other microbes have been documented, monitoring sandboxes is currently limited to measurements of *Toxocara* eggs.

An emerging group of fungi of particular relevance includes black, endemic and azole resistant fungi. In non-coastal settings. *Cryptococcus gattii*, has also been gaining significance as the cause of a serious meningitis outbreak in Vancouver, Canada.

In order to address these situations, sampling microorganisms in sand should be considered a public health policy priority, and therefore included in regulatory programs aimed at protecting recreational users from infectious disease.

Lessons

Overall, environmental and epidemiological studies to investigate the link between fungi exposure in sand and human health are recommended. Also, sand analysis and sampling procedures need to be reviewed in order to ensure representativeness of the site. Efforts should focus on evaluating viruses believed to be the main cause of GI illness in beach environments.

Key messages:

- Sampling microorganisms in sand should be considered a public health policy priority, and therefore included in regulatory programs aimed at protecting recreational users from infectious disease
- Awareness of decision-makers and regulators at different levels of decision is of utmost importance

Enhancement of health security by supporting broad capacity development of health workforce

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Background

The risk posed by global threats to the human health is significantly increasing. In order to enhance health security, countries need to build capacity to identify internationally emerging health risks. The mitigation of risk in the bio field, whether natural or man-made, falls within the scope of the EU Centres of Excellence Initiative for Chemical, Biological, Radiological and Nuclear Risk Mitigation (CBRN CoE).

Objectives: Development of a new sustainable training programme for national CBRN teams, focused on bio field.

Methodology

The specific objectives of developed programme:

1. Train national trainers and supervisors in intervention epidemiology, provide support to cascade training down to local levels and establish network of experts;
2. Train experts competent to carry out essential public health functions for prevention and control of communicable diseases;
3. Disseminate experience, knowledge and skills on pedagogy and methodologies related to practical “on-the-job training” among experts and countries;
4. Foster country commitment/ownership and extensive networking to share practices and experiences as essential conditions for sustainability of the programme.

Results

Programme developed in close cooperation of all strategic partners established the main building blocks of the proposed capacity development infrastructure as follows:

1. Competency based training curriculum,
2. Comprehensive guide for scientific and administrative coordination of the programme,
3. Key training materials.

Conclusions

Developed programme is contributing to the overall objective of enhancing global health security by supporting capacity building for prevention and control of natural or man-made health threats posed by communicable diseases. Cascading process fully supported by various ICT-tools will allow broad capacity development at the regional, national and sub-

national levels. It is enough flexible and will complement already existing training programmes.

Key messages:

- Health security in the Mediterranean region should be enhanced by supporting capacity development for prevention and control of natural or man-made threats to health posed by communicable diseases
- Cascading process fully supported by ICT-tools will allow broad capacity development at the regional, national and sub-national levels. It is enough flexible to complement already existing programmes

Rethinking medical brigades and reimagining neoliberal, transitory care toward health for and by all

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A student-led non-governmental organization (NGO) servicing Nicaragua, Honduras, Ghana and Panama, Global Brigades allegedly empowers local people in developing communities through the implementation of initiatives to improve health, well-being, and the quality of life. For seven to twelve days, students are mobilized on various brigades that address endemic health, environment, and sanitation conditions within communities. This paper, based on undergraduate ethnographic fieldwork conducted during the summer of 2015 in rural Esteli, Nicaragua, evaluates the effectiveness and sustainability of Global Brigades in their provision of health and health services. Drawing upon participant observation and thirty five ethnographic interviews with community members who used the services of Global Brigades, I examine the implications of reliance on non-state service providers as it pertains to health and health care access for endemic conditions such as neglected tropical disease. Since communities receive brigades based on relative need as determined by Global Brigades, when a brigade departs, rural Nicaraguans who ordinarily do not have any other affordable means of leveraging care are left waiting for several months at a time. This dependency on seasonal, transitory care reflects the current dynamic of health in an increasingly transnational, globalized world: as a result of the neoliberal privatization of health services instituted through structural adjustment programs in the 1990s, those who are not market citizens rely on global health actors and cannot otherwise access necessities of care. For global health providers to sustainably achieve health for all, they must not only recognize and address the underlying determinants of health that result from

longstanding historical, political, social and economic processes of inequality but also enlist the active participation of community members in the conceptualization, implementation and delivery of health services.

Key message:

- A dependency on transitory care reflects the current dynamic of health in a globalized world: those who are not market citizens cannot access necessities of care and must rely on global health actors

Analysis of emergency survival rate after traffic accidents in Japan

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Aim

The aim is to estimate the emergency survival rate after traffic accidents if these rate could analyse the prefecture difference.

Methods

As for the totalized Japan, each prefecture in all Japan and 4 prefectures in the Hokuriku area in Japan, the number of traffic accidents, the number of the injured persons, the number of the injured dead persons were extracted from the total statistic book edited by the National Police Agency. The same kinds of data as for cities & towns in Niigata Prefecture were also extracted from the homepage of Niigata Prefecture in 2014, 2013 & 2012. Using these data, the emergency survival rate after traffic accidents were calculated using the following formula.

The emergency survival rate after traffic accidents = (the number of the injured & dead persons after traffic accidents—the number of the injured persons after traffic accidents)/the number of the injured & dead persons after traffic accidents).

Each rate by each 4 prefecture & by secondary medical area in Niigata was tested using non-parametric one-way ANOVA. SAS Analytic Pro was used for statistical analysis.

Results

Significant differences were suggested as the following, between secondary medical area only using the Cramer-Mises test only as for the number of traffic accidents, the number of dead persons after traffic accidents, the number of injured & dead persons after traffic accidents and the number of injured persons after traffic accidents ($CM < 0.05, 1 < CMa < 1.5$).

D-posters - Poster Display: Health promotion

Mobility barriers of persons who suffer from anxiety disorders

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The (public and private) transportation system is probably the largest and most inclusive social system of modern society. Equal opportunity of traffic participation of all user groups is key in many transport policies from supranational (e.g. EU) to

regional levels. While physical barriers in public and private transportation are well researched and much has been done in order to lower thresholds of participation, research on barriers of people with mental disorders is still fairly neglected.

This paper presents results of an in-depth qualitative study on mobility barriers and travel mode choice of individuals who suffer from phobia, anxiety and obsessive-compulsive disorders that was conducted for the first time in Austria. Following a mixed-methods strategy, empirical data comprise problem-centered interviews, focus-groups, several mobile methods (GPS-tracking, participant observation) and expert interviews.

It is argued that, in terms of travel mode choice and (psychical) mobility barriers, anxiety disorders are deeply

related to the interaction order of public space. Using Goffman's analytical scheme for understanding the situational dimension of social action as developed in "Relations in Public" (1971), we argue that barriers of traffic participation for this group (or groups) of persons can be addressed as forms of situational insecurity, meaning the inability to constitute a normal appearance of the situation or to maintain the boundaries of the individual's territories of the self. These sociological concepts can also be translated into problems of "designing situations" and thereby to develop innovative measures for mitigating barriers and to contribute to a more inclusive transportation system.

Key messages:

- Minimizing mobility barriers for people suffering from mental illness
- Enhancing mobility and health competence for people suffering from mental illness

Road Traffic Accidents in Serbia in 1999-2014

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Background

Traffic accidents represent one of the leading problems and priorities in the field of public health, as one of the main causes of death, injury and disability worldwide. The World Health Organization initiated the 'Decade of Action for Road Safety'. The aim of our study was to analyze traffic accidents in Serbia in the period from 1999 to 2014.

Methods

Data were obtained from the database of the Ministry of Internal Affairs of the Republic of Serbia. A total of 855675 accidents, were reported from 1999-2014. The number of traffic accidents, the number of casualties (death and injury of road users), demographic characteristics, as well as the common causes which led to accidents, were analyzed. Statistical analysis included descriptive and analytical methods.

Results

During the analyzed period, we observed an increase in the number of traffic accidents until 2008, after which the numbers significantly fall. Most of the casualties were car occupants, representing nearly half of deaths and injuries, followed by pedestrians. Cyclists and motorcyclists are the third most vulnerable category of traffic users. The percentage of deaths among cyclists was 4.10% and 8.81% among motorcyclists. Commonest causes of road accidents were improper driving, speeding, and driving under the influence of alcohol. Male were affected by fatalities more often than female. The largest proportion of casualties were in the age group from 18 to 25 years. The highest proportion of deaths was reported in the age group 65 years and older.

Conclusions

Prevention of road traffic accidents requires knowledge of the occurrences, the victims' profile, means of transportation involved, and identification of causes.

Key messages:

- Road traffic injuries are a major but neglected public health challenge that requires concerted efforts for effective and sustainable prevention
- In order to solve the problem, there needs to be close coordination and collaboration, using a holistic and integrated approach, across many sectors and many disciplines

Management of the most common diseases among Roma population

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Introduction

The state care for the prevention of the most common diseases among the Roma population is mainly through targeted projects of the Ministry of Health. From 2006 to 2016 using 23 mobile units equipped via PHARE program performed disease prevention among Roma children and adults, uninsured, poor, mainly in remote locations, usually without affordable medical care.

Methods

Clinical examinations and tests set by specialized teams through 23 mobile units, including 5 rooms for general check-ups, 2 fluorography rooms, 2 mammography rooms, 3 ultrasound rooms, 3 mobile laboratories, 4 pediatric and 4 gynecological offices. Health awareness campaigns were organized in 8 areas, aiming at prevention of cardiovascular, cancer and infectious diseases.

Results

For the period 2006-2009, were conducted 21,841 general check-ups, over 20,000 Fluorographies, 5509 gynecological examinations with 3139 Pap smears, it was made a screening of 6763 children; 3412 onco-gynecological examinations; 1537 therapeutic examinations and 1372 laboratory tests; a total number of more than 25 000 check-ups and tests were carried out in 2010. More than 7000 people had diseases or deviations in laboratory tests. In 2015, the total number of provided care included 12,593 people.

Conclusions

Many of the Roma children under the age of 18 were with incomplete immunization status, many of them suffered from infectious disease, obesity, asthma, heart disease and spinal deformities. Among adults most common diseases were gynecological. The cost of these examinations was around €50,000. There is a need to continue the government policy to enhance health education and culture of the Roma population, in which an essential role should have health mediators and medical professionals of Roma ethnicity.

Key messages:

- There is a need to continue the government policy to enhance health education and culture of the Roma population, in which an essential role should have medical professionals of Roma ethnicity
- Many of the Roma children under the age of 18 were with incomplete immunization status

INHERIT your future: living, moving and consuming to protect environment and ensure health for all

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Background

Going beyond the search for one solution, the INHERIT projects is aiming for 'triple win' ideas for a more sustainable future. This is done by identifying policies, practices and innovations which can influence both the environment, improve our health and reduce health inequalities. Focusing on key environmental stressors and related inequalities in the areas of living, moving and consuming, we locate effective inter-sectoral policies that promote better health and greater well-being across social gradients.

Methods

The initial step, the baseline review on existing knowledge of the main environmental factors which affects health, health equity and well-being, revealed a number of key stressors to health, within the areas living, moving and consuming. Further on, the most relevant indicators found for measuring the impacts of inter-sectoral policies and interventions on social, economic and health equity will feed into the development of the “Common Analytical Framework” (CAF). In turn the CAF will be used for identifying criteria for selecting promising practices in order to test and evaluate innovative approaches.

Results

After completing the first phase, we can already see a pattern of key stressors evolving in the areas of living, moving and consuming. Neighborhoods, green spaces, housing, active travel, food, eating habits etc. are simultaneously impacting on outcomes. Interventions influencing these areas while reducing health inequalities are setting the scene for a sustainable future.

Conclusions

In order to promote environmentally sustainable and healthy lives, we need to focus on innovative interventions and policies that simultaneously protect the environment, improve our health and contribute to fairer societies. We need to search for the ‘triple wins’.

Key messages:

- We locate effective inter-sectoral policies, promoting better health for all
- To promote environmentally sustainable and healthy lives, we need to focus on living, moving and consuming

Novel UVC LED approach for disinfecting contact lenses

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Background

Microbial Keratitis (MK) is a condition caused by various infectious agents. Use of contact lenses (CLs), worn by more than 120 million people in the world, is the major risk factor for MK. Only in the U.S. MK and other CL disorders lead to \$175 million in direct costs. Multi-Purpose Solutions (MPS) for CLs showed incomplete efficacy on different pathogens. Aim of the study was to test a novel Ultraviolet C radiation (UVC) emitted by Light Emitting Diode (LED) for disinfecting CLs.

Methods

A pre-post intervention study was conducted from November 2015 to April 2016. Using a 3D printer an experimental setting was created. LED (275nm wavelength; peak at about 3.0mW) was placed under a lens case transparent to the UVC radiation (255-280nm). CLs were placed in 2ml of phosphate buffered saline (PBS) contaminated with microbes in a concentration ranging from 0.3 to 1.3x10⁵/ml. Tests were independently performed to assess reduction of *Staphylococcus aureus*, *Staphylococcus epidermidis*, *Serratia marcescens* and *Pseudomonas aeruginosa*. Irradiation time was set at 60 minutes. Petri dishes were used to determine Colony Forming Units (CFUs) of PBS and CLs after 48 hours of incubation. Wilcoxon test was used to assess statistically significant log-reduction of CFUs between controls and treatments on PBS and lenses.

Results

CLs had an overall 0.64log-reduction (CI 0.51-0.82). *S. aureus* and *P. aeruginosa* showed the highest reduction, respectively 0.86log (CI 0.60-1.67) and 0.93log (CI 0.67-1.69). Convex side of CLs had a reduction of 0.80log (CI 0.59-1.22) while concave

one 0.52log (CI 0.38-0.75). PBS had an overall log-reduction of 2.02log (CI 1.64-6). All bacteria ranged in a point log reduction from 1.49 to 2.64.

Conclusions

It seems possible to use UVC LED to disinfect both the CLs and the PBS. Improvements of the UVC LED technology, e.g. properly driving the irradiation of UVC light on CLs and PBS, should even enhance the good results achieved so far.

Key messages:

- This abstract presents an innovative use of UVC germicidal light, showing its effectiveness in reducing contact lens microbial contamination
- Since commercially available MPS showed lack of effectiveness on certain pathogens, new methods, including UVC light, should be developed to obtain contact lens hygiene

Salta: a local community based intervention

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Issue

Insufficient physical activity (PA), sedentary activities and unbalanced diet are major risk factors for obesity, associated to low socioeconomic level. An important PA decline is observed in adolescence, especially in girls. The Salta project is a community based (CA) intervention, part of OPEN European project, aimed at adolescents in deprived areas. We developed a pilot project in Humanes de Madrid, a city with unfavorable social indicators. It is intended for the whole environment and all actors in contact with adolescents. The project includes developing a guide for spreading local CB interventions to other cities.

Description of the problem

Objective: Increase PA in adolescents in HDM. Develop a guide for creating local CB projects in other cities. Kick off in January, 2015. Method Steps: Political commitment at regional and local level. Establishment of a cross-sector local committee. Identification of needs: behavioral risk factors and socio-demographic analysis of target population and existing PA resources. Participatory needs assessment of target population. Participatory design of actions. Criteria: empowerment and co-creation health education, social marketing and positive approach. Reducing socioeconomic and gender inequalities are prioritized.

Results

A local Technical Committee was established involving Health, Youth and Sports departments, Schools, PH and Health Center. Neighborhood associations collaborate in specific actions. Identified needs: support of ongoing activities; diversify PA offer for girls, improve accessibility and infrastructure. Health Promotion work lines: information, communication and awareness (medical advice, contests), specific activities offer (workshops: dance skating CIT) promoting healthy environments (infrastructure repair, arbor-etum), communication plan and evaluation.

Lessons

Municipal and regional efforts in health promotion should join to achieve the objectives through integrating public resources

Key message:

- The key issue for a community intervention is political commitment, Involvement of key local actors and considering existing health assets and the target population view

Gesundsein-A programme for adults with intellectual disabilities to improve health literacy

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Background

As adults with intellectual disabilities rarely take part in health promotion activities Gesundsein has been developed for this target group. It takes place in assisted accommodation, day centres and at the Vienna Centre of Self-Advocates. Gesundsein is a model of good practice.

Objectives

The main objective of the programme is to enhance the health literacy and health-related self-determination considering the participants' special needs and skills. Gesundsein consists of six interactive units, each lasting for four hours. The abstract shows how the programme is implemented in Vienna, which factors contribute to a successful learning process and what targets are most important for the participants.

Results

The programme Gesundsein has been developed in cooperation with self-advocates. Professionals in adult education completed a train-the-trainer seminar. 48 people with intellectual disabilities took part in a pilot phase. Based on the findings of this pilot phase the concept has been adapted. In the end of 2016 about 180 people will have completed Gesundsein in assisted accommodation, day centres and at the Vienna Centre of Self-Advocates. There are additional trainings for professionals. To facilitate a successful learning process six people are one training-group. If necessary they bring a personal assistance. A wide range of training-methods meets the participants' wide variety of needs and skills. Trainers act process-oriented, make breaks and repeat often. The most important targets are to understand and learn to influence the determinants of health, to gain and handle health-related information and to obtain self-determination and self-esteem.

Conclusions

Health Training Programmes for people with intellectual disabilities are rare in German-speaking regions. Gesundsein shows which criteria trainings should meet and in which settings they can be successful. More evidence on the impact of the programme is needed.

Key messages:

- Gesundsein is geared to the criteria of the UN Convention on the Rights of Persons with Disabilities and therefore is exemplary
- Adults with intellectual disabilities are a very vulnerable target group. Gesundsein contributes to enable them to gain better health and a higher quality of life

When is a public health system effective?

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Issue

In a meeting at Ministry of Health of one of EU member states the authors of this presentation were faced to following statement: "We would like you to develop and pilot tests a new system for health promotion in country because the recent one is in-effective"

Description of the problem

When asked back, how in-effective the system is, how do we know it is in-effective it has been recognized that none of the participants of the meeting is able to answer this question. A detailed literature search identified literature on effectiveness of single interventions (e.g. salt reduction in diet), or methods

(pharmacological vs. non-pharmacological) but not on effectiveness of systems. However, some guidance documents were identified and used in further work. The objective of presented work was to identify indicators to assess effectiveness of health promotion (applicable to whole public health) system in country.

Results

According to WHO, health systems are performing well when three main goals are met:

- Improving the health of the population they serve;
- Responding to the legitimate expectations of the population;
- Fair financing

Health promotion and public health can contribute to better performance and effectiveness of the health system in particular through:

- Maintaining the full state of good health of the population as long as possible;
- Ensuring the prevention of diseases where health can be at risk due to the presence of risk factors (health protection and disease prevention); Preventing the occurrence of complications in order to restore health, (tertiary prevention)

Process, impact and outcome indicators were developed linked to expected work content of the proposed new health promotion infrastructure and will be presented in this presentation.

Lessons

There is a variety of public health systems within Europe with little evaluation of effectiveness of their work. Indicators need to be developed, tested and implemented to improve effectiveness of systems.

Key messages:

- Systematic evaluation of effectiveness of public health systems is a must
- Indicators need to be developed and tested to allow for effectiveness evaluation

Prevalence and determiners of health literacy in Turkey

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Background

The limited level of HL is one of the important issues in Turkey. The validity of HLS-EU questionnaire was tested in Turkey in 2012, but it was not applied to identify the health literacy level. It is necessary to identify our society's level of health literacy and eliminate the negativities of insufficient health literacy for the individual and the society. For HL, a great duty falls to the primary healthcare workers which are in close relationship with the public. It was aimed in the study to evaluate the health literacy level of individuals above 18 years old who applied to primary healthcare centres in the capital city of Turkey. This is the first study for determining the HL level with a scale of which validity had been tested in Turkey and purports to be the pilot of the research concerning the determination of HL level by using the HLS-EU all over the country

Objectives

In the cross-sectional-type research, the sample size was calculated by the probability convenience sampling method, and 2139 individuals were accessed. Data collection was based on Euro barometer standards and the implementation of the HLS-EU-Q (questionnaire) in computer-assisted or paper-assisted personal interviews. The questionnaire constructed

four levels of health literacy: insufficient, problematic, sufficient and excellent.

Results

Almost 3 in 4 (73,5%) have limited (insufficient/problematic) health literacy (30,5% insufficient and 43,0% problematic) According to bivariate correlations and multivariate linear regression model, Limited HL scores were significantly associated with older age, low educational and economic level.

Conclusions

The HL level is low in Turkey. This research should be performed all over the country.

Key message:

- Improvement of society's educational level and economic status should be given priority in the health policies so that the HL level can be increased to a sufficient point

The IRCCS Policlinico San Matteo in Pavia as optimal arena for health promotion: the WHP experience

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Workplaces have been recognized as favored context for health promotion as they directly affect workers' physical, psychological and social well-being. The IRCCS Policlinico San Matteo Foundation, in Pavia, has great potential as a setting for health promotion due to its significant workforce, including approximately 3000 employees in 2015. This is therefore well-suited to address both occupational health issues and general health promotion topics. Within the framework of the Lombardia WHP (Workplace Health Promotion) network, the Foundation committed to planning and implementing policies and practices hence developing a 3-years integrated program in the areas required by the assessment. The accreditation is an ongoing process whereby the Local Health Authority examines and assess the coverage of 6 particular areas: healthy eating habits promotion, anti-tobacco campaign, physical activity promotion, road safety and sustainable mobility promotion, alcohol and substance misuse, wellbeing and work-life balance improvement. To achieve these aims, the Foundation has developed some key strategies, such as: canteen availability of fruits, vegetables and low-salt bread; vending machines dispensing healthy products; campaign to quit smoking habit; courses dedicated to heavy smokers; promotion of cycling as efficient urban transport mode; endorsement of physical activity through competitions as well as charity tournaments; focus groups against alcohol and drug abuse. At present, improving cost-effective and goal-oriented preventive measures in Italy is a priority, since for the first time in 2015 life expectancy has decreased. According to a report by Università del Sacro Cuore, in Rome, this could be ascribed to a dramatic decrease in prevention campaigns. Underestimating the relevance of preventive measures has led to the aforementioned 2015 data: this is not a mere warning, but the sign that poor preventive measures have already had an impact on public health.

Key messages:

- Healthier hospitals: working and caring together
- Healthy workplace: the best medicine

Teamwork in primary health care in Brazil: potentialities and challenges for an integrated care

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Background

The health work is still characterized by the fragmentation of knowledge and practices. Joint work in Primary Health Care (PHC) constitutes a key element for a resolute care and the effectiveness of health systems. We investigate how teamwork is developed among PHC professionals in Brazil based on the analysis of the integration between professionals and the articulation of practices.

Methods

Qualitative study conducted in six municipalities of the state of Bahia, Brazil. Participants were 40 professionals from the Family Health Support Centers (FHSC) and 43 physicians and nurses of the Family Health Teams (FHT) – a total of 83 participants. Information was obtained through semi-structured interviews conducted using a script. The interviews addressed issues related to teamwork and the planning and development of joint actions. Interviews were recorded using a digital audio device and then transcribed and analyzed using the Discourse Analysis Technique.

Results

Of the joint actions reported, those of a collective nature stood out. There are difficulties in articulating the development of FHSC activities and FHT activities, particularly with regard to physicians. Joint individual clinical activities were little performed – for instance, the interconsultation. Planning was developed in a fragmented and individualized way. Regarding interpersonal relationships, good communication and respectful and cordial relationships were observed; however, such relationships do not advance towards joint practice.

Conclusions

Teamwork in PHC in Brazil is still underlied by weaknesses and presents a low development of joint actions. There is a need for the development of continuing health education focused on interdisciplinarity in order to enhance the joint work, as it is committed to a resolute care.

Key messages:

- Teamwork in PHC in Brazil presents weaknesses and a low interprofessional joint work
- Professional education actions should focus on interdisciplinarity and shared care

E-posters - Poster Display: Lifestyles

Proposal for measurement the body size dissatisfaction in epidemiological studies

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Background

The Figure Rating Scale (FRS) is used for assess the body size dissatisfaction. The use of FRS is performed individually using a set of cards with a picture of body figure in each card.

However, in large epidemiological studies the use of cards can be an impracticable strategy. The aim of this study was to present a correction factor for the FRS when used a sequence of figures, simultaneously, presented printed in a paper.

Methods

A total of 338 college students (mean age: 20.95±2.55 years, female: 70%) participated. The FRS was applied in two formats, (1) using cards with individual body figures (original methodology) and (2) using a paper with the sequence of body figures simultaneously presented (alternative methodology). All students completed the two methodologies of the FRS. The students were asked to select two figures (in each method), one for current body and another for desired body. Each figure represents a mean of body mass index (BMI). Body size dissatisfaction was estimated using: BMI_{desired} - BMI_{current}. A regression model was used ($y = \text{card}$, $x = \text{paper}$).

Results

Body size dissatisfaction estimated by the card methodology showed that 20.5% (CI95%=16.3-24.7%) of students were satisfied with body size, 32.4% (CI95%=28.0-37.8%) would like to increase body size and 46.6% (CI95%= 41.4-51.8%) would like to decrease their body size. When the card methodology was used, the mean body size dissatisfaction was -0.6(SD = 4.7) and when the alternative methodology was used it was -2.1(SD = 5.3). Therefore, when the alternative methodology was used we proposed the correction factor $y = 0.96 + 0.77x$ ($r^2 = 70\%$) for correct the estimate of body size dissatisfaction. After correct, the mean of body size dissatisfaction was -0.7(SD = 4.0), approaching the estimative found when the original methodology was used.

Conclusions

The correction factor allows use the FRS in large epidemiological studies to measure body size dissatisfaction. #Grant FAPESP and CAPES:2014/03093-2, 2015/02525-9.

Key messages:

- The Figure Rating Scale is an important instrument for assess the body size dissatisfaction
- In large epidemiological studies the Figure Rating Scale can be used with a sequence of body figures in paper using a correction factor

Weight Concerns Scale (WCS): validation study in Brazilian and Portuguese college students

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Background

The Weight Concerns Scale (WCS) is an instrument commonly used to evaluate the women's body weight concerns. The body weight concerns is an important component of body image and may have an impact on the individual's life, especially in health. The aim of study was evaluate the psychometric properties of WCS when applied to female Brazilian and Portuguese college students.

Methods

The Portuguese version adapted transnationally (Brazil and Portugal) of WCS was used. A confirmatory factor analysis was conducted using the indices chi-square of degree freedom (χ^2/df), comparative fit index (CFI), Tucker-Lewis Index (TLI) and root mean square error of approximation (RMSEA) as goodness of fit. Average variance extracted (AVE) was used to evaluate the convergent validity. The Cronbach's alpha coefficient (α) and the composite reliability were estimated to evaluate the reliability.

Results

A total of 1,756 students (Brazilian: n=955, Portuguese: n=801) participated. The average age was 20.90±2.54

(Brazilian: 20.77±2.35, Portuguese: 21.06±2.74). Regarding the participants' nutritional status 6.9% were classified as underweight, 76.5% eutrophic, 13.4% overweight and 3.2% obese. WCS did not fit well to the total sample, therefore the refinement was performed. After inserting one correlation between the errors of items 2 and 5 the WCS presented good fit for the total ($\chi^2/df=10.64$; CFI=.99; TLI=.98; RMSEA=.07), Brazilian ($\chi^2/df=4.94$; CFI=.99; TLI=.99; RMSEA=.06) and Portuguese ($\chi^2/df=5.99$; CFI=.99; TLI=.98; RMSEA=.08) samples. The convergent validity was adequate (AVE_{total}=.50, AVE_{Brazilian}=.50, AVE_{Portuguese}=.50). The WCS presented adequate reliability (α_{total} =.79, $\alpha_{Brazilian}$ =.78, $\alpha_{Portuguese}$ =.78; CR_{total}=.83, CR_{Brazilian}=.83, CR_{Portuguese}=.83).

Conclusions

The WCS presented adequate validity and reliability for sample of Brazilian and Portuguese college students. #Grant numbers FAPESP and CAPES: 2014/03093-2 and 2015/00228-7.

Key messages:

- The body weight concern is an important component of body image and may have an impact on the individual's life
- The WCS is an instrument valid to estimate the body weight concern in women. The evaluation of body weight concern can help the health researchers in the investigation of eating disorders

Men mobile health

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Background

Men mobile health contributes knowledge of how mobile health applications affect the physical activity levels by men with little or no education and the frequency of how often they think and do something to promote their health. Men with little or no education have both the lowest life expectancy and longest patient delay, and there are not conducted researches with mobile health applications as health-promoting interventions for this target group. The project results and knowledge can be used by workplaces, health professionals, politicians, and it is a health promoting cost-effective intervention.

Methods

Clinical controlled trial (CCT) with an intervention and control group. N=71, 20-62 years old men, little or no education, employed at industrial company. Intervention group N=35, control group N=36. There is performed a baseline, an 6 months intervention period, outcome measurement.

The intervention: Intervention group use mobile application, registration of steps, minutes of physical activity. Every two weeks they receive a male health promotion sms. Checking steps, minutes of physical activity and the measurement of VAS every fourth week.

Hypotheses – The intervention group will:

- More often think of their own physical health
- More often do something to promote their own physical health
- Promote their physical activity levels and fitness more than the control group
- Improve their blood pressure, heart rate, muscle mass, BMI and BodyAge more than the control group

Results

Outcome measurement is performed at the end of May 2016, the results are presented at the conference.

Conclusions

The final results can answer the following research questions by conference:

Which effect has mobile health applications on the thoughts and actions regarding their own health?

How a mobile health application affects physical activity?

The effect of mobile health applications in relation to fitness, heart rate, blood pressure, BMI, fat and muscle mass, BodyAge?

Key message:

- A CCT, that contributes with knowledge of how mobile health applications are impacting the physical activity and thoughts on health among men with little or no education

The factors determining nutrition of students

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Background

According on the WHO data, human health greatly depends on lifestyle and nutrition. The period of studies is associated with great mental and physical activeness, which should be compensated by complete nutrition. The beginning of studies relates to a change of residential environment and new habits of nutrition. The aim of the study was to find out the factors which determine students' nutrition.

Methods

Target population was students of the Lithuanian universities. 1910 questionnaires were distributed and collected; 86 of them were filled in improperly, the 1824 were used in the study. For the assessment of findings on the relation of the independent variables with the dependant variable, the adjusted odds ratio was used. The suitability of the model was assessed by the maximum likelihood chi-square statistics, Cox & Snell determination coefficient, classification table. For diagnostics of logistical regression Cook's distance, leverage were used. In order to assess multilinearity the variance inflation factor was calculated.

Results and Conclusions

The results of the study showed that living with parents increase the chance of healthy nutrition 2.3 times, if compared with the living in hostels. The chance of healthy nutrition increases 1.5 times for the students that have sufficient physical activeness, if compared with the students that are insufficiently physically active. Sufficient knowledge about nutrition almost 1.5 time increase the chance of healthy nutrition. No statistically significant relation between the sex, bad habits, nature of financing of studies and employment with healthy nutrition has been established.

Key messages:

- Healthy nutrition of the students is determined by residential environment, sufficient physical activeness and good knowledge about nutrition
- The results are useful for health politicians and public health specialists in the development of strategic documents and measures which should improve the nutrition of the students

Risk factors of psychoactive substances use among students

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Background

Chronic non-infections directly relate to the habits of lifestyle – nutrition, physical activity and use of psychoactive substances. As a result of wrong lifestyle habits, the number

of chronic diseases, such as cardiovascular diseases, diabetes of type II, cancer of some types, diseases of musculoskeletal system and even various disorders of mental health, might increase in future. The aim of the study was to find out the factors which determine use of psychoactive substances.

Methods

Target population was students of the Lithuanian universities. 1910 questionnaires were distributed and collected, the 1824 were used in the study. For the assessment of findings on the relation of the independent variables with the dependant variable, the adjusted odds ratio was used. The suitability of the model was assessed by the maximum likelihood chi-square statistics, Cox & Snell determination coefficient, classification table. For diagnostics of logistical regression Cook's distance, leverage were used. In order to assess multilinearity the variance inflation factor was calculated.

Results and Conclusions

40.2 percent of students smoked. It has been established that consumption of alcohol almost five times, use of drugs 12.5 times increase the smoking chance. Another accommodation place indicated by the students increases the smoking chance by 80 percent.

The majority 84.6 percent of students – use alcohol. It has been established that the use of drugs increases the chance of alcohol consumption 11 times, the use of tobacco increases the alcohol consumption chance almost 5 times.

The majority 93 percent of students – do not use drugs. Alcohol consumption increases the probability of drugs use 12 times, tobacco use – nine times. Students that have several acquaintances using drugs have 11 times higher chance to use drugs than those students that have no acquaintances using drugs, and the students with the majority of their acquaintances using drugs have even 51 time higher chance.

Key messages:

- The use of particular psychoactive substances is determined by the use of other psychoactive substances
- The results are useful for health politicians and public health specialists in the development of strategic documents and measures which should improve the lifestyle of the students

Predictors of multidimensional well-being in first- and fifth-year Serbian medical students

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Background

Multidimensional well-being (MWB) attracted the attention of public health professionals because able to explore life satisfaction as a whole and its specific domains. Poor well-being in this stage of life could lead to elevated health risks identified amongst medical occupational groups. Our aim was to examine MWB differences between first- and fifth-year students and to find the predictors of MWB in both groups.

Methods

This cross-sectional study was conducted on a sample of 382 first-year students (67% response rate) and 413 fifth-year students (79% response rate) enrolled at the Faculty of Medicine of the University of Belgrade (Serbia). Participants filled in an anonymous questionnaire investigating: self-perceived MWB, socio-demographics, health status scales, and lifestyle factors.

Results

MWB scores were similar for first- (39% reported good MWB) and fifth-year students (41%). Mental health was the variable that differed the most between the groups, with 28% of the first-year students and 74% of the fifth-year students reporting not good mental health. Univariate and multivariate logistic

regressions showed that subjective income, mental health, and healthy diet resulted as significant predictors of MWB in both samples. Binge drinking was significant just for the first-year students.

Conclusions

Factors of different nature are correlated with students' MWB. Appropriate programs, such as healthy lifestyles interventions, may not only help students, but may influence the future medical class.

Key messages:

- MWB scores do not differ between first- and fifth-year Serbian medical students
- First-year Serbian medical students report less mental health problems than fifth-year students

Adult type associated lactase persistence genotypes in Czech and Roma/Gypsy populations

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Background

Dairy products are important source of calcium. Lactase non-persistence/lactose intolerance is a physiologically dependent nonability to digest lactose in adult age. Due to the human adaptation on dairying, new mutation influencing the activity of human lactase LCT C-13,910T occurs and spread out. This mutation is associated with lactase activity persistence and carriers of this mutation are able to digest lactose and consume dairy products through the adulthood.

Methods

We have compared the frequencies of the lactase -13910C/T (rs4988235) genotypes in two ethnically different groups Czechs (N=288) and Gypsies/Roma (N=300), where this polymorphism was not yet analysed. The allelic frequencies significantly differ between the populations (P < 0.0001).

Results

In Czechs, lactase persistent T allele is present in 76% of individuals which is in agreement with frequencies in geographically neighbouring populations. In contrast, in Gypsies/Roma population, only 27% of adult are carriers of at least one lactase persistent allele, similarly to the Indian population. In agreement with this result, the dairy products consumption was reported by 70.5% of Caucasians and 30.2% of Gypsies.

Conclusions

Our results underline that low consumption of dairy products, especially within the minorities, could have important genetic background the calcium intake deficiency could be the better option.

The study was supported by the project for the development of research organisation 00023001 (IKEM, Prague, Czech Republic) – Institutional support (MH, CR).

Key messages:

- Dairy consumption could be influenced by the genetic predisposition
- There are genetically based differences in lactose tolerance between Czechs and Roma/Gypsies

Evaluation of the relationship between consumers and food labels in Tuscany (Italy)

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Background

EU regulation No 1169/2011 on the provision of food information to consumers applies to food business operators at all stages of the food chain. It introduces some changes such as the nutrition facts label, required on pre-packaged products, to protect public health. Aim of the study is investigating the knowledge of consumers about labels and their relationship with food.

Methods

From November 2015 to March 2016 two checklist were submitted to 139 tuscan consumers aged from 14 to 75. The first questionnaire investigated the relationship between consumers and labels. A second checklist (Bratman test) was applied to evaluate the presence of people obsessed with health and diets.

Results

This study shows a widespread attention to labels by 93% (129/139) of consumers and check of food origin by 60% (83/139) of respondents, above all from people over 30 years. 70% (97/139) of all consumers reads nutrition facts label, especially people between 14 and 30 years. 40% of people under 30 years looks for the presence of additives in food while 13% of consumers over 65 years looks for the presence of salt and aromas. Bratman test results do not show differences between male and female, but 23% (32/139) of people have a potential obsession with eating healthy food.

Conclusions

The data suggest the need to prevent and change some consumers lifestyle promoting healthy eating habits, through education plans applied by high schools, physicians and mass-media.

Key messages:

- Eating disorders risk is underestimated
- European regulations and food training are needed to ensure a good people lifestyle

Epicardial adipose tissue in patients with coronary artery disease: healthy vs. unhealthy lifestyle

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Background

Cardiovascular diseases are one of the main public health issues in Lithuania and worldwide. Coronary artery disease (CAD) is associated with increase in volume and thickness of epicardial adipose tissue (EAT) which is suggested to be an indicator and the possible target for myocardial infarction risk reduction. We found no study analyzing accumulation of EAT among people having healthy and unhealthy lifestyle. The aim of the study: to compare the volume and thickness of EAT among patients with CAD who have healthy and unhealthy lifestyle.

Methods

There were 224 patients with CAD investigated, 29 of whom had healthy and 195 unhealthy lifestyle. A questionnaire was applied to define nutritional habits, alcohol consumption, smoking, physical activity and stress. The thickness and volume of EAT were measured using cardiac magnetic resonance imaging. Medical records were used to define disease profiles.

Results

Median thickness and volume of EAT were 6.18(6.00-6.36)mm and 155.52(150.11-158.27)cm³ respectively. There was no difference in thickness of EAT at all sites of the heart except the

free wall of the left ventricle where it was smaller in healthy lifestyle group (2.00(1.33-2.67)mm versus 2.67(2.33-3.00)mm, $p=0.015$). EAT volume showed no statistically significant difference among groups ($p=0.746$). Thickness of EAT at free ventricular walls was smaller in healthy nutritional habits and higher stress groups. Higher stress group also had lower volume of EAT. No difference in EAT accumulation was observed analysing it by alcohol consumption, smoking and physical activity. Body mass index did not differ among groups.

Conclusions

Healthy lifestyle is associated with the smaller amount of EAT. However, different lifestyle factors may act in opposite directions and the overall effect for patients with CAD may be hardly noticeable.

Key messages:

- While body mass index shows no difference, amount of epicardial adipose tissue varies dependently with lifestyle habits
- Stress and healthy nutrition appear to be leading factors associated with the smaller amount of epicardial adipose tissue

Drinking games: real-life hazardous challenges which probably increase 'personal branding'

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Introduction

Taking part in drinking games and creating videos on social media sites, together with excess alcohol consumption and its adverse consequences, are becoming imperative new ways of improving young people's 'personal branding'. The context and creation of videos on the web show various qualitative/quantitative assessments of drinking games (rate and frequency), in order to increase 'likes' in personal branding in "online" and "offline" worlds. In 2015, we set up a visual action plan to counter the evolution of such dangerous drinking games among adolescents and young people.

Materials

We examined the data and clinical medical histories of a particular group of young people, admitted to emergency care for alcohol-related harm and various clinical manifestations Results: As many as 80% of the adolescent drinkers in our database reported having participated in drinking games The videos in question (Edward 40 Hands, Cup Swap, Fubar, 21 for 21, etc.) examined in this context were watched by our sample patients and clearly confirmed that the audience was very high. In a total of 50 popular videos collected, several types of drinking games with various sets of rules, characteristics, patterns of alcohol consumption and number of players were examined by adolescents for rank, number of views, and "likes".

Discussion

Careful medical histories in the emergency room provided information on the names of alcoholic games, guidelines, and the specific characteristics of these social drinking games, applied in the context of highly-ranked elite young people.

Conclusions

The reduction of risks and consequences due to high alcohol consumption after games have significant implications in terms of public health and social costs. The ranking of videos represents a sufficient guide for young people and medical

professionals. References Barbieri S, Feltracco P Evolution and revolution of dangerous drinking games among adolescents and young people: Eur J Pub Health, 2015;25:3.

Key message:

- Drinking games: real-life hazardous challenges which probably increase 'personal branding'

Knowledge and Practices related to Smoking Cessation support among Romanian General Practitioner's

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Background

The prevalence of smoking during pregnancy is very high among pregnant women in Romania, despite the programs for smoking cessation. General Practitioners can play an important role in initiating smoking cessation on pregnant women given routine care during prenatal visits. This paper explores the knowledge and attitudes of General Practitioners (GP) from Mures county with regard to smoking risks and cessation interventions for pregnant women and to identify the barriers and weaknesses of prior interventions.

Methods

A cross-sectional survey was done on 69 General Practitioners before and after 1-day training course on the 5A steps for smoking cessation.

Results

Regardless of the high level of smoking during pregnancy and the fact that 72.5% of GPs have more than 20 years of experience, the interest and trust in smoking cessation programs was moderate low. At baseline, most don't keep track of information given to pregnant smokers about cessation (60.2%), don't assist them after giving the advice (40.6%), don't have qualified personnel and support for cessation interventions (85.3%), and prefer more brochures and posters than discussions with pregnant women about smoking. Importantly, 21.7% of GPs themselves are smokers, and 26.1 quitted in the last years.

Conclusions

Lack of time and support plus GPs personal addiction to smoking, and lack of interest and knowledge of pregnant women about smoking risks were identified as barriers in helping pregnant women to quit. Using these data, we can develop future improvements in our training strategies to reduce the risk of smoking-induced harms to the mother and the fetus.

Keywords: smoking, pregnant women, risk communication, intervention

Key message:

- KAP surveys can show us the strenghts and weaknesses of community interventions

Nutrition management in food services - a new education to improve public health in Finland

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Nutrition knowledge in food services is important for public health, by nutritional quality of eating out. Nutrition competencies are needed in separate levels: cooks in preparing healthy food, kitchen managers and chefs in developing healthy menus and food service managers in organizing food services customer oriented and health promoting way. The first level, on-line learning material and open access test have been in use since 2009. A number of completed tests (n = 11176, Jan 2016) show the importance of it and the need for the next level.

The objective is to develop the next level of open access nutrition education for kitchen managers, chefs and food service managers. The education should be able to complete while working full-time. Also the education should contain benchmarking from other countries and different type of food services. The questions are: how to organize the education, what it should contain and how the nutrition knowledge can be implemented rapidly to food services.

As a result a new education, Nutrition management in food services, was developed to answer that demand. It is a Diploma of Higher Education, 60 ECTS part-time and partly online

open-university education. Courses from bachelor and master degrees are strongly focused on nutrition and food services: management and development tasks, procurement, nutrition communication and education, sustainable nutrition, responsibility in service management, and attending national research seminars. All assignments develop the processes and nutritional quality in student's workplaces. One course is a benchmarking tour to foodservices in Denmark and it gives possibility to further co-operation.

Conclusions

The education will start in the autumn 2016. Nutrition management in food services contains customers' perspective, developing competencies and knowledge of catering staff, procurement and organizing the whole food service system. Public health can be improved by combining all these.

Key messages:

- A new education will improve public health by improving nutritional quality in food services
- Nutritional quality in food offered in food services is important for public health

F-posters - Poster Display: Chronic and non-communicable diseases

Integrated Community Nurse Based Care model: business model and institution and capacity building

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The objective of the study was to set the institutional and organization base for regions and municipalities to integrate health and care delivery when financial means are scarce and when know how and awareness on Integrated Care, is missing. The goal is that a nurse based care structure is embedded in the institutional and regulatory settings of care delivery in the territory and is self - financed so as to guarantee the cashable savings and RoI in a sustainable manner to deliver outpatient long term care at community level.

This model is achieved by adding skills to the existing personnel of the nurse based chronic care structure to perform similar to the standard care services delivered for the target population, commercial activities to other segments upon fee, as well as by running fully professionalized Living Labs managing the nurse based care structure in an entrepreneurial manner with collateral services in a community- nurse based care model with bundled personalized care, community care and at home, rehabilitation and assisted living services

The actions and methods were designed according to the Place Based Care Systems (Kings' Fund) 10 principles: structured interviews and meetings in focus groups for stakeholder endorsement, treatment and analysis of epidemiological data feasibility case study with alignment of services and system for health monitoring, setting a Living Lab, innovation in procurement and financing case studies, and the business plan for the creation of a spin - off for the sustainable organization and delivery of care services.

Key message:

- Integrated community care models need to be self-financed mostly from non state funds

Prevalence self-reported high blood pressure (HPB) among public workers in Goiás, Brazil

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Background

High blood pressure (HBP) worldwide considered the most prevalent chronic diseases and is associated with high cardiovascular and brain morbidity. In Brazil, currently, there are 30 million hypertension patients.

Objectives: To estimate the prevalence and factors associated with high blood pressure self-reported (HBP), hypertension, among municipal public workers.

Methods

A cross-sectional study was conducted with data of the survey administered to all public workers of Goiania municipality, Goiás, Brazil, in 2009. The survey was conducted electronically by the Human Resources of the municipality. The workers answered a structured questionnaire covering administrative, personal and health data. Logistic regression was used to investigate the association between HBP and socio-demographic and occupational variables, lifestyle and co morbidities. We calculated crude and adjusted Odds Ratio (OR). A value of $p \leq 0.05$ was used for the analysis.

Results

A total of 30,566 workers responded to the survey on hypertension issues (73,8%). The age of the workers ranged from 18 to 74 years, with a median of 41 years; 48.8% had a university degree; 34.8% were blue-collar workers; family income up to 3 minimum wage (50.4%) and 64.6% were women. The prevalence of self-reported HBP was 13.0% (95% CI 12.7 to 13.4). In multivariate analysis, hypertension was associated with female gender, age, middle education attainment, income above three minimum wages, occupation, self-report diabetes, fatigue report after working hours and emotional disorders history.

Conclusions

These findings demonstrate the importance of psychosocial and occupational factors in the prevalence of hypertension in the public service. The results may support HBP prevention programs aimed at improving the quality of life in the workplace, prioritizing the most vulnerable groups.

Lung cancer geographical variation in Crete, 1992-2013. Insights from a population-based registry

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Background

Systematic records of malignant neoplasms remain a neglected issue in Greece. The Cancer Registry of Crete (CRC) is the only population-based regional registry in the country, operating since 1992. The current study aims to assess the lung cancer (LC) burden in Crete, identify hot spots and explore the effects of selected factors on mortality.

Methods

LC cases (1992-2013) were obtained from the CRC. Age-Standardized Incidence and Mortality Rates (ASIR and ASMR) were estimated to assess LC burden. Kaplan-Meier curves for LC patients were exported (1st, 5th, 10th and 15th year after diagnosis). Getis Ord G was performed to identify the statistically significant hot spots in the island, while a spatial regression model was applied to identify the effect of selected factors (co-morbidities, smoking, alcohol, occupation, residence etc). All tests were performed at a significance level of 0.05.

Results

Around 9 to 13% of new cancer cases are accredited to LC (both genders: 40.2 new LC cases/100,000/year; males: 73.1/100,000/year; females: 11.8/100,000/year). LC hot spots were observed in south-east and north-west Crete (RR=2.1; 95%CI= 1.381-3.205). Around 8% survived LC for 10 or more years (year of diagnosis; 1st: 35%, 5th: 12.7%, 10th: 8.1% and 15th: 7.8%). Hot spots of LC incidence and survival vary significantly among the Cretan municipalities, with females to present lower survival in rural regions (eg. 5% of females survived after the 10th year of diagnosis in the Municipality of Anogia). The risk of dying after the 5th year from diagnosis varies significantly according to the selected factors (ExpBco-morbidities= 2.9, 95%CI=1.020-4.691; ExpBsmokers= 3.1, 95%CI=1.834-4.391; ExpBalcohol = 1.9, 95%CI=1.152-2.763; ExpBurban = 2.4, 95%CI=1.274-3.561).

Conclusions

LC incidence in Crete is lower than in most European countries, presenting constantly increasing trends and significant geographical variation in this genetically homogeneous population.

Key messages:

- Geographically-oriented public health measures have to be performed to minimize the observed inequalities in Crete
- Further research will be done on environmental risk factors and LC

Decreased non-communicable disease by community engagement process of diabetes in Phayao, Thailand

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Background

Recently, the patients of non-communicable diseases (NCDs) are increasing in Thailand; especially hypertension and diabetes. Hypertension and Diabetes patients were found to be of 3.7 million in 2008. The varieties of human behaviors have been extensively changed in health. Hence, Thai Government has policy to reduce NCDs. Generally, primary care plays an important role in treatment using medical process. However, NCDs patients have not been decreased.

Methods

Here we report that primary health care (PHC), which is a primary process to screening, rapidly seek the person's risk. The screening tool of the study was "Vichai's 7 color balls model", the medical education tool to transfer knowledge from student health team to community through health volunteers, creating community engagement in terms of social participation. It was found that people in community were realized in their health and they can evaluate the level of risk using this model.

Results

Projects implementation (2015) in Dong Jen Health Center in Phayao.(target group 15-65 years,1714); risk diabetes group (light green) was decreased to normal group (white) from 1,474 to 1,613 and significant severe patient (red) was decreased.to moderate (orange) from 15 to 4. Health program in behaving change with best practice of 3Es (Eating, Exercise, Emotion) and 3Rs (Reducing tobacco, alcohol, obesity) were applied in risk group; and encourage strictly medication, investigation in severe patient (red).

Conclusions

This is the first demonstration of knowledge transfer to community engagement by student, which is the sustainable education in PHC.

Key message:

- The study not only reduce the patient, mortality rate but also increase the quality of life, could apply in different areas and propose to be the national policy, effectively for a long term operation

Measurement adherence to medication with the new scale

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Background

Nonadherence to medication is a growing concern to healthcare systems, physicians and other stakeholders because of mounting evidence that it is prevalent and associated with adverse outcomes and higher costs. Self-report scales have the benefits of being cheap and easy to administer. The objective of the paper is to check the basic metric characteristics of the Culig scale, in an alternative way.

Methods

Design: The cross-sectional study

Setting: 223 patients in Zagreb pharmacies

Main outcome measures: Cronbach's coefficient valid for results formed as a projection of the results of each of the respondents to the first main object of measurement questionnaire, which is defined as the factor score on the first principal component intercorrelation matrix.

Statistical analysis: Student's t-test and Chi-square test with a significance level of $p < 0.05$ were used when appropriate for the evaluation of the results.

Results

Culig self-questionnaire was administered to a sample of 223 respondents, with 59 indicators, and reliability coefficient α in

this measurement is 0.92, what is essential higher than in a conventional way (0.89).

Conclusions

There are many self-report scales for measuring medication adherence and their derivatives (or subscales). The used alternative processing methods of individual results by Culig questionnaire and some psychometric properties are defined. The results in this way are significantly better than those in certain conventional way of processing. The 16-item Culig scale with very good internal consistency reliability (Cronbach's alpha = 0.89) has been inaugurated in Croatia. Such analysis opens the possibility of multivariate analyses of the results, what is important for further research.

Key messages:

- Nonadherence to medication is a growing problem to the health care system
- Adherence is a multidimensional phenomenon determined by the interplay of many sets of factors

Depression in third and sixth course students in Medical Faculty-Sofia

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Background

Numerous studies abroad have found a high prevalence of depression among medical students. According to the literature, the prevalence of depressive symptoms in medical students in UK and English speaking countries in Europe is 6.0–66.5%. Disturbed mental health of medical students could have profound consequences for their health. Depression can result in substance abuse, suicidal ideation and completed suicide, development of cynicism, affected patient care and decreased quality of life. Medical students with depression are more likely to consider dropping out of medical university.

Methods

A cross-sectional web-based questionnaire survey was conducted in the Department of Social Medicine, Faculty of public health of Medical University-Sofia. The study was carried out for a 3 month period in 2015 (between 15 September and 15 November). In the study took part 257 medical students from Medical Faculty- Sofia (123 in third course and 134 in sixth course). The response rate was 65% for third course medical students and 76% for sixth course students.

The data analysis was performed with the program R.

Results

The study sample included 61.9% of women and 38.1% of men. In third course were 47.9% of the respondents and in sixth course 52.1%. From the researched students, 44% had thoughts to quit studying medicine.

Considering the BDI cut-off points (BDI > 10), depressive symptoms was found in 63.2% of the medical students. Depression mean value according to BDI for the medical students was 14.8 (depression standard deviation: 10.5). From the respondents 31.2% had mild depressive symptoms. Moderate depression was found in 21.7% and severe in 10.3% of the medical students. There was no statistically significant difference in depression by course (p-value= 0.078).

Conclusions

The high prevalence of depressive symptoms among medical students in this study implies a necessity for support of their mental health.

Key messages:

- High prevalence of depressive symptoms among medical students in Medical Faculty-Sofia. Possible risk factors for

depression are abuse of medical students and the lack of a parent physician

- There is a necessity to address the disturbed mental health of medical students with the introduction of proper services and programs during the medical education

A national approach to Marfan Syndrome in Spain

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Background

Marfan syndrome is a rare disease of connective tissue characterized by a variable combination of cardiovascular, musculoskeletal, ophthalmic and pulmonary manifestations. Apart from the support of patients' associations, there isn't a Spanish registry of patients with Marfan syndrome.

The objective is to identify the prevalence and incidence, determine the mortality distribution, study the quality of regional registries and analyze the mortality associated with aortic dissections in the Marfan syndrome.

Methods

A cross-sectional epidemiological study was performed in Spain during 2010-2012. Patients diagnosed with Marfan syndrome included in the regional registries of rare diseases of the participating regions with code 759.82 of the International Classification of Diseases, Ninth Revision-Clinical Modification and/or Q87.4 of the International Classification of Diseases, Tenth Revision and/or Q87.4 of the International Classification of Diseases, Tenth Revision-British Pediatric Association were included in the study.

Each Spanish region identified their cases, reviewed the clinical documentation and sent the database to the coordinating center (Valencia Region) who performed the global analysis.

Results

720 cases were included belonging to the 15 regions. The review of the clinical documentation confirmed the diagnosis in 91.0% of cases (prevalence: 0.16/10,000) The remaining 9.0% cases had other diseases, especially multiple malformation syndromes or Beals syndrome that is very similar to Marfan syndrome. 22.0% of cases had surgery for aortic dissection and 5.5% died.

Conclusions

The information provided by the regional registry of rare diseases through the Spanish Rare Disease Registries Research Network (SpainRDR) provides an approximation to the real situation of the Marfan syndrome in Spain. The study of the quality of these data will allow to offer in the future a better approximation without reviewing the clinical documentation.

Key messages:

- Apart from the support of patients' associations, there isn't a Spanish registry of patients with Marfan syndrome
- The information provided by the regional registry of rare diseases through the Spanish Rare Disease Registries Research Network provides an approximation to the real situation of the Marfan syndrome

Risk factors in Czech males suffering on myocardial infarction – cholesterol retreat from the fame

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Background

Cardiovascular diseases are the most common cause of the mortality and morbidity around the world and the Czech republic is not an exception. As the traditional risk factors (obesity, hypertension, cholesterol, diabetes, and smoking) were defined decades ago, we have performed an observational study to obtain data from the recent patient suffering myocardial infarction.

Methods

Within the 7 years we have collected data from all together 999 males, younger than 65 years and suffering on the first MI and compared them with the data from the Czech post-MONICA study (1191 males).

Results

We have detected that the most important CVD risk factor is smoking (OR, 95%CI; 3.85, 3.12 – 4.74), followed by diabetes (2.21, 1.71 – 2.82), and hypertension (1.51, 1.23 – 1.78). There were no differences in the mean BMI values and plasma cholesterol was even significantly lower ($P < 0.001$) in the patients (4.79 ± 1.10 mmol/L) in comparison with the controls (5.76 ± 1.06 mmol/L) and the difference remain significant after exclusion of the subjects on statins.

Conclusions

There is significant shift of the prevalence of the traditional risk factors in Czech males. Plasma cholesterol value seems not to be of major importance.

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Key messages:

- Major risk factor associated with myocardial infarction is smoking
- Plasma cholesterol levels have not been associated with the risk of myocardial infarction

A volunteer-administered, physical and nutritional program helps to tackle frailty in older persons

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Background

Frailty is a common geriatric syndrome that carries an increased risk for poor health outcomes. Therefore it must be a public health priority. The common initial manifestation of frailty is weakness (low grip strength). As frailty might be reversible, the aim of the study was to examine the effects of a physical training and nutritional intervention provided by volunteers on frailty status and handgrip strength.

Methods

In this randomized controlled trial, participants in the physical training and nutritional intervention (PTN, $n = 39$) and the social support group (SoSu, $n = 41$) were visited at home by volunteers (buddies) twice a week over 12 weeks. As the PTN group discussed nutrition-related aspects and performed six strength exercises, the SoSu group only received home visits. Frailty status was assessed with the frailty instrument of the SHARE study (SHARE-FI) and handgrip strength with a dynamometer. Within-group differences were analyzed with paired t-test and between-group differences with ANCOVA for repeated measure, adjusted for sex and baseline values.

Results

Eighty persons with a mean age of 83 years (SD 8) were analyzed. The prevalence of prefrailty was 35%, frailty 64%. The mean handgrip strength was 16.8 kg (SD 7.1). In the PTN group significant improvements in the SHARE-FI score

(-0.71 , 95% CI -1.07 , -0.35) were observed. Additionally, handgrip strength improved significantly by 2.1 kg (95% CI 0.7, 3.6). In both groups, the prevalence of frailty decreased significantly over time (PTN: 17% vs. SoSu: 16%). No significant differences between the groups were obtained.

Conclusions

A home-based volunteer-administered physical training, nutritional, and social support program could help to tackle frailty and improve handgrip strength. Our results are comparable to effects evoked by health professionals. Hence, such a program could be used in addition to the services provided by health professionals.

Key messages:

- A buddy system could be used in addition as a resource for public health services
- A home visit program could help to tackle frailty

Measuring dialysis health care adequacy with spatial interaction principles in France

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Background

In 2014 in France, 44 419 patients were treated by dialysis for a transport cost estimated at 520 million euros. The French end-stage renal disease (ESRD) registry REIN is regularly involved in public policies' issue. In this context, a simple health care adequacy indicator to provide decision-making support for health planning is needed.

Methods

Container-based units' maps (e.g. beds per population inside administrative units) are often used in health planning, but they ignore travels across boundaries and intern disparities. Transport duration's maps from these units to the closest facility can also be used. They transcend boundaries, but allocate population to facilities without considering availability (beds' number) and competition.

With a Geographical Information System and the 2011 REIN data, we use a Modified Two-Step Floating Catchment Area (M2SCFA-Delamater 2013) method to consider both accessibility (transport duration between population and dialysis centers) and availability (dialysis' beds and potential demand) in Bourgogne. It provides interpretable results (dialysis beds per population) and considers local availability and concurrence between centers, weighted by accessibility. Several distance-decay parameters are used to model centers' catchment area.

Results

In rural areas results are closed to accessibility and container-based maps because of the lack of dialysis centers and low potential demand. In urban area, the combination of accessibility and availability shows that some territories are nearly saturated due to Paris' region proximity.

Conclusions

This metric offers an overview of both dialysis' demand and supply for decision makers. Due to its sensibility to distance-decay and supply measurement, several M2SCFA results with different parameters can be analysed with hot-spot analysis to show global trends. It's also an effective way to simulate effects of facilities' opening or closing on health care access and on others centers' activity.

Key messages:

- The Two-Step Floating Catchment Area method, mostly used to assess short distance care, has been adapted to dialysis and incorporates demand, supply and distance into one indicator

- This method provides an easy and comprehensive output for decision makers and nephrologists (density per population) while taking competition, centers capability and distance-decay into consideration

Stakeholder analysis in designing a training program for patients, students and care professionals

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Next to training care professionals in e.g. communication skills, training of patients is essential to enhance patient-centeredness of care. To improve patient-centered care, an interprofessional training program will be constructed, wherein patients, students and care professionals learn together. To construct the training program, a stakeholder analysis was performed. Here, we present the results of focus group interviews with patients and care professionals.

Three focus group interviews were organized with patients with a chronic disease (i.e. rheumatoid arthritis, n=5), patients with an oncologic condition (i.e. bowel cancer, n=5) and a mix of both patient groups (n=6). Physicians and nurses (n=9) of the corresponding departments participated in two focus group interviews. Thematic analysis was applied to examine focus group transcripts.

Patients stated that patient education should empower patients in their relationship with care providers, besides providing information about diseases and treatment. Moreover, they articulate the role of patients in contributing to patient-centered care by transferring patient experiences to (future) care professionals. Patients with bowel cancer mainly preferred patient education about treatment processes, whereas patients with rheumatoid arthritis also preferred support regarding the capricious course of the disease.

Care professionals stated that the safety of both patients and students and the integrity of information provided by students in the training program should be monitored and supervised. Moreover, they emphasized the relevance of empowering less motivated or skilled patients.

Our stakeholder analysis integrates the perspectives of patients, students, care professionals and educational professionals in designing an innovative training program. This study provides insights in how to combine patient education and medical education and shows the relevance of applying various perspectives in empowering patients.

Key messages:

- Patients should be empowered in their relationship with care professionals, next to supporting their knowledge and skills about disease or treatment processes
- Patients, students and care professionals can enhance the patient-centeredness of care by learning together in combined patient education and medical education

Hepatitis B - Awareness practices implemented in dental clinics

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Background

Nowadays, viral hepatitis has become a silent epidemic worldwide, although hepatitis B infection is the major cause of liver cirrhosis and liver carcinoma. In a dental office, infections can be transmitted through several ways, including

direct or indirect contact with blood, oral fluids (saliva), droplet splatter, aerosols, etc. The dentist does not have the possibility to identify right away this disease due to the lack of special equipment to collect blood and to test it. Therefore, it is very important that the patient honestly declares whether or not he/she is a carrier of HBV.

Methods

The goal of the research is to identify the awareness raising practices implemented by dental practitioners among their patients. This study is based on 450 patient's records (245 male and 205 female) who received dental services at the office "DENTAL STUDIO PLUS" from Bucharest, between June and December 2015.

Results

According with results obtained, following the research, it was identified that just 20 persons, respective 4.44%, had recognized officially they had HBV (male – 12 cases, respective 4.89%; female – 8 cases, respective 3.90%). Also, it was identified that, at la dentistry offices is a lack of information regarding HBV among patients and lack o prevention programs implemented by dentists.

Conclusions

The research results show that most patients are afraid to recognize that they have HBV. They are afraid of discrimination and stigmatization manifested by dental practitioners. Prevention of this disease is not common practice in dental clinics from Romania. A dentist can play an important role in the prevention of HBV by implementing a short information session before offering services to the patients.

Key messages:

- More stringent precautions are necessary when treating persons likely to be infectious
- The involvement of the dental patients in their own treatment is essential in order to increase the safety and quality of the dental procedures

Multiple sclerosis and coping: is disease management easier with good self-esteem?

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Background

Multiple sclerosis (MS) is a disease with serious health and social consequences which requires effective disease management. Patients engage in various coping behaviours in order to manage their disease. The aim of this study is to find out if self-esteem of patients is associated with coping strategies and if it can enhance or hinder coping efforts in disease management of patients with MS.

Methods

We collected 155 consecutive MS patients (response rate: 84%; 75% women; mean age 40.12±9.75). Patients completed Coping Self-Efficacy Scale (CSE) for measuring confidence in performing three different coping behaviours (problem-focused coping, emotion-focused coping and coping focused on stopping unpleasant emotions and thoughts), and Rosenberg Self-esteem Scale (RSE) for measuring level of self-esteem. The associations between CSE and RSE controlled for age, gender, education, EDSS and disease duration were analysed with multiple linear regressions in SPSS 23.0.

Results

Models without self-esteem did not explain significant amounts of variance in any of the three studied coping strategies. After including self-esteem in the models under study, explained variance rose to 33%, 24% and 31% for problem focused coping, emotion focused coping and coping

focused on stopping unpleasant emotions and thoughts respectively.

Conclusions

Self-esteem seems to be associated with coping strategies indicating that feelings of self-worth are linked with ability to handle difficult life situations and can be helpful in chronic disease management.

Key messages:

- Self-esteem and feelings of self-worth in patients with multiple sclerosis should be encouraged and supported as self-esteem is important for other concepts of disease management like coping
- Intervention programs and individual psychological consultations may be helpful in this process

Inpatients inhalation events:an unrecognized problem?A pilot study in two Italian Academic Hospitals

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Background

Swallowing difficulties and inhalation events have great impact on patients' health status, leading to aspiration pneumonia and even death. In hospital wards frequently these events pass undercovered although the few available data show that nearly 7% of general adult population complain these problems with an increasing trend.

The aim of the study was to describe inhalation phenomenon in adult inpatients of two large Academic Hospitals of the North East of Italy.

Methods

From May 2015 to April 2016 a pilot study had been conducted in general medicine, gastroenterology and geriatric wards of two hospitals. Ward personnel had been instructed to notify every event of cough, dyspnoea, regurgitation, vomit, facial congestion, respiratory failure and aspiration pneumonia due to inhalation in a pre-completed form. Then, once a week a trained health professional of the study group gathered all ward notifications and filled in for each reported case a form with additional personal and clinical patients information.

Results

Preliminary data showed an incidence rate of inhalations of 1,4/1000 hospitalization-days (CI 95% 1,1-1,6) due to 128 reported events in 94.681 observed days of hospitalization. The most frequent event was cough, 79% of the cases (101/128) alone or in association with other symptoms, followed by dyspnoea 25%, facial congestion 12%, vomit 11% and only one case of aspiration pneumonia. Food or water were the known causes in the 58% (74/128), drugs in the 20%. Events were reported on clinical records only in the 20% of the cases. In the 50% of the events was necessary one or more clinical interventions. Two patients (1,6%) died for an inhalation event.

Conclusions

Data showed an important frequency of inhalation events, sometimes also with severe consequences, with only a little number of these with a reference on the clinical record. The study puts the basis for further investigations in order to identify patients at risk and set up preventive actions.

Key messages:

- Inhalation events in hospitalised patient are an underestimated risk
- Oral food and water administration in older patients could be a first area for setting up inhalation preventive actions (i.e. family education)

Patients information needs through the cancer journey

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Background

Cancer education is one of the foundations of oncology patient-centred care. Cancer patients' knowledge and education needs might differ from one patient to another. Providing patients with education and support has been shown to help patients and their families deal and cope better with their condition and have better health outcomes. Little is known about the experience of cancer patients and their information education needs during their journey in the UAE.

Methods

This study employed a qualitative approach to explore patients' views, ideas and perceptions about their information needs and the potential for improving patients' education experiences. A longitudinal research method was used in order to record the knowledge and information transition of these patients during the cancer journey that includes the diagnosis, treatment and follow up or recovery stages. Twenty eight cancer patients attending a hospital, in the UAE, were interviewed for three times at each stage of the cancer journey (diagnosis, treatment and recovery follow up stage) over a period of eight months during their cancer journey.

Results

Patients reported high information needs at the baseline (diagnosis stage). Their information needs fluctuated during the treatment stage, increasing and remaining high during the follow up/recovery stage. Patients reported having unorganised and patchy education that was challenged by lack of resources and mistrusted and limited sources of information. The findings of this study suggest that cancer patients in the UAE are in need of continuous education and that patients have high information needs over the course of their cancer journey.

Conclusions

A well planned interdisciplinary education program will help improve cancer patients' literacy in the UAE. These measures may improve patients' ability to cope with their disease by providing them with the evidence-based information they need at the appropriate time.

Key messages:

- Cancer patients need continuous tailored education that meet their needs during their cancer journey and that differ from stage to another
- Cancer patients education needs are not met during the normal care process through their journey as they differ from a patient to another

Health-related Internet user among patients suffering from chronic diseases

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Background

The ehealth domain is perceived as an opportunity for improving the access and quality of care in chronic disorders. The main aim of this study was the assessment of the Internet use by patients with chronic diseases for search of health-related information.

Methods

The survey was performed in the convenience sample of patients attending or hospitalized in medical centres on the area of Krakow. The questionnaire comprising the items inquiring about the burden of long-term medical condition, the use of computer and Internet for general and health-related purposes as well as acceptance of ehealth services related to chronic care was distributed to patients who consented to join the survey.

Results

The analysis was carried out on data from 395 questionnaires. Mean age of the respondent was 47.9 years (± 17.7); women made 64.2%. There was 60.3% ($n=238$) of Internet users. Most frequently, a main sources of information about health related issues, diseases and therapies was health care professional (87.6%). Internet and books were indicated less frequently (32.2% and 31.4%, respectively). The respondents who were Internet users, most frequently used it for search of information about diseases (67.6%), therapeutic methods (63.9%), health institutions (53.4%), and medications (51.3%). Internet browsers and general health portals were most frequently used for searches of health-related information (both 50.8%).

Conclusions

Physician remains the main source of health-related information for patients suffering from chronic conditions in Poland. Patients accessing health information in the Internet tend to focus their searches on medical conditions and treatment. Relatively low usage of the Internet for accessing health-related contents may predict low acceptance of ehealth solution supporting care in chronic diseases. Therefore, implementation of ehealth systems involving patients may require intensive efforts increasing ehealth literacy skills.

Key messages:

- Patients with chronic conditions recognize medical professionals as the main source of health-related information
- Implementation of ehealth solutions requires ehealth competent users

Physical activity among the office executives of Dhaka, Bangladesh

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Background

The job pattern of the office executives is presumed to be sedentary in nature, requiring very low occupation related physical activity. This makes them more vulnerable to develop inactivity related non-communicable diseases e.g. metabolic and cardiovascular diseases, mental diseases and even cancers. Executives are the fastest growing labor force in Bangladesh. However, there is lack of study focusing on the physical activity status of this worker group leaving them unidentified and unaware of the risks they face. Thus, the aim of this study was to assess the physical activity levels of the office executives in Dhaka.

Methods

In this cross-sectional study, randomly selected 100 office executives (81 male and 19 female) from two different offices were interviewed using 'Global Physical Activity Questionnaire'. Physical activity was assessed across 3 domains- work related, travel related and leisure time physical

activity. The weekly activity was measured by time, frequency and intensity and expressed in metabolic equivalent-minutes/week. The respondents were classified in 3 categories- inactive, moderately active and highly active.

Results

About 56% of the respondents were found inactive. More than half (52%) of the physical activity was contributed by leisure time activity. Physical activity was found to be significantly associated with the utilization of work site exercise facility (OR = 5.57, 95% CI = 1.08-28.77). The average sedentary time spent was 10.9 ± 1.9 hours per day with the greater part (67%) being within the office hours.

Conclusions

A great majority of the office executives were physically inactive and led highly sedentary lifestyles. The causes behind such behavior demand further exploration and study. Provision of exercise facility was found as an enabling strategy for promoting physical activity. Culturally compatible work site intervention that does not harm productivity levels and can be replicated across organizations needs to be explored.

Key messages:

- Office executives, the fastest growing labor force in Bangladesh, perform very low physical activity- an alarming phenomenon that requires immediate attention and priority intervention
- Investing in, and ensuring the proper utilization of worksite exercise facilities can improve physical activity levels and thus reduce the burden of inactivity related non-communicable diseases

The first Portuguese National Health Examination Survey (2015): design, planning and implementation
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Background

Health Examination Surveys (HES) were interview data is complemented with objective information from physical examination and laboratory analysis, provide more accurate health indicators than self-reported data. Here we report the study design, planning and implementation of the First Portuguese Health Examination Survey (INSEF) developed during 2014-2015.

Methods

INSEF was developed as a cross-sectional population-based study representative at regional and national level. Development was lead by the National Institute of Health Ricardo Jorge, supported by the 5 mainland Health Regions, the 2 Autonomous regions and the Norwegian Institute of Public Health.

Individuals aged 25 to 74 years, residents in Portugal (≥ 12 months) were selected from the National Health Registry through a multi-stage stratified probabilistic sample scheme.

Sample size was set at 4200 individuals, with homogenous allocation by region.

Data was collected in primary care units and covered blood pressure, height, weight, hip and waist measurements, collection of blood samples for lipid profile, HbA1c and blood count and a general health questionnaire. Biological samples were stored for future research. European HES procedures were followed.

Results

Regional teams (137 elements) were trained and involved in the fieldwork. From the 12,289 selected individuals a total of 4911 accepted to participate in INSEF (43.9% participation rate). Participation rate varied by region, sex and age group, being lower in Lisbon and Tagus Valley (32.8%), for men (41.8%) and for those aged 25-34 years old (36%). Among the several INSEF components the one that presented the highest failure rate (1.2%) was blood collection or processing.

Conclusions

At the end of INSEF Portugal has set up an experienced national and regional structure for HES implementation. National representative quality epidemiological data is now available for public health monitoring, planning and research.

Key messages:

- National representative health data is now available for health monitoring and program evaluation
- INSEF is an important resource for health research through its biobank, follow-up and data linkage

Epidemiology of injuries in the Slovak Republic in 2007 – 2012

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Background

Injuries are one of the leading causes of death among young adults. They are considered to be a global public health problem, which has severe consequences for the individuals and the society. The aim of the study was to analyze mortality and hospital discharge rates due to injuries in the Slovak Republic in 2007 – 2012.

Methods

Crude and age-adjusted hospital-discharge and mortality rates per 100,000 person-years were calculated using data obtained from the Statistical Office of the Slovak Republic. Age-specific and sex-specific comparisons were performed over the analysed period.

Results

The injury mortality rate showed a downward trend over the studied period, especially in men. The age-adjusted mortality rate decreased from 59.7 (95% CI: 57.5 to 62.0) to 54.5 (95% CI: 52.4 to 56.6). Mortality rates were higher in men and accounted for 78% of all deaths due to injuries. The most common external causes of injury leading to death were traffic accidents (20%), suicides (20%) and falls (15%). The introduction of legislation in 2009 seems to contribute to the decline in traffic-related and overall injury mortality rate. The hospital discharge rates due to injuries changed only slightly over the years – age-adjusted rates ranged from 1,570 (95% CI: 1,558 to 1,581) in 2011 to 1,782 per 100,000 (95% CI: 1,770 to 1,794) in 2008.

Conclusions

Our study presents a comprehensive overview of injury related hospital discharges and deaths in Slovakia in recent years. Legislation changes contributed to the observed decline in mortality rates significantly, but further preventive action must take place. Our results can inform such prevention and contribute to targeted action.

Key message:

- Although injury mortality has decreased in Slovakia in recent years, the steady hospital discharges rates suggest that injuries are still a major public health problem

G-posters - Poster Display: Migrant and ethnic minority health

The access to healthcare for asylum seekers in Italy: disparities between legislation and practice

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Issue

Asylum seekers are a socially excluded population presenting specific healthcare needs, which are often not properly addressed by national and European laws. Hailing from areas with poor sanitary attention, exposed to violence during the journey, they arrive to Italy with a high health vulnerability, worsened by a poor assistance and the raising of psychophysical illness. Public health concerns arise as local and migrant groups meet in urban centres.

Description

The North African Emergency was the Italian reaction to the vast inflow of sub-Saharan migrants between 2011 and 2013, resulting in a heterogeneity of reception and healthcare services. The method consists of a systematic literature review on local practices and both national and European laws affecting the problem in Italy. The aim is to find the discrepancies between the legislation providing healthcare access to the asylum seekers and the procedural responses. As the refugee crisis affects the entire EU, the research aims at informing about the issue across the community.

Results

The Italian asylum legislation is evolving, focusing more on asylum procedures in accordance with the EU directives instead of healthcare access. The EU legislation is silent on this point, while the Italian law is regionally fragmented. NGOs and volunteers often fill the gap left by the institutional response to the asylum seekers' reception.

Lessons

After 2013, better reception conditions were formulated in the Italian legislation. However, in Italy and across the EU, asylum seekers still face discrimination and barriers in accessing healthcare, mainly due to information and bureaucratic-administrative difficulties. Housing and reception conditions also have an impact on the health and assistance received.

Key messages:

- The difference between legislation and practice on the asylum seekers' healthcare access constitutes a human rights' violation
- Clear, uniform guidelines should be developed to address the issue of discrepancies between the Italian and EU laws, providing healthcare access to the asylum seekers.

Cross-sectional study of body posture in Roma and Non-Roma children in Slovakia

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Background

Current scientific data about body posture of Roma pupils in Slovakia are very scarce and limited, therefore, our concern was to evaluate and compare the incidence of incorrect body posture of Roma and non-Roma schoolchildren.

Methods

The cross-sectional survey was conducted in Košice, Slovakia in a sample of school children (265 Roma and 286 non-Roma children) aged 6–10 years, between period 2008–2011. Posture was assessed by Matthias test and the test of Jaros, Lomniček. The children were divided into two groups: non-Roma and Roma group of children. Statistical analysis included OR and was calculated for the group of boys and girls separately and entire groups of boys and girls together,

Results

The results of our comparison confirmed that the Roma group of boys and girls has better quality of the postural system than

non-Roma children. When assessing posture by the Matthias test our outputs confirmed bad body posture in 42.7% of non-Roma children and 35.1% of Roma children. In contrast to boys (OR = 0.59; 95% CI = 0.37–0.96; $p < 0.05$), girls did not show statistical differences. Similar results were received when the Jaros, Lomnicke test for body posture was used. We suggest that better results in Roma children are caused by less time spending working and playing with IT technologies at home (as are PC and laptops, cell phones, TV) and more time spending on outside activities.

Conclusions

Bad body posture sequels in older age lead to the chronic musculo-skeletal diseases and back pain so prevention in child age is extremely important. Recommendations for creating and stabilizing a proper body posture in children are extremely important in prevention of most frequent chronic disorders in childhood.

Key message:

- Need for evaluation of body posture in children to prevent chronic backpain problems in adult age

H-posters - Poster Display: Child and adolescent public health

Development and the study of a postnatal risk assessment in child healthcare in The Netherlands

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Background

Encouragement of healthy pregnancies and healthy lifestyle has gained global awareness in the past years, because of relatively unfavorable child outcomes. The 'Healthy Pregnancy 4 All-2' study, has been initiated to endorse continues care for families at risk after birth. This part of the study involves systematic and broadened postnatal risk assessment. Increasing evidence has presented the influence of nonmedical and medical risk factors on growth and development of children. These risk factors have not yet been combined in one instrument or have been assessed in the early postnatal period.

Methods

Neighborhoods in 3 municipalities with adverse perinatal outcomes are selected for participation. The study concerns a prospective cohort study. Child healthcare organizations take part in the intervention ($n = 2650$ children). Additionally, they will deliver data of a randomly selected historical control group in the same neighborhoods. The intervention consists of a systematic risk selection with the postnatal Rotterdam Reproductive Risk Reduction (postnatal R4U) score card in the postnatal period until 8 weeks of (corrected) age, and referral to corresponding care pathways. A risk score, based on weighed risk factors derived from the postnatal R4U, above a predefined threshold, determines structured multidisciplinary consultation.

Results

Primary outcomes of this trial are: being overweight, showing catch-up growth and the developmental problems until the age of 1 year, and the efficacy of the 'postnatal R4U' scorecard.

Conclusions

The 'HP4ALL-2' study introduces a systematic approach in postnatal health care that may improve growth and developmental outcomes and, thereby, affect future health status of a new generation.

Key messages:

- We aim to investigate if early risk detection in Child Healthcare improves child health
- We aim to investigate if early risk detection in Child Healthcare improves collaboration of care providers

Feeding habits and obesity prevalence of students in health school and general high school

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Background

Obesity is a frequent problem in adolescences at the present time along with increased wrong feeding habits. This study was conducted to examine feeding habits and obesity prevalence of students at vocational school of health and general high school.

Methods

This is a descriptive cross-sectional study. A questionnaire was conducted by reaching 452 (69.8%) from totally 647 students studying at vocational school of health and general high schools in Bitlis province. Their Body Mass Index (BMI) was evaluated according to World Health Organization-2007 reference values for age group of 5-19 years. The data were not normally distributed in Shapiro-Wilk test ($p < 0.05$). Mann-Whitney U and Chi-Square tests were used in statistical analyses.

Results

While 52.2% (n=236) of the students including in the study were studying at general high school, 47.8% (n=216) were studying at vocational school of health. The students' average age was 16.367 ± 1.22 and 62.8% were girls. Feeding habits of students at general high school and vocational school of health were similar. 41.8% of the students ate 3-4 slices of bread at meals, 56.9% ate their meals at normal speed, 55.3% ate meal 3 times a day, and 50.5% skipped the breakfast at most. There was no significant difference between schools in terms of median values of BMI, Height, Weight, Waist Circumference, and Hip circumference ($p > 0.05$). 9.5% of the students were slim, 68.4% were normal weight, 14.6% were slightly overweight, and 7.5% were obese. The rate of female students who were slightly overweight (16.5%) and obese (8.8%) was higher than male students (11.3%, 5.4%, respectively) ($p < 0.05$). Being slightly overweight was higher for children of parents, having primary school education or being literate, than the other groups ($p < 0.05$).

Conclusions

It was concluded that low educational level of parents and female gender is effective for adolescent obesity and related information and intervention studies are needed.

Key messages:

- Rates of being slightly overweight and obesity were found to be high in our study
- Healthcare staff, parents and school should collaborate in studies on healthy diet and struggling with adolescent obesity

Relationship between critical-thinking and decision-making in exercise and lifestyle in adolescents

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Background

Physical activity is important for human health even from childhood years. Physical education (PE) class has traditionally played a central role in developing physical activity habits among children in Japan. Although PE teaching methods may vary according to age, in 2000, Japan has implemented critical-thinking and decision-making skills as essential abilities to be attained in school education, including that of PE. Fostering such skills in exercise is also beneficial for healthy lifestyle. This study thus aimed to evaluate the relationship between critical-thinking and decision-making skills in PE and lifestyle in junior high school students.

Methods

The survey was conducted between April and May 2015 among 1,443 students (561 boys and 583 girls) enrolled in two public junior high schools in Okinawa, Japan. The questionnaire included critical-thinking and decision-making skills in PE class (20 items, 5 subscales) and lifestyles (10 items). The odds ratio was calculated using multiple regression analysis over cross-tabulation of gender category.

Results

The total score of critical-thinking and decision-making skills in PE class was higher in boys with high health awareness, current practice in athletic activities, and previous experience in sports during elementary school. The scores were 1.6, 1.9, and 2.5 higher compared to those with low health awareness, who do not practice, and who previously did not have sports activities, respectively. This trend was also observed among

girls with 1.8 and 1.7 times score greater for those who presently and previously active in sports, respectively.

Conclusions

Past or current sports experiences such as previous sports participation in elementary school and current athletic activities have greater impact than cognitive skills for promoting critical-thinking and decision-making skills in exercise.

Key message:

- Past or current sports participations affect critical-thinking and decision-making skills in implementation of various physical activities

Effects of maternal lifestyle factors in early pregnancy on neonatal outcomes

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Background

Early pregnancy lifestyle determinants (e.g., physical activity, dietary patterns) and emotional disturbances have been associated with lower birthweight and smaller head circumferences. Adverse neonatal outcomes may impact profoundly on children's later development. However, while most of previous studies focused on a single factor, a comprehensive profile simultaneously considering the effects of multiple lifestyle contributors was limited. Our study was thus aimed at examining the effects of maternal lifestyle, including physical activity, dietary behaviors, and sleep problems and depression in early pregnancy on neonatal outcomes.

Methods

A total of 704 pregnant women were recruited for participation during their first trimester prenatal visit in Taipei from 2011-2016. They were followed from first trimester until childbirth. Self-reported data were collected to assess maternal lifestyle factors. Neonatal outcomes evaluated included birth length, birthweight and head circumferences, with the national standard used to identify those below the 15th percentile. Multivariate regression models were used.

Results

We found that 55(7.81%), 134(13.4%), and 193(35.41%) neonates had birth length, birthweight, and head circumference below the 15th percentile, respectively. Higher proportion of pregnant women who always stayed up late, compared to those who did not, had a neonate with the head circumference below the 15th percentile (51.4% vs. 33.9%, $p = 0.03$). And increased proportion of pregnant women who consumed insufficient vegetables and fruits had a neonate with the birthweight below the 15th percentile (20.1%.vs. 8.9%, $p = 0.04$).

Conclusions

Pregnant women may not change the unhealthy lifestyle immediately in the first trimester; however, these may associate with poor neonatal outcomes. Adopting intervention programs to encourage lifestyle modification in women who plan to pregnant or who just become pregnant is imperative to prevent adverse neonatal outcomes.

Key messages:

- More pregnant women with unhealthy lifestyle (e.g. stay up late and insufficient vegetable and fruit consumptions) experienced adverse neonatal outcomes
- Encouraging lifestyle modification in women who plan to pregnant or who just become pregnant is imperative

Medical students' quality of life

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Background

Quality of life (QOL) is a concept used to indicate the general wellness of persons or societies. University students report a low quality of life and a worse perception of their health status, because of a situation of greater discomfort in which they live during the course of the study, especially in faculties with an important emotional burden, such as medical schools. The aim of the study was to evaluate the perceived health status of first year medical students.

Methods

We conducted a cross sectional study in the time span 2005-2015, administering the questionnaire Short Form 36 (SF-36) to first-year students of the School of Medicine of the University of Siena, Italy. In addition to demographic information such as gender and the age we asked them the region of residence, marital status, employment status, and smoking; height and weight were required to calculate the body mass index (BMI) to evaluate a possible physical discomfort connected to the perception of health status. The data from the questionnaires were organized and processed by software Stata[®] SE, version 12.1

Results

1104 questionnaires were collected. Medical students reported lower SF-36 scores, compared to the Italian population of the same age. Female gender and smoking influence negatively the score of several scales. Body Mass Index is positively correlated with the Physical Activity, while Age is negatively correlated with Social Activities.

Conclusions

The perceived quality of life of the Italian medical students is lower than general population. This confirms that the condition of student implies more problems as other studies reports. It would be better to improve it, developing students' resilience. It would be interesting to extend this research to students of other years, of other faculties and other locations to have a broader view of quality of life of the Italian students.

Key messages:

- We evaluated the health-related quality of life (SF-36) and the main characteristics of first year medical students in Siena, Italy
- The perceived quality of life of the Italian medical students is lower than general population; and female gender and smoking influence negatively the score of several domains

Students Social Networks and vaccination: the school-based project "VacciniAmo Le Scuole"

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Social networks (SNs) were found to influence health behaviors and choices related to health. During school attendance adolescents establish and develop ties, creating their network. At the same time schools represent ideal places in which health promotion interventions could be implemented. We studied the relationship between students' SNs and the Knowledge, Attitudes and Behaviors (KAB) toward vaccinations in a school-based health promotion pilot project.

'VacciniAmo Le Scuole' project was performed in 4 Italian secondary schools, in collaboration with each Local Health

Authorities (LHA). Students fulfilled a questionnaire before and after they attended a health promotion intervention in order to collect data on demographics, knowledge about vaccinations, their immunization status and students' SN. Vaccination coverage was obtained by LHA. SN analysis techniques were used to explore the structural properties of pupils' friendship during and after school time.

680 pupils fulfilled the questionnaire. The average degree (number of ties) was 8.6 within the school and 5.6 after-school networks. It was correlated (Pearson test) both with the knowledge level after intervention and responsiveness toward vaccinations both within the network during (Rho=0.17; p<0.05; Rho=0.10; p<0.05) and after (Rho=0.22; p<0.05; Rho=0.11; p<0.05) school time. Closeness was found inversely associated with post intervention knowledge and final project judgement both within school network (Rho=-0.21; p<0.05; Rho=-0.22; p<0.05) and after school network (Rho=-0.24; p<0.05; Rho=-0.25; p<0.05).

Since students' KAB toward vaccinations can be influenced by their networks, analysing SN can help to targeting better preventive strategies and health promotion interventions. School (during and after school time) could play an important role in promoting vaccination KAB.

Key message:

- Deeper knowledge about students' SN could improve the effectiveness of vaccination campaigns

Children health determinants in a multi-site cohort of immigrant families in Spain (PELFI Study)

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Contact: lferrer@iconcologia.net**Background**

Children in immigrant families face different challenges. We aim to describe socio-demographics and health profile of children in migrant and native families in the PELFI cohort and compare children's migration process by parents origin.

Methods

In 2014, a multi-site cohort of immigrant families was established in Spain (PELFI study) including households from Latin America (LA), Morocco (M), Pakistan (P) and China. Spanish (S) families were included for comparison. A face-to-face questionnaire for children was developed. Comparisons were assessed with X2 and Fisher Exact test.

Results

At baseline, 191, 39, 57 and 23 children were interviewed from LA, M, S and P respectively. Most children lived in 2-parent families, especially P (100%), M (77%) and S (79%). S showed the lowest proportion of school repeaters (13%).

LA (66%) and P (100%) were more likely to be born in the country of parents origin. Most children lived in Spain for 6+ years, although this figure was lower for P (61%). Most P had Spanish citizenship (81%). 85% of LA and 94% of M were quite/very satisfied after arriving to Spain. Only 38% of P were fulfilling their life's project in Spain. Most children self-identified with their original culture (72% LA, 94% M, 57% P) and felt moderately or less discriminated because of their origin (100% P, 94% M, 57% P). Similarly to S, perceived social support was high among LA and M (>80%). Less than half of children have visited a psychologist (27% LA, 19% M, 36% S) and most P didn't feel anxious at the time of interview. LA

(46%) and S (37%) reported more frequent consumption of alcohol.

Conclusions

Migrant children are not a homogeneous population. Yet, in some cases, their circumstances are not far from that of children in native families. However, some social and health indicators of children in immigrant families remain disadvantaged. Further research is needed to better understand how migration affects children and to inform policies.

Key messages:

- PELFI project has contributed to a better understanding of how migration affects children
- Our work provides evidence to inform policies on different levels to protect those who may become vulnerable

Many schools in Sweden need to improve cleaning and ventilation to meet the legal requirements

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Issue

The Public Health Agency of Sweden is responsible for supervisory guidance according to the health protection section of the Environmental Code. The Agency regularly performs national surveillance projects (NSP), depending on the needs of the municipalities. Children are more sensitive than the general population and in schools, many children are present in confined places for extended periods of time. A healthy indoor environment in schools is therefore of great significance.

Description

In 2014, the Agency initiated an NSP in schools, focusing on ventilation and cleaning, both important factors for indoor air quality. Environmental health offices from 207 of Sweden's 290 municipalities performed supervision of almost half of the country's schools in total. They also inspected operators' control, which is documented routines in order to minimize health risks, according to the Environmental Code.

Results

The results showed that 20 percent of the inspected schools were cleaned unsatisfactorily. Most schools need to improve cleaning in areas out of reach, i.e. on top of cupboards to reduce the amount of airborne dust particles. Although most schools have good ventilation, 15 percent had poor or very poor ventilation. In addition, operators' control do not always work in practice. Most inspectors stated that their expertise regarding cleaning and ventilation increased due to the project, improving their ability to perform supervision in schools.

Lessons

In order to attain better supervision, high knowledge is required among the inspectors and those who operate schools need more comprehension about the Environmental Code and operators' control.

Key messages:

- A national surveillance project has increased the ability of many schools to meet the requirements regarding cleaning and ventilation
- The study will result in healthier indoor environments for children in Swedish schools

Health certification of schools in north east Gothenburg, Sweden – a step towards health equity

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North east Gothenburg is an area with low incomes and high levels of unemployment. Many pupils leave primary school without passing exams. The city prioritizes work for health equity and better school results. To this end, a network for health in schools ("HUGA"), consisting of professionals from the city, region and NGO:s, developed a Health Certification (HC).

Objectives of HC are to improve health for children and adolescents and narrow the health gap. HC purports quality assurance of health promotion work, in all levels permeated by empowerment and participation.

HC consists of a toolbox with evidence-based methods and procedures in the work-areas psychosocial environment, food, physical activity, drugs and tobacco, relations and working environment.

Schools form health-plan by work-area, in communication with HUGA.

Questions to be answered by this project were

- (A) Did schools appreciate HC as a supportive tool?
- (B) Did the instrument and the methods to implement it function?

In May 2015 a project leader was engaged with the mission to implement health certification. Due to lack of funding, contradictory to intentions, the project lasted only for eight months.

The instrument and the methods to implement it proved functional. HC functioned for schools to form mutual stance in their work with health. Schools reported that by collectively working out common goals and measurement, staff felt more confident. Short time effects were seen in breakfast habits and physical activity. Due to short project time effects on pupils' health or perceptions were not systematically measured.

Evidence based methods for health promotion may be welcomed by schools, if experienced as supportive, quality assured and long-termed. Funding needs to be secured on more than temporary basis.

HC by evidence-based methods is a practicable way to implement and secure the quality of health-work in schools. School being compulsory creates a potential for levelling out socially related health gaps.

Key messages:

- HC by evidence-based methods is a practicable way to implement and secure the quality of health-work in schools
- Funding needs to be secured on more than temporary basis

Effectiveness of community health promotion targeting children and adolescents in rural areas

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Background

The objective of this study was to identify evidence of effectiveness of community health promotion actions aimed at children and youths.

Methods

A literature review was conducted following the manual 'Aufbereitung von Evidenz zu Gesundheitsförderung' (eng. 'processing evidence of health promotion') by Haas et al. 2013. Methods combined the approaches of 'Evidence Based Health Promotion' and partially 'Realist Review'. Research questions were developed iteratively as the results of the literature research demanded flexibility regarding the specific focus of the review.

Results

Most papers included in the review showed evidence of effectiveness of the respective actions. Nevertheless, several studies/evaluations lacked adequate methodological designs or implementation and therefore had weak explanatory power. Several potential factors of success (e.g. voluntary participation, low-threshold actions) and obstacles (e.g. lack of commitment of participants) for implementing community health promotion actions for the target group were identified.

Conclusions

Indications for successful community health promotion actions aimed at children and youths were found. Results support the recommendation to implement health promoting actions within the living environment (e.g. school) of the target groups and to include the community setting as well as families and friends. Benefits might be stronger for children and youths with lower socioeconomic background.

Limited explanatory power of several included studies/evaluations has to be taken into account when interpreting the results of the review. To support the results further research methodologically robust studies and evaluations are needed.

Key messages:

- Almost every analyzed study/evaluation provides some evidence of effectiveness
- The promising results of several studies/evaluations are weakened by their methodological deficits

“Fear of Missing Out” in university students in western area of Turkey

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Background

Social media and mobile phones are indispensable for our lives; however, excessive use on social media is bring with several psychologic problems. Fear of Missing Out (FoMO) is associated with several problems on youth from academic failure to morbidity and mortality. FoMO is described as unnecessary worry behavior with the fear of missing events on social media. In our country, it is considered that especially among youths, frequency of FoMO is showing tendency to upward. The aim of the study was to determine level of FoMO in university students.

Methods

The study was carried out in two faculty (faculty of science and letters&education) of Eskisehir Osmangazi University in Eskisehir where in the middle area of Turkey in March-June 2015. This study was conducted with 200 university students that are determined with the improbable sampling, aged 18 and older and using internet regularly. First part of questionnaire investigated students' socio-demographic characteristics and internet usage and second part contained FoMO scale. Validity and reliability of the scale has been made and Cronbach's alpha value found as 0.81. Scale contains ten questions. Points that can be gained on scale are ranging between 10-50 and more and more the points raise, it is accepted that addiction level is rising.

Results

Of the participants 52.5% was female. The mean(SD) of age was 21.4(3.0) years. Points that gained from the scale ranged between 11-49 and whereas its mean(SD) was 24.6(7.6), its median was 24. Point medians that gained from the scale was not changing according to sex and age groups. There is no correlation between students' points that gained from the scale and year of internet usage and weekly hour of internet usage.

Conclusions

FoMO can be approached as a serious health problem throughout study group showing no correlation sex, age and internet usage. It is considered that FoMO should be approached by further studies on youths who were reported as risky.

Key message:

- FoMO have importance as a clinic entity that can affect young people's lifes. Public health studies will be important to prevent FoMO's transform into more serious health problem in future

Knowledge on sexual and reproductive health of teen-age immigrants in Finland

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Background

Finnish teen-age students' knowledge on sexual and reproductive health has decreased in recent years. The knowledge of immigrant teenagers is poorly known. The purpose of this study was to find out the level of knowledge on sexual and reproductive health of teen-age immigrants in Finland.

Methods

Data are based on a national School Health Promotion Study carried out at three different levels of schools in 2013 (N = 178 441). The study includes 10 questions measuring knowledge on sexual and reproductive health. Response rate varied between the levels of the school from 37% to 84%. Immigrant status (n = 17 895) was defined by the teen-agers' own and their parents' nationality and classified as the teen-agers from multicultural and first and second generation immigrant families. Data were analyzed by the immigrant status and the educational level of the school. The immigrant groups were compared with the native teen-agers.

Results

Knowledge on sexual and reproductive health of teen-agers varied by the level of the school. The teen-agers from multicultural or immigrant families had generally a lower knowledge on sexual and reproductive health than the native ones. Short period in Finland and weak language skills explained this only partially since also the second generation immigrants have lower knowledge compared to the native teen-agers. The poorest knowledge was found among teen-agers originating outside Europe; mainly from Asia. The matters relating to reproductive health and the protective effects of condom usage were the best known factors in all educational levels in every studied group. Instead the knowledge of chlamydia and Human Papilloma Virus infections was weak in all cultural and ethnic groups including the native teen-agers.

Conclusions

Cultural background is clearly connected to knowledge on sexual and reproductive health. The special needs of teen-agers emphasize the need of development in both sexuality education and services.

Key messages:

- Cultural background is clearly connected to knowledge on sexual and reproductive health
- The special needs of teen-agers emphasize the need of development in both sexuality education and services

If we have only spirometry as asthma assessment tool in the pediatric practice

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Background

NICE guidelines from 2015 define forced expiratory volume in 1 s/forced vital capacity (FEV1/FVC) ratio of less than 70% as a positive test for obstructive airway disease (obstructive spirometry). The bronchodilator response (BDR) in children with FEV1 improvement of 12% or more is postulated as a positive for asthma test. For children with BDR less than 12% FeNO level examination is recommended. In most pediatric practices in Bulgaria the only accessible asthma test is spirometry.

Methods

We analyzed the results of spirometry and BDR test of 209 children (mean age 10.2 ± 0.65 years) with chronic cough. We followed up all the patients for one year, and reevaluate their health and therapy.

Results

From the total of 209 children with chronic cough 104 were diagnosed as asthma patients due to high BDR results. From the rest 105 children 46 had BDR ≤ 12% but >8%. Those children also were consequently diagnosed as asthmatic due to repetitive bronchial obstruction and variable FEV1 results. They had very good effect from therapy for asthma, although their BDR test was never over 12%. From all children with BDR >8% no one had other disease that could explain the chronic cough better than asthma.

Conclusions

Following strictly high threshold for BDR in children with chronic cough could lead to significant misdiagnosis of children that have asthma symptoms and benefit from anti-asthmatic treatment.

Key message:

- Lowering the BDR cut-off from 12% to 8% in children under 16 years of age as an asthma marker could lead to improved asthma detection

Physical activity motivational interviewing, a tool in health prevention for disadvantaged adolescent

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Background

Reducing overweight in adolescents requires taking into account social inequalities other to motivate adolescents to reduce sedentary behaviour (SB) and increase physical activity (PA). The study aimed to investigate social factors of adolescents' participation and interest in PA motivational interviewing.

Methods

The study was conducted on a sample of 282 adolescents overweight or obese, socially disadvantaged, 13 to 18 years old who participated in group sessions and have benefited in addition, individual adapted activities within the French PRALIMAP-INÈS trial in 2012-2015. The PA motivational interview was held face to face for one hour by a PA professional. The objectives were to help the adolescent to describe their leisure time, their representation of PA and SB, their practice conditions, the brakes and levers to their

motivation and to formulate goals adapted to their environment and desires.

Results

150 adolescents participated in the interview in PA (53.2%). Participation was significantly greater in girls, middle school adolescents, among those who participated in the sport school association and who reported having no friends with that practice. The levels of PA and SB were not associated with participation. In 2014-2015, their main obstacles to practice PA were pain during practice (37.8%), the lack of time (37.8%) and will (35.1%). Few mentioned a lack of means (13.5%). Their main motivations to practice PA were to improve their health and to slim (91.9%) and the need to let off steam (51.4%). The purchase voucher to get PA equipment was a lever of motivation for PA projects. 72% of adolescents found the interview useful.

Conclusions

PA motivational interviewing can be an important tool to mobilize the overweight socially disadvantaged adolescents. In the overweight care management among disadvantaged adolescents, this individual approach, acting on motivation and taking into account the individual as a whole is crucial.

Key messages:

- Individual support that takes into account the needs of adolescents should be provided for those who are disadvantaged in overweight prevention
- Health programs should act both on the levers for participation and behaviour changes

Worldwide Meta-analysis of the prevalence of wheezing in preschool children

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Background

Wheezing in infants is a global public health issue, which affects children's quality of life and can lead to asthma in subsequent years. The aim of this meta-analysis is to estimate the prevalence of wheezing in infants and children in preschool age.

Methods

Literature search was conducted in MEDLINE and SCOPUS databases, including as keywords "prevalence" or "epidemiology" combined with "wheeze", "wheezing" or "asthma symptoms" and "infant" or "preschool", searching for original articles between January 1995 and February 2016. Random effects Bayesian model was used to make the calculations, and heterogeneity was estimated using I² statistic.

Results

Nineteen studies were included in the meta-analysis. Prevalences of wheezing and recurrent wheezing were 29.58% (95% CI 28.93-30.24), and 16.87% (95% CI 16.24-17.51), respectively. In Latin American countries, the prevalence of wheezing was 36.07% (95% CI 35.13-37.02), and for recurrent wheezing was 18.31% (95% CI 17.56-19.08). On the other hand, in Europe, prevalences of wheezing and recurrent wheezing were 28.80% (95% CI 27.46-30.18), and 12.35% (95% CI 11.27-13.47), respectively. In the first three years of life, prevalence of wheezing was 34.29% (95% CI 33.44-35.14), and for recurrent wheezing was 17.41% (95% CI 16.74-18.09).

Conclusions

A high proportion of preschool children suffered from wheezing and recurrent wheezing, especially in the first three years of life, and Latin American infants. In order to reduce the impact of the illness in childhood, public health programs and

policies addressed to preventable wheezing risk factors should be recommendable in pregnant women and infants.

Key message:

- This meta-analysis shows that wheezing and recurrent wheezing in preschool ages have a great impact, especially in children from developing countries and in the first three years of life

Are Croatian school-aged children really obese?

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Background

In 21st century, overweight and obesity among children became growing public health problem. Body mass index (BMI) is a measure used to determine childhood overweight and obesity. In children and adolescent, the healthy range for BMI varies based on age and gender. The aim of this study was to compare Croatian body mass index (BMI) percentiles for school-aged children with the United States Centres for Disease Control and Prevention (USCDC 2000) and the World Health Organisation (WHO 2007) analogical percentiles.

Methods

Representative cross-sectional national survey comprised 12 389 school-aged children (6 372 boys and 6 017 girls) aged 6.5–18.5 years with standardized measurement of body height and weight (response rate 94.5%). BMI percentile curves were established using the lambda mu sigma (LMS) method.

Results

Croatian BMI percentile curves differed from analogical percentiles in two international reference populations. The 5th percentile in boys and girls was similar to both reference populations until the age of about 13 years. In the age onwards, it showed upward shift. The 85th and 95th percentiles in boys showed upward shift in all observed ages. In girls, upward shift was observed until the age of about 14 years and in the age onwards, downward shift.

Conclusions

Observed differences highlight the dilemma how appropriate international reference values are for assessment of nutritional status in school-aged children population, not included in the reference population. Using not appropriate criteria could cause under or over estimation of overweight children. Due to that, providing of prevention or intervention measures could be compromised.

Key messages:

- BMI percentiles of Croatian school-aged children differ from USCDC 2000 and WHO 2007 references
- BMI percentile referent values developed on Croatian representative sample of school-aged children are more appropriate for assessment of nutritional status of Croatian school-aged children

Determinants of feeding practice among young children in a periurban area of Tirana, Albania

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Background

Inappropriate feeding practice increases risk of under nutrition, illness, and mortality among children less than 2 years of age. The study aims to assess how the socio demographic determinants affect the feeding practice (introduction of

complementary food in age 6–8 months, minimum dietary diversity and intake of foods rich in iron) among young children aged 6–23 months in a periurban area of Tirana, Albania.

Methods

A community based cross sectional study was conducted, in which were included randomly mothers whose children were of 6–23 months old. A questionnaire administered by interviewers was used to collect data on mother education, ethnicity, family economic level and practice feeding of their children. Logistic regression was used to determine the impact of the socio demographic determinants on the feeding practice.

Results

A total of 179 mothers of children 6–23 months were included. Seventy five percent of children aged 6–8 months were introduced to complementary food. Of children aged 6–23 months, minimum dietary diversity was 80% and intake of food rich in iron was 62.7%. Children whose mothers have high education are more likely to be introduced with complementary food in age 6–8 months (OR=1.3 $p<0.05$), to have minimal dietary diversity (OR=1.1 $p<0.05$) and to intake foods rich in iron (OR=1.7, $p<0.05$). In addition children who belongs to poor family or Roma/Egyptian community are less likely to be introduced with complementary food in age 6–8 months (respectively, OR=0.6 and 0.58, $p<0.05$), to have minimal dietary diversity (respectively OR=0.8 and 0.7, $p<0.05$) and to intake foods rich in iron (respectively OR=0.3 and 0.43, $p<0.05$).

Conclusions

The mother's education, family economic level and ethnicity affect the feeding practice of young children. Children whose mothers have low education, belonged to the poor household and Roma/Egyptian community are less likely to be fed conform the appropriate feeding practice in periurban area of Tirana.

Key messages:

- Improvement of practice of young children feeding among mothers with low education, belonged to the Roma/Egyptian community and poor family should be the focus of child nutrition programs
- There is a socio demographic inequity among young children regarding the appropriate feeding practice

The association between vitamin D and cardio-metabolic indicators in adolescents in Cyprus

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Background

Emerging evidence in adults suggests that Vitamin D might be associated with known cardiovascular risk factors such as hypercholesterolemia and hypertension.

Objectives: To investigate the association of Vitamin D levels with cardio-metabolic indicators in an under-researched age group, the adolescents.

Methods

Study participants were Cypriot adolescents aged 16–18 years who had cross-sectional assessments of serum vitamin D, Triglycerides and Cholesterol (total, HDL and LDL) as well as anthropometric measurements such as waist circumference and systolic and diastolic blood pressure between Nov 2007 and May 2008. Spearman correlation was used to investigate the association of vitamin D with the cardio-metabolic indicators in the whole population and by BMI status as defined by the International Obesity Workforce criteria (underweight, normal, overweight and obese).

Results

A total of 671 adolescents participated in the study (65% response rate). Significant but weak negative correlations was observed between Vitamin D and total cholesterol (spearman ρ -0.14, $p=0.00$) and triglycerides (spearman ρ -0.11, $p=0.01$) but otherwise Vitamin D levels were not shown to be associated with cardio-metabolic measures in the study population. No significant differences were observed in the pattern of these associations between the BMI subgroups albeit they became stronger for total cholesterol (spearman ρ -0.32, $p=0.05$) and triglycerides (spearman ρ -0.416, $p=0.01$) in the obese.

Conclusions

Vitamin D status seems to be inversely associated with total cholesterol and triglycerides in adolescents. Interestingly these associations are more prominent in the obese suggesting a potential role of vitamin D in reducing cardiovascular risk factors in early life

Key message:

- Vitamin D seems to be negatively associated with total cholesterol and triglyceride levels in adolescents suggesting a potential role of vitamin D in cardiovascular risk prevention

The effects of postpartum depression risk on the amount of breast milk, infant nutrition and growth

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Background

This study was designed as a descriptive one aiming to determine the effects of postpartum depression (PPD) risk of mothers on breastfeeding periods, milk amounts, and the infant growth.

Methods

The universe of the study comprises mothers who had 2-6 months-old infants and had applied to the pediatric clinic of the Maternity and Children's Hospital in Giresun (Turkey) between December 2015 and February 2016. The sample was formed with non-probability sampling and includes 146 mothers who agreed to participate with their infants. The data was collected with a questionnaire on the socio-demographic characteristics of the mothers, infant nutrition and growth; Edinburgh post-natal depression scale (EPDS) and İMDAT scale. Height, weight, and head circumference measurements of the infants were performed, and their nutrition style was assessed. When assessing EPDS; if a mother's score was ≤ 12 , she was considered in risk-free group for PPD and if a mother's score was ≥ 13 , she was in the risky group. The milk amounts of the mothers were assessed with the İMDAT scale.

Results

The PPD risk for the mothers was found as 22.6% (percentage of the mothers with EPDS score ≥ 13). 10.3% of the mothers were reported to use psychiatric medications before the pregnancy. The period of only breastfeeding the infants was found to be significantly shorter for mothers with the PPD risk compared to the mothers without the risk ($p < 0.05$). There was no significant difference between the infants of the mothers with or without the PPD risk; in terms of height, weight, and head circumference values ($p > 0.05$). The İMDAT scores (for milk amounts) of the mothers with the PPD risk were significantly lower ($p < 0.05$).

Conclusions

There were significant differences between the breastfeeding periods and milk amounts of the mothers with and without the PPD risk. In addition to education on breastfeeding and

support, treating the mothers in depression is important to reduce its negative outcomes.

Key messages:

- Mothers with and without the PPD risk had different breastfeeding periods and milk amounts
- Education, support, and treatment of PPD will help reduce the negative effects of the PPD risks

Personal hygiene in the school environment and pupil's perception on the school toilet's conditions

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Background

School environment is an important determinant of children's health. Safe water and sanitation is one of the time-bound target WHO. Children mostly are not satisfied with conditions in school toilets. Children's perception of the toilet facilities in schools and whether or not this influences their use was investigated. The purpose of this paper is to present results of the survey designed for students of 6th to 8th grades from 68 schools in Vojvodina, Serbia.

Methods

During the 2014 to 2016 a survey was conducted by the Institute of Public Health of Vojvodina, using the WHO methodology (standardized questionnaires). Children aged 12-14 were tested by anonymous questionnaires. A total of 6732 pupils completed questionnaires (3382 boys (49.5%) and 3450 girls (50.5%)).

Results

Only 65% of the students use school toilets every day. Satisfaction with the conditions in the toilets was present in only 14.2% of respondents. Lack of toilet paper 95.1%, lack of hygiene in toilets 66.6%, lack of privacy 48.3% were main reasons of dissatisfaction. Regarding hand washing space, students also expressed dissatisfaction in 49.6% of cases (most often reasons were: the lack of soap 86% and inadequate hygiene 49.4%). Three quarters of pupils answered that in the school they regularly learn about good hygiene practices. A third of respondents stated that there is a school team responsible for sanitation, and that in most cases a specific problem is solved.

Conclusions

Lack of adequate facilities in many investigated schools inhibits children in adopting proper hygienic behavior. The same standards for toilet facilities should apply to all schools. The current renovation program of some public schools provides a unique opportunity to meet the challenges of providing a supportive environment for adoption of healthy behaviors.

Acknowledgments:

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Key messages:

- Interventions to meet and keep standards of sanitation in schools are main concern for children's development
- Awareness about importance of school environment and its surveillance is needed to strengthen common responsibility of children, teachers and parents

Factors associated with clustering of multiple health-risk behaviours in young people in England

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Background

Most chronic diseases are strongly associated with four modifiable behaviours: smoking, alcohol consumption, low fruit and vegetable consumption and physical inactivity. When established early in life, these lifestyle factors could persist in adulthood and predict the incidence of chronic diseases. Little is known about how these behaviours cluster together, and what factors are associated with their prevalence and clustering in individuals. The objective of this study was to ascertain the association between sociodemographic and personal factors and clustering of multiple health-risk behaviours in young people in the city of Brighton and Hove (population, 274,000) in Southeast England.

Methods

Data from the Brighton and Hove Safe and Well at School Surveys (2011-2014) were analysed to examine the clustering of these behaviours in Year 10 and 11 pupils (n = 10,099; aged 14-16 year). The results were weighted and studied in the context of sociodemographic/personal characteristics: gender, ethnicity, sexual orientation, deprivation, school year, feeling safe at school, enjoying school, been bullied at school, health problems, family problems, feeling happy, feeling anxious and feeling lonely.

Results

The majority (97%) of pupils were engaged in either one or more unhealthy behaviours: about 58% were engaged in 1-2 and 39% were engaged in 3-4 unhealthy behaviours, respectively. Multiple regression analysis showed that a number of factors were significantly associated with the clustering of 3-4 health-risk behaviours in young people. These included: being in Year 11 (OR = 2.0, 95% CI, 1.8-2.2), family problems (1.8, 1.6-2.0), being female (1.7, 1.5-1.9), not enjoying school (1.6, 1.4-1.8), and rarely/never feeling happy (1.3, 1.0-1.6).

Conclusions

These findings highlight the need for modifications in community-based and in-school health and wellbeing programmes to decrease the prevalence and clustering of multiple health-risk behaviours in young people.

Key messages:

- There is a need for effective programmes for young people to increase their awareness about health impacts of smoking and alcohol consumption, and beneficial effects of healthy diet and exercise
- The study also highlights areas which require particular considerations while designing these programmes for young people

Health determinants and socio-demographic aspects among a sample of Portuguese children

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Background

The current lifestyles suggest risk behaviors that are the basis of a community health profile. The objective of this study consists in the assessment of health determinants and its association with socio-demographic variables among a sample of Portuguese children from 3 to 10 years old.

Methods

A cross-sectional study was designed with a total of 1617 children from public schools, from the two main school groups of Tondela and Vouzela, Portugal. The final study sample was built with a total of 1365 children aged between 3

and 10 years old. Data collection was accomplished by the distribution of a self-administered questionnaire to the parents and caregivers of the children. Statistical analysis was performed using the IBM SPSS software version 21.0 for Windows. Prevalences were expressed as proportions and the comparison of proportions was performed using the Chi-square test, based on the significance level of $p = 0.05$.

Results

It was found that the older children had a lower adherence to healthy eating habits and a higher prevalence of physical activity (49.2%). The boys had higher levels of physical activity (51.6%) and higher prevalence of sedentary behaviors (28.6%), in comparison with girls ($p < 0.05$). The residence area of the children was associated with a higher prevalence of fastfood consumption (rural=16.6% vs urban=24.0%, $p < 0.001$) and sedentary behaviors (rural=21.3% vs urban=26.1%, $p = 0.03$). Children belonging to households of more favorable monthly earnings consumed more fruits and vegetables (≤ 1000 euros=67.6% vs > 1000 euros=74.2%, $p = 0.04$) and practiced more physical activity (≤ 1000 euros=39.4% vs > 1000 euros=47.1%, $p = 0.02$).

Conclusions

It becomes noticeable the need to make an intervention on the most vulnerable social groups to obtain more effective health equality. Health promotion strategies should be seriously considered in communities in order to improve healthy lifestyles among Portuguese children and their families.

Key messages:

- Health promotion strategies should be seriously considered in communities in order to improve healthy lifestyles among Portuguese children and their families
- The current lifestyles suggest risk behaviors that are the basis of a community health profile

Comparison of two child-friendly food diaries to assess eating behavior in Switzerland

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Background

Assessing children's dietary habits remains difficult to do. Direct observation, biomarkers, Food Frequency Questionnaires or 24-hour recall present several challenges, especially in the child population: feasibility, recall, portion sizes, accuracy of food reporting, and participant burden. As there is currently no validated instrument to capture these data in Switzerland, two new tools were developed. This study aims to assess the level of agreement between children and parents, and compare the results between the two instruments.

Methods

Two cross-sectional studies were conducted in Switzerland with children aged roughly 6-12 and one of their parents. In both studies, participants were asked to separately complete a food diary, indicating what children ate. In the first study a 7 day food diary was used. In the second study, a 2 day food diary with different format was used. Analyses were conducted to measure agreement between children and their parents, and to compare the two instruments. Associations were measured using Spearman's and Kendall's tau-b nonparametric correlations, Lin's level of agreement statistics, and Cohen's Kappa. Results were stratified by gender and age.

Results

Roughly 300 children in each study completed the assignment, providing complete data. The weekly proportion of food consumption was computed for 19 food categories. For the 7 day food diary, Kendall's tau-b correlations between child

and parent show medium to large correlations for all food analyzed (range 0.44 for fat meat to 0.81 for puff pastry). Spearman's rank correlations range from 0.55 for sauces to 0.84 for puff pastry indicating large correlations. Data from the 2 day food diary are currently under analysis.

Conclusions

The 7 day food diary instrument can be used to reliably collect dietary data from children. This study will provide insight whether the 2 day food diary could also be used to accurately assess food intake, while reducing the participant's burden.

Key messages:

- The level of agreement between children and parents when using the 7 day food diary was moderate-high: children were able to provide reliable data about their food intake when using this instrument
- Using a different 2 day food diary might be even more appropriate to collect reliable and comprehensive data about a child's food intake, while reducing participants' burden of completion

Breaking through the barriers: How do university students with negative sexual experiences seek help

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Background

Negative sexual experiences (NSE), may increase risks for a worse health status and lower levels of academic performance. A substantial part of the students that suffer from these NSE do not seek help, probably caused by different forms of stigma. In this study we test for health and academic performance differences between students with and without NSE and we test the model that (the attitude towards) seeking help is effected by anticipated stigma (if others would know about the NSE), self-stigma about seeking help and student culture stigma.

Methods

From the Student Health Check (2015) of the UvA (N = 4072), students with and without NSE are compared on General health, Vitality, (SF-36) and Depression and Anxiety (EK10) and self-estimated study pace with analysis of variance (at the $p < .05$ level).

A subset of respondents that reported NSE (N=172), completed an additional questionnaire based on the studies of Kessler et al, 1999; Vogel et al, 2007, Verouden et al, 2010. Structural equation modeling with the AMOS 18.0 program is used to test our model.

Results

Students with NSE scored significantly higher on depression [F(1, 4067)=155.47, $p=.000$] and anxiety [F(1, 4067)=114.08, $p=.000$] and significantly lower on self-estimated study pace [F(1,3692) = 5.84, $p=.016$]. The model of stigmata was an acceptable fit to the data, $\chi^2(24) = 54.92$, $p=.01$, $\chi^2/df = 1.66$, CFI=.86, RMSEA=.06.

Conclusions

Depression, anxiety and lower levels of academic performance are related to NSE. The attitude towards seeking help for NSE is related to different forms of (student culture) stigma. An important recommendation is that this knowledge needs to be used by (health) professionals within higher educational institutions, in referring students with NSE to effective treatment.

Key messages:

- Students with NSE may suffer a worse health status and lower levels of academic performance

- Student culture has a role in predicting stigmata for help seeking for students that suffer from NSE

Analytical study on Japanese health education textbooks for junior high school students on HIV/AIDS

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Background

Japan is the only country where the numbers of HIV carrier and AIDS patient are still increasing among the developed countries. School health education is the important chance to be enlightened to this big health threat especially the stage of adolescence. We tried to figure out how the HIV/AIDS issues are mentioned in the textbooks as the basic source of the knowledge.

Methods

All the health education textbooks in use in junior high schools (revised in 2012) in Japan were analyzed for comparison and evaluated the description content on HIV/AIDS.

Results

Each of the four kinds of textbooks contribute 2 pages for the HIV/AIDS section. One has no mention of the increase of the carriers/patients in Japan. All of these mention the compromised immune function, the long incubation period, the infectability during the asymptomatic interval, being compromised to various diseases including cancer but only one mentions the opportunistic infection. Sexual contacts are emphasized as the most common route of infection, specifically blood, semen and vaginal fluids in each textbooks. Two of them does not mention that HIV is not spread by casual contacts which is also important point to know as well as forms of transmission, not to breed the discrimination and prejudice to the people with HIV/AIDS. Three textbooks mention the anonymous HIV test and free counseling at the public health centers. URLs for the additional information are found in two of them.

Conclusions

The routes of infection, the prevention methods and the incubation period related issues are well mentioned in each textbooks. Although, the mentions on casual contacts and safe wares which has very low possibility of infection are not homogeneous. Descriptions on social issues vary among the textbooks. Introduction of more URLs of reliable sites related to the HIV/AIDS issues are recommended to get accurate and correct knowledge as the young generations sometimes get wrong information through the web.

Key messages:

- It was found that some textbooks have only basic description on issues
- Supplemental study materials or more explanation at the class are expected

Proportionate intervention for tackling inequalities. The school-based Pralimap-Inès promotion trial

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Background

A structured screening strategy led to a significant decrease in overweight and obesity prevalence. Inverse relationship between income and the prevalence of obesity is known.

Furthermore, public health interventions may increase health inequalities. The PRALIMAP-INÈS trial was implemented between 2012 and 2015 and aimed to investigate whether a strengthened care management strategy to prevent and reduce overweight could do have an equivalent effect on individuals of lower socioeconomic status relative to those of higher socioeconomic status.

Methods

After a medical examination carried out in 35 schools, 8734 adolescents were measured and 1639 students with overweight and/or android distribution of adiposity (BMI thresholds according to IOTF; waist circumference (WC) according to McCarthy's threshold) were included. All adolescents filled in questionnaires: FAS social status; EAT-26 eating behaviour; IPAQ physical activity; HAD anxiety-depression). All were proposed collective standard education sessions. Near 700 adolescents included were less socially advantaged ($FAS \leq 5$). Two third of them were randomly assigned to a group (INÈS $n=470$) were proposed for individual and specific activities designed to overcome difficulties renowned for being the cause of health inequalities (multidisciplinary meeting, motivational interviewing, financial support, food and PA specific support ...).

Results

Inclusion data confirmed the existence of a linear social gradient for BMI z-score ($P=0.05$), BMI ($P=0.002$) weaker for WC ($p=0.07$). At the end of intervention, BMI and BMI-z-score social gradient decreased ($p=0.003$ and $p=0.04$), respectively). INÈS group was non-inferior (BMI, WC, physical activity, bulimia) or equivalent (BMI z-score, restriction, HAD).

Conclusions

Strong overweight social gradient were evidenced. School-based social proportionate interventions brought participation and effectiveness. School looked like a good setting for tackling social inequalities.

INCA

Key messages:

- Strong overweight social gradient among school adolescent
- Participation and effectiveness of school-based social proportionate interventions

How do university students with eating disorders overcome resistance to effective treatment

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Background

Eating disorders (ED) may increase risks for a worse health status. A substantial part of the students that suffer from ED do not seek or finish treatment. In this study we test for health and academic performance differences between students with and without ED and we look for factors related to Abbate-Daga (2013) and Schoen's (2012) transient awareness of the illness (including resistance) model for treatment seeking or completion.

Methods

From the Student Health Check (2015) of the UvA ($N=3120$), students that have or had an eating disorder are compared on General health, Vitality, (SF-36), Depression and Anxiety (EK10) and self-estimated GPA with analysis of variance (at the $p<.05$ level). Respondents with ED completed an additional questionnaire ($N=86$). Different factors of the transient awareness of the illness were operationalized by motivators and hinderers of treatment seeking and completion. We performed a frequency analysis on these factors.

Results

Students that reported to have (had) an eating disorder scored significantly higher on depression [$F(1, 3118)=83.55, p=.000$] and anxiety [$F(1,3118)= 101.02, p=.000$], significantly lower on general health [$F(1,3118) =32.36, p=.000$] and vitality [$F(1,3118)= 38.85, p=.000$]. Motivators in the help seeking process are hope (28%), others expressing their concerns (26%), making own choices (25%), others that confront (25%), intrinsic motivation (21%) and fear for health (21%). The largest barriers to seek help are the fear of gaining weight (19%) and the fear of losing control (18%).

Conclusions

Lower health status is related to eating disorders. For (higher educational) health professionals it is important to give control to the patient and focus on health instead of weight to improve the process of treatment seeking and completion

Key messages:

- Students with eating disorders may suffer a worse health status
- Effective treatment for eating disorders focuses on not taking away control and health instead of weight

Is physical fighting involvement associated with sleep duration during adolescence?

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Background

Social adverse experiences may be incorporated and expressed on biological markers, although mechanisms are not clear. Changes in sleep patterns might be one of the mechanisms that can explain biological consequences of physical fighting involvement. This study aims to assess the association between involvements in physical fighting and sleep duration.

Methods

The analysis included 2426 adolescents observed during the second wave of the EPITeen cohort, that was assembled in 2003 by recruiting the adolescents born in 1990 and attending Porto, Portugal public and private schools. Physical fighting was defined as being involved in physical fights in the previous year. Sleep duration was estimated by self-reported bedtimes and wake-up times. Logistic regression was used to calculate the odds ratio (OR) and 95% confidence intervals (95% CI).

Results

Overall, 34.2% of adolescents reported being involved in physical fighting at least once during the last year. Regarding sleep duration, 31.3% of sample had a duration of sleep of <8 hours per night. Adolescents reporting involvement in physical fighting had shorter sleep duration (OR = 1.41; 95% CI 1.18-1.69). After adjusting for parents' education and school retention, involvement in physical fighting remained significantly associated with shorter sleep duration (OR = 1.33; 95% CI 1.11-1.61). However, after including in the model the substance use, physical inactivity, watching TV or playing videogames at night, the point estimate was attenuated (OR = 1.06; 95% CI 0.86-1.31).

Conclusions

Physical fighting involvement is associated with shorter sleep duration, although this relationship is partially mediated by other behavioral factors.

Key messages:

- Engaging in physical fighting is associated with shorter duration of sleep

- Interventions should empower adolescents with healthy lifestyles and strategies of prevention of risk behaviors

Reducing participation social gradient in school-based overweight prevention programs. Pralimap-Inés

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Background

Reducing overweight in adolescent requires taking into account social inequalities. The study aims to investigate the participation social gradient in prevention programme.

Methods

The PRALIMAP-INÉS trial included 1417 13-18 year adolescents categorised in 2 groups according to their Family Affluence Scale (FAS) score: advantaged (FAS > 5) (n = 808) and less advantaged (LA n = 609). A standard care management (PRALIMAP) based on patient education principle through 5 collective sessions was offered to all teens. A strengthened care management (INÉS) through individual activities according to their needs was offered to 2/3 of the LA (n = 414).

Results

Six over 10 teens participated in at least one of the 5 group sessions PRALIMAP (64% in LA vs 57% in A) p = 0.05). The

average number of sessions was 3.3±1.5. Overall participation linearly decreased (p = 0.0006) with FAS score increase in the INÉS group (p = 0.04) where about 90% participated in at least one activity. The number of activities ranged from 0 to 6 (m = 2.4). The higher participation was observed in middle schools and vocational high schools vs general high schools (2.7, 2.5 and 2.2 respectively; p = 0.04). One third benefited from an physical activity (PA) motivational interview, more often among girls (41.5% vs 29.4%, p = 0.0117). The purchase voucher for PA equipment was used by 62% of teens. Motivational interviewing was followed by 44.4% and 62% participated in all five sessions. The food workshops were attended by 30.2%.

Conclusions

A higher participation rate was observed among socially LA teens. Conversely to what might be expected (too many activities = lower participation), collective participation was greater among those participating in the individual INÉS activities.

Key messages:

- Participation is a main key to be addressed among less advantaged adolescents
- School is a relevant setting allowing to obtain better participation among less advantaged teens

I-posters - Poster Display: Mental health

Culturally adapted therapy for the treatment of depression in Muslims

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Background

Incorporating religious beliefs into mental health therapy is associated with positive treatment outcomes and prevention of chronic illness. However, evidence about faith-sensitive therapies for minority religious groups is limited and more research is also needed on implementation of such therapy in practice.

Methods

Behavioural Activation (BA), an effective psychological therapy for depression emphasising client values, was adapted for Muslim patients using a robust process that retained core effective elements of BA. The adapted intervention built on evidence synthesised from a systematic review of the literature, qualitative interviews with 29 key informants and findings from a feasibility study involving 19 patients and 13 mental health practitioners.

Results

Core elements of the BA model were acceptable to Muslim patients. Religious teachings could potentially reinforce and enhance BA strategies and concepts were more familiar to patients and more valued than the standard approaches. Patients appreciated therapist professionalism and empathy more than shared religious identity but did expect therapist acceptance that Islamic teachings could be helpful. Patients were generally enthusiastic about the approach, which proved acceptable and feasible to most participants; however, therapists needed more support than anticipated to implement the intervention. Links with community organisations and religious experts could be helpful but required institutional support.

Conclusions

The adapted intervention may be more appropriate for Muslim patients than standard therapies and is feasible in practice. Therapist comfort is an important issue for services wishing to introduce the adapted therapy. The fusion of conceptual frameworks within this approach provides increased choice to Muslim patients, in line with UK policy and research recommendations.

Key messages:

- Culturally adapted treatments can potentially prevent chronic depression and are well received by patients and feasible in practice
- Practitioners require institutional and external support to help them to deliver culturally adapted therapy

The effect of exercise done with music on sleep quality

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Background

The study aimed to evaluate sleep quality of internal diseases and oncology patients and to find out whether there was a change in sleep quality of the patients subsequent to exercises conducted with music therapy.

Methods

The study was designed as Solomon four group experimental design and was conducted with 364 in patients who were hospitalized at psychiatry (Experimental group I; n = 91); oncology (Experimental group II; n = 91); and internal diseases (Control group I; n = 91 and Control group II; n = 91) services of a medicine faculty. Data were collected through pre and posttests in the study. Sleep quality of the patients was

measured by Pittsburg Sleep Quality Index (PSQI). Comforting and relaxing music prepared by Turkish Psychologists Association and Progressive Relaxation Exercises developed by Jacobson were used in the study. All data were analyzed by using independent sample t test, paired sample t test and One-way ANOVA test. The statistical significance was set as $p < .05$.

Results

No significant difference was found between pretest scores of psychiatry (experimental group I) and interior diseases patients (control group I) in terms of PSQI scores ($p > .05$), however, PSQI posttest scores of psychiatry patients were higher than oncology and interior diseases patients (control group I and II) ($p < .05$). PSQI test scores of psychiatry patients were higher than oncology patients subsequent to music and exercise therapy ($p < .001$).

Conclusions

Music and exercise therapy had no effect on psychiatry patients. Sleep quality of psychiatry patients were worse than oncology and interior diseases patients. Interior diseases patients revealed an increase in sleep quality after clinical treatment processes.

Key message:

- Due to the fact that sleep quality of psychiatry patients were worse than oncology and interior diseases patients, further research on various treatment methods without medication in addition to medication is suggested for betterment of sleep quality of those patients

Depression and anxiety of female undergoing infertility treatment: what is the impact of males?

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Background

The prevalence of seeking for infertility treatment has increased in Taiwan. Previous studies have shown that undergoing the infertility treatment is related to higher risks of depression and anxiety in both gender. However, the differences in the risks of emotional disturbances among females whose infertility treatment is attributed by female or male issues have not been well explored. This study was thus aimed to examine whether the infertility treatment attributed by female or male infertile issues was associated with women's depression and anxiety.

Methods

A sample of 80 couples who received infertility treatment in the Center for Reproductive Medicine and Sciences in a hospital in Taipei completed the self-reported questionnaires from December 2015 to February 2016. The questionnaires were developed with experts' evaluation and were confirmed with adequate validity and reliability. Logistic regression models were used for analysis.

Results

We found that the prevalences of the depression and anxiety among infertile females and males were higher than those among couples in the perinatal period. Although the depression and anxiety scores did not display significant differences in male and female infertility groups, the trends elevated among women whose husband was infertile. In further stratified analysis by infertile years (≤ 3 vs. > 3 years), we

found that for those who suffered infertility over three years, male infertility was significantly associated with higher levels of anxiety among females (OR = 4.6, 95%CI=1.1-18.8).

Conclusions

We found that levels of emotional disturbances among females and males who sought for infertility treatment were high and deserved continued concerns. With longer years suffering from infertility, women whose husband was infertile displayed significantly increased risks of anxiety. Future prevention and intervention programs for these higher-risk groups identified are imperatively in need to design and implement.

Key messages:

- Levels of emotional disturbances among females and males who sought for infertility treatment were high and deserved continued concerns
- With longer years suffering from infertility, women whose husband was infertile displayed significantly increased risks of anxiety

Does psychiatric treatment prior diagnosis of breast cancer affect "return to work"?

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Introduction

Increasing incidence rate of breast cancer (BC) and higher survival rate for women diagnosed with BC makes return to work (RTW) crucial. Studies have documented that BC patients have the highest RTW rate among cancer patients, but even so 13% were still on sick leave two years after diagnosis. Several factors influencing RTW has been studied, e.g. psychological factors such as depression. Most studies have concentrated on factors appearing in the years after diagnosis of BC. The aim of this study was to examine the impact of psychiatric medication prior to BC on RTW one year later.

Methods

Women diagnosed with BC in Denmark between 1999 and 2012 were identified in a clinical database (DBCG) and linked to national registries containing information on: psychiatric medication (The Danish National Prescriptions Registry), social benefits (DREAM database) and socio-economic (Statistics Denmark).

The exposure was use of psychiatric medication (antidepressants, anxiolytics, and antipsychotics). 2-4 years prior to diagnosis of BC. The outcome was being economical self-supported one year later.

Modified Poisson Regression models were adjusted for potential confounders (demographic-, clinical- and socio-economical factors) to examine whether treatment with psychiatric medication had impact on being self-supported.

Results

16,748 women (20-63 years old) were diagnosed with BC and were self-supported one month prior to the diagnosis of BC. 15.8% of the women had received psychiatric medication. One year later, 63.2% of the exposed women were self-supported compared to 68.8% among those not using medication. The exposed had a reduced likelihood of being self-supported one year after diagnosis of BC (RR = 0.93 (0.90-0.95)) in the adjusted model. Almost 30% of the women were self-supported during the first year after diagnosis of BC.

Conclusions

Receiving psychiatric medication prior to diagnosis of BC reduced the chance of being self-supported one year later.

Key messages:

- Receiving psychiatric medication prior to diagnosis of BC reduced the chance of being economical self-supported one year later
- Almost 30% of the women were self-supported during the first year after diagnosis of BC

All for Health – Health for All also for individuals with severe mental health illness in Ulla Vaeggemose

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Background

Social network is essential also for individuals with severe mental health illness (SMI). However many individuals suffering from SMI have a very limited social network if any. Increasing, during the last decades, involvement of the civil society as part of the mental healthcare services for supporting the social network of individuals with SMI has again been used also in Denmark. ‘Community Families’ is an example of such an initiative where individuals with SMI are offered regular contact with private voluntary families/individuals.

With focus on motivation for, hopes of, and experiences with participation, this paper will from the perspective of the individuals with SMI provide insight into and understanding of the initiative.

Methods

The analysis draws on qualitative interviews with individuals with SMI participating in the initiative as well as individuals who have previously participated. The analysis is a sub-project of a research project that investigates the qualitative/quantitative effects of the initiative.

Results

Predominantly, the motivation was a desire to establish a relationship to adults outside the psychiatric system and to acquire an oasis from the system. However the ‘longing for’ was typically mixed with anxiety about and concern that the relationship would go wrong.

The motivations were mirrored in the experiences. Positive input with someone who cares about you without discussing “plans for treatment” and “mental illness” was the main experience. Added to this many of the individuals with SMI faced challenges that often were overcome due to the desire of wanting to keep the relationship. Worry of being odd and of missing the “family” were also central issues.

Conclusions

Community based mental health involving volunteers emerges to benefit individuals with SMI even though anxiety, challenges and worries are part of the picture.

Key message:

- Community based mental health involving volunteers emerges to benefit individuals with SMI even though anxiety, challenges and worries are part of the picture

K-posters - Poster Display: Health information and infectious diseases

Virological data integration on influenza vaccine effectiveness, Portugal 2015/16

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Issue

Regarding the wide genetic and antigenic variability of influenza viruses, overall or subtype influenza vaccine effectiveness (IVE) estimates may not be sufficient to assess vaccine protection against circulating strains. This is particularly important when low VE against a specific clade is suspicious or a new drifted virus is emerging.

Viral genetic characterization is routinely performed in influenza surveillance but viruses are selected according patient age, severity and vaccine status. For instance, last season genetic characterized cases were more vaccinated than those not selected.

Description of the problem

A protocol for virological data integration on IVE studies within I-MOVE network was performed. It intended to solve the following issues:

1. Selection of the clade of interest to provide IVE;
2. Determination of the number of cases needed for genetic characterization;

3. Selection of cases for genetic characterization independently of patient features.

Results

During the 2015/16 season, a closely contact between epidemiological and laboratorial teams allows to perform a random selection of influenza cases for genetic characterization independently of cases features. Influenza A(H1N1)pdm09 was the selected subtype given its predominance and the emergence of new subclades (6B.1 and 6B.2). 52.2% of A(H1)pdm09 cases were successfully characterized. No differences regarding age, sex and vaccine status were found between selected and unselected cases for genetic characterization.

Lessons

The large sample size needed to estimate IVE against a specific clade requires an important effort on genetic characterization behind virological surveillance. However, random selection of cases for genetic characterization along season seems to be feasible without interfering with virological surveillance and obtains a representative sample of cases of the clade of interest.

Key messages:

- Virological data from randomly selected cases will allow to estimate IVE against a specific clade during influenza season
- An extra effort on influenza genetic characterization is needed to achieved the needed sample size

M-posters - Poster Display: Health services and systems research

Impact of purchasing decisions on orthopaedic procedures

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Objective

The purpose of this study was to analyse perception and attitudes of orthopaedic specialists towards procurement for medical devices and its effects on clinical procedures in the context of cost-oriented procurement processes lacking to integrate a clinical result focus into their decision-making.

Methods

We conducted a descriptive study and used a quantitative survey among orthopaedic specialists between June and October 2015 to assess their role in procurement, determine how procurement influences clinical procedures, and to ask them to indicate factors positively influencing clinical practice. The study took place in Mexico and is based on data collected from 187 orthopaedic specialists.

Results

Involvement of orthopaedic specialists in procurement was reported as positive by 86%. Clinical practice was perceived as negatively influenced by procurement by 92%. Main exposure factors were: "Limited device portfolio and quantities", and "Sub-standard accompanying services". Opportunities to improve this situation were reported by 93%. Main factors were: "Managing clinical data" and "Monitoring quality in clinical practice".

Conclusions

Prior studies highlighted potential problems occurring in clinical practice associated with procurement, but not based on a survey among users of orthopaedic medical devices. The focus on Mexico is particularly novel and provides insights into issues of mechanisms of procurement processes for orthopaedic medical devices in Mexico that are strongly cost-oriented and little result-oriented with regards to effects on orthopaedic clinical procedures. In a broader quality improvement context, this study gives impulses for promoting alignment between administrative processes and clinical procedures.

Key messages:

- Procurement results influence clinical practice and outcomes
- Problems with current procurement regulations and practices are rarely discussed or addressed

Governance of interorganisational and intersectoral collaboration: the Care Living Lab experience

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Background

In 2012, the policy program Care Living Labs Flanders (CLLF) was launched to stimulate innovation in elderly care. Six living labs (platforms) were introduced as a methodology to enhance innovative care grounded in a logic of open innovation. Collaboration between autonomous organisations from a wide range of sectors is promoted as a means to innovate elderly care. An issue in health and social care systems is how this

collaboration can be effective. Appropriate governance to handle the diversity of partners is documented to be important for the overall success of a network. This research aims to identify facilitating and hampering factors with regard to governing multisectoral collaboration.

Methods

The research aligns with realist evaluation and studies the implementation of network governance. Data were collected and analysed from focus groups with formal strategic and operational network partners of four platforms in Flanders, added with informal collection of knowledge on network development from coaching and coordination meetings.

Results

The platforms are going through a learning process in developing governance of an interorganisational network. The learning is about mutually adapting expectations, mutual trust, bridging cultural differences and avoiding conflicts. This learning process is time consuming. Many platforms made changes over time in the governance structure and decision making practices. Interestingly, most of the changes are adaptation strategies to operational issues, which compromise the development of strategic management and vision on the mission and working practices.

Conclusions

A better understanding of both structural as more process oriented facilitating and hampering factors with regard to network governance is an enabler to evolve from 'project-based' collaboration approaches toward more sustainable innovations.

Key messages:

- This research contributes to the theoretical knowledge on governance of interorganisational collaboration. We hereby contribute to the understanding of effectiveness and sustainability of the network
- This research provides an empirically grounded contribution to policy makers and practitioners involved in intersectoral and inter-disciplinary collaboration to innovate care strategies and systems

Toward a bed management standard: results of a multi-center study in Italy

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Background

Few papers have been published about hospital bed management (BM), and the proposed models are poorly detailed. In Italy, given Hospital bed cuts and worsening Emergency Departments (ED) overcrowding, several BM experiences are growing-up, in most cases on a self-made, empiric basis.

Aim of our study was to analyze and compare existing BM models in a sample of Italian Hospitals then to propose a standard for this Hospital function.

Methods

Participating Hospitals were recruited after national conferences and other working groups. During a first meeting each

BM model was exposed and a two-sided approach established 1- audit visit to each participating Hospital, devoted to in-situ analysis of BM model and sharing of a typical BM working day 2- compilation of a questionnaire of 160 items, splitted in four areas: structure, BM model, ED admission, indicators.

Results

Eight non-academy Hospitals from six Italy regions were enrolled: mean beds were 327, mean occupancy was 85,8% and mean length of stay 7,7 days. Mean ED accesses were 49989/year, with admission rate of 15,5%. BM is located in the Hospital medical Direction in all cases, team members are solely devoted to BM in 40%; they 1- manage Hospital bed flows on a daily basis 2- always interact with ward sisters and with social services in 83,3% of cases 3- deal with "difficult" discharges and ward transfers in all cases and ED admissions in 83,3%. Out-ward admission is always used in the case of bed lack in the designated ward. Efficacy indicators were not analyzed in 87,5% of cases. A final conference was held, during which a 45 items standard for BM was proposed.

Discussion

This is the first multicenter study on BM; we found a relatively homogeneous approach but with a lack of evidence of efficacy. Organization research on BM is strongly needed given the pivotal role of this function in the present and future Hospital life. In particular, BM standards have to be proposed and their efficacy tested.

Key messages:

- We present the first multicenter study on BM. More organization research on this topic is urgently needed
- We created a putative standard for Bed Management, to be further discussed and shared inside a network of Hospital, in Italy and possibly other where

Prescribing analgetics and NSAID in treatment of acute and chronic pain in family medicine practice

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Background

The aim of this study was to determine the number and the type of prescribed oral analgesics and NSAIDs, which are calculated on the Croatian Health Insurance Fund, in the treatment of acute and chronic pain according to ICD diagnoses.

Methods

The sample consisted of 1838 patients in the care of the specialist of family medicine. Data on the number and the type of prescribed analgesics and NSAIDs, according to the generic name of the drug, were obtained by a retrospective review using e-health records of patients within the specialist outpatient family medicine in the period from January 1 to December 31, 2015. Diagnosis of diseases are classified on the basis of ICD 10 classification. On the basis of duration of pain, chronic pain is defined in duration longer than 3 months.

Results

On the sample of the total number of patients MSM (N=1838), it was found that during the year 2015, the medication for pain was prescribed to 1305 (71%) patients. Among these, 95.7% of patients received the medication for acute pain, and 4.1% for the chronic pain. Medications were mostly prescribed for a group of diseases of the musculoskeletal system, M00 - M99, precisely 1115 (79.4%). All patients who had chronic pain (54), complained about the pain of the musculoskeletal system, and 50% had a lower back pain M54. In the treatment of acute pain the most commonly prescribed

were the NSAIDs, of which ibuprofen with 32.7%, the combination of tramadol - acetaminophen with 17.7% and 14.2% of tramadol. In the treatment of chronic pain the NSAIDs were prescribed with 64%, and 26% of tramadol - acetaminophen.

Conclusion

This study confirmed the high prevalence of prescription of analgesics and NSAID in the treatment of pain in the outpatient GP, most often for acute pain and most often for the group of muscle diseases of the skeletal system.

Key messages:

- This study confirmed the high prevalence of prescription of analgesics and NSAID in the treatment of pain in the outpatient GP
- Measures for drugs prescribing rationalization and prescribing guidelines would be introduced in Croatia

Suppliers view on benefits and challenges of the PCP process for healthcare providers and SMEs

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DECIPHER is a pre-commercial procurement (PCP) project seeking mHealth solutions for cross border health services. The 4phase PCP process is meant to be a tool for procurers to develop together with SMEs solutions to their specific needs. SMEs may have excellent solutions as well as the flexibility and adaptability to react adequately to procurers needs. But with little access to competitions, information about their solutions is not always reaching procurers who could benefit from them. At the same time, the SMEs have a limited view of the real service and technology needs, and requirements that healthcare providers in Europe may have. The PCP process is seen as a way to overcome these problems.

Part of the DECIPHER work is to analyse its process and improve PCP as an EU tool for contracting R&D&I services. This analysis concentrates on supplier views. The supplier companies involved in phase 2 were invited to provide their views about the PCP process, opportunities, challenges, and impact.

The questionnaire based analysis revealed that SMEs found the involvement and the interaction with the procurers important, allowing then to better understand procurers' needs. They also acquired useful knowledge about the EU mHealth market. This gave them confidence to handle competition and provide valid solutions for procurers on an EU scale.

Integration of mHealth solutions with existing healthcare systems in different countries was considered to be an important but challenging objective. Information on strategies and existing ICT infrastructure of public procurers would have helped in developing efficient services more rapidly. Participation of the private sector and insurance companies to the PCP process would be welcomed.

DECIPHER is so far beneficial for SMEs and procurers, giving them opportunities to learn about EU health systems, to increase their technical know-how and get references. Deeper interaction between the SME's and the procurers would increase these benefits.

Key messages:

- PCP process has given so far opportunities to learn about EU health systems, to increase healthcare providers and suppliers technical know-how and get references
- Deeper interaction between the SME's and the procurers would increase all stakeholder benefits of the PCP in EU

Changes in the quality of care provided for migrants in the context of economic crisis in Spain

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Background

During the economic crisis, Spain introduced major measures to its National Health System, including reductions in public health expenditure, through reducing human and material resources (RDL 16/2012). Objective: To analyze changes in the quality of care for migrants during the economic crisis, from the perspective of professionals and users

Methods

Qualitative descriptive-interpretative study performed in two areas of Catalonia and Madrid (Nov.2014-Sep.2015) based on semi-structured individual interviews with a theoretical sample of primary and secondary care doctors (n = 24), administrative staff (n = 10) and immigrants users (n = 20). Thematic analysis was carried out. Data quality was ensured through triangulation.

Results

While professionals perceive the technical quality has not changed during the crisis, mainly due to their vocational work, users perceive it has worsened. However quality of care problems strongly emerges in both groups related to decreasing time available for patient attributed to increase pressure due to cutbacks on humans' resources. Professionals perceive that reducing the time per patient might conduct to increasing errors in diagnosis and users, with the lack of proper clinical exploration and to treatments that are limited to anti-inflammatory/analgesics that do not solve the health problem. They also point worse treatment to patients while professionals attributed to fatigue and stress related to the workload, and users, specially those without health card to professionals' mood, as they are 'angry' or no longer listen to their patients. All informants relate these changes to worsening working conditions of professional and economic crisis.

Conclusions

Although professionals believe that quality of care has not changed, all informants identify changes in both technical quality (clinical errors) and interpersonal (patient treatment) in the context of the crisis, especially related to structural changes and cutbacks in resources.

Key messages:

- While professionals considered technical quality of care has not changed, users perceive it has worsened
- Professionals refer the decrease in time per patient might conduct to increasing errors in diagnosis and users, with the lack of proper clinical exploration

Providing healthcare to foreign patients and associated system problems in Latvia

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Background

In recent years the number of foreign patients and medical tourists has increased. It influences competition and raises necessity for higher standards of performance of health care systems in order to implement the European Union Directive 2011/24/EU to promote the creation of the offer, which could be exported.

The study aim is to characterize the involvement of Latvian health institutions in the provision of health services to foreign patients and discover problems that influence external competitiveness. Research supported by the State research program 5.2. EKOSOC– LV.

Methods

The cross-sectional study included 87 Latvian health care facilities, which were selected from the Health Inspection registry and covered the outpatient, inpatient, and dental services by representing all regions. An anonymous questionnaire was filled by facility administration.

Results

Regular health services to foreign customers provide 19.6%. There is a relation between the provision of services to foreign patients and interest of administrative staff ($X^2 = 8.845$, $p = 0.003$) and of medical doctor ($X^2 = 5.180$, $p = 0.023$). The most common services are specialist consultations, diagnostic and dental services. Respondents recognize the social environment (70%), health care system (63.8%) and infrastructure (56.8%) as major obstacles to the development of the medical export. Statistically significant association with the provision of services to foreigners showed a current work load OR = 6.5 (95% CI 1.0–44.4; $p = 0.056$) and staff competence in IT skills OR = 10.0 (95% CI 1.5–69.4; $p = 0.019$). 71.8% believe that the country needed the support structure to promote exports.

Conclusions

Health care institutions have willingness to engage in the provision of services to foreign customers, but there are a number of barriers in the system and beyond. In order to increase the competitiveness of health care system in foreign markets it is necessary to develop a national policy.

Key messages:

- Countries have the opportunity to open up the health sector, increase quality, cost-effectiveness and efficiency; thus, reduce the burden of financing the sector and increase investment and return
- There is a need of identifying the internal and external constraints and to develop public policies that contribute to the improvement of health care system, creation of supply and export

Towards universal health coverage: building capacity in health systems and policy research in Ghana

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Introduction

The resources, actors and institutions generating and translating knowledge into improving the health system performance are limited and not strong in most developing countries. In Ghana, it is revealed that there is no particular dedicated institution specifically mandated to conduct research and/or teaching in health systems research and policy analysis. Notably, the efforts of institutions like Ghana's renowned universities in even research and teaching related modules and courses usually have less input in terms of time, resources and personnel with the technical capacity. A partnership between the Kwame Nkrumah University of Science and Technology,

Ghana and the Berlin University of Technology, Germany is established to endorse efforts to establish cooperative ties in research and education to effectively strengthen health policy developments in developing countries towards universal health coverage.

Objective

The overall objective is to build individual, institutional and infrastructural capacity in health systems and policy research to support evidence-based health policy developments so as to achieve universal health coverage in Ghana

Results

That the local capacity of the KNUST staff to conduct research and teaching in the field of health systems and management is strengthened. An integration of research and degree training of competent health systems and policy researchers and analysts in order to develop the technical support needed for health policy developments. A strategy to develop effective and sustainable inter-sectoral collaboration between all

stakeholders in activities geared towards improving the health system.

Conclusions

To realize the ideals of universal health coverage in developing countries, a rigorous assessment of health system performance is required with international comparisons, especially when expertise can be garnered. International cooperation should ensure a sustainable capacity development and career for researchers.

Key messages:

- International cooperation for sustainable development of local capacities in research and education can effectively strengthen evidence-based health policy developments in developing countries
- Rigorous assessment of the performances of the health systems in developing countries is very essential if the ideals of universal health coverage can be realized

O-posters - Poster Display: Health data, methodology, monitoring and reporting

What's the use of a user survey?

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Background

Public service providers have user surveys to find out whether user needs are met. Running the surveys may take up scarce time and resources, and this work examines the usefulness of such surveys.

The Norwegian Institute of Public Health provides health information tools to the general public and in particular to public health workers. Online surveys were run in 2014 and 2016 to find out whether these tools supply what the intended users need and identify development needs.

Methods

The two user surveys provided both free text and structured data. Survey results were analysed using mixed methods; respectively a qualitative textual analysis and descriptive statistics.

Results

In both surveys, respondents were pleased with the different health information tools, though some were thought to be more difficult to use than others. This was taken note of after the first survey, and new help files and an instruction film were made.

The 2014 survey showed that users want to use one of the tools for an unintended purpose; the annual snapshots shown in the Public Health Profiles are not intended for monitoring over time, unlike the online data banks. In spite of a lot of efforts to explain this, this user error persists in 2016.

The free text replies showed that several respondents were unaware of some of the tools or some of the functions of the tools, and were happy to be informed through the survey.

In 2016, users complained that the data bases are slow and suffer from connectivity problems, which has been suspected for a while, but not documented. This information can be used in negotiations with the software provider.

Conclusions

These user surveys were very useful for the NIPH health information team in several different ways.

Key messages:

- User surveys are useful to find out what respondents think and how they (attempt to) use the products

- A user survey may inform potential users about products or aspects of products they were previously unaware of

Adverse events in hospital: integration of multiple information sources

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Background

The Risk Management in healthcare is the set of complex actions implemented to improve the quality of health care and ensure patient safety, based on learning from errors

Our aim was to increase the sensitivity of detection of adverse events getting by different sources of information

Methods

It was retrieved reports of adverse events occurring in a private hospital (100 beds), from January 2011 to December 2015

The data were derived from a variety of sources:

- institutional incident reporting
- administrative reports
- transfers to emergency unit register
- organizational and environmental verifications of discrepancies found by non-health personnel in charge
- inspections of the Health Department

From the database so constructed, the analysis were conducted about the sensitivity of the different sources and epidemiology of the events

Results

Were recorded 306 adverse events; the most reported were the transfers, not because of falls(51%), followed by falls(31%), inadequate welfare performances(4%), errors in drugs administration(3,9%) and at distance from other types of events

The institutional incident reporting system detected alone, or together with other sources

42.5% of the adverse events, which means that it underestimates at least 57.5%

The 27,7% of the events was reflected in more than one of the sources mentioned above

Conclusions

Our research tries to identified and quantified the weaknesses of the institutionalized incident reporting system; it indicates events closely related to diagnostic and therapeutic management of patients; reports collected for administrative purposes,

basically just report the most serious events; the activities of inspections of the Health Department and of the organizational and environmental reports manage to intercept events, sometimes near miss, relating to matters not strictly clinical, but revealing organizational gaps that can influence the outcome of hospitalization and need audit

Key messages:

- We identified and quantified the weaknesses (noticed to be not reported) of the institutionalized incident reporting system
- Each of the information sources we identified and used contributes to increase somehow the sensitivity of the measurements

Risk factors of hospital patient falls

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Background

The patient falls continue to be a major problem in hospital. Each year, somewhere between 700.000 and 1.000.000 people in the United States fall in the hospital. In Italy, 24,6% of adverse events registered by Ministry of Health is represented by accidental patients falls.

The aim of our study was to individuated and quantified risk factors for hospital patients falls.

Methods

A retrospective study was conducted during the years, 2013, 2014 and 2015 in private hospital (100 beds), in Italy, collecting informations of patients falls, by the institutional incident reporting system or by other sources.

A descriptive analysis was performed at the beginning and thereafter an analytical study was carried out using the STATA program; logistic multiple regression was used for the analysis.

Results

83 cases of falls were identified of about 4000 admissions. The average age of the involved patients was 78.02 years (D.S. \pm 7.4); 52% was women. The bedroom was the first place where occurring events (53,01%) followed by the bathroom (20.48%) and then the corridors (8.43), the other places followed at a distance.

The multivariate analysis had showed that the most dangerous hour of the day is 5 pm (O.R.4,9; $p=0.04$; I.C.1,05-22,95); the month was February (O.R.5,02; $p=0.01$; I.C.1,43-17,61); the days of the week were found to be the Thursday (O.R.2,87; $p=0.02$; I.C.1,19-6,98) and Saturday (O.R.3,03; $p=0.01$; I.C.1,27- 7:21).

Conclusions

The data collected so far, allowed us to have a clearer image of the environmental risk factors for falls.

These results could be used to guide the health assisting processes towards achieving a higher level of safety for the patient, through the implementation of surveillance and preventive plans.

Key message:

- The necessary action for the prevention of falls is to identify the risk factors, depending on the characteristics of the patient, the environment and the building, and of adequacy of care process

Recently arrived migrants' health status in the region of Scania, Sweden

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Background

Knowledge of health and health related issues in recently arrived migrants (i.e. refugees) to Sweden is limited, although studies indicate that health status of migrants in general is worse than people born in Sweden and that it deteriorates over time. Regular public health surveys have difficulty reaching new migrants, partly due to language barriers. In order to address health and health related issues a study was initiated in Scania targeting recently arrived migrants. A grant for the study was received by the European refugee fund.

Methods

Data was collected within the framework of the public system for supporting migrants' establishment to society and labour market, which ensures coverage. The inclusion criteria were all adult recently arrived migrants to Scania, 18 to 64 years taking part in the public support system between February 13, 2015 and February 12, 2016. Questionnaires in Arabic, Dari, Pashto and Somali were used for data collection. Health issues covered diabetes, asthma, war injuries, dental, mental, and self-reported health among others. Health related issues address health-literacy, smoking, drug use, physical activity, and health system use as well as education and social relations mentioning few. The further aims of the study are to identify evidence for introducing need-specific strategies and to enhance the possibility for evaluating the adequacy of present practices.

Results

The study reveals necessary knowledge about health and health related needs in this group of new residents of Scania. Results will be available after the summer 2016 also including methodological concerns.

Conclusions

The study adds knowledge on health and health related needs in recently arrived residents and serves as a complement to the regular public health survey in Scania. It also addresses a number of methodological questions.

Key messages:

- Unique health and health related knowledge will be revealed in recently arrived immigrants of Scania
- The study will reveal evidence for need-specific health strategies and for evaluating the adequacy of present practices

Can the costs of a surgical robot be amortised?

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Background

Robot-assisted surgery is already performed in many disciplines, especially in urology and gynaecology. Actually, there are two manufacturers whose products have market access in Europe: the da Vinci[®] Surgical System of Intuitive Surgical[®] and the TELELAP ALF-X[®] of Sofar.

The aim of our research was to identify the costs for acquisition, maintenance and instruments of robotic-assisted surgery from the perspective of hospitals and to calculate time points for amortisation.

Methods

The determination of the costs for acquisition, maintenance and the instruments was based on articles identified by a

systematic literature search. Additionally the two respective manufacturers were contacted.

Under the assumption of certain numbers (100,300 and 500) of prostatectomies per year, the periods for amortisation were calculated. Furthermore, it was assumed that between 10 and 90% of the generated lump sum per case (2.855 Euros) are used for amortisation.

Results

In average the costs for acquisition are around 1.5 million Euros, for maintenance 150,000 Euros per year and nearly 1,600 Euros for instruments per surgery.

The amortisation of a da Vinci® surgical system is only possible when a high number of cases is guaranteed and a high amount from the generated lump sums is provided to amortise the costs. For example, when 500 prostatectomies per year are performed and 70% of the generated lump sums are used to repay the costs, the amortisation lasts ten years. However, providing 70% of the lump sum for amortising the costs for the robotic systems seems not adequate.

Conclusions

An amortisation of the costs for a surgical robot is nearly impossible. This is mainly due to the high running costs, especially for maintenance. Another issue is the short life cycle of the instruments which must be replaced after 10 operations. Based on the results, it is highly questionable if the acquisition of a surgical robot for hospitals is worth it.

Key messages:

- A surgical robot is expensive to buy and to run
- Amortisation of the costs for a surgical robot is nearly impossible

Antibiotic consumption at primary care in Poland in 2010-2015

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Background

Antibiotic resistance is an emerging public health threat. Lack of therapeutic options to cure infections caused by resistant pathogens is a serious danger for patients' health. Incorrect and/or overuse of antibiotics are important factors causing resistance occurrence and spread. Global and European recommendations indicate monitoring of antibiotic resistance as one of the main tool to control antibiotic resistance. The objective of the study was to summarize and compare primary care antibiotic consumption data between different regions in Poland.

Methods

2010-2011 data were obtained from National Health Fund, and for 2012-2015 years from the IMS Health. The data were summarized in number of packages by the commercial names. The international nonproprietary names, ATC codes, routes of administration and defined daily doses were assigned to the products. The data were converted to weight, DDDs units and DDDs per 1000 inhabitants per day (DIDs). The demographic data were obtained from the Central Statistical Office of Poland.

Results

The overall antibiotic consumption varied between 19-23 DIDs during the analyzed period. The three most often used groups (the first most often used substances within those) were: J01C – penicillins (amoxicillin), J01F – macrolides, linkosamides and streptogramins (clarithromycin) and J01X – others (nitrofurantoin derivative). The structure of the most frequently used groups and substances were similar between regions and reflected the situation for the whole country. However the

ranking between them differed from region to region and also fluctuated in time.

Conclusions

The differences in antibiotic consumption levels and structure between regions were revealed. Further studies to explain the reasons of specific differences are essential.

Key message:

- The observed differences suggest possible interventions to be taken aimed at antibiotic consumption reduction and rationalization of their usage

Hospital-replacing technologies as an effective medical treatment from

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Background

Wide use of hospital-replacing technologies (HRT) helps reduce urgent hospitalization, reduce ambulance calls, increase number of planned hospitalization.

Methods

We made time series on emergency medical service indicators to analyze HRT development dynamics.

Cross-sectional, full study was carried out in 76 medical organizations providing hospital-replacing care (HRC) and 312 teams providing EMC in Almaty.

Results

Number of EMC teams in 2014-312(2011-320), pediatric-92(2011-96), appealability per 1000 of population-481,8 (2011-451,7). Calls at PHC working hours-36%(2011-57,55), number of ineffectual departures per 1000 population-18,4(2011-19,8). Specific weight of repeated calls-4,4%. Number of people who received medical care during departures per 1000 of population - 468,7 (RoK-390,3). Death frequency before team arrival per 1000 of call-4,67(2011-5,33).

Emergency hospitalization in RoK is 61% in 2014 (2011-65,4%), planned hospitalization-39% (2011-35%).

To day and night care hospitals (DNCH) 35,78% patients were assigned from PHC, 33,8% delivered by an ambulance, 12,5%-on their own accord, 12,5%-other types, 5,51%-from diagnostic centres. Average duration of patient's stay in DNCH is 9,5 days (2014) (2010-11,1 days).

Growth rate of treated patients in RoK-34%.

In Almaty, HRC was provided to 58,1% of patients in day care facilities of polyclinics, less than 20% were provided home care, 24,1% - treated in day care facilities of hospitals.

On HRT hospitalization level - 54,5 per 1000 of population. HRT bed support of population - 9,1 per 10 000 of population, HRT coverage of population - 57,3 per 1000 of population, the average stay of patient in day care hospital - 7,6 bed-days.

Conclusions

Implementation of UNHS in RoK increased availability and quality of medical care provided to population. Development trend and efficient use of HRT show favorable results as the number of calls during PHC working hours decreased to 36% in 2014 (2012-45,6%, 2011-57,5%).

Key messages:

- We comprehensively studied development of hospital-replacing technologies and identified relationship between the quality of hospital replacing care and reduction of ambulance calls
- HRT is an effective form for providing medical care. Improving quality of treatment in day care hospital of polyclinics has the effect of reducing number of ambulance calls

Anticipating West Nile virus transmission risk from the Moroccan blood donation

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Background

West Nile virus (WNV) emerged in Morocco in 1996 with a re-occurrence in 2003, 2010 and recently in 2015 in specific areas through the country. Here, we conducted a serosurvey on Moroccan military individuals to evaluate blood donors at risk for having WNV.

Methods

During a period of West Nile Virus (WNV) activity (from July through September 2013), 622 samples from blood donors were screened for WNV seroprevalence. Total antibodies (Abs) and specific IgM were determined by serum neutralisation (SN) and ELISA tests respectively.

Results

The overall WNV prevalence Abs was 5.6% by SNT and reached 8.82% in epidemic areas where the WN disease was previously reported in horses. When donors were stratified to their age, 20% of individuals less than 25 years old have mounted WNV Abs. IgM Abs were not detected. A statistically significant increase of WNV exposure was found in 11% of donors less than 25 years old and living in rural areas. Endemic regions from these provinces (littoral coasts) displayed the highest prevalence of donors (20%) found positive for WNV Abs confirming their potential at increased risk of WNV among blood donors. Thus, at least 1 over five donors from rural endemic regions was infected with WNV.

Conclusions

Applying this prevalence to the estimates of WNV blood transmission, we speculate that the risk of WNV infection through blood donation is 0.016% when the whole population is considered and approximates a value of 0.05% in people originating from rural and endemic regions.

Key message:

- Although, Abs are not useful to screen for WNV acute infection, our study determined for the first time the risk for WNV by individual donation in Morocco

Assessment of antibiotic including prescriptions prescribed by family physicians in Turkey in 2015

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Background

Irrational antibiotic use is an important problem in Turkey's health system. This problem causes antibiotic resistance, inefficient treatment and increase in medical expenses. Evaluation of family physicians' prescriptions may contribute to determine the situation over antibiotic use. In this study, we aimed to investigate antibiotic prescriptions of family physicians in primary care health services and compare the figures among provinces and regions in Turkey in 2015.

Methods

E-prescription records of family physicians were obtained from Prescription Information System administered by Turkish Medicines and Medical Devices Agency. Number of visits, prescriptions in general, and prescriptions including antibiotics for systemic use were recorded. Besides descriptive characteristics, provincial and temporal differences were evaluated using areal interpolation in Geostatistical Analyst in ArcMap 10.4 software.

Results

227.302.842 visits of 23.424 family physicians across the country were entered into the system in 2015. 57.24% of the visits were resulted in prescriptions. 27.08% of these prescriptions included antibiotics. Sanliurfa and Artvin were the provinces with the highest and lowest proportion of antibiotic prescriptions, respectively. Antibiotics were prescribed commonly in first quarter. The prescription rates were higher in northeast, northwest and western parts of the country. Despite this distribution, prescriptions included antibiotics were highest in southeastern parts of the country.

Conclusions

Our results showed that there are provincial and regional differences in antibiotic prescription which might be related with the distribution of infectious diseases and sociocultural differences. Assessment of antibiotic use is an important tool for preparing evidence based strategies to spread the rational antibiotic use. The promotional activities must be put into practice by considering these regional and seasonal differences.

Key messages:

- The emergence of the antibiotic resistance related to the irrational use is a global public health problem. And evaluation of antibiotic use is very important to see the situation about the matter
- To promote the rational use of antibiotics among all stakeholders with success, regional differences must be considered

Q-posters - Poster Display: Workforce development and the work place

Short sickness absence spells and long mental sickness absence in 10-year follow-up

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Background

Mental disorders are common diagnostic causes for longer sickness absence and disability retirement in OECD-countries. Short sickness absence spells are also common, and neither

trivial for health and work ability. We studied how prior short sickness absence spells and days are associated with subsequent longer sickness absence due to mental disorders in three age-groups of municipal employees during a 2-, 5- and 9-year follow-up.

Methods

The analyses covered 20-29, 30-39 and 40-49-year-old employees of the City of Helsinki in 2004. Those with prior ≥14 day sickness absence in 2002, 2003 or 2004 were excluded. Women and men were pooled together. Short, 1-13-day

sickness absence spells and days were calculated per the actual time of employment during 2004. Logistic regression analysis was used to calculate odds ratios (OR) and their 95% confidence intervals (CI) for the subsequent long (≥ 14 days) sickness absence due to mental disorders during a 2-year (end of 2006), 5-year (end of 2009) and 9-year (end of 2013) follow-up.

Results

The risk for long sickness absence due to mental disorders increased with increasing amount of short sickness absence spells and days. 3 or more short sickness absence spells per working-year conveyed high risks. 8-14 sickness absence days from short spells was already associated with subsequent long sickness absence. The associations were strongest for the 2-year follow-up. Differences between age-groups were small, but the youngest age-group had most short sickness absence. Educational level had only a slight impact on the associations.

Conclusions

Short sickness absence exceeding 3 spells or 8 days per year signals the need for prevention of mental disorders.

Key message:

- Frequent short sickness absence spells are a risk for long mental sickness absence

Early identification of people at risk for sick-leave due to work-related stress – design of a RCT

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Background

A vital question for society in general, and primary health care in particular, is early identification of persons at risk of

sickness absence due to work-related stress. There is, surprisingly enough, no established method to do this. The purpose of this project is to evaluate if a systematic use of early identification of work-related stress, as measured by the Work Stress Questionnaire (WSQ), combined with feedback at consultation, at the primary health care centers (PHCC) can prevent sickness absence. A process evaluation is planned to explore how to facilitate future implementation and structural use of the WSQ at the PHCC. This paper presents the study design, the procedure and the outcome measurements, as well as allocation and baseline characteristics of the study population.

Methods

This project consists of two parts. The first part is a randomized controlled trial (RCT), designed in accordance with CONSORT recommendations, and with the primary outcome data of sickness absence as measured in the Swedish Social Insurance Agency registers 12-month follow-ups. Employed women and men with mental disorders and physical complaints seeking care at PHCC are eligible to participate. The second part is a process evaluation with both a qualitative and a quantitative study design, utilizing focus group discussions and questionnaires on feasibility and readiness targeting the participating health professionals.

Results

In all 7 primary health care centers participated in collecting data. The study population consisted of 271 participants of which 132 belonged to the intervention group, and 139 to the control group. The majority was women (69%).

Conclusions

Early screening makes it possible, not only to identify those at risk for sick-leave, but also to put focus on the patient's specific work-related problems, which can be helpful for finding suitable measures.

Key messages:

- Systematic use of early identification of work-related stress, using the Work Stress Questionnaire, combined with feedback at consultation, at the primary health care might prevent sickness absence
- Early screening makes it possible to identify those at risk for sick-leave and to put focus on the patient's specific work-related problems, which can be helpful for finding suitable measures

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