5. ORAL PRESENTATIONS: ABSTRACTS

PARALLEL SESSION 1

Thursday 11 November: 14:30–16:00

1.1. Innovation and information technology

Building common ground: an international framework for bridging evidence, policy and practice in the self-management of chronic diseases

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Background

Self-management support (SMS) initiatives are being promoted as important public health solutions to the social and economic impacts of chronic diseases. Yet, major gaps exist in the integration of knowledge between disciplines and in the exchange of evidence between research, policy and practice. Further, current directions may increase rather than ameliorate health inequities in CD populations because of unequal access to SMS programs and a lack of relevant interventions for marginalized groups. To address these gaps and develop consensus on how to move forward, 23 researchers, policymakers, practitioners and consumers from Canada, Australia, UK, USA and New Zealand participated in a Canadian Institutes of Health Research funded international Roundtable on SMS (Vancouver, June 2009). The goal was to create a Framework that provided strategic directions for the SMS field.

Methods

The first draft was derived from a thematic analysis of the Roundtable transcripts. The second draft is being created through the second stage of the Delphi process and the broad multi-country e-survey process. The final draft will be developed using e-survey methods with more than 300 participants in multiple countries (including ones in Europe) in the fall of 2010.

Results

The first draft of the Framework outlined five guiding principles and 13 strategic directions to promote integrated and comprehensive SMS services. The first stage of the e-survey process has reduced the draft framework to nine strategic directions, which will be further refined through the second stage of the Delphi process and the broad multi-country e-survey process.

Conclusions

An SMS Framework is an important first step in building a common vision for addressing current gaps in the SMS field. Key aspects of the draft Framework will be presented to promote productive knowledge exchange on SMS within and among our countries.

Stimulating debate and dialogue around population and public health ethics: a virtual journal club in Canada, 2010

Nancy Edwards

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Background

Fostering the development and refinement of ethical frameworks for population health interventions in Canada and globally is a strategic objective for the Canadian Institutes of Health Research—Institute of Population and Public Health (IPPH). To this end, IPPH convened a virtual journal club through six sessions held via distance education from February to May, 2010.

Objectives

This initiative aims to: (i) consider fundamental questions about the application of population health ethics principles and frameworks to the design and evaluation of population health interventions and (ii) identify and discuss concrete situations for the application of population and public health ethics frameworks. This presentation will describe the journal club, including processes and lessons learned, and synthesize key outcomes from the initiative.

Results

The journal club included approximately 37 participants from academic ($n = 21$), policy/programme ($n = 11$) and knowledge translation ($n = 5$) fields. Participants came from diverse disciplines and included representatives from 26 different organizations based in eight Canadian provinces. Each session featured an expert in the area of population health ethics who presented one of their publications and then facilitated dialogue among participants. The use of technology to facilitate debate and dialogue combined with the focus on an area of shared interest represents the emergence of a virtual community of practice in population and public health ethics in Canada.

Conclusions

This innovative and accessible distance education mechanism has applicability and relevance to other public health topic areas and jurisdictions.

Telemedicine for the reduction of acute myocardial infarction mortality: a systematic review and a meta-analysis of published studies

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Introduction

Advances in computing, electronics and communications have changed the modern medicine: in this context telemedicine allows patient assessment and monitoring to be performed timelier and easier. This is especially important for several cardiovascular diseases, for which timeliness of intervention and continuity of monitoring are required wherever patients may go. The aim of this study was to assess how telemedicine systems can improve health outcomes of patients with acute cardiovascular diseases through a systematic review and a meta-analysis.

Methods

By means of PubMed and ISI Web of Knowledge databases, we searched studies dealing with telemedicine applications in managing myocardial infarction and acute coronary diseases and their impact on mortality. Keywords used for the search were: 'Telemedicine', 'Telehealth', 'telecardiology', 'Cardiovascular diseases', 'Infarction', 'AMI', 'MI', 'Acute coronary disease', 'CAD' and 'Mortality'. The search was conducted until January 2010 and restricted to English and Italian articles. A meta-analysis was performed to assess the efficacy in reducing in-hospital mortality of telemedicine interventions versus standard measures. Relative risk (RR) with 95% confidence interval (95% CI) was used to report results and the I2 test to evaluate studies heterogeneity. Meta-analysis was performed using RevMan 5.

Results

Of the 39 articles found in PubMed and ISI Web, six studies were selected. All six studies reported results that demonstrated the efficacy of telemedicine applications in monitoring and managing patients with acute myocardial infarction and coronary artery diseases. The meta-analysis, performed by combining data from only three studies which were judged to be comparable, showed that the RR of in-hospital mortality was 0.65 (95% CI 0.42–0.99) for the telemedicine intervention group. The three studies did not show heterogeneity, being the I2 = 0%.

Conclusions

Telemedicine systems can improve health outcome of patients with myocardial infarction. Anyway, heterogeneity in study design and outcomes considered clearly emerged from our search: further studies are thus recommended.

Medical Peace Work—an online training for health practitioners in violence prevention and peace building

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War, weapons, human rights violations and other forms of power abuse constitute a serious threat to life, health and wellbeing, and an enormous burden to the health sector. Partnering to conceptualize the term Medical Peace Work (MPW) 17 European health NGOs and teaching institutions have since 2005 worked to define the role and responsibility of health practitioners in peace work. MPW encompasses much more than peace building in violent conflicts; it also refers to the many different ways in which health practitioners contribute to preventing violence and promoting peace, for instance through disarmament, human rights or sustainable development work. Can MPW overcome typical barriers to educating health workers for peace, such as lack of theoretic consistency, practical relevance and accessibility? Applying a public health approach to different forms of violence the MPW network produced, with funding from EU's Life Long Learning programme 'Leonardo da Vinci', seven self-running online courses. The aim of the developed training material is to create awareness about the health workers' peace capacities, and to enhance the activities and professional responsibility in violence prevention and sustainable peace building. The online material is structured into the following courses: (i) peace, conflict and health professionals; (ii) medicine, health and human rights; (iii) war, weapons, and strategies of violent conflict; (iv) structural violence and the underlying causes of violent conflict; (v) peace–health interventions in armed conflict; (vi) refugee and migration challenges; and (vii) interpersonal and self-directed violence. All seven courses consist of text book lessons, standardized test questions and problem-based e-learning cases in which the student, through pictures and videos, is challenged with difficult situations. Each course has a workload of 6–10 h, and is free of charge. The Medical Peace Work online material will be launched in a new revised version during the third joint European Public Health Conference. For further information, please check www.medicalpeacework.org

Developing an eCoach for the BeweegKuur

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Following the global trend, in The Netherlands many people are overweight and prone to chronic diseases, such as diabetes. Accordingly, NISB developed the BeweegKuur (BK, 'Activity Course'). People with overweight are assigned a lifestyle coach, for 1 year, which offers support for self-management (i.e. diet, activity and sport).

The BK is under consideration for reimbursement by health insurance plans, which poses two requirements. First, the lifestyle coach needs to attend to an increase in clients. Second, after the BK, the improved health condition needs to be maintained. Therefore, we are developing an eCoach, which performs coaching activities and remains available after the course. We develop in three phases: (i) domain analysis; (ii) design specification; (iii) design and evaluation. In this article, we discuss Phase 1 results.

From the literature, we elicited coach success-factors and made an eCoach concept. It consists of activities jointly performed by client and eCoach: pre-diagnosis (i.e. symptoms, medical history, health literacy and preferences); anamnesis, diagnosis and treatment (by care giver); patient perspective (i.e. client's understanding and valuing of diagnosis); goal and goal path-setting through strategy, tactics and operationalization; goal realization; habit formation. Parallelly, the eCoach iteratively monitors and provides empathetic, constructive feedback, aiming at self-efficacy and autonomy. This eCoach concept provides guidance for design requirements. Subsequently, based on focus groups with clients, life style coaches and specialists, we will define eCoach functions. Finally, we will develop and evaluate an eCoach prototype supporting client self-management in the BK setting.

Evaluation of the role of the web in population health choice in Italy

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Background

Recent international sources have shown an increasing use of the Internet in the general population to search for medical information. Consequences may include changes in population health approach and patient–physician relationship. Previous studies investigated the prevalence and the features of health-related internet use, focusing on socio-economic patterns or narrowing down the field to specific diseases. Few studies have been carried out in Europe focusing on both prevalence of use and type of information as well as socio-cultural and health factors.

Methods

This study investigates in Italy the pattern of Internet use for health purposes and analyzes any differences based on socio-demographic characteristics, health condition, self-rated health, relationships with health professionals and facilities. The survey data were collected through a validated questionnaire administered in hospital laboratories in six representative Italian cities.

Results

A total of 3019 persons aged 18–64 years were studied. Approximately 65% of respondents were using Internet, and 57% of them for health information. Only 17% of the users did not trust on the available information, while 21% declared to strongly rely on it. The main reasons to search using internet were a faster access and a greater amount of information. After Internet consultation, 8% of the patients changed or stopped medical treatment while 43% modified their lifestyle.

Discussion

A great rate of Internet users search for health information, modifying their health behaviour and relationship with the medical provider. This may imply a strong impact in Public Health with consequences in all the European countries.

1.2. Workshop: Collaboration in public health in Europe: the research component

Public health research: from FP7 to FP8

Kevin McCarthy

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DG Research, European Commission

The Seventh Framework Research Programme has supported public health research with more than 90 new collaborative projects, and will continue until 2013. There is discussion on Grand Challenges which bring greater relevance of research to business and to society. What might FP8 look like—and what role for public health research?

Developing collaboration in European public-health research

Mark McCarthy

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STEPS project, UCL, London, UK

Europe's member states fund most of the public health research in Europe. Mechanisms exist to support collaboration—ERA-nets, ERA-watch, joint programming, research infrastructures and researcher mobility. How does public health research engage with these?

What structures for national public-health research systems?

Claudia Conceicao

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STEPS project, Lisbon, Portugal

Public health research depends on funding from government ministries and is undertaken in universities and institutes as well as with public health practice. STEPS Profiles describe research structures at national level.

National perspectives

- France: A. Spira
- Lithuania
- The Netherlands: K. Koos
- UK: K. Walshe

The speakers will present aspects of national public health research programmes.

Discussion

European collaborative project are supported by the European Commission but depend on existing national research structures and organizations. How can EUPHA enhance cooperation and promote national public health research programmes?

1.3. Workshop: Developing and validating disease management evaluation methods for European health-care systems

Chairs: Ellen Nolte, UK and Isabelle Durand-Zaleski, France*

Organizer: DISMEVAL Consortium

Structured approaches to managing chronic conditions are proposed to enhance the quality and reduce the cost of care, and to improve health outcomes for the chronically ill. Yet, the evidence on the ability of such approaches to actually do so remains uncertain. There is a need to learn more about the effects of large, population-based programmes using universally accepted evaluation methods that are scientifically sound and are also practicable in routine settings.

DISMEVAL (Developing and validating disease management evaluation methods for European health-care systems) aims to inform this process through (i) reviewing approaches to chronic care and disease management in Europe; (ii) testing and validating methods and metrics for evaluation utilizing data from existing chronic disease management programmes, or their equivalent, in six countries; and (iii) developing recommendations for scientifically sound yet operationally feasible evaluation approaches in European health-care contexts.

The first project year involved the development of detailed research plans for the testing and validation of evaluation methods in Austria, Denmark, France, Germany, The Netherlands and Spain, with analyses ongoing. Work undertaken so far has revealed challenges. Conceptually, European countries vary widely in their approaches to what can be broadly subsumed under the heading of 'chronic disease management'. Methodologically, challenges arise from the differences in the importance attached to robust evaluation research in different settings. This diversity has implications for the development of common research protocols and the identification and accessibility of suitable administrative data sources. This workshop aims to provide a forum for discussion of conceptual, methodological and policy-related challenges of the evaluation of approaches targeting people with chronic conditions, and so informing the development of similar undertakings elsewhere.

Investigating selection bias in recruitment into structured care approaches in Germany and France

Antje Erler

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Selection bias poses a well-known challenge to the evaluation of interventions such as structured disease management and there is a need to better understand its impact on measures of effect of interventions. This joint presentation will report on approaches to assessing the role of selection bias on measured effects of structured disease management in Germany and France. The underlying rationale is to assess the sensitivity of evaluation results to the choice of the methods and endpoints of programmes that rest on voluntary participation of patients.

The German analysis is based on a cohort of patients who enrolled in a structured disease management programme (DMP) targeting those with type 2 diabetes mellitus, utilizing routine data from a large German sickness fund. Testing of selection bias is through comparing baseline characteristics of patients who joined a given DMP at different points in time, with impact of selection bias assessed through comparison of different matching methods used to adjust for imbalances in baseline between participants and controls. The French analysis draws on provider networks that deliver structured approaches to manage patients with diabetes, with control groups to be recruited from a national diabetes study. As with the German study the focus will be on testing different approaches to matching.

The presentation will report on preliminary findings of the analyses. The main focus will be on a facilitated discussion of the role of selection bias in relation to the interpretation and value of evaluation findings of disease management.

Exploring approaches to cost-effectiveness of disease management in Austria and Denmark

Andreas Soennichsen

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This joint presentation will discuss the conceptual and methodological challenges of undertaking cost-effectiveness analysis of approaches to managing chronic disease, utilizing data from existing programmes in Austria and Denmark. The objective is to quantify the presumed benefit(s) of structured approaches to care when using different evaluation methods. The Austrian analysis compares and contrasts approaches to evaluating a structured disease management programme (DMP) ‘therapie aktiv’ for type 2 diabetes mellitus, drawing on data from a cluster-randomized controlled trial that compared patients participating in the DMP with those not enrolled in the programme. The Danish analysis uses data from a rehabilitation intervention for patients with chronic obstructive pulmonary disease stratified according to disease severity into those receiving the intervention in a hospital setting and in a health centre, respectively.

With analyses ongoing, the presentation will focus on a facilitated discussion of conceptual and methodological questions including, among others, the selection and attribution of cost categories; effect of comparison group on estimates; role of intervention design on cost estimates; impact of recruitment bias; and lessons learned for the design of evaluation strategies aimed at estimating cost-effectiveness including data requirements and analytical capacity.

Advancing existing approaches to evaluation: experiences from The Netherlands and Spain

Hubertus Vrijhoef

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This joint presentation will explore evaluation techniques as a means to inform development and advancement of existing evaluation approaches. Thus, the Dutch analysis aims to identify methods suited to improve the current approach to evaluation of disease management programmes (DMPs) for type 2 diabetes mellitus in The Netherlands. It draws on data from a structured approach to the management of patients with diabetes, delivered by newly established diabetes care groups. It will test two evaluation designs: (i) meta-analysis to assess of the overall effect of the intervention and comparisons between different care groups; and (ii) meta-regression to evaluate the effectiveness components of the intervention. The Spanish analysis draws on a routine intervention to identify people at risk for cardiovascular disease, utilizing data from a mutual insurance fund for work-related accidents and occupational disease (Ibermutuamur). Evaluation approaches to be tested will include delivered dose analysis to assess intervention impact; and application of the regression discontinuity technique as a means to create a control group and so providing the basis for subsequent testing of intervention effect.

The presentation will report on preliminary findings of the analyses, although a main focus will be on a facilitated debate of how to advance evaluation, in terms of methodological approaches and requirements for analytical capacity as well as for support systems to promote and advance evaluation research in different settings.

1.4. Patients 1

Stakeholder involvement in the development of national indicator sets: the example of the Dutch Consumer Quality Index

Diana Delnoij

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Issue/problem

In health-care systems based on regulated competition, such as The Netherlands, consumers and health insurers need comparable information about the performance of health-care providers in terms of effectiveness, safety and patient experiences. Without further coordination, health-care providers may have to deliver data for several sets of indicators, defined by different actors. The main challenge is to stimulate providers to be transparent about those indicators that are relevant for the government, health insurers and the public alike. This calls for the involvement of all potential stakeholders in the definition of indicator sets.

Description of the problem

- when and how are stakeholders involved in the development of indicators and instruments that measure the patients’ experiences with health-care providers?
- does this involvement lead to indicators and instruments that match stakeholders’ information needs?

We shall address the following questions, using patient experiences as an example:

Results (effects/changes)

It is possible to reach consensus about what needs to be measured. There are three phases in which a dialogue between researchers and stakeholders is vital:

- the preparatory phase, when the initial policy problem is transformed into a ‘researchable’ question;

- the construction phase in which abstract information needs are operationalized;
- and the reporting phase in which crude data are being presented in the form of report cards, quality information or policy reports.

Lessons

Stakeholder involvement is complex and time-consuming. However, the resulting standardization enables contract partners (health care providers and health insurers) to move away from discussions about the validity of indicators and instruments towards discussions about the quality of care.

Design and validation of a questionnaire for the measurement of continuity between care levels from the users' perspective

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Background

Continuity of care (CC) is associated with greater patient satisfaction, less hospitalizations and improvements in the uptake of preventive medicine and medication adherence. CC is the degree to which a series of discrete health-care events is experienced by the patient as coherent and connected. To date, instruments addressing CC have generally focused on one type of continuity (relational, informational or management continuity), one level of care or one specific condition. The aim is to generate and validate a questionnaire to measure continuity between different levels of care from the users' perspective to be applied in any health-care system that provides a continuum of care.

Methods

(i) Design of a questionnaire for the measurement of continuity of care, based on a literature review. (ii) Validation of the questionnaire using an expert panel, two pretests and a pilot test to a sample of 200 health-care users. Comprehensiveness, content and face validity and interviewer burden of the questionnaire were assessed, as well as reliability and construct validity of the scale.

Results

The instrument encompasses the three types of continuity (relational, informational and management continuity). It is divided in two complementary parts: The first, addresses the patients' care trajectories across levels of care for a given episode occurred in the past 3 months. The second part measures patients' perception of the continuity of care. Experts agreed that all dimensions of continuity were represented (content validity) and interviewees considered the questionnaire easy to understand (face validity). The mean time required to apply the instrument was 33.9 min. Cronbach alpha was acceptable (>0.7) in all subscales, except in one which was then removed (reliability). The multiple correspondence analyses showed associations among those items theoretically related (construct validity).

Conclusions

The results indicate that the designed questionnaire is a valid and reliable instrument to assess continuity between levels of care from the users' perspective. More information about the questionnaire's psychometric properties will be obtained by applying it in a larger population.

Different patient group, different ranking? Which quality of care aspects are important for Dutch patients with hip- or knee arthroplasty when choosing a hospital?

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Background

The emphasis on transparency and consumer choice in health care has resulted in a large amount of comparative health-care information on the Internet. To create manageable information, insight is needed into which quality of care aspects are most important for patients when choosing a health-care provider. We explored which aspects patients with hip or knee arthroplasty find most important when choosing a hospital and whether patient subgroups differ in this respect.

Method

Of the 265 patients who underwent a hip- or knee arthroplasty or who were on a waiting list, 110 (42%) indicated the importance of quality of care aspects when choosing a hospital. They had to rank quality indicators based on patients' experiences, performance indicators derived from the hospitals and indicators on hospital services.

Results

Concerning indicators on patients' experiences, conduct of the doctor was rated most important ($M = 3.8$) followed by pain control ($M = 2.5$), conduct of nurses ($M = 2.4$) and information on new medication ($M = 1.3$). Availability of a guideline to prevent negative consequences of thrombosis was the most important performance indicator ($M = 4.6$) and whether surgeons were specialized in certain operations was the most important service indicator ($M = 5.5$). Rankings differed slightly between patient subgroups. For instance, men found it more important whether they received information on new medication than women ($P < 0.05$).

Conclusions

Our results provide more insight into patients' priorities when choosing a hospital and how these priorities differ between patient subgroups. Given the need of manageable health-care information, the results can be used to decide which quality of care aspects should be presented in succinct overviews on the Internet.

Patients' preferences on disease specific hospital information in Dutch health care: an overview of 40 diseases

Linda de Gouw

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Background

To improve transparency in Dutch hospital care, the Dutch Consumers' Association (Consumentenbond) and the Federation of Patients & Consumer organizations in The Netherlands (NPCF) collaborate in studying disease specific patients' preferences. Based on the patients' preferences questionnaires for 40 different diseases were developed. Together with medical quality indicators these questionnaires will be filled out by the Dutch hospitals and will provide information based on which patients can choose their hospital.

Methods

With each disease, we started with a literature study followed by a focus group. In the focus groups patients [and/or partner/parent(s)] explored which aspects are important to include in the questionnaire. All aspects were then prioritized in a web-based prioritization questionnaire. Aim was to obtain a minimum of 50 patients for completing this prioritization questionnaire, leading to a list of the eight highest scored aspects. After conversion of these eight aspects into questions, the questionnaires were sent‘ to the Dutch hospitals.

Results

Preliminary results indicate that patients prefer insight in the experience of the medical expert and in the continuity of the medical expert during the treatment. Furthermore, being informed about the accessibility of medical experts/care providers was an ever-recurring patients' preference. Also time between medical examinations was preferred to be as concise as possible.

Conclusion

These results give structural information of Dutch hospitals and contribute to hospital transparency by making an inventory of Dutch hospital health care. Moreover, these results will empower patients in decision making when needing hospital care.

Hospital foodservice patient satisfaction: an Italian experience

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Introduction

It is known that patients often do not eat or drink enough during hospitalization. To enable patients meeting their energy requirements it should be very important to emphasize food and catering service quality and staff support. Investigating what the patients like/dislike in hospital food restoration is useful to improve quality.

Aim: to assess patients' satisfaction with foodservice system and to investigate the aspects influencing it.

Materials and methods

A modified version of the Wesley Hospital Foodservice Patient Satisfaction Questionnaire (WHFPSQ), was distributed by, trained staff, in Careggi hospital, Tuscany–Italy (November–December 2009). The survey had 21 items recorded using a 5-point scale (5 = very good; 1 = very poor). Factor analysis was carried out. Internal consistence of the factors was evaluated by Cronbach's alpha (αC) coefficient. Robust regression and X2 tests were used to evaluate the association between factors & items and 'age', 'gender', 'appetite' and 'length-stay'.

Results

A total of 927 questionnaires were collected. Four dimensions were extracted from 15 items (explained variance 64.4%, $\alpha C = 0.856$): 'food quality, (FQ)' ($\alpha C = 0.74$), 'meal service quality, (MSQ)' ($\alpha C = 0.73$), 'hunger quantity, (HQ)' ($\alpha C = 0.74$) and 'staff/service issues, (SI)' ($\alpha C = 0.65$). Two items were excluded due to co-linearity, four were treated independently: overall satisfaction (OS), food quantity (FU), hospital smell (HS) and time constraint (TC).

FQ was associated with gender*, length-stay ($P < 0.003$), age ($P < 0.018$) and appetite. MSQ was significantly associated with appetite, HQ with age*, and appetite. The OS item was significantly associated with appetite, age* and Length-stay*. FU and TC were significantly associated with appetite and age ($P < 0.021$). HS was significantly associated with appetite. SI showed the highest score (4.6) while FQ obtained the least one (3.1). $^*P < 0.001$.

Conclusion

Our study highlighted strengths (staff and service aspects) and weakness (food quality) of hospital foodservice system. However patients' perception seems to be influenced by patient's characteristic, as age and appetite. Some differences with international studies were found; whether these are real or due to a different Italian quality perception need to be investigated.

Importance of patient centred care for various patient groups

Jany Rademakers

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Background

Though patient centred care is a somewhat 'fuzzy' concept, in general it is considered as something to strive for. However, preliminary evidence suggests that the importance of elements of patient-centred care (PCC), such as communication, information and shared decision making, may vary for different patient groups.

Methods

Secondary analyses were undertaken on survey data regarding priorities in health care for the following patient groups: patients that underwent hip or knee surgery ($n = 214$; response = 78.6%), patients suffering from rheumatoid arthritis ($n = 343$; response = 59.6%), spinal disc herniation ($n = 145$; response = 59.6%), breast abnormalities (malignant and benign; $n = 596$; response = 50.4%). The following items of PCC formed a composite: being able to ask questions, receiving understandable information, being listened to, being taken seriously and shared decision making (alpha 0.82). The items had four answering categories from 'not really important' (1) to 'of the utmost importance' (4).

Results

Analysis of variance on the mean scores showed a significant effect of patient group ($P = 0.02$). The average importance scores per patient group for PCC were high and varied from 3.36 to 3.59. Bonferroni comparisons indicated that patients with breast abnormalities rated PCC as more important than patients that underwent a hip- or knee surgery ($P < 0.01$) or patients suffering from rheumatoid arthritis ($P < 0.01$). Compared with patients suffering from a spinal disc herniation, only the patients with a benign breast abnormality rated PCC as more important ($P = 0.03$).

Conclusions

The present data suggest PCC is important for all patient groups. For patients suffering from breast abnormalities PCC is more important than to other patient groups. Differences are small however, and do not seem to support differential policies regarding PCC for each patient group.

1.5. Occupational health

Occupational exposure to iron and welding fumes and the risk of lung cancer

Sie Sie Siew

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Background

Exposure to iron fumes and dust and welding fumes is widespread and may increase the risk of lung cancer. The aim of this study was to identify associations between exposure to iron and welding fumes and the incidence of lung cancer among Finnish men.

Methods

The cohort of all economically active Finnish men, born in 1906–1945, who participated in the national census in 1970 was followed through the Finnish Cancer Registry for lung cancer cases ($N = 30\,137$) during 1971–95. Their census occupations in 1970 were converted to estimates of cumulative exposure to iron and welding fumes with the Finnish job-exposure matrix on the basis of likelihood, average level and estimated duration of exposure. Relative risk estimates for categorized cumulative exposure were defined by a Poisson regression, adjusted for smoking, socio-economic status and exposure to asbestos and silica dust.

Results

The relative risks for lung cancer increased as the cumulative exposure to iron and welding fumes increased. The relative risks in the highest exposure category was 1.35 [95% confidence interval (95% CI) 1.05–1.73] for iron and 1.15 (95% CI 0.90–1.46) for welding fumes. The respective relative risks estimated for squamous-cell carcinoma of the lungs were 1.94 (95% CI 1.35–2.78) and 1.55 (95% CI 1.08–2.24). There was no excess risk of small-cell carcinoma in any exposure category.

Conclusions

Occupational exposure to iron and welding fumes was associated with an increase in lung cancer risk, mainly that of squamous-cell carcinoma. The simultaneous exposure to both of these agents and other potential work-related carcinogens complicates the interpretation of the independent roles of the risk factors.

Quantification of the healthy worker effect in a nationwide cohort study among electricians in Denmark

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Background

The healthy worker effect (HWE) is a well-known phenomenon in occupational epidemiology where employees have lower morbidity and mortality compared with the general population. We utilized the extensive registration of all Danish citizens to describe the magnitude of HWE in a nationwide cohort of electricians and evaluate methods for minimizing HWE.

Methods

We included all Danish males aged 21–55 years between 1984 and 1992. Each Danish citizen has a unique personal identification number, which makes linkage on individual level between registers on employment, welfare benefits, comorbidity and mortality possible. We defined several reference groups and utilized different methods for minimizing HWE.

Results

The comorbidity and mortality rates were higher among electricians, who the following year received incapacity benefits or was on long-term sick leave compared with persons who continued as electricians. Electricians on long-term sick leave, unemployed, on incapacity benefits, or with increased comorbidity index had lower odds of being employed as electrician the following year. Electricians employed had decreased mortality rate [risk ratio (RR) 0.59; 95% confidence interval 0.51–0.67] compared with persons not employed as electricians, while electricians leaving employment had increased rate (RR = 1.85). Adjusting for employment status, incapacity benefits, unemployment and sick leave slightly attenuation these risk estimates. Use of marginal structural modelling techniques did not change these results. Compared with carpenters and graphical workers, electricians had the same mortality rates. Mortality rates were comparable with the general population ≥5 years after employment.

Conclusions

In this nation-wide study of electricians, we showed that HWE was strongly noticeable on mortality. Appropriate reference selection and latency time analyses minimized this bias.

Job strain, sleeping difficulties and the risk for disability pension in a 14-year follow-up study in southern Sweden

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Background

It has earlier been shown that exposure to job strain as well as sleeping difficulties predict disability pension in vocationally active individuals. However, the mechanisms are unclear, i.e. whether the factors work in the same causal chain or synergistically together, which was the aim of this study.

Method and population

In 1992, 7086 vocationally active men and women were randomly selected from the general population of the city of Malmö in southern Sweden and assessed by a comprehensive postal questionnaire, which contained instruments measuring psychosocial job stressors by means of the Job Content Questionnaire, sleeping problems, a number of health behaviours and socio-demographic factors. Information concerning exit from the work force by means of disability pension was derived from register information from the National Health Insurance Agency covering the period from baseline (1992) to 2005. Hazard ratios (HRs) were calculated by Cox regression analysis.

Results

Exposure to job strain, the combination of low job control and high psychological demands at work, resulted in a statistically significantly increased risk for leaving the labour force because of disability pension [HR 1.8, 95% confidence interval (CI) 1.4–2.3] and 1.7 (95% CI 1.5–2.1) for men and women, respectively]. Having sleeping problems at baseline was also a statistically significant risk factor for this outcome [HR 1.9 (95% CI 1.5–2.4) and 1.8 (95% CI 1.5–2.2) for men and women, respectively]. However, somewhat surprisingly, no sign of synergy between job strain and sleeping problems regarding disability pension could be demonstrated, neither in men nor in women. Furthermore, sleeping problems did not to any greater extent confound or mediate the association between job strain and disability pension.

Conclusion

Both job strain and sleeping difficulty seem to be risk factors for long-term disability pension in exposed individuals. However, it could not be shown that sleeping problems made those exposed to job strain more vulnerable. The mentioned exposures seem to represent different chains of causation.

Workplace bullying and subsequent sleep problems among public sector employees

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Background

Sleep problems are prevalent in general as well as employed populations. However, workplace bullying has not been examined as their determinant in large-scale longitudinal studies. Our aim was to examine consequences of workplace bullying to subsequent sleep problems.

Methods

The data were derived from the Helsinki Health Study baseline (in 2000–02, $n = 8960$, response rate 67%) and follow-up (in 2007, $n = 7332$, response rate 83%) questionnaire surveys. At baseline, all participants, aged 40–60 years, were employed by the City of Helsinki. The four-item Jenkins sleep questionnaire was used at baseline and follow-up. Two measures of workplace bullying enquired whether the respondent had been a victim of bullying (currently or previously) or observing bullying. Logistic regression models were adjusted for age, childhood bullying, baseline sleep problems, socio-demographic factors, working conditions, obesity and physical and mental health.

Results

Adjusting for age, victims of bullying were more likely to report sleep problems at follow-up among women [odds ratio (OR) 1.70, 95% confidence interval (CI) 1.31–2.21] and men (OR 3.16, 95% CI 1.85–5.42). Similarly, previous bullying was associated with sleep problems among women (OR 1.46, 95% CI 1.25–1.71) and men (OR 1.60, 95% CI 1.07–2.39). After adjustment for baseline sleep problems, the associations remained for victims of bullying among men and previous bullying among women. Further adjustments had negligible effects on the associations. Additionally, women who were frequently observing bullying were more likely to report sleep problems after full adjustments (OR 1.31, 95% CI 1.03–1.66).

Conclusions

Bullying is likely to contribute to subsequent sleep problems. To prevent sleep problems, bullying at workplaces needs to be considered.

Sickness certification—a work environment problem among physicians in Sweden

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Background

Physicians have an essential role in the complex sickness-absence process. According to earlier studies, physicians experience sickness certification as problematic, and even as a psychosocial work hazard. The aim of the present study was to examine whether physicians in various clinical settings experience sickness certification as a work environment problem.

Methods

A comprehensive questionnaire was sent home to all physicians working in Sweden ($n = 36\,898$) in 2008; response rate 61%. Answers from physicians aged <65 years handling sickness certifications ($n = 14\,210$) were analysed, focusing on the item 'Do sickness certification tasks constitute a work environment problem for you?'.

Results

Nearly 83% of the physicians were handling sickness certifications ≥ once a week, and 33% stated problems with this task ≥ once a week. Half of the physicians experienced sickness certification as a work environmental problem (WEP), 11% even to a great extent. There were no large differences in ratings regarding sex, age, or being a specialist or not. However, there were large differences between clinics. Among physicians working in primary health care (GPs), 21% stated sickness certification as a work environmental problem to a great extent, among orthopaedics 18%, and among psychiatrists 16%, compared with 7% among occupational health physicians. Considering that GPs had an average frequency of sickness certifications, the proportion of GPs experiencing WEP was remarkably high.

Conclusions

Many Swedish physicians experienced sickness certification as a work environmental problem, GPs to an especially high rate. Studies on factors associated with this are warranted in order to promote a better situation for physicians and patients.

1.6. Social inequalities

Family income and postponement of needed medical care

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Background

European and US studies indicate that low income individuals are less likely to use physician services that involve deductibles or coinsurance, less likely to use specialist services, and more likely to report having postponed a needed physician visit, compared with individuals with higher incomes. The aim of the study was to better understand why individuals in low income families are more likely to cancel or postpone needed medical care. Three hypotheses were assessed—the financial problems hypothesis, the cost burden hypothesis, and the systems-barrier hypothesis.

Methods

The study is based on a random national mail survey of Icelanders, age 18–75 years. A total of 1532 valid questionnaires were returned, yielding a 60% response rate.

Results

Financial problems, health care cost burden, and health care systems-barrier explained higher postponement and cancellation of medical care by lower income individuals. All three hypotheses tested received at least partial support in this study.

Conclusion

A more equal family income distribution, improved health care coverage, and greater attention to low income clients' needs and expectations, may reduce or even fully eliminate observed differences in access to needed medical care between lower and higher income families.

The roles of smoking status, height and time in the social patterning of lung function: joint analyses of the four Scottish Health Surveys (1995–2008)

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Background

Lung function is a major long-term predictor of mortality, and previous studies have demonstrated its positive correlation with socio-economic status (SES). Smoking, which assaults existing lung function, and height, which physiologically determines lung capacity, are also independently linked with SES and thus may drive the lung function–SES associations. Although lung function is known to decline over age, little is known about changes in SES patterns over the lifecourse, or over time. We address these issues in representative data covering 13 years.

Methods

Analyses were based on data on 17 574 participants aged over 18 years in the 1995, 1998, 2003 and 2008 Scottish Health Surveys (54–81% response) with measured one second lung forced expiratory volume (FEV1) and covariate data.

Sex-stratified multiple linear regression assessed the FEV1–SES (occupational social class) associations and attenuation by cigarette smoking, height and other key confounders.

Results

FEV1–SES patterns were clear ($P < 0.001$) and did not change over time ($P = 0.108$ men, $P = 0.442$ women). Compared with those in highest SES (mean FEV1 = 4.00 l in men and 2.89 l in women), the values in the lowest SES group were reduced by 0.46 l in men and 0.31 l in women [age-adjusted coefficient = −0.46; 95% confidence interval (CI) −0.56 to −0.36 in men; −0.33 95% CI −0.40 to −0.26 in women]. Adjusting for cigarette smoking and height reduced differences by ~50% (−0.22; 95% CI −0.31 to −0.13 in men; −0.16; 95% CI −0.22 to −0.10 in women). Individual effects for smoking and height were similar and further adjusting for weight, physical activity and respiratory illness had little impact. Importantly, there was evidence of divergence of FEV1 trajectories by SES from around middle age ($P < 0.001$ men, $P = 0.002$ women).

Conclusions

SES patterning of lung function was not largely explained by adult smoking, height (nor other confounders) indicating that factors earlier in life may be determining the inequity. The social differentials in lung function have been stable since 1995, but the evidence of increasing disparity over age requires further exploration. These findings provide valuable insight for the creation of cradle-to-grave strategies for tackling socio-economic inequalities in health.

Inequalities in mortality by occupational class in Russia, 1994-2006

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Background

Russia's market reforms in the early 1990s were profoundly unequal. We analysed inequalities in mortality risks by occupational class and perceived social status.

Methods

Cox proportional analysis of the hazard of dying by occupational class, education, household income and perceived social status was performed of 855 deaths that occurred between 1994 and 2006 using a representative sample of Russia's population ($n = 21\,275$ people, 147 110 person-years; mean follow-up = 6.9 years), separately for men and women. Occupational class was coded based on the European Socio-Economic Classification; social status was based on survey questionnaires about people's perceived economic, power and respect status.

Findings

For men, occupational class is statistically significantly associated with hazards of dying, after controlling for age, ethnicity, marital status, year of death and regional factors. Groups at highest risk were men who were skilled manual workers, lower supervisors and technicians and lower sales and services workers. Substantial gaps in life expectancy at age 15 of about 11 years were observed between male managers and skilled manual workers. After controlling for class, education, household income and other variables, perceived wealth has a strong and statistically significant association with male mortality. The mortality gap between male manual and non-manual workers is considerably larger in Russia than in Western European countries.

Conclusion

Substantial inequalities in risks of dying persist by occupational class in Russia. Future research is needed to identify further how class interacts with labour market processes to produce cumulative health disadvantage.

Changes in socio-demographic and health-related indicators among ever married women of reproductive age in Bangladesh: focus on urban versus rural disparities

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Background

Based on human development reports (1990–2009), Bangladesh shifted from a low to a medium human development category in 2003. Particularly this country achieved remarkable progresses, reflected by development indicators such as rapid urbanization, increasing life expectancy, decreasing poverty and infant mortality. Monitoring long-term trends of socio-demographic and health-related indicators in Bangladesh could help assess its performance towards millennium development goals. This study assessed trends and disparities of several socio-demographic and health-related indicators stratified by urban versus rural ever married women of reproductive age, using information of five nationally representative and comparable surveys in Bangladesh.

Methods

Data were extracted from the Bangladesh Demographic and Health Surveys conducted in 1993–94 ($n = 9640$), 1996–97 ($n = 9127$), 1999–2000 ($n = 10\,544$), 2004 ($n = 11\,440$) and 2007 ($n = 10\,996$). More than 20 indicators were considered for analyses and their rate of changes over time were estimated.

Results

Our trend analyses (1993–2007) revealed improvements in both areas, reflected by socio-economic (e.g. education, television access, electricity, sanitation), demographic (e.g. age at first marriage, total children ever born), antenatal care (ANC) (e.g. visited ANC facilities, visited doctors for ANC, home delivery), family planning (e.g. ever use of contraception, use of condom), and other health-related (e.g. underweight, overweight, knowledge to avoid AIDS by condom) indicators. Higher values were found in urban women for most of the indicators (except e.g. total children ever born, home delivery, underweight) as compared with rural women, although their changes were faster in rural women than in urban women (except e.g. age at first birth, home delivery, overweight, knowledge to avoid AIDS by condom). Urban–rural gaps decreased gradually for most of the indicators except e.g. overweight, and knowledge to avoid AIDS by condom.

Conclusions

Still we observe remarkable gaps between urban-rural women for socio-demographic and health-related indicators. Therefore policy makers and stakeholders' strategies should emphasis more on rural women to further narrow the existing urban-rural gaps in Bangladesh.

How do social inequalities in health change over the lifecourse?: Evidence from the West of Scotland Twenty-07 Study, 1987/8–2007/8

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Background

There is considerable debate about whether social inequalities in health narrow or widen with age. This article examines social inequalities in health as people age from 15 to 75 years, investigating the effects of social mobility and selective mortality on the health inequalities pattern.

Methods

Data are drawn from the West of Scotland Twenty-07 Study, which had 4510 respondents aged 15, 35 and 55 years at baseline in 1987/8, who were re-interviewed on four further occasions; most recently in 2007/8 when 2604 respondents took part and 674 had died. Hierarchical repeated measures models were fitted for self-assessed health alone and in combination with mortality against baseline and time-varying social class, controlling for sex and birth cohort.

Results

A cubic function best predicted the overall health trajectories and showed health inequalities, using baseline social class, emerged around the age of 30 after which they widened until the mid-60s and then narrowed, converging around 75 years of age. There was no difference in the probability of poor health at age 25 between manual and non-manual classes, by age 65 the difference in probability was 0.25 and at age 75 it was 0.17. However, when time-varying social class is employed inequalities in health continue to widen into old age, suggesting some of the convergence of inequalities found in the literature may reflect a failure to account for social mobility. Including death in the health outcome eliminates the convergence in health inequalities with age, suggesting that healthy survival effects are also important.

Conclusions

Without adjusting for social mobility and selective mortality inequalities in health appear to converge at older ages. However, adjusting for either of these factors suggests that inequalities in health continue to widen into old age, and policies to reduce inequalities should therefore focus on the whole lifespan.

The contribution of mortality and disability to the evolution in Belgium of the inequality in health at the turn of century

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Background

There is evidence that inequalities in health by socio-economic status have persisted. We examined whether educational differences in Disability-Free Life Expectancy (DFLE) and Disability Life Expectancy (DLE) at age 25 has narrowed or widened between the 1990's and 2000's in Belgium. Moreover, the contribution of mortality and disability prevalence to the evolution of the education-related inequality in DFLE and DLE is investigated.

Methods

We used disability data of the 1997 and 2004 Belgian Health Interview surveys and mortality data from the 3-year follow-up of the 1991 and 2001 census population to assess education-related disparities in DFLE and DLE and to partition these differences into additive contributions of mortality and disability.

Results

Compared with the highest educated population, differences in the prevalence of disability accounted for at least 66% of the inequality in DFLE. In the latest period, the differences in DFLE compared with men with tertiary education was 4.8, 6.6, 9.7 and 18.6 years for men with respectively higher secondary, lower secondary, primary education and no diploma. Among females, inequalities in DFLE were respectively 5.8, 5.1, 10.8 and 18.2 years. There was no evidence that the educational differences in DFLE narrowed since the 1990's: inequalities in DFLE increased over time for all educational groups except for men with primary education. Compared with the highest educated population, the changes over time in the educational disparities in DFLE among men were respectively +4.0 years (higher secondary education), +0.6 years (lower secondary education), −1.2 years (primary education) and +1.6 years (no diploma); among women, the increase in the gap in DFLE was respectively +4.1, +1.2, +0.8 and +6.8 years.

Conclusion

People with the highest education continued to live even longer, to live even longer without disability and with fewer years with disability. As the disability effect is the main contributor to the gap in DFLE, attention should be given to the prevention of disabling diseases, such as arthritis, back complaints, asthma/chronic obstructive pulmonary disease, heart disease/stroke which contribute substantially to differences in DFLE by educational attainment.

1.7. Workshop: Innovation and good-practice in public health education

Chairs: Vesna Bjegovic-Mikanovic, Serbia and Helmut Brand, The Netherlands*

Organizer: ASPHER Working Group on Innovation and Good-practice in Public Health Education

The main objectives of the workshop are to present strategic issues in public health education and training in Europe in the framework of the Bologna process, and to initiate and integrate debates on public health functions, competencies and performance, which will instruct innovation and good practice in education, continuing training and lifelong learning. The workshop will provide an opportunity to exchange experience about benefits of training evaluation, which is starting with the end in the mind and highlighting the implication of using a programme logic model as a structural framework for feedback from public health workforce performance. It will point on a synergy necessary for better public health performance following the movement for accountability in public health.

Public health is facing a number of profound and dynamic changes related to its goals to increase healthy life years and reduce health inequalities through participatory approach addressing multiple causes at socio-economic, environmental, and individual level, and through involvement of different actors joined in multi-disciplinary teams of researchers, institutional decision-makers, professionals, civil society and the private sector. All these changes mean challenges for the public health sciences in terms of training, in terms of research and in terms of the implementation into practice by the essential public health services. The Association of Schools of Public Health in the European Region (ASPHER) has recognized this already in the early 90s creating the slogan 'Training for Public Health Practice and Research'.

The workshop is organized as panel discussion after presentation dedicated to innovation and good-practice in public health education based on interface between public health functions, competencies and performance. Each of the five panellists will contribute on the specific topic (see below for abstracts).

The contribution has to be of a maximum of 10 min. Auditorium will be asked to pose any specific question to each panellist. If questions come, the answer will be given by the panellist who spoke on the selected topic.

Innovation and good-practice in public health education: searching for interface and synergies

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Issue/problem

Presentation attempts to explore some essential aspects of interconnected dimensions focusing on innovation and good practices in education. Following the Bologna process, through Berlin (2003), Bergen (2005), London (2007) and Leuven/Louvain-la-Neuve Communiqués (2009), schools of public health train their students and public health professionals to be able to develop, organise, manage, evaluate, and adjust intervention aiming at the promotion of health and at the reduction of present and forecasted public health challenges. Building on the rich and diverse European cultural heritage graduates in European Higher Education Area (EHEA) must be able to handle population health problems as well as public health systems and other man-made systems with health impact in a global context. Throughout the world agreement is sought as concerns standardized lists of competencies required to act in order to perform specified service functions. Moreover, they must be continuously evaluated and updated by use of performance measurement in everyday public health practice. So far schools of public health were less involved than public health institutes, non-governmental or voluntarily networks in the worldwide and European discussions about public health performance standards.

Results (effects/changes)

Presentation is highlighting good practice in applied (action) learning and collaboration in between schools of public health and other public health actors, based on critical reason to improve performance. Examples of good practice in applied learning are given.

Lessons

Following the European and global experience as well as experience in development of public health performance standards, several perspectives can be envisaged: (i) development doctoral programmes, based on mobility of students and professionals in the EHEA to allow personal development and employability in public health; (ii) expansion of life long learning, which involves extending knowledge and gaining skills—intellectual and practical competencies; and (iii) increasing the potential of higher education programmes, based at all levels on state of the art research fostering changes by innovation and creativity in the public health society.

Meeting the new challenges of schools of public health: from three cycle education towards life long learning

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The need for a better trained workforce in the fields of public health, health management and health promotion is clearly recognized by public health professionals in Europe and worldwide. Therefore the educational infrastructure and training curricula should be amended by doctoral programmes and life long learning schemes, based on intensified public health research, sector wide approaches and global health. This presentation identified deficit areas in the current supply of lifelong learning (LLL) by schools of public health and demand for LLL in public health from the perspective of the workforce derived from the recent study organized by ASPHER. LLL is a valuable tool and should not be neglected in the field of public health. Therefore, it would be conducive to develop a new structure focusing on LLL in public health. Including the supply and demand side, this structure could help to identify and meet the exact needs of the workforce. As this study showed it is easy for school to formulate various course topics whereas the workforce sees the need in more general terms. Thus, the institutions could help the workforce to name the specific training they demand. In addition, with regard to the problems in the provision of information on LLL courses, a common structure would be beneficial to find eligible courses more easily. And finally, a common structure would help the education and training systems to fulfill the obligation stated by the 'Lisbon Strategy' to provide adequate and timely education and training.

Innovative issues in public health education and training devoted to strategic management

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The aim of the capacity building efforts is to ensure relevant competencies and particularly performance. Changes in the external environment (i.e. demographic and epidemiological transition, economic fluctuations, public and political expectations), and within the public health system (i.e. regulations, demands, costs, an increasingly competitive health market, new technologies) pressure organizations of public health to undertake strategic management. Strategic management is the conduct of drafting, implementing and evaluating cross-functional decisions that will enable a public health organization to achieve its long-term objectives. It is the process of specifying a strategic plan which comprises the organization's mission, vision, objectives and action plans to achieve these objectives. This multidimensional strategic plan has to be derived from a situational or strategic analysis which most often is performed by a SWOT analysis of strength, weaknesses, opportunities and threats. Continuing training based on applied learning and rigorous evaluation, covering this topic is one of the strategic issues within public health education and training. Evaluation of the strategic plans developed by public health professionals who passed such training is the part of overall training evaluation, which obtained increasing attention from the expansion of Kirckpatrick's four-level evaluation model. This model includes measurement of reactions to training, learning attainment, transfer and subsequent individual behaviour, and organizational results. Most evaluations focused on the first two levels of the model, and only several also researched the effect of training on individual job performance or results for their organization. We can assume that the following types of competencies to improve performance in the strategic management will be needed in the future: Competencies at national level: health policy awareness and skills of strategic health policy planning, New management competencies of public health leaders, Change management skills, Working in teams skills, Competencies in IT and use of specific software. Besides building competencies, schools should go forward in strategic partnerships with crucial stakeholders to develop better performance.

Integrated approach to change and performance in public health institutes

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Issue/problem

The objective of this article is to present management of change in the network of Institutes of Public Health (IPHs) in Serbia as outcome of integrated approach to performance.

Methods

Research was conducted in 2 years in all IPHs in Serbia. Data were collected using questionnaires, personal insights and assessment of the expert team during field visits, and analysing web presentations of the IPHs. The indicators of performance were focused on the following areas: preparation for the process of change; implementation of changes; and communication mechanisms.

Results

Two-thirds (15 out of 22) of IPHs have formulated vision and mission of their institution which shows their orientation towards strategic planning. After the new regulations were imposed, most IPHs very soon adopted new statutes including new departmental structure and job descriptions consistent with new regulations. During the process of preparing and implementing changes, five IPHs consulted experts. The number of staff in IPHs ranges from 20.5 to 86.5 per 100 000 residents. Since the year 2002 the number and professional structure of employees significantly changed in all IPHs. The share of administrative and technical staff has been reduced in the majority of IPHs (17). Regarding human resources development, employees estimated needs for improving their skills and indicated following areas: team work, quality of life assessment, health status measurement, health promotion, communication in emergencies, total quality management. Change facilitators in most IPHs were not appointed. Main ways of informing employees are meetings and notification boards. Only few IPHs introduced electronic communication.

Conclusions

Indicators of performance showed some significant changes that occurred in IPHs between 2 years. Mainly, changes were introduced as a result of pressure expressed through legislation. However, relatively small number of institutions introduced changes as their own initiative.

Leadership in development of public health services and performance

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1.8. Food, nutrition and overweight

Food security policies in Canada

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Issue/problem

Defined as nutritious, safe, accessible and culturally appropriate food obtained through a sustainable food system, improved food security is crucial to the health and wellbeing of the population. However, highly process foods have contributed to the rise in obesity levels. Climate change and peak oil predictions have many considering the implications for food production. Canada is a vast producer and exporter of food. Each Canadian province has separate policies pertaining to food and food security. An examination of these food policies for their underlying values identifies Canada's position on food security and the level to which equity and social justice is considered. This may have implications on future needs for those relying on Canadian food imports.

Description of the problem

The propose of this review article is to identify the specific food security policies that are in place across Canada, and to analyse them for different underlying values and the degree to which they are consistent with an equity or social justice perspective.

Results (effects/changes)

Of the 10 Canadian provinces, some, but not all, have stated policies that promote food security. Food safety is highly legislated and regulated; however food security is not totally embraced at the provincial level from a social justice perspective.

Lessons

A number of provinces have a market-based approach to food production and distribution, leaving the most vulnerable in need of a basic life necessity. Much of the food security work is done through grassroots food security networks and public health agencies. Provincially and federally, there is opportunity for Canada to be a world leader in food security. More work is needed to encourage all government sectors to understand the health and wellbeing implications of their policies. Other countries can learn from specific Canadian provinces on how to equitably meet the needs of their populations.

Proximity to food retail stores and associations with dietary intake and BMI

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Background

Obesity is increasing in industrialized countries with almost a quarter of UK adults now obese. Although various factors contribute to rising obesity levels, it has been suggested that the 'obesogenic environment' is fundamental. Some studies have found a possible link between food store proximity and diet whilst others found no such relationship. We investigate if proximity to food stores is associated with dietary intake or body mass index (BMI) within Glasgow, UK.

Methods

We used data from the Greater Glasgow Health Board 2002 'Health and Well-Being Survey', and obtained a list of food stores from Glasgow City Council. We used mapping software (ArcGIS) to map the exact address of respondents ($n = 1028$) and food stores ($n = 741$), and undertook network analysis to find the distance from respondents' home address to the nearest fruit and vegetable store, small convenience store or supermarket. Logistic Regression was used to explore possible links between snack intake and distance to the nearest convenience store or supermarket; and fruit and vegetable consumption and distance to the nearest fruit and vegetable store or supermarket. Multinomial regression was used to examine whether proximity to food retailers was associated with BMI. We controlled for age, gender, socio-economic position, household car access and employment status, and also explored these relationships separately for males and females.

Results

We found few significant associations between proximity to food stores and diet or BMI, with the exception of obesity being more likely among those who lived within 500 metres of a convenience store.

Conclusions

Few significant results were found but it did appear that living near to a convenience store was disadvantageous. This finding could provide support for the importance of the effect of the local food environment on diet and BMI.

The effect of a 25% price reduction on fruit and vegetable purchases: a RCT using the 'Virtual Supermarket'

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Background

The past 20 years the prevalence of overweight and obesity has increased radically. An important contributor to overweight is an inadequate food intake, which is mainly prevalent among low socio-economic groups. Different studies have shown that food prices may be an underlying factor for this phenomenon. Still, the effects of food pricing strategies to stimulate healthy eating are an unexplored topic.

Methods

We conducted a randomized controlled trial using the Virtual Supermarket, which is a three-dimensional web application designed analogous to a real supermarket. Participants received a fixed weekly shopping budget and were randomized in an experimental group, receiving a 25% discount on fruits and vegetables, or control group, receiving regular prices. Differences between both groups were analysed using independent *t*-tests and multiple linear regression analyses correcting for sex, ethnicity, education level and work status. Finally, we conducted subgroup analyses based on habit scores.

Results

144 participants completed the study. Analyses were conducted with correction for outliers, leaving a total sample of $n = 106$. The total amount of fruit and vegetables purchased was 4965 ± 1689 gram in the control group and 5632 ± 2026 gram in the experimental group ($P = .069$). This difference became significant after correcting for the listed confounders: $B = 830.3$ (95% CI: 60.4−1600.1), $P = .035$. We found more apparent significant differences between both groups when we looked into participants with a low habit score.

Conclusion

This study resulted in promising outcomes, showing that price may be an effective tool in stimulating fruit and vegetable purchases. Such pricing strategies seem mainly effective among high impulsive consumers. This may have important implications for future public health interventions. Still, the shopping was virtual and not real. Future studies should focus on the effect of pricing strategies in a real-life setting, including larger shopping environments such as an existent supermarket.

Overweight and school performance among Dutch children in primary school: the PIAMA birth cohort study

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Background

Previous performed studies suggest an association between childhood overweight and school performance, but the evidence remains ambiguous. It is however of great importance to dispel these uncertainties since worsened school performance in primary school may partly cause the lower level of college acceptance, higher level of unemployment and lower socio-economic status observed when overweight children reach (young) adulthood. Therefore, the aim of the current study was to assess the association between childhood overweight and school performance using data from a prospective cohort study.

Methods

Data of 2159 12-year-old children who participated in the PIAMA birth cohort study were used. Two indicators of school performance included: (i) the Cito-test score which is a standardized achievement test that nearly all Dutch children have to complete at the end of their primary education and (ii) the teacher's advice regarding a child's potential performance level in secondary education. Height and body weight at the age of 8 were measured by research assistants, and reported by parents when the children were aged 12. Overweight was defined using the IOTF reference values. Information on potential confounders including parental educational level and parental overweight were collected from yearly parental-reported questionnaires. Multivariate linear regression analyses were performed to prospectively and cross-sectionally assess the association between overweight and school performance.

Results

Overweight at the age of 8 years and overweight at the age of 12 years were associated with lower Cito test-scores ($P < 0.01$) and lower teacher's school-level advices ($P < 0.01$). These associations disappeared after adjustment for parental educational level and parental overweight. Similar results were found when comparing children who were overweight at both 8 and 12 years to children who were not overweight at both these ages.

Conclusion

Results did not show an independent association between childhood overweight and school performance. Parental educational level almost entirely explained the initially observed associations.

Preventing weight gain in the GOAL-study, a process evaluation

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Background

The Groningen Overweight And Lifestyle (GOAL)-intervention effectively prevents weight gain. The present study involves a process evaluation about implementation issues and the participants' satisfaction of the intervention.

Methods

The 214 participants in the intervention group received a structured questionnaire. The actual content as compared with the protocol, the participants' satisfaction with the intervention (components) and the participants' satisfaction of the nurse practitioners (NPs) were investigated. We also investigate what factors of (perceived) success and which characteristics of the participants could explain the overall satisfaction of the participants using independent sample *t*-tests, linear trend analyses and Pearson correlations.

Results

In general, the results show that the actual content (i.e. the number of visits to the NP, individual goals for weight control and advice on healthy eating) corresponded well with the protocol of the intervention, except the number of telephone calls and the percentage participants with goals for a healthy lifestyle. Afterwards, >90% of the participants was happy with their participation and the overall grade was 7.5 out of a possible 10. (Perceived) success and a low educational level were important determinants for a higher overall satisfaction grade. Furthermore, the NP was considered to be an expert and motivating in learning and keeping up a healthy lifestyle.

Conclusions

The actual content was similar to the protocol of the intervention, and the participants were satisfied with the intervention (components) and the NP. Therefore, the GOAL-study indicates that the NP is well equipped to treat these patients instead of the general practitioner.

1.9. Air pollution

Air pollution levels in Iceland's capital region and dispensing of anti-asthma drugs 2006–08

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Background

Air quality in Iceland's capital region is overall good, but hydrogen sulphide (H_2S) emissions from geothermal power plants in the area and particle pollution (PM_{10}) are of concern. Short-term effects of ambient H_2S at moderate levels are largely unknown. Use of geothermal harnessing is becoming more widespread and studying the effect of emissions on human health is imperative.

Methods

We used data routinely collected by authorities to make a timeline (22 February 2006–30 September 2008) of the daily number of adults residing in the capital area who were dispensed anti-asthma drugs (Directorate of Health Medicines Registry) and daily levels of PM_{10}, NO_2, O_3 and H_2S as well as weather factor measurements (City of Reykjavík Environmental Office).

The daily number of persons dispensed drugs was modelled as a function of a 3-day moving average of pollutants with lag 0–14 days, using Poisson regression models adjusted for climate, time trends and influenza season.

Results

We found significant, positive associations between levels of H_2S and PM_{10} and the daily number of individuals who were dispensed drugs at lag three to 5 days. The effect corresponded to an increase of 3% and 2% in the number of individuals who were dispensed drugs when pollution levels increased from the 10th to 90th percentile for PM_{10} and H_2S respectively. Significant associations were found with other air pollutants.

Conclusion

A modest association was found between ambient levels of air pollutants, e.g. H_2S, in Iceland's capital and dispensing of respiratory drugs. This indicates that intermittent exposure to H_2S may aggravate symptoms of respiratory disease.

Influence of Saharan dust on particulate matter and its short term effect on mortality

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Background

Saharan dust outbreaks are a common phenomenon in Madrid's atmosphere. The recent directive that regulates air quality in European cities does not distinguish between matriculate matter (PM10, PM2.5 and PM10–2.5) which is the best indicator on days with/without dust from Sahara. The aim of this study is to identify the role that Saharan dust plays in the relationship between particulate matter concentration (PM10, PM2.5 and PM10–2.5) and daily mortality in the city of Madrid.

Methods

Ecological longitudinal time-series study for daily mortality on the >75 age group during the years 2003–05. Poisson regression models were constructed for days with and without Saharan dust intrusions. The daily mortality causes analysed were: total organic causes except accidents (CIE-X: A00-R99), circulatory (CIE-X: I00-I99) and respiratory causes (CIE-X: J00-J99). Daily records of PM10, PM2.5 and PM10-2.5 were used as independent variables. Control variables were other pollutants (chemical, biotic and acoustic), trend, seasonalities, influenza epidemics and autocorrelations between mortality series.

Results

Daily mean concentrations of PM2.5 in Madrid showed a significant statistical association with mortality for all the analysed causes, on the days with no Saharan dust intrusions; this association was not in evidence for PM10 or PM10-2.5 on the multivariate models. The relative risks (RR) and attributable risk (AR) found for an increase of $10\,\mu g/m^3$ in PM2.5 concentrations were: for total organic causes RR 1.023 (1.010–1.036) and AR 2.28%, for circulatory causes RR 1.033 (1.031–1.035) and AR 3.20%, and for respiratory causes RR 1.032 (1.004–1.059) and AR 3.06%. On Sarahan dust days a significant statistical association is not detected between PM2.5 and mortality, or between PM10–2.5 and mortality, but it is for PM10 and mortality for the three studied causes; showing RR and AR statistically similar to those described for PM2,5.

Conclusions

During Saharan dust outbreaks in Madrid, the best air quality indicator to evaluate short term effects of particulate matter on human health are PM10, whereas on the rest of the days are PM2.5. This fact should be considered on the European Directive of ambient air quality.

The association between air pollution, deprivation and mortality in Glasgow, 2006–08

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Background

Nitrogen dioxide (NO_2) has been identified as an important air pollutant in urban areas. We investigate whether NO_2 is higher in more deprived areas and whether it is a risk factor for mortality after adjusting for area deprivation.

Methods

Mean level of NO_2 was recorded at monitoring sites in 53 datazones (average population 972, range 565–1918) across Glasgow in 2007. Geocoded mortality and population data for 2006–08 were available for all causes of death by ages and sex. The Scottish Index of Multiple Deprivation was used to measure area deprivation. Linear regression was used to assess the pattern of air pollution by area deprivation. Multilevel Poisson regression was used to investigate the effect of air pollution on all-cause and cardio-respiratory deaths, adjusted for age and sex, before and after adjustment for area deprivation. Analyses were performed separately for all ages, for ages ≥ 50 and for ages ≥ 65.

Results

The average annual mean NO_2 level across all datazones was $45\,\mu g/m^3$ (range 24–83). There was a significant relationship between NO_2 and area deprivation; mean NO_2 in the most deprived quintile was 47 compared with 38 in the least deprived quintile. There was no significant association between NO_2 and all-cause mortality; relative risk (RR) = 1.00 (1.00–

1.01) for all ages, 1.00 (1.00–1.01) for ages $\geq$50 and 1.00 (0.99–1.01) for ages $\geq$65. These associations remained non-significant after adjusting for area deprivation. Similarly, there was no significant association between NO_2 and death from cardio-respiratory disease.

Conclusions

Levels of NO_2 in Glasgow tended to be higher in the most deprived areas. There was no association between air pollution (average annual mean NO_2) and all-cause mortality or death from cardio-respiratory disease in Glasgow, even after adjusting for area deprivation.

Indoor air quality and respiratory health in Roma villages in Slovakia and Romania—a comparative pilot study

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The Roma community is the largest ethnic group in Central and Eastern Europe. Despite the improvements in housing in the major population a large portion of Roma live in extremely poor conditions. Fossil fuels are the energy source of choice for heating and cooking. Burning of fossil fuels pollutes the indoor air and may pose a hazard for health. The aim of this study was to assess the exposure of Roma to indoor air pollutants from burning fossil fuels and link these to respiratory health symptoms in Slovakian (SK) and Romanian (RO) Roma villages.

We conducted a cross-sectional study comparing the exposure and health outcomes in a Roma village in SK and RO. CO, CO_2, total particulate matter, humidity and temperature were measured in both study sites in winter and summer time. Additionally an environmental questionnaire and a check list were used to gather further information on exposure. Self-reported respiratory health was assessed using a questionnaire. We found significantly higher levels of CO and CO_2 in the winter measurements compared with summer measurements both in SK and RO. The median concentrations of CO in winter were 2.4 $mg\,m^{-3}$ (IQR 1.7–3.5) in SK and 4.9 $mg\,m^{-3}$ (IQR 3.6–7.2) in RO. However, in several houses the concentrations over exceeded 20 mg/m^3 which exceeds the EU threshold for exposure. The winter concentrations of CO^2 were 2543 $mg\,m^{-3}$ (IQR 2123–3399) in SK and 2805 $mg\,m^{-3}$ (IQR 2329–3321) in RO. Again, in some houses the levels were much higher. The particulate matter levels ranged from 0.1 $mg\,m^{-3}$ up to over 10 $mg\,m^{-3}$ in both study sites. The respiratory health analysis showed high prevalence of some respiratory symptoms such as sneezing, cough and high prevalence of respiratory infections especially in children.

The study showed that burning of fossil fuels poses a severe health hazard in the indoor environment of the houses in Roma villages both in SK and RO—especially in winter. Further studies are needed to establish a causal relationship between specific pollutants and health outcomes. We found that using questionnaires to gather health data in Roma communities is limited because of poor health literacy in this community. Health education programmes are needed to raise the awareness of the Roma community about health and the indoor environment.

Nationwide programme for improving indoor air quality in Dutch schools

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Background

Indoor air quality in Dutch primary schools is mostly very poor. In classrooms occupant density per cubic metre is often high, compared with home situations. Pupils emit bio-effluents and increase indoor levels of allergens, microbiological factors, odour, particulate matter (PM) and CO_2. This is caused by the low capacity or usefulness of ventilation systems and by poor ventilation behaviour of the teachers. Several studies suggest that improved classroom ventilation reduces asthma symptoms and respiratory infections. Different studies suggest an association between ventilation and school attendance, and attention and short memory of the pupils.

Project history

Studies showed that teachers' awareness on ventilation behaviour can be improved by using the 1-day method by giving class-specific-ventilation-advice, education materials and a CO2 signal meter. This 1-day method have been carried out by the Dutch community health services (GGDs) and implemented nationwide in 2008 with financial support from the Ministry of Housing, Spatial planning and the Environment (VROM) and from the Ministry of Education, Culture and Science (OC&W).

Programme in primary schools

Since 2008 all Dutch primary schools without a ventilation system are being visited by the GGD's. The one-day method includes:

- Measuring the CO^2 level in one classroom during 1 day.
- Inspection and calculation of the ventilation capacity of all classrooms,
- At the end of the day a class-specific-ventilation-advice including behavioural and technical advices.

A CO2 signal meter and education materials are is available for the school to raise the teachers' awareness for a longer period of time. After the primary school has been visited they receive a small budget from the Ministry of Education, Culture and Science for improving the indoor air quality. Since then >1500 primary schools have been visited.

Organizations

GGD Nederland, The Netherlands Association for Community Health Services (GGD Nederland). GGDs (community health services), VROM, the Ministry of Housing, Spatial planning and the Environment, OC&W, the Ministry of Education, Culture and Science.

Indoor Air Quality and Health in rural and urban areas in Slovakia and Romania

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Background

Indoor air pollution is a public health problem in both developed and developing countries because people spend >90% of their time indoors. Urbanized areas are increasingly use fuels and energy sources, such as kerosene, gas and electricity. In contrast, rural communities in central and eastern European countries still rely heavily or exclusively on biomass fuels, such as wood and dung. The aim of this project is to assess the indoor air quality in the rural and urban areas, describe the exposure sources in the households of these settlements. Exposure to studied pollutants may lead to severe especially respiratory health outcomes. This fact underlines the importance of studies similar to ours.

Method

The study has cross-sectional design. The study population are Slovakian and Romanian populations living in rural and urban areas (20 households in both study sides). A questionnaire survey was used to collect data on respiratory health and on exposure. The indoor air quality characteristics such as particulate matter concentrations (PM10 and overall PM), CO and CO_2 concentration, temperature and humidity were measured continuously (24 h sampling).

Results

During the pilot measurements in Slovakia we found that the average temperature was higher in urban households compare to rural households. Relative humidity was higher in rural households using biomass fuels for heating and cooking. Median of concentrations of CO_2 was 1104.5 ppm in urban households and 492 ppm in rural households. Median of CO concentrations was higher in rural area (0.8 ppm) than in urban area (0.4 ppm). Maximum concentration of PM10 was $0.35\,mg\,m^{-3}$, in rural areas and ($0.75\,mg\,m^{-3}$). Median concentration of PMS in rural households was about $0.002\,mg\,m^{-3}$ higher than in rural households.

Conclusion

Burning fossil fuels is assumed to be the main source of hazards in the indoor environment especially in rural areas. Despite this hypothesis our results suggest that the indoor air quality could be better in rural areas. There might be several reasons for this—better ambient air quality or more frequent ventilations among them.

1.10. Mental health 1

Common mental disorders and disability pension award: seven year follow-up of the HUSK study

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Background

Rates of disability pension awards (DPs) remain high in most developed countries. We aimed to estimate the impact of anxiety and depression on DPs awarded both for mental and for physical diagnoses, and to estimate the relative contribution of sub case-level anxiety and depression compared with case-level symptom loads.

Methods

Information from a large cohort study on mental and physical health in individuals aged 40–46 years ($N = 15288$) was linked to a comprehensive national database of disability benefits. Case-level and sub case-level anxiety and depression were defined as scores on the Hospital Anxiety and Depression Scale (HADS) of ≥ 8 and 5–7, respectively. The outcome was incident award of a DP (including ICD-10 diagnosis) during 1–7-year follow-up.

Results

DP awards for all diagnoses were predicted both from case-level anxiety [hazards ratio (HR) 1.90, 95% confidence interval (CI) 1.50–2.41], case-level depression (HR 2.44, 95% CI 1.65–3.59) and co-morbid anxiety and depression (HR 4.92, 95% CI 3.94–6.15) at baseline. These effects were only partly accounted for by adjusting for baseline somatic symptoms and diagnoses. Anxiety and depression also predicted awards for physical diagnoses (HR 3.26, 95% CI 2.46–4.32). The population attributable fractions (PAF) of sub case-level anxiety and depression symptom loads were comparable to those from case-level symptom loads (PAF anxiety 0.07 versus 0.11, PAF depression 0.05 versus 0.06).

Conclusion

The long term occupational impact of symptoms of anxiety and depression is currently being underestimated. Sub case-level symptom loads of anxiety and depression make an important and previously unmeasured contribution to DP awards.

Dementia in the elderly population: health consequences on cohabiting individuals in Italy in 2005

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Background

The growing number of the oldest-old will cause an increase in the number of mentally ill elderly persons in the population. All studies carried out so far agree that the care to these persons has often serious consequences on physical and mental health of the household members and of the caregiver.

The aim of this work is to evaluate the impact of the presence of an elderly person with dementia in the household on the mental health of co-living household members.

Methods

The Italian Health Interview Survey carried out by Istat in 2005 provides information on mental health of individuals. Sample size is about 128 000 persons. Elderly persons affected by dementia are identified as those person who answered (directly or through a proxy) to be suffering from Alzheimer's disease, senile dementia or mental insufficiency.

The SF-36 five-item Mental Health Index, dichotomized using the first decile, was selected to evaluate the impact on the co-living household members. This was used as outcome variable in a logistic regression model, adjusted for socio-demographic, contextual and health variables.

Results

The survey allows to identify ~298 000 people aged ≥ 65 years not living alone suffering from dementia. Around 472 000 cohabiting persons share daily with each dement elderly his/her dreadful experience.

Results are in line with what is found in literature: all confounding variables being equal, the presence in the household of an elderly person affected by dementia increases the risk, for cohabiting households members, of having a poor mental health (odds ratio $= 1.9$; 95% confidence interval $= 1.61$–2.20).

Conclusions

The work shows the strong impact of dementia among the elderly on the mental health of the household members. In Italy it is extremely important for the future the development of territorial services to support effectively the households in this difficult task.

Is gender inequality in the domestic sphere associated with psychological distress among women and men?

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Background

Public health research indicates associations between gender inequalities in the domestic sphere and psychological ill-health.

However, most research has not taken health status earlier in life into account and there is an underrepresentation of men in many study populations.

Aim

The aim of this study was to analyse whether gender inequality in the domestic sphere was associated with psychological distress among women and men.

Methods

All school leavers in a middle-sized industrial town in northern Sweden were followed until the age 42 (response rate 94%). For this study a sample of cohabiting participants ($n = 381$ women, 367 men) was selected and questionnaire data from 1995 (age 30) and 2007 (age 42) were analysed. Gender inequality was measured as gender inequality in couple relationships, time spent on household work, responsibility for domestic work and childcare and was analysed in relation to psychological distress, after taking possible confounders as well as earlier health status into account.

Results

In the multivariate logistic regression analyses, gender inequality in couple relationships was associated with psychological distress for both women [odds ratio (OR) 2.13 95% confidence interval (CI) 1.12–4.01] and men (OR2.95 95% CI 1.12–6.37).For women only, taking full responsibility for domestic work was associated with the outcome (OR 2.51 95% CI 1.18–5.35). For men, taking less than half of the responsibility for domestic work was associated with psychological distress after adjustment for earlier psychological distress (OR 1.83 95% CI 1.06–3.17).

Conclusions

Regardless of the direction, gender inequality in couple relationship and domestic work responsibilities was associated with psychological distress among both women and men.

‘The Psychiatric, Revolving Door’: facts from the National Discharge Statistics of Switzerland

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Background

Many patients in psychiatric hospitals display frequent hospitalizations over a long patient career. Psychiatry as a whole therefore often is perceived as a system for chronic diseases with limited treatment success (‘revolving door’).

Methods

Using data from the exhaustive Swiss national discharge registry (>1.2 mio episodes/anno), individual careers of psychiatric patients were reconstructed for a 9-year period based on an anonymous record linkage code. Included were $n = 184\,791$ subjects that had ever (1998–2006) displayed a psychiatric diagnosis (ICD10: F-diagnosis) as main diagnosis and had been at least once hospitalized since 2003 for any diagnosis. Time in community (TIC) was calculated as the difference between a patient’s discharge and his/her next entry (rsp. 31 December 2006). TICs were regressed by patients’ variables and by characteristics of the treatment system using Cox-regression.

Results

Of the 764 077 in-patient treatment episodes, only 35.0% stemmed from psychiatric treatment. Transition rates between the somatic and psychiatric sector of the health-care system proved dependent on the duration of illness, but a majority of patients left the treatment system without chronification. TIC after the first hospitalization strongly was dependent on diagnosis, patient’s age and type of hospital, but not on length of stay (LOS). Later episodes’ TICs ($n > 10$) were not dependent on these variables, but longer LOS was connected to longer TIC. A cohort effect of prolongued TICs in later calendar years could be observed.

Conclusions

Psychiatric patients require the majority of their health-care needs from the somatic sector. The ‘psychiatric revolving door’ is an observational error not taking into account the whole population of psychiatric patients. Additionally, the ‘speed’ of this ‘revolving door’ slowed down in Switzerland during younger history even for chronic patients.

Mental health and social care collaboration: a cross-national whole network analysis of organizational partnerships in Europe (2008–09)

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Background

Socially marginalized people with mental health disorders have complex needs that require integrated care from different services. However, in many western countries, fragmentation between mental health and social care services is still highly prevalent. Moreover, the different patterns of organizational collaboration are difficult to assess. A cross-national whole Network Analysis aims at detecting and interpreting patterns of care integration in mental health and social care in Europe.

Method

Within a research project on mental health in socially marginalized people, data on referrals and service routine meetings were collected in all mental health and social services of deprived areas in 14 European cities between September 2008 and June 2009, and processed with the network analysis software ‘Pajek’. Indicators of average degree, betweenness and brokerage roles were computed to assess Leutz’s three models of health organizational collaboration: linkage, coordination and full integration. Patterns of collaboration across cities were compared.

Results

Few cities have full integrated services. Whole networks had relatively low densities, including denser sub-networks of similar services. However, linkage between mental health and social care services remain weak. Services situated in broker positions are not always integrated nor commissioned for care coordination. The centrality of these services is higher when the linkage density is lower.

Conclusions

Differences between structural patterns of mental health and social care networks across countries mainly depend on national care integration policies. However, the study revealed gaps in the achievement of each of these patterns. Public health policy makers should pay attention to these gaps, which constitute potential weaknesses in the quality of mental health and social care integration at the system level.

1.11. Adolescent health

Longitudinal patterns and predictors of multiple health behaviours in Dutch adolescents (2001–07)

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Background

Many preventive interventions target isolated behaviours with, unfortunately, varying success. Since unhealthy behaviours often co-occur, intervening on multiple health risk behaviours might be more successful. However, evidence on the longitudinal patterns and the predictors of multiple health behaviour during adolescence is very scarce. This study aims to investigate the longitudinal clustering of health behaviours and the impact of subject (e.g. early smoking) and family characteristics (e.g. parental health behaviours) on continuity and change of multiple health behaviours.

Methods

Data from 1393 adolescents (initially aged 10–11 years) of the Tracking Adolescents' Individual Lives Survey (TRAILS), a prospective population study of Dutch adolescents, were used. The health behaviours of adolescents (e.g. smoking, alcohol and drug use, physical activity, fruit and vegetable consumption and breakfast) were assessed during the second and third measurement wave (T2, T3; ages 13/14 and 16/17, respectively). Predictors were assessed at age 10–11 years.

Results

At 13–14 years 3.7% of the adolescents had five or more unhealthy behaviours, at 16–17 years this was 21.7%. Our data confirm longitudinal clustering of unhealthy behaviours. For example, alcohol use at T2 was significantly related with low fruit consumption at T3 [odds ratio (OR) = 2.8]; smoking was significantly related with no daily breakfast (smoking; OR = 1.6). The clustering pattern also shows that 50% and 43% of the adolescents at T2 and T3, respectively, do not meet the recommendations for physical activity solely or combined with those for nutrition. Unhealthy behaviours (e.g. smoking, alcohol use) at age 11, parental health behaviour and low socio-economic status predicted future multiple unhealthy behaviours of adolescents.

Conclusions

This longitudinal clustering supports a more integrated approach to promote healthy lifestyles. Integrated interventions should preferably start in early adolescence given the clustering and continuity of unhealthy behaviours.

MetrOP—Educational outcomes and health of children in the differentiating Helsinki Metropolitan Area 2010–13

Arja Rimpelä

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Background

The study focuses on the influence of socio-spatial and school segregation on health, health behaviour and educational outcomes of children in the Helsinki Metropolitan Area (HMA). While HMA was surprisingly even in 1990s, an increasing socio-spatial segregation is seen today. Compared with adults, children are affected more by the neighbourhoods and schools as their socialization process is ongoing and everyday life more localized. Our hypothesis is that the effects of the metropolitan segregation processes first become visible in health, health behaviours and educational outcomes of children, through effects that school and neighbourhood exert over them. The effects of regional and school differentiation take place gradually over a longer period, and they need to be studied in a dynamic setting with the time dimension.

Methods

Combining existing data to create time-series multilevel data sets: Individual: School Health Promotion Surveys, eighth–nineth grade, 14–16 years, $N = 120\,000$; School: Health Promotion Capacity Surveys, statistics of National Board of Education; $N = 122$; Neighbourhood: socio-spatial data, Statistics Finland.

Results

A segregation of neighbourhoods (school catchment area) concerning unemployment, proportion of immigrants, education or level of income was seen in HMA. The segregation was reflected between schools in differentiating social background of children. Furthermore, a remarkable differentiation of educational outcomes as well as health behaviours and health problems was seen between schools: daily smoking 2–30%, weekly bullied 1–17%, depression 5–28%. A strong individual level association between educational outcomes (grade point average) and health indicators was observed: daily smoking 47% in the lowest and 7% in the highest group, monthly binge drinking 40% versus 11%, depression 22% versus 10%, daily health complaints 26% versus 14%.

Conclusions

The preliminary results show differentiation between schools in children's health, educational outcomes and social background and a strong connection of children's educational outcomes and health. What is the role of school and neighbourhood factors and their interaction with individual level factors in creating different health and educational outcomes for children, will be studied.

The interplay between health-related behaviours and educational careers in adolescence predicts educational level in adulthood. A 20-year follow-up study from Finland

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Introduction

Adolescents with health-enhancing behavioural patterns perform better at school than those with health-compromising behaviours. On the other hand, socio-economic background influences both health behaviours and school success. The interplay of health behaviours and educational career is expected to form a mechanism producing health inequality. The aim is to test a model of indirect health-related selection, through educational career and health behaviours, to adult educational level.

Method

The Adolescent Health and Lifestyle Surveys (AHLS) collected in 1979–91 (baseline) were individually linked with register data (highest attained educational level) from Statistics Finland. AHLS samples represented 12-, 14-, 16- and

18-year-olds ($N = 32\,172$). Annual participation rates varied between 61 and 92%. Structural equation modelling (Lisrel) was used to study the associations between six latent dimensions: family type (nuclear/other) and SES (occupational position/education); individual health (self-rated/long-term/symptoms), health-compromising behaviours (smoking/alcohol), health-enhancing behaviours (physical activity/tooth brushing) and educational career (age 12–14: school achievement; age 16–18: educational path after comprehensive school). Outcome: attained educational level at age 28–40.

Results

Family factors were associated with both types of behaviour patterns. Among the younger, health-enhancing behaviours predicted higher educational levels among boys, but no other associations between behaviours and education were observed. In the older age groups, health-compromising behaviours predicted low and health-enhancing high education. School achievement among the younger and educational path among the older age groups mediated the influence on familial and behavioural factors on attained educational level.

Conclusion

The influence of health-related behaviours in adolescent on attained educational level in adulthood was mediated through educational career in adolescence. As health-related behaviours adopted in youth influence health later in life, indirect health-related selection, through the interplay between educational career and behaviours seems to form a process creating health inequality.

Internet addiction, mental stress, eating and sleeping disorders: new public health challenges among French university students?

Joel Ladner

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Objectives

To study the prevalence and risk factors associated to Internet addiction, mental stress, eating and sleeping disorders in students in higher education in France.

Methods

A cross-sectional survey was conducted in students in seven campuses in Upper Normandy region in 2009. The students completed an anonymous questionnaire online (http://www.tasanteenunclic.org). The questionnaire collected the age, gender, alcohol consumption using ADOSPA test, tobacco smoking, cannabis consumption (experimentation), practice of sport, eating disorders assessed with the Scoff questionnaire, risk of cyber addiction using the Internet Stress Scale (Orman test) and sleeping disorders.

Results

A total of 601 students were included. The mean age was 20.9 years (SD = 3.1), the sex ratio M:F was 0.44. A total of 209 of students (34.8%) were considered as stressed, 30.6% declared sleeping disorders, 22.5% were smokers and 41.4% experimented cannabis. A risk of alcohol drinking was identified in 44.8% of students (ADOSPA +). In the last 12 months, 81.2% were drunk at least once, 23.3% with more than 10 binge drinking episodes. A total of 29.0% students presented a risk of cyberaddiction. A total of 24.8% students presented risk of ED. After logistic regression, IA was significantly associated to male gender [adjusted ods ratio (AOR) = 1.67, 95% confidence interval (CI) = 1.10–2.57; $P = 0.01$], to alcohol consumption (AOR = 1.65, 95% CI = 1.14–2.30; $P = 0.008$) and mental stress (AOR = 2.04, 95% CI = 1.35–3.01; $P = 0.001$).

Conclusion

In addition, alcohol consumption, smoking and cannabis use, which were common in university student population, new risks and comportments as stress, cyberaddiction and eating and sleeping disorders, appear high. These findings stress the need to investigate health risks and behaviours and to initiate prevention interventions in student population using integrated approaches. There is an urgent need for public health practitioners working in these new areas in university campuses.

Does a type of parental education and level of income of university students play a role in their sexual behaviour?

Ondrej Kalina

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Background

In general, high socio-economic status (SES) has been found as a protective on risky behaviours. However, studies which explored SES with sexual behaviour are rather rare especially in Central Europe. This study assessed the relation of SES to adolescent sexual behaviours that are key determinants of pregnancy and sexually transmitted diseases.

Methods

In 2008, the sexual behaviour and socio-economic questionnaires were administrated to 935 Slovak university students (336 males, 20.4 year). The associations among type of parental education (basic, middle, university), level of income (low, middle, high) and seven different types of sexual behaviours (ever had sexual intercourse, age of first sex, condom use during first sex and last sex, sex with unknown partner, number of sexual partners, sex under alcohol or drug influence) were explored using logistic regression.

Results

Among male and female adolescents, greater parental education and higher income of students were associated with never having had sexual intercourse. Moreover greater parental education was associated with later sexual initiation and longer lasting relationship before first and last sex. Young adults with higher monthly income are more likely to report sex with unknown partner and sex under drug or alcohol influence. According to number of partners and condom use no associations were found.

Discussion

In our study, differences in adolescent sexual behaviour by SES are significant. However their impact is different. We may conclude that higher level of parental education is protective factor but the higher monthly income of students is risky factor. Differences in sexual behaviour by parental educational attainment suggest the importance of educational opportunities and aspirations in preventing unintended pregnancy among young people. Parental expectations about success in school may protect against a variety of health risk behaviours, and adolescent connectedness to school may contribute to a delay in the initiation of sexual intercourse.

Are materialism and gender role orientation associated with young people's smoking and drinking?

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Background

It has been suggested that the materialism of modern Western culture comes at a high price. Although the research focus has been mental health, the small number of studies on risk behaviours suggest higher substance use among more materialistic people. Risk behaviours have also been associated with 'masculinity'. We examine how materialism and gender role orientation are associated with substance use in contemporary European teenagers.

Methods

Data, obtained early in 2010, via a schools-based self-completion survey of ∼2800 Scottish 12–14 year olds, included items representing consumer involvement and a list of material possessions (e.g. ‘Xbox 360, PS3 or Wii’, ‘ipod touch or iphone’). Analyses to date suggest four consumer involvement factors: dissatisfaction (e.g. ‘feel like other kids have more stuff than I do’), image awareness (‘like clothes with popular labels’), consumer orientation (‘usually have something in mind that I want to buy or get’) and anti-consumerism (‘don’t mind what kind of car my family has’). Respondents were categorized as a current smoker and drinker (1+ drinks on a usual occasion). Brief ‘masculinity’ (e.g. ‘I am tough’) and ‘femininity’ (‘I am gentle’) scales were also included.

Results

Analyses to date show that among both males and females, smoking and drinking were positively related to number of material possessions, and the consumer involvement factors ‘dissatisfaction’ and ‘image awareness’. Both behaviours were also positively related to ‘masculinity’ and (except male smoking) negatively to ‘femininity’. These relationships remained in mutually adjusted analyses and after accounting for age group and family affluence.

Conclusions

Policy makers may need to take account of the impact of not only specific tobacco and alcohol images on young people’s smoking and drinking, but also of the ways in which modern materialism and gendered imagery might encourage the adoption of such health risk behaviours.

1.12. Lifestyle

Trend in socio-economic inequalities related to physical activity: 10 years evolution in Belgium

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Background

Lower socio-economic status (SES) is associated in developed countries with unhealthy behaviours, such as smoking, physical inactivity, being overweight or obese. This study describes the practice of leisure time physical activity, sedentary behaviours and their association with SES among a sample of general population >15 years old in Belgium.

Methods

Data from the four successive waves (1997, 2001, 2004 and 2008) of the health interview survey (HIS) carried out in Belgium were used. The population study is around 9000 subjects for each survey. In 1997 and 2001, data on leisure time was collected by face-to-face questionnaire; while for 2004 and 2008 questions migrated to the self completed questionnaire. Education was used as proxy of SES. Log-binomial regression was used to estimate the Relative Index of Inequality (RII) measuring health inequalities.

Results

All over the years, 33% of the population has sedentary activities. Women report less physical activity than men: merely 10% practice intensive physical activity (>4 h per week) and 38% have sedentary activities while men report 23 and 28%, respectively. Overall, we observe a SES gradient in the practice of physical activity. People in low social classes have the lower percentage of physical activity and the largest percentage of sedentary activities. The difference between the lowest, the highest and in between educational levels is statically significant ($P < 0.001$). These inequalities were more pronounced in 2008 [RII 2.7, 95% confidence interval (CI) 2.2–3.3] and 2004 (RII 2.8, 95% CI 2.2–3.4) than in 1997 (RII 2.2, 95% CI 1.8–2.7) and 2001 (RII 2.0, 95% CI 1.7–2.3).

Conclusions

Gradients in practicing physical activity were observed. Socio-economic inequalities have been increasing for sedentary behaviour since 2001, suggesting that specific population-based prevention strategies to reduce health inequalities are still a priority. People with lower education levels are at greatest risk for inactive lifestyles and more efforts are needed to increase physical activity in this group. Targeted programmes aimed to lower the prevalence of overweight and obesity should mainly focus on people with low SES, and on women, due to the low levels of physical activity observed in this group.

Health status and health behaviour of public health students in Hungary

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Background

Future public health professionals are an important subgroup of university students. In order to be credible role models in their future profession, their health status and behaviour needs to be investigated and improved during their study years if needed. Our aim was to assess the health status, mental wellbeing and health behaviour of public health students in Hungary.

Methods

A cross-sectional survey was carried out among all public health students at the University of Debrecen, Hungary in 2008. They filled a standardized self-administered questionnaire which included items on demographic data, self-perceived health, the 12-item version of the general health questionnaire (GHQ-12), a scale on social support, the abbreviated (13-item long) version of the sense of coherence scale, questions on body weight & height, physical activity, diet, smoking, alcohol & drug use, and sexual behaviour.

Results

A total of 75% of invited students filled the questionnaire. Self-perceived health was good or very good according to nearly three-quarters of the students. Almost one-third of the student smoked daily and three-quarter drunk alcohol occasionally. In terms of mental health measured by the GHQ-12, 19% of the students scored above the strict threshold indicating mental health problems. This was significantly higher than the prevalence of mental health problems in the same age group of the general population ($P = 0.003$). The mean score of sense of coherence was 60.06 (min. 31, max. 89).

Conclusions

The health behaviour of public health students is very similar to their non-student peers, but the high prevalence of mental health problems among them calls for further research into determinants of their mental health.

Comparing the lifetime risks for chronic diseases associated with smoking and obesity

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Background

Epidemiological studies of the association between risk factors and chronic diseases usually report relative risk as measure of association. However, due to the manner in which it is defined and assessed, relative risk for a particular disease does not bear a straightforward relation with lifetime risk. It is unfortunate that lifetime risks are seldom reported, as from a public health point of view lifetime risk is arguably the more important measure. In this study we used mathematical modelling to estimate lifetime risks for several common diseases.

Methods

Using a dynamic population model (the RIVM Chronic Diseases Model) that calculates the incidence of chronic diseases conditional on epidemiological risk factors, we estimated the lifetime risks of 11 common chronic diseases for three hypothetical cohorts, all aged 20 at baseline: (i) a cohort of smokers with a normal weight ($BMI < 25$); (ii) a cohort of non-smoking obese people ($BMI > 30$); (iii) a cohort of 'healthy living' people (i.e. non smoking with a $BMI < 25$).

Results

Calculated lifetime risks for the three cohorts revealed that for stroke differences between smokers, obese and healthy living individuals are less pronounced than expected on the basis of relative risks. For the obese, a >60% lifetime risk of diabetes was found to be particularly high. Also, lifetime risk of heart failure is substantially greater for the obese than for smokers. The observation that smokers seem to be 'protected' from diseases such as arthrosis and some types of cancer should be adduced to 'competing causes of death'.

Conclusion

Comparing the morbidity risks associated with risk factors such as smoking and obesity with lifetime risk as yardstick leads for some diseases to remarkably different results than when relative risk is taken as measure.

The effect of fashion on the lifestyle of Hungarian families—country-specific extracts from a comparative transnational empirical lifestyle research (2005–07)

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Background

According to Simmel fashion is social-stratum-bound. The reformation of fashion is done by the upper social stratum, while the lower groups strive at falling into line with them. The middle stratum represents the instability of fashion. In our empirical research the above statement was mapped along the elements of healthy lifestyle to be able to create a more focused delivery of health promotion.

Methods

Literature review and a structured assisted questionnaire interview were performed with the help of a community-based representative sample among 500 families from Szeged (Hungary). Data were processed and analysed with the help of SPSS.

Results

Health promoting and recreational lifestyle elements like doing sports characterises the upper stratum (U) mainly (64.7%), as well as going to the theatre (87.5%), concerts (72.5%), cinema (90%) museum (85.8%), and for excursions (32.8%). Activities like gardening (34.1%), or playing card and board games (19.3%), dominate the lower stratum (L). The middle stratum (M) prefers discussions and visiting friends (43.9%), walking (37.4%), watching TV (67.4%) and listening to music (41.9%). Reading has an almost equal importance in every stratum (U: 63.3%; M: 62,0%; L: 63.6%). Lower stratum respondents called their lifestyle traditional in leisure time (80.7%), family (75.0%) and cultural (68.2%) habits. The upper stratum members considered themselves more modern in leisure time (30.0%) and cultural (37.5%) habits, while the middle stratum showed more modernity in family customs (34.7%).

Conclusions

Our results indicate that the carriers of modernity and the motors of change are among the members of the upper stratum, while at the same time we should not disregard the dominance of tradition in each stratum's lifestyle. Public health and health promotion interventions this way are advised to be more specific in terms of socio-demographic determinants and take the role of fashion and prevailing traditional lifestyle practices into account.

Advantages and disadvantages of using GPS to create guidelines for physical activity friendly neighbourhoods

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Background

Many studies which investigate how neighbourhoods should be designed to stimulate physical activity (PA) have no accurate information on how people use their neighbourhood. Using a GPS device could be an innovative manner to gain this kind of information.

Purpose

This study examines the advantages and disadvantages of using GPS to investigate how a neighbourhood should be designed to stimulate PA.

Methods

A total of 120 habitants (aged 13–17, 30–50 or 60–80 years) from four neighbourhoods in Amsterdam carried a GPS device for 5–7 days. GIS data were gathered and neighbourhood observations were performed to find out where facilities were located.

Results

The data from the GPS devices gave an accurate impression of the daily activity pattern of people, the mode of transport people used to get to specific facilities, the preferred routes to get to facilities and the number of times people undertake multi-purpose trips. The largest disadvantage of using GPS was that the software could not always handle the complicated data that were gathered. Furthermore, participants were reluctant to participate due to privacy matters.

Conclusions

GPS devices can provide very valuable and accurate information on how people use and move through their neighbourhoods.

1.13. Workshop: The potential role of the European Union in global public health

Chairs: Ulrich Laaser, WFPHA and Walter Ricciardi, EUPHA*

Organizer: World Federation of Public Health Associations

Large international organizations were established in the second half of the last century like the World Health Organization, the World Bank and the International Monetary Fund, whose actions have had potentially significant relevance for population health. A most recent phase of internationalization and globalization is characterized by the growing influence of non-governmental organizations which have had an impact on health.

Key threats of strategic relevance for health, in addition to global warming, are the global divides in terms of demographic development and the burden of disease, social inequity, migration of populations, migration of health professionals, the inequitable terms of trade and the consequences of the recent global monetary crisis.

Key opportunities for improving global health are to renew major efforts to achieve the Millennium Development Goals, a revival of primary health care and the necessary re-setting of global aid in terms of international donor harmonization and national coordination e.g. through a Sector Wide Approach (SWAp).

The European Union as the biggest economy worldwide is facing increasing demands to accept and adopt a global role in public health. The communication of the Commission on 'The EU Role in Global Health' (presently the version of 31 March 2010) will be discussed. Specific roles extending the communication may be considered in supporting: (i) A code of conduct for NGOs; (ii) A renewed major effort of the UN community to achieve the Millennium Development Goals as planned; (iii) To further develop the concept of sector wide approaches (SWAp) to put the receiving governments into the 'drivers' seat'. To this end the achievement of the Paris/Accra criteria is essential; (iv) Strengthening the linkage between governments and donors with a priority for primary health care services; (v) To compensate the 'sending' countries for basic investments into upbringing and education of migrating professionals.

Panel discussion with:
Theo Abelin, WFPHA (moderator)
Ulrich Laaser, WFPHA
Walter Ricciarid, EUPHA
Andrzej Rys, European Commission
Helmut Brand, Professor of European public health

PARALLEL SESSION 2

Thursday 11 November: 16:15–17:45

2.1. Workshop: Population Health Intervention Research in Canada: interventions to stimulate population health intervention research and related outcomes, 2010

Chair: Nancy Edwards, Canada

Organizer: Canadian Institutes of Health Research—Institute of Population and Public Health

Background

Examining the impact of complex population health interventions on health and health equity is a strategic priority for the Canadian Institutes of Health Research (CIHR)—Institute of Population and Public Health (IPPH). Population health intervention research (PHIR) involves the use of scientific methods to produce knowledge about policy and programme interventions that operate within or outside of the health sector and have the potential to impact health at the population level. Given the complexity of population health interventions, capacities need to be in place at multiple levels and more systematically aligned to enhance the quality, quantity and use of such research.

Objectives

The objectives of this work are to: (i) outline the capacities and strategies required for the funding, conduct and use of PHIR, and; (ii) to critically reflect on the challenges and opportunities encountered in PHIR drawing on applied PHIR examples.

This workshop will include brief presentations from funded Applied Public Health Chairs who conduct population health intervention research and related training, and the Scientific Director of the CIHR–IPPH. Drawing on examples and findings from their own work, each will present and critically reflect on relevant strategies and capacities required for the funding, conduct, training in, and use of population health intervention research. The workshop will be structured to allow time for facilitated dialogue regarding approaches to aligning population health intervention research funding, conduct, and use in other countries and to explore possibilities for international collaboration. This sort of knowledge exchange is best suited to a workshop format.

Layout

1. Introductions of presenters and context for the workshop (15 min) Chairperson: Dr. Nancy Edwards
2. Overview of funding and peer review for population health intervention research in Canada (10 min) ***Presenter:*** Dr. Nancy Edwards
3. Chair presentation 1 (10 min) Presenter: Dr. Marjorie McDonald
4. Chair presentation 2 (10 min) Presenter: Dr. Lise Gauvin
5. Chair presentation 3 (10 min) Presenter: Dr. Gilles Paradis
6. Facilitated discussion and conclusions (35 min)

Overview of funding and peer review for population health intervention research in Canada

Nancy Edwards

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Background

Until recently, most public health research has focused on describing health problems. Greater attention is being paid to increasing research funding for the systematic study of policy and programme solutions. To this end, investments have been made to build infrastructure for population health intervention research (PHIR). In addition to salary and training awards, other components are needed to support funding, conduct and use of PHIR, including: peer review and innovative funding mechanisms.

Objectives

This presentation aims to (i) outline the extent and nature of PHIR-related funding at the Canadian Institutes of Health Research, and (ii) describe efforts to improve peer review criteria to assess such research.

Results

An analysis of research funding investments at CIHR suggests that PHIR receives a small fraction of grants, but that strategic investments have increased the availability of funding for PHIR over time. The support of partners, such as the Public Health Agency of Canada, has resulted in increased funding for personnel awards, including funding 15 Applied Public Health Chairs, and grants for PHIR. A rapid response funding mechanism for PHIR has enabled capacity to conduct research on rapidly unfolding 'natural experiments', which are beyond investigator control. Thirty grants have been funded through this mechanism. Work is ongoing to implement peer review guidelines for PHIR aimed to ensure the appropriate review of applications for criteria related to both excellence and relevance of research.

Conclusions

In Canada, efforts to stimulate the funding, conduct, and use of PHIR are being deliberately aligned across research funders and other stakeholders as possible.

Developing research methods for studying complex population health interventions

Marjorie MacDonald

*M McDonald**

University of Victoria, School of Nursing, Victoria, British Columbia, Canada

Background

The recent WHO Report of the Commission on the Social Determinants of Health identified the need to develop methods for evaluating population health interventions (PHIs) to reduce health inequities. CIHR has argued that we need to understand PHIs as complex adaptive systems and how interventions adapt to their context. However, complexity concepts are often used inappropriately without consideration of how they can be integrated with concepts of equity and social justice. Although complexity theory has promise for public health, there has been limited attention to developing methods congruent with complexity concepts that can take into account the values base of public health.

Objectives

(i) To introduce key concepts from complexity science and discuss their application to PHI research; (ii) to discuss emerging research approaches that are congruent with complexity concepts and that address the issues of context and equity.

Abstract results

In this presentation, I discuss the experience of one Canadian research team (CPHFRI) in identifying, developing and applying methods for conducting PHI, the ways in which these research methods are being used, and the challenges in building capacity for developing and applying these approaches to PHI research.

Conclusions

These novel techniques can make an important contribution to PHI research but concerted efforts are needed to support methodological innovation and build research capacity.

Training future researchers to build capacity for public health intervention research. The 'Prevention, Promotion and Public Policy' (4P) training program

Gilles Paradis

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Background

PH professionals and decision-makers require scientific evidence of the highest quality to implement effective interventions and public policies. There is a need to develop capacity to conduct the research which produces cutting-edge evidence about population health interventions.

Objectives

This presentation aims to describe an initiative aimed at developing capacity for conducting population health intervention research.

Results

The Quebec Public Health Research Network, with funding from the CIHR, created a unique transdisciplinary programme in public health research which focuses, since 2008, on health promotion, disease prevention, and public policy (4P). The programme aims to educate students in transdisciplinary approaches by creating training milieus related to the PH field and health and social policy decision-makers, and by applying multidisciplinary concepts, methods and tools to priority research problems in population health. Using PH organizations as training laboratories, trainees are integrated into PH intervention teams to experience the transdisciplinary process of bringing research to PH actions and of developing practice-based research. We have funded 36 fellows from 15 disciplines, developed partnerships with five major Quebec universities and eight public health organizations. Of the 30 trainees graduated, 16 now work as researchers directly with PH organizations attesting to the success and capacity-building of the programme.

Conclusions

Capacity for conducting population health intervention research can be successfully developed through strong partnerships between academic and practice environments.

Challenges and opportunities in population health intervention research: examples of ongoing CIHR-funded projects

Lise Gauvin

*L Gauvin**

CRCHUM (Centre de recherche du Centre Hospitalier de l'Université de Montréal), Département de médecine sociale et préventive, Université de Montréal, CIHR (Canadian Institutes of Health Research)/CRPO (Centre de recherche en prévention de l'obésité) Applied Public Health Chair on Neighbourhoods, Lifestyle and Healthy Body Weight

Background

Conducting population health intervention research presents unique challenges and opportunities. Challenges pertain to circumscribing the contours of the intervention and its multiple components, rapidly crafting a research design and measurement protocol that can reliably and validly address research questions about the intervention, swiftly writing a top quality research protocol and mobilizing research and intervention partners around the research project in a short timeframe. Opportunities include developing new partnerships within and outside the health sector, advancing knowledge on issues of current concern, and transferring/exchanging knowledge in real-time.

Objectives

This presentation aims to: (i) outline selected challenges and opportunities surrounding the conduct of population health intervention research, and (ii) illustrate these unique features of population health intervention research through the description of ongoing CIHR-funded research.

Results

Two CIHR-funded projects provide illustrations of challenges and opportunities in population health intervention research: (i) a study aimed at understanding the impact of a city-sponsored programme, which deployed 3000 self-service bicycles at 300 docking stations throughout the central boroughs of Montreal, on active travel patterns, and (ii) a study aimed at understanding how the public health response to the A(H1N1) pandemic influenced social inequalities in selected population health outcomes.

Conclusions

Population health intervention research offers unique perspectives for knowledge creation and knowledge transfer/exchange.

2.2. Workshop: European collaborations in health research policy

Public health associations, civil society and health research: experience in new member states

Agnese Knabe

*K Szoke, K Ivanova, A Knabe**

STEPS project

During March 2010, STEPS (Strengthening Engagement in Public Health Research) brought together stakeholders for public health research at workshops in each of the 12 new member states. The workshops explored how researchers, civil society organizations, ministries of health and research funding organizations can work together at national level for public health research.

A platform and inventory for child health research in Europe

A Staines

*A Staines**

RICHE project

RICHE (Child Health Research in Europe) is a European open access inventory of research and researchers, classified using a searchable multi-lingual taxonomy. Activities include research into child health measurement, statistics and indicators; gaps in child health research as perceived by a range of stakeholders; roadmaps for future child health research in Europe; and a website to support the network and the ongoing collation of the inventory.

Developing health research in Mediterranean countries

J Pullicino

*J Pullicino**
MIRA

MIRA (Mediterranean Innovation and Research Coordination Action) is promoting partnerships for research between EU and Mediterranean countries. The Malta thematic workshop on health in 2009 brought together experts to discuss research needs and priorities, providing input to planning FP7. MIRA is supporting strategic research development, bilateral national collaboration and international coordination that will contribute to the implementation of the European Neighbourhood Policy.

Research agendas for food, health and society

R Newton

*R Newton**
FAHRE project

FAHRE (Food and Health Research in Europe) brings together experts in fields of food and health research to map of food and health research funding and policy development, assess needs and capacities in food and health research, interact with decision makers for dissemination and explore areas where cooperation to strengthen the European Research Area.

Discussion

Collaborations funded by the European Commission can promote agendas and enhance national research. But how do researchers set European agendas?

2.3. Health care

Severity adjusted patients' mobility

Gabriele Messina

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Introduction

During the past 20 years the Italian National Health System has known revisions which introduced new elements as efficacy, efficiency and competitiveness. Devolution to Regional Autority developed a quasi-market system where the patient can choose the hospitalization place. Patient mobility (PM) becomes an indicator of perceived hospital quality and financial flows among the Italian Regions. Previous studies analysed PM in general or by specific diseases/DRGs but there is lack of research on the influence that patient condition severity can have on PM.

Aim

To describe crude and stratified, by patient condition' severity level, PM occurred in Cardiac Surgery Departments (CSD) in three Health-Districts.

Materials and methods

We conducted a retrospective observational study in the three Districts of Tuscany, ('A' = northern, 'B' = central and 'C' = southern), on 31 161 hospitalizations in CSD (2001–2007), 52.8% of whom were elective for coronary artery bypass graft (CABG; ICD-9: 3603, 3610–'3619'). Both CSD and CABG patients were stratified in four different severity levels using the APR-DRG. Gandy's Nomogram (GN), was used to describe how every District was able to satisfy its own health care demand and the capacity of attracting patients. Cuzic's Test was used to identify significant trend differences in time.

Results

Raw data show that overall CSD and CABG hospitalizations, in all studied Districts, are in the balanced zone of the GN. Stratifying with APR-DRG non-relevant differences arose except for 'C' (both for CSD and CABG) with a downtrend of resident hospitalizations ($P = 0.014$).

Follow-up trends highlighted attractions downward for CSD in 'B' ($P = 0.036$) and 'C' ($P = 0.036$) and escapes downward in 'B' ($P = 0.044$) and 'C' ($P = 0.014$). 'A' showed a balance between escapes and attractions. CABG hospitalizations showed attractions downward in the three districts ('A' $P = 0.036$, 'B' $P = 0.044$, 'C' $P = 0.019$), escapes reductions in 'B' ($P = 0.029$) and 'C' ($P = 0.018$) and in a downtrend of resident hospitalizations.

Conclusion

Our study highlights important differences in the three studied Health Districts that were hided without the severity stratification: 'A' and 'B' Districts seem able to deal with the health care needs of their citizens, also after adjustment, 'C' did not.

Socio-economic variation in stroke incidence: a small area level analysis of the Dijon stroke registry (1995–2003)

Olivier Grimaud

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Background

Small area ecological studies have identified increasing incidence of stroke with increasing level of deprivation. The latter is often estimated by means of composite scores. Because these are not necessarily the best markers of socio-economic status (SES) over the age of 70 years, when stroke incidence peaks, we examined the association between neighbourhood stroke risk and specific SES indicators.

Methods

The data come from the Dijon stroke registry for the period 1995–2003. We derived SES indicators for 61 small areas (mean population ~2500) in Dijon and used poisson regression to identify associations with stroke incidence among residents aged >40 years. Results are presented as ratios of incidences (IR) in the most deprived decile, to that in the least deprived decile for SES variables such as unemployment, education, occupation and income.

Results

Among women, associations between low SES and increasing stroke risk was identified for income inequality (IR: 1.34, $P = 0.003$), unemployment (1.24, $P = 0.02$), proportions of non French nationals (1.21, $P = 0.02$) and of renting households (1.31, $P = 0.03$). The proportion of people aged over 60 was associated with a decrease in stroke incidence (IR: 0.72, $P = 0.01$). Among men no associations between SES and stroke risk were identified in the main effect models but there was evidence of SES–age interactions. Stratified analysis showed that the SES effect was confined to the group aged 40–59 (e.g. no car ownership IRR 1.86, $P = 0.02$).

Conclusions

In this study, the pattern of associations between small area level SES and stroke risk varied according to gender, age and SES indicators. Indicators reflecting income or wealth may be the most appropriate for identifying SES variations of health outcomes which, like stroke, affect mainly older people.

Assessment of evidence for screening community-dwelling older people

Yvonne Drewes

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Background

Although the interest in screening community-dwelling older people increases, age-specific evidence on the results of screening is scarce. The aim of this study was to identify appropriate screening conditions to prevent functional decline in older people, stratified for age and vulnerability.

Methods

A RAND/UCLA appropriateness method was conducted in 2009 in The Netherlands. A multidisciplinary panel of 11 experts received screening guidelines from four countries complemented by high-quality literature recommended by topic experts. The panel assessed the appropriateness of screening community-dwelling older people for 29 conditions mentioned in the guidelines, stratified for age (60–74, 75–84, $\geq$85 years) and health status (general, vital, vulnerable). After an individual rating round, the panellists discussed any disagreements and performed a second individual rating. The appropriateness of screening was defined by the median of the second ratings.

Results

The panel rated screening to be appropriate in 3 of the 29 conditions, indicating that screening was expected to prevent functional decline. Screening for insufficient physical activity was considered appropriate for all three age and health groups. Screening for cardiovascular risk factors and smoking were considered appropriate for the general and vital older population aged 60–74 years. Of all 261 ratings, 63 (24%) were classified as uncertain and 42 (67%) of these 63 uncertain ratings concerned the vulnerable population. The panellists considered conditions inappropriate mainly due to lack of an adequate screening tool or lack of evidence on effective interventions for those with a positive screening.

Conclusions

For older people, screening was considered to be appropriate for very few conditions.

For many health issues valid screening tests and effective interventions are lacking and should be developed and studied for their potential to prevent functional decline of older people. Only screening for insufficient physical activity, and for smoking and cardiovascular risk in specific groups, is recommended.

Relationship between personality clusters, health behaviour and metabolism in primary care in south-west Germany (2009)

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Background

Within the last years neuroscientific methods have brought up increasing knowledge about the relation between personality and health and health behaviour. The Temperament and Character Inventory (TCI) by Cloninger is a questionnaire to identify psychological profiles where relations to certain diseases were already shown. Another aspect of individualized care is the impact of genetically determined pharmacodynamic processes, which helps to optimize medication dosage to the given individual metabolism. Additional knowledge about the interdependencies of personality, health behaviour and genetic constitution could improve diagnosis and therapy for the individual patient. The study analyses the characteristics and interactions between these three dimensions.

Methods

The study is a non-interventional cohort study in an outpatient setting with nine primary care physicians spread over south-west Germany who enrolled 125 patients (26 drop outs because of incomplete data). Data collection and questionnaires: socio-demographic data, TCI-R, standardized health behaviour questionnaire (e.g. smoking, diet, sports, etc.) and genetic metabolism information. Outlier analysis with Single-Linkage procedure and Cluster analysis with Ward-method was performed. For cluster validation *F*-values and *post-hoc* Scheffe tests were used. Relations between dimensions were tested with chi-square test.

Results

As preliminary result four homogeneous personality clusters ($N = 99$, no outliers) were found with valid F-values and *post-hoc* Scheffe test results ($P < 0.01$). Clusters differ significantly (chi-square, $P < 0.05$) in consumption frequency of coffee and garlic and the frequency of sporting activities. Also the constitution of SNP OATP differs significantly (chi-square, $P < 0.05$). One cluster could be identified with a high proportion of ex-smokers, a high frequency in sporting activities, and the most diagnoses in average.

Conclusions

The study presents first results for the analysed relationship and a potential target group could be identified. Validation studies have to be performed to state the results and further research is needed to find potential target groups for intervention studies.

Seven-year hospital and long-term care use according to age and proximity to death in Finland: variations by cause of death and socio-demographic position

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Background

Provision of hospital and long-term institutional care services for the growing number of older people is a major policy concern. We estimate use of hospital and long-term care by age and proximity to death for selected causes and by gender, education and marital status.

Methods

A 40% random sample of the Finnish population aged $\geq$65 alive at the end of 1997 drawn from population registers with information on socio-demographic factors at baseline was followed to death by cause in 1998–2002. Use of hospital and long-term institutional care was assessed up to 7 years prior to death for those who died in 1998–2002 and prior to the end of 2002 for survivors.

Results

In the seven year period before death total average care days were 294 [95% confidence interval (CI) = 286–301] for men and 430 (95% CI = 423–438) for women. For surviving men and women the corresponding figures were 89 (95% CI = 86–92) and 136 (95% CI = 130–141) days. Use of hospital and particularly long-term care increased rapidly with age while proximity to death was more important for hospital care. We observed modest differentials in average care days according to education, but the married used substantially less care than the non-married. Average care use of those dying from dementia was approximately twice that for all causes combined and was substantial for an extended period before death.

Conclusions

We show that the effects of age are much more substantial for long-term than hospital care use and both are larger the older the age at death. Care use will be considerably higher among the non-married in the period close to death. Other things being equal, increasing longevity coupled with a rising trend of dementia is likely to mean a major shift towards higher long-term care use in the future.

The analysis of health care in the Italian metropolitan areas

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Issue/problem

As the Second International Conference on Urban Health amply demonstrated, the earth's population is increasingly concentrated in cities, urban environments create physical and social problems of enormous consequence for human health, and disparities in health must be addressed.

A city health profile is an important tool for providing a complete picture of health in the city, measuring performances and monitoring changes.

Description of the problem

Our research aimed to identify a core group of socio-health indicators from international and national publications that are useful for monitoring the health status of people in the Italian cities.

Data were taken from the Health for All-Italia database and the National Italian Institute web site.

A descriptive analysis of the selected indicators was carried out with the results shown below.

Results (effects/changes)

The analysis showed a consistent difference between Italian cities. All cities are characterized by a population ageing and an improvement of all-causes mortality and of infantile and neonatal mortality.

Trieste is the oldest city while Naples is the youngest. Men have an expectancy of life constantly increasing; even if still lower than that of women. Florence and Naples have the lowest mortality rates for all-causes while Trieste has the lowest infantile and neonatal mortality rates.

Turin and Catania are the cities that register, respectively, the best and worst values of standardized discharge rate in ordinary stay for men while Turin and Naples for women.

Rome and Genoa have the highest number of motor vehicles and motorcycles.

Lessons

The current work is an informative and synthetic tool that could be important not only for the health care sector, but also for the improvement of the urban area. This assessment is a powerful vehicle to set the planning and the actions of local health policy in order to make a list of long/medium term priorities, grounding on 'evidence-based policy making'.

2.4. Patients 2

The effect of consumers' perceived justice evaluations on customer satisfaction: a study of the Dutch health-care insurance market

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Background

The new Dutch health-care system, which took effect on 1 January 2006, is under constant scrutiny of policy makers and researchers across various industrialized countries. Every individual in The Netherlands is required to purchase a basic insurance package from a health-care insurer of their choice and has the possibility to switch their health-care insurer each year. Therefore, health-care insurers are now confronted with intensified competition and consequently have to compete on the service they are offering. A particular challenging aspect in managing service quality is effective complaint handling. Consequently, we propose a model investigating the effect of consumers' perceived justice evaluations on consumer satisfaction after their complaint has been handled by the health-care insurer. Specifically, we conceptualize perceived justice as a three-dimensional construct encompassing (i) interactional justice, which refers to how the service is being done by the service provider; (ii) procedural justice, which refers to the complaint handling process to reach a decision and (iii) outcome justice, which refers to the outcome of the complaint. Consumer satisfaction refers to satisfaction after complaint handling took place.

Methods

Postal questionnaires were sent to a sample covering clients of a Dutch health-care insurer who had handed in a complaint no longer than 12 months ago at the time of this research. We received 150 usable questionnaires. For measuring the effect of justice evaluations on consumer satisfaction, regression analysis was used.

Results

The results illustrate significant effects of procedural and outcome justice on consumer satisfaction after complaint handling. This provides partial support for our model.

Conclusion

Our study contributes to existing literature by investigating the impact of consumers' justice evaluations on consumer satisfaction in the health-care insurance market. We find evidence that consumer satisfaction after complaint handling is driven by the complaint handling process and by the outcome of the complaint.

Establishing patient representative services in Eastern Europe: experience with UK patient advice and liaison services (PALS) in Romania

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Background

The notion of Patient Representative Services (PRS) is not very well known in Eastern Europe whilst there are European countries with a solid background in this area. PALS were introduced across England in 2002 and this model was implemented in a Romanian hospital.

Methods

PRS is a pilot project initiated in August 2007 by Medical Support in Romania (UK) in Zalau County Hospital. The hospital has 855 beds and serves a population of 240 000 inhabitants. Currently there is a single hospital-based employee who was trained at PALS, Addenbrooke's Hospital, UK and is funded by an independent body. The activity of PRS is advertised via flyers available throughout the hospital, a website and a poster and is reported annually to the Ministry of Health.

Results

PRS activity increased from 9 cases in 2008 to 66 cases in 2009. The five main reasons for contacting the PRS in 2009 were: attitude of staff (36%), perceived poor clinical treatment (25%), lack of/poor communication (18%), appointment delay/notification/cancellation (11%), administration/funding issues (10%). Every complaint was registered and investigated, a response being given within 30 days. The hospital staff has started integrating PRS in their activity and patients are referred to PRS for advice and support. The Nursing School is sending students to learn about PRS activity. The project has gained the acceptance and support of local organizations and enterprises.

Lessons

PRS works for the benefit of patients by increasing the standards of care and equally for the hospital by raising the professionalism of staff and its profile. The increased interest in PRS during the last year suggests that similar approaches can be implemented in other hospitals and eventually be adopted nationwide, and thereby contribute to the extension of this practice to the countries that have recently joined the European Union.

Perception of performance of preventive primary health services by residents of two Russian cities

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Background

The current health policy in Russia defined by the National Project 'Health' is aiming the improvement in preventive services.

Goal

To study of perception of performance of preventive primary health services by adult residents from typical Russian cities: Lipetsk and Tyumen.

Methods

The population-based survey was carried out in October–December 2006 within the limits of EU Project « Support to the Development of a System of Primary Health Care Facilities at Federal and Municipal level». The anonymous questionnaire was administered by the interviewer at respondent's households. A total of 998 persons in Lipetsk and 1003 ones in Tyumen were questioned. The response rates were 60 and 71%, respectively.

Results

The majority of residents had passed preventive examination (82.5% in Lipetsk and 69.3% in Tyumen) during the past 3 years. Higher frequencies of preventive check-ups observed for men in comparison with women, for people having higher education, for people with satisfactory self-rating health (79.2%). Among the reasons to undergo preventive check-up prevail formal—obligatory preventive examination before getting new job. The satisfaction with preventive services among respondents is low: 30% in Tyumen and 52% in Lipetsk (from those who passed preventive examination) didn't get the results of examination, didn't get clarifications on risk factors and their management, on the level of summary risk for the development of chronic diseases. About 14–25% of respondents applied for paid preventive services, the majority of them are ready to pay for these services in future from their pocket despite the fact that only 21% of those who apply were totally satisfied with paid services.

Conclusions

The analysis of data has shown that respondents from both cities are similar as preventive services consumers. Preventive check-ups on the own initiative or physician's initiative are not common. The main need of Russian citizens is getting preventive check-up free of charge, of better quality.

Psychometric qualities of a Consumer Quality Index assessing clients' experiences with services for homeless people, homeless youth and battered women

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Background

Little is known about clients' experiences and concerns regarding the quality of services for homeless people, homeless youth and battered women in The Netherlands. In 2009, the department of Primary and Community Care of the University Medical Centre St Radboud Nijmegen developed a Consumer Quality Index (CQ-index) measuring the quality of such services from the clients' perspective.

Methods

A pilot-questionnaire was completed by 762 respondents receiving either residential or ambulant care for homeless adults (38%), homeless youth (29%) or battered women (33%) from 61 service providers across The Netherlands. Types of service providers include shelters, supportive housing and outreach services.

Results

The final instrument consists of 46–52 items, depending on the type of service provider. Scales that were constructed had good reliability (Cronbach's alphas between 0.72 and 0.91) and measured the following aspects: (i) client interaction with worker; (ii) provided care; (iii) result of care; (iv) living conditions (for residential clients). Additionally, 13 separate items remained included in the instrument. The CQ index was found to have good test–retest reliability (correlations between 0.47 and 0.71, $P < 0.001$) and construct validity (correlations between CQ index and a comparable instrument between 0.55 and 0.66, $P < 0.001$). Multilevel analyses showed that the instrument has high discriminative power on the level of service providers for homeless adults and adolescents (corrected intraclass correlations between 0.15, $P < 0.05$ and 0.31, $P < 0.001$).

Conclusions

The CQ index is a reliable and valid instrument that can be used to measure experiences of clients, receiving different types of care. For the homeless adults and adolescents the instrument is highly useful for measuring quality differences between service providers. Other valuable functions of the instrument are discerning priority areas for improvement and performing benchmark studies. The instrument offers an opportunity for carrying out international comparative studies.

Secondary use of mystery visitor data from a consumer organization to assess general practitioners performance

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Background

To improve general practitioners (GP) service quality their actual performance level has to be assessed. Direct observation of routine GP performance using actors is an established method in quality management. Consumer organizations frequently assess the quality of services in various industries through use of mystery shoppers. The use of data collected in this way by consumer organizations may provide a new low cost evaluation method for health service research.

Methods

We gathered data from a consumer organization's assessment of GPs preventive care delivering the national periodic health examination in Vienna, Austria. We examined this data to determine how representative, reliable and valid it was in evaluating quality on the regional service level. We judged representativeness by comparing characteristics of the GP sample with administrative data.

Reliability and validity of data were assessed by analysing the measurements methods of the consumer organization.

Results

The 42 mystery visits were a reliable and valid form of data collection. The GP multilevel random sample was well balanced in regard to catchment area and GP insurance status. The sample size was in the range reported by a recent systematic review on studies using incognito standardized patients. First analysis showed that GP communication time of 46 min [95% confidence interval (CI) 37–54 min] exceeded expectations. However in less than half of visits (38%; 95% CI 19–56%) history taking was performed at acceptable levels.

Conclusions

Data from mystery visits by consumer organizations may provide a new low cost source of evidence on GP performance. Analysis of the secondary dataset allowed 95 performance variables per visit crucial aspects of preventive care to be assessed. Where other systematic data on health service performance are not available, data from consumer organizations may provide evidence to evaluate and further improve preventive GP service delivery in a region.

Evaluation of caregivers' practices, knowledge and beliefs regarding nutrition and rehydration of young children with diarrhoea in Lima, Peru from December 2009 to March 2010

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Introduction

In Peru, malnutrition and diarrhoea are important child heath problems. As children who are adequately fed during diarrhoea recover faster, continued normal feeding is included in the WHO guidelines for treatment of childhood diarrhoea. To investigate which nutrition and rehydration young children with diarrhoea received at home we conducted a study in a peri-urban community in Lima.

Methods

Between December 2009 and March 2010 caregivers of 390 children ($\leq$36 months) were included in a house-to-house survey. Caregivers were asked in a semi-structured questionnaire about practices, knowledge and beliefs regarding nutrition and hydration of their child in the absence and presence of diarrhoea. An educational intervention about adequate nutrition during diarrhoea was conducted after the interview. Three months later practices, knowledge and beliefs regarding nutrition during diarrhoea were re-assessed in a similar questionnaire.

Results

Before the intervention 75% of caregivers would give 'no food', 'less food' or 'a special diet', low in calories, proteins and vitamins, when their child had diarrhoea. After the educational intervention the percentage of caregivers recommending giving 'the same' or 'more' food increased to 76%. While initially 24% of caregivers believed food to be harmful during diarrhoea, this dropped to 2% after the intervention. Of all caregivers only 71% would give their children oral rehydration solutions (ORS) during diarrhoea. The main reason for not giving ORS was for 48% of caregivers that they 'did not know' them. A total of 38% of caregivers would give rehydrating sportsdrinks that do not constitute an appropriate substitute for ORS.

Conclusions

Caregivers in a peri-urban community in Lima showed a considerable lack of knowledge regarding appropriate nutrition and rehydration of young children with diarrhoea. Knowledge about nutrition improved after an educational intervention. Educational programmes for caregivers about nutrition and rehydration of young children with diarrhoea and long-term follow-up studies are urgently needed.

2.5. Sickness absence

Multimorbidity and sickness absence: a systematic literature review

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Background

It is often argued that comorbidity has an influence on different outcomes of sickness absence (sickness absence, SA, disability pension, DP and return to work, RTW), but the scientific evidence for the effects of comorbidity on these outcomes has not been established.

Aim

A systematic literature review was performed to gain knowledge about associations between comorbidity and sickness absence outcomes.

Methods

Systematic searches were performed in PubMed and OVID. Studies with data on diagnoses from at least two separate ICD-10 categories and on SA, DP or RTW were included. Identified studies were reviewed by systematic relevance assessment, data extraction, and quality assessment.

Results

A total of 264 studies were identified. Of these, 28 studies were relevant and had sufficient scientific quality (0 with high, 10 with medium high, and 18 with limited study quality). Most studies had psychiatric disorders as one of the diagnoses. The study populations were heterogeneous; based on selected clinical populations, general populations or employees at specific work sites. No clear associations were found between comorbidity and sickness absence outcomes. However, three studies with medium high quality showed a tendency for psychiatric comorbidity to increase the risk for SA. Psychiatric comorbidity was related to lower probability for RTW in one study of medium high study quality, whereas psychiatric comorbidity did not increase the likelihood of DP in one large population-based study.

Conclusions

Contrary to the common belief, no distinct scientific evidence was found for the effects of comorbidity/multimorbidity on sickness absence outcomes. The current knowledge is insufficient and based on heterogeneous studies. Population-based studies with multimorbidity approach are needed to evaluate the effects of simultaneously occurring diseases on different outcomes of sickness absence.

The relation between sickness absence and later unemployment and suicide in a general population in Sweden

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Background

Several studies have reported a higher prevalence of suicide in men and women who are unemployed. Some individuals may be more prone to both unemployment and suicide due to some underlying health-related factor. In that case, suicide among the unemployed could, at least partly, be a consequence of health-related selection. The aim of this study was to investigate the relation between sickness absence and later unemployment and suicide in a general population in Sweden.

Methods

The study was based on those 771 068 persons who lived in Stockholm during 1990 and 1991 and were between 25 and 58 years of age in 1990. Data on sickness absence for each individual was collected from registers for the years 1990 and 1991. Data unemployment for each individual was collected from registers for the years 1991–93. The relative risk of being unemployed during 1992–93 were calculated for groups of persons with different levels of sickness absence during 1990–91. Data on time and cause of death 1993–95 was obtained from the Cause of Death Register.

Results

Unemployment 90 days and more 1992–93 was associated with suicide in men 1994–95 [odds ratio (OR) = 2.16, 95% confidence interval (CI) 1.38–3.38], whereas unemployment <90 days 1992–93 was associated with suicide in women 1994/95 (OR = 2.68, 95% CI 1.23–5.85). Higher levels of sickness absence were related to increased risk of subsequent unemployment in both sexes. The increased prevalence of sickness absence among the unemployed attenuated the association between unemployment and suicide in men and women.

Conclusions

Persons with poor health are under increased risk of unemployment. The higher relative risk of suicide among the unemployed seems to be a consequence of an exclusion of less healthy persons from the labour market.

Social adversity in adolescence increases the physiological vulnerability to job strain in adulthood: a Swedish prospective population-based study

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Background

Social conditions during childhood have been mentioned as a possible confounder in the relationship between job strain and myocardial infarction risk. However, stress theory also suggests that early experiences may modify the individual's vulnerability to later stress, for instance through learned helplessness or hopelessness.

Methods

In a prospective population-based cohort (effective $n = 771$; 72%), we examined the association between on the one hand exposure to an adverse social environment in adolescence, measured at age 16, and job strain measured with the Demand-Control Questionnaire (DCQ) at age 43, and on the other hand allostatic load at age 43. Adversity in adolescence was operationalized as an index comprising residential mobility and crowding, parental loss, parental unemployment and parental physical and mental illness (including substance abuse). Allostatic load was operationalized as an index comprising body fat, blood pressure, inflammatory markers, glucose metabolism, blood lipids and cortisol area under curve.

Results

Adversity in adolescence was associated with higher adult allostatic load in women ($\beta = 0.170$, $P = 0.001$). There was also a significant interaction between adversity in adolescence and job strain in the whole cohort ($\beta = 0.081$, $P = 0.026$), indicating that the ability to cope with the demands in working life may be negatively affected by exposures in early life.

Conclusions

Exposure to an adverse social environment in adolescence was associated with increased vulnerability to job strain in mid-life, indicating that sensitivity to stress and social inequalities in health may both be partially determined by material factors in early life.

Mental health and risk of work exclusion in young adults—individual and familial perspectives

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Background

There is a rising concern regarding young people being excluded from working life. Mental illness in childhood and adolescence, including living with mentally ill parents, may cause problems entering work life or keeping a job, but this is not extensively studied. Our study examined whether mental health problems in adolescence affected the risk of receiving long-term (>6 months) social security benefits as young adults. We further explored the role of parents' mental health and socio-economic status, and the importance of home environment by comparing siblings.

Methods

We used a longitudinal design, linking a population cohort of adolescents aged 13–19 years ($n = 8984$) participating in the Nord-Trøndelag Health Study (HUNT) 1995–97 (The Young-HUNT study) to administrative registers on social security benefits throughout 2007. Parental information was based on the adult surveys in HUNT1 (84–86) and HUNT2 (95–97). Information on mental health issues and confounders was available for 8806 adolescents (3250 siblings) and 13 018 parents. We analysed the data stratified by sex, using logistic regression and multilevel logistic regression.

Preliminary results

Symptoms of anxiety and depression in adolescence were associated with receiving a long-term social security benefit at end of follow-up. The effect was stronger for boys, was reduced after adjustment for somatic health, living situation and externalizing symptoms and disappeared after introducing parental mental health. Parental mental health was independently associated with their adolescent receiving a long-term social security benefit, especially maternal mental health among girls.

Conclusions

Having mental health problems in adolescence is associated with becoming a receiver of long-term social security benefits as a young adult, thereby increasing the risk of future work exclusion. Parental mental health might play a major role, and young people should be considered in the family context when assessing risk individuals or when planning measures to increase work inclusion.

Self-rated health as a predictor of disability retirement: a register-based follow up study-

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Background

Self-rated health is a generic measure of health predicting mortality, many diseases and need for care. Whether self-rated health also predicts early retirement due to disability is poorly understood. We examined associations of self-rated health with subsequent disability retirement, and factors related to work, health behaviours, prior diseases and occupational class as potential explanations.

Methods

Self-rated health and explanatory factors were obtained from the Helsinki Health Study baseline mail surveys in 2000–02 among municipal employees aged 40–60 years ($n = 8960$, 80% women, response rate 67%). Data for retirement from musculoskeletal, mental and all diagnoses ($n = 525$) were linked from the Finnish Centre for Pensions using unique person numbers, with a follow-up by the end of 2008 ($n = 6606$). Hazard ratios (HRs) and 95% confidence intervals (CIs) were calculated using Cox regression analysis.

Results

Among women poor self-rated health predicted disability retirement due to musculoskeletal (HR 6.88, CI 5.03–9.39), mental (HR 7.44, CI 5.01–11.03), and all diagnoses (HR 5.55, CI 4.51–6.84). Corresponding figures were found among men for musculoskeletal (HR 6.42, CI 3.26–12.62), mental (HR 3.49, CI 1.84–6.65), and all diagnoses (HR 3.55, CI 2.43–5.18). Physical work exposures, job control, occupational class and prior diseases somewhat explained the found associations, which nevertheless remained for both diagnosis groups as well as women and men. The only interaction found suggested that self-rated health was a weaker predictor among obese than non-obese women.

Conclusions

Self-rated health is a strong predictor of disability retirement. This was not explained by factors related to work, behaviours and prior health. Self-rated health provides a simple tool for detecting employees with a high risk of disability retirement.

GP affiliation and sickness absence: a register-based analysis including 185 785 men and 162 269 women in two Norwegian cities

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Background

Sickness certification is a key medical task for General Practitioners (GPs). Norway has a list-based programme where all inhabitants have the right to be assigned a GP. Most episodes of sickness absence are managed by the GPs. Recent studies differ in relation to the impact of GP affiliation on level of sickness absence in the population. The aim of this study was to clarify whether lengths of sickness absence episodes and total number of absence days vary according to GP and list population variables.

Material and Methods

The study used a Norwegian data set with information on individual episodes of sick leave and background characteristics of the vocational active population, merged with data on GPs and their list populations. The study included all vocational active persons living in the two largest Norwegian cities, Oslo and Bergen in 2006 [$n = 348\,054$], and was stratified according to gender, age and educational level. The statistical analysis was performed using one-way analysis of variation.

Results

Sickness absence on a group level was associated with GP-list characteristics, especially those indicating deprivation on the list level. However the effect varied according to the individuals' age, gender and educational level. Age and gender of GPs had a smaller effect.

Conclusion

The findings indicate that GP affiliation is associated with the propensity of sickness absence.

2.6. Workshop: Contextual and individual social capital and health

Chair: Mariël Droomers, The Netherlands
Organizer: Department of Sociology/ ICS, Faculty of Social and Behavioural Science, University of Utrecht, The Netherlands

People's health benefits not only from human capital (e.g. education) but also from social capital, both contextual and individual. Individual social capital refers to the benefits one can experience from direct contacts with other people. One can also benefit from a membership of a community. Contextual social capital functions on an aggregated community level, and is more than just the combination of its members' individual capital. Contextual social capital is the resource of a socially well connected community.

In this workshop both individual and contextual social capital will be discussed. In particular, what kind of resources provides social capital and how does it affect individuals' health and health behaviour?

In four presentations scientific input to this discussion is being presented:

(i) Lars Kroll: Effect of individual (social support) and contextual social capital (political participation) on health status (self-rated health) and health behaviour (smoking)

(ii) Carlijn Kamphuis: Individual social capital (personal network and individual perception of neighbourhood), social inequality, and physical activity

(iii) Mario Lucchini: Individual social capital (family support) in 8 different countries

(iv) Sigrid Mohnen: Contextual social capital (neighbourhood social capital) and individual social capital (neighbours) on self-perceived health.

An expert discussion with the audience will conclude this session:

Annemarie Ruijsbroek and Mariël Droomers will lead an expert discussion with the audience in order to incorporate the scientific input of the presentations. Social capital is a concept with many dimensions and interpretations. Although the effect of social capital on health and health behaviour is generally accepted, the mechanisms are still under debate. The audience will be invited to join in an interactive discussion with the specific goal to formulate possible mechanisms of social capital on individual health.

Effect of individual and contextual social capital on health status and health behaviour in Germany

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Background

Individual and contextual social capital is reported to be associated with better health outcomes and lesser risk behaviour. We analysed representative data of a large scale telephone survey in Germany to examine whether such a relation is present in Germany today.

Data/Methods

We used data of a representative telephone interview survey which was conducted from July 2008 to June 2009 by the Robert Koch-Institute in Berlin ($n = 21\,262$). We merged the data with official regional statistics by district ID ('Kreisnummer') based on area of living (self reported, ~1% missing values). Outcome Variables are days with limited physical health (CDC 4-item Healthy Days Core Module) and current smoking status. Individual social capital is measured by the Oslo three-item Social Support Scale, community social capital is approximated using voter participation rate (federal election of 2005) on area level. Control variables included age, gender, employment status, regional unemployment rate and educational attainment.

Results

Descriptive results suggested a reduction of unhealthy days and smoking prevalence with increasing individual and contextual social capital for men and women in Germany after controlling for age differences. In the multi-level models the effect between individual social capital (social support) and both health outcomes turned out to be much stronger than the effect of collective social capital. After controlling for individual social capital as well as for unemployment status and unemployment rate the effect of collective social capital on health status and smoking diminished.

Discussion

Our results suggest that the health effects of contextual social capital are fairly small when compared with individual social capital and the economic capital (inversely approximated by unemployment rate) of the community. It can be argued that the definition of community (regions not neighbourhoods) and community social capital (voter participation) may be somewhat weak. On the other hand, there was a large variation of the outcomes between the regions as well as considerable effects of the economic capital in the community.

Socio-economic status, social capital and sports participation

Carlijn Kamphuis

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Background

Social capital may affect people's health via its associations with health-behaviours. People with more social capital are more likely to be physically active, and social capital may also contribute to the explanation of socio-economic inequalities in physical activity. We investigated to what extent social capital (and other neighbourhood, household and individual factors) contribute to socio-economic inequalities in sports participation.

Methods

Data were obtained by a large-scale postal survey among a stratified sample of the adult population (age 25–75 years) of Eindhoven and surrounding cities ($N = 4785$; response rate 64.4%). Social capital (based on items such as 'People in this neighbourhood agree on norms and values', 'People in this neighbourhood are willing to help each other') and social network (e.g. 'I borrow stuff from my neighbours', 'I ask my neighbours for advice') were measured. Logistic regression analyses were done with sports participation as binary outcome (no versus yes).

Results

Low social capital and a small social network increased the odds for no sports participation [odds ratio 1.17, 95% confidence interval (CI) = 1.00–1.38 and 1.23, 95% CI = 1.05–1.45, respectively]. People with a low socio-economic status were more likely to report low social capital, which partly explained their higher odds for no sports participation. Other factors that partly explained socio-economic inequalities in sports participation were physical neighbourhood factors (e.g. feeling unsafe), household factors (material and social deprivation), and individual physical activity cognitions (e.g. low self-efficacy). Taking these factors into account reduced the odds ratio for no sports participation of the lowest socio-economic group from 3.99 (95% CI = 2.99–5.31) to 2.29 (95% CI = 1.70–3.07).

Conclusions

Low social capital, together with physical neighbourhood, household, and individual factors, contributed to socio-economic inequalities in sports participation. Interventions and policies should focus on all three groups of factors simultaneously, to yield a maximal reduction of socio-economic inequalities in sports participation.

Family-level social capital and health: a multilevel analysis for chance in contemporary Europe

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The relationship between social factors and health has long been debated in the social sciences. Many studies have showed the persistence of the social gradient in health, but the debate around the causes of this phenomenon is still lacking a definitive answer. In sociology the main hypotheses are that of social causation and the opposite one of social selection driven by health condition. However, previous explanations in this domain are all questionable because they are usually based on data and models that are inappropriate for the correct estimate of the social gradient and for an analysis of what is essentially a developmental process. Typical problems include confounding age with cohort effects and failing to take into account the fact that an individual's health status at any particular age is a function of a previous status and its subsequent rate of change.

Different studies have focused on the effect of different forms of social capital, like family bonds or friendly neighbours, on health. It is well known that norms of reciprocity and trust generated within these kinds of social networks can have powerful effects on general well-being (Helliwell and Putnam 2005).

The aim of this work is to estimate models for longitudinal data—random effects models or growth curves–in order to explain individual health trajectories as a function of observed independent variables measured at individual and family level. In this kind of model design we will focus on the effects of family level social capital measured by marital status and family composition, controlling for age, gender, level of education, family income and other potential confounders. In this perspective health is conceived as a process, a kind of life course capital that can be consumed or preserved at a different pace over the life course and also as a consequence of the effect exerted by bonding social capital provided by family. For our analysis we employ pooled data from the eight waves of ECHP (1994–2001) concerning Denmark, The Netherlands, Belgium, France, Ireland, Italy, Greece, Spain, Portugal, Austria, UK and Germany. We wonder whether the positive effect of family support increases with age, is stronger within male population and in Mediterranean countries.

Social capital impact on individual health due to neighbours or the neighbourhood?

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Background

We test two different perspectives on social capital and its association with health; a macro perspective focusing on resources on the neighbourhood level, and a micro perspective focusing on the individual level personal network. So far, most researchers inquired into these perspectives separately, and studies combining and testing both views are scarce. More specifically, we examine whether both macro and micro social capital are associated with individual's health, whether a shortage of one type of social capital can be compensated by the other, and whether both types of social capital accumulate (that people who are rich in both types of social capital are better off).

Methods

The 'Dutch Housing Demand Survey' is used and combined with relevant macro information (Statistics Netherlands).

Results

In a logistic multilevel analysis we found that both forms of social capital were positively associated with self-perceived health. Having only few contacts to friends or family members is compensated by a high level of neighbourhood social capital. Micro and macro social capital also accumulate. We provide two possible explanations: micro-social capital might be an access to macro social capital, or a high social capital neighbourhood increases the likelihood of frequent contact to friends (e.g. the neighbourhood has a good image and friends like to come by).

Conclusions

Macro social capital is associated with self-perceived health and it matters even while controlling for micro social capital. We propose that future research should take the interrelatedness of the two types of social capital into account.

2.7. Management competencies

Health technology diffusion: the example of primary angioplasty in the EU15 countries

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Background

Primary Percutaneous Coronary Intervention (PPCI) is the recommended treatment for patients with acute ST-segment elevation myocardial infarction (STEMI). Despite substantial evidence of its effectiveness, only 40 to 45% of European STEMI-patients are presently treated with PPCI. This study seeks to identify important predictors of diffusion of PPCI in the EU15 countries, so provides a first step in ensuring equal access to this treatment for STEMI patients in Europe in the future.

Methods

An ecological study using aggregated country level data collected from international registers in 2006. Based on published literature, four factors possibly explaining the usage of PPCI were identified (i) number of acute care beds per 1000 persons, (ii) public health expenditure per capita, (iii) gross domestic product per capita and (iv) population density per square km. These factors were used as covariates in a linear regression model with PPCI usage as the outcome variable.

The estimation of PPCI usage was based on preliminary results combined with earlier published results. The outcome variable was available for 13 countries.

Results

Linear regression analyses did not reveal any significant correlations with usage of PPCI: number of acute care beds [coef. 0.1, 95% confidence interval (CI) = –0.1 to 0.3], public health expenditure (coef. −1.5, 95% CI = −9.0 to 6.0), gross domestic product (coef. 0.6, 95% CI = −0.5 to 1.6) and population density (coef. −13.0, 95% CI = –41.5 to 15.5). Although the estimates were individually imprecise, the final model explained 61% of the variation in PPCI usage.

Conclusions

The preliminary analyses explained a substantial proportion of the variation in the usage of PPCI in the EU15 countries. Additional factors, such as organizational structure of the health care system, geographical aspects, and cultural differences are hypothesized to influence PPCI usage, and will be examined in the future process of this project.

Training needs and concerns of pharmacy staff for proposed chlamydia testing and treatment service in community pharmacies of Lothian, Scotland

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Objectives

Community pharmacies are well placed to provide services to people who need sexual health (SH) support. In response to the Scottish Government's request to make chlamydia testing and treatment (CT&T) available through community pharmacies; a survey was conducted to determine community pharmacy staff competencies and training needs for provision of CT&T service in NHS Lothian, Scotland.

Methods

Survey packs were sent to all 166 registered community pharmacies in NHS Lothian, Scotland in April 2009, to be handed to all staff dealing with customers. Questions included socio-demographic information and items addressing both self-perceived competencies and training needs for the provision of CT&T service using a 4-point Likert scale. Free-text comments were invited on their suggestion for training and concerns regarding proposed screening programme.

Key findings

A total of 53% (88/166) of pharmacies responded. Among them 41% of the respondents were pharmacists, 32% technicians and 26% counter-assistants. A total of 85% of the respondents were female. More than 70% of the three staff categories required advanced training in items related to offering testing service. More than half to up to 88% of pharmacy technicians and counter assistant described their advanced training needs in items related to communication in general and SH issues in specific. Pharmacists rate their non-competency highly and consequent advanced training needs to undertake activities such as counselling and undertaking sexual history and partner notification procedures, clinical & legal details regarding referral, and reviewing self and staff competencies. Identified concerns regarding the service were lack of time and workload on pharmacists, anticipating low uptake and privacy issues, training of staff, inappropriate pharmacy setting for the service and health and safety issues.

Conclusions

A high proportion of pharmacy staff expressed high training need to prepare them for provision of the Chlamydia testing and treatment service. They show enough enthusiasm to deliver the service. Comprehensive training tailored to the need of staff categories should be provided and their concerns should be addressed before rolling out such service in a community pharmacy setting.

Leadership development in nursing homes: an empirical investigation

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The quality of work of the employees in nursing homes is one of the main critical success factors for the management as the quality of service and care strongly depends on the human resources (HR) of an institution. Therefore, HR management is of great importance. Nevertheless, this specific subject is still underrepresented in theory and inefficiently transformed into practice. This is especially true for the development of leadership skills in the homes for the elderly.

In our study we focus on three important aspects concerning the topic: First, we reviewed the literature in order to define the state of the art. Second, we developed a questionnaire and undertook a qualitative survey with 16 leaders in a local nursing home (300 residents). Third, based on the findings we developed a concept for strengthen the leadership skills in the organization.

Based on a broad literature review we developed a guided questionnaire including topics such as role understanding, working relationships, conditions and organization. We conducted 16 interviews and analysed them.

In summary, we identified 369 neutral/positive and 275 critical statements. Having a closer look on the critical aspects it turned out, that infrastructural aspects, power in leadership, and the possibility of early participation in decision making processes, culture and feedback, are of importance. In these fields we furthermore identified 22 challenging components. Based on the results we developed a concept for strengthen the leadership skills which includes the topics time management, communication skills, team and conflict. Besides the training in knowledge, competencies and personality it is important to consider social constellation between the staff within the organization.

Having identified the strengths and weaknesses in the leadership group of a nursing home it is possible to train these responsible employees individually and goal-oriented. This leads to greater motivation and work satisfaction. Consequently, the performance of the institution will be assured.

The manager role in relation to the medical profession: a qualitative interview study of the top managers in Swedish health care

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Background

The manager–physician relationship is a critical determinant for the outcome of health-care organizations. However, in many Western countries, this relationship is problematic and the need to improve the situation has been addressed in many studies. This study focuses the manager role in the manager–physician relationship, from the perspective of managers. The aim was to understand how the absolute top managers in Swedish health care regard the manager role in relation to physicians in their organizations.

Methods

Data from interviews with 18 of the 20 county council chief executive officers (CEOs) in Sweden were subjected to qualitative analysis.

Results

The CEOs, when asked about their views on management of physicians, rather gave elaborate descriptions of 'how physicians are' than on management of them. When management was described, general management strategies seldom were reported. Instead four types of physician-specific management strategies were described: organizational separation of physicians; 'nagging and arguing'; compensations, and; relying on the physician role. These strategies seemed to reflect a pragmatic behaviour of managers that helped them to keep control over physicians at a daily bases but in a longer perspective seemed to decrease the legitimacy of the manager role and contributed to a weakening of the manager role in the organization.

Conclusions

Many CEOs regard the manager role in their organizations as weak and struggle with how to take that role in relation to the physician role; their own or others. This implies that problems in the manager–physician relationship need to be investigated, not only as an issue of relationships between managers and practicing physicians, but also in terms of managers' own role taking. Unclarity concerning the manager role may have negative consequences for the working conditions of managers, physicians, other health-care professionals, as well as for the quality of care.

Bringing together public health and psychology– needs of medical doctors in Poland

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Objective

The estimation of and demand for cooperation with psychologists among medical doctors in Poland.

Introduction

Presence of psychological support is an important element of system responsiveness. Psychological wellness and psychological skills of medical doctors are crucial for the quality of their work. Cooperation between medical practitioners and psychologists (including care for patients' health and optimal level of doctors' functioning) needs a permanent cooperation of medical and psychological circles.

Methods

In 2009 doctors working in hospitals were interviewed by means of an authorial questionnaire. The group of respondents consisted of professionals who participated in obligatory courses in public health. The data on demography, place of work, kind of speciality, relation with psychologists and needs for participation in psychology classes and their subjects were collected.

Results

The group of participants consisted of 113 doctors (69% women and 31% men) aged 27–55 (average age: 34 years). Two-thirds of doctors (62.5%) know about a psychologist employed in their hospitals. A permanent cooperation declares 36.8%, no collaboration declares 17.6% and the rest–occasional or very rare. Almost all of them (97.9%) observe the necessity to employ a psychologist in the hospital. More than 90% would like to consult patients' treatment with psychologist and benefit from psychological support in their work. Dealing with difficult patients/relatives or decisions (71.7%), how to inform about bad prognosis or death (66%), stress management (56.6%), support related to treatment failure (patients death, disability) (54.7%) or burnout syndrome (53.8%), assertiveness skills workshops (53.8%), education on doctor–patient communication (44.3%) are the most expected potential areas of cooperation. A total of 40% of respondents would like to consult their private life and 13% of doctors already have attended psychotherapy.

Conclusions

The findings of the study show that psychologists could raise the quality of work in hospitals. There is a great need for psychological support for medical practitioners both in the doctor–patient relation and occupational strain.

Keywords: psychology, psychological skills, support, doctor–patient relation

Implementation as transfer between policy, research and practice in care

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Background

Health Services Research is policy related and results have an impact on practices. Implementation of research output into practices is performed with a variety of strategies. Type of policy intentions and research output create a specific context for implementation. The main question here is: what combinations of background factors and implementation strategies lead to successful implementations in health care?

Methods

Sources for this study are evaluations of 72 completed implementation projects in health care settings
(60% of all projects were evaluated as successful). Qualitative analyses focused on clustering background factors: social environment of professionals and users, types of interventions, organizational structure and culture. Quantitative analyses were based on systematic gathered information with registration formula. First, characteristics are registered, like goals, strategy choice, organizational change, perception of change, support of management. Second, successful implementation as independent variable was included. For each implementation goal success was measured (1 = goal is not reached; 5 = goal is fully reached). A second measure of success was: integration of implemented products in organization or procedures (1 = no/low integration; 5 = highly integrated).

Results

Qualitative analyses resulted in clustering five types of implementation. Nationwide organization oriented change (e.g. implementing quality systems), nationwide user oriented prevention and care, (e.g. web-based prevention of alcohol abuse), implementation of profession oriented guidelines, effect- and validation studies (testing instruments), information and education for care users (e.g. support for parent–child relations). Preliminary results from quantitative analysis show that $\sim$80% of pre-set goals are achieved. But the success factor of integration is for only 20% of all projects mentioned.

Conclusions

Success in implementation projects is reached highly if we define success as reaching pre-set goals, but implementation is not very successful if success is defined as integration. The question is: when is implementation completed and are all projects we define as implementation really implementing products?

2.8. Prevention of childhood obesity

Diet during pregnancy and the association with offspring overweight and obesity

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Background

Previous research has indicated that intrauterine exposures may programme the development of chronic disease, including obesity. The objective of this study was to examine the association between maternal nutrient intake during pregnancy with offspring's body mass index (BMI) at age 5 years.

Methods

This longitudinal observational study was established between 2001 and 2003 with the recruitment of 1124 mothers from two maternity hospitals in Ireland. Diet information during pregnancy was assessed using a validated Food Frequency Questionnaire (FFQ). Maternal and birth record data was collated to provide a comprehensive linkage dataset. Children's height and weight were measured during a follow-up study when they were aged 5. Maternal macro and micronutrient intake was adjusted for energy intake and expressed in quartiles. Child BMI was examined for associations with maternal nutrient intake while adjusting for birth weight, maternal smoking and supplement use during pregnancy, maternal education and pre-pregnancy weight status.

Results

Complete data was available for $n = 526$ mothers and children. When modelled with nutrients alone child BMI was significantly associated with cholesterol, sugar, starch, Vitamin C and Vitamin D. In the fully adjusted model mothers who had the highest intake of Vitamin C were more likely to have an overweight or obese child than those with the lowest intakes [odds ratio (OR) 2.41, 95% confidence interval (CI) 1.16–5.02]. Overweight or obese children were more likely to have been in the highest quartile of birth weight (OR 2.49, CI 1.24–4.98) and to have mothers with lower levels of education (OR 1.53, 95% CI 0.94–2.49). Mothers who were obese before pregnancy were more likely to have overweight or obese children (OR 2.96, 95% CI 1.30–6.70).

Conclusions

The findings are in agreement with previous research demonstrating the importance of promoting pre-pregnancy weight status for the health of the infant and young child. The vitamin C findings may reflect maternal over-reporting of fruit and vegetable intake.

Wise advice: Exploring how parental use of 'formal' and 'informal' healthy eating advice affects children's diets

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Background

UK health policy aiming to improve children's nutrition relies heavily on informing parents about the importance of healthy eating. This article assesses whether differences in parental 'nutrition knowledge' explain differences in toddlers' diets in Scotland when controlling for socio-economic confounders. It also explores the different sources of eating advice which parents access and evaluates their relative significance in explaining children's nutritional patters.

Methods

The research employed binary logistic regression models using data from the Growing Up in Scotland longitudinal survey, which collects data annually from a sample of 8000 children in Scotland and is one of the few longitudinal quantitative surveys of the development and health of children aged 0–5.

Results

Children of parents who claimed to know more about cooking and healthy eating were significantly more likely to have a healthier diet (i.e. more fruits and vegetables, fewer crisps, sweets). This effect was significant even after controlling for household income, maternal education and social class. Seeking advice from other mothers, family and friends, or the internet was associated with significantly better diets for children. Paradoxically, seeking advice from health professionals (doctors, midwives, health visitors) did not predict dietary differences. On closer inspection, parents who consulted informal sources of advice were better off in terms of education, class and income, while parents who consulted health professionals were more likely to be disadvantaged.

Conclusions

Parents access a variety of sources of information on health and nutrition, and 'informal' sources are very influential. As far as 'formal' sources are concerned, while health professionals work to encourage healthy eating, parents most likely to ask for their advice are at the outset more disadvantaged and less likely to have children with optimal diets in the first place. This poses the question of whether current information-based health policy initiatives are appropriate for the public they address and tailored to meet the needs of families in more disadvantaged circumstances.

Nutrition and catering situation in schools

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Background

The physical and mental development of children and adolescents is strongly influenced by nutrition, especially of the quality and quantity of daily diet. School meals can and should be an integral part of the promotion and maintenance of health. As the situation is changing in Germany to full-time schools it is of great importance to integrate the issue of a balanced diet in everyday life at school.

Methods

As there is no data available with regard to the nutrition and catering situation at schools in Saxony, Germany the aim of the study was (i) to assess and analyse the catering situation, (ii) to inform about existing networks that help involved stakeholders to improve the nutrition situation, (iii) to inform about the recent quality standards for school meals of the German nutrition society and (iv) to sensitize all involved persons groups to a balanced diet at school. The study was carried out from September 2009 until February 2010. All schools ($N = 1472$) were contacted, headmasters were asked to answer a standardized questionnaire. Furthermore, daily menus were analysed according to a checklist.

Results

There is a regular supply of school meal at 99.2% of schools in Saxony. Schools mostly do not have own kitchen facilities for preparing daily meals. Catering services supply schools with lunches every day (87.7%). The underlying results do not reflect the main requirements of the quality standards of the German Nutrition Society. On the one hand fresh vegetables, fruits or salad were offered insufficiently. Moreover, too many meat dishes and deep-fried products, e.g. fish fingers and too few vegetarian dishes were integrated in the weekly menu. Fresh sea fish was very rarely offered.

Conclusions

Enhancing the nutrition and catering situation in schools is essential for a child's development. As the results do not reflect defined standards, responsible groups (practitioners, scientists, parents, children, teachers and caterers) have to co-operate in order to contribute to the prevention of nutrition-related diseases.

Results of the 'OKKIO alla salute' survey on nutritional status and risk factors for obesity in Lazio region

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Background

In 2008 a National Project developed by the Italian Ministry of Health was undertaken to evaluate the nutritional status and factors associated with childhood overweight and obesity.

Aim

To estimate the prevalence of overweight and obesity and identify factors associated with obesity in Lazio region schoolchildren at two levels: child-family characteristics and school-related factors.

Methods

For this cross-sectional study, schools of Lazio region were randomly chosen, and within each school, children 8–9 years of one class of the third grade, primary school, were chosen ($n = 134$ schools and 2249 students). Four questionnaires were filled from students, parents, teachers and heads of the schools. At individual level, weight and height of children, dietary habits and physical activity were measured. Socio-demographic, economic characteristics of the parents were also assessed. Facilities for children physical activities were assessed, as well as presence of the school canteen, the presence of snack distributor and diet management policy. Multilevel multivariate logistic regression models with random intercept (school) were ran to estimate the association between individual and school factors with the risk of obesity compared with normal-weight children.

Results

The sample was composed by 51.4% of males, median age 8.7, 51% coming from schools of Rome. The 60% were normal-weight, the 5% underweight, 25% overweight and 11% obese. School factors explained the 24% of the total variance. The following individual risk factors were associated to obesity: maternal education [odds ratio $(\mathrm{OR})_{\mathrm{lower/higher}} = 4.25$; 95% confidence interval (CI) 2.11–8.55], having no breakfast (OR = 2.44; 95% CI 1.52–3.92). At school level factors associated to obesity were: absence of diet-balanced snack (OR = 2.32; 95% CI 1.01–5.36), absence of a canteen (OR = 1.75; 95% CI 1.11–2.77), and low level of physical activity (OR = 1.82; 95% CI 1.19–2.77).

Conclusions

In our region high prevalence of overweight/obesity is present; socio-economic individual and at school level seem to be strongly associated with obesity. Preventive measures should focus on these determinants.

Influence of country's transition on food behaviour and nutritional literacy among adolescents in North-West Russia

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Background

Food influence on health is triggered by its availability, variety and nutritional literacy in population. Economic transition affects these variables in both negative and positive way. Russia faced significant economic changes in past decade. Little is known on how that influenced changes in food behaviour and nutritional literacy among Russian youth.

Methods

Behavioural CVD risk factors were studied using internationally comparable methodology among 780 (385 in 1995 and 395 in 2004) students aged 15 years, from all schools of Pitkäranta district in the Republic of Karelia in 1995 and 2004. After-school purchasing of foods high in saturated fat and sugar (sausages, meat pastries, donuts, chocolate and soft-drinks) together with nutritional literacy were studied by a frequency questionnaire.

Results

Weekly purchasing of foods high in saturated fat and sugar increased between 1995 and 2004 among both genders. Eating donuts increased among boys from 3 to 12% ($P < 0.001$) and among girls from 8 to 17% ($P = 0.003$). Consumption of sausages and meat pastries increased among boys from 7 to 30% ($P < 0.001$) and among girls from 3 to 26% ($P < 0.001$). Chocolate purchasing increased among girls from 3 to 6% ($P = 0.02$). Purchase of soft-drinks increased among boys from 11 to 23% ($P = 0.01$), among girls from 8 to 19% ($P = 0.002$). Vast majority of adolescents could not distinguish unhealthy nutrients and consequences of unhealthy food choices in both years of survey.

Conclusions

Consumption of foods high in saturated fat and sugar increased among Russian youth, while nutritional literacy did not improve. Education on healthy eating and role of different nutrients should be promoted among adolescent also in school curriculum. Russia does not face youth obesity epidemic as other EU countries but this may change in the future taken into account negative influence of modern lifestyle and globalization.

The Epode European Network (2008–11): an integrated approach to prevent childhood obesity

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Issue

The prevalence of overweight and obesity worldwide has increased significantly over the past 20 years. Overweight and obesity are now the principal risk factors for disabling and life-threatening health conditions in young people. The need for concrete and effective programmes aimed at prevention is now urgent. The EPODE (Together to prevent childhood obesity) methodology is considered to be an innovative example of a community project aimed at promoting healthy behaviours in children.

Methods

Initiated in 10 french pilot towns in 2004, EPODE is a coordinated, capacity-building and integrated approach for communities to implement effective and sustainable strategies to prevent childhood obesity.

At national level, a coordination team using social marketing and organizational techniques trains and coaches a local project manager nominated in each EPODE town by the local authorities. The project manager is provided with tools to mobilize local stakeholders through a local steering committee and local networks. This methodology enables the entire community to be empowered and contribute to create a healthier environment facilitating social norms changes and healthier behaviours. The added value of the methodology is based on critical components such as a strong scientific input, institutional endorsement, evidence-based and social marketing techniques, sustainable resources, brand dynamics and a monitoring and evaluation programme.

Results

Today EPODE is implemented in more than 300 towns from six countries. Evaluation to date is conducted through process and output indicators. There was an overall decrease in the prevalence of children overweight including obesity of 1.88% in the French pilot towns in 2004 versus 2007 (from 18.88% in 2004–05; 90% CI, 1.05–2.71%, $P = 0.0002$).

Lessons

Building on EPODE experiences and multidisciplinary expertise, the EPODE European Network project (supported by the European Commission) is currently enriching the EPODE methodology and facilitating the implementation of similar initiatives in other European countries, regions and towns.

1. EPODE public funding:
EPODE towns, Ministry of Food, Agriculture and Fisheries, Ministry of Health and Sports

2. EPODE private funding:
Fondation d'entreprise Nestlé France, Fondation Internationale Carrefour, Orangina-Schweppes, EPODE club des partenaires

3. EPODE European Network public funding:
Directorate General for Health and Consumers (European Commission)

4. EPODE European Network private funding:
Ferrero, Mars, Nestlé, Orangina-Schweppes

5. EPODE European Network associated partners:
Free University of Amsterdam (The Netherlands), Gent University (Belgium), Lille 2 University (France), Zaragoza University (Spain), Proteines (France), Fleurbaix Laventie Ville Santé NGO (France)

2.9. Urban health

Use of routine public health nuisance complaint data to map and address environmental health inequalities

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Issue/problem

Historically Britain's public health movement was based on addressing the impact of our environment on individual and community health and well-being. Legislation targeting public health nuisances such as noise, pollution and housing disrepair has been highly effective in promoting health and reducing inequalities. Many nuisances have direct health effects and all will have indirect effects including how people feel about where they live. Despite the clear evidence of these effects and inequalities in exposures there has been little assessment of the distribution of nuisances, temporal trends or the relationship to other factors. This assessment is important for the early identification of a developing or previously unknown problem, for prioritizing areas for intervention and monitoring the impact of those interventions. The Sandwell Health Economy has developed routine analysis to identify areas with significantly high levels of nuisance and those with significantly deteriorating levels. This analysis includes the use of statistical control charts for the first time

Methods

Sandwell local authority provided nuisance complaint data for 2004 through 2009 which were grouped into four categories. Analysis included incident rates at Lower Super Output Area (LSOA) with populations of around 1500, population weighted nuisance ratios and 99% confidence intervals, and statistical control charts to identify areas with special cause variation

Results (effects/changes)

A total of 55 LSOAs had significantly high levels of nuisance complaints with nine significantly high for >1 year. 20 areas showed a significant increase in complaints over time with four areas deteriorating from average or better to poor. The local regulator uses this analysis to investigate areas for environmental hazards, to target interventions to reduce exposures, and to pre-empt emerging problems

Lessons

Analysis of nuisance data is a useful tool in mapping public health hazards and inequalities, and for targeting interventions

Urban health—do smoking rates vary between cities and what could be the reasons? A comparative multilevel analyses in 10 cities in Germany and the Czech Republic

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Background

The reasons for existing regional disparities in smoking rates of urban populations within countries are not fully understood. It is obvious that disparities are partly explained by the specific socio-demographic composition of the population, but there is evidence for mechanisms which go beyond compositional effects. For instance, living conditions in deprived neighbourhoods could have a negative influence on smoking habits. Hence, the extent of socio-spatial differences within cities could contribute to overall city-specific disparities in smoking habits.

Methods

This was studied in a comparison of four German and six Czech cities. Individual data from more than 13 000 persons (45–69 years) from the 'Cardiovascular Disease, Living and Ageing in Halle' (CARLA, GER), 'Health, Alcohol and Psychosocial Factors in Eastern Europe' (HAPIEE, CZ) and 'Heinz Nixdorf Recall' (HNR, GER) was included. For all subjects the unemployment rate in the neighbourhood was available as an indicator of socio-spatial disadvantages.

Outcomes

First, descriptive evaluation showed that smoking rates varied from city to city [MIN-MAX Czech republic: 22.1–30.2%/ Germany: 23.1–27.1%]. Hierarchic regressions with cities as 'fixed effect variables' confirmed this trend. Odds ratios (OR) for the probability of smoking depending on the city of residence partially remained elevated when individual characteristics (age, sex, education, employment status, health status) were controlled for. OR were reduced when neighbourhood-level unemployment was included into the model. For example, the rate of smokers in one of the German cities was increased by 1.22 [95% confidence interval (CI) 1.00–1.46] compared to the reference city after adjustment for individual covariates. Adding the unemployment rate reduced the OR to 1.09 (0.91–1.32).

Discussion

Although the comparative multilevel design of the study allows informative analyses, conclusions should be derived cautiously because the number of cities is small. Nonetheless the study underlines the importance of the urban environment for health behaviours and prevention.

Cooperation between municipality and health-care insurer for the benefit of vulnerable homeless inhabitants in Amsterdam

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Issue

In 2006, in Amsterdam existed a group of 3000 homeless people, characterized by severe psychiatric conditions, addiction, debts, no income or day activities and committing frequently small crimes. It is therefore an important public health and health-care problem in which the municipality of Amsterdam and health-care insurer Agis worked together to improve the situation of these people. For 4 years the government provided extra initial money to attack this problem.

Description

The project is part of an agreement between Amsterdam and Agis to improve the situation of vulnerable inhabitants in Amsterdam and ran from 2006 to 2010. Goals of the project were: providing housing, including special supporting programmes, and income (municipality), adequate mental health care and day activities (health care insurer). Though the municipality and health care insurer have separated (financial) responsibilities, they were determined to purchase coherent and comprehensive provisions. A common plan was made, including the kind and number of provisions needed and negotiations with providers were held together. In this way better integrated provisions and care could be purchased, preventing doubling of provisions and money.

Changes and effects

- Facilities were increased and focused: 'case finding' teams were increased, eight special teams for treating psychiatric conditions were formed; the places for supported living were increased with 43%, activity programmes with 31%.
- The number of homeless people decreased from 3000 to 800 and figures for small crime in neighbourhoods decreased up to 60%.
- Though extra (government) money for the forthcoming years is not available, Amsterdam and Agis will continue this project and started a second phase with more focus on prevention of relapse and prevention of new cases.

Lessons learned

Analysing interests and defining a common perspective were key factors in this project. Critical success factors: initial extra money, external push (government), the possibility of monitoring the results

Better safe than sorry; an integrated community-based Sexual Health Project in a high-risk area in Amsterdam

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People living in urbanized low-income and multi-ethnical areas in The Netherlands are at high risk for developing problems related to sexual health. One of those areas is Amsterdam South East. The prevalence of sexual health problems in adolescents is relatively high compared with other areas of Amsterdam and the rest of The Netherlands. These health problems carry also a societal burden.

A new initiative on sexual health services for adolescents in Amsterdam South East started in 2009. Better Safe Than Sorry, initiated by three primary health care centres, was formulated. Forces were joined between GP's primary health care centres, local government, a health insurance company and STI AIDS Netherlands (NGO) to render adequate services.

Three GPs followed courses in sexual health prevention and diagnostics. They became professional leaders on this specific matter for their peers. They organize the sexual health consultation hours and supervise the nurse-assistants. Local government is consulted how to create a non-stigmatizing platform for sexual health in the specific area. They provide financial support. A health insurance company provides financial support. A professional educator from STI AIDS Netherlands developed an intensive course in counselling and sexual health within primary care for nurse-assistants. A campaign officer from STI AIDS Netherlands developed an audiovisual programme for the waiting area. Needs assessment is provided among the target group. Campaigning in the area is planned through various media and role models living in this area. An implementation evaluation study of the sexual health consultation will be initiated.

In three primary health centres nurse-assistants organise consultancies in sexual health. Adolescents who visit these consultancies experience the anonymity as positive. They appreciate the time that is spent to explain things and claim to be more aware of what they want and need concerning sexual health.

Outcomes

1. Participants endorse that sexual health is an integrated part within health promotion in primary health care.
2. Participants reflect on sexual health indicators and deterioration in deprived urban areas.
3. The participants reflect on creating possibilities in improvement of sexual community health by joining forces in the private and public health arena.
4. Participants formulate ideas to improve their community projects by integrating different parties of interest.

Health on the move

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Issue/problem

Transport affects health in both positive and negative ways. It provides access to many health-beneficial facilities (health centres, swimming pools), meetings with families and friends, work and opportunities to buy healthy food. Walking and cycling offer excellent ways to build physical activity into everyday life. Transport also causes stress, disruption of communities, injuries, noise and air pollution, and greenhouse gas emissions. Transport's effects also exacerbate inequalities, with the benefits of motorized transport accruing particularly to the better off, while the adverse effects fall disproportionately on the already disadvantaged. Health on the Move, first published over a decade and a half ago by the Transport & Health Study Group (THSG), described the links between transport and health.

Results

THSG has fully updated and expanded this report for a forthcoming second edition, based on a thorough review of evidence and addressing changing policy drivers.

Sustainable transport policies must reduce the need to travel and promote modal shift. Congestion can be tackled only by a combination of road pricing, comprehensive and universal public transport networks, more home-working, and more walking and cycling. Traffic in streets diminishes social support and community spirit, raising far-reaching spatial planning questions about how we perceive streets. Cycling is an inherently safe activity with major positive benefits for life expectancy, but exaggerated perceptions of its dangers lead to a poor take up. Climate change demands less use of the car and plane and more use of the cycle and train. Encouraging walking and cycling can reduce obesity, improve health and reduce adverse effects of car-based transport.

Lessons

Transport is a public health challenge comparable to sewers in the 19th and clean air in the 20th century in its difficulty, financial implications and consequences. Cross-disciplinary approaches, taking advantage of synergies between sustainability/low carbon approaches and health, are important.

Can't get there from here? Qualitative research into active travel in Glasgow

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Background

Improving physical activity and developing sustainable transport are high on political and public health agendas. This presentation presents results from qualitative research exploring current attitudes towards travel in Glasgow.

Methods

'Vox-pop' video interviews were conducted with 105 members of the public at four locations (a hospital, a city centre location and two out of town shopping centres), selected to represent 'real life' journeys that had just been made. Subsequently, shared focus groups were conducted with 44 participants recruited from the same four locations. 'Vox pop' video interviews encouraged participants to outline how they travelled to the location, why and how they ruled out alternative ways of making the journey. Shared focus groups generated discussion regarding chosen travel modes firstly amongst a group of individuals who travelled by the same mode and secondly with a mixed group of users of different modes.

Results

There was a degree of multi-modality among individuals who took part in the study with decisions around mode choice shaped by circumstances of the both traveller and journey being made. However, overarching cultural norms toward convenience, time efficiency, perceptions of cost and safety led to less active travel choices being favoured. Even though health featured in the decision-making nexus, this was often insufficient to lead to adoption of active modes unless other criteria were also matched.

Conclusions

Findings accord with other health behaviour research that being in possession of information about healthier options is not sufficient to ensure adoption. Currently, infrastructure and planning often promotes car use by facilitating its use over other modes. However, findings also show that car use can be discouraged through disincentives accompanied by provision of good quality, integrated public transport or active travel alternatives. Improvement and investment in active/public transport infrastructure and services to make them easier, safer and pleasanter to engage with will help to change individual and societal values and responses to active, sustainable travel and may hold one of the keys to success.

2.10. Mental health 2

Use of psychotropic drugs before pregnancy and induced abortion: population-based register-data from Finland 1996–2006

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Background

Some, though not all studies, have reported an increased risk for mental health problems after an induced abortion. Problems with design and data have compromised these studies and the generalization of their results.

Methods

The Finnish Medication and Pregnancy database ($N = 622\,671$ births and 114 518 induced abortions for other than foetal reasons) in 1996–2006 was utilized to study the use of psychotropic drugs in the 3 months before a pregnancy ending in a birth or an induced abortion.

Results

In total, 2.1% of women with a birth and 5.1% of women with an induced abortion had used psychotropic medicine(s) 0–3 months before pregnancy. Psychotropic drug users terminated their pregnancies (30.9%) more often than other pregnant women (15.5%). Adjustment for background characteristics explained one-third of this elevated risk, but the risk remained significantly increased among users of psychotropic medicine [odds ratio (OR) 1.94, 95% confidence interval (CI) 1.87–2.02]. A similar risk was found for first pregnancies (30.1% versus 18.9%; adjusted OR 1.53, 95% CI 1.42–1.65). The rate for terminating pregnancy was the highest for women using hypnotics and sedatives (35.6% for all pregnancies and 29.1% for first pregnancies), followed by antipsychotics (33.9 and 36.0%) and antidepressants (32.0 and 32.1%).

Conclusions

The observed increased risk for induced abortion among women with psychotropic medication highlights the importance to acknowledge the mental health needs of women seeking an induced abortion. Further studies are needed to establish the impact of pre-existing differences in mental health on mental health outcomes of induced abortions compared with outcomes of pregnancies ending into a birth.

Juvenile delinquency, socio-economic background and suicide

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Background

Mortality rates for adolescents in the Western world have steadily decreased over the last decades. However, the suicide rates have remained stable. In this study, we investigate whether juvenile delinquency (registered crime at age 15–19) predicts suicide in young adults, while controlling for several other known risk factors.

Methods

We used Swedish national register to link crime convictions and suicide deaths, while controlling for confounders such as mental illness, substance abuse, child welfare interventions, and socio-economic background. This study comprised 10 entire national birth cohorts between 1972 and 1981. We followed almost one million individuals until 2006, generating 9 746 370 person-years and 1482 suicides. Parental education was used as indicator of socio-economic background. Poisson regression was used to estimate the incidence rate ratio (IRR) and analyse suicide risk.

Results

In this cohort, 5.9% of females and 17.9% among males had at least one conviction between 15 and 19 years of age. Results showed increased suicide risks among both female and male convicts. The crude IRRs (adjusted for birth year) displayed a gradual increase of suicide risk, i.e. the risk increased as the number of convictions increased. Females with one conviction had 1.7 times higher suicide risk [95% confidence interval (CI) = 1.2–2.4], corresponding for men was 2.0 (95% CI = 1.7–2.4). In the fully adjusted model, where we controlled for, amongst other, mental illness and substance abuse, the conviction group gradient remained for both women and men. Men had overall higher suicide rates than women. The effect of severe delinquency on suicide was independent of parental education.

Conclusions

This study shows that delinquent adolescents have higher suicide risks compared with adolescents in general, even after controlling for mental illness, substance abuse, and socio-economic characteristics of their families.

Work home conflict and the association to depressive symptoms over higher education and professional establishment—a longitudinal investigation in a national cohort of Swedish nursing students

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Background

Education and professional establishment can be viewed as a specific developmental period of an individual's occupational career. Few studies investigated work home conflict (WHC) in students and we are unaware of studies that followed change in WHC. We investigated WHC over higher education and an extended period of 2 years in the profession in a demographically diverse student group. In addition, we associated WHC to depressive symptoms over the period.

Methods

Data came from LANE, a national survey of Swedish nursing students ($N = 1700$) who responded to annual questionnaires from 2002 to 2007. The response rate year five was 76%. We measured WHC by two single items that asked for negative consequences in private life due to demands from education/work and, vice versa, negative consequences for education/work due to demands from private life. Depressive symptoms were measured by the Major Depression Inventory. Change over time was analysed in GEE and mixed linear models.

Results

Preliminary results show an increase in WHC over education and a decrease a year after entry into the profession. A higher proportion students reported negative consequences in private life due to work demands than vice versa. Students of older age, women and those who were parents reported negative consequences from educational/work demands for private life more often than younger students, men and non-parents. There were no age or gender differences for the effect of private demands on education/work, but parents reported more conflict. The association between depressive symptoms and both directions of WHC was strong and consistent over the period.

Conclusions

Perceptions of WHC increase over education as students approach graduation but seem to abate after professional establishment. Students who are parents report WHC more often. As we found a consistent association between WHC and higher levels of depressive symptoms, education programmes with many mature students may gain from awareness of the conflicting demands many of their students confront. More detailed results will be presented after the analyses have been finalized.

Risk factors and trends in attempting or committing suicide in Dutch general practice in 1983–2009 and tools for early recognition

Gé Donker

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Background

Many patients visit their general practitioner (GP) before attempting or committing suicide. This study analyses determinants and trends of suicidal behaviour to enhance early recognition of risk factors in general practice.

Method

Analysis of trends, patient and treatment characteristics in suicide and suicide attempts occurring from 1983–2009 in practices participating in the Dutch General Practice Sentinel Network, covering 140 000 persons, 0.8% of the Dutch population. Data were collected by continuous morbidity registration and questionnaires filled in by GPs. Trends were analysed by linear regression.

Results

The incidence of committing ($N = 306$) and attempting suicide ($N = 1473$) showed a decreasing trend between 1983 and 2009 ($P < 0.01$ for both trend lines). Male patients committed twice as often ($P < 0.01$) and female patients attempted twice as often ($P < 0.01$) suicide compared with the opposite gender. Living alone was a risk factor for committing and attempting suicide: 44 and 30% of the patients respectively versus 15% of the total Dutch population (odds ratio = 4.5 and 2.4 respectively, $P < 0.01$ for both comparisons). The age group of 80 years and older is at risk in committing suicide: 11% in men and 12% in women versus 3% of the Dutch population, $P < 0.01$ for both comparisons). The majority of the patients who committed (65%) or attempted (59%) suicide were diagnosed as depressed, of whom 39% were treated by their GP with an antidepressant. Referral to a psychiatrist or other mental health professional occurred in 68% of the cases before committing and 66% of patients before attempting suicide. Patients expressing suicidal ideation were referred in 87% of cases. In retrospect GPs recalled that they had foreseen suicide in 19% and suicide attempts in 12% in case of contact in the preceding month.

Conclusions

Early recognition of risk factors and accelerated referral to psychiatric care may further enhance prevention of suicide and suicide attempts.

Training for prevention of violence against women and family violence in Croatia: Community building and networking

Gordana Pavlekovic

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Problem

Beside the war and post-war problem in Croatia, the early 1990s marked the beginning of economic transition with significant social consequences. Particularly vulnerable were women and children. A national survey showed that every third women in Croatia had reported to be a victim of physical aggression by her marital partner or extramarital partners at least once. Additional research on violence in the family shows that, of abused women, 83% have never called the police asking help in case abuse, 90% never contracted the nearest Centre for Social Welfare, 92% never filed a suit and 95% never called the SOS Hotline.

Results

As a result of national survey, the Croatian Parliament passed the National Strategy of protection against family violence and the Law on Protection against violence in family. A total of 27 short-term and long-term measures have been foreseen, the realization of which involves all competent public administration bodies, local self-administration units and NGOs dealing with the aim of human rights promotion, particularly the protection of victims. It was expected that this supporting legal framework should be a stimulus for building alliances and partnerships in local communities, resource mobilization and raising awareness among health care providers. Unfortunately, study conducted in different local communities showed that health professionals and professionals working in social welfare, police, justice and NGOs have had different attitudes, motivation, working capacities and competences in implementation of measures. They perceived their collaboration as ineffective, often blaming each others. Competition, prejudice and projections are so strong that helpers and organizations know very little about each other's work. Therefore, the original model of multidisciplinary training programme was developed. Strengths and weaknesses of this model are described in presentation.

Lessons learnt

The most important lesson learnt is that professionals' empowerment and networking are the key elements in solving this complex public health problem. Mutual training in local communities with positive approach as well as quality of curriculum is crucial.

Social networks and mental health: evidence from SHARE

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Background

This study investigates whether social support networks of older Europeans exert a causal influence on their mental health. Late-life depression is common in Europe, with considerable cross-country variation, and psychiatric epidemiology finds an excess of depression among elderly European women. The manner in which social support influences mental health is characterized by two models. The main effects hypothesis predicts that individuals with strong social support experience higher levels of wellbeing than those with weak social support, while according to the stress-buffering hypothesis, it is only upon exposure to unexpected negative life events that individuals with weaker levels of social support are adversely affected.

Methodology

This article tests these hypotheses in relation to mental health using data from two waves of the Survey of Health, Ageing and Retirement in Europe (SHARE 2004 & 2006) which includes the EURO-D scale of depressive mood. Measurement issues including omitted variables and reverse causality are addressed. Using objective criteria such as proximity of family members and social engagement, cluster analysis identifies four distinct types of social support network.

Results

The distribution of depressive symptoms evidenced indicates that depression which could be alleviated through targeted interventions is common among older Europeans, particularly women. We find a meaningful robust result for women, whereby weak social support networks are associated with higher levels of depressive mood (the main effects hypothesis). We find no evidence that network membership either exacerbates or mitigates the effect of negative life events on depressive mood for either men or women (the buffer hypothesis).

Conclusions

We find that social support has an independent, causal, positive effect on mental health, but only for women. Profiling individuals by their social network type may provide a means of identifying those most at risk of developing depressive symptoms as they age.

2.11. Workshop: Health inequities and children

Programme available at www.eupha.org

2.12. Health promotion

Pretesting questionnaires among people within low socio-economic groups

Charlotte Vissenberg

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Background

Quantitative questionnaires are widely used in research to study the health status and experiences of individuals within public health domains. Evidence suggests that only 30% of the respondents correctly understand the questions asked in these questionnaires. There are indications that this percentage is even lower among people within lower socio-economic groups. This study aims to examine the barriers encountered by these groups when filling out four previously validated questionnaires (COPE, DSSQ, DPSI, Social Capital Question Bank) including the face validity.

Methods

We cognitively tested the questionnaires among 15 respondents with a low socio-economic status using the concurrent thinking aloud interview technique combined with a semi structured qualitative interview. We transcribed these interviews verbatim and analysed them with MAXQDA.

Results

Respondents could not answer certain questions because they did not match their living conditions (e.g. their definition of 'stress' differed very much from what the questionnaire intended to measure). Respondents experienced difficulties answering long questions, questions with too many answer categories, difficult words, were asked into the negative or contained multiple questions within one sentence. Respondents experienced major difficulties with questions that required a high level of self reflection and questions with a high abstraction level. Only very concrete, short, easy questions with a direct formulation were immediately understood by our respondents.

Conclusions

In order to properly study all the subgroups within a population, appropriate questionnaires must be used. The results of this study underline the importance of pretesting questionnaires among different subgroups before conducting surveys.

Three approaches to recruit tobacco smokers into brief intervention

Ulrich John

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Background

The aim is to present results of three approaches to recruit general population samples into brief intervention efficacy studies in Germany.

Methods

In the direct population-focussed approach 1 a random sample of phone numbers in Germany and all families with children at age <4 in a northeast German region were addressed. In the setting-focussed approach 2 a random sample of general practitioners and a random sample of dentists were used to address target populations among the general population. In the setting- and life-event-focussed approach 3 girls and women at age 14–25 years were contacted in gynaecological practices and mothers who just had given birth were contacted on obstetric wards. Each study was a randomized controlled trial except the dental practices study.

Results

In Approach 1, 6073 households were contacted in which one or more smokers lived. Among them, 50.3% participated in the intervention study. Among 1287 personally contacted families with one or more smokers, 71.6% took part. In Approach 2, among 2074 eligible patients in a random sample of general medical practices 79.8%, among 353 eligible patients in dental practices 66.9% participated. In Approach 3, among 869 eligible patients in gynaecological practices, 80.4%, and among 1,128 eligible mothers 77.2% participated in the intervention study.

Conclusions

Using proactive recruitment of participants, considerable proportions of the general population may be recruited into brief intervention to increase the intention to stop smoking. Recruitment proportions suggest that the approaches fulfil one main condition of population impact of interventions: a sufficiently high participation proportion.

Quality development by implementing Health Management at schools—a participating approach

Mustapha Sayed

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Background

The research project, presented in this abstract, is funded by the Federal Ministry of Education and Research (2009–12) and evaluates how the organization-referred intervention 'Learning to Live Healthy' (LLH) changes the health promotion direction of schools. 'LLH' supports schools in the introduction of health management with the help of health professionals.

Methods

The study develops and rates instruments and procedures which can be used by schools within the scope of health management for the school development. This research project evaluates how a Balanced Scorecard (BSC) can also be applied as a management and evaluation instrument for schools. The BSC is used as a support of school development at schools from Lower Saxony ($n=21$). Before implementing the BSC, the health professionals ($n=31$) had been trained and instructed in the use of the BSC in a workshop. For the purpose of participation in quality development, the success of this workshop was evaluated after the instruction of health professionals by telephone guided interviews ($n=22$).

Results

The evaluation of the workshops confirmed the necessity of the integration of the orientation frame from Lower Saxony for school quality into the BSC. The expectations of the health professionals of the BSC are a purpose-oriented-structured-work and the creation of transparency within the school organization. Barriers are own insecurity with the instrument, the used items and the allocation of the goals to the perspectives of the BSC. The time frame to impart the knowledge about the instrument in the workshops was estimated as too short and additional smaller trainings were demanded. To optimize the participation approach two health professionals were included in the training process.

Conclusions

Existing reservations of the health professionals could be removed by adapting the workshops to the concrete needs and expectations of these professionals. The BSC has been evaluated by the health professionals as a useful instrument for the creation of structures, transparency and assistance at the health-supporting school. The evaluation of the BSC allows their assessment as an instrument for management and evaluation in the school organization.

Design and methods of a targeted diabetes prevention programme for Hindustani Surinamese (DH!AAN), consisting of screening followed by a lifestyle intervention

Linda Vlaar

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Background

Early detection and an intensive lifestyle intervention may prevent or postpone the onset of DM among high risk groups. The objective of this study is to evaluate the effectiveness of a targeted diabetes prevention programme for Hindustani Surinamese, consisting of screening followed by a lifestyle intervention.

Methods

In total, about 10 000 Hindustani Surinamese (18–60 years), will be identified by name analysis from GP practices in The Hague and invited for a diabetes check. Persons with suspected impaired fasting glucose (5.6–<7.0 mmol/l), impaired glucose tolerance (7.8–<11. mmol/l), an elevated Hb1Ac (>–6.0%) and / or a value $>$ 2.39 mmol/l for the IR-HOMA will be invited for a randomized controlled trial. Participants in the trial will be randomly assigned to the intervention or control group.

The intervention group will receive a lifestyle intervention, based on motivational interviewing and specifically tailored to the Hindustani Surinamese. The aim is to achieve $\geq$30 min of moderate activity/day and to change the diet according to the current dietary guidelines. The control group will receive generic lifestyle advice.

The measurements at baseline, 1 and 3 years consist of an interview (physical activity, diet, quality of life and intermediate outcomes) and a physical examination [e.g. anthropometrics, cardiorespiratory test (STEP-test), OGTT, insulin, lipid profile].

Preliminary results

To date, 887 persons have participated in the diabetes check (net participation rate of 21%).

Of those screened, 49.7% had elevated glucose, HbA1c and/or insulin levels; 45.2% among participants aged 18–35 years and 56.0% among older participants. At present, $n=155$ persons have consented and been randomly allocated to the intervention or control group; 50% was female, mean age 46.7 years

(95%CI: 29.0–59.0) and mean BMI 27.0 kg/m^2 (95% CI: 21.5–35.1).

Conclusions

The preliminary results show a high prevalence of elevated glucose, HbA1c and/or insulin levels, also among younger participants. This suggests that systematic screening is justified among this high risk group. However, the effectiveness of the programme, including lifestyle intervention, remains to be assessed.

Age- and place-related variability in the association of ego's physical inactivity with the exercise profile of their social networks

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Background

Research on social networks and health has highlighted the degree to which obesity and smoking spreads through population networks. The following study examines among Montreal adults the association of physical inactivity with the exercise profile of their social networks, and whether this association varies according to age and where network members reside.

Methods

Cross-sectional network data on 2707 Montreal adults $\geq$25 years come from the Montreal Neighbourhood Networks and Healthy Aging study (MoNNET-HA). A name generator was used to elicit the names of adults' core network members (i.e. alters); a name interpreter asked individuals if their alters exercised regularly. The IPAQ measured physical inactivity. Multilevel logistic regression was used to account for the clustered sampling design. Analyses adjusted for sex, marital status, socio-economic status and social participation; stratified analyses were used to examine variation in these associations by age group.

Results

Among adults between 25 and 54 years, having ties outside the neighbourhood context was associated with lower odds of physical inactivity [odds ratio (OR) 0.65; 95% confidence intevral (CI) 0.45–0.93], whereas neighbourhood ties was not significant. Social participation also decreased odds of physical inactivity among the 25–54 years old group. Among adults 55 years and older, having neighbourhood ties was associated with lower odds of physical inactivity (OR 0.67; 95% CI 0.47–0.97), whereas outside neighbourhood ties was non-significant. Being female was associated with greater chance of physical inactivity among older adults.

Conclusions

Having others (i.e. alters) in one's social networks who exercise regularly decreases the likelihood of ego being physically inactive. Yet, having more spatially proximate ties who exercise regularly may be of more value among older adults. Public health interventions targeting peer influences on physical inactivity should consider the spatial location of such ties, particularly as their importance may change with age.

Health education in general practice: evaluation of three media-based interventions: a semi experimental study in Upper Normandy (France) in 2009

Marie-Pierre Tavolacci

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Background

General practitioners (GPs) are aware of the need to provide easily accessible health promotion information for their patients. The objective of the study was to assess the impact of health education about the topic of sleep in general practice waiting room according to three media-based interventions.

Methods

A semi-experimental study was conducted in a GP waiting room with four groups of patients (four differents periods): G1 with the usual waiting room, G2 with reading supports (posters and leaflets), G3 with soundless video (10 min of slides loop) and G4 with posters, leaflets and video. After the transit in waiting room, patients completed a self-administered anonymous questionnaire which collected socio-demographic information, level of knowledge of patients about sleep (10 questions) and their intention to stop the consumption of hypnotics.

Results

A total of 1016 patients were included. The age (mean) was 42.8 years [standard deviation (SD) = 15.8], sex ratio male: female was 0.58. The knowledge about the sleep were 4.03 (SD) in G1 (n = 394), 4.78 (SD = 2.0) in G2 (n = 231), 5.93 (SD = 2.4) in G3 (n = 209) and 5.67 (SD = 2.2) in G4 (n = 191); $P < 10^{-4}$. After logistic regression, good knowledge (eight good or more responses) was associated to female gender [adjusted odds ratio (AOR) = 3.2, 95% confidence interval (CI) 2.4–6.7] and the group: G2 AOR = 2.58, 95% CI (1.19–5.60), G3 AOR = 7.74 95% CI (2.58–23.23), G4 AOR = 5.05 95% CI (1.77–14.41). A total of 20.8% of the patients took hypnotics. In G2 53.2% decided to discontinue their use of hypnotics, 83.3% in G3 and 47.1% in G4 (P = 0.01).

Conclusions

Our study shows the impact of the education health in waiting room specially with slide presentation, with the improvement about sleep knowledge and the decrease of the consumption of hypnotics. In primary care, the waiting room could be a place to integrate prevention and health promotion especially with a dynamic visual media and a simple and clear information.

2.13. Panel discussion: The contribution of European Academic institutions to global health

Chairs: Andy Haines, UK and Antoine Flahault, France
Organizer: European Academic Alliance for Global Health (hosted by ASPHER)

Many European Academic institutions undertake activities relevant to global health including research, teaching, influencing policy and practice as well as establishing partnerships with counterpart institutions in low and middle income countries (LMICs) to build their capacity to tackle health priorities. In a recent strategic review conducted by ASPHER the field of Global Health was recognized as a top priority for future action. There is a need to coordinate the activities of European Academic institutions to address global health challenges in order to ensure, for example, that they contribute more effectively to the development of evidence-based policy at the level of the European Union, that partnerships with LMICs are underpinned by appropriate values and ethical principles and that global health has a higher public profile.

At a meeting convened at LSHTM under the auspices of ASPHER, representatives of 17 European academic institutions and organizations that undertake a range of relevant activities agreed to form a European Academic Alliance for Global Health and invite other like-minded institutions to join.

The objectives of the European Alliance will include:

- to advocate for evidence-based policies and increased resources for global health in the EU and other relevant bodies;
- to develop guidelines for partnerships between European institutions and their counterparts in LMICs (including the issues of intellectual property and data sharing);
- to contribute to building capacity in partner institutions in low income countries in response to their priorities including supporting the development of capacity in areas such as research, teaching, administration and infrastructure;
- to foster exchange of ideas and, where appropriate, collaboration between European global health institutions on research, teaching, and capacity building;
- to encourage the formation of similar collaborative networks in other world regions and to forge links with those that already exist;
- to encourage and to support the evaluation of investments in global health to ensure they have the desired effects;
- to raise awareness of the challenges and opportunities of global health in medical, nursing, public health and allied health professions, as well as the wider public;
- to undertake horizon scanning in order to identify new and emerging topic areas, and share knowledge of their potential impacts on teaching and research programmes as well as on policy and practice.

This panel discussion will provide an opportunity to discuss the priorities for action with a particular focus on developing guidelines for partnerships between European institutions and those in LMICs and their role in capacity building as well as how academic institutions can be more effective at interacting with the EU to promote evidence informed policy and to reinforce the case for investment in global health despite economic challenges.

The Panellists will be selected from amongst the following depending on availability:

Prof. Andy Haines (London School of Hygiene and Tropical Medicine, London, UK)
Prof. Antoine Flahault (Ecole des Hautes Etudes en Sante Publique, Rennes, France)
Prof. Janet Hemingway (Liverpool School of Tropical Medicine, Liverpool, UK)
Prof. Pedro Alonso (Barcelona Centre for International Health Research, Barcelona, Spain)
Prof. Peter Piot (Institute for Global Health Imperial College, London, UK)
Prof. Marcel Tanner (Swiss Tropical Institute, Basel, Switzerland)
Prof. Rainer Sauerborn (Heidelberg & Umea, Germany & Sweden)
Prof. Goran Tomson (Karolinska Institute, Stockholm, Sweden)
Kevin McCarthy (DG Research, European Commission)
Andrzej Rys (DG Sanco, European Commission)

PARALLEL SESSION 3

Friday 12 November: 10:30–12:00

3.1. Workshop: Policymakers are from Venus, researchers are from Mars

Chair: Walter Ricciardi, Italy
Organizer: EUPHA section on public health practice and policy

The relationship between policymakers and researchers and their communication and interaction has been the subject of a number of workshops at past conferences. The title of this workshop is based on the best-selling relationship book of John Gray, published in 1993 on successful communication between the sexes, and proposes to take a refreshing look at the ongoing (mis-, non-) communication between policymakers and researchers. In the first two presentations, a policymaker and a researcher will present their views on a chosen public health article. This is followed by a short analysis of both viewpoints, followed by a panel discussion to explore the differences and to propose recommendations that (hopefully) would help us reach the objectives set in John Gray's book: to help us reach a point of harmony and understanding where both researchers and policymakers can live, work and be successful together.

Presentations:
View from the policy side—Lejo van der Heiden, Dutch ministry of Health
View from the research side—Aileen Clarke, Warwick university
Analysis—Dineke Zeegers Paget, EUPHA

Panel discussion with:
Natasha Muscat, Ministry of Health, Malta
Tit Albreht, National Institute of Public Health, Slovenia
Lejo van der Heiden, Ministry of Health, The Netherlands
Aileen Clarke, Warwick university, UK
Josep Figueras, European Observatory on health systems and health policies
Nick Fahy, European Commission
Monika Kosinska, European Public Health Alliance
Dineke Zeegers Paget, EUPHA

The panel discussion will raise the following issues for reflection by researchers:

- whether researchers should consider policy implications in their research or whether this could possibly bias research.
- To what extent should policymakers influence the research agenda through commissioned research.

And policymakers are asked to share their views on:

- the extent to which evidence versus lobbying from stakeholders influences policymaking.
- the different time frames for research and decision making.

And generally:

- is the 'miscommunication' a result of knowledge gaps or circumstances that prevent implementation of evidence?
- how does public health evidence differ from hard biochemical/ clinical evidence and is this a disadvantage when it comes to policy making?

3.2. Workshop: Collaboration in public health in Europe through the EU health programme

Evaluation and impact measurement of the EU Health Programme

DG Health—C1

The presentation will review DG Sanco funding programmes through to the current second Community Action in the field of public health, and look at the key conclusions and recommendations of the various evaluation exercises.

Achieving EU added value: insight to successes and failures

EAHC

The presentation will consider EU added value from the perspective of monitoring of project, and review for several programme areas whether added value may have been achieved or not.

Innovation for health policy—from research to demonstration

EAHC

The presentation will propose a typology of actions for public health, from where evidence is lacking (needing research) to evidence from implementation in the real settings (demonstration). Collaboration between member states can yield an impact which is higher than if member states use evidenced-based approach by themselves.

The presentation will also highlight the role of innovation in this respect.

Mapping research and innovation in public health across Europe: PHIRE

EUPHA

In this DG Health-funded project, EUPHA sections and national public health association members will assess the uptake of European public health project results by EU member states.

Discussion

How have projects within the Public Health Programme promoted public health policy and practice? Is there European 'added-value'?

3.3. Integrated care

Long-term care in Europe: findings of an ecological study in 29 countries

Gianfranco Damiani

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Background

The ageing population in Europe is putting an ever increasing demand on long-term care (LTC). This study is aimed at analysing coherence between LTC services and health care needs in European Countries.

Methods

An ecological observational study, referring to 2003–07, was conducted on the basis of the available data of 27 European Union Countries and two Northern European Countries (Iceland and Norway).

LTC beds (B), Institutions recipients (IR), recipients at home (HR), self-perceived health (SPH), self-perceived limitations in daily activities (SLDA), health care expenditure on LTC (HCE) and Social expenditure (SE), elderly aged $\geq$80 years(E) were analysed.

To describe the changes for each period from 2003 to 2007 in the Countries and to identify possible clusters, a multi-way analysis, in particular a Multiple Factor Analysis (MFA) was applied.

Results

The three factors extracted from MFA explain from 59 to 75% of variability in the period.

The first factor is related to IR, HR, SE in the positive axis; in the negative one a severe SPH was observed from 2005. Country with high values of supply variables and lower values of severe SPH were Norway and The Netherlands, while Hungary, Slovakia, Poland and Romania had an opposite situation.The second factor had a negative correlation with SE and SLDA and a positive correlation with HCE and B: Luxembourg, The Netherlands and Belgium lied on the negative axis, while Norway on the positive one. The third factor is characterized by a positive correlation with B and a negative one with E. The Netherlands, Slovakia, Malta and Romania had high B and low E; on the contrary Sweden, Italy, Spain and France had few beds and a high number of very old people.

Conclusions

These results show four groups of Countries with respect to health care policies.

Self-evaluation of teamwork effectiveness in integrated care delivery

Bert Vrijhoef*

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Background

Teamwork between caregivers is conditional for coordinated chronic care. Against this background this study aims to assess the usefulness of the conceptual framework Integrated (Health Care) Team Effectiveness Model (ITEM) for developing a valid and practical Integrated Team Effectiveness-Instrument (ITE-I) that facilitates discussion within a multidisciplinary team about the conditions and effectiveness of their teamwork.

Methods

Focus groups with caregivers (general practitioners, nurses, pulmomologists) in integrated COPD care in the Dutch health care setting were generated to apply the theoretical framework ITEM into their daily clinical practice. The relevant items were transposed into a pilot instrument. This was reviewed by expert opinion. The instrument is completed 153 times by health professionals involved in integrated COPD health care teams in the region of Maastricht, The Netherlands. The underlying structure and internal consistency of the instrument were verified by principal component analysis (PCA) and Cronbach's alpha.

Results

ITEM turned out to be a comprehensible framework for discussing teamwork effectiveness. The pilot instrument measures 25 relevant aspects of teamwork in integrated COPD care. Factor analysis suggested three reliable components: teamwork effectiveness, team processes, and team psycho-social traits (Cronbach's alpha between 0.76 and 0.81).

Conclusions

The conceptual framework ITEM is relevant in developing a practical full-spectrum tool to measure teamwork effectiveness. The instrument ITE-I provides a well-founded basis for a systematic evaluating of teamwork in COPD-care.

Perception of continuity of care between care levels form the user's perspective in Catalonia

Diana Henao

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Background

Patients are increasingly seen by several health-care providers in a wide variety of organizations and services. Consequently, continuity of care (CC) has become a main concern in health provision. CC is the degree to which a series of discrete health-care events is experienced by the patient as coherent and connected. The aim is to analyse users' general perception of CC between care levels, as well as the experienced elements of continuity.

Methods

Cross-sectional study by means of a survey to health-care users attended by more than one level of care for the same condition in the previous 3 months. A sample of 200 users was randomly selected. The questionnaire encompasses three types of CC: management, informational and relational. It is divided in two parts: (i) addresses patients' trajectories across levels of care for a given episode and (ii) measures patients' perception of CC by means of Likert scales. Descriptive data analysis with the support of SPSS.

Results

In the last 3 months, 68.5% of the respondents were attended by an outpatient specialist after consultation with the general practitioner (GP), whereas 43% were attended by a GP after seeing a specialist. All three types of continuity were perceived to be high. Regarding relational CC, most users were attended by the same specialist (83.5%) and GP (86.4%); 19.5% identified the GP as responsible for their care. Regarding informational CC, one out of four users perceived no transference of information between GP and specialist, while 9.3% of the users considered that the GP was not informed of the specialist visit. Regarding management CC, 82% of the users were referred to the specialist by the GP, but just half of the visits with the GP that followed a specialist consultation were indicated by the specialist. Waiting time for primary and secondary care was considered long or excessive by 17.6 and 37.2% of the respondents, respectively. Results seem to differ according age and clinical condition. Perceived informational CC was higher in users with chronic conditions.

Conclusions

CC was perceived by users to be high. However, the results also point to aspects of informational or management continuity, that need to be further explored as they could act as barriers to continuity.

Comparing cost-of-illness of an inpatient versus an outpatient centred treatment of patients with colorectal cancer in Bavaria, Germany from 2006 to 2008

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Background

Little is known about the economic burden of treatment of patients with colorectal cancer (CRC) in stage IV of International Union Against Cancer (UICC) classification. Furthermore there is no data available comparing treatment costs from an inpatient versus an outpatient setting.

Methods

We undertook a multi-centred, prospective, non-randomized cohort study with 50 patients. Their treatment was either centred in a hospital setting (HS) ($N = 22$) or in one of three specialized outpatient practices (OS) ($N = 2$, 10, 16) in northern Bavaria. Resource consumption was observed from 2006 to 2008. Direct costs were assessed including rehabilitation and non-medical costs. Indirect costs were calculated based on the friction cost method. Costs were calculated from both the Statutory Health Insurance (SHI) and the societal perspective in 2009 Euros.

Results

Societal average costs for HS per quarter and patient were €12 157 versus €10 275, 14 131 and 16 754 in OS. After five comparable quarters, cumulated average societal costs per patient in HS were €56 411 compared with €56 803, 66 745 and 89 106. Costs estimated for SHI perspective were marginally lower due to small relevance of rehabilitation and productivity loss (proportion of rehabilitation costs was calculated to be 0.7% in HS and none in OS). Major cost drivers for both HS and OS were cytostatic drugs (HS: 74.4%; OS: 69.3, 73.7 and 69.7%) and inpatient treatment (HS: 16.2%; OS: 19.3, 13.5 and 25.9%). Non-medical costs in HS were 1.4% comparing to zero, 0.2 and 3.4% in OS.

Conclusions

This investigation contributes to further knowledge in societal and SHI costs of CRC UICC stage IV in Germany. Costs for HS were calculated to be equal or even lower than majority of those for OS. Due to different entry points of patients, five quarters are the common basis for comparison. A more extensive time frame would allow calculation of long-term costs.

Assessment of continuity of medical care for inpatients from internal medicine departments in Romania

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Issue/problem

The Romanian health system is based on the free choice of the health services provider at any level of medical care. The primary care providers, family doctors, act as gatekeepers. However, many patients are especially attracted by the hospital levels. Even after discharge they continue to receive medical care from hospital doctors.

Description of the problem

The study aimed to evaluate through a questionnaire the continuity of medical care of inpatients from internal medicine department from 14 city hospitals of Romania (two hospitals per region). A target of 45 patients randomly selected was established for each department. Data collection took place during July–September 2009. The patients gave their informed consent and an ethical approval was done.

Results (effects/changes)

A total of 735 cases were included in the study. A total of 97% of the patients were included on family doctors lists of capitation. Half of the patients used to visit their family doctor at least once per month. At in charge only 51% from all patients have got a referral from their family doctors. At discharge, 85% of the patients received a medical letter for their family doctor. Almost all gave it to their family doctor. A total of 54% of the patients have received medical care after discharge from their family doctors, 15% from ambulatory specialists and 20% from hospital doctors. Only 16% from the discharge patients have received home care and 28% received recovery therapy.

Lessons

Most of the patients have good contacts with their family doctors. 85% from cases received medical documents at discharge and gave them to their family doctors. 90% from the patients have received medical care after discharge. However, 20% from the patients still receive medical care after discharge from their hospital doctors, which is not in the frame of the health system functioning. New alternatives of home care and recovery therapy should be further developed.

Continuity of care in Integrated Healthcare Networks in Catalonia from the perspective of patients with chronic obstructive pulmonary disease

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Background

Rapid advances in treatment and high specialization of care, together with the rise in chronic diseases mean that patients routinely receive care from different services and disciplines. This can drastically reduce Continuity of Care (CC), although necessary to ensure high-quality outcomes. CC is defined as the experienced care by a single patient as coherent and linked. Experiencing cross-boundary processes, patients with COPD are ideally positioned to evaluate CC. The aim is to analyse patients' views on relational (RC), informational (IC) and management continuity (MC) in Integrated Healthcare Networks (IHN) in Catalonia.

Methods

Explorative, descriptive, qualitative study based on case studies, utilizing individual semi-structured interviews and medical history review for triangulation of data. We selected (i) two IHN in Catalonia and (ii) a theoretical sample of chronic obstructive pulmonary disease (COPD) patients with the following criteria: diagnosis of COPD >5 years; being attended at IHN >2 years; use of at least two levels of care in the past 6 months. Interviews were transcribed literally. Content analysis was conducted, segmented by case with a mixed generation of categories.

Results

Informants consider that CC exists when attended by the same professionals (RC) who are informed about their health conditions (IC) and realize medical tests on a regular basis (MC). Regarding RC, all informants consider that IC is present, which they attribute to the transference of medical information via a shared information system, accessible by all medical staff and frequently used by their physicians. Discrepancies in patients' opinions are observed, regarding accessibility to emergencies and adequacy of the supervision of COPD by their neurologist (MC). Interrelations between types of CC became evident: patients consider that (i) RC enhances accumulation of non-medical information (IC), for that access to clinical records solely would not be sufficient; (ii) perceived IC contributes to avoiding unnecessary duplications of probes (MC).

Conclusions

Patients' views seem to differ depending on where they are attended. Divergences in patients' opinions could indicate problems in the provision of care that health-care providers and policy makers should take into account.

3.4. Workshop: Personalized healthcare—let's get public health prepared for integration!

Chairs: Angela Brand, The Netherlands and Nicole Probst-Hensch, Switzerland

Organizer: EUPHA section Public Health Genomics

The current shift in health care towards a systemic and holistic understanding of the aetiology of diseases ('systems thinking') is a scientific revolution. Systems biomedicine triggered by next-generation sequencing technologies is likely to become the leading health-care paradigm in the next decades. It will help to reshape research, policy-making and practice ('from cell to society') in a fundamental way. A comprehensive and integrated model of future health care that takes into account integrative genomics alongside with environmental, social and life style factors will become essential in order to enable a new approach towards personalized strategies in the prevention, early detection and treatment of disease.

From environmental and genetic diversity to personalized health care: is it possible?

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Epidemiology, a fundamental science in public health, is concerned with the prevention or control of disease. Prevention refers to avoid disease development, to diagnose it at early stages, and to avoid disease relapse. To this end, epidemiology aims at identifying risk/protective factors and markers of diagnosis and prognosis.

Personalized health care aims at an individualized disease control by incorporating environmental–gene–-biological information to understand (or tag) each person's requirements. While—environmental, genetic and clinical—epidemiology has provided the methods to further characterize individuals with a higher risk or susceptibility to develop a specific disease or subgroup of patients more prone to suffer adverse events, the discipline is population based rather than individual based.

By studying the population, the concepts of diversity and complexity has importantly emerged as a potential barrier impairing a further dissection of the factors participating in the development and progression of diseases. The diversity regards to the environment and both inherited and acquired (somatic) genetic alterations driving to the pathological process. Examples of such complexity will be provided regarding bladder cancer and the consequences on the translation of the results into public health and clinics will be discussed.

Public Health Genomics goes personalized—an innovative blueprint for integrating health determinants

Angela Brand

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The rapidly evolving field of epigenomics is contributing to the understanding of genome–environmental interactions and the biological phenotype. Most interestingly, it suggests measurable mechanisms whereby environmental factors such as stress, nutrients, toxic agents or a virus can influence gene expression. Furthermore, these potential epigenetic modifications can occur throughout the lifetime of the organism, beginning as early as the intrauterine environment, and can accumulate in tissues and cells over time. They may also help to explain the differences in health or disease risk patterns between individuals.

In addition, recent advances in systems biology indicate that specific cellular functions are infrequently carried out by single genes, but rather by groups of cellular components. This network-based research is already starting to change nosology. Seemingly dissimilar diseases and health outcomes are being lumped together. What were thought to be single diseases are being split into separate ailments. The approach offers a novel method for human disease classification. It defines disease expression on the basis of its molecular and environmental elements in a holistic way. This knowledge will not only enable clinical interventions but also health promotion messages and disease prevention programmes to be targeted at susceptible individuals as well as subgroups of the population (personalized health care).

So far, all stakeholders including policy-makers and the private sector are struggling to translate the emerging knowledge into clinical, public health and technological applications. Public Health Genomics is the area of public health, vital if it has to be ensured that scientific advances in genomics ('from cell…') triggered by innovative technologies are timely, effectively and responsibly translated into health policies and practice ('…to society').

The upcoming era of knowledge implementation requires increased concerted activities in this field such as the Public Health Genomics European Network (http://www.phgen.eu).

Pharmacogenomics and personalized health care

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Issue/Problem

There are large inter-individual differences in drug efficacy, or susceptibility to adverse effects. Adverse drug reaction (ADR)-related morbidity account for 3–9% of preventable hospital admissions.

Description of the project

There is evidence that ADR and inter-individual differences in drug efficacy are under strong genetic influence. Yet, a recent systematic review of pharmacogenetic studies found that the median sample size was smaller than 100, so that many published results are likely false positives. In this project, we will (i) summarize what is known on the role of currently identified pharmacogenomics genes in ex-plaining ADR and drug efficacy, (ii) illustrate the potential use of pharmacogenomics with one practical example (genetic test for CYP2C9 activity and warfarin use), (iii) discuss the challenge of having adequate study design to address pharmacogenomics issues.

Lessons learned

Currently, there are about 30 very important genes in pharmacogenomics (VIP). So far, the approach has been mainly candidate gene driven, but genome-wide approaches should lead to a more unbiased way to tackle this issue. The potential for pharmacogenomics to help decreasing the burden of ADR is expected to be large, yet the clinical utility is unclear so far. The issue of inter-individual differ-ences in drug efficacy according to the individual genomic background has been little explored so far.

Conclusions

Larger scale studies are needed to better explore the potential for pharmacogenomics to reduce the burden of ADR and further decipher the role of genes individual differences in drug efficacy. Innovative strategies are needed to explore how public health genomics may accelerate the translation of research genomic findings into clinical practice.

The Personal Genome Project

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Issue/Problem

The Personal Genome Project (PGP) is an ambitious research study directed by faculty members in the Department of Genetics at Harvard Medical School that aims to recruit as many as 100 000 informed participants to contribute genomic sequence data, tissues and extensive environmental, trait and other information to a publicly accessible and identifiable research database.

Description of the project

The Personal Genome Project is a new form of public genomics research. The main scientific goal of this study is to find ways to connect human genetic information (i.e. human DNA sequence) with human trait information (i.e. medical information, tissue samples and physical traits) in a public way so that such data may be used for research and other scientific, patient care and commercial purposes worldwide. Additional goals include (i) exploring the risks of public genomics research such as the PGP; (ii) developing a public dataset of information from willing participants to aid in the development of analytical tools for scientists, clinicians and individuals; and (iii) educating participants and the general public about the potential benefits, risks, and uncertainties posed by the widespread availability of genetic and related information. The PGP also seeks to develop a model system for experts on health care, molecular biology, genetic counselling, public health, law, education, and research to come together and collaborate.

Lessons learned

The approach taken by the PGP on matters of openness, in particular on open consent and interactive researcher-participant communication has meanwhile left its imprint on other research projects with more traditional protocols. Overall, the PGP has received a very positive societal uptake, as more than 5000 individuals have expressed their interest and are awaiting enrolment.

Conclusions

We hope that the PGP's proposed datasets will help to extend the discussions on the possible future impact of the availability of comprehensive genome-based information.

3.5. Workshop: Research on sick leave and return to work after breast cancer surgery

Chair: Peter Donceel, Belgium

Organizer: EUPHA Section on Social Security and Health

Breast cancer is the most prevalent cancer among women and on average breast cancer is diagnosed at a younger age than most other malignancies. The treatment of breast cancer is increasingly efficient and usually includes surgery followed by radiotherapy, chemotherapy and/or hormone therapy. Women who are professionally active usually have to interrupt their work activities during treatment. After successful treatment they are confronted with the problem of professional reintegration. Medical, psychological, and social problems may interfere with the process of return to work. Nevertheless, return to work is very important both from a personal as from a social point of view as prolonged sick leave often generate loss of income, social exclusion and loss of self esteem. For cancer survivors, return to work therefore not only confirms the medical recovery but also increases confidence, restores social relations and increases participation in general.

In this workshop knowledge about and methods for researching sick leave and return to work after breast cancer surgery and factors that affect this will be in focus. First, a systematic review provides an overview of rates, duration and factors of importance for sick leave and return to work after breast cancer surgery. Second, the design and some results from an ongoing prospective cohort study in Sweden will be presented. The third abstract gives an overview of a register-based study in The Netherlands about sickness absence and return to work of employed women within 1 year after breast cancer. The final contribution discusses the methodology and results of a qualitative study exploring the experience of sick leave by breast cancer patients.

Return to work after breast cancer—an exploratory systematic literature review

Agneta Wennman-Larsen

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Breast cancer is the most common malignancy in women of working ages and the absolute majority of the women survive. An aspect of psychosocial long-term effects emphasized in cancer survivors are problems related to work capacity, sickness absence (SA) and return to work (RTW) with possible consequences for health and health-related quality of life. Previous reviews on this topic have mostly been conducted on cancer survivors in general with no distinction between specific diagnoses. However, the trajectories, treatments, symptoms and prognoses diverge much between different cancer diagnoses, why diagnoses specific knowledge is warranted.

The aim was to gain knowledge on time to and factors of importance for RTW and SA among women with breast cancer, through a systematic review of the literature.

Systematic searches of studies were conducted in MEDLINE, Psyc-INFO, AMED, CINAHL and SSCI. Inclusion criteria were; scientific studies published in peer reviewed journals in English or Scandinavian languages with empirical data of SA or RTW and breast cancer. Identified studies were assessed for relevance and data was systematically extracted from them. A total of 75 relevant studies were identified, mostly from North America followed by Scandinavia, The Netherlands, and UK. Of them 80% were published after year 2000 with an increasing number over time. Results will be presented in five areas; proportion of patients working before diagnose, proportions of patients who RTW, SA time, factors associated with RTW and influence on work capacity.

Return to work and sickness absence after breast cancer surgery—a prospective cohort study

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Breast cancer is the most common type of malignancy in women and many women are of working ages. The 5-year relative survival rate varies somewhat throughout Europe, in Sweden it is now 88%. Despite this, knowledge is still lacking about important areas of the future life for these women, such as impact on work capacity, and sickness absence, and return to work. To obtain such knowledge, prospective cohort studies are needed.

To sick list patients is a very common measure in cancer care. In the area of sickness-absence research, the perspective of the sick-listed persons is seldom used but needed to get a comprehensive understanding of processes. Most studies have taken the perspective of employers, society, or health care. In this presentation such a cohort study of 758 consecutively included women who had had breast cancer surgery for the first time were included. They were aged 23–63 years and are followed for 2 years prospectively. Also 2-year retrospective data from registers will be included.

A wide spectrum of data is collected via repeated comprehensive questionnaires (six measurements in total), focus group interviews, registers, and medical records. Inclusion started in 2007 and continued through 2009. Follow-up data will be collected until 2012.

The presentation will focus on study design and descriptive data from the first measurements.

Sickness absence and return to work after breast cancer: a descriptive sickness absence register study

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Background

Many breast cancer patients are of working age and improvements in diagnosis and treatment have increased their survival. Therefore, it is likely that return to work after breast cancer is also increasing. The aim of this study was to investigate return to work of employed women with breast cancer over the years.

Methods

Data were obtained from the ArboNed occupational health register, containing sickness absence data of approximately one million employees representative for the Dutch workforce. Sickness absence episodes starting in 2002, 2005 or 2008 and medically certified with the ICD-10 code C50 were selected from the register. RTW $\geq$ 50 was defined as the proportion of return to work in $\geq$50% of earnings before sickness absence, and was assessed at 12 months after diagnosis.

Results

The sickness absence register counted 698 women of working age with breast cancer in 2002, 962 in 2005 and 963 in 2008. In 2008, the median duration of sickness absence due to breast cancer was 349 days. RTW $\geq$50 in women aged 20–40 years was 48% compared with 51% in those aged 40–50 years and 55% in women aged 55–65 years. RTW $\geq$50 in 2008 was 52% and lower than in 2002 (59%) and in 2005 (56%). The time to RTW $\geq$ 50 among women aged 20–40 years diagnosed with breast cancer in 2008 was longer (HR = 0.68; 95% CI = 0.49–0.95) compared with women aged 20–40 years diagnosed in 2002.

Conclusions

Women aged <40 years had lower RTW $\geq$50 than older women with breast cancer, possibly due to poorer survival of young breast cancer patients. In contrast to increasing survival rates, RTW $\geq$ 50 among women aged <40 years has decreased and the time to RTW $\geq$ 50 has increased. This may be due to the broadened indication for chemotherapy in young breast cancer patients since 2004.

Breast cancer treatment and work disability: patient perspectives

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Background

Most female breast-cancer patients are forced to interrupt their professional activities during and some time after treatment. They have to make short- and long-term decisions about treatment, sickness absence and returning to work. We investigated women's experiences of being work-disabled because of breast cancer.

Methods

In-depth interviews were performed among twenty two breast cancer survivors from the Flanders Province of Limburg in Belgium) who had undergone a surgery in 2006. Age ranged from 43 to 58 years. A qualitative design was applied to analyse and understand women's experiences of being work-disabled and to gain more insight in their perspectives on living and working with and after breast cancer. All interviews were recorded and transcribed verbatim. Narrative summaries were discussed by all authors. Relevant themes were identified and detailed coding was performed with help from the Nvivo8 programme. The selection of themes and codes was repeatedly verified by interactive team discussions until consensus was reached. Final adjustments were made after discussion of the preliminary results with external experts.

Results

Patient's experiences differ considerably and women go through a process of finding equilibrium. We investigated three main dynamical experiences of being work-disabled: (i) the feeling of irreparable loss and despair; (ii) an inconvenient period, after which life continues as before; (iii) a period of great importance during which new priorities are set.

Conclusions

Being aware of the different patient experiences might be of value for medical as well as insurance practitioners, company doctors and employers. Different experiences require different types of support, especially concerning communication regarding treatment, sickness absence and returning to work. Our findings highlight the need for an individual approach of the patient in assessing and guiding disability after breast cancer surgery.

3.6. Health Inequalities

National wealth and familial socio-economic position explain variations in parental ratings of their children's health: a multilevel analysis in the EU27 countries

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Background

Sizeable variations in subjective health according to socio-economic status and national wealth have been observed. However, previous studies in adolescents have mainly employed ordinal-scaled health indicators with questionable cross-cultural comparability. This study assesses parents' reports on their children's health and well-being between and within the 27 EU member states. Covariations with socio-economic aspects were examined both individually and cross-culturally.

Methods

The Flash Eurobarometer 'Parents' views on the mental health of their child' was conducted for the European Commission. Overall, 12 783 telephone interviews were conducted in parents of children 6–17 years old in the EU27 States. Parents reported the subjective health of one eligible child on the Rasch-scaled KIDSCREEN-10 Index as well as their current occupational status and education level. Within a random intercept and slopes multilevel analysis, the KIDSCREEN was regressed on child's age and gender, parental occupational status and education level. Random intercepts and slopes were regressed on the national wealth indicators of gross domestic product per capita (GDP) and UN Gini Index. Analyses were repeated for the dichotomized KIDSCREEN score (normal versus noticeably low).

Results

Notably, low subjective health and well-being was reported in 11.6% of cases. Cross-national variation accounted for 13% of the total variance in the KIDSCREEN-10 Index. Higher national wealth and lower income inequality were associated with better population health and explained 13.5% of the country differences. Older age of the child [odds ratio (OR) = 2.2 (1.8–2.7) boys; 2.0 (1.5–2.6) girls] and a medium (OR = 1.2, 1.1–1.5) or low (1.4, 1.2–1.8) occupational status of the parent were associated with a higher risk for noticeably low subjective health outcomes. Low educational status also increased the risk for low health outcomes of the children [OR = 1.3 (1.1–1.5)].

Conclusions

Large variations in subjective health and well-being were found across countries with a sizeable proportion attributable to national wealth and income inequality. A consistent impact of the parental occupational and educational status was also found within the countries.

Interrelationships between education, occupational class and income as determinants of disability retirement

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Background

Preventing early exit from the labour market due to disability is an important goal of ageing societies. The connection between low socio-economic status and disability retirement has been established in previous literature, but less is known about interrelationships between different socio-economic indicators. We examined the direct and indirect effects of education, occupational class and household disposable income on disability retirement.

Methods

Using nationally representative register data, over 266 000 people of the Finnish population aged 30–63 at the end of 1995 were followed up for disability retirement in 1996–2004. Cox regression analysis was used to calculate hazard ratios (HR) and relative index of inequality (RII) according to different socio-economic indicators.

Results

All socio-economic indicators had a linear negative association with disability retirement with very little gender variation. The effect of education was largely mediated through occupational class, but not much further through income. The effect of occupational class was to a great extent explained by education but not strongly mediated through income. The effect of income was largely explained by education and even further by occupational class. The independent impacts of education, occupational class and income measured by RII and its 95% confidence interval were 1.74 (1.60–1.90), 1.95 (1.78–2.15) and 1.35 (1.25–1.47) for men and 1.76 (1.61–1.92), 2.14 (1.95–2.34) and 1.14 (1.05–1.24) for women, respectively.

Conclusions

Socio-economic indicators reflect own, but also interrelated dimensions of socio-economic status. The association between socio-economic circumstances and disability retirement may not be fully captured if the pathways between various socio-economic determinants are not taken into consideration. The results imply that efforts to prevent or delay disability retirement should focus on both more distal life-style or cognitive factors associated with education and more proximate factors associated with occupational class such as power and working conditions.

Health inequalities in The Netherlands: the role of Type D personality

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Background

As in many countries, health is divided unequally in The Netherlands. Despite many efforts to reduce health inequalities, no substantial results followed. The Black Report identified four explanations for social inequalities: artefact, selection, materialist and cultural/behavioural. The 'indirect selection hypothesis' proposes that some quality of the individual—a personality characteristic or intelligence—leads to both socio-economic position (SEP) and health. This study was designed to expand our understanding of the 'indirect selection hypothesis' as one of the explanations of health inequalities, by examining the role of the distressed or Type D personality, a vulnerability factor for general psychological distress, which may influence health.

Methods

Data from two cross-sectional surveys were used, carried out in 2005 (response 55.3%, $n = 8693$). Type D personality was assessed using the DS14, while for a low SEP low education and low income were used. We analysed the relative risks, unconditionally and conditionally, of low SEP and Type D personality for different outcomes regarding lifestyle and health, using multivariate Generalized Linear Models.

Results

Results showed that a low SEP was significantly associated with a Type D personality (OR = 1.7 for both low education and low income). Unconditionally and conditionally, the relative risks of low SEP and Type D personality were significantly >1 for most outcomes. Moreover, for a few outcomes the relative excess risk due to interaction significantly exceeded 1.

Conclusions

The cross-sectional design hinders any etiological inferences to be made. However, our results are supportive of the 'indirect selection hypothesis', even though the hypothesis that Type D personality could explain (part of) the health inequalities was not supported. Our results implicate that prevention could have more impact when it takes into consideration that people with both low SEP and a Type D personality are the most at risk for adverse health outcomes.

Determinants of regional and neighbourhood variation in physical health in Germany: a multilevel study

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Background

There is increasing evidence that individual health is at least partly determined by neighbourhood and regional factors. Mechanisms, however, remain poorly understood and evidence from Germany is scant. This study explores whether regional as well as neighbourhood deprivation are associated with physical health and whether this association can be explained by specific neighbourhood exposures.

Methods

Using 2004 data from the German Socio-Economic Panel Study (GSOEP) merged with regional and neighbourhood level data, we fitted multilevel linear regression models for subjective physical health, as measured by the SF-12. The models include regional and neighbourhood proxies of deprivation (i.e. county unemployment quota, street purchasing power) as well as specific neighbourhood exposures (air pollution, noise, walking distance to public green space and sports/ leisure facilities).

Results

This study finds a significant association between deprivation and physical health which is independent of compositional factors and consistent across different spatial scales. On neighbourhood level the association between street purchasing power and physical health [0.50 points per €10 000, standard error (SE) = 0.10] can be partly explained by specific features of the neighbourhood environment. Among these air pollution shows the strongest association with physical health (–2.36 points for very strong and −1.53 points for strong disturbance by air pollution, SE = 0.85 and 0.43, respectively). However, beta coefficients for the availability of recreational resources do not decrease substantially when including individual sports participation (–1.48 points for no sport participation, SE = 0.13) in the regression models.

Conclusion

For Germany, this study partly supports the argument that specific neighbourhood exposures serve as an intermediary step between area deprivation and physical health.

Fighting health inequity in North Rhine-Westphalia (D)—The 'Regional Hub' approach

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Issue

Social disadvantages and health inequity receive growing attention at local, national, and EU level. This includes the fields of health promotion and disease prevention. As a member of the 'Regions for Health' network we present an innovative programme aiming at the reduction of inequity.

Approach

In 2001, a nationwide cooperative network on 'Health promotion for the socially disadvantaged' was established; this network now consists of more than 50 institutions and has become a constituent element of the overall German programme for the promotion of health and prevention.

Results

To support the network, all 16 federal states established 'Regional Hubs' (RH) which provide support for local activities. In North Rhine-Westphalia, the RH was created in 2004; since 2008, it is co-ordinated by LIGA.NRW. Major focuses include 'Health promotion and unemployment', 'Health promotion in city quarters', and 'Health promotion in temporary employment'. The RH co-operates, e.g. with the 'Healthy state' programme (incl. projects database), the German 'Healthy Cities Network', and the federal programme 'Social City'. Alongside a federal action plan on 'healthy nutrition and more exercise', a model centre for the promotion of physical activities was set up in 2009, designed to operate closely with the RH. The main goal here is to encourage older people (>60) to integrate physical activities into their everyday life. Since 2008, the RH organized five regional conferences with a total of about 600 participants, plus specific workshops.

Lessons

With the RH approach, we reach large numbers of health workers and related professionals. Perspectives include the strengthening of networking across sectors, and to explore additional fields of action.

Socio-economic status of GPs' list populations, their workload and remuneration

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Background

The ability of the health services to respond to socio-economic differences in health is questioned. In Norway, GPs are financed by a combination of capitation and fee for service from the National Insurance and patient co-payment. There is no extra capitation for GPs serving a high number of deprived patients. It is claimed that the increased workload will be compensated by a higher income from fee for service. The study assessed to which extent differences in socioeconomic status (SES) of the list populations are related to the GPs workload and practice income.

Material and methods

Cross-sectional, register-based study on 2096 GPs in Norway. GP practices were ranked into five levels based on makers of SES in the list population. Linear regression was used to analyse association between rank of SES, and the GPs' consultation rates and annual income from fee for service. Regressions were adjusted for GP age and gender, list size and composition of the list population according to age and gender.

Results

Among all GPs the mean annual consultation rate were 2.36 and mean annual fee for service per patient on the list was 606 NOK (77 €). Lists with the lowest rank of SES compared with the highest had a markedly higher consultation rate (coefficient 0.14, $P < 0.001$) and income from fee for service (coefficient 84.1, $P < 0.001$). Frequencies of multidisciplinary meetings and home visits were nearly doubled from highest to lowest rank of SES, whereas the use of long consultations and use of laboratory tests showed no differences. In the list populations ranked low, 18.5% of consultations concerned cardiovascular disease, compared with 11.7% in the high group ($P < 0.001$).

Conclusion

The study showed that Norwegian GPs working with a higher number of deprived patients have a higher workload, which at least partly, is economically compensated by fees for service. This may indicate that the Norwegian regular GP scheme contributes to a reduced inequity in health.

3.7. Methods

Using Experience-based co-design (EBCD) to improve breast and lung cancer services

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This project sought to design better experiences for patients and health care staff from the breast and lung cancer services within two large teaching hospitals in England. Experience-based co-design (EBCD) was the chosen action research approach. EBCD combines (i) a user-centred orientation (by adopting a narrative storytelling approach) and (ii) a participatory, collaborative change process, allowing staff to 'see the person in the patient' and placing patient and staff experience at the centre of service development and provision. The project involved an in-depth qualitative study of how care was delivered by staff and received by patients, focusing particularly on their emotional 'journey'. We filmed 36 patients' narratives, capturing the key emotional 'touchpoints' along their 'journeys', 60 staff interviews exploring their experience of providing services, and conducted ethnographic observation of clinical areas leading to further insights into patient/staff experiences.

Patient 'touchpoints' were shared initially amongst the patients at a feedback event through a 30-min edited film and priorities for improving the services identified. Staff experiences were shared and discussed at a separate staff event. A joint event then enabled staff and patients to watch the patient film together, share and learn about each others experiences and agree on joint priorities. Ongoing improvement work involves staff and patients working in co-design groups that focus on the priority areas identified at the joint event (for example information provision, day surgery, continuity of care, diagnosis and outpatient care).

Our article discusses the use of the EBCD approach with breast and lung cancer patients and staff, exploring the value of narratives, ethnographic observation and use of film (excerpts will be shown) as a way of humanizing health care, and engaging staff and patients in a change process so that they, together, can make meaningful and lasting improvements to service provision.

A conceptual framework for analysis of HIV testing policies in Europe

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Background

In the absence of treatment and in the context of discrimination, the HIV test was marginalized and embedded within exceptional procedures. As treatment improved, early HIV diagnosis became important, calling for normalization of testing procedures. HIV testing policies in Europe were mapped to examine promotion of scaled up access to HIV testing.

Methods

In 2008, a contact person of health authorities in all EU/EEA countries was questioned on HIV testing regulations, target groups, provider and client initiated testing modalities. Policies were assessed and exceptionalism was scored based on characteristics such as pre-test counselling, anonymous testing, dedicated testing centres. Normalization was scored on characteristics like provider initiated testing, opt-out and partner notification.

Results

Out of 31 countries, 24 replied. Regulations tended to support confidential voluntary testing, informed consent and counselling. Sixteen countries recommended partner notification as a testing requirement; referral of diagnosed HIV positive patients was less specified (13/24). Pregnant women (21/24), persons with suggestive clinical signs (20/24) and groups at increased risk (19/24) were targeted in provider initiated testing. Iceland and France targeted also the general population attending primary health care. Twelve countries had the highest score on exceptionalism while only three countries scored highest on normalization. Italy and Romania had primarily exceptional procedures; Norway leant more towards normalization; The Netherlands, UK and Denmark scored high in both.

Conclusions

In the majority of countries, policies are in place to make HIV testing routine in health care settings through voluntary and selective testing strategies. Current HIV testing policies exhibited a high level of exceptionalism with varying degrees of normalization. This policy mapping provides a framework to assess HIV testing policies, which, once validated should aid countries in policy and programme planning and European institutions in assisting member states to increase access to HIV-related services.

A European model for the automatic production of standardized performance indicators: the BIRO statistical engine

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Background

Sustainable solutions to produce structural, process and outcomes indicators on a continuous basis are increasingly required to benchmark performance across European health systems. Risk adjustment poses the problem of making large sets of micro data available at the international level. The EU Data Protection Directive limits the secondary use of sensitive data.

Methods

The EU BIRO project (2005–09) has developed a general solution for the production of risk adjusted performance indicators. Structured processing of resident data leaves exclusive access and full control to local administrators. Client software maps local definitions to EU standards and runs statistical procedures to deliver fully standardized ‘local’ descriptive reports. Aggregate data resulting from the calculation of on-site indicators (‘statistical objects’) are transmitted towards a central repository, which maintains and runs server software to produce European ‘global’ reports. Properties of multivariate logistic regression are exploited to produce risk adjusted indicators using the AHRQ methodology on top of finely tuned aggregated data. European formulas are saved to replicate standardization locally.

Results

The system has been fully implemented for diabetes, is stable and shows high levels of performance according to our tests on large datasets. The architecture has been validated against principles of the EU Data Protection Directive through a formal process of privacy impact assessment. The model is completely open source (Java, PostgreSQL, R, Latex) and packaged into a multi-platform distribution running on Windows/Linux.

Main findings

The application of the statistical engine allowed to deliver performance reports from diabetes registries. The model is general and easy to customize for different needs, from chronic disease registries to large data warehouses of linked administrative data. Results obtained on BIRO databases will be presented.

Conclusions

The BIRO statistical engine can distribute the workload of statistical analysis using a cost-effective solution to share results without any information loss or threat to individual privacy. Its further customization can speed up the implementation of European systems of performance indicators.

Does interview setting influence disclosure of violence?—a study in elderly

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Background

Violence is a very sensitive topic, and the interview setting and environment may impact on participation rate and response accuracy.

Objective

Our aim was to evaluate the effect of the interview setting (subject’s home or the researcher office) on participation proportion and the prevalence estimates of different types of violence in an elderly sample.

Methods

We recruited 845 eligible participants (aged 60–84 years) from a previously established cohort (EPIPorto), and randomly selected 450 individuals for this study. These 450 were randomly allocated into two groups: one included 150 individuals invited and scheduled to visit the research department, and another of 300 participants scheduled to a home interview. Information was obtained by face-to-face standardized interviews performed by trained interviewers.

Results

We found a participation rate of 67.0% in the group allocated to home interview and 70.7% in the other group ($P = 0.431$). For the different types of violence assessed, and reported to the past year, no statistically significant different prevalence was found according to the interview setting (physical 2.5 versus 1.0%, psychological 19.7 versus 19.0%, financial mistreatment 8.6 versus 9.5%, sexual 1.0 versus 1.0%, and neglect 5.1 versus 3.8% in home and office respectively).

Conclusions

Our results suggested that the interview setting have no influence both in participation proportion and in prevalence estimates of different types of violence.

Convergence in moral justification for compulsory measures of infectious disease control

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Quarantine and isolation can be important for preventing the spread of dangerous contagious diseases, especially where transmission happens relatively easily, such as with tuberculosis, influenza or severe acute respiratory syndrome. It might even be necessary to impose restrictive measures on people, hence curtailing their rights and liberties. Recently there have been calls for considering expansion of coercive measures in prevention and control of multi-drug resistant forms of tuberculosis. Compulsory measures do require a strong moral justification, and bioethicists should be able to present and critically assess such justifications; ideally, normative theory should be of help in this task. It is tempting and plausible to analyse moral questions about the justification of compulsory infectious disease control as a conflict between (i) the rights and interests of infectious patients and persons exposed to them, and (ii) the rights and interests of others—or of communities at large—to protect themselves against infection. Can normative theory help to clarify or even resolve the conflict? At first sight it seems as if applying different normative perspectives only amplifies the conflict, with rights-based approaches supporting the protection of rights of individuals, and utilitarian approaches supporting protection of public health. However, especially in the context of infectious disease control, one may see convergence rather than opposition between these different theoretical perspectives. If the circumstances are such that coercive isolation is effective and the best way to reduce morbidity and mortality due to infection, then such measures will be supported by both approaches. The moral problem of liberty-limiting measures in infectious disease control may not be as deep as often thought. The main difficulty is in resolving the empirical questions:

what measures will and will not be effective; what are the risks that beginning outbreak will not be contained, how can people be facilitated and encouraged to take precautionary measures, etc. The main point of divergence might then be regarding how to deal with (high levels of) uncertainty in these issues.

Regulation of research on human beings in Switzerland

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The presentation will have two aims: first we will give a short overview over the ongoing process of legislation on human research on a national level in Switzerland. This process started in the late 1990s and reached a decisive step in March this year, when the Swiss voters finally accepted with overwhelming majority a new constitutional article that gives the Confederation the competence to legislate in this field, in order to harmonize and standardize the diverging, historically grown Cantonal, i.e. regional rules and other guidelines. The draft of a Federal law on human research that will specify the basic principles stipulated in this article is being discussed in parliament.

Second, the presentation will focus on a specific issue concerning public health ethics in this context: the challenge of regulating incidental findings in human research [see M Wolf. The Challenge of Incidental Findings. J Law Med Ethics 2008;36:216–8]. The draft of the Federal law on human research is restricted on this issue on the prohibition to anonymise data and biological materials which may provide findings indicating severe diseases. In the discussion section, we would like to present this approach and in particular the concept and definition of ‘severe disease’.

3.8. Workshop: Can we identify children at early ages with high risk for overweight? Pros and Cons

Chairs: Tanja Vrijkotte, The Netherlands and HA Smit, The Netherlands
Organizer: Academic Medical Center, Department of Public Health

Childhood overweight is highly prevalent and overweight children have an increased risk for obesity at adult age with related complications. A decrease in healthy life years and an increase in the costs related to health care can be expected in the near future.

Can we reverse this trend by effective interventions? The rate of success of interventions focussing on changes in diet and physical activity in the long run is very low, indicating that behavioural changes are difficult to establish or maintain in already obese children. Should we shift our focus towards the primary prevention of overweight starting at a young age? How well can we identify children at early ages with higher risk for later overweight and obesity? And, which strategies are optimal?

In this workshop we will address these questions and discuss whether it is possible to construct validated prediction models with the current knowledge with satisfactory predictive value. We will also discuss whether these models can be converted into practical tools for Youth Health Care.

The objective of this workshop is to integrate expertise concerning early risk factors, prediction models and development of practical tools. Combining this knowledge in one session creates an optimal environment which is necessary to have a lively discussion about the pros and cons of early screening for childhood overweight and obesity. One presentation will focus on early risk factors, two on predictive models and developed tools and one on intervention studies (12 min, 3 min questions). Two discussants will summarize the advantages (discussant pro) and disadvantages (discussant cons) of early screening for childhood overweight and obesity (10 min). After these statements, the audience will be invited to discuss the pros and cons (20 min).

Ethnic differences in overweight at the age of 2: the role of prenatal factors, birth outcome and postnatal factors

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Background

Childhood obesity is a major public health issue and disproportionally affects the ethnic minority populations. We aimed to study whether these differences are already present at the age of 2 years, and the extent to which these differences are attributed to prenatal factors, birth outcome or postnatal factors.

Methods

Data were derived from a multi-ethnic cohort in The Netherlands (ABCD-study). Weight and height data of 3120 singleton infants at age 2 years were used. Overweight status was defined by the International Obesity Task Force guidelines in eight ethnic populations: Dutch ($n = 1608$), Surinamese-Hind ($n = 57$), Surinamese-Creole ($n = 123$), Antillean ($n = 41$), Turkish ($n = 171$), Moroccan ($n = 261$), Ghanaian ($n = 57$) and other non-Dutch ($n = 800$). The explanatory role of prenatal, birth outcome and postnatal factors in ethnic disparities in overweight was assessed by logistic regression analysis.

Results

Prevalence of overweight was higher in the Turkish (19.3%), Moroccan (16.9%) and Ghanaian (17.5%) groups than in the Dutch group (7.2%). Although maternal pre-pregnancy body mass index (BMI) (prenatal factor) contributed to the ethnic differences (13%), the risk of being overweight remained higher in the Turkish [odds ratio (OR) 2.43; 95% confidence interval (CI) 1.42–4.15] Moroccan (OR 2.09; 95% CI 1.29–3.40) and Ghanaian (OR 2.58; 95% CI 1.16–5.70) groups. The remaining differences were for 45% accounted for by weight gain during the first 6 months of life (postnatal factor). Although maternal height, birth weight, gestational age and gender were associated with overweight, no substantial contribution to explaining ethnic disparities was found.

Conclusions

Turkish, Moroccan and Ghanaian children in The Netherlands have a 2- to 3-fold increased risk of being overweight at the age of 2 years, which is largely attributed to maternal pre-pregnancy BMI and early infant weight gain. This knowledge about early risk factors opens new avenues to tackle ethnic differences in overweight and contributes to the discussion in this workshop concerning identifying children at risk.

Identifying 2- to 6-year-olds without overweight at high risk for adult overweight based on BMI SDS changes: The Terneuzen Birth Cohort

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The results of secondary prevention of overweight are often disappointing, especially in the long term. Therefore we aimed to develop a tool to identify children with high Adult Overweight (AO) risk, based on BMI SDS changes between 2 and 6 years. We fitted a linear spline model to BMI SDS of 762 Caucasian young adults from the Terneuzen Birth Cohort at fixed ages between birth and 18 years. In this way we obtained estimated values of BMI SDS at these ages, including 2, 4 and 6 years. By logistic regression, risk models of AO ($BMI \geq 25$) were developed and presented as risk score diagrams for both sexes for the periods 2–4 years and 2–6 years. ROC analysis provides insight into sensible cutoffs (AUC varied from 0.76 to 0.83). The risk score diagrams can serve as a tool for young children for primary prevention of adult overweight. In an expert meeting the discussion can focus on the pros and cons of designating children at high risk for AO, and offer them targeted interventions. To avoid wrongly designating children to a high AO risk group as much as possible, we propose a cutoff at the risk of ~0.5 with a high specificity (for both risk score diagrams ~93%). This means that at a cutoff of 0.5 only 7% of the children that are not overweight at adulthood, would have been wrongly designated at high risk of AO. After external validation, wider adoption of this tool might enhance cost-effective primary AO prevention by offering targeted interventions to children with high AO risk.

Predicting the risk of newborn children to become overweight later in childhood

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Background

Prevention of overweight has high priority in public health policy. The aim of this study was to develop a decision rule by which children with a high risk to develop overweight can be distinguished at birth from children at low risk.

Methods

Data of 1687 Dutch children born in 1996–97 who participated in the Prevention and Incidence of Asthma and Mite Allergy (PIAMA) longitudinal birth cohort study were analysed. Overweight at 8 years of age was predicted using child and family characteristics that are easily available at the time of birth. A prediction model was developed using stepwise model selection based on the Akaike Information Criterion (AIC). The prediction model was internally validated using resampling techniques.

Results

A total of 13.9% ($n = 253$) of the children were overweight at 8 years of age. Independent positive predictors of overweight were paternal and maternal BMI, female gender, smoking in parental house, birth weight and hospital delivery. From the model, a decision rule was derived by which an overweight score could be calculated. Of the children with an overweight score <89.44, only 2.7% were overweight at the age of 8 years, whereas in children with an overweight score >105.02 the prevalence of overweight was 35.4%.

Conclusions

The risk on overweight at the age of 8 years can be predicted with six characteristics that are available at birth. The decision rule developed in this study may help to target early preventive measures against overweight at high-risk children.

Prevention of overweight in preschoolers, a cluster randomized trial

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Background

In a Dutch cross-sectional study into overweight risk factors were: overweight mothers, unemployment and parents with a non-western background ($n = 390$). In a randomized controlled trial (RCT) including children 0–3 year old, the following behaviours are promoted: breastfeeding; outdoor exercise and play; having breakfast daily; few soft drinks; less TV time, long sleep duration, positive childrearing and reduction of snacks.

This study evaluates the effects on the prevention of overweight of two YHC interventions, 'BBOFT+' and 'tailored advice', compared with care-as-usual, as applied to children of 0–3 years old and their parents.

Methods

In this RCT, 45 youth health care (YHC) teams of 10 regional YHC providers participate; 1500 children will be included after birth and followed till the age of 3 years.

The 'BBOFT+' intervention aims at implementing healthy life-style habits through focusing on effective child rearing.

Results

Outcome measures are BMI at the age of 3 years, energy balance-related behaviours and parenting practices. Subgroup analyses will direct at groups with different socio-economic status and different ethnic background. Inclusion of the families of the main study has been completed.

Conclusions

Prevention of overweight should start at an early age. The developed tools to target the parental behaviours, and the way the health care workers are trained, will be presented in this workshop.

3.9. Workshop: Impact on Public Health Services by changes in the climate

Chair: Peter van den Hazel, The Netherlands
Organizer: Public Health Services Gelderland Midden, Arnhem, The Netherlands

Background and objective

Climate TRAP is a European project funded by DG Sanco. The aim of the project is to strengthen the preparedness of the Public Health sector on the health impact due to key stressors in climate change and in relation to key European action plans and adaptation strategies.

Methods

The project looks into the impact of climate change on the health of the general population. This impact will be translated into the impact on the Public Health System in Europe. This means that we are looking at the increased need for capacity at Public Health Services, at Emergency departments of hospitals, and in medication use. The stressors which will be studied are vector borne disease, heat waves, water borne diseases, food borne diseases, air pollution and UV radiation. Models are applied to predict the changes in diseases incidence and geographical patterns.

Results

A range of diseases will be changed in their incidence and geographical spread by the years 2015, 2020 or 2030. There are many complicating factors in the prediction of these future rates. Some difficulties will be presented.

Conclusions

It is difficult to predict the exact existence of health effects in the future. On the basis of some climatological changes we can predict an increase in general terms for some infectious diseases, but it is difficult to quantify the exact incidence rates.

Climate-change-related stressors that influence health of the public

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Studies have shown that there is a wide variety of stressors that are influenced by climate conditions and pose an impact on the health of the public. This includes heat-related health effects, allergens, vector-borne infectious agents, food-borne infectious agents, floodings, air pollution and ultraviolet radiation. Expected is that due to climate change, the impact of some of these stressors on health will increase. An overview will be given on various stressors that are influenced by climate change.

Adapting the health-care system to climate change: results of a European inventory

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Health impacts of climate (change) can be ordered in three categories: direct impacts through extreme weather events (heat stress, flooding, cold spells), secondary effects when weather patters influence other local systems (e.g. agriculture, food production, disease vectors) that in turn affect health, and tertiary effects that stem from global impacts that affect the local health situation through changes in global trade, wars and immigration. The effects of the secondary and especially the third category are likely the strongest ones in countries with a temperate climate. But the health-care systems are not yet prepared to adapt to tertiary impacts nor is this possible as long as scenarios and clear decisions in other policy fields are lacking.

Therefore, we concentrate on adaptation processes in which the health-care system can take the lead. These processes were ordered in a table linking adaptation measures with relevant stressors. Based on this system European experts were asked to provide the information regarding their own country.

Adaptation measures do take place but are often poorly coordinated. Adaptation simply happens and data are collected (if at all) by different institutions both on a national and on regional levels. Some national institutes try to coordinate the work but often only concentrate on selected aspects of this broad theme. From some countries we received convincing information that they still lack any national adaptation strategy and their preparatory work regarding the health sector has not started yet. Other countries drafted national adaptation strategies but health is not featured dominantly while in other national strategies the health sector is well integrated.

Climate change has a long-term perspective. Hence, education of young health professionals at present is essential to prepare them for future decades. Little is seen yet in this regard in the European medical curricula.

Assessing the impact of climate change on health

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Objective

Different output scenarios (in size/geographical spread) in climate change will be used, in order to get insight in what has to be expected from the public health sector to be prepared for climate change effects, using different timescales.

Methods

There are three types of feasible methods: (i) analogue studies, based on empirical observations of current health effects, e.g. mortality studies during heat waves, (ii) studies of early effects, based on observations of effects of climate change as precursors to health problems (vectors and infectious diseases), (iii) predictive models, using calculations based on known or expected relationship. The work will use geographical information systems and models which calculate the burden of disease, e.g. in Disability-adjusted Life Year scale, or the size of health effects due to catastrophic events. Different scenarios will provide insight in the range of effects due to the different possible extent and spread of climate change effects. The health effects concerned could be direct health effects (heat stress) or indirect effects (infectious diseases). Other effects could be indirect but remote, such as water shortness, desertification, etc. The effect should be related to human health (e.g. quality of water, availability of food).

Results

The results will be analysed in term of key disease or health effects of concern, monitoring data, modelling and predictive tools in relation to health assessment and impact.

3.10. Workshop: The impact of stressful life events on mental health

Chairs: Jutta Lindert, Germany and Lena Andersson, Sweden
Organizer: EUPHA section on Public Mental Health

Although significant associations of life events and violence along the life course with adult mental disorders have been documented consistently in epidemiological surveys, these studies generally have examined only stressful life event per study.

Objective

To examine the associations' life events with the first onset and course of mental ill health. The life events and determinants in our studies were highly prevalent and correlated. The stressful life events cluster (e.g. socio-economic situation, family violence, physical abuse, sexual abuse and neglect) were the strongest correlates of disorder onset. Associations over the life-course stage will be investigated.

Determinants of mental health in different age groups: results of a national representative survey

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Introduction

The distribution of determinants of mental health can vary with age. It was the aim of this study to analyse the association of different variables of mental health in different age groups.

Methods

The analysis is based on the data of the Austrian Health Interview Survey (AT-HIS) 2006–07 ($N = 15\,474$ aged ≥ 15 years). The interviews were conducted face-to-face using CAPI (computer-assisted personal interviewing). The questionnaire was designed based on the European Core Health Interview Survey (EC-HIS) and was adapted to the Austrian setting by a national expert panel. As independent variable an indicator termed 'mental health' was built. This indicator consisted of 10 questions. In linear regression analyses the association of different socio-demographic and socio-economic variables external health resources and detriments and personal health resources and detriments and health behaviour and the mental health status were analysed in three different age strata (15–29, 30–59, ≥60 years).

Results

In subjects aged 15–29 years a significant association between mental health status and the co-variables was found to be psychological health resources with a standardized β of 0.60 ($P < 0.001$). In subjects aged 30–59 years there were significant associations found between mental health and income (standardized β 0.07, $P = 0.11$), education (standardized β -0.14, $P < 0.001$), familial situation (standardized β 0.09, $P = 0.002$), the social network (standardized β 0.09, $P = 0.004$), physical exercise (standardized β 0.08, $P = 0.001$) and with psychological health resources (standardized β 0.42, $P < 0.001$). In subjects aged ≥60 years, there was no significant association of any of the analysed covariates with the mental health status.

Conclusions

This analysis shows that in different age groups the mental health status is dependent on different health resources. While in younger psychological health resources have the highest impact on mental health, in middle-aged subjects influencing factors on mental health include socio-economic status, social relationships, familial resources and physical activity.

The contribution of psychosocial work stressors and non-work stressors to common mental disorders in the adult psychiatric morbidity survey (2007)

Charlotte Clark

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Background

While associations have been established between psychosocial work stressors and common mental disorders (CMD), other non-work factors such as recent life events and low social support also show robust associations, indicating that CMD have multifactorial causation. To date, few studies have examined the combined influence of work and non-work stressors on CMD, and those which have tend to examine only one type of non-work stressor. The aim of this article is to establish the contribution of work-stressors to CMD, compared with non-work stressors using multiple measures of work and non-work stressors.

Methods

The Adult Psychiatric Morbidity Survey (APMS) 2007 is a stratified probability sample survey conducted among adults aged ≥16 years living in private households in England. CMD in the past 7 days were assessed. Work stressors were assessed using Karasek's Job Demand-Control and Siegrist's Effort Reward Imbalance models. Non-work stressors included recent life events, social support, discrimination, domestic violence, caring responsibilities, and financial strain. Preliminary logistic regressions adjusted for gender, examined the associations of the work and non-work stressors with CMD. Analyses were weighted to take account of non-response and survey design: working age participants were selected for the analysis.

Results

Non-work stressors including any life event, domestic violence, caring responsibilities, low social support and financial strain were all associated with CMD [odds ratio (OR) ranged 1.66–3.79]. Work stressors including high demands/high control, high demands/low control, and low demands/low control were associated with CMD (OR ranged 1.41–3.09); similarly, low rewards/high effort, high rewards/high effort, and low rewards/low effort were associated with CMD (OR ranged 1.82–4.78). Further multivariable models will be presented that examine the combined influence of work and non-work stressors on CMD.

Conclusions

The findings will further contribute to understanding and policy relating to the impact of the psychosocial work environment on psychological health.

Violence and life events in childhood and mental health as adults

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Background

Exposure to stressful life events violence and neglect are widespread among children. Stressful life events and especially neglect and violence are recognized to be important risk factors for common mental disorders (CMD) and for post-traumatic stress symptoms. Their prominence may vary across age groups and across men and women.

Methods

Prevalence and psychological impact of specific violent events in a German community sample of $n = 486$ men and women aged 60–85 years. Socio-demographic, stressful life events and CMD and post-traumatic stress symptoms were disorder were ascertained through standardized questionnaires. Data collection was done from January 2009–July 2009 by face to face interviews. Bi- and multivariate regression analyses were done to describe the overall rates of violent life events in childhood and the prevalence rates of CMD and post-traumatic stress symptoms in late life while controlling for the effects of age and gender.

Results

Among the $N = 648$ respondents were 52% female ($n = 343$) and 48% male ($n = 305$). A history of life events pertaining neglect and interpersonal violence in childhood was established (21.9%; $N = 142$). Lifetime prevalence rates of CMD symptoms and post-traumatic stress symptoms. The prevalence rates were highest for neglect, humiliation and physical violence; lowest for sexual violence. The strength of association between life events increased the risk for CMD and for post-traumatic stress symptoms later in life even 40 years after the events. A dose response relation was found between the number of types of violence reported by the elderly and mental health scores for CMD and post-traumatic stress symptoms.

Conclusions

Neglect and violence are strongly associated with CMD and post-traumatic stress symptoms in late life; future research examining the effects of exposure to violence should include a wide range of violence experiences over the life course.

Associations between general self efficacy, barriers to care and self-reported mental illness—a population-based study

Lena Andersson

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Background

Mental illness is an increasing health problem globally. However, many individuals do not seek health care although evidence-based care is available. Research has shown that self efficacy is associated with various health outcomes and it is of importance to investigate if it also is associated mental illness. Early detection promotes recovery and decreases suicide risk.

Aim

The aim of this study is to investigate whether low levels of self efficacy is associated with a higher degree of mental illness and whether level of self-efficacy influence health seeking behaviour.

Methods

This is a cross-sectional study based on data from the Health Assets study, with data collected in 2008 in West Sweden. The study population is a randomly selected population sample of 4027 individuals, aged 18–65 years. Data collection was done by a postal questionnaire and the response rate was 50.4%. Bi- and multivariate analyses were employed to investigate associations and results were stratified on sex, age, civil status, education and social support.

Results

A total number of 1361 (36%) out of 3811 individuals answered ‘Yes’ on the question ‘Have you ever felt so mentally ill that you had (felt a need) to seek care’. A total of 33% of the women answering yes were found in the lowest quartile of the general self efficacy scale, 20% in the highest quartile. Corresponding figures for men were 30 and 23% respectively. The most common reason stated for not seeking health care was a belief that the mental health problem would disappear by itself. Others reasons mentioned were beliefs that health care would not help, they did not know were to go or they felt ashamed for showing others they suffered from mental illness.

Conclusion

Mental illness is a serious health problem and access to care needs to be improved. Health promotion should also include individual traits/characteristics such as self efficacy and health-seeking behaviour.

3.11. Workshop: Migration and health in the European Union

Chairs: Bernd Rechel, UK and Walter Deville, Netherlands

Organizer: European Observatory on Health Systems and Policies and EUPHA Section on Migrant and Ethnic Minority Health

Migrants comprise a growing share of European populations. However, all too often their situation is compounded by immigration and citizenship regulations, socio-economic deprivation, cultural differences, language barriers and problems in realizing their human rights and in accessing health and other basic services. There is a need for tailored health policies, but robust data on the health needs of migrants and how best to meet them are scarce, partly because routine data on migrant health are only available in few European countries and understandings of who constitutes a migrant differ widely. Furthermore, the number of countries in Europe with well developed policies on the health of migrants is still small.

This workshop will start bridging this information gap by presenting preliminary findings of a European research project undertaken in 2010–11 by the European Observatory on Health Systems and Policies, the EUPHA Section on Migrant and Ethnic Minority Health, and the International Organization for Migration. The project brings together available evidence on the health needs of migrants in the European Union and how these can be met most effectively. Particular attention is being paid to the health needs of the most vulnerable groups of migrants who also face the highest barriers to accessing services, such as asylum seekers, refugees, undocumented migrants and victims of trafficking.

The workshop will explore four key topics of migration and health in the European Union. It will start with a review of the legal rights of migrants to health care and their implementation. This will be followed by an analysis of migrants’ access to health care. The last two presentations explore current migrant health policies in the European Union and examples of best practice of health care for migrants. The presentations will be short enough to allow for plenary participation and debate.

The right to health of migrants in Europe

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Background

Migrant health is receiving increasing attention worldwide. This is particularly the case in Europe, as demonstrated by legal, policy and practice developments that have occurred in recent years. International and regional instruments, which are often in line with national constitutions and statutes, recognize that health is a human right. These instruments aim at ensuring protection of health and equitable access to health services, goods and facilities of appropriate quality for all.

Methods

Collection and analysis of instruments recognizing the right to health and health-related rights, followed by an assessment of their implementation via policies, programmes and projects that respect the human rights of all, including migrants.

Results

Notwithstanding the efforts various actors have undertaken, states' practices do not always conform with the standards set out in the international and regional instruments. The universal application of social rights, including the right to health, in conformity with the principle of non-discrimination is still challenged. Accessibility to and appropriate utilization of health services by migrants can be hindered by various obstacles in Europe, like elsewhere.

Conclusions

It is possible and beneficial for European states to fulfil their obligations to safeguard the right to health and health-related rights of migrants on their territory. Human rights, public health and health economies approaches all lead to the same conclusion. Realization of the right to health has to be guaranteed throughout the migration life-cycle in countries of origin, transit and destination alike.

Access to health care for migrants in Europe

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Background

Many studies have shown inequalities in access to health services among migrants compared with the majority population. Different explanations have been offered, including lack of formal rights, as well as informal barriers. The presentation will provide a conceptual framework for analysing problems of access and give examples of ways in which inequalities in access related to migration have been documented.

Methods

Review of European publications on conceptual developments within the field of equity, migration and access to health care, as well as empirically based literature on barriers and utilization patterns.

Results

Inequalities in access are often studied directly by identifying formal or informal barriers or indirectly by analysing utilization patterns in relation to actual needs. Formal barriers have been identified through international policy analyses and surveys, revealing variations in rights to medical care related to migrants' legal status. Informal barriers have been studied through surveys and qualitative methods, indicating a number of different obstacles for achieving qualified health care for migrants, such as problems of communication, professional competencies and perceptions of disease and care. Epidemiological studies have produced a growing bulk of evidence regarding differences in use of health care, but not always taking different needs into account. This requires more refined methods analysing population-based interventions (vaccination, screening), stage of disease, survival after treatment, etc.

Conclusions

Studying access to health care among migrants offers opportunities to identify barriers in health care for the optimal use of services among large population groups in Europe. The complexity of the problems calls for further development of theory, concepts and research methods which will also apply to many other vulnerable groups. The available evidence, however, also points to the need for studies on new kinds of interventions promoting migrant health in Europe.

A framework for comparing migrant health policies in Europe

Philipa Mladovsky

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Background

While information on national policies regarding migrant health is increasingly available, there has been little analysis to identify trends across countries and opportunities for learning. This study aims to fill this gap by developing a framework to systematically compare migrant health policies across 18 European countries.

Methods

Analysis of reports gathered under the Mighealthnet project and supplementary updates.

Results

The first result relates to data collection. The study indicates that European countries rarely collect health data by ethnic group. England, Italy, The Netherlands and Sweden are exceptions, as they collect hospital utilization data by migrant status. However, almost no country collects data on primary-care utilization of migrants.

A second issue is the targeting of population groups. Only seven countries have elaborated specific policies on migrant health. However, these countries typically focus on either first generation immigrants or ethnic minorities, but not both, despite the often divergent needs of the two groups.

Another issue is whether specific diseases should take priority. While communicable diseases, sexual and reproductive health and mental health have been targeted, little attention is paid to preventive care.

Fourthly, decisions about what part of the health system is targeted need to be evaluated.

Finally, there is the challenge of implementation. Although migrant health policy has been elaborated, in many instances implementation has lagged behind.

Conclusions

The study suggests there are opportunities for improving migrants' access to health care by increasing the role of evidence and international experience in policy-making.

European best practice of health care for migrants

Marija Bogic

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Background

Meeting the health needs of the increasing groups of immigrants is a major challenge to public health throughout Europe. The objective of the EUGATE study was to bring together a multidisciplinary consortium from 16 European Union countries to consolidate currently fragmented knowledge in the field and identify and exchange models of best practice of health care for migrants.

Methods

In 2008–09 a total of 238 face-to-face interviews (at least 13 in each participating country) were conducted with providers of primary care, mental health and emergency services working in districts with the highest percentage of migrants in 16 European capitals. Using open questions, data were elicited on what works well in health care with immigrants, what the problems are, and what suggestions for improvements practitioners have. Answers were examined using content analysis.

Results

Preliminary results indicate five common aspects of best practice: (i) availability of professional interpreting services and translated materials, (ii) sensitivity and adaptation of services to patient's cultural needs, (iii) entitlement to equal care for all, (iv) an integrated approach with good collaboration within and between health care and social services, and (v) initiatives to inform newly arrived migrants about the health care system.

Conclusions

The evidence collected in the EUGATE study suggests that policies aimed at improving health care for migrants should include strategies that will ensure use of translation/interpretation services, foster multisectoral alliances, promote cultural awareness among staff through training/education, and increase awareness about the organization of the health care system and services available.

3.12. Workshop: Motivational interviewing: how to improve your preventive interaction with adolescents

Chairs: Auke Wiegersma, The Netherlands and Jolianne Hellemans, The Netherlands

Organizer: EUPHA section on Child and Adolescent Public Health

The prevalence of cigarette smoking, levels of drinking with the emergence of new patterns of binge drinking and rising levels of illegal drug use in adolescents are causes for great concern. This is in part caused by the fact that these forms of behaviour are highly predictive for a large range of long-term negative outcomes such as depression, violence, risky sexual behaviours and suicidal ideation.

Although effective intervention and prevention measures are reported, our capacity to influence young people's choices and behaviours with effective prevention and intervention still do not come up to the mark. The reasons for this is that most of these preventive intervention fail to take into account the many possible rewards for substance use: increased energy, less problems, boredom and depressive thoughts, management of effects from other drugs, and/or increased confidence.

In public health, enabling adolescents to change their behaviour (and maintain healthy behaviour) to prevent or reduce negative outcomes is still a challenge. Rollnick and Miller designed concrete techniques to be able to use the motivational interviewing principles in brief (medical) contact settings. Key principles are: (being nonjudgmental in) the use of feedback, focussing on the perspective of the individual, advise-giving, providing several change options, an emphatic counselling style and the enhancement of self-efficacy.

Motivational interviewing (MI) is not just another 'bag of tricks', but a successful method to skilfully improve your communication. The right style and spirit of communicating is vital; adolescents can easily recognize whether the health professional is authentic or not.

MI is particularly attractive to young people, because it is non-confrontational and does not impose specific outcomes: minimizing resistance is central to MI. In relation to young people's substance use, it may be all too easy to try too hard to persuade and thereby negate any potential beneficial effect by invoking resistance. Thus an intervention which helps young people to consider risk may not reduce substance consumption, but may nevertheless be influential other possible measurable benefits involve reduction of harm or risk.

Objectives and format of the workshop

The aim of the workshop is to train the participants in using the principles of MI for promoting healthy behaviour in adolescents. First, the 'state of the art' regarding the effects of MI will be presented as well as some examples of the use of this method with adolescents that have substance use problems. The greater part of the workshop will be used for training using example cases.

For those that are not primarily interested in adolescent public health, it may be interesting to know that MI can be used with adults as well!

1. Tjitske Teeuwisse, child and adolescent psychiatrist at the Northern Institute for the treatment of Drug Addicts, The Netherlands (invited): State of the art of Motivational Interviewing: results of recent research and practical experiences (20 min).
2. Jolianne Hellemans, MSc Health Education Specialist and Saskia Lieffering MSc Adult Education Specialist: introduction into the technique of Motivational Interviewing and explanation of workshop proceedings (15 min).
3. Training in Motivational Interviewing using two example cases (45 min)
4. Auke Wiegersma, youth health care physician at the UMCG Health Sciences, The Netherlands. Wrap up and take home messages + future activities CAPH (10 min)

3.13. Society and health

The exposure to recreational water: are European guideline microbiological indicators effective to prevent health outcomes? A systematic review

Maria De Giusti

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Background

Since 1950, epidemiological studies have investigated the relationship between health risk and swimming. Although the European legislation adopted the Directive 2006/7/EC Bathing Water, questions remain on the validity of current normative limits and indicator use. We conducted a systematic review to quantify the association between illness and different microbiological indicators of recreational water under non outbreak conditions.

Methods

We searched in computerized databases (PubMed and Scopus) for studies reporting exposure in marine or fresh waters, microbiological water quality indicators, health outcomes (gastrointestinal, dermatological, ophthalmological, otorhinolaryngoiatric diseases) and associations measures. Preliminary analysis was conducted selecting studies with the highest indicator concentration and that used colony-forming units per 100 ml as indicator metric.

Results

We retrieved 1973 abstracts of studies published from 1953 until 2007. Of these, 30 matched the selection criteria and were included in the final review. Among the selected studies, the sample size ranged from 144 to 26 686 subjects. Eighteen were conducted on marine water and 12 on fresh water. Faecal water quality indicators utilized in the studies were mostly *Escherichia coli*, *Faecal coliform* and *Enterococci*. We found first use of Bacterioides for faecal source tracking in two papers with contrasting results.

The gastrointestinal risk levels were: *E. coli*, relative risk (RR) = 2.46, 95% confidence interval (CI) 1.31–4.65; Faecal Coliform RR = 2.02, 95% CI 1.46–2.77; Enterococci RR = 1.95, 95% CI 1.53–2.49.

Conclusions

Our preliminary results suggest a strong relationship between gastrointestinal outcomes and faecal microbiological indicators. Particularly, *E.coli* resulted the most used indicator with higher association, maybe for the elevated percentage of studies conducted in marine water (60%) considered.

The promising use of Bacteroides as new indicator, enabling an alternative strategy for determination of the public health risk, needs more evidence on the strength of the association with illness.

Driving forces in the success of municipal solid waste recycling practices: results from a comparative study

Andrea Poscia

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Background

Every year in the European Community 1.3 billion tons of waste is produced. The Eurostat data from 1995 to 2003 are likely to relate the increase of wealth, due to industrial development and living conditions improvement as well with other social and participation determinants, with the increase in waste production. Data referring to Italian regions show a situation of limited effectiveness of the current policies implemented to tackle the municipal solid waste management, with a relevant discrepancy between regions. The aim of this work is to identify and assess the role of social and economic determinants on the success of political and Public Health governance, regarding the management of solid urban waste.

Methods

From a literature review of primary and institutional sources we identified and collected a set of regional indicators: economical-social context, industrial productivity, environmental governance, consumption (household), empowerment, accessibility. Data have been processed through the correlation test of Spearman's rank-adjusted Bonferroni ($P < 0.05$).

Results

The analysis shows statistically significant correlation between the waste recycling rate with: the fabric production ($r = 0.8872$) and the accessibility of the citizen to separate collection of paper ($r = 0.8253$), glass ($r = 0.8752$), drugs ($r = 0.8161$), aluminium ($r = 0.9216$), plastic ($r = 0.8838$) or other materials ($r = 0.8376$) respectively. Furthermore, the correlation is relevant both in relation to the tariffs on final management ($r = 0.8647$) both compared with the empowerment ($r = 0.7949$) and in particular to the 'development capacity of social services' ($r = 0.8309$).

Conclusions

As a result of the impact factor that recycling practices play on the environment, its success takes on a basic value in relation to virtuous environmental governance. Structural requirements (expression of accessibility to the collectors) can't be the only determinant of environmental policy success, as the empowerment of individual citizens and/or of the community represents a fundamental aspect to take more on consideration.

Survivors of the war in the Northern Kosovo (I): violence exposure, risk factors and public health effects of an ethnic conflict

Shr-Jie Wang

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Background

We aimed to study the long-lasting effects of ethnic conflict on health and well-being (with a focus on injury and persistent pain) at family and community level. We have also investigated possible risk factors for victimization during the conflict and factors contributing to healing.

Methods

The first part of a population-based study was a cross-sectional cluster survey of 1115 households with a population of 6845. Interviews were carried out in Mitrovice district in Northern Kosovo.

Results

Crude mortality and under-5 mortality rate was not high in 2008. Over 90% of families had been exposed to at least two categories of violence and human rights violations, and 493 individuals from 341 families reported torture experiences. During the 2 weeks before the survey, 20% of individuals had suffered physical or mental pain. There were differences in pain complaints according to gender and age, and whether people had been injured within 12 months, had lifetime exposure to violence-related injury, or had been tortured. Patterns of social and political participation in a family could affect the proportion of family members complaining of pain. The proportion of family members with pain complaints was related to a decline in the household income [coef = 9.31, 95% confidence interval (CI) = 6.16–12.46, $P < 0.001$] and the fact of borrowing money (coef = 6.11, 95% CI = 2.91–9.30, $P < 0.001$) because of an injured family member. Families that were affiliated with the Kosovo Liberation Army, or had participated in a protest before or during the war, were likely to be targeted by Serbian paramilitary and law enforcement agencies.

Conclusions

Mitrovicë district is currently characterized by a low level of violence, but the effects of ethnic conflict on health and well-being have not gone. The level of lifetime exposure to violence, the proportion of family members reporting pain and lifetime violence-related injury, and family's financial burden were found to be inter-correlated.

Public-health responses to social implications of climate change adaption and mitigation in Western Europe

Claudia Hornberg

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Introduction

The vulnerability of socio-economically weak population groups to climate change has been perceived mainly as an inequality at the global level. However, climate change can also exacerbate socio-spatial inequalities and environmentally caused health inequalities in industrialized countries.

Problem

Health co-benefits from primary preventive climate protection measures (e.g. reducing CO_2 emissions, planning of communal development/construction) and burden-reducing adaptation strategies do not affect all population groups equally, which profit differently from health benefits and are exposed differently to harmful effects of climate policy planning and decisions. When analysing the social impact of climate change, one must distinguish: (i) climate effects of direct health relevance; (ii) vulnerability and susceptibility; (iii) adaptation/

coping mechanisms; (iv) social distribution effects of climate policy measures and adaptation requirements.

Lessons

This article presents the cornerstones of an integrated public health climate adaptation/mitigation strategy and shows how politics can use burden-reducing adaptation strategies and primary preventive climate protection at the communal level as strategic public health measures to

- make the different vulnerability of social groups to the health hazards of climate change an integral part of the climate debate in Germany;
- promote an integrated approach including social, spatial and environmental aspects of climate change to foster cooperation between public health, planning, and housing and community development;
- use health-impact assessments when analysing health benefits and effects of social distribution for broad-based policy adaptation planning and effect assessment (e.g. distribution analysis, health equality profiles);
- promote synergies between public health approaches, systematize mitigation and adaptation frameworks, and promote use of potential health co-benefits (as by shaping public spaces).

Banking crises and mortality during the great depression: evidence from US urban populations, 1929–37

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Background

Previous research has suggested that the economic turmoil during the Great Depression led to significant improvements in public health. However, these studies have relied on highly aggregated national data (using <25 data points) and intermediary measures of economic change (such as gross domestic product). We use a new dataset of city-level estimates of US mortality and banking crisis as an indicator of the ultimate economic shock between 1929 and 1937 to analyse the immediate and underlying determinants of mortality change during Great Depression.

Methods

Cause-specific mortality rates covering 114 US cities in 36 states were taken from the US Bureau of the Census. Bank suspensions data, as an indicator of banking crises, were taken from the Federal Deposit Insurance Corporation. Epidemiological analysis was performed of the immediate causes of fluctuations in urban mortality rates weighted by population size. Dynamic fixed effects models were used to assess the immediate and delayed effects of bank suspensions on mortality.

Results

Reductions in all-cause mortality rates (~10% between 1929 and 1932) were attributable to declines in death rates due to pneumonia (26.4% of total), influenza (13.1%), and respiratory tuberculosis (11.2%), while death rates increased from heart disease (19.4% of total), cancer (8.1%) and diabetes (2.9%). Fixed effects models revealed that a higher rate of bank suspensions was associated with higher suicide rates [$\beta = 0.32$, 95% confidence interval (CI) 0.24–0.41], but lower death rates from motor vehicle accidents ($\beta = -0.18$, 95% CI -0.29 to -0.07); no effect was observed for other causes of death studied or for substantially differing delayed effects.

Conclusions

In contrast with existing research, we found that the majority of rises and falls in deaths during the Great Depression was unrelated to underlying economic shocks. Consistent with existing studies we observed that bank suspensions led to immediate rises in suicides but falls in road traffic fatalities. Further research should investigate alternative explanations for the observed reductions in infectious diseases and their marked variations across cities and states, such as nutrition, sanitation, the New Deal, Prohibition and other public health measures at the time.

Ad hoc surveillance of suddenly occurring events—the use of syndromic surveillance in assessing health impacts of the volcanic ash cloud covering Europe in April 2010

Helmut Brand

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Background

Traditional surveillance systems often need a preparation phase before they are able to measure potential health impacts of suddenly occurring events. Syndromic surveillance systems (SSS) might be faster adaptable. The volcanic ash cloud period (VACP, 14 April to 22 April 2010) caused by the volcanic eruption in Iceland in April 2010 was taken as a test case for the SSS of the EU co-funded SIDARTHa project (Grant Agreement No 2007208). Based on routinely collected emergency medical (EM) care data from different EU-regions it was aimed to identify the flexibility of the current pilot SSS. A major interest was to identify if the daily and the syndrome-specific amount of patients exceeded an expected amount of cases during VACP.

Methods

Pre-hospital and hospital EM data were received from Spanish, German and Austrian regions. The amount of patients during VACP in comparison to a reference period in 2009 was analysed and early detection algorithms like C1, C2 and C3 were applied on overall patient volume and on the volume of respiratory and cardiovascular syndromes.

Results

In comparison to 2009 the daily amount of patients varied before and during VACP. The age distribution of patients during the VACP did not differ significantly ($P > 0.05$). The analysis of the overall and on the syndrome-specific amount of patients resulted in one signal in respiratory syndrome during VACP [Austria (Tyrol): $N = 11$ on 19 April 2010]. Patients suffered mainly from breathing problems with impact on the speaking capability between breaths ($N = 6$).

Conclusion

As expected by official bodies like World Health Organization the applied SSS did not identify large increases in case occurrence. The identified signal on respiratory syndrome in Tyrol is caused by a significant aberration from expected values. But assumptions that this increase in cases occurred due to the ash cloud cannot automatically be drawn. As in all surveillance systems further in-depth analysis must be accomplished to identify more details. Finally, it was shown that the pilot SSS SIDARTHa could be adapted immediately showing the capability of SSS to be used for *ad hoc* surveillance after sudden events.

PARALLEL SESSION 4

Friday 12 November: 13.00–14.30

4.1. Workshop: Monitoring chronic respiratory diseases in Europe: what we know, new challenges and new opportunities for public health intervention

Chairs: E. Duran, Spain and Iveta Nagyova, Slovak Republic
Organizer: The IMCA Group & the EUPHA Section on Chronic Diseases

Obstructive lung diseases such as COPD and asthma are the most frequent causes of respiratory ill health covering all ages and producing a substantial and growing diseases burden worldwide. Despite the recognized need to monitor the epidemiology, clinical management and outcomes of the respiratory conditions at all ages at national and European level, the information available at present is still very limited. In order to firstly identify the key information necessary to monitor chronic respiratory diseases (CRD), the IMCA I project set up a panel of specialists in respiratory medicine, public health, epidemiology and agreed on a set of indicators to be included in the DG SANCO ECHI Group Framework. The assessment of data sources soon revealed the important limitations of the data coming from large international research studies and also routinely collected databases. Within the context of the IMCA II project three major efforts have been made. First, the information coming from research or routine data bases in Europe have been summarized and identified its strengths and limitations. Second, through the IMCA-HES Feasibility study the feasibility of using of new ICT tools to implement large epidemiological studies or surveys, perform home-based measurements including spirometry and monitor online quality data collection have been assessed. Third, due to the lack of information on CRD in the elderly population the IMCA-Respiratory Health Survey in the Elderly was successfully implemented using the technological tools previously tested. Finally, the IMCA II project confirmed that European nations lack of a standardized system to compare the burden of CRD and to evaluate the impact of preventive strategies and clinical management on health outcomes. In order to overcome the lack of information and improve respiratory health monitoring a specific module to be included in the future European Health Examination (EHES) has been recommended. This workshop bring the opportunity to share the experience of the IMCA project with public health professionals and explore future initiative for health information developments and public health interventions in the field of respiratory diseases.

The IMCA project: achievements and new challenges in monitoring respiratory diseases in Europe

Giovanni Viegi

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Introduction

European nations lack a standardized system to compare the burden of chronic respiratory diseases (CRD) and to evaluate the impact of preventive strategies and clinical management on health outcomes.

Objective

To agree a set of indicators to monitor major CRD in the EU suitable for inclusion in the DG SANCO European Community Health Indicators Project.

Methods

For asthma and COPD a panel of specialists in respiratory medicine, public health and epidemiology constructed a list of indicators according to the DG SANCO ECHI Group Framework. Following a literature review this list was modified into four main groups: (i) demography and socio-economic, (ii) health status, (iii) determinants of health and (iv) health systems. For each indicator, the rationale, aims, possible data sources, data quality, methods to be used for data collection, data presentation, potential use, consistency at international level and priority was evaluated. Indicators were then prioritized.

Results

A total of 262 indicators were proposed for COPD and asthma. The top 4 indicators for COPD were as follows: prevalence of physician diagnosed COPD, prevalence of smoking, hospital admissions and age-specific death rate. For asthma they were as follows: prevalence of physician diagnosed asthma, prevalence of wheeze, prevalence of asthma attacks and hospital admission rates. For many nations in the EU this information is still not ready available. See details at www.imca.cat.

Conclusions

Across the EU, routine health information systems and nationally based health examination surveys should aim to obtain data to generate these indicators.

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The IMCA—Respiratory Health Survey in the Elderly: methodological issues and preliminary results

Gudrun Weinmyar

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Introduction

COPD produces a substantial and growing disease burden worldwide and specially in the elderly population. In Europe, there is not any population-based study assessing the prevalence and clinical management of COPD focused on this age group.

Objective

(i) To estimate the prevalence of asthma and COPD in the elderly population in four European countries.

(ii) To estimate the indicators on asthma and COPD recommended and defined by the IMCA I project.

Methods

The study has a population-based cross-sectional design carried out in five European centres: Barcelona (Spain), Uppsala (Sweden), Ulm (Germany), Pisa (Italy) and Rome (Italy). In all centres the sample was randomly selected from a population registry and includes individuals aged 65 and over. Information on respiratory conditions was collected by the 'IMCA-RHSE Core Questionnaire' and the 'IMCA-RHSE Core measurements'. The measurements included were weight, height, blood pressure, pulse-oximetry, pre-bronchodilator spirometry and post-bronchodilator spirometry. Barcelona and Ulm centres also collected the 'IMCA-RHSE Optional Questionnaire' including: LAPQ physical activity, Barthel Index, Hospital Anxiety and Depression Scale (HADS), Mini Mental State Examination (MMSE), quality of life (SF-12) and the Mini Nutritional Asessment (MNA). The 'IMCA_RHSE Optional measurements' included Short Physical Performance Test.

Results

At this stage, the fieldwork is still ongoing and a total sample ($N = 5431$) individuals is already collected. It is expected to have finalized the study in 2 months and having a final sample of ($N = 7100$).

Conclusions

This will be the first population-based international survey assessing COPD and asthma focused in the elderly population and providing relevant information for public health intervention.

IMCA Recommendations on questionnaires and measurements to include in the future European Health Examination Survey (EHES)

D Jarvis

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Introduction

Health Examination Surveys (HES) are limited in Europe and most of them do not include measurements to assess chronic respiratory diseases (CRD) due to its methodological and organizational complexity.

Objective

(i) To assess the feasibility of using new ICT tools for performing interviews and home measurements in the context of large-scale international respiratory surveys, (ii) To recommend a module on respiratory diseases to be included in the new European Health Examination Survey (EHES)

Methods

The study has a a population-based cross-sectional and multicentre design carried out in 10 European centres: Barcelona (Spain), Uppsala (Sweden), Ulm (Germany, Pisa (Italy), Rome (Italy), Warsaw (Poland), Sofia (Bulgaria), Athens (Greece), Bergen (Norway). The sample was randomly selected from population registry and included individuals from 6 to 65 years old. Information on disease and respiratory symptoms was collected by GAL^{2}LEN (adults) and ISAAC (children) questionnaires. Spirometry, blood pressure, pulse-oximetry, height and weight measurements were performed using sensors. The new ICT tool operating through a technological platform supporting chronic care was used for data collection and transmission.

Results

A total of 556 individuals were included (56% males and 44% females) with mean age of $51 + 2.3$. Asthma prevalence was 10.3%, wheeze in the last 12 months 12.5%, and 53.6% of asthmatic individuals are currently taking asthma medication. All individuals completed the questionnaire and 91.6 % accepted to perform the measurements at home and all results were successfully transmitted to the central database with high level of security and confidentiality.

Conclusions

The IMCA Group, recommends the inclusion of a module on respiratory in the future European Health Examination Survey (EHES).

Wireless mobile technologies facilitates home-based spirometry testing and online data processing in large epidemiological surveys: results from the IMCA-HES Feasibility Study

F Burgos

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Introduction

New ICT tools to facilitate the performance of home-based spirometry testing are available. However, there are no studies showing the feasibility of using these tools and obtain high quality of data in large epidemiological surveys or health examination surveys (HES).

Objective

To assess the feasibility of using wireless mobile technology as a tool for performing high-quality home-based spirometry tests in the context of large-scale international respiratory surveys.

Methods

The study has a a population-based cross-sectional and multicentre design carried out in 10 European centres: Barcelona (Spain), Uppsala (Sweden), Ulm (Germany), Pisa (Italy), Rome (Italy), Warsaw (Poland), Sofia (Bulgaria), Athens (Greece), Bergen (Norway). The sample was randomly selected from population registry and included individuals from 6 to 65 years old. Pre- and post-bronchodilator spirometry tests were performed using the NDD Easy One. Tests quality was assessed using the grades A, B, C, D, E and F and spirometry curves were assessed individually by a technician.

Results

A total of 556 accepted to participate and were included in the study. The acceptance rate in each centre for a pre-bronchodilator test ranged from 92.7% to 100%. In contrast the range for the post-bronchodilator test decreased from 78.2% to 90.1%. The mean value for FVC was 3.44 ± 1.2; FEV_1 2.69 ± 1.2; FEV_1/ FVC 0.77 ± 0.10. Large variations in the quality of spirometry were observed between centres. The center with the lowest rate in quality A was 40.0% and the center with the highest was 74.2%.

Conclusions

The ICT tools help to perform high-quality home-based spirometry testing but they need to be used in the appropriate way to ensure quality monitoring and training over time.

4.2. Capacity building seminar: How to prepare a proposal for EU funding

Chair: Stan Tarkowski
EUPHA president
Organizer: EUPHA

The EU provides several mechanisms that fund innovative, state-of-the-art projects with an outstanding added value to the European community. Finding your way around the EU funding mechanisms, however, may prove difficult. The same goes for preparing an EU proposal that fits both the requirements from the EU as well as the person's/institute's own interests. In a first presentation, an experienced 'proposal submitter' explains the different EU mechanisms as well as experiences on the submitting and organizing process. In the second presentation, one or two 'EU insiders' will give their views on the EU funding process and provide the audience with some tips. Finally, a panel of experts in EU funding procedures will have an interactive discussion with the audience.

How to prepare a successful proposal for EU funding?

Dionne Kringos

DS Kringos
NIVEL—Netherlands Institute for Health Services Research, Utrecht

Background

Both national and international health services and public health researchers are struggling to find appropriate funding for their research ideas. On the one side this due to a scarcity in resources both nationally and internationally, and on the other side this is due to insufficient skills to prepare successful proposals for European Union (EU) finding. The EU provides several mechanisms that fund innovative, state-of-the-art projects with an outstanding added value to the European community. The aim of this presentation is firstly to show researchers which EU funding mechanisms are available, and secondly to explain the process of preparing an EU proposal, and the essential skills that need to be used in the preparation phase.

Methods

The presentation will be based on extensive experience in the preparation of both successful and unsuccessful proposals for EU funding. This is the basis for lessons on what to do, and what not to do.

Results

The first part of the presentation is spent on providing clarity in the labyrinth of EU funding mechanisms. Researchers will learn the importance of carefully selecting the most relevant funding mechanism to suit your research intentions. The second part of the presentation provides insights into how to manage the preparation of an EU proposal. This will include the translation of EU priorities into your own research interests and vice versa; awareness to award criteria; making a workplan from a to z; how to deal with a low success rate; preparing a feasible though relevant research design; how to select and approach project partners; how to assure a high EU added value; important steps in the writing process; and preparing an appropriate and relevant budget.

Conclusions

There is no one recipe for success. There are however a number of skills that each researcher can master if the dedication, interests and enthusiasm are in the right place.

A look behind the scenes—the do's and don'ts

Julian Mamo

J Mamo, Esther Verhoeven and Foske Smith, The Netherlands

These two presentations will provide some insider's tips on what to do and what not to do.

The first presentation is from a reviewer's side. What do reviewers of EU proposals look for? But also, how is the review process organized?

The second presentation by the Dutch National Contact Point (NCP) will provide tips to assemble a strong partnership and to write a successful proposal. NCPs are centres of expertise that give support to academia, research institutes and companies who are interested in the European Framework Programme and related European programmes from DG Sanco and IMI. They support applicants with information and independent advice about project proposals, arrange partner search, and organise training programmes. Esther Verhoeven and Foske Smith from EG-Liaison will provide their insight views here.

Interactive discussion with the audience with a panel of experts with:

- Floris Barnhoorn, EUPHA senior project officer
- Michael Rigby, UK
- Julian Mamo, Malta
- Dionne Kringos, The Netherlands
- Esther Verhoeven, The Netherlands
- Foske Smith, The Netherlands
- EC representative (tbc)

4.3. Integrating public health and primary care

Conceptualizing the integrating of public health, primary and social care services

Jennifer van den Broeke

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Background

A substantial part of inequalities in health can be attributed to a relatively unhealthy lifestyle of lower socio-economic (SE) groups. In Western European countries, services have been developed to promote healthier behaviour. People in lower SE groups however less frequently participate in these services, as services are fragmented, not structurally embedded, and insufficiently fit their health needs. Integrating public health, primary and social care services is promoted as the way forward. We carry out an evaluation of two pilots that aim at integrating public health, primary and social care services within two deprived neighbourhoods, Amsterdam North and Utrecht Overvecht, The Netherlands. Few empirical studies have been employed on this theme, and underlying concepts are relatively unexplored. Against this background, the initial objective of our developmental evaluation study was to build a conceptual model in order to conceptualise this integration process.

Methods

Data for the model are drawn from literature review and exploration of the developmental process in both pilots using qualitative methods (i.e. semi-structured interviews, document review and observations).

Results

The conceptual model builds upon existing practical, scientific, and contextual knowledge:

- Practically, the model frames collaboration between providers across the three sectors, the infrastructural changes (organizational and professional performance), changes in supply and possible uptake of preventive services.
- Integrated care in this study is grounded in three scientific literature strands. First, consistent public health orientation in policy making, community level as entry point for matching services to care needs, and empowering residents. Second, transformation of health care supply in order to meet new demands. Third, the potential of changing professional expertise practicing broader knowledge domains.
- The different contexts (population, prevailing health problems, prior organization and governance) allowed meaningful comparisons to identify factors hindering or facilitating integration.

Conclusions

The constructed conceptual model offers a solid basis for the evaluation of integrating public health, primary and social care services.

Primary health-care services and health promotion in rural Transylvania, Romania: perspectives for integrated approaches

Alexandra Brinzaniuc

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Background

The World Health Organization urges all member states to develop evidence-based approaches to health promotion, as well as increase investments, infrastructure and community capacity in this sense. However, developing evidence-based programmes to strengthen health promotion capacity is hard to accomplish with a limited body of research on this topic. This is the case in Romania, where available literature on health promotion is scarce. The purpose of this presentation is to examine health promotion practices in primary care settings in rural Transylvania, as well as to propose and define a set of guidelines for increasing capacity building in rural, primary health care practices in Romania.

Methods

This analysis is conducted on data extracted from a larger dataset, obtained through a cross-sectional study, with a quantitative strategy of inquiry, on access to health information in rural Transylvania. The study unfolds on a representative stratified random sample of 216 communes in Central and North–Western development regions in Romania, with data collected by means of a telephonic questionnaire, administered to primary care doctors ($n = 226$). Determinants of health promotion activities are assessed, and recommendations developed for health promotion capacity building in primary care.

Results

More than one-third of interviewed primary care doctors reported that no health promotion campaigns have been developed in their locality in the previous year, and more than half have never been involved in the development of and/or developed themselves a health promotion campaign. On the other hand, 77% reported that there exists community interest in the community towards these types of actions. Individual level determinants are explored in primary care settings, as well as institutional determinants like the lack of adequate supportive policy, and the lack of collaboration between local key actors.

Conclusions

Integrated strategies for health promotion capacity building in rural settings should thus consider pursuing a training component for health care professionals, complemented by a policy component for creating the framework for these activities, and finally a community-based approach for enhancing collaboration between local institutions.

Impact of organizational structure of general practice physicians on quality of care for chronic diseases

Maria Pia Fantini

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Background

In 2007, an agreement between the Emilia-Romagna Region and general practitioner (GP) organizations and Unions was made in order to allow GP to work in an integrated way, to simplify access to services and to guarantee care appropriateness and continuity. This organizational model was designed especially to meet the care needs of patients with chronic diseases.

Our aims are (i) to estimate some indicators of quality of care for diabetes, heart failure, stroke and post-acute MI in the Local Health Trust of Bologna with reference to the year 2008; (ii) to determine the appropriateness of management of these diseases by GPs in relation to their organizational structure.

Methods

For each disease, a patient cohort was identified through record linkage of administrative databases, including hospital discharge records, pharmaceutical database, outpatient specialist care, general practice patient registry. Organizational structure was arranged into four categories: individual practices, associations, networks and group medicine. Multilevel logistic regression models were used to examine the relationship between organizational structure and quality of care indicators taking into account patient characteristics and comorbidity and physician characteristics. Indicators of good management of each disease in terms of drug prescription and laboratory tests were selected according to international guidelines.

Results

Group medicine was the most effective integration form of medical care for diabetes. The relationship between this organizational structure and quality of care indicators remained significant after controlling for the effects of patient and physician characteristics. For the other chronic diseases, GP organizational structure was unrelated to quality of care.

Conclusions

Integrated care for diabetes, which is almost exclusively treated in the community, should be strengthened and further supported with incentives. For other chronic conditions more tied to hospital care, indicators of good management at community level are still to be defined in order to plan adequate forms of incentives.

Evolution of the concept of avoidable hospitalization through the selections of causes and codes: evidence from a comprehensive review

Ferruccio Pelone

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Background

Ambulatory care sensitive conditions (ACSCs) are diseases where the provision of primary health care (PHC) interventions may affect the severity of the disease and prevent hospitalization. This study aimed at exploring changes of different definitions and classification of ACSCs and the relationship with models of health care system in Established Market Economy countries, according to World Bank definition.

Methods

A key-word search on the medical literature published till 2010, was carried out on MEDLINE; SCOPUS and Chinail. In addition grey literature was explored. Included studies were primary epidemiological searches that referred to analyse the relationship between ACSC, PHC and health care model classified as National Health Service (NHS) type, Social Insurance (SI) type and Private Health Insurance (PHI) type.

Results

The primary search yielded 264 citations; after the selection process, 114 papers underwent detailed review. A total of 23 papers were eligible for inclusion. Most of the selected paper came from USA (10 studies), followed by European Countries (six studies), Canada (three studies), Australia/New Zealand (two studies) and other EME countries (two studies). By analysing health systems type, most of studies were targeted PHI model (39%), six studies (26%) were focalized on SI type of system, while eight studies were centered on NHS systems. The majority of studies have been carried on since 2002: from 2002 to 2006 (14 studies) and from 2006 to 2010 (three studies); before 2002 a small number of papers have been published (six studies).

Conclusions

Findings of our ongoing research show that both in different health care delivery systems and overtime, the choice of different definitions and diagnostic codes for identifying ACSCs impact significantly on the proportion of hospitalization attributable to ACSCs. To properly identify ACSCs will be useful to health services researchers and health policy makers; doing so strengthened targeted policy interventions to efficiently improve access to primary care.

A 3.5-year follow up evaluation of effect of a primary-care-delivered secondary prevention programme for cardiovascular disease in Ireland

Patricia Fitzpatrick

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Background

Heartwatch is a secondary prevention programme of coronary heart disease (CHD) in primary care in Ireland. The aim was to further examine the effect of the Heartwatch programme on cardiovascular risk factors and treatments of patients with up to 3.5 years follow-up.

Methods

Prospective cohort study of 12 358 patients with established CHD (myocardial infarction, percutaneous cardiac intervention, coronary artery bypass graft) recruited by participating general practitioners; patients invited to attend on a quarterly basis, with continuing care implemented according to defined clinical protocols.

Changes in risk factors and treatments at 1-, 2-, 3- and 3.5-year follow up from baseline were made using paired t-test for continuous and McNemar's test for categorical data.

Results

Important changes in systolic and diastolic blood pressure, total and low-density lipoprotein cholesterol and smoking status were seen at 1, 2, 3 and 3.5 years ($P < 0.0001$), with significant increase in proportions of patients within target. However BMI changes were small, with no significant improvement in waist circumference. There was a significant increase in prescription of secondary preventive medications and good patient compliance. Males were more likely to be within target for systolic blood pressure, total cholesterol, waist circumference and exercise level at 3.5 years, but less likely for BMI.

Conclusions

Studies of cardiac rehabilitation without any follow-up programmes show that over time patients revert in part to previous lifestyle habits; this primary-care-delivered programme has demonstrated sustained improvements in major risk factors, particularly smoking, blood pressure and cholesterol, and treatments for CHD. Weight management presents a greater challenge.

Analysis of public health services in Armenia, 2009

Ruzanna Grigoryan

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Background

Armenia is a small country in South Caucuses. It inherited a highly centralized and focused-on-hospital-care health-care system from Soviet times where public health was limited to infection disease control only. The economic collapse following breakdown of the Soviet Union and 1988 earthquake further led to dysfunctional public health-care system.

Methods

The objectives of analysis were to evaluate (i) different stakeholders' existing capacity and (ii) potential capacity for future modernization of Public Health services in Armenia. Overall, 179 participants from seven Ministries, various government agencies and departments, educational and service institutions, international organizations, non-governmental organizations and general population participated in the qualitative analysis (47 in-depth interviews and 18 focus group discussions with 132 participants) in January to June 2009. The study guides were developed based on the participants' roles/responsibilities and experience. The analysis was conducted based on nine WHO Europe's core public health operations.

Results

The fragmentary, sporadic and redundant nature of public health services and lack-of-capacity in human resources were identified as the overriding obstacles to modernization of public health system. This is reflected in part by the fragmentation and overlapping responsibilities in public health by many ministries, institutions and organizations. More than half a dozen government ministries and many state agencies have substantial role in public health. Some public health activities are provided by international organizations and national non-governmental organizations. There is no overriding state authority responsible for integration, coordination, collaboration, oversight, advocacy and quality control.

Conclusions

The next step following this situational policy analysis should be developing a specific Public Health Strategy for Armenia to reach improvements in the public health system based on the following basic principles of operation (i) evidence-based changes in the system and (ii) supportive supervision—teaching, training, advising and consulting should be superior to inspection.

4.4. Workshop: Increasing choice in end-of-life care: a public health priority

Chair: Barbara Gomes, UK

Organizer: King's College London, Department Palliative Care, Policy & Rehabilitation, London, UK

Background

The responsiveness of health care to people's preferences and expectations is an intrinsic goal of any health care system (WHO 2000). Despite international policy efforts to ensure choice in end-of-life care, a discrepancy remains between people's preferences and what they actually experience in terms of end of life care. Increasing ageing and deaths across Europe make this a pressing public health problem.

Several national end-of-life care strategies seek to ensure that terminally ill patients are cared for and die in their place of choice. Despite considerable evidence showing that well over 50% of patients wish to stay at home at the end-of-life, the majority dies in hospitals in many countries (WHO 2010). Given the importance of this matter for health care systems and individual patients, policies and actions need to be informed by evidence.

Objectives

This workshop aims to: (i) familiarize the participants with two key pan-European studies looking at preferences and priorities for end-of-life care and at place of death in cancer; (ii) provide participants the international evidence-based knowledge on what factors influence a home death in non-malignant conditions; (iii) encourage the development of robust epidemiological studies to identify inequities at the end-of-life, presenting a nationwide survey in Italy as an example of good practice.

Summary and paedagogical methods

The workshop will include brief presentations on the methods and findings from two cross-national comparative studies, models of the factors affecting place of death in cancer and non-cancer conditions based in systematic reviews, and the methods and findings from a nationwide mortality follow-back survey in Italy. Participants will be encouraged to discuss the presentations in relation to their context of work or country and informed by the evidence.

Expected outcomes

(i) participants' interest and awareness of the reality, policies and strategies aiming to increase choice in end-of-life care; (ii) the development of evidence-based action plans for enabling patients to die at home.

A Pan-European survey of public preferences and priorities for end of life care

Barbara Gomes

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This abstract will be included in the workshop to present a pan-European survey on public preferences and priorities for end-of-life care.

Purpose

To develop a valid and comparable questionnaire for comparing public preferences and priorities for end-of-life care in seven European countries.

Methods

Population-based telephone survey in Belgium, Germany, Italy, The Netherlands, Portugal, Spain and England. A multi-method approach to questionnaire development was taken to enhance validity and comparability. This included a literature review, three consultation rounds (individual feedback and group discussions with 27 experts), translation procedures (forward and backward translation and harmonisation across the seven countries) and piloting with 30 volunteers in the UK and Germany. Participants in the survey will be aged 16 years old and randomly selected using random-digit dialling and within households. Closed questions explore participants' views in a scenario of serious illness with less than 1 year to live. Questions ask about 'life' and 'care' priorities; preferences for information, decision making, place of death and focus of care (quantity vs. quality of life); concerning symptoms/problems; experience of death and dying; and socio-demographics. Descriptive, bivariate and multivariate analysis will examine variations.

Results

The literature review found: (i) no other cross-national survey of public preferences and priorities for end of life care; (ii) little about the priorities for end-of-life care of real or potential service users; (iii) vast and complex evidence for four types of end-of-life care preferences: (a) organization of care, (b) information, (c) medical procedures and (d) advance directives. The translation process resulted in harmonized translations of a 12-item questionnaire into seven languages. These addressed cultural variability (most prominent in psychological terms) and differences in alternatives for place of death. The fieldwork is about to commence and findings will be presented at the conference.

Conclusions

This is the first survey on public views on end-of-life care across Europe. Its findings will be instrumental to inform European policies and actions aiming to increase choice in end-of-life care.

Acknowledgements

This survey is part of the PRISMA project and is funded by the European Commission's Seventh Framework Programme

(contract number: Health-F2-2008-201655) with the overall aim to co-ordinate high-quality international research into end-of-life cancer care. PRISMA aims to provide evidence and guidance on best practice to ensure that research can measure and improve outcomes for patients and families. PRISMA activities aim to reflect the preferences and cultural diversities of citizens, the clinical priorities of clinicians and appropriately measure multidimensional outcomes across settings where end-of-life care is delivered. Principal Investigator: Richard Harding. Scientific Director: Irene J Higginson.

Which patients with cancer die at home in six ageing countries in Europe

Joachim Cohen

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Choice in end-of-life care is most strongly advocated in patients with cancer. This cross-national study provides an overview of where these patients die across six European countries using death certificate data.

Purpose

To examine the proportion of cancer deaths occurring at home in six European countries in relation to illness, demographic and health care factors.

Methods

Death certificate data of all cancer-related deaths in 2002 in Italy and 2003 in Belgium, The Netherlands, Norway, England, and Wales ($N = 238\,216$) were linked with regional health care and area statistics. Factors associated with dying at home were examined through multivariate logistic regressions.

Results

The percentage of all cancer deaths occurring at home was 12.8 in Norway, 22.1 in England, 22.7 in Wales, 27.9 in Belgium, 35.8 in Italy and 45.4 in The Netherlands. Having solid cancers and being married increased the chances of dying at home in all countries. Being older and being a woman decreased the chances of dying at home, except in Italy where the opposite was the case. A higher educational attainment increased chances of dying at home in all countries where information on educational attainment was available.

Conclusions

There are large country differences where patients with cancer die and these seem influenced by country-specific cultural, social, and health care factors. These need to be considered in the development of policy strategies facilitating home death.

What influences place of death for people with non-malignant conditions?

Fliss Murtagh

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This abstract is included in the workshop to present the current evidence on factors influencing place of death for people with non-malignant conditions.

Purpose

To determine which factors influence place of death for patients with non-malignant conditions.

Methods

Systematic review of the international literature to identify, critically appraise and synthesize the evidence on factors associated with place of death (and hence reasons for variations in place of death) for patients with non-malignant disease. A theoretical model underpins the review; evidence was identified, critically appraised for relevance and methodological rigour and synthesized to clarify the strength of evidence to support, refute or refine the model and identify gaps in the evidence.

Results

Factors associated with actual place of death will be presented, grouped according to the theoretical model, and analysed for direction of effect (for or against home death) and strength of evidence (both quantity and quality). There will also be comparison of direction and consistency of effect from factors between diseases, and by other key variables, leading to a refined theoretical model. Odds ratios will be reported for those factors supported by sufficiently strong evidence.

Conclusions

Evidence on factors influencing place of death for cancer patients has already been reviewed. This review illuminates the factors affecting place of death for those with non-malignant conditions, in order to inform policy and service development, support equitable care and highlight areas for future research.

Acknowledgements

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Towards epidemiological studies of inequities at the end of life

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This abstract will be included in the workshop as an example of a robust, well design epidemiological population-based survey of end-of-life care, to examine inequities in access to palliative care services.

Purpose

To estimate the distribution of places of care for Italian cancer patients during the last 3 months of life, the proportion receiving palliative care support, and the factors associated with the referral to palliative services.

Methods

Mortality follow-back survey of 2000 cancer deaths identified with a 2-stage probability sample, representative of the whole country. Information on patients' experience was gathered from the non-professional caregiver using an adapted version of the VOICES questionnaire. Multivariate logistic regression analyses were conducted to identify the determinants of palliative care service use.

Results

Interviews were obtained for 67% of the caregivers ($n = 1271$). Most Italian cancer patients were cared for at home (91%) or in hospital (63%), but with substantial differences within the country. In all, 14% of cancer patients at home and 20% of those admitted to hospital received palliative care support. The principal determinants for receiving services were: an extended interval between diagnosis and death ($P = 0.01$) and the caregiver's high educational level ($P = 0.01$) at home; the low patient's age ($P = 0.01$) and the caregiver's high educational level ($P < 0.01$) in hospital.

Conclusions

In Italy, palliative care services are not equally available across the country and access is strongly associated with socio-demographic characteristics of the patients and caregivers. Policy-makers need to equalize palliative care provision and access to meet the needs of all patients.

4.5. Infectious diseases

Trends in meningococcal infection and the impact of the serogroup C conjugate vaccine in Scotland, 1998–2008

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Background

The Meningococcal serogroup C conjugate vaccine was introduced to Scotland in 1999/2000 for infants and under 25s. The aim of this research was to consider the effectiveness of vaccination as a strategy for addressing the public health burden of meningococcal disease. This was in light of the potential for cases to have increasingly arisen from the unvaccinated adult population and for circulating strains to have altered unfavourably in the wake of the conjugate vaccine.

Design

Population-level analysis of meningococcal epidemiology and patient demographics, utilizing enhanced surveillance data on all infections occurring from 1998 to 2008 (2358 cases).

Results

Incidence of meningococcal infection has fallen by 61% since the vaccine's implementation. All serogroup specific incidences have also fallen. The proportion of infections accounted for by B strains has increased since 1999/2000 to 80% from 50 to 60%. Importantly, the proportion of cases that each age group accounted for has not changed significantly since 1999/2000. Adult cases were less likely to have received a previous conjugate vaccine (72% had not). Adults who had received a vaccination were almost exclusively between 15 and 24 years (90%); this being the target population for the booster vaccine. Case fatality remained stable across the period though this obscured an increasing case-fatality rate amongst cases infected with C strains.

Conclusions

The age demographic of meningococcal cases has not changed in the wake of the conjugate vaccine. B strains have increasingly dominated Scottish meningococcal infection since it was implemented. The fact that overall incidence hasn't ceased in its decline suggests that the vaccine confers significant population immunity; it also alleviates the concern that B strains had filled the niche left by the depleting circulation of C strains in the Scottish population.

Cost effectiveness analysis of the new Pneumococcal non-typeable *Haemophilus influenzae* protein D conjugate vaccine in Italy

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Background

Synflorix is the new 10-valent Pneumococcal Non-Typeable Haemophilus influenzae Protein D Conjugate Vaccine (PHiD-CV) and it is used to give protection against otitis media (OM), invasive pneumococcal diseases (IPDs) and pneumonia. An economic evaluation aimed at evaluating the cost-effectiveness of PHiD-CV was carried out within a Health Technology Assessment project which considered clinical, biotechnological, economic, organizational, social and ethical aspects related to the introduction of Synflorix in the Italian health-care setting.

Methods

The economic evaluation was performed using a cohort model with Markov structure. The time horizon of the model was set lifetime and a discount rate of 3% for both costs and quality adjusted life years (QALYs) was applied. In addition, sensitivity analyses were conducted in order to determine the stability of our estimates. The comparison was between PHiD-CV and 'no vaccination' or vaccination with heptavalent Pneumococcal Conjugate Vaccine (PCV7). The analysis was conducted from societal and National Health Service (NHS) perspectives in Italy. From a societal perspective, the model considered indirect costs borne by patients. The outcome measure of the analysis was incremental cost (€) per QALY gained.

Results

Both case base and sensitivity analyses found that the new vaccine dominates the PCV-7 vaccination, with significant cost savings. The economic evaluation showed a health gain for IPD, pneumonia and OM. This analysis found that PHiD-CV compared with PCV-7 reduced costs by €7 412 401 and by €12 292 452 from NHS and societal perspectives, respectively. In comparison to no vaccination the PHiD-CV incremental costs per QALY gained were €30 961 and 26 660 from the NHS and societal perspective respectively.

Conclusions

PHiD-CV was demonstrated better than PCV-7 in terms of efficacy and costs. It also reduced indirect costs in term of productivity and time loss. Hence, it represents a cost saving and advantageous prevention approach compared with PCV-7.

Pandemic influenza 2009—performance of the emergency medical data-based syndromic surveillance system SIDARTHa

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Background

During the A/H1N1 pandemic in 2009 public health surveillance had a major role in analysing the course of disease on population level. It is assumed that syndromic surveillance systems (SSS) react timelier than traditional surveillance systems thus being a good complementary action. The EU co-funded SIDARTHa project (Grant Agreement No. 2007208), which aimed to establish a SSS based on routinely collected emergency medical care data used the 2009 pandemic influenza as possibility to evaluate the pilot SSS's timeliness.

Methods

Emergency department (ED) data from Cantabria/Spain (ES) and Leuven/Belgium (BE) and emergency medical dispatch (EMD) data from Tyrol/Austria (AT) were analysed retrospectively. Analysis of the performance of the SSS was done in comparison to reference data of the respective regional public health authorities (sentinel data). Early detection algorithms like C1, C2 and C3 were applied on the daily volume of Influenza-Like Illness (ILI).

Results

By descriptive evaluation of time series the ED data showed an increase in ILI in Week 39 (BE) and Week 43 (ES). The highest amount of ILI occurred in Week 43 (BE) and 44 (ES) and the epidemic ended in week 46 (BE) and Week 48 (ES). This distribution correlated with the respective reference data [ES: $r = 0.75$ ($P < 0.001$), $R^2 = 56.5\%$]. An epidemic curve of ILI was not that clearly visible in the Austrian EMD data during autumn 2009 whereas the reference data showed an epidemic curve which peaked in Weeks 47–48.

The detection algorithms were applied on a daily basis. In both ED data sets an abbreviation from expected values was given earlier or at least on the same point in time as it was recognized by the public health authorities. The Tyrolean EMD data showed also signals in the beginning and during the epidemic period but correspondence to the reference data was not that specific.

Conclusions

As already demonstrated in other SSS for seasonal influenza, ED participating in the SIDARTHa SSS provided sensitive information on the onset of ILI in 2009 proving useful also for the timely detection of an emerging influenza pandemic. It seemed that for ILI surveillance ED data were better suited than EMD data.

Control measures to reduce vancomycin-resistant enterococci acquisition in hospital settings: a systematic review and a meta-analysis

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Background

Vancomycin-Resistant Enterococci (VRE) are responsible for serious implications. Their transmission can occur through direct and indirect contact and infection control measures are mainly focused on contact isolation. Anyway, it is unclear the strength of the effects of control interventions in reducing the incidence of VRE colonization/infection: a systematic review and a meta-analysis of the literature were thus performed.

Methods

Cochrane Library, Medline, Embase and CINAHL were searched until January 2009 to identify randomized and controlled clinical trials, interrupted time-series and controlled before-after studies that compared wards/hospitals applying different intervention policies to control VRE such as: isolation, physical barriers use, hand hygiene measures, screening culture, ward closure, environmental cleaning interventions or antibiotic restriction. Results on VRE acquisition obtained in intervention versus control group were reported as relative risk (RR) with 95% confidence interval (CI); heterogeneity was assessed through I^2 test. The analysis was performed using RevMan5.

Results

Six publications were selected out 385 identified records. Two studies were controlled clinical trials and four were interrupted time-series; all but one were performed at University hospitals. Interventions were represented by environmental cleaning, alcohol-based waterless hand antiseptic, universal gloving, gowns plus gloves use and restriction of intravenous use of vancomycin, ceftazidime, imipenem, aztreonam and ciprofloxacin. Cultures for VRE were performed on rectal and/or perirectal swabs but in one study which analysed only the impact of control measures on surgical site infections. Five studies primarily investigated the impact of control interventions on VRE acquisition. The meta-analysis yielded a RR of 0.68 (95%CI: 0.55–0.84), for an efficacy of 32% (95% CI 16–45%) of control measures in preventing VRE acquisition with a slight heterogeneity between studies (I2: 43%).

Conclusions

There is evidence that multifaceted approaches reduce VRE acquisition in hospitalized patients. However, heterogeneity between studies suggests the need for further research comparing different infection control measures.

Randomized controlled intervention to promote Chlamydia trachomatis testing

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Background

Based on a nationwide Chlamydia trachomatis (CT) screening and resulting CT prediction rule, we developed a self-triage card for being at high CT risk, with aim to improve CT testing. We assess both the effect of this card on testing behaviour among lower educated adolescents, a known risk group for CT as the rates and predictors for problems regarding sexual health.

Methods

In a class-randomized intervention trial at a Dutch vocational school the intervention group received the triage card with seven questions, indicative of high CT risk. A high score was followed by a positive test advice. All participants received sexually transmitted diseases (STD) education, were offered testing and filled in a questionnaire. Multivariate logistic regressions were performed. Secondary analyses were done on rate and predictors for (i) sexual health problems, (ii) teenage pregnancy and (iii) STD-related symptoms.

Results

Of 345 participants, 70% were women and median age was 19. Between intervention and control group no differences were observed in high risk score (63%), current STD testing (53%) or CT positivity (4.4%). Testing behaviour was higher in high risk than low risk groups. All CT diagnoses were in the high risk group: here testing increased from 27% ever tested to 65% testing in the current study. Rate of (i), (ii) and (iii) was higher for women (31, 48 and 36%) than men (13, 19 and 5%).

Conclusions

The self triage card is a valid instrument for assessing high CT risk but does not increase testing in vocational school students. When provided with testing facilities and education, self selection mechanisms seem enough to increase CT testing rate dramatically in this high CT risk population. The findings of this study support the need for professional nursing attention to problems related to sexual health, pregnancy and STD-related symptoms in adolescents.

Antibiotic susceptibility of unselected uropathogenic *Escherichia coli* from female Dutch general practice patients: a comparison of two surveys with a 5-year interval

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Background

To optimize empirical treatment of urinary tract infections (UTIs), regular evaluation of the antibiotic susceptibility of the most common uropathogen, *Escherichia coli*, is necessary. We compared the antibiotic prescription rate for UTIs in women and *E. coli* antibiotic susceptibility results, including the prevalence of extended-spectrum beta-lactamase (ESBL) producing strains, in 2009 with data collected 5 years ago.

Methods

Urinary samples of female patients with symptoms of uncomplicated UTI in 42 general practices, all participating in the Sentinel Stations network of NIVEL, were collected during a 6-month period. Uropathogens were identified and the antibiotic susceptibility of *E. coli* was determined.

Results

We analysed 970 urine cultures, of which 785 (81%) were considered positive (≥103 cfu/ml). *Escherichia coli* accounted for 72% of the isolates. ESBLs showed an increase between both surveys (0.1 versus 1%, $P < 0.05$), while no difference in antibiotic susceptibility of the commonly used antimicrobial agents for UTIs was observed. A significantly lower susceptibility rate to co-amoxiclav was observed in the eastern region compared with the northern part of the country (80 versus 92%, $P < 0.05$). Consistent with national guidelines, the prescription rate of trimethoprim decreased over time (19 versus 5%, $P < 0.05$) whereas nitrofurantoin and fosfomycin rates showed an increase (58 versus 66% and 0 versus 5% respectively, both $P < 0.05$).

Conclusions

The antibiotic susceptibility of uropathogenic *E. coli* did not change over a 5-year period in female patients with uncomplicated UTI in The Netherlands, but ESBL-prevalence increased. With respect to the prescription of antimicrobial agents a good compliance to national UTI guidelines was observed.

4.6 Disease-based disparities

The role of infant feeding pattern in explaining ethnic differences in early growth velocity: The ABCD-Study

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Background

Early rapid growth may influence overweight and cardiovascular disease in later life. This phenomenon disproportionally affects ethnic minorities. We determined the ethnic differences in growth velocity (Δ standard deviation scores, Δsds) during the first 6 months of life and examined the explanatory role of infant feeding.

Methods

Data were derived from a multi-ethnic cohort in The Netherlands (ABCD study). Growth data (weight and length) of 3023 term born singleton infants with appropriate birth weight were available for five ethnic populations: Dutch ($n = 1623$), African descent ($n = 175$), Turkish ($n = 172$), Moroccan ($n = 242$), and other non-Dutch ($n = 811$). Δsds weight, Δsds length and Δsds weight-for-length between 4 weeks and 6 months were defined using internal growth references. The contribution of infant feeding (duration of breast feeding, introduction of bottle- and complementary feeding) to ethnic differences in growth velocity was examined by multivariate linear regression.

Results

Growth velocity was higher in all non-Dutch groups, with B's between 0.06 and 0.43 for Δsds weight and between 0.15 and 0.50 for Δsds length. Growth velocity in weight-for-length was similar across groups, except for the Moroccan children (β 0.24, $P < 0.05$). African descent children were breastfed shorter while bottle feeding and solid foods were introduced earlier. The Moroccan children received earlier bottle feeding. In all children, except Turkish, exclusive breastfeeding for 4 months was associated with slower growth for all three growth measures. Infant feeding pattern explained for a small part the higher Δsds weight in African children and the higher Δsds length in both the African and Moroccan children. Δsds weight-for-length remained significant higher in the Moroccan children.

Conclusions

Ethnic disparities in early infant growth are in part explained by differences in infant feeding pattern in African and Moroccan children, but not in Turkish children. Although the association between growth velocity and feeding pattern is small, due to potential tracking of overweight into adulthood this may be relevant. More research is needed to explore the unbalanced growth in the Moroccan children and the underlying factors of growth velocity in general.

Does the effect of peers and parents on adolescents' binge drinking differ among Roma and non-Roma adolescents?

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Background

Binge drinking among adolescents is a major public health problem. The influence of peers and parents is considered to be substantial in adolescents' binge drinking but might operate differently in ethnic minority groups. The aim of this study was to explore the effect of peers and parents on binge drinking among Roma and non-Roma adolescents.

Methods

A cross-sectional study was performed among Roma ($N = 330$; mean age = 14.5; interview) and non-Roma adolescents ($N = 722$; mean age = 14.9; questionnaire) in elementary schools. The interactions of ethnicity with peer influences (best friend drinks alcohol at least once a week) and of ethnicity with a lack of parental monitoring (parents did not know with whom they are when they go out) on adolescents' binge drinking (having been drunk in the past four weeks) were explored using logistic regression adjusted for gender, age and highest education.

Results

Being drunk in the past four weeks was reported by 12.4% of Roma and 19.6% of non-Roma adolescents. Age, gender, highest education of parents and ethnicity did not contribute significantly to adolescents' binge drinking. Both peer influences [odds ratio (OR)/confidence interval (CI) 3.56/2.37–5.34] and lack of parental monitoring (OR/CI 2.18/1.42–3.36) increased the probability of adolescents' binge drinking in both ethnic groups. The interactions of ethnicity with peer influences (OR/CI 1.77/0.69–4.53) as well as with parental monitoring (OR/CI 1.44/0.59–3.54) on adolescents' binge drinking were not significant.

Conclusions

Peer and parental influences are considered to be crucial in many strategies to prevent adolescents' binge drinking. Our findings imply that such strategies might be effective in different ethnical/cultural settings, such as among the Roma. The effects of peers and parents on adolescents' binge drinking are mostly similar among Roma and non-Roma adolescents.

Comparison between England and The Netherlands of fasting glucose and diabetes in South-Asian and African origin populations: does it matter where you have migrated to?

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Background

Ethnic inequalities in diabetes are well documented in the industrialized countries. Evidence also suggests that the prevalence of type 2 diabetes mellitus (DM) is higher in The Netherlands than in the UK. It is unclear whether these differences reflect on South-Asian and African origin populations living these countries. We therefore (i) to examine ethnic differences in mean fasting glucose (FG) and the prevalence of type 2 DM in two countries (The Netherlands and England); (ii) to determine whether the lower DM prevalence in England versus The Netherlands is also observed in South-Asian and African origin populations; and (iii) to assess the contribution of health behaviour, body sizes and socio-economic position to any observed differences.

Methods

Secondary analyses of population-based standardized individual level studies of 3386 participants from England and The Netherlands. Analyses of FG and prevalence ratios (PRs) of DM were performed using regression models.

Results

South-Asian Indian and African origin populations in England and The Netherlands had higher FG and DM rates than their White counterparts. Among Whites, White-English had a lower FG and DM prevalence than White-Dutch after adjustment for other covariates: $\beta = -0.34$ mmol/l [95% confidence interval (CI) −0.51,–0.18] and PR = 0.45 (95% CI 0.24–0.84) for men; and $\beta = -0.18$ mmol/l (95% CI −0.36, −0.02) for women. Among Indians, English-Indians had a lower FG and DM prevalence than Dutch-Indians; differences with women remained after adjustments for other factors: FG ($\beta = -0.51$ mmol/l, 95% CI–0.97, −0.05) and DM (PR = 0.35, 95% CI 0.22–0.55). Among Africans, English-(African)-Caribbean women had a lower FG and DM rate than Dutch-Africans; the difference in DM prevalence persisted after covariate adjustments: PR = 0.43 (95% CI 0.20–0.89).

Conclusions

Similar to the Whites, the FG and DM rates were lower in English ethnic minority groups than their Dutch equivalents. These findings indicate that the actual increase of DM in ethnic minority populations is dependent on circumstances in the residing countries. More work is needed to unravel the contextual factors involved.

Breast and stomach cancer incidence and survival in migrants to The Netherlands 1989–2006

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Background

Migrant populations experience a health transition that influences their cancer risk, determined by environmental changes and acculturation processes. In this retrospective registry-based cohort study, we investigated differences in breast and stomach cancer risk and survival in first generation migrants to The Netherlands.

Methods

Patients with invasive female breast and (cardia/non-cardia) stomach cancer diagnosed 1989–2006 were selected from Netherlands Cancer Registry; reference population data were available from Statistics Netherlands. Ethnicity was defined as being born abroad. Analyses were conducted for migrants from Antilles/Aruba, Suriname, Indonesia, Morocco and Turkey. Standardized incidence ratios (SIRs) were computed as the ratio of observed and expected cancers, accounting for age group and gender. Differences in survival were expressed as hazard ratio (HR) using Cox regression and relative survival rates (RSR).

Results

All migrant women had a significantly lower risk for breast cancer compared with Dutch natives {range 0.3 [95% confidence interval (CI) 0.2–0.4] (Turkish/Moroccan) to 0.6 (0.5–0.6) (Indonesian)}. Risk of non-cardia stomach cancer was significantly increased in all migrants [highest in Turkish males, SIR = 1.9 (1.6–2.3)] with exception of Indonesian migrants (both sexes SIR = 0.3 and 0.4). Risk of cardia stomach cancer was reduced in all migrants [lowest in Suriname males SIR = 0.3 (0.2–0.6)]. Risk of dying was increased in Moroccan [HR = 1.3 (1.1–1.6)] and reduced in Indonesian [HR = 0.7 (0.7–0.7)] breast cancer patients, while risks for stomach were increased in Turkish (HR = 1.6 (1.2–2.0)). 5-year RSR for breast cancer were lower in all migrants (range 65–76%) compared with Dutch natives (83%), while 1-year RSR for stomach cancer were slightly better: cardia (natives 40%, migrants 26–55%), non-cardia (44 versus 42–56%).

Conclusions

Our results emphasise the strong link between environmental exposures and cancer risk during life course. Cancer risk diversity may contribute new insights into carcinogenesis, whereas survival disparities may imply differences in access to and quality of health care as well as tumour biology. Risk and survival inequalities require careful surveillance and tailored prevention programmes.

Cancer among persons of Turkish origin in Hamburg, Germany

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Background

There is a paucity of data on cancer risk in Turkish immigrants in Germany. Studies from other countries report different cancer risk patterns in immigrant and autochthonous populations. Information on cancer risk in immigrants helps to improve prevention, diagnosis as well as treatment and yields new insights into risk factors. Aim of our study was to estimate cancer incidence rate ratios for Turkish versus non-Turkish persons in Hamburg, a city of 1.8 million inhabitants.

Methods

We used a name-based algorithm to identify persons of Turkish origin among the 140 249 cancer cases registered in Hamburg from 1990–2004 and to identify the number of persons of Turkish origin in the background population, a representative sample of all inhabitants of Hamburg. We calculated age-adjusted incidence rate ratios (IRRs) and confidence intervals (CIs) with Poisson regression models, stratified for cancer site and sex.

Results

A total of 1346 Turkish cancer cases were identified. Cancer of the respiratory organs is more frequent among Turkish men and less frequent among Turkish women, compared with the non-Turkish population. IRR of Turkish versus Non-Turkish cases for malignant neoplasm of lymphoid, haematopoietic and related tissue are 1.26 [95% confidence interval (CI) = 1.05–1.50] and 1.19 (95% CI = 0.93–1.52), for men and women respectively. Risk for cancer of digestive organs is lower among Turkish men (IRR = 0.74, 95% CI = 0.62–0.87) and women (IRR = 0.65, 95% CI = 0.51–0.84). Turkish women are less likely to develop breast cancer (IRR = 0.69, 95% CI = 0.59–0.81), but show elevated risks for cancer of the thyroid and other endocrine glands (IRR = 2.14, 95% CI = 1.33–3.45).

Conclusions

Our findings are largely consistent with the hypothesis of cancer risks in immigrants being initially determined by risk factors in the country of origin and influenced by exposures before and after migration. Further analytical studies could help to explain whether the observed differences are due to differences in genetic disposition, lifestyle or socio-economic status.

Differences in drug utilization between ethnic and socio-economic groups: does general practice population composition matter?

Liset van Dijk

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Background

To explore socio-economic and ethnic differences in receiving prescribed medication and to what extent these differences vary across general practices, with special interest whether or not the practice has a deprived patient population.

Methods

Data were obtained by linkage of routine registration data collected in general practice (LINH) to the Dutch Population Registration (DPR) kept by Statistics Netherlands and the NIVEL index for GPs in deprived areas. Subjects were 86 677 patients aged 25–60 years registered in 80 general practices who consulted their GP at least once in 2007. Our main outcome measures were whether or not the patient received a prescription as well as the number of prescriptions written in 2007. Data were analysed using logistic and poisson multilevel modelling.

Results

Non-Organization for Economic Co-operation and Development (OECD) migrants have a higher odds to receive a prescription from their general practitioner (GP) compared with the native patient population [odds ratio (OR) 1.16; 95% confidence interval (CI) 1.09–1.22], but they do not receive more prescriptions on average after controlling for the number of consultations. Income has no association with whether or not the patient receives medication, but once medication is prescribed, lower-income leads to an increased average number of prescriptions. In addition, the composition of the practice population in terms of the proportion of deprived patients does not influence the chance that patients from deprived areas (who have lower incomes and are more often non-OECD migrants) receive a prescription, nor does it have an impact on the average number of prescriptions these patients receive.

Conclusions

Higher prescription rates in ethnic minorities can mainly be attributed to their higher use of GP care. Higher prescription rates in deprived patient groups cannot be attributed to the fact that their GP has a more deprived population. Therefore, the increased workload of GPs with a more deprived population does not seem to lead to an overall increased use of medication.

4.7. Workshop: Us and them and in public health—how to cross the boundaries?

Chairs: Klasien Horstman, The Netherlands and Johan Melse, The Netherlands

Organizer: EUPHA-section Ethics in Public Health

Health risks like obesity and smoking are usually much lower in higher social economic status groups. At the same time, these groups are the source from which virtually all public health professionals originate. This sheds a new light on the generally low effectiveness of health promotion especially when geared to lifestyle. Being young, slim and well-educated and enjoying fruit, vegetables and sports, they have difficulties in promoting a healthy lifestyle with people who have a taste for fat and do not like sports at all. The television programmes of Jamie Oliver trying to develop healthy school food, clearly demonstrated the cultural gap between public health professionals and risk populations. What does this gap between 'classes' imply for public health? How to prevent that these differences increase health inequalities?

In this workshop we will explore the political and ethical dimensions of 'them and us' and the 'sender/receiver' metaphor in public health and health promotion, with special regard to socio-economic health differences. Presentations from different disciplines give a starting point for group discussions of the instructive frictions of a real life case of us and them in public health. The major questions that will be addressed are: how can public health professionals deal with this without inducing shame and guilt and without increasing the cultural gap? And what can we learn from them? How to cross the boundaries and promote the public's health in mutual understanding and respect, or maybe even soft paternalism?

Format of the workshop:

- starting with an interactive poll showing the diversity within the participants
- three presentations, max. 10 min

1. Klasien Horstman, prof. Philosophy in Public Health, Maastricht University: Us and them in public health and health promotion, introduction to the theme and workshop.
2. Jenny Popay, prof. Sociology and Public Health, Lancaster University (invited): In- and exclusion in Public Health.
3. local health worker (to be announced): us and them, as experienced in local health work the field; introduction of case, a real-life example of an intervention where us-them issues apparently played a key role.

- Discussion of case in smaller groups (using flip-charts, post-its etc), focusing on: what can we do better? what can they teach us?
- Public health movie intermezzo (allowing chairs to wrap up)
- Wrap-up: what to take home / to work from this workshop

4.8. Workshop: Development and evaluation of intervention tools and programmes on the universal prevention of obesity

Chairs: Katharina M Keimer, Germany and Christiane Stock, Denmark

Organizer: Unit for Health Promotion Research, University of Southern Denmark (co-president EUPHA Section Health Promotion) and Department of Prevention and Evaluation, Bremen Institute for Prevention Research and Social Medicine

Background

The prevalence of overweight and obesity in Europe is increasing rapidly and is considered as a public health problem. This worrying trend is not only evident among European adolescents and adults but has also been identified in children at very young age and is increasingly becoming a problem in old age as well. Evidence-based and effective intervention programmes and tools are needed to reverse this trend.

Aims

The workshop aims to inform public health professionals of recent European intervention programmes and tool developments to counteract obesity. The intervention programmes and tools are at different stages of the development, implementation or evaluation process and thus give a broad spectrum of information to the audience. The focus lies on various target groups (children, elderly, general practitioners, community and settings) but all presented studies aim at the universal prevention of overweight and obesity. In the workshop a variety of structural as well as behavioural prevention methods will be demonstrated to experts.

Workshop outline

The workshop will be organized in three parts: four presenters will give a short input (10–15 min) on current evidence-base and practice in the field of development, implementation and evaluation of universal strategies to counteract overweight and obesity. During the second part small discussion groups will be formed to identify further target groups in need of interventions and possibilities on how to reach and recruit these. In the last part the discussion groups get together again and present their results (5 min).

The development of a community-based intervention for the prevention of childhood obesity: the IDEFICS intervention

Vera Verbestel

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Background

The prevalence of obesity in Europe is increasing rapidly, also in young children. Effective evidence-based interventions in children are urgently needed but research in this area is scarce. Based on a socio-ecological approach, the IDEFICS project developed a community-based intervention to prevent obesity in 2- to 8-year-old European children. The purpose of the abstract is to inform about the development and content of the IDEFICS intervention, as this information is currently lacking in the literature.

Methods

The Intervention Mapping protocol was used to develop the IDEFICS intervention. Following these evidence-based guidelines, the development was informed by (i) literature on changeable determinants and effective interventions of obesity and related risk behaviours in children and (ii) focus group interviews within all countries with all relevant parties to identify local barriers and difficulties.

Results

The development of the IDEFICS intervention resulted in a standardized intervention framework with 10 different modules focusing on physical activity, nutrition and stress in children. The intervention focused on environmental and personal factors through the use of the family, school and community setting.

Conclusions

The IDEFICS intervention incorporated the socio-ecological approach by targeting both environmental en personal factors through all social contexts in which very young children behave. Findings from formative research provided the rationale for developing a standardized intervention framework but it was needed to enable local and cultural adaptation in order to make the intervention feasible and to enhance deliverability in all participating countries.

Early-STOPP: targeted obesity prevention directed to overweight parents with young children, a randomized controlled study

Tanja Sobko

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Background

Prevalence of overweight and obesity, a multi-factorial and complex disease, is increasing exponentially in all age groups and has currently reached the pandemic proportions. Early-STOPP study is designed to investigate factors that influence weight increase, such as eating and sleeping patterns, physical activity, genetics, intestinal bacteria and social factors and their role in successful overweight prevention. The intervention aims at the development of a healthy lifestyle habits for families with overweight/obese parents.

Methods

200 families with one obese or two overweight parents with a 1-year-old child are recruited from 50 child welfare centres in the Stockholm County Council area. The primary outcome is the BMI standard deviations at the age of 6 years. The Control (LII) and Reference groups (RG) are measured once a year and the Intervention group (HII) is each 6 months (BMI, physical activity, sedentary behaviour, sleeping pattern, dietary habits, blood, faecal and salivary samples). Families in the HII receive individual coaching four to six times per year, focused on diet, physical activity and sleep. In parallel, an observational study is conducted in China.

Project progress

The randomized recruitment is ongoing in Sweden and China. The developed tools and protocols are translated into English and Chinese. Family coaching, biomarker sampling and data collection is ongoing. A near collaboration with MRC Epidemiology Unit, University of Cambridge and with a Department of Public Health, Tongji University of Science and Technology, makes it possible to compare social and cultural aspects of obesity prevention.

Conclusions

Obese individuals are exposed to numerous adverse health risks including higher mortality and a shorter life expectancy. Weight-loss interventions are costly, difficult and often unsuccessful to keep. Therefore, understanding the determinants of working prevention of childhood obesity as early in life as possible is of enormous importance.

Tool for obesity prevention targeted on General Practitioners developed during the Erasmus Intensive Programme ‘TOOLTIPS’

Stefanie Dreger

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Background

There is a lack of evidence-based obesity prevention programmes. General practitioners (GP) are one of the first contact points for obese subjects, but they often do not have the skills to effectively help their patients. The Erasmus Intensive Programme ‘TOOLTIPS’ (TOOLs Targeted on Obesity Intervention and Prevention Strategies for Efficient and Sustained Implementations) funded with support from the European Commission brought together European students and teachers to develop evidence-based obesity prevention tools for different target groups. The structure of the programme will be outlined and one of the tools (targeted at GPs) will be presented.

Methods

Tools were developed according to the Intervention Mapping approach by an interdisciplinary group of four students from three European countries (Germany, Austria and Greece).

Intervention Mapping is a protocol for the design of health promotion programmes, guiding health promoters through a series of six steps to assist them in theory and evidence-based programme development. These steps include (i) Needs Assessment, (ii) Matrices, (iii) Methods and Strategies, (iv) Programme Development, (v) Adoption and Implementation, (vi) Evaluation. The tools targeted at GPs were based on the Transtheoretical Model, which states that people pass through five motivational stages until they change their behaviour.

Results

Steps 1–4 of Intervention Mapping were taken in TOOLTIPS in 2010. For the GPs five ‘mini-tools’ were developed, which offer the kind of tailored support that is needed in the specific stage of behaviour change. A game was developed for the precontemplation stage, a brochure for the contemplation stage, a free session with a dietician for the preparation stage, a motivational game and a session at the dietician for the action stage, and a combined approach with psychologist, personal trainer, make-up artist and dietician for the maintenance stage.

Conclusions

Intervention Mapping is a useful tool for health promotion planning. For the TOOLTIPS renewal in 2011 it is planned to perform a pilot test of the tools. During the course the GPs’ acceptability of the tool will be assessed. Afterwards, steps five and six of Intervention Mapping can be taken.

Participatory development of an innovatory counselling aid for elderly, and its effect on the communication between health professionals and the target group

Holger Hassel

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Background

OPTIMAHL 60plus is a counselling aid for the elderly. It aims to improve the health behaviour to counteract malnutrition and in the long-run obesity. Special emphasis is placed on the participatory development of the tool to enhance the acceptance of the tool. Additionally the communication between elderly and health professionals can be facilitated using the aid.

Methods

Intervention mapping (IM) was applied in a modified form to carry out an intervention study. By means of focus group discussions the expectations of the groups were analysed in a participatory way. The acceptance of the tool was measured after an intervention phase of 3 months at T1. Telephone interviews were conducted with 91 health professionals and face-to-face interviews were realized with 361 elderly at T1. The acceptance of the instrument was measured by four criteria.

Results

As a result of the IM three key messages for nutrition and one key message for physical activity were defined. Six counselling aids were developed and tested in focus groups with six groups of elderly with and without migration background.

Most of the target group agreed that an easy checklist, one of the provided counselling aids, supports reminding them what they should eat and how to be active per day and is acceptable in the daily routine.

General practitioners mostly consider OptimaHl 60plus as an effective tool to get a first impression of the health behaviour of the elderly. Additionally, the tool helps to focus and to identify resources of the target group.

Conclusions

To develop easy to handle counselling aids it is necessary to carry out a creative process with different participants (scientists and elderly). OPTIMAHL 60plus will contribute to the communication between health professionals and the target group.

4.9. Workshop: Challenges to public health in implementing commitments of the 5th Ministerial Conference on Environment and Health

Chair: Marco Martuzzi
WHO/EURO
Organizer: WHO/EURO

Background

The fifth Ministerial Conference on Environment and Health, with the theme protecting children's health in a changing environment, took place in Parma, Italy, 10–12 March 2010. The Conference brought together Ministries of Health and Ministries of Environment from the 53 member States of the Regional Office for Europe of WHO. The Conference was attended by over 800 participants, including 35 Ministers, the EC Health Commissioner, Heads of different UN Agencies, senior representatives of various IGOs and NGOs, plus youth representatives, and media. The series of Ministerial Conferences, which started in Frankfurt in 1989, brings together different sectors to shape European policies and actions on environment and health. Since 2004, the over-arching theme of the Conferences has been Children's Environment and Health, for its intrinsic priority as well as its relevance for sustainability and future generations. The role of socio-economic and gender determinants of environmental risks and health aspects of climate change were included among the priority topics of the Conference.

With the Parma Declaration on Environment and Health, the key policy outcome of the Conference endorsed by all 53 Member States, governments committed to implementing national programmes to provide equal opportunities to each child by 2020 by ensuring access to safe water and sanitation, opportunities for physical activity and a healthy diet, improved air quality and an environment free of toxic chemicals. Governments vowed to tackle the adverse health impact of climate change and to reduce social and gender inequalities in exposure to risk. They also pledged to place health at the centre of socio-economic development through increased investment in new technologies and green jobs.

Pursuing such ambitious goals requires integration of disciplines, types of knowledge and sources of information. Also, it calls strongly for a more systematic participation of public health professionals in the development of public policy and implementation of commitments formulated by Parma Conference.

Objectives

The overall aim is to make Parma's achievements and commitments better known within the EUPHA community, discuss follow up actions, examine the scientific and policy gaps and needs, the challenges for public health agencies and practitioners, as well as for research and build new alliances to address such challenges

Introduction: Outcome of The Parma Conference

Srdan Matic

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The 5th Ministerial Conference on Environment and Health in Europe took place in Parma, Italy, 10–12 March 2010. All 53 Member States of the Regional Office for Europe of WHO were represented. In all, 800 delegates took part, representing Ministries of Health and Ministries of the Environment of Member States, and a variety of other stakeholders, IGOs and NGOs. There were also one hundred journalists and 70 youth delegates. The Parma Conference gives birth to a renewed agenda for environment and health in Europe. For the first time in the history of the environment and health process in Europe, governments and other parties agreed to measurable, time-bound goals.

Health inequities in environment and health author to be confirmed

The 4th Ministerial Conference on Environment and Health in Budapest in 2004 identified targets for activity in children's environmental health activity across the countries of the WHO's European Region. The recent Parma conference urged that the challenges be seen through the prisms of social inequity and a changing climate making an already complex policy challenge all the more daunting.

Complexity in environmental health derives from uncertainties in core science and its differing interpretation. Epidemiology offers insights but generates further uncertainties for decision makers. Concerns centre on study design, classification of exposure, bias and the extent to which causality can be claimed for any association.

For over 20 years, the public health rhetoric has also been suffused by reference to socio-ecological complexity. Failure to make any real progress on health inequity by in many parts of the developed world is often attributed to a failure to shape policies which take proper account of the complex interaction of social, physical behavioural and genetic influences. Climate change adds to the challenge for policy but also opportunity through the co-benefits to public health can flow from measures to reduce carbon emissions.

Work in Scotland is attempting a more strategic and cross cutting approach to policy on environment and health. It seeks to frame complex environmental public health problems in a way which points to solutions. The approach underpins the policy and seeks to engage a wider constituency and to create a new language for speaking about problems in environment and human health. The article describes how holistic problem framing techniques are being allied to more systematic approaches in the hope of assisting policy makers to more effectively navigate complexity in environmental public health to improve health, tackle inequity and identify co-benefits with other complex agendas of government.

WHO's outlook in environment and health after Parma: needs, opportunities, gaps

M Krzyzanowski (to be confirmed)

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The Parma outcome sets challenging objective for the environmental health community in Europe and beyond. Targets include good quality water for all, child-friendly, toxic-free daily environments, reduced risks from physical and chemical agents. Achieving such targets by 2015–2020 requires the deployment of an array of instruments, ranging from influential policy action and advocacy to holistic assessment methodology. Progress is urgently needed with respect to several key questions:

- How to ensure the conditions for the necessary intersectoral action? What are best available practices, methods and tools for integration to sustain such action and the underlying multidisciplinary work? Is the evidence base robust enough? What are the most significant gaps?
- Given the growing prominence of equity in environment and health, are we equipped with good enough data, methodology, attitudes and resources, in other words, are the underlying professional and policy culture and knowledge base ready to work towards reducing disparities in risks existing between various social groups and between genders?
- Recent developments and emerging factors in the environmental health domain are of marked cross-cutting nature (e.g. equity, climate change, new technologies) and are best addressed through modern models of governance. Is the public health community keeping up with this transition? Is public health research responding to this challenge? Are different European policy frameworks coherent in this respect?

WHO is fully committed to support Member States in implementing the Parma agenda, through: (i) a new institutional set up in the governance structure of the process, based on a newly established Ministerial Board and a task force on environment and health; (ii) continuous monitoring of progress towards the goals; and (iii) development of methodology, compilation of data and evidence, provision of technical advice and capacities in the Region.

4.10. Family and mental health

Behavioural and emotional problems at Age 4 in moderately preterm born Dutch children in 2005/2006

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Background

Moderately preterm born children (MP; 32–36 weeks' gestation) constitute ~80% of all preterm births. They are at increased risk for developmental and health problems, but knowledge on behavioural and emotional problems in preschool MP children mostly lacks.

Therefore, we compared MP and full-term born pre-school children regarding the occurrence of behavioural and emotional problems, overall and by gender.

Methods

A prospective cohort study with a community-based sample of MP children and a random sample of full-term born children. During 1 year all children were included, just before age four, in 13 preventive child health care centres in The Netherlands. A total of 995 MP and 577 full-term born children participated in the study. Behavioural and emotional problems were measured by the Child Behaviour Checklist (CBCL) 1.5–5 years. Seven syndrome scales, internalizing and externalizing problems, and a total problems score were determined. Analysis was done on both continuous and dichotomous (clinical versus normal) CBCL scores.

Results

MP children had higher scores on all CBCL scales ($P < 0.05$), on internalizing and externalizing problems ($P < 0.01$), and on total problems ($P < 0.001$). MP girls scored significantly worse on all syndrome scales ($P < 0.05$), and on internalizing, externalizing, and total problems ($P < 0.001$). In contrast, MP boys only had significantly worse scores on sleep and attention problems ($P < 0.01$). With respect to clinical CBCL scores, MP children were at greater risk for somatic complaints [odds ratio (OR) 1.94, 95% confidence interval (CI) 1.11–3.41], internalizing and externalizing problems (OR 2.48, 95% CI 1.54–3.99; respectively OR 1.64, 95% CI 1.04–2.57) and total problems (OR 1.87, 95% CI 1.15–3.04).

Conclusions

MP birth affects behavioural and emotional problems in all domains, and girls seem to be affected more than boys. We recommend that MP children should not be forgotten when implementing intervention programmes for prevention of mental health problems in very preterm born children.

Parenting stress and psychosocial problems in children in deprived areas in The Netherlands

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Background

Parenting stress is often associated with child psychosocial problems. These problems have been shown often to occur more frequently in deprived areas. However, data on the occurrence of parenting stress and its relation to psychosocial problems of children in deprived areas are still lacking. This studied aimed to answer the following questions:

(i) do parents in deprived areas report more child psychosocial problems;

(ii) do parents of early adolescents in deprived areas report more parenting stress;

(iii) are differences in the prevalence of parenting stress by area deprivation associated with psychosocial problems.

Methods

In the northern parts of The Netherlands, we obtained cross-sectional data among 9755 parents of children aged 9–11 years prior to routine health assessments (response: 65%). Outcome measures were parent-reported child psychosocial problems (Strengths and Difficulties Questionnaire) and parent-reported parenting stress (Parenting Stress Index). Area deprivation was determined by the national deprivation score per neighbourhood, categorized in tertiles of deprivation.

Results

Of all parents, 19.4% reported (sub)clinical psychosocial problems in their children. Area deprivation was associated with psychosocial problems ($P < 0.001$) and the proportion of children with psychosocial problems was highest in the most deprived area [odds ratio (OR) = 1.13; 95% confidence interval (CI) = 1.01–1.25].

In the least deprived tertile, 9.9% of the parents reported parenting stress against 11.5% in the intermediate and 12% in the most deprived area ($P > 0.05$). However, parenting stress occurred more often in the more deprived areas compared with the least deprived area (OR = 1.2; 95% CI = 1.04–1.39). Furthermore, parents of children with psychosocial problems reported more parenting stress (OR = 3.9; 95% CI = 3.4–4.5). Area-differences in parenting stress further decreased if adjusted for parent-reported psychosocial problems.

Conclusions

Area deprivation has a weaker association with parenting stress than with child psychosocial problems. An interpretation might be that neighbourhood-level factors in deprived areas buffer the effects of child problems on parents' parenting experiences.

Intervening on family, school and children for prevention of early-onset conduct problems

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Backgound

Conduct problems (i.e. oppositional defiant, aggressive, noncompliant behaviours), are a common source of worry for both health practitioners and educational systems. Current estimates are that 7–25% of children are affected, and early-onset conduct problems are related to a variety of health and behavioural problems in adolescence. Developmental models have also shown that the aetiology of such behaviours involves a complex chain of factors affecting the family, school interactions and socio-emotional skills.

Methods

Taking into account this evidence, the University of Santiago de Compostela developed EmPeCemos, a multi-component indicated prevention programme, configured by: (i) a family component (12 sessions), which trains parents in parenting practices, promoting a healthy family atmosphere and appropriate relations with school; (ii) a children component (12 sessions) to develop emotional skills (emotion identification and regulation), cognitive skills (perspective taking, problem solving), and social skills (non verbal communication, friendship establishment); (iii) a teacher component (eight sessions) to train teachers in promotion of good behaviours at classroom, management of disruptive behaviours and collaboration with family. The programme components have been implemented in 34 Spanish schools, involving 153 parents, 254 teachers and 74 disruptive children.

Results

Programme evaluation through a pre-post design with control group (waiting list), showed that EmPeCemos has significant effects on (i) parenting practices (e.g. harsh parenting, $P < 0.001$; use of positive rewards, $P < 0.001$; child monitoring, $P < 0.01$), 2) socio-emotional children skills (emotion identification, $P < 0.001$; problem solving, $P < 0.001$; social skills, $P < 0.001$), (iii) teacher competence to manage conflictive behaviours ($P < 0.01$). Disruptive behaviours were also significantly affected by the program: attention difficulties ($P < 0.001$), hyperactivity-impulsivity ($P < 0.001$) and oppositional-defiant ($P < 0.001$). These effects, slightly attenuated, are maintained 1 year after the intervention.

Conclusions

Results show the usefulness of a theoretically driven, coordinated intervention on family, children and teachers for an efficacious prevention of early-onset conduct problems in the European context.

School grades, parental education and suicide—a national register-based cohort study

Charlotte Björkensam

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Background

In this study we wanted to investigate whether school performance is a risk factor for suicide death later in life, and if so to what extent this is explained by intergenerational effects of parental education.

Methods

This population-based cohort study comprises national birth cohorts between 1972 and 1981 in Sweden. We followed 900 950 students, graduating between 1988 and 1997 from the nine year compulsory school, equivalent to junior high school, until 31 December 2006, generating 11 179 331 person-years and 1 515 suicides. Final school grades, in five categories, and risk of suicide was analysed with Poisson regression

Results

The incidence rate ratio (RR) for suicide death for students with lowest grades was 4.50 [95% confidence interval (CI) 2.77–7.29] for men, and 2.49 (1.34–4.65) for women compared with those with highest grades after adjustment for a number of socio-demographic and parental morbidity variables such as, year of graduation, parental education, lone parenthood, household receiving social welfare or early retirement, place of schooling, adoption, maternal age, parent's mental illness and parent's substance abuse. Students with grades in the middle categories had RR:s in between. These relationships were not modified by parental education.

Conclusions

The strong association between low school grades and suicide in youth and young adulthood emphasizes the importance of both primary and secondary prevention in schools.

Does self-esteem mediate the association between socio-economic status and physical activity among adolescents?

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Background

Physical activity is an essential part of a healthy lifestyle in adolescence. Previous studies have shown physical activity to be associated with both socio-economic status and self-esteem; the latter may mediate the former association, but evidence on this association is lacking. Our aim was to explore the associations between the socio-economic status and self-esteem of adolescents and their physical activity and to examine the mediating role of self-esteem.

Methods

A sample of 3694 elementary-school students from Slovakia (mean age 14.3 years; 49% boys; response rate 93.5%) completed the Rosenberg Self-esteem scale (sum score for global self-esteem) and answered questions about their parents' educational level (categories high, middle and low socio-economic status) and about the frequency of their physical activity (categories $\geq$5 days per week and <5 days per week). We analysed this data using logistic regression adjusted for age and gender, with low socio-economic status as the reference group.

Results

Results revealed that adolescents with high socio-economic status were significantly more likely to report physical activity $\geq$5 days per usual week and to report higher self-esteem. The association of socio-economic status with physical activity decreased after adding in self-esteem, suggesting that at least part of this association is mediated by self-esteem.

Conclusion

Youths from low socio-economic groups have already been identified as a target group. Our findings suggest that it is important in promotion programmes to focus not only on the enhancement of their physical activity but also of their self-esteem as a possible mediator. This may offer a route for achieving substantial gains in public health.

Family- and child-related worries: needs for support via integrated parent partnerships services

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Background

The increasing number of children and families with complex needs are setting us the challenge of developing partnership working with children and their families. Based on the earlier research, family services have remained unapproachable to many families and the offering of the services and the needs of families correspond to each other's only partially.

Aim

The aim of this article is to clarify: (i) what kind of family and child-related worries and needs for support do exist among the parents of 0- to 8-year old children and (ii) how the employees recognize these worries.

Methods

The data were collected at year 2009 through two nationwide surveys (family and employee surveys). A total of 560 mothers and 368 fathers with children aged 0–8 years participated in the study. The employee survey was targeted at service providers in the front-line of maternity and child welfare clinics, school health care, day care, preschool education and schools; 457 employees participated in the study. The Family–Child related Worries (FCW)-instrument was developed for this study. It contains items to assess 28 present-day parental worries. The data were analysed using univariate descriptive statistics; *t*-tests and ANOVA.

Results

Our preliminary results indicated that >30% of parents are exhausted taking care of their child and everyday life and they have worries about their own parental skills, insufficiency of time spent with their children or losing control in daily hassles situations. Mothers have these worries slightly more often than fathers. However the employees encountered these worries quite rarely.

Conclusions

There is need for agreed practices between employees and agencies for enhancing recognizing and organizing parental worries and support.

4.11. Workshop: Mental health care for refugees, asylum-seekers and irregular migrants in Europe

Chairs: Christa Strassmayr, Austria and Ruth Schor, UK
Organizer: Ludwig Boltzmann Institute for Social Psychiatry

Promoting mental health, preventing mental-ill health and the provision of mental health care for socially marginalized people is a major challenge to European societies. There are various policies and services to achieve this in member states, but information on what constitutes best practice is fragmented and consistent guidelines do not exist. The European commission funded project PROMO (Best Practice In Promoting Mental Health In Socially Marginalized People In Europe; Coordinator: Stefan Priebe, Queen Mary, University of London) brought together a multidisciplinary consortium of experts from 14 EU member states to consolidate the knowledge in the field of mental health care for vulnerable groups and identify best practice. Refugees, asylum seekers and irregular migrants have been defined as especially vulnerable groups affected by marginalization. Focusing on mental health care for these groups in major cities in 14 European countries data were collected and analysed on: (i) legislation and policies, (ii) health and social services for these groups (structured interviews with staff members of services) and (iii) semi-structured interview with experts in the field. The added value of organizing the workshop is that comparative data which have been collected in a structured way are analysed and presented for 14 European countries from different perspectives. The results can contribute to the development of implementation guidelines and best practice recommendations on mental health care among refugees, asylum seekers and irregular immigrants. The workshop focuses on four specific issues: (i) comparison of policies of providing mental health care to refugees, asylum seekers and irregular migrants across European countries, (ii) identifying and comparing differences in service provision for asylum seekers and irregular migrants, (iii) analyses of everyday processes, structural circumstances and interactions with the surrounding health care and legal system in mental health services for refugees, asylum seekers and irregular migrants in the UK, Italy and Germany, and (iv) analyses of the priorities of host countries and how they relate to the provision of mental health care for immigrant populations.

The effect of coinciding policy areas and levels of mental health care for refugees, asylum-seekers and irregular migrants

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Background

The issue of mental health plays an essential role for migrants, in particular refugees, asylum seekers and irregular migrants. Apart from the specific mental health issues the relationship between legal/social status and mental health care has not been identified as a separate policy issue yet. The presentation attempts to identify the main themes that occur when cross-examining mental health with group specific policies for refugees, asylum seekers and irregular migrants.

Methods

For the purpose of this study we identified 14 different European countries in the framework of the European commission funded PROMO study, and looked at asylum procedures and other policy areas by which refugees, asylum seekers and irregular migrants are affected. Considering the current development of a European Asylum Policy we investigated where mental health could be situated in present debates. A second step was to focus on accessibility of mental health care across countries and finally how mental health care may actually constitute part of and influence the asylum procedure.

Results

As the question of asylum is moving from a national to a European level, mental health care is experiencing new challenges for those affected. Very few of the national policies analysed actually mention refugees, asylum seekers and irregular migrants in their mental health care policies. However specific areas of mental health care particularly relevant to these groups (such as intercultural treatment) seem to be emerging as well.

Conclusions

Mental health policy for refugees, asylum seekers and irregular migrants has been defined by very few of the countries investigated. Nonetheless once in the arena of asylum policy a variety of perspectives need to be considered.

Mental health services for asylum seekers and irregular migrants: what are the differences?

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Background

It can be assumed that, in contrast to regular migrants, the amount of psychosocial stress and ill mental health is larger in asylum seekers and irregular migrants. Adequate mental health and social services may help to normalise and de-escalate the situation, both for these two groups and the host countries. While it goes without saying that services are worse for irregular/illegal migrants who live in the hide, than for asylum seekers, little is known about the dimensions in which services for these two groups differ. The presentation will explore dimensions which characterise such differences within countries and then compare them between countries.

Methods

Data were collected in 14 European countries in the framework of the European commission funded PROMO project. The sources of information were (i) structured interviews with staff of social and medical services describing the services in a number of different dimensions (size of staff, services provided, financing, cooperation with other services, etc.) and (ii) semi-structured interviews with experts on the quality of care (access, pathways of care, barriers to care and ways to overcome barriers). In order to explore potential reasons for identified differences data were also collected on the European countries' specific migration history, legal and policy situation.

Results

Preliminary analyses show that mental health care is not well tailored to the specific needs of asylum seekers and less so of irregular migrants as far as language needs, cultural understanding and specific care for victims of torture, war and trauma are concerned. Non-governmental organizations have taken over an important role in providing mental health care for asylum seekers and irregular migrants. In case of irregular migrants help provided can be considered as emergency care and crisis intervention only and providers are themselves in a difficult situation.

Conclusions

Looking into the dimensions of differences of mental health services for asylum seekers and irregular migrants contributes to the knowledge about how to define guidelines for best practice.

From legal provision to (best) practice? National responses within mental health care systems for asylum seekers, refugees and irregular migrants

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Background

As part of integration efforts the access to health care is stated as a right for everyone by the European Commission. But for refugees, asylum seekers and irregular immigrants there are various barriers to access health and mental care in the different countries that make cross national comparison and exchange of knowledge difficult. Promotion of mental health is mostly studied at a public health level. Detailed comparative data on processes of implementation of policies, guidelines and recommendations into practice on a single services level are lacking. The presentation will fill in this gap by combining different data sources of the PROMO project to draw out the pathways from legal provision into everyday practice.

Methods

Incorporating the data sources as illustrated in the other presentations of the workshop additional field studies on a single service level were carried out by participant observation, interviews with professionals, patients and the collection of case vignettes. They took place in one selected best practice service for refugees and asylum seekers in three different European countries with different health care systems: the UK, Italy and Germany. The goal was to receive insights on everyday processes, structural circumstances and interactions with the surrounding health care and legal system by studying single services.

Results

Preliminary analyses show that the national legal provision and the constitution of the (mental) health care systems provide the political and economical frame for mental health care. The cross national comparison illustrates an inextricable entanglement of national normative and political issues and diverse individual solutions on a single service level. In order to discuss cross national transferability of best practice the presentation contextualizes the data of the project on different levels: historical, legal, health-care system and single service related.

Conclusion

The additional field studies highlight barriers and solutions in every-day practice and how legislation, recommendations and criteria of best practice are transferred into distinct practice. The descriptive data and case vignettes are especially relevant for practitioners to provide them with models of best practice in an illustrative manner.

Occidentalocentrism in the legitimation of mental health-care provision for immigrant populations in Europe

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Background

The mental health of migrant populations in Europe is a major public health issue. While much is known concerning the prevalence of psychiatric disorders among legal migrants, assessing the mental health needs of irregular migrants, asylum seekers or refugees with temporary residential status is complex. The sociological literature amply demonstrates how the physical health needs of immigrant populations are often analysed solely in terms of the priorities and concerns of the host countries: (i) to protect local populations from pathologies prevalent in the migrants' countries of origin (ii) in a human rights perspective following World War II, making access to health care for victims of persecution a legitimate objective for state action. Does this same legitimation model apply to mental health care?

Methods

The PROMO Project analysed legal and policy texts and interviewed health and social professionals in 14 European countries to evaluate health care provision and best practice models in mental health care for six populations in situations of social exclusion, including irregular immigrants, refugees and asylum seekers.

Results

Results show that current care provision, institutional mandates and professional skills targeting these populations are largely determined by the priorities of the host society.

At some sites, mental health care needs of migrants are defined solely in terms of political violence in the countries of origin, legitimating the existence of organizations dealing specifically with post-traumatic stress and resulting disorders in refugees and asylum seekers. In countries such as France, notions of republican equality limit categorizing people in terms of their ethnic or cultural origin, resulting in a lack of official policy specifically addressing these groups. Finally, the dominating medical model across Europe obscures other dimensions of migrants' situations, dimensions that could shed considerable light on their mental health-care needs.

Conclusions

Preliminary results from the PROMO study underline the importance of taking into account the social and micro-economic priorities of immigrant groups in developing policy and recommendations on mental health care provision.

4.12. Avoidable mortality

AMIEHS, avoidable mortality in the European Union: towards better indicators for the effectiveness of health systems

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Background

Avoidable mortality (causes of death which could be avoided given the current medical developments) is an indicator of the quality of health care which was first introduced by Rutstein in the 1970s. In the AMIEHS project, funded by the European Commission, this concept is reconsidered.

The aim of this study is to develop a new validated list of indicators (causes of death), taking into consideration the extended life expectancy and new developments in health care.

Methods

The list of indicators was developed based on a set of criteria and literature reviews on effective medical interventions after 1970. Timing of the interventions was established among others through information from guidelines and literature reviews. Cause-specific mortality data from seven European countries (1970–2005) and trend analyses were used to study the association between the timing of an interventions and mortality decline. Changes in ICD coding were taken into consideration by a new jump detection method and age-period-cohort models were used.

Results

After applying our selection criteria, 16 potentially avoidable causes remained. Timing of introduction of the interventions and mortality trends varied between the countries. For most of the causes of death no association between intervention and mortality could be found. Associations could be established for example for HIV (introduction of anti retroviral drugs in late 1980s) and testicular cancer (Cisplatin introduced in the early 1980's).

Conclusions

A small number of avoidable causes resulted from a strict selection process in which the effectiveness of medical interventions, reported in clinical studies, was validated with mortality trends. Further validation will be done in a Delphi procedure. Our findings show that it is difficult to precisely identify medical interventions that can causally be linked to declines in mortality. The indicators from the AMIEHS project will contribute to the assessment of international differences in the performance of health systems.

Avoidable mortality regional differences: influence of health services resources

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Introduction

In the Italian Health System responsibility for health care is shared between the central government and the 20 Regions. Regions differ in terms of health care infrastructures and expenditure with a gradient North–South. Some descriptive studies have investigated avoidable mortality (AVM) in Italy, looking for differences between regions, with contrasting results.

Aims

(i) To describe AVM in the 20 Italian Regions; (ii) to study the association between AVM and health care resources adjusting for socio-economic/life-style indicators and hospital discharges data (HD) (diseases incidence proxy).

Methods

Indirect standardized mortality rates for causes amenable to secondary prevention and/or treatment (SMRA) and for causes amenable to primary prevention (SMRP) were calculated for the 20 Italian Regions (2001–03, Italian Bureau of Statistics-IBS). Using the iteratively weighted least squares robust multiple regression we studied the association of SMRA and SMRP with health services resources (National Health System-NHS personnel rate, NHS doctors rate, NHS nurses rate, general practitioners rate, community paediatricians rate, emergency primary health care units rate, acute hospital beds rate, bed occupancy rate, pharmaceutical consumption rate, ecotomography/computerized-axial-tomography/nuclear-magnetic- resonance-tomography scanners rate; 2001–03, IBS) adjusting for socio-economic/life-style indicators (1995–2000, to take in account of the period between exposure and outcome, IBS) and HD (2001–03, Regional Health Systems National Agency).

Results

Central-northern regions showed significantly lower SMRA than southern regions. Northern regions showed significantly higher SMRP than central-southern regions. SMRA resulted associated to acute hospital beds rate (coeff. = –0.282, $P = 0.045$) and to ecotomography/CT/NMR-tomography scanners rate (coeff. = –13.77, $P = 0.001$). SMRP resulted associated to community paediatricians (coeff. = –3.82, $P = 0.036$) and emergency primary health care units (coeff. = –13.56, $P = 0.001$) rates.

Conclusion

SMRA and SMRP seem to have reverse trends. Moreover, different causes seem to influence them: SMRA was associated to socio-economic and hospital care indicators while SMRP mainly to life-style factors and primary health care indicators.

Inter-urban and intra-urban differences in avoidable mortality

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Background

Intra-urban inequalities in mortality have been infrequently analysed in European contexts. Avoidable mortality includes treatable and preventable diseases, and the assessment of avoidable mortality rates (AMR) may give insight into the effectiveness of health services and preventive health policies. The aim of this study is to assess differences in AMR between and within cities. Such differences indicate the potential size of public health gains that could be made.

Methods

We examined levels and trends in standardized avoidable mortality rates (SAMRs) for districts in the two largest cities in Slovakia, Bratislava and Kosice (five and four districts). We extracted three 5-year averages of SAMRs (1993–97, 1998–2002, 2003–07) by gender for these districts from the publicly available Atlas of Mortality of the Slovak Republic. Avoidable causes of death were defined in accordance with an EU-study.

Results

Intra-urban comparisons showed that females from the worst-ranking Bratislava V district had a 1.4 times higher SAMR compared with females living in the Bratislava I district (1.69 versus 1.18 per 1000 in 2003–07), and females from the worst-ranking Kosice IV district had a 1.4 times higher SAMRs than females from the Kosice I district (2.33 versus 1.65 per 1000 in 2003–07). Inter-urban comparisons showed that males from the Kosice IV district had a 1.8 times higher SAMRs compared with their counterparts from the best-ranking Bratislava IV district (4.66 versus 2.55 per 1000 in 2003–07).

Conclusions

Differences in SAMRs within and between these cities are substantial. Further research is needed to unravel the underlying factors, including those included in the EU-funded EURO-URHIS2 and INEQ-cities projects, such as unemployment, education and ethnicity. This may offer rather great opportunities for gains in public health.

Decomposing socio-economic inequity in amenable mortality in Finland

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Background

Amenable mortality measures health system performance by capturing premature deaths that would have been prevented by timely and effective intervention. While several studies have addressed socio-economic inequities in health care in terms of access to and receipt of services, only few studies have considered equity in amenable mortality. This study examines the extent of and trends in socio-economic inequities in amenable mortality in Finland by decomposing mortality into categories attributable to specialized health care (SHC) and primary health care (PHC) interventions.

Methods

We analysed Finnish individually linked register data on mortality amenable to health care by disposable family income in three 4-year periods: 1992–95, 1996–99 and 2000–03. Inequity was measured using concentration index (CI) which was decomposed for mortality amenable to SHC and PHC interventions.

Results

In 1992 the age-standardized avoidable mortality rate was 87/100 000 person years among women and 113 among men. By 2003 these rates decreased by 30 and 34%. CI for total amenable mortality was −0.18 (95% CI −0.28 to −0.09) for women and −0.22 (–0.29 to −0.15) for men in 1992–95 suggesting marked inequity. In the following years inequity increased; shown by the increasing values of CIs. This was apparent for both health care categories and genders. The CIs were significantly different from zero in all subgroups and showed no statistically significant differences between the young (1–54 years) and old (55–74). Inequity was significantly higher in mortality amenable to SHC than PHC.

Conclusions

This study revealed major socio-economic inequities in amenable mortality in Finland, and more inequity was seen in SHC than PHC. While overall amenable mortality decreased, the time trend analysis of CIs suggested increasing inequities by income applying to all ages and to primary and secondary health care. Such inequities should prompt measures to improve equity in health care.

Assessing the effect of individual and area level socio-demographic factors on regional differences in mortality amenable to health care

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Background

Mortality from many causes varies geographically. We examine trends in regional differences in amenable mortality in Finland and explore the role of socio-economic factors.

Methods

We analysed all deaths amenable to primary and specialist health care in the Finnish population aged 25–74 years in 1992–2003. The population at risk was the resident population aged 25–74 years. Socio-demographic variables were individually linked from annual employment statistics. Three area-level scores were created using factor analysis of municipal level register data; these represented standard of living, deprivation and (poor) social cohesion of the locality.

Multilevel Poisson regression models were applied adjusting for sex and age, other individual-level variables and area-level factor scores.

Results

Mortality from conditions amenable to primary care intervention was more common among men in 1992–95 but differences disappeared over time. An inverse income gradient increased over time. The unemployed and those outside the labour force had higher mortality. Poor social cohesion of the area was also associated with mortality. Men had more than double the risk of dying from conditions related to specialist care compared with women. An inverse and increasing gradient was seen for income. Employment status was again associated with higher mortality. Poor social cohesion of the area increased risk as did deprivation in 1996–2003. There was little variation between areas for conditions amenable to primary health care, but substantial variation for mortality amenable to specialist health care.

Conclusions

The impact of the organization and delivery of primary health care differs little across Finland; however, mortality from amenable to such care is strongly patterned by individual socio-economic circumstances. Conditions amenable to specialist care also show strong social gradients but, in addition, large area variances suggest that the organization and delivery of specialist services may influence mortality.

Mortality monitoring for public health action in Europe—functions, attributes and requirements: perspectives of end-users and implementers

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It is currently in progress the EuroMOMO Project (European monitoring of excess mortality for public health action) that has the objective of developing and operate a routine public health mortality monitoring system to detect and measure, on real-time, the excess number of deaths related to influenza and other possible public health threats across European countries. The project lead by ISS in Denmark and that enrols more than 22 European countries has been actively performing its pre-established main tasks that include an inventory of national systems, definition of minimal requirements, retrospective data analysis, identification of a unified approach, implementing and testing a European system.

For the definition of a European mortality system's minimum requirements, several meetings have been held to assess end-users' needs and implementers' agreement. A focus groups qualitative approach was performed involving national and regional public health departments, national health authorities, local, regional and national civil protection authorities, and meteorological and health national Institutes representatives.

Involved individuals formed a heterogeneous group of people, including both experts and persons that never had contact with a mortality monitoring system.

Consensus results set that the functions of such systems are expected to be the monitoring of mortality evolution, issuing of risk indices and alerts, and the support for public health policies; In what concerned attributes groups consensus focused on the absolute need of simplicity of the resulting system, though referring further timeliness, sensibility, flexibility and representativeness; As minimum requirements were referred the absolute number of deaths, their disaggregation by region, age and sex, and the definition of a baseline or a statistical model. Groups described different feasibilities between national and European levels with eventual finer geographical scale than NUTS2 and more frequent than weekly for national level.

The end-users showed more generic concerns than implementers but differences were not perceived as substantial.

4.13. Workshop: Healthy workplaces in large enterprises: the role of public–private partnerships (PPPs)

Chairs: Angelique de Rijk, The Netherlands and Ute Bultmann, The Netherlands
Organizer: EUPHA section on Social Security and Health

Workers' health, safety and well-being are vital concerns to the enormous amount of working people in Europe. These issues extend also to the productivity, competiveness and sustainability of enterprises and communities. A growing number of, mostly large, for-profit organizations offer interventions to positively affect public health. These intervention aim at improving employee health and vitality, prevention of work-related health problems, reduction of sickness absence duration and promotion of return-to-work and supporting people with disabilities to function in paid jobs. Regarding adverse working conditions, the attention has evolved from safety issues and the physical environment to psychosocial and personal health practice factors.

These public health interventions take place in the arrangement of public–private partnerships (PPPs). Within the public health community there is both interest and concern about PPPs. It is widely acknowledged that workplaces are excellent sites to promote health of a large group of people. But will for-profit organizations really contribute to people's health? What should be 'the rules of the game'? How should accountability be assured without turning the PPPs into ponderous, ineffective bureaucracies? Also for-profit organizations have their hesitations, for example about the effectiveness of the interventions, and how to implement these.

The case of promoting healthy workplaces is an excellent example to learn more about PPPs in public health, due to the long-standing tradition of PPPs in the field of occupational health. The Dutch have a large amount of experience with private organizations promoting employee health with public money. Since the last decade of the previous century, social insurance and occupational health care are organized and financed by a public–private mix.

Four evaluations of interventions from larger companies will be presented. They vary regarding intervention and evaluation method.

The aim of the workshop is to: present different approaches to promote health in the workplace and inclusion of people with disabilities and to discuss the limitations, advantages and applications of the different interventions in the light of promoting public health with PPPs.

PARALLEL SESSION 5

Friday 12 November 2010: 16.30–18.00

5.1. Workshop: Advocacy in public health, experiences and challenges

Chair: Johan Lund
Norway
Organizer: EUPHA section on Injury Prevention and Safety Promotion

During the past years the international literature in the injury field has been growing with regards to evidence-based efficient preventive measures. Policy and decision makers have been given, or can read about evidence-based recommendations on where to invest in prevention activities. Even if evidence of cost-efficient measures is produced, there often seems to be a lack of political and administrative will to act. The world of scientific researchers is rather different to the world of the policy makers, the latter characterized by tight timeframes to decide on various problems, engagement by stakeholders with various and sometimes conflicting interests, and to some extent the need for being re-elected. The scientific world, on the other hand, might vary with regard to freedom, capacity and interests in making research in controversial areas, and to advocate the results of the research to the decision makers. There might also be some lack of public confidence in the scientific model due to inherent failures in the system, as scientists faking results or hyping the research results in media for commercial gains.

The main aim of this workshop is to highlight the processes of decision making in public health, both on a national and a European level, in order to strengthen the capacity to turn evidence-based knowledge into action.

This workshop will cover the following themes:

(i) A case study from Norway on how evidence-based cost-effective knowledge on prevention of hip fractures did not succeed in getting sufficient funding

(ii) Advocacy on a European level on child safety, experiences from 10 years of work in European Child Safety Alliance

(iii) The impact of evidence-based knowledge in the decisions of health policy-makers

(iv) The mechanisms behind the lack of public confidence in the scientific model, and how to increase the credibility of scientific research.

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Evidence-based cost-efficient knowledge on prevention of hip fractures not enough for getting national investments, a case study from Norway

Johan Lund

J Lund
University of Oslo, Norway

Background

In 2000, Norwegian Safety Forum, a non-governmental organization, proposed a nation-wide 5 years intervention on hip fractures in the elderly. It was based on evidence-based cost-effective interventions from both Norway and abroad. The annual cost was calculated to 600 000 Euro. The aim was to reduce the number of hospitalized hip-fractures by 10% by the end of intervention period, and that about 100 municipalities would have established targeted preventive work on elderly safety. The savings of medical treatment and rehabilitation of the prevented hip fractures was assessed to be 5–10 times higher than the investments for prevention.

Methods

During the next years, applications for funds were submitted to: Ministry of Health, Directorate for Health, national funds for public health, and insurance companies.

We got meetings with the State secretary for health, and the Health and Welfare Committee in the Parliament, arguing for making cost-effective investments in a nation-wide campaign for hip-fracture prevention.

Results

After 4 years of applications and meetings, we only got ~60 000 Euro annually from the Directorate of Health and two insurance companies. The reduced amount of funding allowed a limited campaign to be launched in 15 municipalities. Preliminary results indicate reductions in hip-fractures compared with municipalities with no campaign.

Conclusions

Evidence-based cost-effective documentation on hip-fracture intervention was not sufficient in getting enough funding. It might be that we applied for too much money. There is a need either to increase the national funds for prevention, or to learn more efficient methods in advocacy.

Advocating for child safety in Europe—lessons learnt from 10 years of experience from the European Child Safety Alliance

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Background

Injury remains a leading cause of death and disability for children in Europe, with over 40 000 children dying each year. This is despite the fact that there are evidence-based actions that could reduce this burden. The European Child Safety Alliance (ECSA) has for the past 10 years worked in various capacities to increase uptake, implementation and monitoring of what works. This presentation will provide examples of activities undertaken and share lessons learnt.

Methods

Advocacy approaches to child safety that ECSA has used include:

- Advocating for specific changes as part of direct advocacy campaigns (e.g. child resistant lighters, fire safe cigarettes, water safety)
- Educating decision makers (e.g. Child Safety Report Cards, water safety guidelines)
- Educating stakeholder groups such as researchers, programme managers (e.g. campaigns, Good Practice Guide, articles/presentations)
- Capacity building (e.g. position statements, high-level political meetings)

Results

Ten years of experience have demonstrated that advocating for child safety is a slow and difficult process, with the added challenge that not all answers that policy makers want are available or easily accessible and it is often easier for them to stay with the ‘status quo’ or invest in ineffective practice. There is also a gap between demonstrating that a strategy works and understanding the details of why and how it worked. The policy development environment is not straight forward and often leadership, infrastructure and capacity do not support an evidence-based approach. It is clear that communication is a key to success and to be effective it requires a good understanding of the policy environment and policy makers' needs. Effective advocacy tools, finding the right messenger and message and working to create win-win situations also increase likelihood of success.

Conclusions

Ten years of experience indicate that there is a need for better data and more targeted research (e.g. demonstration research, case studies). There is also a need to increase researcher capacity to produce and communicate policy relevant information, which could be addressed in part by including policy development and evaluation as part of research training. On the policy side, there is a need to change the system drivers to reward evidence-based policy

Which impact has evidence-based knowledge on decisions made by health policy makers?

Simon Innvær

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Background

The empirical basis for theories and common wisdom regarding how to improve appropriate use of research evidence in policy decisions is unclear. One source of empirical evidence is interview studies with policymakers. The aim of this systematic review was to summarise the evidence from interview studies of facilitators of, and barriers to, the use of research evidence by health policy-makers.

Methods

We searched multiple databases, including Medline, Embase, Socio. le, PsychLit, PAIS, IBSS, IPSA and HealthStar in June 2000, hand-searched key journals and personally contacted investigators. We included interview studies with health policy-makers that covered their perceptions of the use of research evidence in health policy decisions at a national, regional or organizational level. Two reviewers independently assessed the relevance of retrieved articles, described the methods of included studies and extracted data that were summarized in tables andanalysed qualitatively.

Results

We identified 24 studies that met our inclusion criteria. These studies included a total of 2041 interviews with health policy-makers. Assessments of the use of evidence were largely descriptive and qualitative, focusing on hypothetical scenarios or retrospective perceptions of the use of evidence in relation to specific cases. Perceived facilitators of, and barriers to, the use of evidence varied. The most commonly reported facilitators were personal contact (13/24), timely relevance (13/24), and the inclusion of summaries with policy recommendations (11/24). The most commonly reported barriers were absence of personal contact (11/24), lack of timeliness or relevance of research (9/24), mutual mistrust (8/24) and power and budget struggles (7/24).

Conclusions

Interview studies with health policy-makers provide only limited support for commonly held beliefs about facilitators of, and barriers to, their use of evidence, and raise questions about commonsense proposals for improving the use of research for policy decisions. Two-way personal communication, the most common suggestion, may improve the appropriate use of research evidence, but it might also promote selective (inappropriate) use of research evidence.

Making science believable again

Tamsin Rose

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Issue

The main reason to disseminate the results of research is for it to be used in reaching decisions and making changes. The goal is therefore utilization. But it is a very crowded marketplace of information and ideas, new research has to compete with old knowledge and countervailing opinions, often put forward in defence of economic interests.

Description

Popular culture is awash with scientific information, much of it inaccurate, out of context and irrelevant. There has also been a dramatic rise in anti-science movements, examples include the rejection of evolutionary theory, the reality of man-made climate change, relationship between the HIV virus and AIDS, claims of a link between vaccinations and autism. Part of this lack of public confidence in the scientific model has been due to inherent failures in the system—the scandals of scientists faking results (e.g. on cloning), the corruption of the peer review process of academic journals by corporate interest, the medicalization of life conditions (social anxiety, insomnia, male pattern baldness etc) and the hyping of research results in the media for commercial gain (e.g. news articles placed by PR companies 'blueberries are the new superfood so stock up on blueberry juice drinks'). Health has been at the heart of many of these controversies.

Lessons

For the public health community this is a challenge—how to increase the credibility of scientific research and communicate effectively so that decision-makers and the public can distinguish between good science and propaganda. There are several opportunities for change: tightening up the rigour of the peer review system for scientific publications, greater transparency about research and clinical trials being carried out, who funds them and full publication of results. Regulatory authorities also have a key role in identifying the robust evidence that is used for policy-making and communicating this clearly.

5.2. Workshop: Future research priorities in European HSR and their use in European Policy and Practice

Chair: Peter Groenewegen, The Netherlands
Organizer: NIVEL—Netherlands Institute for Health Services Research, Johan Hansen

The project 'HSR Europe' aims at identifying, evaluating and improving the contribution of Health Services Research (HSR) to the health policy process inside and outside of Europe. As a European Commission funded (FP-7) Support Action, the project contributes to future Research Framework Programmes and to informed policymaking processes.

A recently organized working conference 'Health Services Research in Europe' (April 2010) with over 300 participants from in- and outside of Europe has led to the identification of research priorities in various targeted areas of HSR: (i) health-care systems; (ii) health-care organizations and service delivery; (iii) Health Technology Assessment; and (iv) benchmarking and performance indicators. In addition, the working conference distilled lessons on how to increase capacity for HSR, how to organise the HSR community and how to strengthen the relationship between research and policy and make more efficient use of HSR findings in the policy cycle at European and national level (more information and reports are available at http://www.healthservicesresearch.eu).

In the workshop three carousel discussion areas will be addressed. The three areas are

(i) health-care systems performance, with special emphasis on methods to monitor and compare health systems performance and health systems reforms.

(ii) Health-care organization research, with particular focus on evaluating the role of primary versus secondary care in the organization and delivery of care.

(iii) Linkage between research and policy, determining whether current infrastructures are sufficient to meet the needs of health policy makers and to recommend how possible shortcomings can be removed to ensure an effective use of HSR.

For each discussion area, a lead expert from the project team will present major lessons and priorities as distilled from the working conference. Next, a round table discussion will focus on the question whether these priorities are shared among health care experts and stakeholders from across Europe. The workshop will serve as a point of reference to refine and discuss under-researched areas given upcoming policy needs with the participants of the EUPHA Annual Conference. What conclusions can be drawn and which topics should receive more or less attention when fine-tuning a European HSR agenda?

Research in the field of health-care organizations: state-of-the-art and future directions

Johan Hansen

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In this section of the workshop we will address current and future research priorities concerning the field of health care organization and service delivery. These form an intermediate level between the health care system at large and service provision in the interaction between patients and providers. Which topics should receive more or less attention when setting priorities for the agenda on HSR on health care organizations in the future? Given the broad range of organizations special emphasis goes out to evaluating the role of primary versus secondary care in the delivery of care. A state-of-the-art overview will be linked to priorities as identified by stakeholders from across Europe. Regarding the first, bibliometric analyses have been carried out, both on key terms in Pubmed and Embase, plus a classification of a sample of 1000 articles based on their topic area and methodological approach. To determine research priorities an online survey was carried out among over 300 experts from across Europe. The linkage between the two has led to an inventory of research areas that are currently under-researched from a policy perspective. In the workshop these outcomes will be discussed with participants in order to refine the final conclusions on key priorities for future research programmes.

Benchmarking of health systems performance in Europe: state-of-the-art and future directions

Niek Klazinga

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In this section of the workshop we will address current and future research priorities concerning the field of health care systems performance. Special emphasis goes out to methods to monitor and compare health systems performance and health systems reforms, including requirements for national information infrastructures. During the session we will first present the framework and approach to map HSR in this field. Our framework is based on four perspectives that can be identified in the research on benchmarking and performance indicators:

(i) Measurement through indicators on the one hand (performance measurement) and the proper embedding of sets of indicators in policy- and management cycles on the other (performance management);

(ii) Benchmarking and performance indicators on the macro, meso and micro level of health-care systems;

(iii) The dimensions of quality involved (e.g. effectiveness, safety, patient centeredness);

(iv) The functions and objectives of performance measurement and management in health care.

To establish an overview of research activities at European (comparative) level, bibliometric analyses have been carried out, in combination with additional literature searches. These will be linked to priorities as identified by stakeholders from across Europe, among others based on an online survey among over 300 experts from across Europe. The linkage between the two has led to an inventory of research areas that are currently under-researched from a policy perspective. In the workshop these outcomes will be discussed with participants in order to refine the final conclusions on key priorities for future research programmes.

Current and future linkages between research and policy across Europe

Stefanie Ettelt

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In this section we will evaluate and discuss the relationship between the HSR community and the health policy process at the various levels of the health care system (regionally, nationally and at European level). Its focus will be on modes of commissioning research by policy makers as well as on how results of research are fed into the policy process. This includes structures and conditions for the effective transfer of knowledge as well as feedback structures between decision makers and researchers. The question of how research is (and should be) linked to policy is applicable to all of the areas within HSR. The relationship and communication between the health services research community and decision makers has been structured differently across Europe, varying from formal councils and other bodies to more informal connections. Without effective communication channels between researchers and the users of their results, the available HSR potential may not be focussed on the priorities of policy makers, and policy makers may not be effectively provided with available evidence from HSR studies. During the session we will present an identification of research policy linkages across Europe, based on country reports of over 25 countries. Together with the workshop participants, these linkages will then be evaluated in terms of their usefulness for the EU as a whole. What is the empirical evidence for these linkages and are all European countries taking equal advantage of approaches already known to work well in other contexts?

5.3. Workshop: Integration of care at the interface of primary and secondary care: work in progress

Chair: Jouke van der Zee
The Netherlands
Organizer: EUPHA section on Health Services Research

Background and aim

Existing health care arrangements do not always provide a well-organized response to health problems occurring in society. Inadequate coordination of care for people with chronic conditions or elderly in need for home care services provide examples of important integration issues that health-care systems in Europe struggle with. Removing barriers, for instance by creating incentives for teamwork between primary and secondary care providers, may improve the quality of health care.

The aim of this workshop is to appraise and address the issue of integration of care between primary and secondary care and within primary care as a basis for possible solutions which could improve coordination, service delivery, patient experience, efficiency and responsiveness.

Content of the workshop

After an introduction by the chairman, the workshop will consist of five presentations with the following topics:

(i) A presentation by Wienke Boerma about different strategies in which countries in Western Europe coordinate patient care within primary care and across care levels. An international comparison of six countries will be made based on results of the Primary Health Care Activity Monitor for Europe (PHAMEU) project.

(ii) A presentation by Madelon Kroneman to explore whether the organization of general practice care and specialist ambulatory care have an influence on hospital admissions in Europe. The results may contribute to improving the efficiency and quality of health care services.

(iii) A presentation by Aldo Rosano concerning the role of primary care in the prevention of primary care sensitive hospital admission in different health care systems.

(iv) A presentation by Dionne Kringos aiming at illustrating the degree in which preventive care and health promotion activities are part of primary care systems in Europe. Results from 31 countries will be used, based on Primary Health Care Activity Monitor for Europe (PHAMEU) project.

(v) A presentation by Nadine Genet to present strategies to diminish problems of poor coordination in home care. Different models of integration within home care and between home care and residential setting across Europe will be presented. Results are based on the Mapping Professional Home Care in Europe (EURHOMAP) project.

The workshop will be closed with a summary by the chairman.

Coordination and integration of primary care in Western Europe

Wienke Boerma

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Background

Due to ageing a larger proportion of the population suffers from multiple and complex health problems that need treatment from more than one health care provider. Fragmentation of care is a critical development that all health care systems in Europe need to cope with. To improve the responsiveness of patient care there is a need for coherent and well coordinated provision of health care services.

Methods

On the basis of a systematic review of the literature on primary care (PC) and consultations with experts across Europe, key features and indicators of coordination of care were identified. In 2009–10 data was collected in Belgium, France, Germany, Ireland, The Netherlands and the UK. Data sources were national and international statistical databases, policy papers, national and international (scientific) literature and expert organizations.

Results

Coordination of PC will be measured with indicators including the existence of a gatekeeping system, patients' freedom to choose their own PC physician, the use of referral letters and the existence of task substitution between general practitioners (GPs) and nurses. Preliminary results show that there are many different coordination mechanisms used in PC across countries. Main outcomes indicate variation in the coordinating role of GPs, patient satisfaction with their GP, direct access to other levels of care and the level of communication between PC and secondary care.

Discussion/conclusions

The discussion will explain the differences related to coordination of PC. The results will be placed in the context of the key features of the studied health care systems, and the structure and organization of the PC systems in Western Europe.

How does the organization of GP care and specialist ambulatory medical care influence hospital admissions in Europe? Results from a pilot study

Madelon Kroneman

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Introduction

The gatekeeping system for general practitioners (GPs) is often associated with a reduction of (avoidable) hospital admissions. However, the influence of ambulatory specialist care on hospital admissions received little attention in current health services research. The aim of this study is to explore whether (at national level) there is an influence of the organization of primary (GP) and secondary ambulatory medical care in a country on hospital admission rates.

Methods

Information on the organization of GP care and ambulatory specialist care in Europe is collected from the WHO Observatory country profiles. For each country the most recent report is used. For hospital admission rates, the data of the WHO Health for All database are used for the same year as the health system review, to ensure that data and system match each other. We distinguished three categories of access to the hospital: via GPs as gate-keepers, via directly accessible (groups of) ambulatory specialists or via outpatient departments of hospitals. The study includes the EUR-27 plus Switzerland, Norway and Iceland.

Results

The organization of ambulatory specialist care in Europe varies even more than the organization of general practice. There are sufficient numbers in the categories described above to establish potential differences in admission rates.

The presentation will contain a description of the organization of GP care and ambulatory medical specialist care in Europe and an analysis of the distribution of (acute) hospital admission rates over the specific combinations of GP care and ambulatory specialist care

Conclusions

First results show a varying role of ambulatory specialist care as a modifier in the explanation of international differences in hospital admission rates

Preventable hospitalization and the role of primary care: a comparison between Italy and Germany

Aldo Rosano

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Background

Hospitalization may often be prevented by timely and effective outpatient care. For Italy we found that the type and density of primary-care facilities, among other factors, influence admission rates. However, results from Italy may not be valid for other types of health-care systems, e.g. in Germany. Both countries dispose of appropriate hospital statistics and try to reduce costs of the hospital sector, but the position of both primary care and ambulatory specialist care varies considerably. The objective of the study is to compare hospital admissions for main ambulatory care sensitive conditions, in this case diabetes and asthma, in Italy and Germany and to discuss possible relationship with the different model of primary care supply.

Methods

Trend analysis of hospitalization rates (HRs) for asthma and diabetes from 2001 to 2007 and correlation with quantitative measures of primary care services.

Results

In Italy admissions for diabetes and asthma were about 90 000, ~1% of total admissions. In 2007 in Germany avoidable admissions attributable to diabetes and asthma were 245 000, accounting for 1.4% of total admissions. During the studied period HR for diabetes decreased by 30% in Italy and increased by 11% in Germany. In the same period the number of practising physicians per 1000 persons was stable in Germany and decreased in Italy, where the number of doctor visits increased by 14%.

Discussion

Preliminary results for Italy showed that in the studied period HR for diabetes steadily decreased, with no increase of primary care physicians, but with an intensification of their workload. In Italy policies aimed at reducing the recourse to hospitalization seem to be successful. Family practitioners have a different role: they are gatekeepers in Italy and not in Germany. This may play a role in the attempt to shift health assistance from in-patient care to out-patient care.

The integration of public health in European primary care systems

Dionne Kringos

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Background

A strong primary care (PC) system provides accessible, comprehensive care in an ambulatory setting on a continuous basis and by coordinated care processes. These features give PC the opportunity to play a key role in providing public health (PH) services to their practice population. There is however a lack of up to date comparable information to evaluate the overall state of PC systems, and thus the degree in which PH is integrated in the structure and process level of PC systems.

Methods

A comprehensive set of indicators has been developed to evaluate the functioning of PC systems based on a literature review and expert consultations. The integration of PH tasks in PC is a key focus point of the instrument. PH activities are featuring at both structure (e.g. governance), process (e.g. comprehensiveness of care) and outcome level (e.g. quality) of PC systems. In 2009–10, an international consortium implemented the Monitoring system by collecting PC data in 31 European countries by reviewing (inter)national literature, statistical databases and consulting national expert panels.

Results

The current variation in the integration of PH in European PC systems will be shown. This will be illustrated by indicators such as type of preventive care and health promotion tasks performed by PC providers and utilization rates of these services. Furthermore, the efforts of European countries to improve the performance of PH services by appropriately structuring their PC system through policies and regulation, financial measures and workforce development will be presented.

Conclusions

This study shows a variation in the degree in which PH activities are part of PC systems in Europe.

Integration home care in the care chain: results from the EURHOMAP study

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Background

Demand for home care is expected to rise sharply across Europe as a result of trends of reduced institutional care and the ageing of populations. The increased volume and complexity in home care will challenge the coordination of services delivered in the home situation and the coordination between home care and providers in residential and primary-care settings.

Methods

This article draws upon results of an EC-funded project, gathering information in 31 countries on a large set of indicators, including on the integration of nursing, personal and domestic services in the home setting and between home care agencies and other settings of care. Information has been gathered in close collaboration with experts in each country.

Results

Different models of integration within home care and between home care and primary and residential settings across Europe will be presented, such as forms of case management and organizational integration. Usually, arrangements of integration and coordination are informal; this especially applies to social services provided at home. Several countries have developed initiatives to diminish problems of poor coordination in home care by developing procedures to smoothen the involvement of organizations and providers from different sectors.

Conclusions

Coordination in home care is complex due to the heterogeneity of care and professionals involved. Several European countries are trying to solve the problem.

5.4 Workshop: Making optimal use of individual health records for public health monitoring and research in a privacy respecting manner: current developments and best practices

Chair: Niek Klazinga Amsterdam, The Netherlands and
Marieke Verschuuren, The Netherlands
Organizer: Centre for Public Health Forecasting, RIVM, Bilthoven, The Netherlands

Possibilities to use individual health records for public health (PH)/health services research (HSR) differ between EU member states (MS), as MS apply divergent approaches towards balancing the interests of the data subjects (data protection) and the interests of society (a good and efficient health system). Though it is fully justifiable that MS aim to protect the privacy of their citizens, current technical developments allow for optimal use of individual health records while at the same time ensuring very adequate safeguards for privacy protection. This workshop firstly aims to give a summary of the current legal data protection framework underlying current PH/HSR practice, highlighting important developments such genomics and biobanks. This background information will help participants appreciate the specifications of the best practices presented next. After the introduction on legal aspects, representatives from DG Research will highlight challenges and opportunities for EU funded projects that involve cross-national sharing of PH/HSR data. Next, several best practice examples will be presented in more detail. First, researchers from the EUBIROD Consortium will introduce a novel approach to realize ‘privacy by design’ in the cross-border flow of information among diabetes registries using very different procedures for data collection and management. Next, the ‘Nordic’ federal model will be explained. This model is being developed to both protect privacy and facilitate access for authorized users by using modern technology. Finally, researchers from the Sax Institute in Sydney will present a model, which concerns probabilistic matching of individual records from different databases using Trusted Third Parties. This workshop focuses on a topic which is of relevance for all who work in PH/HSR. Individual health records, i.e. routinely collected health data, form a valuable source of information for PH/HSR, which in many MS cannot be (optimally) used. This workshop aims to contribute to improving this situation by showing examples of novel approaches that enable efficient and safe use of health data within the legal boundaries set by the EU.

The position of public health in the European legal data protection framework

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The use of data from different sources is a necessary condition for evidence-based public health policies and actions. However, stakeholders experience difficulties when it comes to the exchange of data and their linkage on a European level. The Work Group on Data Protection of the Network of Competent Authorities (NCA) addressed this issue and detected substantial divergence across EU Member States in possibilities for the usage of person identifiable health data. Underlying this situation is the European legal data protection framework, in which it is left up to the MS to decide whether to allow for the use of person identifiable health data for public health purposes. The Work Group analysed the position of public health in the European Data Protection Directive, and wrote a Commentary in the European Journal of Public Health on the outcomes of this exercise, as well as a Position Paper on behalf of the NCA. These will be presented during the workshop. Special attention will be given to biobanks (including genetic information). These play an increasingly important role in public health research and monitoring. In the context of data protection, biobanks cause particular concerns as they are often not purpose specific. In the Data Protection Directive the need for a purpose-unspecific research infrastructure is not foreseen, and the legal basis of biobanks is therefore questionable. Another current extremely relevant development that will be addressed is electronic health records (EHRs). As the Data Protection Directive dates from 1995, it is questionable whether it provides an adequate legal framework for new technologies such as EHRs.

Health services data in European Public Health Research: challenges and opportunities of ongoing projects

Kevin McCarthy

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The third pillar of the FP7 health work programme (‘Optimizing the delivery of health care to European citizens’) calls for more effective comparative cross-national health systems research. Many data sources exist in this field (Organisation for Economic Co-operation and Development, World Health Organization, EUROSTAT) and must be efficiently used in combination with regional/national data. The ethical evaluation of FP7 projects duly takes into account legal guidelines. In this presentation the focus will be on ongoing projects funded by the FP7 programme of the third pillar and the related challenges and opportunities in the use of health data. The availability and comparability of health-care-related data require access for health services researchers across EU member states. Successful proposals that are considered relevant for ethical evaluation undergo ethical review before final approval. It is important that researchers are fully aware of challenges and opportunities that arise both in the preparation and during the conduction of EU projects.

Cross-border flow of health information: is ‘privacy by design’ sufficient to obtain complete and accurate data for public health in Europe? The case of BIRO/EUBIROD diabetes registers

Concetta Tania Di Iorio

CT Di Iorio, F Carinci
On behalf of the EUBIROD consortium

The BIRO (2005–09) and EUBIROD (2008–11) projects funded by DG-SANCO aimed at developing and implementing a shared evidence-based information system for diabetes in Europe. The BIRO system was conceived as an innovative method to build practical tools that would process diabetes data to deliver accurate standardized indicators at both local and European level. EUBIROD aimed at implementing the system in diabetes registries from 20 member states. The successful construction of the BIRO system has been underpinned by the application of a novel methodology of Privacy Impact Assessment (PIA) that allowed identifying the best privacy enhancing infrastructure. 'Privacy by design' was realized through a structured process that included revision of the relevant EU legislation, data flow analysis, application of a revised Delphi procedure and privacy analysis of the selected architecture. Subsequent development of open source software led to the production of EU reports based on standardized routines used at all levels. Further results obtained in EUBIROD show variability in the implementation of the Directive among participating registries, a potential obstacle for the collection of complete, accurate and homogeneous data on diabetes across Europe. The above topics will be presented in detail during the workshop. Points for discussion will include questions on how such variability could be further investigated to understand the critical areas of interpretation and provide possible solutions to optimize the impact of data protection legislation on public health and health services research.

An example of optimizing the usability of personal health data: the Nordic 'federal data model'

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Background

During the past few years, both the requirements on data protection and the requirements on using data for public health and other social policy development have increased. The statistics offices in Sweden and Denmark have introduced new technologies for access to microdata online, in Sweden called MONA (Microdata Online Access), and are hesitant to provide data in other ways than by remote access through a virtual desktop for the user. The system is used for both researchers and policy makers. This however poses a problem for those who need to combine Statistics Sweden data with health data from other authorities or research data that are too sensitive or complicated to ship to Statistics Sweden.

Objective

To present a model for federated data sharing of authority, health care provider and researcher data using modern database technology and distributed systems for accessing data from several sources.

Methods

A demonstration project has been developed for federated access to microdata from Statistics Sweden, the National Board of Health and Welfare, and laboratories for cervix cancer screening. The project aims at showing how to use federated technique to evaluate the results screening. The project also evaluates the legal possibilities and obstacles for implementing this solution as a general model for datasharing of sensitive personal data.

Best-practice example from Australia: privacy-preserving approach using semi-trusted third-party models

Tim Churches

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In Australia several varieties semi-trusted third-party models are being applied to deterministically and/or probabilistically link identifiers (unique identifier numbers, names, addresses, dates of birth, etc), which have been separated at source from their corresponding health/medical data items. Through such approaches linked but de-identified individual-level health data sets can be supplies to researchers. In this presentation these models will be explained in more detail, addressing the following aspects:

- the benefits and dysbenefits (extra costs, operational problems) of such a privacy-preserving approach;
- the Australian regulatory frameworks which permit and facilitate such a privacy-preserving approach;
- the—generally positive-attitude of privacy advocates and health care consumers to such a privacy-preserving approach to the research use of health data;
- the use of perturbed and/or synthetic data subsets to overcome some important operational problems with such privacy-preserving (semi-trusted-third-party) approaches;
- the use of secure data enclaves/remote access data analysis laboratory facilities to address some important residual privacy risks with such privacy-preserving (semi-trusted-third-party) approaches;
- the use of web-based metadata access and application/approval workflow facilities and associated automated data manipulation/handling systems to streamline and improve the efficiency of obtaining research access to de-identified, linked, individual-level health and social data sets;
- the use of encryption technologies to help lower running costs of semi-trusted third-party data linkage approaches as used in Australia.

5.5. Workshop: A pandemic or not a pandemic—that is the question

Chairs: Ruth Gelletlie, United Kingdom and Dineke Zeegers Paget, EUPHA

Organizer: EUPHA section on Infectious Diseases Control

The 'H1N1 influenza; or Mexican flu was first reported in Mexico City in March 2009. The Mexican government immediately adopted containment measures, e.g. by closing public and private facilities. The virus, however, continued to spread and WHO declared the first influenza pandemic since 1977–78, following the 2009 revision of the phase descriptions.

On the 11th of June 2009 WHO General Secretary Margaret Chan declared level 6 of a global 'pandemic'. Phase 6 includes measures at individual and household level (e.g. staying at home for minor symptoms already), societal level (e.g. social distancing, avoid crowds), international travel (encourage reduction in travel) and pharmaceutical level (vaccination).

Less than 1 year later, questions about the Mexican flu pandemic arise. Given the epidemiological data, the Mexican flu pandemic is nothing like 20th century pandemics, not in size and not in mortality. Comparing even to a normal flu season, where an estimated number 340 million–1 billion are infected and an estimated number of 250 000 and 500 000 deaths are registered per year, the Mexican flu infected 622 482 people of which 14 286 died. Critical voices can now be heard both at national and international level. The World Health Organization decided in April 2010 that an in-depth review by external experts to assess the global response to the pandemic and identify lessons for the future is underway. The report will be published not before 2011.

Following an introduction on the development of the Mexican flu from an epidemiological point of view and an evaluation of the measures taken, a panel will assess the global response to the pandemic and describe lessons for the future. The panel consists of experts from Austria, Switzerland, France, The Netherlands, the UK and the USA.

Lessons learned from the global surveillance of pandemic influenza, the different communication strategies and the impact on Europe's public health response

Koos van der Velden

J van der Velden[1], *WJ Paget*[1,2]
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After the first case of Mexican flu was reported in early spring 2009, a wave of reported cases went quickly through the (scientific) media. Pandemic influenza A(H1N1) activity was reported in all continents, but most countries were affected during summer 2009 in Latin America, Oceania and Asia, followed by countries in North America and Europe during late summer/autumn. Whereas the geographical distribution of the pandemic virus was clear, the severity pattern of the pandemic was far from clear. Consequently risk communication about the pandemic was not ideal and left critics with scepticism on whether the right measures were taken and money was spent in the correct way. We will review the global surveillance data of pandemic H1N1 and the different communication approaches to draw lessons on how this was arranged and how this can be better organized in the future.

Lessons learned from the experiences made with the pandemic H1N1 in Switzerland

Eva Bruhin

M Laubli-Loud, E Bruhin
Department of Health Research and Evaluation, Federal Ministry of Health, Bern, Switzerland

In response to recommendations from international bodies the Swiss health authorities took a number of actions concerning a possible spread of a high disease severity arising from the H1N1 virus. One major challenge in coping with a pandemic in Switzerland lies in the fact that responsibilities are widely spread between the state with its different departments and organizations, the 26 cantons and care and insurance providers.

Two evaluations were commissioned in order to draw out lessons from the experience of coping with the challenges of an international pandemic on the one hand, and to adapt planning for future pandemics on the other. The first was commissioned by the Head of the national Pandemic Task Force who asked for an international expert panel to undertake an evaluation of the preparation and implementation of the Swiss immunization strategy. The review's main aim was to assess vaccination planning, purchase, approval, delivery, distribution, execution and re-utilization/removal. The second evaluation was commissioned by the Federal Office of Public Health (FOPH), which was the main key player in fighting the pandemic on a national level. Its aim was to analyse crisis organization within the FOPH, including the structures and processes adopted, and to determine measures for optimizing organizational preparation in the future.

The two evaluations and their results will be presented highlighting in particular their influence on planning for future pandemics.

Panel discussion with:
Martin Sprenger, Austria
Antoine Flahault, France
Koos van der Velden, The Netherlands
Eva Bruhin, Switzerland
Ruth Gelletlie, UK
Toby Merlin, USA (tbc)

Questions will include:

- What were the reasons for declaring phase 6 for the Mexican flu at the early stage it was declared at?
- What were the consequences of declaring phase 6?
- Are there any negative health effects by exaggerating the risk (incl. effects on future trust in health authorities)?
- Who was responsible for the risk communication and how has it been done and updated?
- How evidence-based and effective were our interventions (e.g. vaccines, antiviral drugs)?
- How valid was our surveillance system in regard to infection rates, number of: infected without symptoms, infected with symptoms but without health care utilization, infected with symptoms treated in primary care, infected with symptoms treated in secondary care, infected with symptoms treated in intensive care, case fatality ratio, etc.?
- What should we do next year when a new virus ('EUPHA influenza strain') is discovered (lessons learned)?

5.6. Workshop: The Development and Production of Health Inequalities Profiles for the Regions of Europe—a European Commission funded project

Chairs: André Ochoa, France and John Wilkinson, UK
Organizer: North East Public Health Observatory, Stockton on Tees, UK, Prof. John Wilkinson

Objectives of the workshop

The purpose of this workshop is to present the results of an important European Union funded project which has produced a health profile for all the health regions of Europe during 2010 (I2SARE—Indicateurs de inégalités de santé dans les régions d'Europe). This project is the culmination of 11 years work involving most countries of the European Union. There are many lessons that have been learnt during the course of this project and a number of issues which remain outstanding, not least to consider how this work will be continued into the future.

This project is the fourth in the ISARE series. Previous projects have identified the health regions of Europe and have assembled data sets at regional level. This final project has brought all the previous pieces of work together in a final product 'a health profile'.

In addition to producing health profiles for all the regions of Europe, the project also had a number of additional work packages, the results of these will also be presented in the workshop. These include the development of a typology of regions in Europe, the development of a network of observatories, and a pilot project to develop a European-wide set of indicators at sub-regional level.

Eleven years of regional collaboration: the history of the projects and the development of the health profiles

Bernard Ledésert

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[2]Observatoire régional de la santé d'Aquitaine, Bordeaux, France
[3]Observatoire régional de la santé d'Alsace, Strasbourg, France
[4]North East Public Health Observatory, Stockton on Tees, UK

Background

The ISARE series of projects were started 11 years ago, with an initial project to identify the health regions of Europe. This was necessary because of the plethora of potential sub-national boundaries which could have been chosen. The second ISARE project was undertaken which tested the availability of the indicators which had been selected as part of the initial project (ISARE 1). The third ISARE project was carried out to include the countries of the European Union which became members in 2004.

Methods

The project which we are now reporting is I2SARE which had a number of components presented during the workshop, but the one that will be described here is the production of the regional health profiles (RHP) in Europe, A Health Profile is a short document providing a concise overview of the health situation of a territory using a short number of selected indicators covering different topics and allowing comparison with other territories at the same level. The elaboration of the RHP was based on a literature review, the selection of the indicators to be presented, the definition of the general framework of the RHP, the definition of the process of production of the texts and comments for the RHP and the validation process of the RHP before publication.

Results

A total of 268 RHP have now been published. We aimed to produce profiles based on 37 indicators for each region. However, not all countries were able to supply the data required, which led to interesting methodological problems in handling missing values.

Conclusions

Health profiles have been successfully produced for most regions in Europe. We now need to evaluate their value and consider how these will be produced in the future if it is determined that these are a valuable product.

A typology of the regions using health indicators

Wolfgang Hellmeir

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NRW Institute of Health and Work, Düsseldorf, Germany

Background

The main goal of the I2sare project was the production of health profiles for all European regions. To facilitate an overview of the 268 individual results, a typology of the regions was developed.

Methods

A hierarchical cluster analysis was performed with SPSS to create groups of similar regions. As cluster analysis requires a complete data set and not all regions delivered data for all indicators only a selection of the indicators and regions could be included into the analysis. Furthermore variables which were too strongly correlated and regions with outliers had also to be removed. Finally the analysis was performed with 10 indicators and 168 regions. To select the most appropriate number of groups ClustanGraphics was used. To check the plausibility of the results we performed several analyses with slightly different data sets and analysed them with experts in European public health.

Results

We found eight groups which approximated very closely to national boundaries. The regional distribution can roughly be described by the following: Cluster 1: All Polish regions, Estonia and two Czech regions; Cluster 2: Extremadura, Italy and Portugal, Cluster 3: Austria, former West Germany, Belgium, Luxembourg (excluding the largest urban areas); Cluster 4: UK and Sweden (without capital cities); Cluster 5: Former East-Germany plus some urban areas; Cluster 6: Spain, Ireland, Malta, Cyprus plus some cities; Cluster 7: Czech Republic; Cluster 8: France without Paris. The partition seemed to be plausible and the different calculations resulted in very similar clusters.

Conclusions

The analysis identified plausible results which grouped regions with similar health patterns. The clusters were much closer to the national boundaries than was expected. The results must be interpreted with caution. Cluster analysis is an explorative method which marks the start of an investigation, not the definitive conclusions. A larger set of variables and the inclusion of more regions might give different groups.

Development of a network of observatories and communication issues

Claire Bradford

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[2]North East Public Health Observatory, Stockton on Tees, UK

Background

One of the key objectives of this project has been to disseminate the regional health profiles to decision makers across Europe and to create a sustainable international network of public health observatories. Challenges facing projects funded by the European Public Health Programme include the effective dissemination of project outcomes, ensuring that lessons are learnt and shared from the funded projects and that where effective the work becomes embedded in European policy and work programmes. Too often good projects disappear without trace, have little impact, and whilst at the same time new projects may emerge which overlap with work previously undertaken.

Methods

In order to ensure widespread dissemination of the project and to develop sustainability, three separate initiatives have been taken. These include the development of a newsletter, the creation of a directory of regional institutions involved in health information, and a set of guidelines for dissemination of good practice.

Results

The directory of institutions involved in health information has been developed and published on the I2SARE website, four newsletters have been produced and a conference to develop dissemination guidelines was held in Mons, Belgium earlier in 2010. A final project conference has also been held in the autumn of 2010. The outcomes of these initiatives will be described and conclusions presented.

Conclusions

Dissemination of the results of European projects needs careful attention and with the current system, high quality pieces of work are in danger of having little or no impact. This section of the workshop will focus discussion on how this situation might be improved

Initiating sub-regional comparisons

Frederick Imbert

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[2]North East Public Health Observatory, Stockton on Tees, UK

Background

The first three Isare projects only dealt with regional data and indicators. Nevertheless, regional health observatories and decision makers are more and more interested in sub-regional analyses of the health indicators, allowing local adaptation of the health policies in accordance with the health of the population.

Methods

During the I2sare project, a first questionnaire on availability, comparability and quality of health data at sub-regional level has been send to a selection of countries (France, Estonia, England, Sweden) and regions (Baden-Wurttemberg and North Rhine Westphalia in Germany, Hainaut in Belgium and Pais Vasco in Spain). Using the results of this questionnaire, a small set of social, demographic and health data was selected for collection. As soon as this collection is completed, a cluster analysis will be performed.

Results

All the participating countries and regions answered to the availability questionnaire. As expected the data availability is not as good at sub-regional level as at regional or national level. Thus, if demographic and mortality data availability is very good, many problems appeared concerning the availability and the comparability of socio economic data, data on health care, data on morbidity. Data on health habits (body mass index, percentage of smokers) are unavailable at the sub-regional level in almost all the countries and regions.

The data collection is in progress. The first responses from six of the eight participating countries and regions shows an effective availability of the data and capacity of the I2sare partners to collect these sub-regional data.

Cluster analysis will be performed during this year and the results presented at the conference.

Discussion

The initial results of this work shows the possibility of collecting and analysing data at sub-regional level in different countries and regions of the European union.

5.7. Workshop: Ethics in public health: teaching and practice

Chairs: Theodore Tulchinsky, Israel and Els Maeckelberghe, The Netherlands

Organizer: ASPHER Working Group on Ethics and Values in Public Health

ASPHER has appointed a Working Group of Ethics and Values in Public Health, which is to be developed jointly with EUPHA. The purpose of this Workshop is to address issues related to ethics and values teaching in Schools of Public Health to devise an ethical framework for public health teaching and in public health practice and to promote its adoption by ASPHER and EUPHA.

The Workshop will address the following questions:

- To prepare Statement of Public Health Ethics recommended for adoption by ASPHER and EUPHA and for use in members of ASPHER and EUPHA.
- To recommend a core curriculum on Ethics and essential crosscutting study for bachelors and master level in public health.
- To recommend topics for PhD studies in Ethics of public health.

Introduction and background: by co-chair persons

First Guest Speaker: Representative of US Association of Schools of Public Health.

Second Guest Speaker: Peter Schröder-Bäck—Maastricht University, Department of International Health: Case studies for teaching public ethics to European MPH students.

Discussion: Teaching and practice of public health should incorporate ethics and values issues ranging from the ‘do no wrong’ of the Hippocratic oath, to ‘do nothing’ in failure to adopt current ‘best practices’ in PH, to care of minorities and high risk groups, to many other ethical questions of individual health, public policy and population health.

Conclusions

ASPHER’s Working paper on Values and Ethics in Public Health (2007) provides a starting point, along with EUPHA Section on Ethics reports and similar activities in other public health Associations. The ASPHER’s Working Group Work Plan will include development of a special issue of the Public Health Reviews on Ethics in the New Public Health. The discussion will help the Working Group to understand the issues seen by interested members of EUPHA and ASPHER for inclusion in our activities and report.

5.8. Workshop: New practical tools for nutrition education in kindergartens and schools

Chairs: Stina Algotson Sweden and Enni Mertanen, Finland

Organizer: EUPHA section on Food and Nutrition

Objectives

Children adopt their healthy eating habits for the whole life span during early years. Children’s day care and school represent a natural and daily surrounding where most children are met. It has been paid a lot of interest on nutrition education as a part of health promotion in preschools and schools. However, there is a lack of effective methods for children’s nutrition education.

Sapere method is an innovation using children’s natural curiosity, sensory training and experimental learning. It is known that children need for learning sensory information, own exploration and examination. Also playing is significant in child’s development. Especially in nutrition education, children’s own experiences of food are important when they develop their like or dislike of foodstuffs and adopt their eating habits. Sapere method enables children to discover their five senses and use the sensory awareness to explore a range of sensations offered by different foods and food culture as a whole. It is a simple method including also playing offering a joyful tool for nutrition education of children.

The Sapere method was originally developed in France in early seventies. It was adapted and implemented for the Swedish school in 2000. Thereafter, the Swedish material has been imported to Finland as a part of a public health project. Many tool books for professionals have been published recently. Sapere-based nutrition education programmes are going in many European countries at the moment. The workshop introduces Sapere method and several projects that are using it. The Sapere method applications can be adopted to all cultures and within different branches of children’s early and school education.

Programme

The programme includes four oral presentations, to begin with the theoretical basis and background of the Sapere method, and then three examples of the Sapere method applications for preschoolers and school children in different countries:

Professor Judith Annett from Sweden will start: ‘Introduction to the theoretical concepts underlying SAPERE method’. Second, Arja Lyytikäinen from Finland introduces two applications: ‘Sapere’—toolbook for daycare staff and how a paedagogic menu developed for a new approach on pre-schooler’s nutrition education. Then Stina Algotson from

Sweden talks Sapere taste lessons in Swedish pre-schools, the 'Allebarnsrätten-campaing'. And finally, Hante Meester from The Netherlands tells about taste lessons in primary schools in The Netherlands, the 'Smaaklessen'—programme.

Introduction to the theoretical concepts underlying SAPERE method

Judith Annett

J Annett
Sweden

Finding an effective strategy to change children's eating patterns towards more healthy dietary intakes is an urgent humanitarian and fiscal necessity. Any strategy must acknowledge that it is the total social and cultural environment which ultimately will interact with genetic determinants to produce the current nutritional status of any individual.

Although genetic predisposition may in part determine taste perception, unhealthy food preferences and choices are malleable. Developmental patterns are not fully understood, but infants and young children are sensitive to sensory and perceptual training. Parental influences begin prenatally and food preferences at age 2–3 are predictive of later food preferences.

The importance of sensory experience in children's development and learning, at a general level, has been noted in educational thinking since at least the 17th century (Comenius). The suggestion also that education should go beyond nutrition education and address sensory aspects of food behaviour is not new. More than 20 years ago in France, Jacques Puisais developed 12 'taste lessons' 'Les classes de Gout'. Covering the five senses, basic tastes and flavours, cuisine and regional specialities, food preservation and consumption, meal composition and food preferences, Puisais's approach was to train children. He hypothesized that such sensory-based training would develop in children the pleasure of eating a large variety of foods and that this would modify food consumption patterns.

He thought that sensorial lessons incorporated into school curricula, and linked to education in health, exercise, environment, food/cooking, etc. particularly if combined with other psychosocial variables, would have potential to form an effective intervention.

It is these 'Classes de Gout' which form the basis for the SAPERE approach which is presented here today. This introductory talk will explain the theoretical basis of SAPERE and how these theoretical concepts relate to practice.

Applied Sapere–method and pedagogic menu as a new approach on preschooler's nutrition education

Arja Lyytikäinen

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[5]JAMK University of Applied Sciences/School of Business and Services Management, Jyväskylä, Finland

Problem

Children's increasing overweight challenges health professionals to seek effective methods to get children to eat varied food and balance their diet with bigger amount of vegetables, fruits and berries. Daycare staff feels unskilled to solve children's eating problems. There is a lack of practical tools for preschooler's nutrition education. Sapere-method, using sensory training and children's own perceptions is a promising instrument. The aim of the project is to develop, test and implement new Sapere-based tools in early education.

Results

Daycare staff ($n = 650$) from eight cities was involved in the Sapere-project. Courses for staff contained the theory of the method and sensory tasks. The method gave practical skills and willingness to apply Sapere activities with children. Paedagogic menu was developed as a new tool for kitchen staff to offer services for Sapere activities. The menu contains meals and a selection of food components. Food themes are built in menu. Results show that the paedagogic menu gives a frame for nutrition education and offers a lot of sensory activation. Children ate more varied and bigger amounts of fruits, berries and vegetables, tasted unfamiliar foods and enjoyed food tasks. The paedagogic menu fulfilled the nutrition recommendations better than a usual menu, and it included more local foodstuffs. However, its costs were slightly higher (+0.23 €/day/child).

Lessons

Sapere method with sensory training, cooking and other activities with real food, and a paedagogic menu, is a promising approach to improve children's nutrition in early education. The new tools increase cooperation among the daycare and catering staff, and inspire them to develop children's nutrition education.

Sapere-taste lessons in Swedish pre-schools

Stina Algotson

S Algotson[1,2,3], *Å Öström*[3]
[1]Allebarnsrätten—a national campaign with the mission to strengthen the status of food in pre-schools, The Project Manager of Allebarnsrätten, Board Member Sapere International
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[3]School of Hospitality, Culinary Arts and Meal Science, Örebro University, Örebro,
Sweden

In Sweden, 85% of children attend pre-school. Lunch and snacks are served every day in 10 000 preschools. Some of are very competent and cook in-house, others lack facilities, interest and knowledge of professional food preparation. Still, the Swedish preschool system represents an important platform and potential resource to influence the lifelong relationship children in regard of food and the meal. Allebarnsrätten is a 3-year knowledge campaign with the mission to strengthen the status of food in pre-schools. The strategy is to gather, develop, package and disseminate knowledge on healthy and tasty food. Allebarnsrätten co-operates with 11 pilot pre-schools in the development of cookbooks, advice and a webpage. The work is carried out in interaction with parents, pre-school teachers and cooks in pre-schools. Presently, a Sapere handbook for pre-school teachers is being developed in order to use food and the meal as a paedagogical tool. Sapere is latin for 'to feel and to know'. Sapere teaches children the function of our senses and is implemented through laboratory lessons. By awakening the joy of exploring the method triggers children to:

- know their own senses
- a language to express what they experience
- dare testing new products
- a more varied food intake
- see food as an interesting and attractive issue
- understand the connections of food to nature and culture
- become more critical consumers

Allebarnsrätten will adapt the Sapere method, offer it in complement to cookbooks and target to disseminate it to every one of the 10 000 pre-schools in the country, in co-operation with the Swedish Teachers Union.

Taste Lessons in primary schools in The Netherlands

Hante Meester

HJ Meester[1], *AGJ Voragen*[1], *J Snel*[2]
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[2]The Netherlands Nutritional Centre, The Hague, The Netherlands

Problem

Consumers themselves are responsible for making reasonable choices about their eating pattern. However, trends in society such as the increasing number of people that are overweight and panic reactions in times of crises concerning food safety indicate that consumers are not always able to live up to this responsibility. In order to change this situation, consumers have to become more aware of food and nutrition. A suitable approach appears to be addressing primary school children, for 'what is learnt in the cradle lasts till the tomb'.

Description of the problem

The aim of Taste Lessons is to increase, by means of sensorial and practical education, the knowledge of, the interest in and the ability to make choices concerning nutrition & health and food & food quality of youngsters in primary schools. The programme consists of practical lessons in which taste is the main aspect. Children will discover new flavours and products, and will learn more about food and aspects that are linked to food, e.g. the composition, the origin and the ways it can be produced and prepared. The children's curiosity will increase, as will their knowledge on food. Primary school teachers teach the lessons themselves. To be able to do this they receive a box with teaching material. In addition they can be present during an instruction meeting. An additional possibility is to receive a visit of a chef or a student in the class.

Results

Taste Lessons started in The Netherlands in 2005. In 2010 ~25% (2000) of all primary schools in The Netherlands have started with the programme. The programme is received very positively by teachers and children.

Lessons

Taste Lessons is a promising initiative. In The Netherlands there is a big need to provide an integrated offer to schools in which a programme as Taste Lessons is embedded. In addition the need for lunch provision at schools is increasing rapidly.

5.9. Workshop: Neighbourhood structure and health promotion

Chair: Christiane Stock, Denmark and Thomas Abel, Switzerland
Organizer: EUPHA Section on Health Promotion

Neighbourhoods have become the focus of studies in Health Promotion and in Social Epidemiology. They provide the physical environment and social context in which health is developed or at risk. Neighbourhoods are also representations of social distinctions and class and health is found to be divided along their borders. Neighbourhoods provide material and non-material structures within which people act to reproduce those structures or to challenge even change them. Theoretical contributions to our understanding on the relationships between neighbourhoods and health can thus come from the structure-agency debate. The focus of the workshop will be on empirical or theoretical studies addressing issues of neighbourhoods and their perception by the people attached to them relevant for health promotion research and practice. As an introduction to the workshop theme a systematic review and meta-analysis on neigbourhood factors and health will be presented (Mathias Meijer, Denmark). To what extent socio-economic differences in neighbourhood perceptions can be explained by objective neighbourhood features will be the focus of the following presentation (Carlijn Kamphuis, The Netherlands). A contribution from Portugal will present quantitative data on associations between perceptions of neighbourhood environment and physical activity and sports among adolescents (Nuno Loureiro, Portugal), while a study conducted in Romania will focus on improvements of the daily period of being physically active outdoors after the restoration old and neglected parks among elderly (Corina-Aurelia Zugravu, Romania).

Do neighbourhoods have an effect on mortality? A systematic review and meta-analysis

Mathias Meijer

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Background

Recent research suggests that the neighbourhoods in which people live have independent effects on mortality. These questions the emphasis put on individual lifestyles in public health policies. The results of previous studies, however, have been ambiguous and the objective of this study is to review the literature and to quantify the association between area-level socio-economic status (SES) and all-cause mortality measured in previous studies.

Methods

Articles were retrieved from Medline, Embase, Social Sciences Citation Index and Psycinfo. Only multilevel studies which controlled for individual SES were included. For each study in the meta-analysis all area-level SES estimates were combined into a single estimate using weighted linear regression. The analysis utilized combined estimates with random effects to account for heterogeneity between studies.

Results

A significant effect of area-level SES ($\beta = 0.06$, SE = 0.03–0.08) on all-cause mortality was found indicating that those living in more disadvantaged areas have higher mortality.

Conclusions

This study shows that areas have independent effects on all-cause mortality and that public health initiatives not only should focus on behaviours and characteristics of people but also on the areas in which they live.

Why do poor people perceive poor neighbourhoods? The role of objective neighbourhood features and psychosocial factors

Carlijn Kamphuis

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Background

Low socio-economic (SES) groups are more likely than high SES groups to perceive their neighbourhood as unattractive and unsafe, which is associated with their lower physical activity. Agreement between objective and perceived environmental factors is often low, so it is questionable to what extent 'creating supportive neighbourhoods' would improve residents' neighbourhood perceptions, and with that, increase their activity levels. We investigate to what extent SES differences in neighbourhood perceptions are related to objective neighbourhood features and other factors.

Methods

Participants ($N = 814$) residing in 14 neighbourhoods of Eindhoven (The Netherlands) reported on their household income (SES-indicator), perceived neighbourhood safety and attractiveness, social neighbourhood factors, and psychosocial factors. Objective neighbourhood design, safety, aesthetics, and destination features were collected by environmental audits.

Results

Low SES groups were more likely to perceive their neighbourhoods as unattractive [odds ratio (OR) = 1.75, 95% confidence interval (CI) 0.85–3.58] and unsafe (OR = 2.97, 95% CI 1.55–5.67) than high SES groups. Objective neighbourhood features contributed substantially to the gradient in perceived neighbourhood attractiveness. Social neighbourhood and psychosocial factors contributed to both the gradients in perceived attractiveness and safety.

Conclusions

Our findings suggest that improvements of neighbourhood perceptions are most likely to be achieved if environmental change strategies (e.g. improving neighbourhood aesthetics and safety) are combined with community interventions to increase residents' involvement in social processes and improve their psychosocial circumstances.

Neighbourhood and physical activities of Portuguese adolescents

Nuno Loureiro

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Instituto Politécnico de Beja, Beja, Portugal

Background

This study examines associations between perceptions of neighbourhood environment and physical activity and sports within Portuguese adolescents.

Methods

The sample consisted of 4877 individuals of both genders, with an average age of 14 years. The instrument used was the Health Behaviour School-aged Children questionnaire.

Results

Perceptions of the neighbourhood being unsafe for children to play and having no place to spend leisure time were associated with lower levels of exercise among adolescents. The perceptions of the neighbourhood being unsafe for children to play [odds ratio (OR) = 1.3, $P < 0.005$] and the fact of not having a place to spend leisure time (OR = 1.3, $P < 0.005$) were associated with lower levels of exercise among adolescents. The perception of these variables is associated to a lower probability of exercising. The neighbourhood characteristics are more important to the practice of outdoor sports than of indoor sports.

Conclusions

The perceptions of the neighbourhood may influence adolescent's physical activity and sports, in different ways.

Old parks and green spaces renewal—a chance for a higher quality of life at the third age

Corina-Aurelia Zugravu

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Background

Being active in the neighbourhood keeps old persons in touch with the community and with people of similar ages, allowing interaction and keeps away feelings of exclusion, isolation, depression and loneliness. In this context, a green environment can act as a facilitator.

Methods

In a popular district of the northern area of Bucharest, where the elderly population represents >50% of the inhabitants (64,5%), the local council concentrated funding in renovating two old and neglected parks and arranged five 'green spaces' with benches and alleys between big groups of blocs of flats. We evaluated a representative sample of the population >70 years from the neighbourhood 1 month before the works started and 2 months after everything has been finished. Our questionnaires measured the level of time spent outdoors, the duration of being physically active during a day and quality of life (QoL) by the WHO QoL questionnaire.

Results

Statistically significant improvements have been noticed ($P < 0.05$), with almost a doubling of daily period of being physically active outdoors after the restoration and a higher score at the QoL questionnaire. A non-systematic investigation among the local medical practitioners indicated a lowering with 5.7% of the number of consultations solicited by the seniors in the same period of time, but we couldn't link directly this percentage with the municipal works in the area.

Conclusions

A friendly and healthy environment in big cities has enormous effects on the well-being of people of every age. Seniors are a main area of concern, especially in an emerging country like Romania, confronted with economical problems, were programmes oriented towards helping old age people are scarce and insufficient.

5.10. Cardiovascular diseases

WHO programmes 'Register of acute myocardial infarction', 'MONICA' in Russia: the 30-year myocardial infarction morbidity, mortality and fatality rate

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Background

To investigate myocardial infarction (MI) morbidity, mortality and fatality rates in 1977–2006, and their determinants in a high-risk population in Russia.

Methods

The WHO programmes 'Register of Acute Myocardial Infarction', 'MONICA'. During 30 years (1977–2006), 23 137 MI cases were registered, with 7630 cases thereof having lethal outcomes.

Results

Our results have shown the MI morbidity in a high-risk population (Novosibirsk) in Russia to be among the highest in the world. The 30-year MI morbidity behaviour is defined by relative stabilization except for the years of 1988, 1994 and 1998, and the reduction in 2002–04, 2006. Mortality and fatality rates were stable throughout all 30 years except for the years of 1977–1978, when a decrease was registered, as well as for the years of 1988, 1994, 1998, and 2002–05, when a reliable increase of the mortality and fatality rates was recorded; the reduction in 2006. As with men, pre-hospital mortality and fatality prevail with women throughout the entire observation period. The connection of the MI figures with psychological and social factors (the increase of anxiety level recorded by three screening studies of the years of 1984, 1988, 1994, accordingly) was determined.

Conclusions

The MI morbidity and mortality rates in a high-risk population in Russia are among the highest in the world. They are markers of the increasing social and economic instability in the country. The paradoxical fact of the absence of MI morbidity decrease against the background of the decreased mortality and fatality rates in 1977–78 and reduction of morbidity against the rise of the mortality and fatality rates in 2002–05 are accounted for: in the first case—by improvement of the organization of administering medical aid to patients, and in the second case—by its deterioration.

Influence of calendar period on the association between body mass index and coronary heart disease in an adult population: a meta-analysis of 31 cohorts

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Background

The association between body mass index (BMI) and coronary heart disease (CHD) may have changed over time, for example due to increased pharmacological treatment of CHD risk factors. This is important for models used to predict future deaths from chronic diseases and fundamental for formulating policies on the management of CHD. The present meta-analysis of 31 prospective cohort studies explores the influence of calendar period on CHD risk associated with BMI.

Methods

The age, sex and smoking adjusted relative risks (RRs) of CHD for a five-BMI-unit increment and BMI categories were pooled by means of random effects models. Meta-regression analysis was used to study the influence of calendar period (>1985 versus ≤ 1985) in univariate and multivariate analyses (including mean age of the population as a covariate).

Results

The RR of CHD for a five-BMI-unit increment was 1.28 [95% confidence interval (CI) 1.22–1.34]. For underweight, overweight and obesity, the RRs (compared with normal weight) were 1.11 (95% CI 0.91–1.36), 1.31 (95% CI 1.22–1.41) and 1.78 (95% CI 1.55–2.04), respectively. The univariate analysis indicated an 8% ($P = 0.05$) decrease in RR for a five-BMI-unit increment and a 26% ($P = 0.01$) decrease for obesity in studies starting after 1985 ($n = 15$ and $n = 10$, respectively) compared with studies starting in or before 1985 ($n = 16$ and $n = 10$). However, in the multivariate analysis only mean age of the population had an independent influence on the RR (–7% and −14% per 10-year increment, respectively).

Conclusions

This study provides no consistent evidence for a difference in the association between BMI and CHD by calendar period. The most important factor influencing the association between the risk of CHD and BMI is mean age of the population, in which the RR decreases with increasing age.

Clustering of cardiovascular disease risk factors within individuals: secular trends and socio-economic patterning in the Scottish Health Surveys 1995–2008

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Background

In Scotland, as elsewhere, cardiovascular disease (CVD) mortality has declined but socio-economic status (SES) inequalities persist. We examined secular changes in CVD risk factor prevalence in representative samples of the Scottish population by SES.

Methods

We used data from the 1995, 1998, 2003 and 2008 Scottish Health Surveys (6190, 6656, 5497 and 4202 25- to 64-year-old respondents, respectively). Self-reported smoking, hypertension, diabetes and obesity (measured BMI) prevalences were determined by social class (Registrar Generals) and education (highest qualification), adjusted by survey weights and standardized to the European population. Trends were assessed using linear regression and the slope index of inequality (SII).

Results

In 1995 14.1% of professionals smoked compared with 51.0% of unskilled workers (SII = 39.0). By 2008 the prevalence had lowered in all but the unskilled (SII = 35.7). Hypertension increased moderately within most educational levels, amongst highly qualified men the prevalence was 15.0% in 2008. In men the SII was 8.8 in 1995 and 8.2 in 2008, in women it increased from 4.2 to 12.1. Diabetes prevalence increased over time: in 2008 it was 5.8% amongst those with no qualifications and the SII had risen from 1.0 in 1995, to 3.9. Obesity prevalence increased over time and the SII was 10.7 in 1995 and 13.0 by 2008. Amongst those with no qualifications obesity prevalence increased from 23.3 to 31.2% over this period. In 2008, 79.2% of those with no qualifications had at least one of the four risk factors compared with 43.0% with the highest qualifications (SII = 44.6). Smoking was the most frequent lone factor in 2008 except among the most educated for whom it was obesity. In the final survey, 7.8% of those with the highest qualifications had two risk factors compared with 19.3% of those without qualifications; the SII was 16.6, an increase from 13.5 in 1995. The most common combination of two risk factors was obesity and hypertension.

Conclusions

Individuals of lower SES carry the heaviest burden of CVD risk factors. These inequalities have changed little or increased since 1995. This work emphasises the importance of public health interventions to reduce CVD mortality being targeted at the most socio-economically disadvantaged.

Variation in regional pacemaker implant rates by socio-economic status

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Background

Since decades pacemaker implantation increases the life expectancy of patients with different cardiovascular diseases. In Belgium, which has the highest implant rates in the world, on average one in 40 male individuals above the age of 65 received a pacemaker implant in 2007. While it is widely acknowledged that age and sex are relevant impact factors on the probability of receiving a pacemaker implant, this leaves little room of maneuver for policy makers. This article is the first to analyse how socio-economic status is associated with the probability of receiving a pacemaker based on Belgian data. Similarly, we inspect survival probabilities of patients having received a pacemaker by socio-economic status. So far, these questions remain unresolved, albeit their potential importance for social policy.

Methods

The analysis is based on individual-level data covering the years 2002–07 and including 62 000 patients having received a pacemaker. It includes various medical and socio-economic characteristics. Based on generalized linear methods, we explain the variation in regional implant shares by measures of income, educational attainment and income inequality, accounting for regional fixed effects and other regional characteristics. The analysis is done on the level of 588 Belgian communities.

Results

Preliminary results suggest a statistically significant negative relationship between socio-economic status—as defined by educational attainment, income and income inequality—and the regional pacemaker implant rates. We also find that survival rates of patients with low socio-economic status are lower than for those with a better educational attainment and higher income.

Conclusions

The high shares of pacemaker implants in regions with poor socio-economic characteristics indicate the poor health of the local population. Unlike other medical fields (outside of surgery), overuse of pacemaker implants driven by socio-economic status may not be the most likely problem because of the severity of the surgery. This indicates that social policy initiatives to reduce poverty and to increase educational levels of the population may be needed in order to drive down the relatively high rates of pacemaker implantations among the poorer parts of society.

Long-term out-patient cardiac rehabilitation—pay for performance or for selection?

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Background

Due to the socio-demographic important increase in cardiac events new rehabilitation programmes aiming at reintegration of patients into work and social life are provided. Published long-term (Phase III) cardiac rehabilitation programmes are heterogeneous regarding the contents and models. A study to estimate the effectiveness of Austrian Phase III programmes and to give decision guidance for reimbursement negotiations between the Association of Austrian Health Insurance Providers and rehabilitation centres raised the question, to what extent differences between intervention and control group may be attributed to either a causal effect of phase III rehabilitation or to selective preference/permission for participation.

Methods

Retrospective cohort study (comparing 1239 patients with / 1620 without Phase III) based on clinical data as well as account data from health insurance institutions, with the analysis concept developed on trial data (from one pilot centre) and applied to the test data (from other centres).

Results

Patient baseline characteristics showed large between-group differences. Clinical data were too incomplete to be used for risk adjustment by published scores. The treatment group showed lower overall mortality than the control group, but this advantage was already existent prior to intervention and their mortality risk was less than in the general population. Some results in secondary outcomes further strengthened the impression of 'sicker' controls. Mostly non-significant higher hospitalization-rates and higher costs for control patients in private practices were observed.

Conclusions

Data indicates that a main reason for the better outcomes of Phase III patients is due to selection (motivated intervention group, 'sicker' controls). The retrospective study design precludes unbiased estimation of treatment effectiveness. However, the project was a first step towards pay for performance considerations and showed possibilities and pitfalls of evaluating routine data. Subsequent prospective studies will have to include considerations, which encompass the whole process from treatment selection/assignment to outcome evaluation.

Suboptimal treatment spells leading to coronary revascularization diminishing: disparities among patients with diabetes remain

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Background

Earlier research suggests that coronary heart disease (CHD) among patients with diabetes is not always treated as intensively as among patients without diabetes. This study examines whether there are differences in treatment pathways leading to coronary revascularization among patients with diabetes compared with other CHD patients.

Methods

Nationwide register-based study in Finland in 1998–2007 describes temporal trends in the proportions of (i) revascularizations performed at first treatment period, and (ii) suboptimal treatment pathways to revascularizations, i.e. pathways containing several cardiac emergency hospitalizations. Differences between patient groups were examined using logistic regression model adjusting for age, comorbidity and region.

Results

Upward trends were found in proportions of revascularizations performed during the first hospital admission: among men with CHD numbers were 28% in 1998 and 77% in 2007; among men with insulin dependent diabetes (IDDM) 16 versus 58%; and among men with non-insulin dependent diabetes (NIDDM) 25% versus 69%. On equal groups among women: 32 versus 77%; 36 versus 64%; and 33 versus 73%. Patients with diabetes were less likely to undergo revascularization during the first hospital admission, in 2005–07 OR for IDDM among men was 0.52 (95% CI 0.42–0.64), NIDDM 0.79 (0.73–0.86), respectively among women 0.59 (0.44–0.78), and 0.83 (0.74–0.93). While revascularizations in the first treatment period increased, the number of suboptimal treatment pathways decreased: among men with CHD 19 versus 4%, IDDM patients 25 versus 8%, and among NIDDM patients 25 versus 7%. Respectively decrease among women 25 versus 5%, 33 versus 11% and 31 versus 8%.

Conclusions

For patients with diabetes admitted into coronary revascularization, relatively fewer operations were performed during their first CHD hospitalization. Suboptimal treatment pathways were more common among patients with diabetes. More attention is needed in the timing and intensity of revascularizations of CHD among patients with diabetes.

5.11. Workshop: Public health and health care dealing with the ethnic diversity in urban cities

Chairs: Walter Devillé, The Netherlands and Arpana Verma, UK
Organizer: EUPHA section on Migrant and Ethnic Minority Health and EUPHA section on Urban Health

Urban populations in Europe are characterized by a large diversity in ethnic groups related to migration. This diversity is a challenge for both local health policy and for health care, to meet the health-care needs of the urban diverse population. This workshop presents some examples of health-care (policy) in urban settings taking into account ethnic diversity within urban populations.

Urban health policy and migration: Amsterdam as an example

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The population of the city of Amsterdam is characterized by a large ethnic diversity. Every 4 years, the city has to formulate a health policy plan which sets aims to improve the the public health situation of the city. Facing the large ethnic diversity, specific attention is given to improve the health situation of especially the disadvantaged migrant populations. This presentation will set out the Amsterdam approach as an example of good practice.

Ethnic inequalities in health care consumption patterns: a need for targeted care?

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Background

Ethnic minorities, a growing population in The Netherlands and other western European countries, show health care consumption patterns that differ from the host population. In The Netherlands, ethnic minority groups show equal consumption of general practitioner care, but less frequently use specialist care. We conducted a literature review to analyse whether ethnic inequalities in care consumption for diabetes, hypertension and depression represent inequities, i.e. inequalities that contribute to poorer health outcomes.

Methods

Literature review.

Results

Studies investigating the relationship between ethnic inequalities in health-care consumption and health outcomes are scarce. For diabetes, we found no evidence for ethnic inequalities in health care consumption, but GP-registry studies from the UK suggest unequal medical need for diabetes treatment across ethnic groups. For hypertension, we found ethnic inequalities in health care consumption and in hypertension control. For depression the limited data suggest limited differences in medical need.

Conclusions

Detailed condition-specific analyses of the causal link between ethnic inequalities in health care consumption and health outcomes are urgently needed to identify appropriate lines of action. The multiethnic Amsterdam population-based cohort HELIUS ($n = 60\,000$) will provide the unique opportunity to conduct such studies, by its longitudinal design, detailed health assessments and detailed registry-based health-care data. The results will show which care processes need to be improved by equal care provision and where ethnic-specific targeting of care is indicated.

Migrant health and hepatitis C: the case for enhanced case-finding for hepatitis C in immigrants to Greater Manchester, UK

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Background

Chronic infection with hepatitis C virus (HCV) is associated with increased risk of hepatocellular carcinoma and liver disease-related mortality. An estimated 245 000 individuals are infected in the UK; with up to 80% of infections remaining undiagnosed. However, the model upon which the estimate is based does not include data on migrants born in countries of high prevalence. Underestimating the prevalence of HCV in this high-risk population will result in a shortfall in health-care capacity and an increased risk of disease progression. We aim to estimate the number of HCV infections in the immigrant population of Greater Manchester.

Methods

Data linkage was used to estimate the number of HCV infections in Greater Manchester in the immigrant population. Country of birth data were obtained for all Greater Manchester residents from the UK 2001 Census. Estimates of HCV prevalence could only be obtained for 17 countries. Crude estimates of numbers of HCV infections were extrapolated using the prevalence rate and the census data.

Results

HCV prevalence in Greater Manchester in other high risk groups is estimated to be 11 835–18 929 (0.48–0.76%). The number of HCV infections in immigrants born in the 17 countries is estimated to be 1,329 (rates from 0.2–3%). When combined with the prevalence estimate in other risk groups, this figure equates to an increase of 7.35–11.76%, a considerable increase in the proportion of HCV prevalence in Greater Manchester.

Conclusions

There are considerable limitations to the data available pertaining to immigration, including: variations in migration patterns leaving data sources out of date; and differences between country classifications used by the two data sources. Furthermore, there are significant problems surrounding data capture, reporting and estimating of HCV prevalence in the country of birth. Where this information is available, it is unclear whether these estimates can be extrapolated to the immigrant population in Greater Manchester.There is a need for improved estimates of HCV prevalence in the immigrant population in order to inform which populations should be targeted for case-finding.

Public health concerns created by the movement of people across borders

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The historical process of migration and movement of people across borders is old and it takes place within a given socio-economical context and the reasons explaining why such phenomenon is similar for different areas and époques. The cross boundary migration process has two aspects: legal and illegal. There are clear definitions of migrants and migration. Migration of health-care workers is discussed as a particular aspect of contemporary migration process. The migration process within EU and at international larger scales is also presented.

Health needs of migrants are analysed in relationship with the moment when they act on community and individual health: prior, during or following the migration. Individual and community health concerns are generated by the unexpected public health burden generated by the migrated population of all ages including adults and children. They need housing, food, education, health care (immunizations against vaccine preventable diseases included), jobs/legal income, social integration. Migrants must be rapidly included in the host community's life, whatever the difficulties could be, trying to diminish the risks generated by their sudden enter within the local population.

Migrants versus local population health concerns must be considered; the age, cultural beliefs and ethnicity being also important. The role of family doctors, surveillance system and screening for infectious diseases is discussed. Migrants and health generate ethical and legal issues of interest too.

Discrimination, migrants and health
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Background

Migrants tend to live in rather underprivileged areas exposed to different contextual risk factors such as the poor environmental conditions, deprivation and poor social environment. Previous studies have begun investigating the role of the contextual factors on self-rated health. But the contribution of contextual factors to migrant risk of mortality is unknown. This study aimed at assessing the role of contextual factors on migrant risk of all-cause mortality.

Methods

We used the Belgian census of 2001. More than 10 millions individuals were follow-up between 2001 and 2004. During the 2001–04 follow-up 337 701 deaths were registered. The risk of death was modelled by a cox proportional hazard model. Migrant status was defined according to nationality; socio-economic status was assessed by education, housing tenure and type, car ownership, and activity. We measure several kinds of contextual factors: deprivation, social environment, environmental nuisances and public services.

Results

Compared with Belgian, migrants from Turkey and Morocco had a lower mortality risk than Belgian before accounting for socio-economic status [hazard ratio (HR) = 0.82] as well as after accounting for socio-economic (HR = 0.61). These effects were more pronounced among younger age groups. Risk of death increased with local deprivation, nuisances and lack of social services. Accounting for these contextual risk factors had small effect on migrant risk of death.

Conclusions

(i) Migrants have a lower risk of death than Belgian that is partly be offset by poor socio-economic and contextual risk factors.

(ii) The broken windows model provides some interesting insight into migrant risk of death

5.12. Smoking

Determinants of smoking initiation: trends and policy influences on the smoking behaviour of young adults in Germany
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Background

The general trend in the last decades is that less people are regular smokers in Germany. Compared with the 1980s and the 1990s, fewer people initiate smoking and more people quit smoking. This trend is also valid for the young adults. Many studies have shown that there are also gender differences and regional peculiarities in the behaviour of the population regarding their smoking habits.

Objective

In our study we investigate the determinants of initiating smoking and the changes that occurred in the last decade. We study profoundly the differences between the young cohorts and the possible influences of the policy measures introduced in the past years.

Methods

We use hazard regression model in the study of initiation smoking among the young population in Germany. We investigate the effect of the policy measures introduced in the past years like tobacco tax increase, introduction of smoke-free places, etc.

The data comes from the Telephone Health Interview Survey conducted annually by Robert Koch-Institute. The sample of the 2009 survey contains about 22 000 persons aged 18 and above and includes individual-level data on the smoking behaviour.

Results

The preliminary results show that there is a very strong cohort difference in smoking initiation, with the newer cohorts smoking less. There are also strong differences according to gender, region, size of residence place, and education level of the respondents. Our analysis also shows that the new policy measures introduced stepwise in the past 8 years have a direct negative effect on the decision to start smoking.

Conclusions

In our study we outline several personal characteristics of the individual that determine smoking initiation. We discuss in detail the effect of the policy measures and speculate over further other effects that may influence the smoking behaviour of young adults.

Modelling smoking in relation to educational level for adolescents: effects and costs of two tobacco control programmes for lower educational levels
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Background

Especially among adolescents with a lower educational level or lower socio-economic status (SES), smoking prevalence rates are high. These youths increase their risk for health problems and mortality at later ages. Therefore, reducing the number of smoking adolescents has high priority. The objective is to estimate the effects and costs of two (evidence-based) smoking prevention programmes in Dutch lower vocational schools on smoking prevalence at age 16 and 26.

Methods

Policy scenarios describe implementation of two smoking prevention programmes, Computer Tailoring programme (CT) and Healthy Schools and Stimulants programme (HSS) tailored to lower educational levels. Effectiveness was taken from literature, participation among schools was based on a questionnaire and costs were estimated bottom up. The effects of the policy scenarios on smoking prevalence were estimated using a simulation model of the changes in educational level and smoking behaviour for adolescents. Representative national cross sectional studies gave estimates of smoking class transition rates (start, stop and relapse) by educational level (lowest, low, intermediate and high).

Results

After implementation of the CT- and HSS-smoking prevention programmmes by 5% till 69% of lower vocational schools, smoking prevalence of these students decreased with maximal 0.81% points [95% confidence interval (CI) = 0.08–1.24] at age 16 years and 0.26% points (95% CI = 0.03–0.40) at age 26. For all 16 year olds, overall smoking prevalence decreased with maximal 0.43% points (95% CI = 0.04–0.66) resulting in a reduction of at most 0.14% points (95% CI = 0.01–0.21) at the age of 26.

Costs per smoker avoided were €3600 for offering CT to seventh grade students. Costs were €7800 for offering HSS to nineth grade students.

Conclusions

Implementing effective smoking prevention programmes at lower vocational schools could decrease smoking prevalence at age 16 and 26 years. This requires broader implementation of school programes with evidence-based effectiveness.

The contribution of smoking- and alcohol-related deaths to the gender gap in mortality in 30 European countries in 2005

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Background

Women now outlive men in all countries, and have done so for centuries in some in European countries. Debate continues about the causes of the gap; smoking has been a major contributor to the difference in earlier decades.

Objectives

To compare the magnitude of the gender gap in all-cause mortality in 30 European countries, and assess the contribution of smoking-related and alcohol-related deaths.

Methods

Data on all-cause, smoking-related and alcohol-related mortality by country were extracted from the WHO-Health for All database for year closest to 2005 (range 2003/4 to 2006). Rates were directly standardized to the European population standard for all ages. The proportion of the gender gap in all-cause mortality attributable to smoking-related and alcohol-related deaths was calculated.

Results

There was considerable variation in the magnitude of the male 'excess' of all-cause mortality, ranging from 188 (Iceland) to 942 (Ukraine) per 100 000 per year. Smoking-related deaths per 100 000 ranged from 52 to 329 in men and 18 to 77 in women, and accounted for ~40–60% of the gender gap (range 38% [Portugal, France] to 74% [Malta]). Similar variation in alcohol-related mortality was seen (rates per 100 000 202–1081 in men, 75–586 in women) and typically accounted for around 20% of the gender gap (range 13% [Malta] to 30% [Lithuania]).

Conclusions

Smoking continues to be the most important cause of gender gap in mortality across Europe, but its importance as an explanation for this difference is often overshadowed by presumptions about other differences between men and women. Changes in smoking patterns suggest the gender gap in mortality will diminish in coming decades. Continuing links between smoking and drinking and cultural constructions of gender suggest that action to reduce smoking and drinking cannot be tackled at an individualistic level alone.

The Scottish smoking cessation service. Are we being successful at reaching different groups of smokers?

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Background

Recognizing the importance smoking has on health, the UK has set up smoking cessation services with the intention of targeting and assisting those smokers with the most to gain from quitting. Scotland, in particular has a history of high smoking rates and larger and more extreme deprivation than England. Consequently smoking cessation has the potential to make an even more significant contribution to health and health inequalities in Scotland.

For this study we are using the information collected for the national monitoring of NHS smoking cessation services in Scotland. This study is a national assessment of cessation reach and success in the groups that the service is most keen to target. The analysis was originally carried out using information for 2007 brought together from the Scottish National Smoking Cessation Database. Data for year 2009 will be added to the analysis when it becomes available in June 2010.

Methods

We analyse the variation in the smoking cessation services uptake and outcomes during calendar year 2009. For each NHS Health Board in Scotland we calculate the number of quit attempts and quit rates at one, three and twelve months. We use descriptive analysis to explore the outcomes in pregnant women and the type of pharmacotherapy used for quitting. We then relate uptake and outcomes through multivariate regression analysis to demographic and socio-economic characteristics of the patients attending the service.

Results

In 2007, there were around 70 000 quit attempts made using these services, equivalent to ~3.5% of all smokers. The quit rate (self-reported) at 1 month was almost 38%, reducing to 18% at 3 months. Based on data for the first quarter of 2007, 10% of quit attempts were successful at 12 months. The relapse rate between one and 12 months was 76%. Services are successfully 'reaching' clients in the most deprived areas. Service reach among pregnant women is higher than that for women generally. Using a *P*-value of 0.05 to demote statistical significance, factors associated with higher short-term success included: being older, being a less dependent smoker, living in a less deprived area, pharmacotherapy, and group support. There was no significant difference between male and female quit rates (*P*-value = 0.18).

Conclusions

This work indicates that at a national and local level there is evidence that the most deprived smokers are being reached by the service. We found evidence of variation of cessation services between boards. Pregnant women were reached by the service at the same rate regardless of deprivation status and had similar successes across all deprivation groups. Increasing age was associated with increasing approaches to the service and increasing success/decreasing loss.

Informing smokefree policy implementation in a cancer-care setting in Armenia

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Goal

Research aimed to explore opinions, beliefs and practices related to tobacco control policies among health-care professionals to assist the implementation of smoke-free policy in the cancer care institution.

Methods

Four focus group discussions (FGDs) were conducted in June to July 2009. All focus groups, moderated by a trained facilitator using a semi-structured guide, were audio taped and transcribed.

The analysis included a variety of domains: non-smokers and smokers' rights, image of the hospital, attitudes towards smoking restrictions, enforcement of smoke-free policy, the role of health professionals in assisting patients to quit, and knowledge on smoking cessation contemporary approaches.

Results

A total of 13 nurses and 10 physicians participated in four FGDs, including smokers, non-smokers and ex-smokers. The mean age was 30.0, 33.0, 45.7 and 46.1 years.

Unenforced smoking policy and divergence of spoken and maintained practice resulted into skepticism about smoking ban. Nevertheless, we found an adequate level of support among nurses and physicians for the implementation of hospital-wide smoke-free policy.

Myths about tobacco addiction and knowledge gaps were common. Worksite smoking was normative among doctors, however, limited to their private rooms. Reportedly, smoking restrictions in lobbies of the hospital were often violated by visitors. There was no enforcement mechanism in place to curb the violations.

Other barriers included high daily stress and professional burnout, and low wages. There was a lack of evidence-based knowledge about smoking addiction. Surprisingly, oncologists questioned benefits of quitting for cancer patients. Advising a cancer patient in intensive care unit to light a cigarette to overcome post-surgery complications was not an uncommon practice.

Recommendations

Based on findings, recommendations were developed to assist the policy change in the institution; those included (i) exemplary compliance by the senior leadership, (ii) adopting a clear communication strategy, (iii) introducing patient education programme, (iv) in-service training of nurses, (v) updating professional and continuing education curriculum.

A smoke-free future? Lessons from Scotland

Sally Haw

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Background

A comprehensive ban on smoking in enclosed public places was implemented in Scotland in March 2006 and a complex national evaluation was developed to assess the impact of the legislation.

Methods

Using a 'before and after' design, the evaluation focused on eight key outcome areas—compliance; second-hand smoke (SHS) exposure; smoking prevalence and tobacco consumption; tobacco-related morbidity and mortality; knowledge and attitudes; socio-cultural adaptation; economic impacts; and health inequalities. Assessment of each of the outcome areas was based on a combination of secondary analyses of routine datasets and the results from eight research studies.

Results

Large reductions in SHS exposure among both bar worker and the general population, have been accompanied by a dramatic 17% reduction in hospital admissions for acute coronary syndrome; improvements in the respiratory health of bar workers; and a reduction in acute asthma events in children. Behavioural adaptations to the legislation have included a reduction in tobacco consumption and smoking prevalence and an increase in the implementation of stricter smoking restrictions in the home. We found no evidence of widening health inequalities up to 1 year post-legislation. However, both adults and children who live with smokers continue to be exposed to SHS at levels equivalent to occupational exposure pre-legislation.

Conclusions

Using evidence from other jurisdictions, we conclude by arguing that the implementation of smoke-free legislation provides an ideal opportunity to simultaneously address smoking in the home. We present a model strategy that could be applied in other jurisdictions about to implement smoke-free legislation.

5.13. Workshop: Preventive medicine: from collective supply to legal prohibition?

Chairs: Johan Melse, The Netherlands and Marcel Verweij, The Netherlands
Organizer: ZonMW and National Institute for Public Health and Environment

More and more forms of preventive medical treatment are offered outside the realm of public health care. Partly because there is a market for this, and partly because certain interventions, notably new screening tests and certain new vaccinations, are not offered in public programmes. How should governments and public health authorities respond to this? We take this topic as a reason to reflect on our notions of public health, and our moral beliefs about what the state should offer in terms of preventive medicine. Can we leave certain preventive options to the private sphere, and are there also reasons to prohibit commercially available forms of preventive medical treatment? Arguably these questions raise concerns about effectiveness, costs, justice and equity, and the extent to which the public is (or should be) well-informed and can reasonably decide about offers of preventive treatment.

This will be a real workshop, where all participants are actively involved. The workshop will only have one short introduction. There are various activities for participants, all aiming to promote reflection on criteria for including or excluding certain interventions (notably screening tests and vaccinations) in the sphere of public health care.

Below we give a short outline of the topic and a short overview of the elements of the workshop.

Preventive medicine: from collective supply to legal prohibition?

Marcel Verweij

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[3]ZonMW The Netherlands Organization for Health Research and Development, The Hague, The Netherlands

The supply of preventive medical interventions is often seen as first and foremost a responsibility for government or public health care. This holds especially for many vaccinations, and for mass screening programmes. Yet in recent years vaccines and tests have become increasingly available through other channels, e.g. internet. Citizen find their own information about (risks of attracting) diseases, order selftests or purchase privately organized medical examinations, often without involvement of public health care. Indeed it is not obvious that all vaccinations are a public health responsibility (cf. HPV). Numerous questions and problems arise however: screening tests might lack sufficient evidence (total-body scans), and lead to unexpected findings and to extra pressure on regular health care. Vaccinations preferably are offered by professionals will counsel on preventing related risks (e.g. STDs). Public health authorities are often sceptical, if not resisting such developments, possibly because they see such interventions as their responsibility. Yet it makes sense to reflect on our implicit notions and boundaries of what we see as public—and how it is different from private preventive health care.

Does the shift in control on provision also imply a shift in the responsibilities of government and public health? In the past, the selection of interventions offered to the public has always been based on a mixture of reasons, ranging from those based on scientific criteria like Wilson and Jungner's to pragmatic, political and financial reasons. The increasing private influence from citizens and from companies challenges our criteria for in- and exclusion, and for permission and prohibition, of preventive options in public health. Do we have a shared understanding of the realm of public health?

Objectives

This workshop aims at examining criteria and considerations that do and should play a role in political decision-making about new preventive medical interventions. It gives explicit attention to the frictions and opportunities of the public–private interface. The workshop will produce an inventory of criteria, to be subsequently judged for relevance. We have deliberately chosen a workshop format, since actively working with these issues will lead to greater understanding and better application of new insights in daily practice.

Workshop Programme and Format—Plenary and Subgroup Activities

Format of workshop

- Welcome, and short introduction by workshop leaders (Johan Melse & Marcel Verweij), 10 min
- All participants are requested to locate the appropriate place of each of eight preventive medical interventions on a public/private/prohibition grid. 10 min
- Three interventions are selected that provoke most discussion (based upon the largest spread on the grid) 5 min
- Discussion in internationally composed subgroups (maximum eight persons/group; maximum four groups), focusing on the criteria for placement in the scheme, using flip-charts and group carousel technique. 50 min
- Presentations and Wrap-up by chairs: what to take home/to work from this workshop. 15 min

PARALLEL SESSION 6

Saturday 13 November 2010: 10.30–12.00

6.1. Workshop: Scenario-based simulation exercise of the Dutch 4-year policy cycle

Chair: Lejo van der Heiden, The Netherlands
Organizer: Public Health Department, Ministry of Health, Welfare and Sport, The Netherlands

Scenario-based simulation exercise of the Dutch 4-year policy cycle

Frederiek Mantingh

F van der Lucht[1], PGJ Reulings[2], B Sibbel[3]
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[2]Division of Health Promotion, Health Care Inspectorate, Amsterdam, The Netherlands
[3]Municipal Health Service Twente, Enschede, The Netherlands

For moving forward in the field of public health, it is important that a policy is not developed as a one-off thing. For guiding and improving government's activities on public health a policy needs to be embedded in a framework of situation analyses, development, implementation, monitoring and evaluation.

This framework is in The Netherlands provided by a 4-year policy cycle, since 2002 described in the Public Health Act. The Public Health Act formalizes the government duties in the area of public health and, among other things, obliges the central government to establish the national priorities for public health every 4 years.

The policy cycle provides for the National Institute for Public Health and the Environment (RIVM) to play an analytical role. Subsequently, the Central Government identifies priorities and defines parameters. This forms input for municipalities to discharge their local policy implementation responsibilities. At the end of the cycle, the Health Care Inspectorate (IGZ) monitors and evaluates.

In March 2010, the IGZ launched their State of Public Health Care Report providing an overview of the quality of the local health policy documents and the contribution made by local health departments (GGDs) to local policy. At the same time, the RIVM launched their National Public Health Status and Forecast Reports providing an overview of the health status of the Dutch population. Within the 4-year cycle, the Dutch Government has developed the national public health strategy 2011–14 recently. This strategy identifies priorities and guiding principles for the coming years. Following this strategy, the local governments develop their local strategies based on the national priorities and guiding principles.

In this scenario-based simulation workshop the audience will discover the strengths and weaknesses of the 4-year policy cycle and advice the Dutch Government, national and local, how to improve the process.

6.2. Workshop: Translating science into policy—first results from the FP7 project, Improving Science Advice for Health in Europe (EuSANH-ISA)

Chairs: André Knottnerus, The Netherlands and Dorine Coenen, The Netherlands
Organizer: EuSANH secretariat

Background

Public health problems often have a transnational nature and many European member states face similar challenges. Accordingly, collaboration between national science advisory bodies to share knowledge and expertise and to prepare joint advisory reports is important to promote evidence-based health policy at both the European and national levels and efficient use of resources. To optimally achieve this, developing an internationally accepted common methodological framework for science advice for health, using also best practice experience, is essential.

General approach

The European Science Advisory Network for Health (EuSANH), currently consisting of national advisory bodies in 13 member states, is running a FP7-supported collaborative project to Improve Science Advice for health policy (EuSANH-ISA project). The first step is an evaluation of the characteristics and current performance of national science advisory bodies (policy analysis) and of the content and quality of their advisory reports (thematic analysis). This evaluation will be used in the second step: designing a common methodological framework. Parallel to this, a plan for communication and cooperation in the expanding network will be developed, taking advantage of the Sinapse system. Finally, the common methodology and the functioning of the network will be illustrated by developing a European Science advisory report on determinants of successful implementation of population-based cancer screening programmes. The workshop aims to exchange approaches and experiences in providing science advice for health policy throughout Europe. It starts with a presentation on the challenge of science advice for health policy at the national and European level. In addition, preliminary results of the various work packages will be presented. Finally, in a panel discussion feedback from stakeholders and the audience will be harvested to further improve the ongoing project.

Challenges of science advice for health policy-interaction between national and European perspectives

Nick Fahy

N Fahy
Unit Health Information, DG Health and Consumers, European Commission, Luxembourg

Current performance of science advisory bodies on health in European member states: results of a survey

Monika Skiba

M Skiba[1], M Piotrowicz[1], D Cianciara[2], MJ Wysocki[1], M Ciutan[2], TMM Coenen[3], JA Knottnerus[3]

[1]National Institute of Public Health- national institute of Hygiene, Warsaw, Poland
[2]National School of Public Health, Management and Continuous Education in Health, Bucharest, Romania
[3]Health Council of The Netherlands, the Hague, The Netherlands

General approach

The European Science Advisory Network for Health (EuSANH), currently consisting of national advisory bodies in 13 member states, is running a FP7-supported collaborative project to Improve Science Advice for health policy (EuSANH-ISA project). The first step is an evaluation of the characteristics and current performance of national science advisory bodies (policy analysis) and of the content and quality of their advisory reports (thematic analysis). This evaluation will be used in the second step: designing a common methodological framework. In this presentation, the results of the first step (policy analysis) will be presented.

Methods

(i) Developing a questionnaire on characteristics and performance of national advisory bodies; (ii) questionnaire-based survey among EuSANH members; (iii) evaluation of the characteristics and performance of the national advisory bodies, as to issues like mission, legal status, independence, policy context, stakeholder involvement and peer review.

Results

In Spring 2010, from the 13 participating member states, 19 completed surveys on science advisory bodies have been obtained. Data analysis is currently being carried out. Detailed results will be presented at the 2010 EUPHA conference.

Discussion

Subsequent to establishing the international methodological framework and collaborative practice on systematic reviews and evidence-based medicine, it is now time for international common methodological ground for knowledge synthesis and science advice for evidence-based health policies. The EuSANH-ISA project contributes to this development, using past performance as input for further improvement.

Profile of science advisory reports on health in European member states: results of a survey

Marius Ciutan

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[2]National Institute of Health- national institute of Hygiene Warsaw, Poland
[3]Health Council of The Netherlands, The Hague, The Netherlands

General approach

The European Science Advisory Network for Health (EuSANH), currently consisting of national advisory bodies in 13 member states, is running a FP7-supported collaborative project to Improve Science Advice for health policy (EuSANH-ISA project). The first step is an evaluation of the characteristics and current performance of national science advisory bodies (policy analysis) and of the content and quality of their advisory reports (thematic analysis). This evaluation will be used in the second step: designing a common methodological framework. In this presentation, the results of the first step (thematic analysis) will be presented.

Methods

(i) Developing a questionnaire on recent representative advisory reports of transnational relevance; (ii) questionnaire-based survey among EuSANH members; (iii) evaluation of the methodological approach, and content analysis of the selected reports.

Results

In Spring 2010, from the 13 participating member states, 19 completed surveys on science advisory bodies have been obtained, and 51 reports from the past 4–5 years were submitted. Data analysis is currently being carried out. Detailed results will be presented at the 2010 EUPHA conference.

Discussion

Subsequent to establishing the international methodological framework and collaborative practice on systematic reviews and evidence-based medicine, it is now time for international common methodological ground for knowledge synthesis and science advice for evidence-based health policies. The EuSANH-ISA project contributes to this development, using past performance as input for further improvement.

Increasing the quality of science advice—a methodological framework

Carlos Segovia

P Conde, M Palma, C Segovia, A Sarria, P Cediel
Carlos III Health Institute, Madrid, Spain

Approach

Following the conceptual framework of the project, we are developing a methodology for optimal science advice that relates to two different dimensions. One is the science advice process, where the expectations and values of science advisors and policy makers, and the communication between them, are studied. The second dimension is the technical quality of science advice, where we will synthesize existing knowledge about evidence grading and assessment, as well as the evaluation of uncertainty.

Methods

Based on a review of the literature, two surveys have been conducted, one amongst policy makers and the second amongst science advisors, basically directed to identify what they would consider as good quality criteria for the process of science advice. Based on the surveys, recommendations for quality improvement in science advice are being analysed, both for national and international EU policy making. Efficiency and access to the best available science advice will be the main quality dimensions to consider. Furthermore, the results of a previous survey on science advisory reports will be taken into account.

Technical quality criteria are being drawn from a review of the literature and existing European consensus, and will be discussed in a meeting in 2011.

Results

Recommendations for improvement of the process of science advice and the agreement on technical quality criteria for science advice will be included in a handbook on the methodological framework for science advice.

By improving the process of science advices we expect to increase support for evidence-based policies, as well as identify opportunities for increasing efficiency, access and technical quality of science advice at European and national levels through international collaboration.

Determinants of a successful implementation of population-based cancer screening programmes

Susanne Allander

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SBU—The Swedish Council on Technology Assessment in Health Care, Stockholm, Sweden

The common methodology and functioning of the EuSANH network will be illustrated by developing a pilot case study for a European science advisory report. The primary objective for this joined report is to analyse the processes for the initiation, production and implementation of certain screening programmes in relation to their uptake in different European countries.

In December 2003 the Council of the European Union published a recommendation on cancer screening stating that evidence exists concerning the efficacy of screening for breast, colorectal and cervical cancer. Still the uptake and practice of cancer screening programmes varies substantially between different European countries.

The work of WP5 will focus on the understanding of processes for a successful uptake of a science-based screening programme and information will be collected to understand why the recommendations have been picked up so differently.

- What are the key factors for a successful implementation?
- What processes are needed for a successful uptake of a new science-based screening programme?
- Are there in some cases an implementation plan and criteria attached to the respective programmes? If so, how were the criteria developed? And were these developed specifically for the respective screening programmes?

The WP5 science advisory report will be produced with the help of an expert group of professionals from relevant disciplines such as cancer epidemiologists, oncologists, experts on health care systems, and health economists.

6.3. Hospital care

Pre-transport stabilization time and characteristics of the referring hospital: an epidemiological study on neonatal transport in Lazio region

Domenico Di Lallo

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Background

When there is a decision to neonatal transfer, pre-transport stabilization time (PST) could be a proxy of clinical severity of neonate, and an indicator of the quality of care given by the referring hospital. This study is aimed at quantifying the PST, from the arrival of the ambulance to its departure, and at evaluating if characteristics of the referring hospital are associated to the length of PST.

Methods

This analysis is based on 1495 newborns transported from one hospital to a neonatal intensive care unit of Lazio region with age <72 h during the second semester of 2008 or the 2009. PTS has been defined as the time in minutes from the arrival of the team of the ambulance to its departure. Using a multivariate logistic regression model the association between PTS (above versus below the regional median time) and the following variables was assessed: level of care and geographical position of the referring hospital, hour and day of week of the request for the transport, gestational age and indication for the transport (surgical/medical).

Results

Regional median PTS was 25 min (interquartile range = 15–35). The probability of PTS above the median for level of care II units was higher compared with level of care III hospitals [odds ratio (OR) = 1.86; 95% confidence interval (CI) 1.31–2.63], higher risk of long PTS for referring hospitals located outside the metropolitan area of Rome (OR = 1.98; 95% CI1.51–2.61). Higher risk for long PTS was observed as expected for preterm babies (ORGA 32–36 weeks 1.31; 95% CI 1.02–1.70 and ORGA <32 weeks 1.72; 95% CI 1.21–2.43) and for a medical indication for the transport (OR = 1.45; 95% CI 1.08–1.92).

Discussion

In Lazio region, higher risk of long PTS has been observed for hospitals outside Rome and for second level of care hospitals. These findings are very useful in order to improve the regionalization of neonatal care management and in order to promote prenatal transportation and training on stabilization at unit of birth.

Incident reporting: 2009 results in a teaching hospital

Luigi Castriotta

L Castriotta[1,2]**, *L Calligaris*[3], *L Channoufi*[3], *L Arnoldo*[3], *A Panzera*[3], *V Scarpato*[3], *C Londero*[1], *M Del Forno*[2], *MG Troncon*[4], *S Brusaferro*[1,3]
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Issue/problem

Incident reporting (IC) is a strategic risk management tool in hospital. Despite the denominator of adverse events (AEs) lacks, it's a reliable indicator of the sensitivity of the health-care workers towards patient safety and an opportunity for quality improvement interventions.

Description of the problem

The setting of the study is a northeastern Italian teaching-hospital with 40 000 per year admissions, 1000 inbeds, 4000 health-care workers. In 2009 we implemented a specific programme for promoting incident and near-misses reporting. Each health-care worker is allowed to voluntary anonymous report to the clinical risk management unit. The protocol of IC is made of three forms concerning: generic AEs, falls, adverse drug events (ADEs). Quarterly we analysed data referred to AE and near misses.

Results (effects/changes)

Overall, in 2009 we received 802 forms: 474 generic AEs (Jan–Apr: n.130, May-Aug: n.156, Sept–Dec: n.188), 163 falls (Jan–Apr: n.63, May–Aug: n.46, Sept–Dec: n.54), 146 ADEs (Jan–Apr: n.21, May–Aug: n.29, Sept–Dec: n.96). The generic AEs are referred to be due to personnel causes in 59.3%, to organizational causes in 46.4% and to patient causes in 33.1% out of 474 forms. The yearly fall rate is 0.056/100 inpatient days. 37.4% of the falls caused harm to the patient and in 3.7% of the cases the same patient fell twice during the hospital stay. The ADEs occur 45.9% in medical area, 39.7% in surgical area, 5.5% in intensive care area, 0.7% in services.

Lessons

We have a remarkable number of events reported, since in Italy, voluntary reporting is not decriminalized. Despite that our amount of reports can mis-estimate the events potentially occurred due to a perception bias (exploited use and cultural sensitivity) from the health-care workers. This report system is a useful tool to start an internal audit process and improve the patient safety in the hospital.

Adverse events: case record review in an Italian teaching hospital setting

Laura Calligaris

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Background

The retrospective case record review (CRR) is used to identify the baseline incidence of adverse events (AE) worldwide and it is the most used source of data for international benchmarking. Strenghts of CRR are: established methodology, use of already available data and systematic assessment of adverse events.

Methods

An adverse event was considered as an injury caused by medical management rather than the underlying condition of the patient. According to the Harvard Medical Study methodology, two medical doctors, reviewed in a north-eastern Italian teaching hospital the medical records. They used the standardized translated CRR forms and records randomly selected from patient admissions between 1 October 2007 and 31 December 2007 were reviewed in four disciplines: obstetrics, orthopedics, general medicine, general surgery. The clinical record sample was 240, 60 per discipline.

Results

Of 240, 26 (10.8%) adverse events were found. 34.6% in general surgery, 30.8% in general medicine, 30.8% in orthopaedics, 3.8% in obstetrics. Six urinary tract infections; three surgical site infections; two cases: sepsis, post-op complications, pressure sores, fistulae; one case: iatrogenic pneumothorax, C.Difficile infection, anastomotic break down, inadvertent nerve damage, inappropriate procedure, unplanned reintervention, no lab results monitoring, post-transplant complication, post-op bleeding. This study confirmed the rates of adverse events published by previous English and Danish studies but detected no adverse drug events, either because of underreporting in medical records or underestimation by the reviewers.

This study can underestimate cases: medical records may be incomplete and the reviewers may not detect specific adverse events since they are not specialists in that discipline.

Conclusions

Nosocomial infections and surgical complications are the most frequent events found. This methodology has the strength of quantifying the problem of adverse events, whereas the incident reporting system points out facts in real time. Both are necessary to manage clinical risk in hospitals and raising awareness generating a culture of safety.

Can surgical safety checklist implementation reduce surgical risk in hospital setting? A systematic review of the scientific literature

Lorenzo Sommella

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Background

Clinical risk and patient safety in operating room (OR) represent a fundamental issue for hospitals because of significant number of adverse events occurring during surgical procedures. These events often are related to preventable surgical complications.

Surgical Safety Checklist (SSC) may represent an effective strategy to prevent errors and reduce complications and deaths associated with surgical procedures.

Our study is aimed at evaluating the impact of SSC implementation in OR compared with no implementation in OR in terms of complications (including death) during hospitalizations.

Methods

A systematic search of literature was carried out in electronic databases and websites to identify articles describing the implementation of SSC compared with no use of SSC.

A random effects meta-analysis was performed to estimate the odds ratio of complication of surgical pathway with SSC compared with the pathway without SSC. A sensitivity analysis was conducted to evaluate the weight and quality of most influential studies.

Results

Five articles were selected for our analysis, for a total of 9410 procedures. The odds ratio of complications for pathways with SSC was 0.27 (95% confidence interval 0.12–0.60) respect to pathways without SSC.

Conclusions

Our results suggest that SSC could be implemented in hospital settings, due to the fact that it has a positive impact on surgical pathways and on quality of health care. SSC introduction could significantly reduce adverse events in ORs, prevent surgical complications and/or deaths and improve the safety of surgical patients. These results could be related with the increasing of surgical team's communication and changing of individual behaviours.

Predictors of surgery delay for hip fracture

Giuliana Fabbri

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Background

Recent guidelines recommend early surgical treatment of hip fractures in the elderly. Understanding the factors that delay surgical intervention is essential in order to facilitate early treatment. The aim of the present study is to determine the factors delaying surgical treatment of hip fractures in elderly patients for >2 days.

Methods

Assessment of hospital discharge records and chart review of 1733 consecutive patients undergoing surgery for hip fractures between 2004 and 2007 at the two Italian wards of Sant'Orsola-Malpighi Hospital, Bologna ($N = 1286$) and S. Maria della Scaletta Hospital, Imola ($N = 447$). Logistic regression models were used to examine potential predictors of surgery delay including gender, age, ward, comorbidity, type of intervention (partial or total hip replacement, reduction and internal fixation), International Normalized Ratio (INR), Haemoglobin (Hb), American Society of Anaesthesiologists (ASA) score, and day of admission (categorized as Monday–Wednesday, Thursday–Friday, Saturday–Sunday).

Results

A total of 923 (53.3%) patients were operated within 2 days of admission to the hospital. Age, arrhythmia, type of intervention (partial or total hip replacement), INR score >1.5 and an ASA score of four compared with 1–2, admission on Thursdays–Friday or Saturday–Sunday and ward significantly predicted a surgery delay of >2 days. The Hosmer-Lemeshow test denoted a good model fit (χ$^2 = 12.2$, $P = 0.14$).

Conclusions

Both organization and medical problems accounted for delays of surgical treatment of hip fractures. A multidisciplinary approach, with early input by medical and anaesthetic teams, is needed for managing elderly patients with hip fracture. The availability of the operating theatre during the weekend and established protocols aimed to optimize the patient flow logistics may be crucial to make hospitals more patient-centered and to improve patient outcomes.

Accuracy of ICD-9 codes for acute stroke in hospital discharge records

Paola Rucci

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Background

Discharge International Classification of Diseases, nineth Revision, Clinical Modification (ICD-9-CM) codes have been used to identify patients with acute stroke for epidemiological, quality of care0 and cost studies. However, outcome research based on data routinely collected for administrative purposes requires a preliminary assessment of the accuracy of codes in order to avoid measurement bias. The aim of this study was to determine the accuracy of the primary ICD-9-CM codes for stroke discharged from the Stroke Unit (SU) and from other wards of Sant'Orsola-Malpighi Hospital of Bologna (Italy). We hypothesized that coding in patients discharged from the Stroke Unit would be more accurate than in other wards.

Methods

We identified all patients who were discharged in 2007 from the Sant'Orsola-Malpighi Hospital of Bologna with a discharge diagnosis of stroke. We used highly specific ICD 9-CM codes for ischemic stroke (433.x1, 434.x1436, 99702) and intracerebral haemorrhage (431). We reviewed medical records of a random sample of 274 cohort members (SU, $N = 117$, other wards, $N = 157$).

Sample size was determined using power analysis. International criteria for case definition were used to review clinical charts.

Results

Chart review identified 19 patients (6.9%) who did not meet study criteria for acute ischemic or haemorrhagic stroke. The proportion of patients not meeting diagnostic criteria differed between SU and other wards (2/117, 1.7 versus 17/157, 10.8%, Fisher exact test, $P = 0.002$).

Thus the overall PPV of the primary discharge diagnosis for identifying acute stroke was 92.7%, with a difference of ~9% between the SU and other wards (98.3 versus 89.2%).

Conclusions

The PPV of incident strokes both in the SU and in other wards is higher than in other reports in the literature. Although an unknown percentage of strokes are missed, this group of proven acute stroke patients can be reliably used for outcome studies.

6.4. Workshop: From curative towards preventive and personalized medicines: methodological considerations and implications

Chair: Walter Ricciardi
Italy
Organizer: Netherlands Public Health Federation

The R&D of the pharmaceutical industry is shifting its focus on developing innovative medicines that are personalized, and combine diagnostics with a customized preventive and/or therapeutic effect. This shift is triggered by the changing landscape of health-care systems and the pressure on resources in health care. Therefore, pharmaceutical companies are replacing their closed R&D strategy for a more open one, collaborating with other industries like for instance the food industry or diagnostic industry. The objective of this workshop is to explore and discuss the methodological implications for (public health) research on the effectiveness of these innovative medicines.

New R&D strategies and business models within the pharmaceutical industry

Peter Bertens

P Bertens
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The pharmaceutical marketplace is undergoing huge changes. Within the near future, pharmaceutical companies cannot economically survive on the development and marketing of a rather small number of blockbuster molecules. Triggered by changing health systems and the increasing pressure on effectiveness of medicines in individual patients, pharmaceutical companies change their strategy. Increasingly R&D-efforts focus on developing medicines for smaller patient groups or even personalized medicines. Due to new technological and scientific knowledge, old borders between therapy and diagnosis disappear. This has implications for the organization of the R&D in pharmaceutical companies. This leads to increasing cooperation's and alliances with other pharmaceutical, diagnostic and biotechnology companies. Fuelled by the increasing knowledge of (human) DNA and the origins of disease, vaccines are on the rise again, leading to new possibilities for prevention. Driven by these developments and the necessity to cut costs the clinical medical research will change. In my presentation I will discuss future models for pharmaceutical R&D in combination with business models, as well as the consequences for medical research and the public health community.

Personalized health care from an economic and public point of view

Lluís Bohígas Santasusagna

L Bohígas Santasusagna
Roche Diagnostics SL, Diabetes Care, Sant Cugat del Vallès, Spain

Personalized health care is based on the observation that patients with the same diagnosis react to the same treatment in different ways: while a drug can be highly effective for one patient, the same drug might not show the desired results when given to a second patient with the same diagnosis. Disease-related as well as disease-independent individual characteristics influence the way drugs work, and treating all patients diagnosed with a certain disease with a broad-brush approach disregards those differences.

In other words, conventionally practiced health care is not as effective as it could be, with a considerable number of patients receiving treatment that is inappropriate for them, treatment that might even cause adverse reactions in some cases. Personalized health care thus has the potential to increase the efficacy and safety of treatment. It is an approach which capitalizes on our increasingly sophisticated understanding of differences among patients, the molecular basis of disease and of how medicines work. I will discuss the implications of personalized health care from the economic as well as the public health point of view.

New approaches to the evaluation of innovative technologies

Walter Ricciardi

C de Waure, W Ricciardi
Institute of Hygiene, Catholic University of the Sacred Heart, Rome, Italy

Issue

Available health-care technologies are increasing and changing in terms of technical profiles. At the same time resources are limited and the evidence-based practice has become fundamental.

Description of the problem

The evaluation of products of changing R&D strategies of Companies will challenge researchers and decision-makers. There is thus the need for thoroughly evaluating new technologies going beyond the assessment of efficacy and cost-effectiveness. A more contextualized analysis which takes into account further aspects, such as the epidemiology and the burden of disease, the efficacy in the real practice and the impact of technologies use on fields other than health, should be carried out. In particular new outcome indicators should be identified and used to assess the value of new technologies. The multidisciplinary approach of health technology assessment (HTA) could represent the way to successfully and exhaustively appraise new technologies and to promote the development of innovative ways to assess their impact.

Effects

HTA is widely applied worldwide and is becoming more and more shared as a comprehensive method to assess innovations. The HTA framework allows the appraisal of epidemiological, clinical, economic, organizational, ethical, social and legal impacts of the use of new technologies. It makes possible to pay attention to the perspective of different stakeholders involved in the adoption of new technologies, included patients. Its application is anyway mainly focused on drugs and medical devices.

Lessons

The success of HTA in supporting decision-makers should be seen as a spur to apply the method to preventive and personalized medicines which will be available in the future.

6.5. Workshop: Collaboration between veterinary and human public health to fight new epidemics

Chairs: Ruth Gelletlie, UK and Laura Kahn, USA

Organizer: EUPHA Section on Infectious Disease Control

Contact person: Jeannette de Boer

Objectives of the workshop

Many of the emerging infectious diseases are zoonoses. Since zoonotic agents can infect both animals and humans, the medical and veterinary communities should work closely together in clinical, public health and research settings. In public health, human and animal disease surveillance systems are important in tracking and controlling zoonoses such as avian influenza virus, Q-fever and foodborne pathogens.

In this workshop we want to focus on zoonotic epidemics and threats that have had a major impact on human health recently, like the Q-fever outbreak, an outbreak of *E. coli* 0157 and the increase of antimicrobials resistant pathogens due to intensive farming. The aim of this workshop is to point out lessons for the future. Furthermore, we would like to close the gap between the human and veterinary sectors by initiating a multidisciplinary, panel discussion about the best way to collaborate in order to convince policy makers of the value of the ‘One Health- approach’.

The evolution of collaboration between the human and veterinary health sector during Q-fever outbreaks in The Netherlands

Gabriella Morroy

G Morroy

GGD Hart voor Brabant, The Netherlands

In The Netherlands, more than 3500 Q-fever cases from three outbreaks were notified since 2007. The majority of patients reside in the province of Brabant. Goats were implicated as the major source of these outbreaks.

The sudden emergence of Q-fever and the scale of the outbreaks took the Public Health and Veterinary Authorities by surprise. Q-fever in animals was not notifiable, investigations not standardized, certain diagnostic tools were unavailable or unvalidated and measures unclear. Multidisciplinary collaboration and the exchange of information between the Veterinary and Human Authorities were virtually non-existent. During the course of 2008 many of the initial problems were tackled and multidisciplinary collaboration streamlined. Q-fever in dairy sheep and goats was made notifiable in June 2008, information exchange formalized, hygiene measures for dairy goat and sheep farms were implemented, a one Q-fever vaccination campaign for dairy goats and sheep commenced in September 2008, guidelines for manure handling were implemented, tank milk monitoring started in October 2009, all pregnant goats on Q-fever positive farms are culled since December 2009 and the exchange of information on the location of positive farms between the veterinary and human health sector was finally resolved. Furthermore joined research programmes and multidisciplinary workgroups were started. The sectors worked together in formulating messages to the general public, linking information on websites and the development of information tools

The Veterinary sector now informs the general public through internet maps of the 5-km area around Q fever positive farms. The Ministry of Health informs every household in this 5-km zone by letter about a positive farm in the proximity. This enables both the population and the Public Health Authorities to be proactive and recognise Q fever in time. More than 45 000 goats have been culled. Time will tell if these far going veterinary measures and joined efforts will curb the human Q fever outbreaks.

An outbreak of E. coli 0157 due by petting farms has caused an external inquiry which may make recommend some changes to the way we regulate open farms in the UK

HPA Ruth Gelletlie

Reduction of the use of antimicrobials in animals; how to do this?

Denmark (tbc)

6.6. Workshop: Health inequalities—the French experience: health policies addressing the reduction of health inequalities

Chairs: Thierry Lang, France, Alain Fontaine, France and François Bourdillon, France

Organizer: Société Française de Santé Publique (SFSP)

With participation from the French Ministry of Health: Direction Générale de la Santé (DGS) and Haut Conseil de la Santé Publique (HCSP)

Objectives of the workshop

The purpose of this workshop is to give an overview of the French situation regarding health inequalities, to provide an overview of the policies addressing those issues and to initiate a debate with public health professionals from other countries.

Public policies to address health inequalities and promote equity: health services and multi-sectorial approaches

Alain Fontaine

*A Fontaine**
Direction Générale de la Santé, Health Directorate, Ministry of Health, Paris, France

The author will develop: (i) what can be done through the health services system, to address health issues affecting vulnerable populations and (ii) needs and opportunities for developing multi-sectorial policies at local and national levels to promote health equity in an overall context of budget constraints.

Results from a working group on health inequalities: how to get out of passive and fatalist attitudes?

Thierry Lang

*T Lang**
Haut Conseil de la Santé Publique (Expert group attached to the Health Ministry), Paris, France

The author will describe the findings and recommendations of the working group:

(i) The current situation in France regarding health inequalities is characterized by a high level of health inequalities, not only in specific population but also as an overall trend in the whole French society, which is increasing and is among the highest in Western Europe.

(ii) Despite health policies such as national health insurance coverage, worksite medicine or health policies protecting mothers and children, reducing inequalities has not been an explicit goal of French policies. The 2004 law on public health is ambiguous, aiming at reducing health inequalities, but focusing on the most precarious populations.

(iii) The limits of existing information systems do not allow a follow-up of this public health problem. Most of the knowledge is produced by research and few by routine information systems. The health information system is centralized, although identification of problems and policies require indicators on small geographic areas.

(iv) Proposals for actions and recommendations to policy makers for reducing health inequalities have been made. Setting the reduction of health inequalities as an explicit goal and organizing the health information system to address this issue have been strongly recommended, as a first step for action. Concerning health policies, intersectorial approaches through the development of Health Impact Assessment, at the national level as well as at the local level should be developed. International cooperation with other countries aiming at reducing health inequalities is another objective for France, which has not been involved actively enough in this field.

Inequalities in secondary access to health care

Pierre Lombrail

P Lombrail
University of Nantes, Nantes, France

Health inequalities have long been considered in France as a consequence of poverty and poor financial accessibility of health care, i.e. mainly a problem of primary access. Though these topics are a matter of concern, even more regarding the economic context, the author will focus on secondary access. Indeed, even if the French health care system rank's as one of the best in the world, quality of health care is far from equal. The author will focus on (i) describing the current situation in France regarding inequalities in secondary access, according to two main mechanisms, 'omission' and 'construction', and (ii) providing examples of actions, for both mechanisms, in order to avoid or correct inequalities.

(i) Inequalities by omission are linked to the operational inertia of a health care system that does not recognize these inequalities and has no plan to catch them; inequalities by construction arise when not taking into account health inequalities in the development of programmes or recommendations of medical practice and thus ending up with management procedures that do not reduce inequalities to a minimum but even contribute to increasing them

(ii) Acting for facilitating secondary access implies acting at the three level of the health care system: to change the clinical paradigm at the clinical level, tackle the organizational issues at the meso level, and pursue the reform of the entire health care system at the macro level.

6.7. Workshop: Where sociology meets public health: workforce governance and professionalism

Chairs: Ellen Kuhlmann, The Netherlands and Thomas Plochg, The Netherlands
Organizer: Department of Social Medicine, University of Amsterdam

Within sociology, there is a long tradition of researching professionalism as one way of organizing labour and the public sector. The existing body of knowledge on which this branch of sociology draws is relatively unknown within public health. At the same time, health workforce issues as well as the debate on new governance and 'renewing medical professionalism' have moved on top of the agenda of health policy-makers addressing issues like how to manage emerging shortages in the health workforce; how to enhance labour productivity; to substitute and transform professional roles or even create new ones; and to improve the individual performance of health professionals across Europe. Therefore, it seems relevant and worthwhile to introduce sociological theories and knowledge into the professions and professionalism to the wider public health community. These theories provide innovative ways on how to address key problems of health-care systems and the challenges of governing the health workforce in ways that improve quality and efficiency of health care and public health, and assure affordable services of for all citizens. As such, the workshop could enrich the thinking within the public health community on how to modernise the health workforce in Europe for the 21st century. The layout of the workshop is to introduce sociological thinking on professionalism to the wider public health community and show how this thinking sheds another light on current workforce issues within European public health.

The need for evidence-driven public health workforce governance

Marielle Jambroes

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An efficient and effective public health workforce of the highest quality is critical for well performing European health systems. It is broadly acknowledged that future challenges such as aging populations, changing health needs (e.g. re-emerging infectious diseases, chronic diseases) accelerating costs in relation to the economic crisis and new technologies, pose significant issues on the European health workforce, not least impending shortages. To prepare the workforce on these future challenges, key stakeholders have called for investing in public health workforce development, training and lifelong learning. However, little research has been carried out on public health workforce governance and development. Many questions remain unanswered: What is the public health workforce? How do we monitor the workforce? How can we adapt the workforce to future health needs? What is the relationship between workforce competencies and health outcomes? Drawing on a literature review, the presentation will outline a European research agenda on workforce governance and development, and provide an overview of employed solutions. It will be concluded that there is a need to build an EU framework on workforce research. Existing methods and evidence in workforce-related topics from other disciplines can guide the development of an empirical research agenda.

Making connections for sustainable health systems: professionalism and health human resource policies

Ellen Kuhlmann

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Institute of Social and Political Sciences, Goethe University Frankfurt, Frankfurt, Germany/ Department of Social and Policy Sciences, University of Bath, Bath, UK

Recent European and international initiatives have brought the significance of health human resources under the spotlight of public health. ‘All for health workers’, as the Kampala Declaration stated, indicates a paradigm shift in health policy, yet no comprehensive model of human resource management exists. Here, theories and research from the realm of sociology of professions can fill a gap and help to better understand the opportunities for, and barriers to the development and implementation of more integrated and sustainable policies. By placing professions in the wider context of ‘modernization’ as a sociological phenomenon, it can be argued that professionalism embodies both challenges to public health and a potential for innovating health-care systems. Drawing on data from research in Germany and secondary sources of cross-country comparison, the transformative potential of professionalism and strategic use of managerial governance in professional action and clinical practice; and the institutional conditions that may further a more inclusive professionalism and collaborative care will be shown. The article concludes by highlighting the benefits of connecting professionalism and health human resource policies and how this may contribute to sustainable health systems for all citizens.

Towards a population model of medical professionalism: opportunities and challenges

Thomas Plochg

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There is a growing body of evidence to suggest that the professional organization of medical labour insufficiently reflects changing health needs (i.e. the epidemic of chronic diseases). This is manifest in the problems of sub-standard clinical practice, accelerating costs, and the workforce crisis. Stakeholders have sought to deal with them by introducing more intrusive regulation and management. Thus far, these solutions seem partial and fail to tackle deeper problems arising from fragmentation and over-specialization. The latter have tended to distract health professionals from changing population health needs and represent a major barrier to modernizing health systems. Based on a literature review, an alternative ‘population-based model’ will be highlighted emphasizing the dynamic potential of professional self-regulation to transform the medical profession and the related professional processes of care so that it can adapt to the changing health needs. Furthermore, the prospects for such a model in future will be outlined.

Dilemmas of health professional regulation

Mike Saks

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This article considers the significant dilemmas involved in regulating health professional groups primarily from a neo-Weberian perspective, where professions are centrally defined in terms of exclusionary social closure based on the creation of legal boundaries restricting social and economic opportunities to a limited group of eligible’s. The article discusses from a variety of theoretical viewpoints in sociology, the benefits and drawbacks of professionalization in health and health-care systems in these terms in relation to both individual users of services and the wider public. At a time when the health professions have increasingly come under public scrutiny and sometimes substantial attack, this analysis is complemented by the consideration of the issues raised by a range of empirical case studies of professional and professionalizing areas, from orthodox medicine to complementary and alternative medicine. Drawing on the experience of the author of this article in researching the health professions both nationally and internationally and in advising professional bodies and government in this area in the UK, suggestions are made as to how the dilemmas of health professional regulation might better be addressed in future—not least from the viewpoint of integrated public health.

6.8. Workshop: EURRECA: Harmonization of micronutrient recommendations: from requirements to policy applications

Chair: Pieter van ‘t Veer
The Netherlands
Organizer: Wageningen University/Eurreca

In Europe, micronutrient recommendations have been established by (inter)national committees of experts and are used by public health policy decision-makers to monitor and assess the adequacy of the diets of population groups. The approaches by which reference values for micronutrients are derived, as well as the reference values themselves, vary considerably across countries. Harmonization is needed to improve nutrition policy and public health strategies. The EURRECA EC Network of Excellence (EURopean micronutrient RECommendations Aligned—www.eurreca.org) is developing generic tools for systematically establishing, and keeping up-to-date, micronutrient reference values or recommendations.

In this EUPHA-EURRECA workshop we will (i) illustrate the discrepancies and explain the observed variability in recommended intake levels of folate, vitamin B12, iron and zinc, (ii) exemplify how we systematically and quantitatively assess the dose-response relationships relevant for deriving micronutrient recommendations; this includes the relationships between: micronutrient intake and micronutrient status (biomarkers); micronutrient intake and health outcomes, and micronutrient status (biomarkers) and health outcomes, (iii) give an overview of available evidence on the (in)adequate intake of pregnant and lactating women, and of low income and immigrant populations, (iv) report on the Health-Behaviour-Policy Framework which describes a range of considerations -based on scientific advise about micronutrient requirements- that play a role in the decision-making processes about a (combination of) policy instrument(s) to adopt.

Furthermore, we will summarize the findings and describe the process leading from assessing nutritional requirements to policy applications, based on evidence from science, stakeholder interests and the socio-political context: the Eurreca General Framework.

Acknowledgements

The work reported herein has been carried out within the EURRECA Network of Excellence (http://www.eurreca.org), which is financially supported by the Commission of the European Communities, specific Research, Technology and Development (RTD) Programme Quality of Life and Management of Living Resources, within the Sixth Framework Programme, project no. FP6 036196-2. This report does not necessarily reflect the Commission's views or its future policy in this area.

Explaining the variability in recommended intake levels of folate, vitamin B12, iron and zinc for adults and elderly people

Esmée Doets

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Background

Recommended intake levels of micronutrients show considerable variation between European countries, causing confusion for policy-makers, health professionals, industry and consumers. We aim to explain the observed variability in recommended intake levels of folate, vitamin B12, iron and zinc for adults and elderly.

Methods

Recommended intake levels for men and women aged ≥18 years were extracted from nine reports including dietary reference values. We first critically reviewed current recommended intake levels and explored differences between reports and between subpopulations within reports. Methodological aspects and assumptions were compared between reports including the approach used, bioavailability factors, intra-individual variation (CV), reference weights, health indicators, cut-off levels indicating adequacy; and the evidence base.

Results

Between reports, the ratio of highest to lowest recommended intake level was 2.0 for folate, vitamin B12 and zinc and 1.3 for iron. Within reports there were minor differences between recommended intake levels for younger and older adults.

Recommended intake levels were mostly derived as the average nutrient requirement (ANR) + 2 SD. For folate and vitamin B12, selected health indicators for estimating an ANR varied between reports and there was no consensus on criteria indicating adequacy. The observed variation in ANRs of iron and zinc was largely explained by differences in reference weights and bioavailability factors. Although for most micronutrients there were similarities in the consulted body of evidence, the evaluation and integration of evidence by experts was distinct.

Conclusions

For harmonizing recommended intake levels across Europe, addressed by Network of Excellence EURRECA, alignment and transparency of eminence-based decisions appears to be a key issue.

EURRECA: determining dose–response relationships between micronutrient intake, biomarkers for micronutrient status and health outcomes

Carla Dullemeijer

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Background

We systematically assembled scientific literature on the relationships between micronutrient intake, micronutrient status (biomarkers) and health outcomes for folate, iodine, zinc, vitamin B12 and iron for several population groups. This evidence will be reviewed and, where possible quantitatively summarized with meta-analyses, to support the process of deriving micronutrient recommendations. We will illustrate this process for vitamin B12 in adults and elderly.

Methods

We searched for all randomized controlled trials, prospective cohort studies, nested case-control studies and cross-sectional studies in human adult (>18 years) and elderly populations that measured vitamin B12 intake with either a validated food frequency questionnaire or a dietary history method, or a 24-h recall, food record or food diary for at least 3 days; measured vitamin B12 status as serum or plasma vitamin B12, serum or plasma MMA or holoTC; and/or included a health outcome related to osteoporosis, cognitive function, neurological function or anaemia. Searches were performed in duplicate by two investigators using the Cochrane Library, MEDLINE, and Embase databases.

We will perform separate systematic reviews on the relationship between vitamin B12 intake and vitamin B12 status, and vitamin B12 intake or status with health outcomes. We will select studies that are comparable with regard to study design, measurement of vitamin B12 intake, vitamin B12 status and health outcomes to calculate the overall pooled association or effect using random effects meta-analysis. The studies that are not included in a meta-analysis will be descriptively reviewed.

Results

The results of three meta-analyses will be presented: (i) a meta-analysis investigating the relationship between vitamin B12 intake and vitamin B12 status (plasma or serum vitamin B12); (ii) a meta-analysis investigating the relationship between vitamin B12 status and osteoporosis (measured as fracture risk); and (iii) a meta-analysis investigating the relationship between vitamin B12 status and cognitive function (measured as incident dementia).

Discussion

We will discuss how the evidence from both the descriptive approach and the meta-analytic approach can be integrated to contribute to the process of deriving micronutrient recommendations.

Funding

This research was undertaken as an activity of the European Micronutrient Recommendations Aligned (EURRECA) Network of Excellence (www.eurreca.org), funded by the European Commission Contract Number FP6 036196-2 (FOOD). The original conception of the systematic review was undertaken by the EURRECA Network and coordinated

by partners based at Wageningen University (WU), The Netherlands and the University of East Anglia (UEA), UK.

Data availability for assessing adequacy of micronutrient intake in potentially vulnerable groups in Europe

Romana Novakovic

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Objective

To collect the best data for assessing nutritional adequacy in intake for EURRECA (Network of Excellence—EURopean micronutrient RECommendations Aligned) prioritized micronutrients in vulnerable groups (vitamin C, folate, vitamin B12, vitamin D, calcium, iron, zinc, iodine, selenium and copper) in Europe.

Methods

The literature search was targeted towards identifying the nutritional intake data in low income and immigrant populations, pregnant and lactating women as these populations were poorly represented by European Nutrition Health Report and the inventory made by Flynn *et al.* Structured Medline searches (plus Embase and Cochrane searches for 'lactation') were performed from inception applying 'lactation' and 'pregnancy' as MeSH terms and 'low income' and 'immigrant' as text words. Original studies were included if (i) performed in European Union after 1990; (ii) representative populations and $n > 100$. (iii) Dietary assessment method should be based on ≥ 3 days of collection or validated FFQs (Food Frequency Questionnaires) for the specified micronutrients.

Results

With respect to EURRECA inclusion criteria, two studies were found on low income and 10 on immigrant population; five studies on pregnant and lactating women, whereas no study was found for lactating women explicitly.

Conclusions

To provide general evidence on current nutritional situation in Europe, micronutrient intake of low income and immigrant populations, pregnant and lactating women needs more attention as the data for these potentially vulnerable groups is lacking.

Acknowledgements

The studies reported herein have been carried out within the EURRECA Network of Excellence (www.eurreca.org), financially supported by the Commission of the European Communities, specific Research, Technology and Development (RTD) Programme Quality of Life and Management of Living Resources, within the Sixth Framework Programme, contract no. 036196.

Health-behaviour-policy epistemological framework for the decision making of policy makers relevant to micronutrient recommendations

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In the light of the clear imperative of evidence-based policy development across the European Union, one of the challenges facing policy makers is establishing systems and processes for the collation and assessment of evidence. To date, there has been little clarity about what kind of evidence ends up in policy and in particular the way in which micronutrient recommendations link up to policy has largely been overlooked. The discrepancy between the recommendations of scientific advisory bodies for nutrition and the policy options utilizing their evidence indicates the lack of clarity about the process and that considerations other than scientific evidence influence the final outcome. The current article reports on the Health-Behaviour-Policy Framework which describes a range of considerations that play a role in the decision-making processes about a policy instrument (or a combination of) to adopt based on scientific advice about micronutrient requirements. These considerations include: the scientific advice linking micronutrient recommendations with health outcome; the evidence about human behaviour relevant to the health outcome; the policy and institutional context for the delivery of policy; the wider context. The framework is epistemological as it aims to identify the domains of information from which to draw in order to create a link between a desired health outcome and a policy. It is also a nested framework, as each layer touches upon the central issue under consideration (a desired health outcome) and each is in some way connected and can impact upon the other.

European micronutrient recommendations aligned: a general framework developed by EURRECA

Rosalie Dhonukshe

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Background

In Europe, micronutrient recommendations have been established by (inter)national committees of experts and are used by public health-policy decision makers to monitor and assess the adequacy of the diets of population groups. Current micronutrient recommendations are, however, heterogeneous, whereas the scientific basis for this is not obvious. Alignment of setting micronutrient recommendations is necessary to improve the transparency of the process, the objectivity and reliability of recommendations that are derived by diverse regional and (inter)national bodies.

Objective

To align transparent decision making for evidence-based policy making, stakeholder involvement and alignment of policies across Europe.

Results

The General Framework as proposed by Eurreca envisions the derivation of nutrient recommendations as scientific methodology, embedded in a policy-making process that also includes consumer issues, and acknowledges the influences of the wider sociopolitical context by distinguishing the principal components of the framework: (i) defining the nutrient requirements for health, (ii) setting nutrient recommendations, (iii) policy options and (iv) policy applications.

Conclusions

The General Framework can serve as a basis for a systematic and transparent approach to the development and review of micronutrient requirements in Europe, as well as the decision making of scientific advisory bodies, policy makers and stakeholders involved in this process of assessing, developing and translating these recommendations into public health nutrition policy.

6.9. Workshop: The public health response to chemical incident emergencies

Chair: Raquel Duarte-Davidson
UK
Organizer: CIE Toolkit project partnership

The Chemical Incidents and Emergencies (CIE) Toolkit project brings together collaborating partners from the UK, Greece, Sweden, The Netherlands and Poland. The overall objective of the project is to reduce the burden of disease related to chemical incidents, through improved public health emergency response by preparing and publishing a body of material that provides specific guidance and training to public health professionals on how to respond to a chemical incident. This will be achieved by strengthening national and international public health response through the delivery of a number of specific objectives, mainly:

(i) Facilitating the rapid and effective response to acute chemical incidents by providing relevant source material in one location.

(ii) Raising competencies of public health professionals responsible for dealing with the aftermath of chemical incidents by enabling them to recognise and respond to chemical incidents, including deliberate releases, by making material and guidance readily available and easily accessible through the toolkit.

(iii) Bringing about a common approach across Europe to deal with environmental epidemiology and monitoring follow-up requirements following an acute chemical incident.

(iv) Improving understanding on risk and crisis communication requirements across Europe to facilitate the communication process.

(v) Improving understanding of the psychosocial consequences and care of the affected population.

(vi) Providing guidelines for conducting international exercises involving major chemical incidents.

This will further entail:

- Developing a toolkit and training manual for the public health response to chemical incidents and emergencies that provides relevant source material to enable public health professionals to improve their knowledge and expertise in areas relevant to chemical incident planning, preparedness, response and recovery. The toolkit will comprise detailed fact sheets, scenario cards, sample questionnaires, guidance for conducting training exercises and information for the general public.
- Establishing a network of experts capable of providing advice and guidance on chemical incident management and delivering appropriate training (e.g. 'train the trainer' courses or courses tailored to meet the needs of individual Member States). The network of experts will be co-ordinated within a centre of excellence.

Psychological consequences of chemical incidents and emergencies

Annelieke Drogendijk

AN Drogendijk
Institute for Psychotrauma, Diemen, The Netherlands

Chemical disasters have a direct and indirect effect on the psychological well-being of victims and rescue workers as well as other people being involved. Psychological reactions after a disaster are considered normal reactions to an abnormal event. In addition only a small minority develops a disorder. Taking this into consideration, the psychosocial focus during and after the disaster concentrates its attention on a broader range of problems and needs instead of the focus on the (care for) psychopathology.

In a chemical disaster or incident, public health managers have to operate in a context where uncertainty and insecurity exist. There may be chaos and intense emotions. The nature and extent of any physical damage may not be readily apparent and it may be difficult to gauge the level of long-term risks. Experts often disagree amongst themselves, as do residents in the affected area. Human service organizations have different goals and values. In addition, levels of mistrust and anger are generally high in chemical disasters by affected communities, and these can also spill over to affect perceptions of, and cooperation with these organizations.

It is of utmost importance that public health managers recognize the complexity of chemical incidents and are aware of the specifics concerning psychosocial impact. Concerning industrial disasters, these specifics are to be identified which determine the stress response following chemical incidents or disasters. Awareness of these elements will help public health professionals to deal with the crisis and where possible reduce stress. This work therefore relates to the wider aim of developing a chemical toolkit.

Risk management and communication for chemical incidents and emergencies

Katerina Tasiopoulou

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The production of chemicals increased tenfold between 1970 and 2000 and populations have been faced with an estimated 2780 technology-related disasters impacting over 144 millions individuals and causing nearly 95 000 deaths between 1994 and 2004. Clearly, there is an urgent need to strengthen and enhance the capability of responding to chemical incident health threats in a timely and co-ordinated manner. This task is especially important in terms of the risk and crisis communication about chemical incident emergencies as the idea of the agent has the potential to be as harmful as the agent itself. This presentation will describe the outputs from Work Package 8 of CIE Toolkit, a large EU project designed to improve the health response to acute chemical incidents. WP8 was specifically designed to identify the risk and crisis communication requirements to facilitate the communication process following such an incident.

To this end, focus groups were conducted with health care responders both in the UK and Poland to determine current communication strategies before, during and after a hypothetical chemical incident. This was followed by a systematic survey with members of the public to ascertain their information needs and concerns, as well as their levels of trust and predicted behavioural response to existing emergency response plans and messages identified during the initial focus groups.

Results will broaden the understanding of public information needs and concerns following an acute chemical incident as well as explore how these needs and concerns might alter during the course of an incident or indeed differ between the two countries, thus increasing the ability of member states to prepare for the impact of such incidents.

The public health response to chemical incident emergencies toolkit

Mark Griffiths

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There is a need to strengthen and enhance the capability of responding to chemical incident health threats in a timely and co-ordinated manner. To address this, the European Union Public Health Programme has funded a project, the Public Health Response to Chemical Incident Emergencies Toolkit (CIE Toolkit) to provide guidance and training to public health care professionals. Material provided in this toolkit will improve the knowledge and expertise of public health professionals and enable them to respond rapidly and effectively to chemical incidents and deal with the subsequent public health consequences. This toolkit will provide relevant source material comprising of detailed fact sheets, scenario cards, sample questionnaires, guidance for conducting training exercises and information for the general public. This will include information in the following areas:

1. environmental epidemiology and monitoring follow-up requirements following an acute chemical incident.
2. risk and crisis communication requirements across Europe to facilitate the communication process.
3. psychosocial consequences and care of the affected population.
4. guidelines for conducting exercises and scenario training cards for major chemical incidents to raise competence in dealing with chemical incident preparedness and response tailored to the users own specific needs.

The project will also establish a network of experts capable of providing advice and guidance on chemical incident management and delivering appropriate training (e.g. ‘train the trainer’ courses or courses tailored to meet the needs of individual Member States).

Developing exercise cards for training public health personnel

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We have developed cards suitable for table-top exercises with public health personnel. It consists of seven sets of exercise cards for one biological, one radiological and five chemical scenarios. The cards were developed for trainees from the public health management level in focus, but the number of topics discussed in depth and the importance of various issues may be varied with the category of personnel being trained, their experience and their specific training requirements.

Exercises utilizing the cards are to be conducted by a competent and well prepared exercise director with adequate experience in handling emergency management situations. Three sets of cards are used for each exercise: Scenario-specific Exercise Cards describe the development on the incident scene; generic Director Cards are exclusively for the exercise director to make sure that no vital issues are missed; and scenario-specific Assessment Cards are to be studied and discussed at the end of the exercise. The Assessment Cards give the calculated outcome of the scenario in number of persons injured, distribution of injuries, and different categories of injury. One of the Assessment Cards also suggests recommended best practices.

The help of a standardized, easily available and generic toolkit may give benefits in form of more economical training and lead to exercises being held more frequently. The benefit of training complicated scenarios regularly could have a decisive effect on preparedness and readiness for public health personnel when a crisis involving hazardous agents occurs.

Environmental epidemiology and monitoring follow-up requirements after an acute chemical incident or emergency

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The Public Health Response to Chemical Incident Emergencies (CIE Toolkit) project aims to enhance the capacity of public health professionals in the EU as regards response to chemical incidents, including chemical terrorist threats. According to the findings of the CIE Toolkit questionnaire >70% of the regional PH officers feel that they are not prepared to assess an incident involving chemical agents.

The development of epidemiological protocols for the EU PH professionals follows discrete steps: (i) extensive review of the literature on environmental epidemiology especially connected to specific incidents of chemical exposure (ii) review of the generic scenarios and matrix for chemical agents produced by former EU projects (iii) incorporation of the selected scenarios developed for the exercise material in the same project.

The aim is to produce a matrix for the public health professional to provide a guide for the choice of available protocols for follow up of the population exposed in a certain chemical incident. The CIE Toolkit is going to include model protocols for the investigation of chemical exposure incidents, sample questionnaires and guidance to create appropriate survey tools, and step-by-step instructions will be developed on how to quickly implement a large survey following a chemical incident. Finally, the protocols are going to include relevant guidance for the monitoring of the population involved in the incident for psychological effects, common after incidents leading to health and/or environmental consequences. The CIE Toolkit epidemiological protocols finally aim at improving the quality of the investigations and standardizing the results obtained by them in the EU.

6.10. Utilization of medicines

Legal nurse prescribing of medicines in Western European and Anglo-Saxon countries: a systematic review of the literature

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Background

A growing number of countries introduces some form of nurse prescribing (NP), offering potential benefits in terms of improving patients’ access to medicines and better use of health professionals skills. International reviews concerning the practice of NP are scarce and lack a systematic- and theoretical approach. As a further growth of NP is anticipated, this study aims to provide a complete picture of NP internationally and the ensuing renegotiations between the nursing and medical professions over the jurisdiction of prescribing, so as to inform further developments.

Methods

A systematic review of the NP literature was performed without limits as to date of publication or country. After a comprehensive search of six literature databases and eight websites, a three stage inclusion process consisting of initial sifting, more detailed selection and checking full-text publications, was performed independently by two reviewers. Data were synthesized using narrative and tabular methods.

Results

Preliminary results show that educational, practical-organizational and legal conditions are in place in all countries that realized NP. Yet the precise filling in of these conditions varies considerably, and a variety of jurisdictional settlements between the nursing and medical professions concerning the task of prescribing can be discerned.

Conclusions

These preliminary results show that the practice of NP varies considerably among countries, from situations where nurses prescribe independently to situations in which prescribing by nurses is only allowed under strict conditions and close supervision of physicians. Insight into these different forms of NP organization internationally might aid future NP initiatives.

Analgesic prescription is related to gender development index of regions: the Spanish case

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Background

There is evidence of the importance of gender as a social determinant of pain and its treatment. The aim of this study is to analyse the relationship between the use of analgesia and the gender development of the regions of Spain.

Methods

An ecological study, descriptive of the prescription of analgesia according to the Gender Development Index (GDI) of the Autonomous Regions of Spain. Information Sources: for analgesia, pain and demographic variables: Spanish National Health Survey 2006; variables to calculate the GDI (2005) of each Autonomous Regions: National Institute of Statistics and Ministry of Education. We performed a logistic regression analysis to compare prescription of analgesia by sex and GDI of the Autonomous Regions.

Results

Women and men that live in Autonomous Regions which GDI value is lower than Spanish GDI average are more likely to be prescribed painkillers than women and men in Autonomous Regions which GDI value is higher than the Spanish GDI: odds ratio (OR)_men = 1.26 (1.09–1.45), OR_women = 1.26 (1.12–1.42). Women are more likely than men to be prescribed both painkillers, in Autonomous Regions which GDI value is lower that Spanish GDI average: OR = 1.71 (1.51–1.93) and also in Autonomous Regions which GDI is higher than the average: OR = 1.79 (1.56–2.06). Results were adjusted for age, social class and pain.

Conclusions

The prescription of analgesia is higher the lower the gender development of the Spanish regions, although these differences are more marked in women than in men, even when the influence of age, social class or confirmed chronic pain by doctor is eliminated. It could be considered that there is a two gender bias in prescription of analgesics: the one derived of be a woman and the one of living in less gender development region.

Trends and interpractice variation in the prescription of statins between 2003 and 2008: a multilevel approach

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Background

In 2006, The Netherlands College of General Practitioners introduced a new guideline on Cardiovascular Risk Management. Two major aspects in this guideline were: (i) simvastatin is first choice when prescribing a statin; (ii) patients with type 2 diabetes should be prescribed a statin. Our aim is therefore to study the trends and interpractice variation in prescription of simvastatin and to study the prescription of statins to newly diagnosed patients with type-2 diabetes between the years 2003 and 2008

Methods

We used data from The Netherlands Information Network of General Practice (LINH) from the period 2003 to 2008. First, we selected all patients with a new prescription of statins ($n = 43\,911$) and investigated, with multilevel logistic regression, the share of simvastatin of all statin prescriptions. Differences between practices were expressed by the intra class correlation (ICC). Secondly, we selected all newly diagnosed diabetes patients ($n = 17\,025$) and investigated with Cox regression analysis the time to their first statin prescription.

Results

The prevalence of simvastatin of all statins increased continuously over time; from 40% in 2003 to 68% in 2008. However, the variance between practices also seemed to increase (ICC2003 = 13% and ICC2008 = 18%). Compared with patients diagnosed with diabetes in 2003, patients diagnosed in the year 2006 had 3.75 times higher hazard of receiving a statin prescription within a year. On the other hand, the hazards ratio (HR) was lower in the years 2007 (HR: 3.16) and 2008 (HR: 2.90).

Conclusions

The guidelines seem to promote prescription of simvastatin but the variation between practices continued to being high. Moreover, the guidelines seemed to support the prescription of statins to patients with diabetes. However, as there seemed to be a decreasing trend towards level prior to the guidelines more intensive interventions may be necessary to promote rational statin prescription.

Oral contraceptives and risk of venous thromboembolism: a comprehensive meta-analysis

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Background

As part of a health technology assessment of genetic testing for susceptibility to venous thromboembolism (VTE), a meta-analysis was performed to evaluate the VTE risk among oral contraceptives (OC) users, overall and according to several variables including genetic mutations (Factor II G201210A, Factor V Leiden, MTHFR).

Methods

Medline, Embase, and other online databases were searched to December 2009 for cohort and case-control studies assessing the risk of VTE among women using OC. Pooled odds ratios (ORs) and 95% confidence intervals (CI) were calculated using a random-effect generic-inverse variance approach.

Results

We included 55 observational studies. Compared with non-use, OC use is associated with increased risk of VTE (OR 3.41; 95% CI 2.98–3.92). The magnitude of the risk, however, varied according to several factors relative to study design, characteristics of the sample, and type of drug. The pooled OR of population-based cohort studies was 2.88 (2.21–3.75), while the OR obtained combining hospital-based case-control studies was 4.49 (3.49–5.78). Compared with previous generation OC, fourth generation OC showed a slightly increased VTE risk, which only approached significance ($P = 0.05$). Among the women with one of the three thrombogenic mutations, those using OC had ORs ranging from 4.93 up to 17.0 (all $P < 0.01$).

Conclusions

OC use is associated with increased risk of VTE. It remains unclear whether the new generation OC enhance the incidence of VTE, but such an increase seems moderate. Given the very high risk observed among carriers of thrombogenic mutation, cost-benefit evaluations of routine genetic screening are warranted.

Antidepressants utilization: impact of co-payment in Italian Regions from 2001 to 2007

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Background

Depression is one of the most prevalent mental disorders worldwide. Use of antidepressants, particularly of selective serotonin reuptake inhibitors (SSRIs), has rapidly increased in Europe during the last decade. Since 2001, after introduction of a specific national policy of drug reimbursement, the rate of prescriptions of SSRIs has grown consistently in Italy. Over the past decade, local (i.e. regional) co-payment mechanisms have been implemented in order to enhance the appropriate use of these drugs. The aim of this study was to analyse the effect of co-payment policy on SSRIs utilization in Italian Regions from 2001 to 2007.

Methods

We used monthly drug consumption from May 2001 to December 2007 for SSRIs (Anatomic Therapeutic Chemical classification code N06AB), in units of defined daily doses (DDD)/1000 abitants die. Statistical significance and effect size were calculated by segmented regression analysis of interrupted time series of drug use before and after the intervention started (introduction of co-payment). Time series were corrected for seasonal component.

Results

The utilization of SSRIs progressively increased by a monthly consumption of 12.85 DDD/1000 ab die in May 2001 to 23.40 DDD/1000 ab die in December 2007. The introduction of co-payment did not significantly influence antidepressants use (P-value for level change = 0.064), while there was a significant change in the monthly trend in consumption after the intervention (P-value for trend change = 0.010), with a small reduction.

Conclusions

Consumption of antidepressants underwent a continuous growth. The introduction of local co-payment did not significantly impact on the use of SSRIs in Italy. The appropriateness of prescription has to be studied further, considering clinical recommendations and availability of new drugs.

Impact of national and local policies on the utilization of statins in Italy, 2001–07

Bruno Federico

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Background

With the aim to enhance the appropriate use of drugs at the population level, different policies have been implemented across the European Union, including co-payment mechanisms and prescription guidelines. In Italy, both national and local (i.e. regional) drug policies were implemented over the past decade. In this period, a few Italian Regions introduced copayment, whereas other Regions did not. In the same period, a relevant change in prescription guideline occurred at the national level. In this study, we aimed to assess the impact of both national and local policies on the utilization of statins, which are among the most widely used drugs, over the period May 2001 to December 2007 in Italy.

Methods

We examined monthly drug use at the population level, expressed in defined daily doses (DDD)/1000 ab die of statins (Anatomic Therapeutic Chemical classification code C10AA) in 17 out of 21 Italian Regions (about 48 million people) between 2001 and 2007. Only drug use paid for by the National Health Service was considered, whereas out-of-pocket drug use was excluded. Interrupted time-series modelling was performed, controlling for seasonal changes. We used a model with two change points: the first one for the introduction of co-payment, and the second one for the change in the national guideline.

Results

The use of statins increased by 22.9 DDD/1000 ab die in May 2001 to 54.7 DDD/1000 ab die in December 2007. On average, there was a 1.7% increase in statin use each month before the national guideline changed, while the increase was ~0.5% afterwards. The time-series model showed that the change in the national guideline caused a reduction in the upward trend of statin use, whereas the effect of co-payment was negligible.

Conclusions

In Italy, prescription guidelines showed a larger impact on the use of statins than the adoption of co-payment.

6.11. Workshop: Closing the health gap: addressing health inequalities and inequity faced by Roma in health care

Chair: Tamsin Rose
Belgium
Organizer: Open Society Institute, Roma Health Project

Social exclusion, poverty and systemic discrimination have led to a marked difference in health status between the Roma minority and the majority population throughout Central and Eastern Europe. The consequences of long-standing social neglect and human rights abuses are gross health inequalities: available data consistently shows higher rates of illness and mortality among Roma than in majority populations. Yet, the Roma health gap has received little attention in European public health circles.

The workshop features presentations on the work of Roma NGOs and activists to decrease inequalities faced by Roma communities in the health care system. The format is short presentations followed by group discussion. Presenters will offer valuable insights for participants interested in understanding and tackling Europe's most challenging health inequalities.

The transformative policy switch: using a human security approach to tackle health inequalities in relation to Roma—the Romanian case

Romanita Iordache

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Background

It is common knowledge that the Roma minority is one of the most vulnerable groups in Europe. In the public health context, it is common knowledge to argue that discrimination and marginalization trigger health inequality as it is evidenced by socio-medical indicators in relation to Roma. The question posed in this presentation is: How can we move from the political, policy and legal rhetoric treating Roma as potentially vulnerable patients/targets of institutional interests and make the leap towards a participatory model, focusing on reducing health inequalities through social empowerment by capacitating Roma to become relevant actors for the change of their own communities.

Hosting the largest Roma community in Europe, Romania can be discussed as a showcase of disenfranchisement of Roma of their right to health featuring not only increased poverty as a disease (*Z* 59.5) but also its correlative effects: repeated experiences of discrimination, ill treatment and exclusion, all leading to mistrust and fear, stigma and cultural barriers, marginalized Roma communities lack basic knowledge about their rights to health services including access to universal care, even when entitled by law to access public health services, many Roma are not registered with a general practitioner.

Changing perspectives—Roma Leadership in Health: a generation of health professionals

The Roma Health Project (RHP) of the Open Society Institute has a long standing record of being a leading actor promoting Roma health, including in Romania where it contributed to improving the legislative and policy framework, supported the development of the model of the Roma health mediator, facilitated the collection of specific data which will allow fine-tuning further interventions and funded numerous health-related projects.

While aiming to address the root causes of vulnerability in Roma health and to promote a holistic approach in dismantling health inequalities affecting Roma, the OSI-RHP joined efforts with the Roma Education Fund and established, beginning with 2008, the Roma Health Scholarship Programme by which it provides a comprehensive package combining substantial scholarships for medical education to obtain nursing, midwives and health assistant and medical doctor degrees, support for professional development in form of reimbursement for language courses and conferences' fees, as well as a mentorship scheme pairing Med School students with medical doctors supporting the grantees as mentors and annual leadership and advocacy trainings for Roma medical students which are focused on the right to health and public health issues, as well as on personal
development of the young Roma scholars as future public health leaders.

The philosophy of the programme is that increasing the number of Roma doctors and nurses is one of the most effective ways to combat discrimination and human rights abuses in health care settings. This is not about promoting medical ghettos with Roma doctors and nurses for Roma patients but about an inclusive approach which aims at reducing inequality by capacitating Roma medical students who will challenge the adequacy of the public health system in relation to Roma from within and will contribute to forging trust between Roma communities and the health system.

The presentation will discuss the challenges and the successes of the Roma Health Scholarship Programme after 2 years of implementation in Romania and a year of implementation in Bulgaria and will discuss this model as an alternative method of approaching health inequality affecting Roma communities.

Fighting inequalities in access to health care for Roma with Roma in Romania

Nicoleta Bitu

N Bitu
Romani CRISS—Roma Center for Social Interventions and Studies, Romania

Since its establishment in 1993, Romani CRISS—Roma Center for Social Intervention and studies had inherited from its founder the Federation of Roma from Romania, a philosophy of assisting Romany communities in a state of crisis. While health have been ignored by many governmental and non governmental actors, in the beginning of '90s Romani CRISS intervention in cases of the communities affected by interethnic conflicts, had a multidisciplinary approach, where the right to health care played a major role along with the right to education and legalization of IDs and property documents. Starting with actions such as bringing for the first time a family doctor to visit Romani communities by involving the international attention from organizations such as Doctors of the World and Medicines sans Frontieres, which pursued the local doctors; continuing with organizing of vaccination campaigns for Romany children and informational campaigns on different diseases.

Pursuing the medical staff to enter in contact with the Romany patients happened in a context in which a special attention have been given to the mobilization of local Romany communities around the health problems by giving access to information regarding their rights as well as specialized information on different diseases and its prevention. Since in the work with local Romany communities Romani CRISS staff remarked the importance that Romany women played in communication with the local health care staff, the idea of having Romany women with a certain profile as 'bridges of communication' became the project of health mediators in Romania. An inspiration for this work was the contacts with French organizations, especially Le Centre de Recherché Tsiganes, another founder of Romania CRISS, and CCFD (French Committee for Combating Hunger and for Development) who had introduced our organization into the world of social mediation from France.

While initiating and developing the health mediation in Romania, the work of advocacy at European and national level have continued for Romani CRISS, when in 1998 and 1999 organized the Romany partner for the Romanian Government in designing the first strategy for improving the situation of Roma in Romania. This being assured almost entirely from Romani CRISS funds with the clear statement that *policies for Roma are not to be designed without them*. As a concrete result the chapter on health of the Strategy for the Improvement of the situation of Roma (2001) mentioned the project of health mediators as a success and the necessity to be taken over by the Ministry of Health.

The development of the health mediation programme in partnership with the Ministry of Health and OSCE ODIHR Contact Point for Roma and Sinti Issues, and funded from CCFD, had gone in the direction of providing basic and continuous training, lobby with local health institutions, designing manuals, and assisting them in their personal development; while segregation in accessing the health care services have to be avoided by all means. An important tool in assisting health mediators is the developed network of regional centres for supporting and monitoring health mediators.

Not forgetting its mission of defending the rights of Romanian citizens of Romany ethnicity, Romani CRISS have initiated in its human rights work, assistance for litigation in cases of discrimination in access to health care, putting the discussion of health care of Romany communities, again, under the framework of access to rights, where health mediators are the facilitators for accessing these rights. This has been completed with trainings for family doctors and design of publication on the right to health care, supported by OSI Roma Health Programme.

An important role in the last years has been given to the researches as tool for advocating the right to health.

Quoted by several reports as best practice, the experience of Romani CRISS have started to become a good practice taken over by other organizations and Ministries from Bulgaria, Serbia, Ucraine and for the Romani migrant from France.

National-level advocacy for including Roma in the design, implementation and evaluation of health policies affecting them

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Background

Health is one of the fields where Roma in Bulgaria still face the harshest exclusion. There can be observed exceptionally negative trends connected to the health status: high sickness rate, high death rate, low life expectancy. The average life expectancy of Roma is >10 years lower than the average for the country. The highest peak of mortality is 40–49 years of age, the main causes being cardiac vascular and brain vascular problems. Roma say that the medical staff demonstrate lack of understanding of their different cultural beliefs and traditions. They rarely care for prevention and often rely on emergency aid. The majority lives in miserable housing conditions. They inhabit poor quarters (ghettos) located in the suburbs or villages, usually with inferior infrastructure and conditions leading to risks for the health of the inhabitants.

Gaps

The most important of the whole spectrum of problems and challenges are:

- The high number of persons without health insuranceLack of alternative forms of health service and/or introduction of minimum packages of health services for the people without health insurance
- Persisting problems with education, qualification and especially appointment of the health mediators
- No effective prevention
- No specialized individual approach to the patients
- No health awareness of Romani women
- Lack of sensitivity and awareness among health workers
- Lack of real Roma participation in the design, implementation, monitoring and evaluation of health policies

Activities done

In order to overcome these difficulties Center Amalipe has taken steps in several directions:

(i) *Advocacy activities for including Roma issues in general health policy and for ensuring Roma participation* in decision-making, implementation and evaluation process. The campaign has two main focuses: including Roma sensitive activities in the general reform of health care in Bulgaria. The second focus is intervention in implementation of health operation within Human Resources Development Operational programme and active participation in the planning of the next programming period of Structural Funds in Bulgaria

(ii) *Raising the sensitivity of various stakeholders* (especially policy-makers) towards Roma issues

(iii) *Raising the capacity of young Roma professionals* for participation in policy-making and implementation. For 2 years already Center Amalipe has been organizing advocacy camps and accompanying activities for Roma students in medical universities and young Roma health professionals. The aim of the trainings is to get participants acquainted with information about Roma (Romani women) health issues, raise their awareness and make them sensible towards Roma health rights. The aim of the training is further to turn the participants into Roma health advocates, empower them and provide them with necessary tools and leverage to be advocates for Roma health.

6.12. Injury prevention

Child home injury mortality in Europe: a 16-country analysis

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Background

Child injury mortality and morbidity are a public health concern in European countries and data are scarce. Cross national efforts are needed to identify high-risk groups, follow trends, and assist in establishing European-wide safety legislation. This study investigates fatal child injuries in the home, as compared with those in transport in European countries.

Methods

Injury mortality was extracted from the World Health Organization Mortality Database for the years 2002–04. The mortality rate per 100 000 population was calculated by age group for 16 contributing countries, grouped by their economic level of development.

Results

Fatal home injuries were highest in children <5 and then sharply decreased, as opposed to road traffic injuries which increased with age. The majority of the upper middle economy countries tended to have higher home injury incidence rates compared with the high-income countries. The top five injury causes all countries aggregated were drowning/submersion, thermal injuries, poisoning, falls and homicide, all of which account for ~90% of home injury deaths.

Conclusions

Home injuries were the leading cause of injury death in children <5 in the countries under study and the inequalities found among the countries indicate potential for improvement. Evidence-based interventions exist to prevent these injuries and the barriers to their implementation ought to be determined and addressed.

Ten D by Night (Dark, Dance, Disco, Dose, Drugs, Drive, Danger, Damage, Disability, Death): results of a European multi-centric portal survey

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Background

The highest risk of traffic accident fatalities is among young people during weekend nights. A major role is played by use of psychoactive substances (PS). The aim is to objectively estimate young drivers PS consumption and its relationship with driving performance in order to define a European approach for preventing road accidents.

Methods

The study, funded by European Community, involved Italy, Belgium/The Netherlands, Bulgaria, Poland, Spain and Latvia. Drivers aged 16–34 were enrolled in recreational meeting places during weekend nights. Questionnaires, alcohol tests and reaction time (RT) tests with a driving simulator were administrated at the entrance and exit of recreational sites, along with multi-drug tests at the exit only (portal survey technique).

Results

4700 subjects were enrolled (68% male). 5% of individuals consumed some illegal drug into the recreational site and 28% left the site with a blood-alcohol concentration (BAC) over 0.5 g/l. A linear regression model shows a statistically significant increase in exit RT in subjects leaving with BAC over 0.5 g/l (0.0653 s for BAC increase of 1 g/l, $P < 0.001$), who consumed 5 or more drinks (0.0504 s, $P < 0.0013$) or illegal drugs into the site (0.04567, $P < 0.0036$). The difference between enter and exit RT is influenced by age and gender: it is higher in women and increases with age. After the exit tests, the majority of subjects with BAC over 0.5 g/l or who had consumed illegal drugs declared the intention not to drive.

Conclusions

Study results show a direct relationship between RT increase and both illegal drug and excessive alcohol consumption, with age and gender influences. Moreover the direct experience of PS effects on driving performance through tests and simulations seems to positively influence young people behaviors. These findings can be useful for designing specific and effective preventive interventions.

Sight on the effectiveness of injury prevention interventions

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Background

Injury prevention practitioners and experts, policy makers and health professionals seek information on what works and what doesn't work for the prevention of injuries. There is a need to build capacity among those working in injury prevention by providing relevant and accessible information on current knowledge about the effectiveness of preventive measures to enhance decision making and design of interventions in injury prevention.

Methods

To provide this information to a wide variety of users the Dutch Consumer Safety Institute, in partnership with EuroSafe, developed a database on Effective Measures in Injury Prevention (EMIP). EMIP is an attempt to make it easier to assess the level of evidence available for a particular measure or strategy. By browsing the database, users have access to statements that provide evidence on prevention measures in injury prevention (e.g. legislation, education), and background documents upon which these evidence statements are based.

The scope of EMIP is all injuries and all ages. Information in the database is primarily based on existing reviews with a focus on systematic reviews. If quality reviews are not available, other literature including original articles have been reviewed. Evidence statements are developed and reviewed by experts from the appropriate area of the injury field prior to being added to the database.

Results

More than hundred evidence statements on effectiveness of interventions related to child safety, sport safety, vulnerable road users, and safety for seniors are available. Topics related to intentional injuries are not yet included within EMIP. The EMIP database can be visited at the EuroSafe website: http://www.eurosafe.eu.com/csi/effectiveness

Conclusions

EMIP provides health care professionals and policy makers in a simple way scientific information on what works in injury prevention.

Interventions to evaluate fitness to drive among people with acute and chronic diseases: systematic review of literature

Marta Marino

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Background

When a health condition has been identified, the question of whether to continue driving depends not on a medical diagnosis, but on the functional consequences of the illness. The complex nature of medical and mental impairments and their relationship with safe driving make the availability of evidence-based tools necessary for public health professionals. We assessed the effects of tools predicting driving performance in patients with acute or chronic disabling conditions in order to prevent road traffic injuries and fatalities.

Methods

We conducted a systematic review according to the Cochrane Collaboration RevMan 5. Inclusion criteria were: study design (RCT, cluster RCT, Before and After, cohort and Interrupted time series); driving ability evaluation through physical/neuropsychological examinations and/or driving road test or simulators; participants with acute/chronic diseases or permanent disablement impairing driving performance; primary outcomes as fatal/non-fatal traffic injuries; secondary outcomes as driving performance.

Results

From 660 selected papers, 36 were included. Studies referred to clinical conditions as follow: 13 Alzheimer and Parkinson disease, eight cardiovascular diseases, 10 Other Neurological diseases including Epilepsy, two Sleep Apnea Syndrome; three Traumatic Brain injuries. We included 17 cohort, 14 case control and five quasi-sperimental studies, all evaluating fitness to drive by driving test alone (13%) or in combination with physical/neuropsychological examinations (87%). No studies referred to primary outcomes.

Conclusions

Preliminary findings suggest that medical and driving examinations in the assessment of fitness-to-drive, especially in subjects with epilepsy, stroke, Parkinson's and dementia, are likely to reliably confirm driving performance. Further investigations are needed in order to relate secondary outcomes to traffic accidents reduction. An integrated and evidence-based approach in Public Health to evaluate subjects with acute and chronic diseases still represent a relevant challenge in Road Traffic Injuries Prevention and it is strongly recommended that an evidence-based screening process be established.

Recreational physical activity and risk of head and neck cancer: a pooled analysis within the International Head and Neck Cancer Epidemiology (INHANCE) Consortium

Nicola Nicolotti

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Introduction

Head and neck cancers (HNC) are the fifth most common cancer worldwide (over 600 000 cases/year). Tobacco and alcohol are established risk factors, though other factors may affect HNC risk. Increasing evidence suggests that physical activity (PA) could prevent cancer by improving antioxidant properties, enhancing circulation of immune cells and modulating specific immune parameters (salivary IgA). The aim of our analysis is to clarify the effect of recreational PA (rPA) on HNC, as very little data are present in the literature.

Methods

We analysed data from three European, one Asian and one American case-control studies participating in the INHANCE consortium, including a total of 3481 HNC cases and 7262 controls. According to the International Physical Activity Questionnaire, rPA was classified in three levels: none/low (reference group), moderate and high. We estimated odds ratios (ORs) from each study using logistic regression models adjusted by age, gender, number of cigarettes per day, duration of cigarette smoking, alcohol consumption, years of drinking, education level, race, occupational PA and study center. Summary ORs and 95% confidence intervals (CIs) were estimated by pooling study-specific ORs using a random effects model.

Results

Moderate rPA significantly reduces the risk of HNC (OR = 0.77, 95% CI: 0.66–0.90), and the OR was (OR = 0.72, 95% CI: 0.45–1.15) for high rPA. By stratifying the results according to cancer sub-sites and selected covariates, the protective effect of moderate rPA was restricted to oral cavity (OR = 0.74, 95% CI: 0.56–0.97), pharynx (OR = 0.67, 95% CI: 0.53–0.85), males (OR = 0.77, 95% CI: 0.65–0.91), subjects age 45 years or more (OR = 0.75, 95% CI: 0.62–0.90), and ever smokers and ever drinkers (OR = 0.72, 95% CI: 0.59–0.88). High rPA significantly reduces the risk of oral cavity (OR = 0.53, 95% CI: 0.32–0.88), pharynx (OR = 0.58, 95% CI: 0.38–0.89) and in subject <45 years old (OR = 0.65, 95% CI: 0.47–0.89), while it increases the risk of laryngeal cancer (OR = 1.73, 95% CI: 1.04–2.88).

Conclusions

We observed that moderate and high rPA reduces the risk of oral cavity and pharyngeal cancer. Promoting PA might represent an important primary preventive factor for HNC.

6.13 Workshop: Public health genomics: Integration of genome-based knowledge and technologies to fight infectious diseases

Chairs: Elena Ambrosino, The Netherlands and Arja Aro, Denmark
Organizer: EUPHA section on Public Health Genomics

Classical and emerging infectious diseases, drug-resistant pathogens and viral pandemics, continue to be among the most significant threats to human health and international security. Moreover, vaccine-preventable, food-borne, zoonotic and chronic communicable illnesses contribute considerably to health care costs. While such diseases are not among the leading causes of mortality and morbidity in the European Region, preventing and controlling them remain one of the fundamental public health functions of health systems within Europe, as well as in the rest of the globe. Both aspects will be covered during the EUPHA conference.

In this context, the information constantly generated by the rapidly growing discipline of genomics can play a decisive role in policymaking. The use of genome-based knowledge and technologies and its integration into Public Health (Public Health Genomics) can indeed benefit global health by providing new approaches to understand and fight old and emerging infectious diseases.

PHG can improve global health by elucidating basic mechanisms of disease, susceptibility and resistance, thus guiding the development of future health care innovations and interventions. Such advances can influence the prevention, diagnosis and treatments of several major infectious diseases, including Chlamydia, HPV, tuberculosis, malaria and HIV.

The workshop aims to exchange expertise and stimulate the discussion on how the genomes, and interactions of both host and pathogens are being revealed using novel genome-based technologies, and how this information can and will be translated into disease management and therapies to benefit population health.

Overview on the genetics and genomics of infectious agents

Henk van Kranen

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The impact of host genetics on the susceptibility to infectious disease has been demonstrated for all kinds of infectious agents both in experimental animal models as well as in human disease. In part, differences in genetic make-up are associated with differences in susceptibility towards infection, vaccination response and/or differences in clinical course after infection. A major part of this susceptibility seems to be influenced by multiple host genes, most of which are low penetrance QTLs that were difficult to map in humans with classical genetic approaches. With the rapid advances in genomics, including GWAS and next generation sequencing, progress also in humans is advancing. Illuminating examples for different infectious agents (Plasmodium, Mycobacterium, HIV, Bordetella, Leishmania, etc.) will be summarized and presented. The translation of this advanced in part immunological knowledge with respect to vaccination, antibiotic resistance and clinical as well as public health utility will be discussed. In addition, the crucial role of Institutes of Public Health in this translational process will be stressed.

Host genetics variation in Chlamydia trachomatis infection: translation and valorization by the EU FP6 EpiGenChlamydia Consortium

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Twin studies and case–control studies have shown a substantial genetic component for many infec-tious diseases (IDs) with high morbidity explaining the interindividual differences in response to IDs. Identification of people at risk using genetic markers will give a new insight in the immunopathogene-sis of disease, will highly benefit individualized treatments for those infected, reduce the morbidity associated with disease and the considerable costs for society associated with these IDs. The EU FP6 EpiGenChlamydia (EGC) Consortium focuses on Chlamydia trachomatis (CT) infections which are responsible for both the world leading cause of blindness (trachoma) and the most prevalent sexually transmitted disease which is strongly associated with pelvic inflammatory disease, ectopic pregnancy, and tubal infertility. Twin study-based findings of members of this consortium showed that there is a 40% genetic predisposition to CT infections. In order to fully exploit human genomics in the battle against CT infections, it is necessary to reliably determine aforementioned genetic predisposition at the gene level to CT infection and to define a genetic fingerprint that can be used as a marker for this predisposition. The EpiGenChlamydia I Consortium aimed to structure trans-national research to such degree that comparative genomics and genetic epidemiology on large numbers of unrelated individu-als can be performed. The EGC Consortium lobbies a FP7 call on the HEALTH 2010/2011 list to perform as EpiGenChlamydia II the studies on the generated biobanks and datawarehouses to select, validate and valorise genetic traits to be used in patient management.

ECDC role in fighting infectious diseases in the field of public health genomics

Jacques Scheres

J Scheres
Deputy Chair of the Management Board of the European Centre for Disease Prevention and Control (ECDC), Stockholm, Sweden

The European Centre for Disease Prevention and Control (ECDC) in Stockholm was established in 2004 by the European Council and the European Parliament as their reaction to new emerging micro-bial threats such as SARS. The Regulation EC No. 851/2004 which establishes the ECDC, as well as the name of this agency allows a much broader scope than just communicable diseases. However, until now all activities of the ECDC have been focused on infectious diseases. A recent external evaluation of the ECDC and its present significance has shown that the ECDC has indeed managed to take a central and highly appreciated position as the scientific advice centre in the coordinated fight against infectious diseases in the EU and abroad.

In ECDC's work, genomics of microbes has been of great significance, mainly for the study and typing of the pathogenic microbes. But the awareness is growing, that the genetics of the microbe is only one 'side of the coin'. There is increasing knowledge that someone's susceptibility to infections, the course and severity of the infection as well as the possible adverse effects of treatments and vaccination, are also determined by his/her genetic background. The knowledge of these genetic 'host-determinants' in infectious diseases is, therefore, one of the most promising subjects of Public Health Genomics and it is expected to be applicable in the years to come.

Global aspects of Public Health Genomics: fighting infection diseases in Global Health

Elena Ambrosino

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Infectious diseases are one of the major killers worldwide, but their distribution is quite different across countries. Indeed, their prevalence in developing countries is dramatically higher than in developed ones, as nearly all of the 9.5 million people annually dying for infections live in the former. Moreover, the impact of such diseases is most severe in resource-limited settings, where poorer people have fewer resources and limited or no access to health care, prevention tools and medications. Thus, strategies to fight such diseases should specifically target and be adapted to the most affected areas of the world.

The advances in Genomics, the increasing knowledge generated by genome-based technologies and its translation into Public Health interventions (PHG) can have a significant impact on infectious diseases, and can play a major role in meeting the health needs of developing countries for the benefit of global health.

Yet, since the beginning of the Genomics era, it has been evident that many countries will not be able to take advantage of such progresses, because of their limited scientific resources and the urgency of other health priorities. Nevertheless, there are already several examples of successful application of Genomics to Public Health in resource-limited countries. Many genome-based technologies, especially molecular diagnostics, are indeed now cost-effective and affordable for the developing world and will contribute to the prevention of infectious diseases and the promotion of health.

Therefore, as the balance in infectious diseases burden continues to widen, making them more and more diseases of poverty, PHG could help reduce the gap. However, in order to harness the benefits of Genomics in the global fight against infections, a more concerted effort should be made to include in the genomic research countries with limited resources, and help them translate the genome-based knowledge into Public Health.

PARALLEL SESSION 7

Saturday 13 November 2010: 13.00–14.30

7.1. Workshop: The implementation of ECHI health indicators in the EU: enhancing health policy and planning

Chairs: Arpo Aromaa, Finland and Nick Fahy, European Commission
Organizer: Centre for Public Health Forecasting, RIVM, The Netherlands, Marieke Verschuuren

As of 1998, the European Commission has invested in the development of a European public health monitoring system based on a core set of European Community Health Indicators (ECHI shortlist). In 2009 ECHI's fourth phase started, which is called Joint Action for ECHIM (M stands for monitoring). Within this Joint Action, 24 EU Member States will put effort into implementing the ECHI shortlist. In this workshop, first an update on the position of the current Joint Action will be given. The usability of ECHI indicators for policy makers and the added value of ECHI over existing international data collections will be explained. The ECHI shortlist was developed to serve as a policy making tool both for national and international policy makers. Therefore both perspectives will be presented in this workshop. First, the focus will be on regulation (EC) No 1338/2008 on Community statistics on public health and health and safety at work. This regulation is aimed at obtaining data for different indicator sets relevant for the European Community, among which is ECHI. In this workshop the link between ECHI and the Regulation will be explained. After that, the implementation of the ECHI shortlist at European level will be presented. The place of ECHI in the EU policy making process and the publication of ECHI indicators at the Europa (DG SANCO) website will be the main points that will be addressed. Finally two countries with diverging points of departure for the ECHI implementation will present their experiences so far, and share with the audience the successes achieved and problems encountered. In these presentations the focus will be on the two main types of activities necessary for successful implementation; improving availability and quality of national data for ECHI, and communicating about ECHI (i.e. providing an evidence base to policy makers). The added value of this workshop is that participants will be informed about the current state of the ECHI work and the relevant legal framework. This general information will be illustrated by concrete examples of implementing activities both at Member State and European level. As such, this workshop will be of interest to all those involved in public health monitoring at (inter)national level.

The health of Europeans and the need for ECHI indicators

Ari-Pekka Sihvonen

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The implementation of European Community Health Indicators (ECHI) will advance health monitoring throughout Europe. The current Joint Action for ECHIM builds on the previous ECHI-projects and aims to carry out many core tasks of the EC's Second Programme of Community action in the field of health. ECHIM aims to consolidate and expand ECHI indicators towards a sustainable European health information system. ECHIM has contact persons in over 30 European countries and close liaison with DG SANCO, Eurostat and WHO. ECHIM secretariats are in Finland, Germany, Italy, Lithuania and The Netherlands. For decades most of the analyses on health, also comparisons between countries, have been based on mortality data and data from research projects. These comparisons show major variations between countries in mortality and some health determinants. To support public health decision making at (inter)national level, it would be relevant to also have comparable, regular data on health behaviour, risk factors, morbidity and need and use of health care. Unfortunately, no regular collections currently exist for such data at EU level, or data are too disharmonized to be used in international comparisons. ECHIM tries to improve this situation, through assisting Member States to implement the comprehensive ECHI shortlist and then to collect and disseminate comparable health data based on these 88 key health indicators. This presentation explains the main outcomes of the ECHI projects, what is currently known about health differences, and how the implementation process in Member States proceeds. As a background, examples of international comparisons that can be made with currently available data are presented.

The use of ECHI indicators at European level and the European legal framework

C Battersby

C Battersby, N Fahy
Health Information Unit, DG SANCO, Luxembourg, Luxembourg

An effective European public health monitoring system requires the use of harmonized indicator sets both at national and EU level. Therefore the ECHI shortlist was explicitly developed as a tool to support policy making at both levels. During the past years both Member States and the European Commission have started with carrying out activities aimed at implementing the ECHI indicators. In this presentation, first the European legal framework for collecting indicator data, i.e. the Regulation on Community statistics on public health and health and safety at work, will be explained. Special attention will be given to the European Health Interview Survey (EHIS), which in future will be an important data source for ECHI. Next the focus will be on the implementation activities at EU level, addressing the following topics; currently the Commission is developing a European health information strategy focusing on generating, disseminating and applying the best information and evidence available to support the EU Health Strategy 'Together for Health'. The role of the ECHI indicator system in these developments will be highlighted. Furthermore, the Commission is developing HEIDI—a web-based health information Wiki—in which the ECHI indicators play a central role. Currently, the ECHIM experts and the Commission are jointly working on one of the elements of the Wiki; a database and accompanying data presentation tool. ECHI data presentations and other HEIDI elements will be shown. Finally, the Commission view on the future of the ECHI indicator system in relation to policy developments at EU level will be explained.

Example of national implementation of ECHI: The Netherlands

Marieke Verschuuren

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Implementation of the ECHI shortlist in The Netherlands began with the publication of the Dare to Compare! report in 2008. In this report Dutch health is benchmarked by means of the ECHI indicators, and the availability and quality of Dutch data for these indicators is described in detail. Generally speaking data availability in The Netherlands is good, though there is still room to improve comparability (i.e. better tuning with international definitions). A major structural problem is the insecure and non-formalized status of ICD-based hospital data collection in The Netherlands. In February 2010 the first meeting of the Dutch ECHI Implementation Advice Group took place. This group consists of representatives of the Dutch Public Health Institute (RIVM), the Ministry of Health and Statistics Netherlands. Their aim is to advice on improving data availability and quality for the ECHI indicators, and to engage in communication activities which focus on the usefulness of the ECHI shortlist for its main target audience, i.e. policy makers. Next to that, an important implementation activity is making the ECHI shortlist indicators available for policy makers and other user groups. In The Netherlands this is achieved by integrating the ECHI indicators into well established national web-based public health monitoring and reporting systems, which are being maintained by RIVM, such as the Public Health Compass, the Public Health Atlas, and the Health Care Performance report. During this presentation (problems with) Dutch data availability will be presented in more detail, as will the (planned) activities of the ECHI Implementation Advice Group. Examples of the use of ECHI indicators in the national monitoring and reporting systems will be shown.

Example of national implementation of ECHI: Slovenia

Polonca Truden-Dobrin

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The Final Report of the ECHIM project published in 2008 presented a review of availability and comparability of data for ECHI shortlist indicators for Slovenia. Data availability in Slovenia was assessed better than the European average. Slovenia participates in the Joint Action (JA) for ECHIM and is working closely with other member states to achieve the aims of the JA. The National Implementation Team (NIT) has been established in 2009, with members from the National Institute of Public Health (IVZ), Ministry of Health, Health Insurance Institute of Slovenia, Statistical Office of Republic of Slovenia and Institute of Oncology. The team prepared The National Implementation Plan (NIP) to implement the ECHI shortlist in practice. The quality and comparability of existing national data sources are being investigated. The comparability of data will be further improved by implementing the definitions and using the documentation sheets that have been produced by ECHIM. For certain indicators data sources will need to be created or modified. In the beginning of 2010 the NIP had to be revised to include the preparation of the amendment to the Healthcare Databases Act. The proposal for this amendment will take into account the requirements for the implementation of ECHI. Implementation also requires putting the indicators in practical use and introducing them to those involved in public health and to policy makers. Therefore the communication plan has been prepared that includes activities for different target groups, e.g. web-based presentation, articles in professional journals, presentations at meetings and conferences and press releases.

7.2. Workshop: Policy oriented risk assessment

Chairs: Gabriel Gulis, Denmark and Odile Mekel, Germany
Organizer: RAPID project

Objectives

The workshop presents progress in 'Risk assessment form policy to impact dimension—RAPID' project funded by Executive Agency for Health and Consumers (EAHC) of DG SANCO. Participants will gain information about results of the risk assessor survey and recent stage of risk assessment case-studies conducted within the project.

Layout of the workshop

The workshop will first present two presentations (abstract no. 1 and 2) on main findings of an international survey of risk assessors which has focused on target areas for risk assessment, administrative and business level of risk assessors and disciplines involved. Country differences will be discussed as well. After these two an open discussion is expected on the theme of policy level risk assessment practice in Europe. The second part of the workshop will provide three national examples of case studies conducted within project on so-called full chain risk assessment. A general discussion will follow in last part of the workshop.

RAPID Risk assessor survey; main findings

Stella Kraemer

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Background

When policy decisions are made there is an expectation that some form of Risk assessment is performed. But what is the general picture of risk assessors available to do this? What is the general picture across Europe? These are some the questions that will be answered through looking at RAPID survey results.

Methods

The RAPID risk assessor survey tool has been employed to collect data administered on electronic way (e-mail and direct online survey tool). The tool has been translated to national languages of participating countries and data were collected among risk assessors; the approaches to identify them are described in results part. Data were uploaded to a Microsoft Access database and analysed with STATA statistical software.

Results

A total of 449 risk assessors have contributed to the risk assessor survey and it clear that there are considerable differences in which disciplines the risk assessors work across countries, e.g. the percentage of risk assessors who do risk assessments within public health varies between 7.1 and 89.7%. Risk assessment in some countries is mainly done within government level while in others the majority is within research. Half of the participating countries have hazard identification and characterization as their main focus. One county has mainly risk assessment on strategy level but more than half have mainly risk assessment on project level.

178 respondents list Public Health as one the areas where they do risk assessments, these respondents are mainly working with governments, medicine or universities. Within these 178 only 32 claim to also do risk assessments within policy and law.

Conclusions

The database is going to be delivered to EAHC of DG SNACO at the end of the project and likely to become public. Earlier, it will also be used as a source database to invite participants to national training workshops where RAPID products will be presented.

Risk assessor survey; country differences and similarities

Joanna Kobza

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Background

Public health systems and practices do differ across Europe including differences among EU member states. Do these differences influence the way how we collect research data? Are there differences in approaches to risk assessment? These are the questions to answer by looking at methods used to collect data within risk assessor survey of RAPID project and results of the survey.

Methods

The RAPID risk assessor survey tool has been employed to collect data administered on electronic way (e-mail and direct online survey tool). Data were collected among risk assessors; the approaches to identify them are described in results part. Data were uploaded to a Microsoft Access database and analysed with STATA statistical software.

Results

Poland identified the risk assessors through the institutions, key for risk assessment, especially in environmental health area and then by individual, personal contact with them, Romania developed a national health and environmental system structure and used it to distribute the survey tool and Spain used a combined approach of personal contacts and mailing sent around throughout the executive boards of main national scientific societies. The highest percentage of risk assessors who reported to be involved in public health risk assessment at certain extent was identified in Spain (73.75%) followed by Poland (27.78%) and Romania (19.3%). However, the extension of risk assessment methodology into policy was more often applied in Poland and Romania (24.1 and 23.7%) compared with Spain (10%). Those differences could be explained partially by the data collection process used in each country but also by important differences on how risk assessment is being understood across Europe.

Conclusions

The experience gathered via risk assessor survey confirms existing differences in public health systems and approaches across EU member states. This implies a need for careful planning of methodology development and training content and method selection expected in last phase of the RAPID project.

HIA framework to investigate additional cancer risk from Ionizing Radiation in Medical Imaging

Nunzia Linzalone

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Institute of Clinical Physiology, National Council of Research, Rome, Italy

Background

A recent sharp rise in the number of computed tomography (CT) scans makes imaging testing a significant source of radiation exposure of a not negligible proportion of the general population. Cardiovascular testing is responsible for two-thirds of radiation exposure in industrialized countries, diagnostic testing only accounting for ~10% of attributable long-term extra-risk of cancer. Reinforcement of public health policies towards the reduction of inappropriate use of cardiological imaging will reduce cancer risk both at individual and population levels.

Methods

An assessment process will be performed to show the potential role of a 'full chain approach' to contribute to more informed risk evaluation and public policies. The assessment method is based on the description of:

- the wide context of the issues at hand (including risk management and communication);
- how the assessment variables are related in causation process (including other related policies, risk factors, determinants of health and outcomes);
- the operational risk assessment model that explains the observed health outcomes, according to the causal structure underlying.

Starting from 2008 the IFC-CNR health-care unit is coordinating a regional project aiming at primary prevention of cancer through reduction of inappropriate ionizing testing. This setting will provide available local data and expert knowledge to perform the assessment, testing and validation of the proposed hypothesis.

Conclusions

Estimation of years of life lost for attributable cancer can be minimized through a knowledge-based intervention, increasing radiological awareness of prescribers and practitioners and developing informed policies which take into account the complexities and uncertainties involved

Health Impact Assessment of the North Rhine-Westphalian housing subsidy programme 2010 (Wohnraumförderungsprogramm 2010)

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Background

Policies, plans and programmes of all policy areas may influence human health. To assess such influences, selected Health Impact Assessments (HIA) are conducted in the framework of the RAPID project. The project aims to develop, pilot, and implement risk assessment methodology for 'full chain' risk assessment. We report about the HIA case study on the North Rhine-Westphalian (NRW) housing subsidy programme 2010 (WoFP)

Methods

Based on the analysis of the WoFP and the results of a health expert workshop, a causal web of cause-effect relationships between the selected policy, associated health determinants, risk factors and health outcomes was developed. By reviewing the literature, the evidence of the selected health outcomes and risk factors as well as exposure-response functions is identified. Based on this, the causal chains may be assessed in a qualitative and quantitative way

Results

Promotion of barrier-free homes is an important aspect of the WoFP. The developed causal web consists of more than 15 single causal chains, for example: the decrease of barriers in homes (= distal risk factor) reduces the number of falls (= proximal risk factor) of older people and the number of fractures (= health outcome) and cases of death (= health outcome). Another causal chain based on the aims of the WoFP is the establishment or safeguarding of access to shops of daily living. This would allow an independent lifestyle and increase the quality of life. A similar impact may be reached by preservation of social structures which decreases social isolation and, for example, depressions

Conclusions

There is evidence for numerous causal chains; at least a qualitative assessment is possible. For a few causal chains, for example on falls and fractures, quantitative assessments are feasible

Health impact assessment of proposed smoke-free legislation in Hungary

Adam Balazs

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Background

Several international and national programmes aim at the reduction of smoking and its adverse health effects. One of their major goals is the protection of non-smokers from environmental tobacco smoke (ETS) exposure. In addition to increasing taxes, smoking restriction in public places is the most effective measure for the reduction of smoking-related morbidity and mortality. In the last decade, several countries introduced comprehensive anti-smoking policies and eventually in 2009 Hungarian political decision-makers, urged by international obligations and by the sever public health situation of smoking and related health outcomes, realized the need for amending the existing anti-smoking legislation by enacting full restriction of smoking in public places.

Methods

Integrated in the Risk Assessment from Policy to Impact Dimension EU funded project, a comprehensive, prospective health impact assessment has been carried out, aiming to assess the impact of planned legal changes, using international experiences, epidemiological data and known association measures for the qualitative and, where applicable, quantitative assessment of effects.

Results

The proposal decreases ETS exposure that positively affects air quality, built environment and workplace conditions especially for non-smokers who can experience reduction in lung cancer, coronary heart diseases and various respiratory effects. The amendment is expected to alter smoking habits, resulting in decreased cigarette consumption that, even if small, has considerable positive effects on a wide range of diseases, among which lung cancer, chronic obstructive pulmonary diseases, coronary heart diseases and stroke have the greatest public health importance. Based on previous observations, the fallback of trade in catering facilities is not likely or just temporary; consequently the fear of increasing layoff in the hospitality sector is unconfirmed.

Conclusions

The provision of smoke-free public places has an unambiguous positive impact on the health of public as justified by the results, especially in a country of high burden of smoking-related diseases, like Hungary.

7.3. Pregnancy and prenatal care

Social variations in pregnancy outcomes in Northwest Russia over a 30-years period: a registry-based study

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Background

Evidence on social variations in pregnancy outcomes in Russia is scarce. Moreover, it is unknown whether these variations changed during transition from the Soviet time through the economic crisis and gradual recovery of the economy. We studied social variations in preterm birth and birth weight in Monchegorsk, Northwest Russia, over a 30-year period using the data from the first Russian birth registry.

Methods

Data on 24602 live singleton births with birth weight >1000 g were abstracted from the Kola Birth Registry. Multiple linear regression was used to quantify the influences of maternal occupation and marital status on birth weight with adjustment for maternal age, parity, gestational age, smoking, alcohol consumption and paternal occupation. Logistic regression was applied to study associations between the above-mentioned factors and preterm birth. By dividing the whole period of observation on several shorter periods, we studied whether social variations in pregnancy outcomes varied over time.

Results

Overall, infants born to unmarried mothers were on average 101 g [95% confidence interval (CI) 84–118] lighter and were more likely to be born preterm [odds ratio (OR) = 1.73, 95% CI 1.37–2.19] than infants of married women. Women from all other occupations had lighter babies than professionals. Over time, the variations in birth weight between the most and the least privileged group by occupation increased from 42 g (95% CI 57–140) in the 1970s to 168 g (95% CI 102–235) in the 2000s. The difference in birth weight between married and single women decreased from 137 g (95% CI 97–178) to 57 g (95% CI 10–104). No changes in variations in preterm births occurred over time.

Conclusions

Over the 30-year period, variations in birth weight increased by maternal occupation reflecting increasing economic disparities in Russia, but decreased by marital status probably due to better acceptance of out-of-wedlock births. Other potential explanations will be discussed.

Factors that influence the late and/or inadequate use of prenatal health care services of pregnancies in developed countries: a systematic review

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Background

Inadequate use of prenatal health-care services can increase health risks and can lead to perinatal morbidity or even mortality. On the other hand, high use of prenatal health care services leads to cost for patients and for the health-care system. The aim of this study is to summarise and evaluate the evidence on factors that lead to inadequate use of prenatal health-care services in developed countries.

Methods

We performed a systematic review following the guidelines of the NHS Centre for Reviews and Dissemination. The literature search covered the period from 1992 to February 2010 and included the databases Pubmed, Cinahl and Embase. Two levels of screening were used on 843 citations. Finally, a total of 43 fully extracted studies were included and independently read by two couples of reviewers. A quality assessment checklist was used to classify the identified studies into three categories: weak, moderate and strong. A study was classified as strong when there were no major flaws threatening the internal validity and classified as weak in case of selection bias, information bias and confounding.

Results

The review yielded 42 relevant reports; six of them were classified as strong. The most prominent determinants influencing inadequate use (i.e. low or no initiation) of prenatal health-care services are: maternal age and education, marital status, ethnicity, smoking status, insurance status, neighbourhood characteristics, hospital type and previous births. Determinants of a high utilization of care include private insurance, age $\geq$ 20 years, being married, education >9 years and previous births.

Conclusions

Inadequate use of prenatal health-care services seems mostly to concern underutilization. Insight in determinants of deviating patterns of prenatal care use will enable policy makers in planning obstetric care in order to ensure universal access.

Is really Italy the industrialized country with the lower maternal mortality ratio?

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Background

A recent study published in the *Lancet*, showed a global decline of maternal death and placed Italy as the country with the lowest maternal mortality ratio (MMR). MM remains a major challenge to health systems worldwide. In Italy, as in other industrialized countries, this indicator is underestimated (three deaths per 1000 livebirths) because of complex WHO definition of MM that requires both causes and timing.

Aim of this study is to compare MM from official cause of death registry (CDR) and from a record linkage between CDR and hospital discharge database.

Methods

We selected obstetric records form Lazio hospital discharge database2001–05 and linked it with the CDR2001–06 to identify women died within 365 days from an obstetric surgical procedures or the last pregnancy discharge not from incidental and accidental causes. Data were compared with the MM based on CDR2001–05, including deaths with ICD-9 cause raging from 630 to 676.9.

Results

In the period 2001–05, 16 maternal deaths selected from MR occurred in Lazio region (MMR = 6/100 000 livebirths), while 72 maternal deaths were retrieved using the record linkage method (MMR = 29/100 000 livebirths): 32 were early (<43 days) deaths and 40 were late events. The deaths retrieved in record linkage and not in the MR were 56 (MMR = 24/100 000 livebirths). In particular, 93% were indirect maternal deaths and occurred at a median time of 165 days (interquanrtile range: 37–284). The prevalent causes were circulatory system (48%) and neoplasms (29%). There was a higher caesarean section rate respect to MR and an equal prevalence of foreign citizen women. Data from MR revealed a decline during the period, while the record linkage showed less clear trend.

Conclusions

MM is substantially underestimated using MR. The linkage permits to obtain information not only about MM but also to describe pathways that are useful for prevention.

Time trend and factors associated to elective caesarean delivery in a low-risk population in Lazio region, Italy

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Background

Italy has one of the highest caesarean delivery (CD) rate. CD rate passed from 22.3% in 1985 to 42.9% in 2008. The increase is observed mainly for elective CD, and in particular in primary deliveries.

Aim

To evaluate the association between mother and perinatal unit characteristics and the risk of elective CD in a population of women with low risk pregnancy in Lazio region in three different years, 2001, 2004 and 2007.

Methods

From the birth registry of Lazio region, 92 258 live term singleton births were selected, after excluding: breech presentations; maternal chronic and pregnancy-related diseases; congenital anomalies, intrauterine foetal growth retardation and births to women with previous CD. Multivariate logistic regression model was performed to estimate the OR and 95% Confidence Intervals of various factors and the probability of elective CD.

Results

In 2001, 2004 and 2007 the elective CD rates were 8.8, 12.2 and 13.4% respectively. Maternal factors significantly associated with the risk of elective CD were: Maternal age [odds ratio (OR) >35 versus 30–34 = 1.61], education—women with primary school degree (OR = 0.95) and with university diploma (OR = 0.89) were at lower risk of elective CD compared with secondary school degree women; migrant status (ORmigrant/Italians = 0.69) and parity -primiparous women at higher risk compared with multiparous ones. Perinatal unit characteristics associated to higher risk of elective CD were: obstetric volume <1500/births/year (OR = 1.37), level I of care (OR = 1.22) and completely private units (OR = 7.62). A timetrend has been also observed indicating an increase of the risk of elective CD in time.

Conclusions

In a population of low risk pregnancy for CD socio-economic factors and perinatal unit characteristics are strongly associated to elective CD risk. The time trend analysis reveals an increase in more recent year of CD probability for women >35 years, primaparous delivering in perinatal unit of level I and in private facility.

Factors associated to caesarean section delivery in Italy: results from a cross-sectional study, 2004–05

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Background

The Caesarean section (CS) deliveries are increasing in many developed countries, whereas, avoiding CS with no medical indications could be an effective measure to contain health-care expenditure. In Italy, the rate of CS births increased from 27.9% in 1996 up to 39.9% in 2006, the highest at EU level.

Methods

We analysed cross-sectional data from the Health Survey Interview, carried out in Italy between December 2004 and September 2005. Information on the type of delivery (i.e. vaginal, elective, non-programmed CS), socio-demographic characteristics, prenatal care and health risks in pregnancy were retrieved in a sample of 2474 community-dwelling primiparous women. Using multinomial logistic regression models we assessed the determinants of both elective and non-programmed CS.

Results

In the sample, the crude rates of elective and non-programmed CS are 16.4 and 19.1% respectively. Determinants of elective CS are delivering in a private hospital [odds ratio (OR) = 2.38; confidence interval (CI) 1.30–4.36] and undergoing prenatal diagnostic in a private facility (OR = 1.38; CI 1.05–1.81). Unplanned hospitalization in pregnancy (OR = 1.41; CI 1.10–1.80) increase the likelihood of non-programmed CS. Suffering from hypertension results associated to a higher rate of both elective (OR= 2.23; CI 1.31–3.81) and non-programmed CS (OR = 2.13; CI 1.35–3.36). Also living in the Southern regions is associated with higher elective (OR = 2.41; CI 1.69–3.45) and non-programmed CS rates (OR = 1.53; CI 1.11– 2.12).

Conclusions

Our analysis shows that, even after adjusting for several confounders, women living in the South, undergoing prenatal care in private facilities and delivering in private hospital have higher chances of CS. If these findings will be confirmed by further analysis, policy intervention like financial incentives to hospitals that maintain lower the rate of CS with no health risks should be considered in order to reduce the rate of unnecessary CS.

Inter-hospital comparison for caesarean section in nulliparous, term, singleton, vertex caesarean deliveries

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Background

In order to improve comparisons among hospital performances to promote a reduction of unnecessary caesarean sections (CS), we analysed data on CS from Birth Units in Emilia-Romagna (Italy) using Robson's Ten Group Classification System. We focused in particular on the first two groups which include nulliparous, term, singleton, vertex (NTSV) caesarean deliveries, with a low '*a priori*' risk of performing a CS. The aim of our study was to determine whether the adjustment for clinical and socio-demographic variables of the mother and the foetus is necessary for inter-hospital comparisons of CS rates in NTSV group. It's important to consider NTSV CS rates rather than overall CS rates, as reducing CS in this group may be effective in reducing overall CS rates.

Methods

All women who delivered in Emilia-Romagna from 1 January 2007 to 31 June 2009 were identified by linking Hospital Discharge Abstracts and Birth Certificate databases. Socio-demographic variables and maternal and neonatal clinical factors were selected with a stepwise procedure in a logistic regression model and included into the risk adjustment model. We estimated adjusted relative risks of CS in NTSV group by hospital in order to perform a risk adjusted comparison among the 29 Birth Units.

Results

The NTSV group included 46 650 records and had a CS rate of 24.10%. Rates among the Birth Units varied substantially from 12.76 to 43.04%. Only one Birth Unit changed its rank of more than four positions after adjusting for clinical and socio-demographic variables.

Conclusions

Our data show that risk adjustment seems to be unnecessary to compare hospital CS rates in NTSV group, confirming that this group has an intrinsic adjustment. The variability in NTSV CS rates among structures could be related to non-clinical determinants.

7.4 Health insurance and costs

The potential transferability of evidence from inter-state cost studies comparisons

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Background

In a context of health-care financing crisis and recent insurance reform (e.g. the US federal legislation) the use of prior evidence on effects of various types of benefit designs could inform decision makers for health care reforms. This article aims to address some issues on the potential transferability of evidence from inter-state cost studies comparisons especially between Member States with clinically driven or value-based designs and non clinically driven formularies to other financing systems. It enlarges the scope of the methodological work on transferability of evidence in health economic evaluation, global trial research and decision analytical modelling.

Methods

Two health-care financing characteristics are selected in order to discuss statistical and methodological issues: the nature of exemption and the legal classification of medicines. Results are drawn from the centralized dataset on inter state cost of medicine studies in the UK, Finland, Italy, France, Germany and Austria (http://www.endeplux.org).

Results

The nature of exemption leads to major imbalance of sampling in cost studies. Results on European hypertensive patients show important discrepancy in economic information received by physicians and drug therapies to different age groups especially for elderly's. The lack of exposure to some therapies due to exemption criteria also affects transferability of evidence between locations of trial sites. Variations in legal classifications, distributions of purchasing practices and national markets also lead to incoherencies between statistical information and national markets for the different categories of medicines.

Conclusions

Such findings challenge the design of context free clinical research on multi sites and transferability of evidence of inter-state cost studies. There is a need to control health financing systems characteristics in order to integrate contextualization of judgements in medical treatment choices in different countries. The new developments of statistical methods especially in Bayesian analysis help to improve transferability to other financing systems.

Health systems organizational and funding models can affect avoidable mortality?

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Introduction

Avoidable mortality (AVM) shows weak association with health care expenditure and resources likely due to the use of indicators that not evaluate the way in which resources are organized or to the possibility that AVM of a period reflects resources allocated previously.

Aim

To study the association between AVM and health system models adjusting for socio-economic/life-style indicators and hospital discharges (diseases incidence proxy).

Methods

Indirect standardized mortality rates for causes amenable to secondary prevention and/or treatment (SMRA) and for causes amenable to primary prevention (SMRP) were calculated for the 20 Italian regions (2001–03, Italian Bureau of Statistics—IBS). Using public sector health expenditure and public sector delivery of care data (1995–2000, IBS) we identified regions with health care public funding and delivery (i) higher than Italian mean, (ii) lower than Italian mean, (iii) mixed systems. Using number of hospital beds managed by local health units (1995–2000, Ministry of Health) we categorized regions in: (i) integrated, (ii) quasi-market, (iii) mixed model. We studied the association of SMRA and SMRP with health system models, adjusting for socio-economic/life-style indicators (1995–2000, IBS) and hospital discharges (2001–03, National Agency for Regional Health Systems) through the iteratively weighted least squares robust multiple regression.

Results

SMRA resulted associated to health systems: in particular, regions with public delivery of care less than Italian mean showed worse performance while regions with 'integrated' model showed better performances than others. SMRP was not associated to any of the health systems variables studied.

Conclusions

SMRA was influenced by models of funding and organizing health services while SMRP did not, likely because other factors, such as life-style, have more effect on it. In Italy, which has a Beveridge model Health System, it seems important the introduction of managerial aspects but it should be placed also emphasis on co-operation and benchmarking.

Pay for performance program: pitfalls ahead?

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Background

Pay-for-performance (P4P) rewards health-care providers by paying them more if they succeed in meeting performance targets. In France, a new P4P programme (named 'CAPI') toward general practitioners (GPs) was introduced in April 2009. While health policy makers see it as an incentive for better quality and efficiency, GPs question the relevance of the indicators used and the lack of consideration of the GPs' patient list. The objective is to examine, after controlling for patients' characteristics, if there is still a between-GP variability of the indicators used, and analyse which GPs' characteristics could explain it. We took the example of the glycated haemoglobin dosage (HbA1C) frequency (one dosage every 3 months recommended in France), one of the less controversial indicators.

Methods

We investigated a French public health care system database in Brittany to settle a cohort of diabetic patients followed for 1 year (2008). In all, 2534 GPs were included following 35986 diabetic patients. A hierarchical logistic model was used.

Results

A total of 36% patients had three or four HbA1C dosages during the year (target achieved). Being older [odds ratio (OR) = 1.13, 95% confidence interval (CI) 1.09–1.17], not being under universal health insurance (deprived socio-economic status proxy) (OR = 0.8, 0.67–0.95), with more morbidities (OR = 1.43, 1.21–1.68) and without psychiatric disorders (OR = 0.84, 0.75–0.94) were significantly associated with achieving the target. A huge between-GPs variability remained after adjusting for patients characteristics. At the doctor level, other things equal, being a young GP (OR = 0.76, 0.71–0.80), being a female (OR = 1.23, 1.1–1.4), working in a group (OR = 1.09, 1–1.18), being involved in a quality improvement team (OR = 1.23, 1.10–1.37) and following more diabetic patients (OR = 1.1, 1.04–1.16) favourably influenced the indicator level.

Conclusions

An important between-GPs variability remained after adjusting for patients' characteristics and can be explained at the doctor level. These results might be considered in the near future in order to improve the P4P programme efficiency.

Few switchers in the new Dutch health insurance system, chronically ill and disabled perceive more barriers than others

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Background

In 2006, a number of changes in the Dutch health insurance system came into effect. In the new system mobility of insured is important. The idea is that insured switch because they are dissatisfied with quality and premium. As a result insurers will strive for a better quality-price balance. Internationally, the Dutch changes are under the attention of both policy makers and researchers. In our study we examined switching behaviour and reasons for (non-)switching in 2007, 2008 and 2009 and compared the general population with the chronically ill and disabled.

Methods

Switching behaviour and reasons for (non-)switching were measured in 3 years using the Dutch Health Care Consumer Panel and the National Panel of the Chronically ill and Disabled. Data were available for each year and for each panel for at least 1896 respondents (response between 71 and 88%).

Results

The number of switchers is low (6% in 2007, 4% in 2008 and 3% in 2009). Older people, women and lower educated people switch less often. For switching, premium is more important than quality of care. There is no difference in number of switchers between the general population and chronically ill and disabled. People with a low perceived health, and chronically ill and disabled do perceive more barriers for switching than others.

Conclusions

The percentages of switchers are lower than in 2006 and are comparable to the old system. Switching is not based on quality and thus it can be questioned whether it lead to quality improvement. Although the chronically ill and disabled and people with a low perceived health did not differ in frequency of switching from others, they perceived more barriers for switching. This possibly points at inequalities in the new system.

High and intensive utilizers in health care—a strategic challenge for medical supply in the compulsory health insurance

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Issue

In Germany, the implementation of 'Gesundheitsfonds' and 'Morbi-RSA' aggravate the cost issue of patients in the compulsory health insurance (insurance) who claim higher than average health services, so called high-utilizers. So far, in Germany, there were no care management concepts for high-utilizers as the mostly multimorbid, complex medical conditions were judged as individual cases which cannot be influenced. We developed a method to reveal tender spots in the treatment and care of this special insurance population to support the efficiency enhancement.

Methods

The most critical challenge for insurance companies lies in the identification of relevant insured, in order to specifically target the comparatively high effort of control and management. In this project we analysed the secondary data of the members of a German insurance company in the course of 4 years. Based on these data we first differentiated the high-utilizer from the 'average utilizer'. In the following we deflected by which means existing care management concepts could be complemented.

Results

In our approach, high-utilizers were defined as the 5% most expensive members of the insurance, who generated 50% of total spending. We distinguished high-utilizers who caused the main costs in one specific care sector (pharmaceuticals and hospital) and patients who caused costs in multiple sectors (transsectoral). In addition, ultra high-utilizers were considered separately due to their extreme cost provocation. While it is possible to manage the first two groups by a combination or extension of existing cost reduction measures and care approaches such as disease management programmes, ultra high-utilizers should be addressed by an individual and specifically developed case management.

Conclusions

This segment of insured demands a stringent, integrated approach in order to efficiently employ the available financial resources. This abstract aims to explain a practical system for the controlling and management of expenses caused by high-utilizers based on our conclusion that the early identification and the specific management of high-utilizers in health-care holds high financial potential and targeted programmes are promising for care optimization.

Preferred providers: insurants' opinions on channelling by health insurers

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Background

In the past decades, health-care reforms have been implemented in several countries. A general aspect of most of these reforms is the shift from a supply-oriented system to a demand-oriented system. In several countries these reforms were based on introducing managed competition. In these systems of managed competition, insurers can selectively contract with health care providers or point out preferred providers. In order to make the system work, insurers should somehow channel their insured to these providers. In this study, we focused on insurants' opinions on channelling by health insurers.

Methods

Questionnaires were sent to 1559 members of the Dutch Health Care Consumer Panel and to 3418 members of the Insurants Panel in 2009. The questionnaire was returned by 1056 members of the Consumer Panel (response 68%) and by 2223 members of the Insurants Panel (response 65%). Among other things, opinions were asked on situations where insurers ask insurants to go to another health care provider. A discrete choice experiment was used to find out whether positive financial incentives could be effective in channelling insurants to preferred providers.

Results

Results show that it depends on the type of care whether insurants are positive or negative about channelling by their insurer. Furthermore, financial incentives seem to be effective in stimulating insurants to go to preferred providers, only if the general practitioner (GP) does not have a preference for another provider and the distance to a preferred provider is not longer than the distance to the usual provider.

Conclusions

This study shows that when there is a personal relationship with the health care provider, namely with a GP or dentist, people are less positive about channelling by health insurers. For drugs they are more positive. Furthermore, the GP plays an important role in choices patients make. Therefore, it is difficult for insurers to channel their insurants to preferred providers. Positive financial incentives can be effective, but the GP is still most important.

7.5. Early life health and determinants of health

Epstein-Barr virus reactivation and risk of pregnancy-associated breast cancer: joint effect with vitamin D

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Background

Although the ubiquitous virus, Epstein-Barr virus (EBV), has long been associated with lymphoepithelioma-like carcinomas such as gastric cancer, no study has evaluated its role, together with levels of the immunomodulator, vitamin D, in different breast cancer entities. We studied prospectively the association between EBV infection and risk of pregnancy-associated breast cancer (PABC), the breast cancer subtype with a notable frequency of lymphoepithelial vascular invasion.

Methods

Prediagnostic serum antibodies against EBV were measured by ELISA for 112 PABC cases, each matched to two controls for age, time of serum sampling, and parity. The joint effect of vitamin D and EBV on the risk of PABC was evaluated by stratifying for vitamin D status.

Results

EBV seropositivity was not associated with the risk of PABC [EBV nuclei antigen, odds ratio (OR) = 0.7, 95% confidence interval (CI) 0.2–2.2]. Among individuals with sufficient ($\geq$75 nmol/l) levels of vitamin D, we found increased risk estimates for PABC associated with serum IgG antibodies to EBV early antigens (OR= 7.5, 95% CI 1.3–42.3) and the viral reactivator protein, ZEBRA (OR= 9.2, 95% CI 1.1–76.7).

Conclusions

Whereas past EBV infection was not associated with the risk of PABC, EBV reactivation among individuals with sufficient vitamin D levels was consistently associated with increased risk of the disease. Reduced reactivation of this environmental agent may be in moderating controlling breast cancer occurring during pregnancy.

Maternal blood haemoglobin levels in pregnancy and pregnancy outcomes in a Russian arctic town: a registry-based study

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Background

Some studies have suggested that anaemia in pregnant women is associated with adverse pregnancy outcomes, but the results vary between settings. Our previous findings from the arctic Russian town of Monchegorsk suggest that anaemic women have fewer stillbirths and preterm births as well as their infants are heavier than infants born to non-anaemic women. This study aims at finding the levels of haemoglobin associated with the most favourable pregnancy outcomes.

Methods

A registry-based study. Data on 24 526 singleton births in Monchegorsk in 1973–2001 with available data on maternal haemoglobin during pregnancy were obtained from the Kola Birth Registry. Haemoglobin levels were grouped as <90, 90–99, 100–109, 110–119 and >120 g/l. Multiple logistic regression was used to estimate independent effects of haemoglobin levels on stillbirths and preterm births with adjustment for potential confounders. Associations between haemoglobin and birth weight were analysed with multiple linear regression.

Results

The overall prevalence of stillbirth and live preterm birth were 2.1 and 4.6%. Maternal haemoglobin levels of <90, 90–99, 100–109 and 110–119 g l^{-1} were associated with lower odds of preterm birth [odds ratio (OR) = 0.53, 95% confidence interval (CI) 0.33–0.87; OR = 0.53, 95% CI: 0.39–0.72; OR = 0.47, 95% CI: 0.38–0.58 and OR = 0.76, 95% CI: 0.65–0.89, respectively] compared with the level of 120 g/l or more. Corresponding differences in birth weight between the groups were 49 g (95% CI: 7–91), 73 g (95% CI: 49–97), 68 g (95% CI: 52–84) and 34 g (95% CI: 21–47). Haemoglobin levels of 90–99 g/l were associated with lower odds of stillbirth compared with 120 g/l or more (OR = 0.64, 95% CI: 0.42–0.99).

Conclusions

The level of haemoglobin associated with the most favourable pregnancy outcomes in a Russian arctic town is likely to be between 90 and 109 g, i.e. lower than the WHO's cut-off for anaemia (110 g/l).

Screening expectant fathers for HIV and Chlamydia: an underemphasized public health issue

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Background

Screening and testing for sexual transmitted infections (STIs), such as Chlamydia and HIV, reach women to a much higher degree than men through antenatal clinics, making screening during pregnancy both a 'woman problem' and a prioritizing of women's sexual health. In doing so, men's reproductive health problems are ignored. This situation has severe public health consequences not only for men, but also for women and the unborn child. As the sexual partner of the pregnant woman, his behaviour will affect the health of this 'triad', father–mother–child.

Purpose

To explore how to prevent transmission of HIV and Chlamydia by investigate whether screening of men during pregnancy may be an innovative way to reach men, to increase detection.

Methods

Twenty to-be fathers, between the ages 18–32 years participated. They were recruited from an antenatal clinic in Sweden, and they were offered Chlamydia and HIV testing during the pregnancy. Both those who agreed to be become tested and those who refrained from testing were interviewed about their experiences. The design was a health intervention where the interviewees evaluated the causes and effects that are involved in testing.

Preliminary results

The preliminary analysis shows that the becoming fathers were mostly positive towards testing men during pregnancy. Few of these men were aware of how these infections can affect the child during pregnancy. Some men perceived testing to be an integrity offence.

Discussion

To implement how to involve both sexes in sexual/reproductive health is central in public health. Knowledge from this research can improve women's, men's health, and the unborn child's health. Also, there has been less attention from health care providers to emphasize the reproductive biology of men.

Conclusions

This knowledge can contribute to decreased STIs, influencing the attitudes among health care providers positively and inspire to changed policies in care.

The contribution of Toronto hospitals' breastfeeding policies and practices to exclusive breastfeeding in the early postpartum period

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Background

Despite global public health recommendations regarding exclusive breastfeeding to 6 months, Canadian rates remain low. This study explored factors associated with breastfeeding outcomes. Hospital policies and practices required to achieve the WHO/UNICEF Baby-Friendly Hospital designation (i.e. those related to the 10 Steps to Successful Breastfeeding and the WHO Code) were of particular interest, given evidence of their positive association with breastfeeding outcomes. This presentation will highlight policies and practices with low levels of implementation which were associated with exclusive breastfeeding at hospital discharge and/or 2 weeks postpartum.

Methods

The study consisted of a survey of Toronto birthing hospitals (2007–08) and a survey of 1518 mothers at 2 weeks postpartum (2007–08), 910 of whom were surveyed at 6 months postpartum (2008–09). Hierarchical logistic regression was used to identify independent factors associated with breastfeeding outcomes.

Results

Exclusive breastfeeding rates were 60% at hospital discharge and 51.7% at 2 weeks postpartum. In addition to socio-demographic, socio-cultural, and birth-related factors, the following hospital policies and practices were independently and positively associated with exclusive breastfeeding: having a written breastfeeding policy covering the 10 Steps; breastfeeding within one hour of birth; hospital staff not feeding babies fluids other than breastmilk; and not receiving formula at hospital discharge.

Conclusions

Pursuing the Baby-Friendly Hospital designation, paying particular attention to salient policies and practices identified in the study, has the potential to improve exclusive breastfeeding rates.

Early-life contextual influences on adult health in the Aberdeen children of the 1950s study

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Background

The context of our daily lives is related to health with poorer health in more deprived areas. Circumstances in childhood also affect adult health and behaviours. Few studies have examined the simultaneous effects of individual and neighbourhood early life on adult health.

Methods

A total of 6640 respondents (81% of eligible sample) to a follow-up questionnaire (3144 males, 3496 females; mean age at follow-up 47 years) born in 1950–56 and resident in Aberdeen in 1962. Neighbourhood was defined as enumeration district in 1961 Census. Cross-classified multilevel modelling was used to account for the effect of neighbourhood and primary school on adult self-reported health. Model A (composition) examined individual childhood risk factors: age, sex, housing tenure and overcrowding. Model B (context) examined neighbourhood variables: percentage of home owners and percentage of homes with own amenities. Model C (combined) examined both individual and neighbourhood effects on adult self-rated health.

Results

Both childhood individual and neighbourhood lack of home ownership were associated with poor adult self-reported health: Model A, odds ratio (OR) for individuals whose parents did not own home 1.54 [95% confdence interval (CI) 1.27–1.87]; Model B, OR in adults who lived in neighbourhoods with low home ownership 1.09 (1.06–1.12). When individual and neighbourhood characteristics were combined (model C), the effect of individual home ownership became non-significant OR = 1.25 (0.97–1.60) but the effect of neighbourhood, although attenuated, remained significant: 1.05 (1.01–1.11). Low social status of primary school was related to poor adult self-reported health: 1.08 (1.03–1.14). Paternal social class was associated with adult self-rated health ($P < 0.0001$) and attenuated the effect of the individual factors but the effect of neighbourhood amenities ($P = 0.03$) remained significant.

Conclusions

Individual and neighbourhood factors from childhood affected adult health, but some individual factors became insignificant when neighbourhood factors were taken into account. Both context and composition in early-life seem important for adult health.

Life-course origins of the metabolic syndrome in women and men in a Swedish prospective cohort study 1981–2008

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Background

Studies indicate that the metabolic syndrome (MetS) has etiological roots early in life, but the details of these influences are not known. The aim was to assess whether body mass index (BMI), blood pressure and socio-economic status in adolescence and early adulthood are independently related to the metabolic syndrome (MetS) in adult women and men.

Methods

In total 403 women and 429 men participated in this 27-year Swedish prospective cohort study (78% of the original cohort). At age 16 and 21 years, blood pressure was measured, and height and weight were measured (age 16) or self-reported (age 21) to calculate BMI. At age 43, MetS was operationalized according to the International Diabetes Federation guidelines. Socio-economic status (SES) was operationalized by own (age 21 and 43) or parental (age 16) occupation. Self-reported health behaviours at age 43 included smoking, snuff use, alcohol consumption and physical inactivity.

Results

Preliminary results showed that in women but not in men, low SES at Age 16 was independently related to MetS in fully adjusted models. In both women and men, BMI at age 16 was related to MetS, but was attenuated by the addition of predictors at age 21, while BMI (in women and men) and systolic blood pressure (only women) at age 21 were independently related to MetS in the final models.

Conclusions

Body mass in adolescence seems to be related to MetS in adulthood as mediated by body mass in young adulthood in women and men. Moreover, in women, early socio-economic disadvantage appear to be independently related to MetS through unrelated pathways. Findings imply that focusing on reducing obesity might not be sufficient for preventing metabolic syndrome in women.

7.6. Regional public health

Factors of variation of the Sense of Coherence (SOC) in the Romanian population

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Background

Salutogenesis is a valuable approach for health promotion and would be worth to implement in practice. The salutogenetic concept of the sense of coherence defined by Antonovsky is a health promoting resource with practical value, mainly because it strengthens resilience and develops a positive subjective state of health. This study measured in 2009 the SOC in a sample of Romanians and tried to find correlations with individual characteristics.

Methods

The tools used were the shortened SOC questionnaire (13 item), translated in Romanian, showing an acceptable internal consistency (Cronbach‘s alpha = 0.073) and a questionnaire referring to personal characteristics of the respondents.

Results

The average value of SOC is 54.84 ± 7.3 (95% confidence interval 54.31–55.37). The SOC score has a non-linear variation with age, being maximal at 18–24 and 65–74, and minimal at 25–34 and >75. It has more heterogenic values as respondents are in higher groups of age. There are no statistically significant correlations with gender, (but men have a higher score than women); education; place of residence (though with significantly higher scores in big cities than in villages); marital status (with higher scores for married than for divorced/widowed); body mass index. Some parameters related to the nutritional behaviour—difficulties in maintaining a constant weight, importance given to the relation nutrition/health- show significant connections with the SOC score. As Antonovsky observed, SOC is positively and statistically significant correlated with the perceived health and the economic status of the individuals ($P = 0.00$).

Conclusions

The results have to be interpreted in the frame of the particularities of the Romanian society, which comes after many years of communist totalitarian regime, followed by 20 years of rather confuse transition, where social support is generally, low, economical disparities are high and availability of health services, though granted, is uneven from the point of view of the access to high quality investigations and treatments. Putting in place measures to strengthen SOC especially in groups with lower values can by a useful and cost-effective health promotion tool in a country with worsening social and economical problems.

It's no surprise! Women and men in the Northern Swedish Cohort are equally hit by the health consequences of unemployment

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Background

Research often fails to ascertain whether men and women are equally hit by the health consequences of unemployment. The aim of this study was to analyse whether men's health status was hit more by unemployment than women's in a 26-year follow-up of the Northern Swedish Cohort.

Methods

A 26-year follow-up study of a cohort of all school leavers in a middle-sized industrial town in northern Sweden was performed between 1981 and 2007. Of those still alive of the original cohort, 94% participated during the whole period. Register data was used to assess the length of unemployment, while questionnaire data was used for the other variables.

Results

In multivariate logistic regression analyses with mental health/ health behaviour as outcome, significant relations between unemployment and mental health/smoking were found among both women and men, even after control for unemployment at the time of the investigation and indicators of health-related selection. Significant relations between unemployment and alcohol consumption were found only among women, while few visits to dentist was only significant among men. Overall, the ORs were higher among women compared with men in analyses of mental health. No significant interactions were found between unemployment and gender.

Conclusions

Women and men seem to be equally hit by the health consequences of unemployment in a Swedish context, with a high participation rate of women in the labour market. The public health relevance is that the study indicates the need of taking gendered contexts into account in public health research.

To what extent do socio-economic circumstances explain differences in health outcomes in key post-industrial regions of Europe?

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Background

Post-industrial regions of Europe are particularly important in health terms: historically they have been the regions with the poorest health, and analyses have shown considerable differences in their rates of improvement in recent decades. Previous analyses showed the former industrial heartland of Scotland, West Central Scotland (WCS), to have higher, and much slower improving, mortality than virtually all comparable post-industrial regions in Europe.

The link between socio-economic circumstances and health is well established. To what extent, therefore, can the poor health of WCS be explained in these terms compared with other, similar European regions?

Methods

Socio-economic (e.g. unemployment, education) and mortality data were analysed within eleven post-industrial regions across 10 European countries. In addition three 'case studies' were developed for which much more detailed small-area-based analyses were able to be undertaken: Glasgow (the main city of WCS), Liverpool and Manchester (post-industrial cities of NW England). 'Income deprivation' (2005) and mortality (2003–07) data were accessed for each small area (average population: 1600) in the cities, with SMRs calculated for Glasgow relative to Liverpool and Manchester, standardizing for age, sex and deprivation decile.

Results

Despite having high, and the most slowly improving, mortality, WCS compares better in socio-economic terms than the majority of the other regions: e.g. lower unemployment, higher economic activity, higher levels of tertiary education (with no evidence of any change in this position in recent decades relative to comparable western European areas). In the case studies, the 'deprivation' profiles of the three cities were virtually identical: despite this, premature deaths in Glasgow were >30% higher, with all deaths ∼15% higher. This 'excess' mortality was seen across virtually the whole population: most age groups, both males and females, in deprived and non-deprived neighbourhoods.

Conclusions

While the link between socio-economic circumstances and health is well documented, in the case of WCS (and especially Glasgow) it does not appear to explain higher levels of mortality. Additional explanations are required.

Social protection and public health: population evidence from the EU, 1980–2003

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Background

There is little evidence at the population-level that social welfare spending has an effect on health. Our study aimed to test the effects of spending on social welfare and health care on population health in Europe.

Methods

Multivariate regression analysis was performed to investigate the relationship between age-standardized mortality rates and social spending in 13 EU countries from 1980 and 2003. Mortality data were collected from the European Health for All Database 2009 edition. Social spending per capita in purchasing-power-parity were taken from the OECD Social Expenditure Database (including family support, old-age pensions, health care, unemployment benefits, active labour market programmes, and support for people with disabilities). Statistical models included controls for country- and period-fixed effects.

Results

Each additional 100 USD increase in social spending per capita is significantly associated with a 0.75% reduction in all-cause, age-standardized mortality rates ($P < 0.001$). Both general government spending and health care spending per capita had no effect on all-cause mortality rates. Consistent with previous findings, we observed each 1% increase in gross domestic product (GDP) (about 170 USD) was associated with a 0.27% fall in all-cause mortality rates ($P < 0.001$), about one-fourth of the magnitude of the association of social welfare with mortality. After adjusting for social welfare spending, the association of GDP with all-cause mortality was reduced by about two-thirds ($\beta = -0.10\%$, $P = 0.004$). Health-care spending was significantly associated with cancer mortality ($P = 0.008$), but social welfare spending (excluding health care) was not ($P = 0.078$). Conversely, health-care spending had no association with alcohol-related mortality rates ($P = 0.06$), but social welfare spending was significantly associated with reductions ($P < 0.001$); findings which are biologically plausible.

Conclusions

Social welfare expenditures related appear to be as crucial to population health and in some cases even more significant to health, than direct health-care spending. These findings suggest that decisions by European politicians over the following months about how to address budget deficits could literally be a matter of life or death.

Regions as a setting for learning lessons to tackle the social determinants of health

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Issue

Acceptance of the principle that 'Health is in all policies' predicates the idea, that the improvement and protection of health is the responsibility of all layers of governments across Europe. The functions of Sub-national or regional administrations are often overlooked in official policies and reports from international organizations and yet, paradoxically, significant areas of responsibility for social policy resides at this level. This is especially true for factors that influence the social determinants of health such as education, transport and planning. Mitigating the social determinants of health has emerged as a key issue through the WHO Commission on Social Determinants of Health (CSDH) and the work of Professor Sir Michael Marmot.

Approach

In 2009 members of the WHO Regions for Health Network (RHN), in collaboration with the WHO Venice Office, agreed to develop a programme of work (2010–14, to examine and learn from different regional approaches to the Social Determinants of Health. Evidence was collected from partner regions to assess different and common approaches to tackle the social determinants of health at sub-national regional levels.

Results

A programme of work was developed that will enable the development of tool and methodologies to tackle social determinants of health at regional levels across Europe.

Lessons

That tackling the social determinants of health is a universal issue without a universal approach. Through the sharing knowledge across Europe, health may be sustainably improved and protected.

Towards quality criteria for regional public health reports: concept mapping with Dutch experts

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Background

The Dutch Public Health Act obliges municipalities to draw up public health reports (PHR), once every 4 years. We addressed the issue of effective public health reporting at the regional and local level, having impact on health policy. National and international literature on this issue turned out to be mainly practice-based. In order to provide a more theoretical framework as a base for quality criteria for a good regional PHR, we conducted a study using the method of concept mapping, focusing on the question: what are the main quality criteria of a good regional PHR, according to Dutch experts?

Methods

For this study, 35 relevant national and local public health experts were included, based on expected heterogeneity of opinions. In December 2009, in two different brainstorm sessions, they formulated short statements, describing specific quality criterions of regional PHRs. After removal of duplicates, the list was completed with criteria from the international literature and sent to each participant for individual rating and sorting of the statements. The results were processed statistically and represented graphically in a concept map. The output was discussed and interpreted, leading to the final concept map.

Results

The final concept map consisted of 97 criteria, grouped into thirteen clusters, such as 'marketing', 'scientific accountability', and 'policy impact'. Associations between clusters were graphically represented as distances between them; their average ratings were expressed as their heights. Two axes in the concept map were identified: 'implementation-content', and 'science-policy', as well as two regions: 'process' and 'significance'.

Conclusions

We were able to construct a final concept map as the shared theoretical model for Dutch regional PHRs. This concept map can be used for the planning and evaluation of regional PHRs in The Netherlands.

7.7. Workshop: Regulating, releasing or relaxing the labour market for health? Comparing and learning from policy systems in Europe

Chair: Ronald Batenburg
The Netherlands
Organizer: NIVEL—Netherlands Institute for Health Services Research

Human resources for health are critical for the performance of health care systems (OECD, 2008). Shortages of health professionals, unemployed or under-employed health personnel, and inadequate training come with huge costs. These problems are to be expected, as in most countries the demand for health care will vastly outnumber the health care supply. Can health manpower planning cope with these current and expected tensions on the labour market? Or should the labour market for health not be planned at all, and be released or relaxed instead? What type of manpower planning works best for what type of countries? How is this related to the variation in health systems, labour market situations and policy systems in countries or regions?

There are a number of approaches available for health manpower planning: models of care or service target based; needs based; utilization or demand based; effective need based; health workforce to population ratio; effective infrastructure; and adjusted service target approach. Yet little is known about which methods are chosen by EU countries. Identifying, describing and comparing such methods can inform which manpower planning approaches are being used by different health care systems to tackle the same problem: how to provide the best care at the lowest cost; it can also help to more effectively address the issue of global migration of highly qualified health workers.

The layout of this workshop is to bring scholars and policy makers together from different countries, to exchange and learn about different approaches to health manpower planning. As many countries are struggling with the same type of labour market problems, this seems the right moment to organize this workshop. The need for mutual exchange is high, as currently we known relatively little about country-specific health labour market policies.

Health workforce governance and labour market trends in Germany

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Workforce governance in Germany is strongly shaped by a corporatist regulatory system of partnership governance between sickness funds and the medical profession that has oversight of data collection, labour market access and workforce planning exercises. This article explores how a decentralized and physician-centred model of workforce governance impacts in the health labour market. Drawing on regional monitoring systems and public statistics the hospital sector and trends in medicine and nursing serve our analysis as cases studies. The findings suggest different things. First, private and public hospital organizations respond to new health policies in different ways. However, both investigate primarily in doctors, while qualified nurses as the largest occupational group face significant cuts or slower expansion; third sector organizations rationalize all staff, thus creating new risks for the quality of care. Second, horizontal and vertical gender inequality persists; leadership positions are furthermore occupied by men and some specialties even show backward trends. Third, shortage of doctors is increasingly solved by international medical graduates, including transnational European professionals, but no systematic recruitment policy and monitoring system exist. We conclude by highlighting how experiences with monitoring regional health labour markets in the state of Hesse in Germany can be used as a stepping stone towards managing health human resource more efficiently.

Challenges in physician supply planning: the case study of Belgium

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This article has two objectives: to identify the key challenges in HRH planning in Belgium and to formulate recommendations for an effective HRH planning, on the basis of the Belgian case study and lessons drawn from an international benchmarking.

In Belgium, a numerus clausus was set up in 1997 and made effective in 2004. Numbers of licensed physicians were determined through a supply-based model, which did not account for key aspects of health-care supply and demand. This new regulation did not improve recurrent challenges such as specialty imbalances, with uncovered needs particularly among general practitioners, and geographical maldistribution. New difficulties also emerged, in particular limiting national training of HRH turned out to be ineffective within the open European workforce market. The lack of integration of policies affecting HRH was noteworthy. We describe what strategies were developed to address those challenges in Belgium and in neighbouring countries.

Planning the medical workforce involves determining the numbers, mix, and distribution of health providers that will be required at some identified future point in time. To succeed in this, focusing on numbers is too restrictive and adopting innovative policies learned from benchmarking without integration and coordination is unfruitful. Evolving towards a strategic planning is essential to control the effects of the complex factors impacting on human resources. This evolution requires an effective monitoring of all key factors affecting supply and demand, a dynamic approach, and a system-level perspective, considering all health-care professionals and integrating manpower planning with workforce development.

Models for health manpower planning

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Manpower is critical for health care systems but one of the least strategically planned resources. Several models for health manpower planning (HMP) have been described in the literature. Developing a classification framework of such models can trigger comparison and selection of the most appropriate model for each case, i.e. country, region, group etc.

We performed a review of scientific and grey literature containing descriptions of models for HMP world wide but restricted to the year 1970 and later. We then extracted data from the reviewed literature to build a classification framework of models for HMP.

Our preliminary classification framework covers nine overlapping models labelled as: models of care or service target based; needs based; utilization or demand based; effective needs based; effective utilization or demand based; health workforce density; international benchmarking; effective infrastructure; and adjusted service target. For every model three steps are distinguished: selecting which requirements will be targeted; processing those requirements according to predetermined assumptions and parameters; and calculating projections of future requirements according to the previous inputs. It appears that each model adopts different requirements as input and processes them in a different way, yielding different outputs.

This framework helps policy makers to benchmark their manpower planning in order to improve health labour market efficiency and to address new challenges such as global migration or the shifting roles of health care workers.

Planning of General Practitioners in The Netherlands: a simulation model

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Manpower planning can be an important instrument to control shortages (or oversupply) within the health care labour market. The Netherlands is one of the countries that have a relative long tradition of manpower planning in health care. In 1973 the government introduced the numerus clausus for the study of medicine. From this moment on, it explored different approaches to plan health manpower. In 2001, a stock and flow model was developed to estimate the required number of General Practioners in training to meet the demand for care in The Netherlands. This model is based on realizing equilibrium in the target year based on assumptions and statistics about the demand and supply side of the health care labour market. At the supply side, trends are modelled for different cohorts of general practitioners (GPs), for example about their working hours. At the demand side, trends in the demand for health care services are projected, based on mostly demographic and epidemiological developments. Demand is basically measured as the total number of GPs needed and the supply as the total number of GPs available. The difference between required and available supply can be translated into an advice regarding the future number of GPs to be trained. Forecasting and planning results are presented in scenarios that vary on basic dimensions as high/low expected demand growth, high/low expected reduction of average working time, high/low expected efficiency gains, resulting in a broad advice on the number of students to be trained. In this presentation we will show how the outcomes of different scenarios relate to the actual inflow of GPs in training. We will also discuss the results of an evaluation of the explanatory power of the planning model, specifically in terms of stock and flow numbers of GPs.

7.8. Local action for obesity prevention

The development of a community-based intervention for the prevention of childhood obesity: the IDEFICS intervention

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Background

The prevalence of obesity in Europe is increasing rapidly, also in young children. Effective evidence-based interventions in children are urgently needed but research in this area is scarce. Based on a socio-ecological approach, the IDEFICS project developed a community-based intervention to prevent obesity in 2- to 8-year-old European children. The purpose of the abstract is to inform about the development and content of the IDEFICS intervention, as this information is currently lacking in the literature.

Methods

The Intervention Mapping protocol was used to develop the IDEFICS intervention. Following these evidence-based guidelines, the development was informed by (i) literature on changeable determinants and effective interventions of obesity and related risk behaviours in children and (ii) focus group interviews within all countries with all relevant parties to identify local barriers and difficulties.

Results

The development of the IDEFICS intervention resulted in a standardized intervention framework with 10 different modules focusing on physical activity, nutrition and stress in children. The intervention focused on environmental and personal factors through the use of the family, school and community setting.

Conclusions

The IDEFICS intervention incorporated the socio-ecological approach by targeting both environmental en personal factors through all social contexts in which very young children behave. Findings from formative research provided the rationale for developing a standardized intervention framework but it was needed to enable local and cultural adaptation in order to make the intervention feasible and to enhance deliverability in all participating countries.

Social environment is consistently related to children's outdoor play

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Background

Outdoor play is a cheap and natural way for children to be physically active. This study aims to identify physical as well as social correlates of outdoor play in the home and neighbourhood environment among children of different age groups.

Methods

Cross-sectional data were derived from 6470 parents of children from 42 primary schools in four Dutch cities by means of questionnaires (2007–08). Multivariate sequential Poisson GEE analyses were conducted (2010) to quantify the correlation between physical and social home and neighbourhood characteristics and outdoor play among boys and girls aged 3–6, 7–9 and 10–13 years old.

Results

This study showed that next to proximal (home) environmental characteristics such as parental education [relative risk (RR) 0.93–0.97], the importance parents pay to outdoor play (RR 1.32–1.75) and the presence of electronic devices in the child's own room (RR 1.12–1.15, children aged 7–12 only), several neighbourhood characteristics were significantly ($P < 0.05$) associated with children's outdoor play. Neighbourhood social cohesion was related to outdoor play in five out of six subgroups (RR 1.01–1.03), whereas physical neighbourhood characteristics (e.g. green neighbourhood type, presence of water, diversity of routes) were associated with outdoor play in specific subgroups only.

Conclusions

Neighbourhood social cohesion was related to outdoor play among children of different age and gender, which makes it a promising point of action for policy development. Policies aimed at improving physical neighbourhood characteristics in relation to outdoor play, should take into account age and gender of the target population.

Urban environmental factors influencing physical activity and dietary choices of young people: qualitative research in Norfolk, England

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Background

The Department of Health has awarded Healthy Town status to nine towns in England with funding for initiatives to promote physical activity and healthy diet. This study explores community perceptions of the features of the urban built environment and the broader social context which influence young peoples' physical activity and dietary choices.

Methods

Six focus group discussions and a series of in-depth interviews were conducted with residents including young people, parents, teachers and community workers in Thetford in Norfolk, one of the Healthy Towns. The transcripts were analysed using thematic analysis.

Results

The perceptions of 'healthy town' were influenced by the social and economic situation in the town, encompassing high levels of deprivation, few training and employment opportunities, and a loss of community cohesion. Barriers to physical activities included high cost of sport facilities, limited physical education in schools, inaccessibility of recreational areas to pedestrians and cyclists, computer-based home activities and safety concerns. Barriers to healthy diet included lack of knowledge, loss of tradition and skills of cooking, availability of oversized and low priced processed foods, fast food outlets, snacks and sweets. Young people saw the benefits of exercise mostly in socializing with peers and the immediate effects of mental and physical well-being. Improvements in the built environment were seen as essential to allow more active lifestyles, with a need for enhanced provision of cycle paths and racks throughout town, more parks with play features and opportunities for outdoor activities. For children, the role of the schools in promoting a range of different sports was viewed as important, as well as the need to organise family-based activities. Parents also raised the need for inclusive activities for children with learning disabilities and other special needs.

Conclusions

Creating a health promoting environment for children and young people requires proactive long-term planning and engagement with a range of sectors from the built infrastructure to school-based programmes and all-family inclusive activities in the community. Training and employment opportunities are an indispensable part of a 'healthy town'.

Environmental influences on physical activity: local policies and urban planning. Zwolle, The Netherlands, April 2010

Roger Linger

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Issue/problem

Overweight and obesity are increasing rapidly. Therefore, stimulating physical activity is more than ever necessary. There are numerous ways to stimulate physical activity e.g. providing information, action programmes and school-based interventions. However, recent research shows that one of the most promising ways is by manipulating the environmental setting. It is of great importance to join forces in health promotion. This means that not only policy makers in the field of public health but also policy makers with other portfolios and other stakeholders can play an important role. Unfortunately, they are not always aware of their influence on physical activity, while the public health professionals have little experience with urban planning.

Description of the problem

This study tries to enhance mutual understanding between those who make and implement relevant policy measures and the public health professionals. The methodology adapted consists of three steps: First, a literature study on six common policy themes (concerning playground- and sports facilities, active transport, greenness, mixed building and physical education) resulted in insight into the actors who are involved and the benefit they can generate. Second, stakeholders involved in urban planning were interviewed to complement the findings from the literature study. Finally, a practical, easy-to-use report is developed.

Questions answered by this study:

– Which recommendations concerning (re)designing the environment into a activity-friendly neighbourhood can be made?
– Which benefits can be achieved by the different stakeholders?
– Which aspects advance the implementation process?

Results (effects/changes)

A total of 50 recommendations have been made e.g. divide playgrounds in playing zones, make sure parking places are situated at 50–200 m from the houses. Benefits have been described e.g. greenness also provides profit for the economy sector; 15% of the real estate's value can be assigned to greenness.

Lessons

It shows that there are various chances and possibilities to motivate stakeholders outside the public health sector to contribute to health promotion and, more specific, to physical activity.

Physical activity friendly neighbourhood: the effects of the residential environment on physical activity

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Background

Lack of physical activity causes major health problems in current society. It is generally believed that the immediate residential environment has an important part to play if it offers adequate opportunities for physical activity. The objective of this study is to examine the relation between urban planning design of the residential environment and day-to-day physical activity of local residents.

Methods

In four neighbourhoods in Amsterdam, which are similar in terms of their demographics but differ in urban planning design, 443 adults and 193 children completed a survey on their engagement in physical activity, on how they reach destinations and on their satisfaction with a number of characteristics of the neighbourhood. A spatial analysis of each neighbourhood was produced based on the density of construction and the availability and location of facilities. Analyses were performed using SPSS and GIS.

Results

Clear differences were observed between the patterns of everyday physical activity in the four neighbourhoods. The residents of the traditional neighbourhoods appeared to walk and cycle more than their counterparts in the post-war districts. Several neighbourhood characteristics appeared to encourage physical activity: availability and accessibility of facilities; the design and layout of the neighbourhood and few parking facilities. For children more spacious layout of the neighbourhood generated more physical activity.

Conclusions

Urban planning design influences physical activity. People living in neighbourhoods with available and accessible facilities, an aesthetical pleasing environment and few parking facilities are more physical active.

Estimates for adherence to different physical activity guidelines in The Netherlands: valid or not?

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Background

In The Netherlands, the Short QUestionnaire to ASsess Health-enhancing physical activity (SQUASH) and the 'Injuries and Physical Activity in The Netherlands' questionnaire (Ongevallen en Bewegen in Nederland, 'OBiN') are often used in large surveys to monitor physical activity (PA) guidelines for policy makers. The aim of this study was to determine whether these questionnaires are valid with regard to assessing adherence to three PA guidelines.

Methods

A total of 187 volunteers (27 men and 160 women) aged between 20 and 69 years participated in the study. Participants were categorized as 'inactive', 'semi active', or 'norm active' according to the Dutch PA guideline, the ACSM guideline for cardio respiratory fitness (ACSM) and as either 'inactive' or 'norm active' according to the combined guideline using the outcome of the questionnaires and an objective measurement (combined heart rate and accelerometer). Exact agreement and maximum disagreement were calculated between each questionnaire and the objective measurement.

Results

The SQUASH had a significant higher agreement with the objective measurement than the OBiN-questionnaire for the Dutch PA guideline (SQUASH: 78%, OBiN: 46%; $P < 0.0001$) and combined guideline (SQUASH: 84%, OBiN: 55%; $P = 0.001$). Both questionnaires had a comparable, but low agreement with the objective measurement regarding the ACSM guideline (SQUASH: 37%, OBiN: 34%; $P = 0.45$). However, the SQUASH gave a significant higher maximum disagreement than the OBiN-questionnaire for this guideline (SQUASH: 19.8%, OBiN 8%; $P < 0.0001$).

Conclusions

The SQUASH is a better measure than the OBiN-questionnaire for categorizing adults according to the Dutch PA guideline and the combined guideline. Both questionnaires fail to correctly categorize adults according to the ACSM guideline.

7.9. Workshop: The integration of air pollution, vegetation and health data for the public health: the lessons from the HEREPLUS project

Chair: Giuseppe La Torre
Italy
Organizer: EUPHA section on Public Health Epidemiology

Pollution is a major concern for most European cities, especially for those located in the Mediterranean, where climatic conditions encourage O_3 and particluate matter concentration during summer and winter periods.

Epidemiological studies continue to associate air pollutants with increases in human morbidity and mortality. Our cardiopulmonary system is often the initial target of inhaled toxic agents.

We are also differently exposed to environmental pollutants, if we live in areas characterized by traffic roads, public parks, and/or area-specific vegetation. Individual geographic position plays also an important role. This makes Geographic Information Systems indispensable tools for analysing health and environmental data.

HEREPLUS is a European Project which aims at detecting and analysing Health Risk of Environmental Pollution Levels in Urban Systems, and the aim of the workshop is to give an overview of the possible integration of air pollution, vegetation and population health data in determining the effect of air pollution on population and environmental health in Europe.

Air pollution due to ozone and PM and health outcomes in Rome

Giuseppe La Torre

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The study population was the Rome inhabitants who were hospitalized for the period 1 January 2003–31 December 2003 in one of the hospitals of the municipality area.

The dependent variables were the daily morbidity among persons residing in the municipality of Rome across the study period and the independent variables were the air pollution variables and the meteorological variables. For respiratory and cardiovascular diseases, PM10 and Ozone were highly associated with the outcome, after adjustment for possible confounders.

In particular we found a relative risk (RR) of 1.008 for hospital admissions for cardiovascular diseases, and a RR of 1.019 for hospital admission for respiratory diseases, respectively, per $10\,\mu g/m^3$.

A very large proportion of morbidity and hospital admissions are attributable to PM10 and Ozone air pollution in urban area. The adoption of policies aimed at reducing PM and Ozone emissions would have large population health benefits, and should be implemented in order to avoid a heavy burden of this kind of diseases.

Spatial health impact assessment of urban air pollutants using Earth observation satellite data

Dimosthenis Sarigiannis

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The state of the art in air quality assessment comprises information and data processing tools using only data from ground-based measurement and atmospheric modelling. Ground measurements are not taken from dense enough monitoring networks around the world to permit a satisfactory analysis of the influence of air pollution on the health of vulnerable population groups. Attempts to improve our estimation of atmospheric pollutant concentrations at the urban and regional scale from combining ground data with numerical modelling are hampered by the need for high quality and up-to-date emissions inventories, as well as accurate estimates of initial and boundary conditions of the models. Information derived from Earth Observation satellites can bridge the gap between models simulating the transport and chemical transformation of atmospheric pollutants, and analytical observations.

A data fusion methodology was developed to integrate satellite data with ground-based information and atmospheric modelling to derive PM and ozone loading at the ground level. Physical properties of tropospheric aerosol and ozone are linked with the atmospheric physical-chemical processes that determine the total mass concentration and size distribution of particulate matter and the concentration of ozone. Coupling these with spatially explicitly exposure-response functions and population data results in refined maps of health risk attributable to air pollution.

The methodology was implemented in Athens, Greece and Rome, Italy, two capitals characterized by intense photochemical pollution and long-range transport of dust. Maps of health risk were produced. The spatially scalar nature of the approach allowed us to evaluate the impact of risk modifiers such as the existence of urban vegetation and population susceptibility. Satellite data can be used efficiently to improve the spatial link between environmental pollution and human health. The data fusion method proposed herein opens the way towards the enhanced use of this valuable information in spatial epidemiology and environmental health science.

Modelling the uptake of air pollutants by urban green in the city of Rome

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Modelling plant-atmosphere interactions in urban environment have being raising an increasing interest in recent years, with the purpose to assess the effects of vegetation management on urban air quality. In particular, it is widely known that vegetation removes tropospheric ozone (O_3) by stomatal and non stomatal uptake. Several authors have quantified the ability of the so called 'urban forest' to ameliorate urban air quality, by estimating the amount of ozone, as well as that of other pollutants, removed by trees and shrubs in different urban areas. Here we present the results of a modelling exercise, implemented in the frame of the HE.R.E.P.L.U.S. (HEalth Risk from Enviromental Pollution Levels in Urban Systems) Project, funded under EU FP7. Our aim was to estimate the amount of O3 removed by evergreen and deciduous broadleaved trees in the Municipality of Rome (ab. 128530 ha), to quantify the role of urban woody vegetation in a Mediterranean megacity. Ozone fluxes were simulated for each day of the reference year, and referred to unitary area of soil surface, based on O3 air concentration and plant stomatal conductance for each vegetation type. The latter was simulated through a semi-empirical process-based model (MOCA-Flux) originally developed to estimate the net primary productivity of plant community, and based on the 'big leaf' assumption. The model has been parameterized by using physiological and structural data collected, during different field campaigns, on the main woody species in the Rome metropolitan area. The simulation was run for the year 2003–04, characterized by different climatic conditions that affected plant functional performance. In the year 2003, vegetation of the five sanitary districts of the Rome Municipality removed a total of 4.90, 4.16 and 3.91 g/m^2 of O_3 for evergreen broadleaves, deciduous broadleaves and conifers, respectively. These results are coherent with what reported in literature, showing that vegetation could contribute in improving air quality in urban areas. Further activities are currently in progress, aimed at estimating the amount of PM10 captured by tree vegetation in this area.

7.10. Women's health

Women's health status in Germany—trends and developments

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Background

Women, in general, have a higher life expectancy than men. However, the health status of women is often worse than that of men. Additionally, some particular groups of women have to face specific health risks and socio-economic burden. Since 1990, after the German reunification, many socio-demographic factors that determine women's health status have changed seriously. In our study we analyse the development of women's health and health determinants, focussing on subgroups at risk like single mothers or elderly women.

Methods

For analysing trends in health status and social determinants on subgroups of women, we use data from German Telephone Health Interview Survey (waves 2003 and 2009) conducted by Robert Koch-Institute. These surveys are representative for the residential population aged $\geq$18 years, which can be reached by landline. We use multinomial logistic regression and study the health status of particular groups of women according to certain socio-demographic features.

Results

Overall, the health status of women has improved within the past 20 years. However, focussing on subgroups, the preliminary results show that single mothers consider their health status worse than married mothers. They also lead less healthy lifestyle—smoke more and do fewer sports. Elderly women who live alone also have higher risk of worse subjective health compared with women living with a partner. Other important factors for health status are education level and perceived social support.

Conclusions

Our results show that the health status of the women is significantly dependent on factors like family and employment status, education, perceived social support. It is evident that women with higher burden and fewer resources are at highest risk of having health problems. We argue that possible interventions and policy efforts should not only aim at reaching healthy lifestyle but should also consider the specific living conditions of women.

Non-employment and health among lone mothers in Britain, Italy and Sweden. Interaction effects and the meaning of family policy context

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Background

Lone motherhood is an increasing phenomenon in western societies. As sole providers, lone mothers are particularly sensitive to labour market arrangements and set up of social policy. This study analyses the health and living conditions among non-employed lone and couple mothers, in Britain, Italy and Sweden, representing different family policy contexts. Furthermore, we investigate potential interaction effects on health between being a lone mother and employment status, and discuss the results in relation to policy and living conditions.

Methods

Data were drawn from representative national household interview surveys conducted in the early 2000s. The European Social Survey and the Luxembourg Income Study were used for complementary analyses. Population characteristics, health and living conditions were analysed among employed, non-employed and sub-groups of these. Multivariate logistic age-adjusted regression models were fitted to evaluate the relationship between motherhood type and employment status, with less than good self-rated health (ltg SRH) as outcome measure. Interaction effects between being lone and non-employed on health were calculated by synergy index (SI).

Results

Rates of employment differed between lone and couple mothers. Irrespective of the policy context, half of non-employed lone mothers had financial difficulties. The age-adjusted odds ratio (OR) of ltg SRH among Swedish non-employed lone mothers, (reference category: couple employed) was 5.68 [confidence interval (CI) 4.41–7.33], and SI 2.18 (CI 1.52–3.15). In Britain the corresponding numbers were OR 2.72 (CI 2.35–3.15) and SI 1.37 (CI 1.02–1.83). Results are preliminary and Italian results are in progress.

Conclusions

A country's family policy regime has implications for both the overall composition of lone mothers and their labour market participation. There was an interaction effect on health of combining the exposures of being lone and non-employed, i.e. a departure from additivity. Policy makers need to take these findings into consideration.

Epidemiological investigation to define the awareness of women on the hazards of smoking and drinking alcohol before and during pregnancy in Poland (2009)

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Background

In order to further define target areas for an educational campaign on the hazards of smoking and drinking during pregnancy this study aims to determine awareness levels of at risk women in Poland on these issues.

Methods

Following a major survey undertaken in 382 maternity hospitals, 3280 post-partum women completed lifestyle questionnaires regarding smoking and drinking together with corresponding clinical data concerning the pregnancy. This was performed over 24 h through the Polish State Sanitary Inspectorate as part of the EU's 'Warsaw Declaration' policy of removing health disparities. Questionnaires were based on the PRAMS-CDC model and results analysed by Chi-squared and Cramer's V.

Results

Findings revealed that women unaware of small-scale drinking hazards still continued smoking (15%) and didn't limit smoking (50%) compared with those aware about alcohol (4, 24% respectively). Also the more cigarettes smoked (>13 packets/month), the greater (45%) was the unawareness of high alcohol consumption danger compared with women smoking less (21% unawareness). Further links observed between awareness of high drinking and smoking were; 1:3 smoking women unaware on high alcohol consumption effects are also unaware of smoking hazards but conversely only 1:100 who know about high alcohol dangers are unaware of the perils of smoking. The former group also showed 54% being unaware of passive smoking harm. It was found that 7% of women who know smoking itself is harmful are unaware about passive smoking whereas 39% of women who do not know that smoking is hazardous are also unaware about passive smoking and 23% continue to smoke. In contrast, those women aware about passive smoking more frequently limit their smoking (75%) than those who are unaware (44%).

Conclusions

A widespread educational campaign will be launched in Poland to address and remedy these problem areas.

Women's health and individual and contextual inequalities: the absence of cervical screening in life, in Paris metropolitan area. An analysis of SIRS Cohort in 2005

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Background

Cervical smear is essential for the detection of cancer and infections of female genital apparatus. Its individual inequalities are described in France but the analysis of both individual and contextual factors associated remains rare. Our objective was to describe individual and contextual factors associated with the absence of any CS performed over lifetime (CSLT) in Paris metropolitan area.

Methods

This study was based on 2005 data from the SIRS cohort study in Paris metropolitan area, conducted among a representative sample of 3000 adults. Regression logistic models analysed individual factors associated with no CSLT, and multilevel logistic model analysed the association of residence neighbourhood variables to the same outcome.

Results

11% of women declared they have had no CSLT. After adjustment on age and parentality, factors associated with no CSLT were: not to be in couple [odds ratio (OR) = 5.71; 95% confidence interval (CI) = 3.60–9.07], to be French born to foreign parents (OR = 1.91; 95% CI = 1.10–3.32) or to be foreigner (OR = 4,15; 95% CI = 2.24–7.68), having never worked (OR = 2.77; 95% CI = 1.06–7.19), a primary (OR = 2.52; 95% CI = 1.05–6.03) or secondary educational level (OR = 2.41; 95% CI = 1.37–4.26). Thinking that physicians are those who better know what is good for patients (OR = 2.46; 95% CI = 1.3–5.35) is also associated with a higher risk of no CSLT. Conversely, to have a complementary health insurance (OR = 0.26; 95%CI = 0.10–0.64), having experienced a serious disease (OR = 0.54; 95% CI = 0.33–0.89), having somebody in the entourage that has a cancer (OR = 0.56; 95% CI = 0.36–0.87) were associated with a lower risk. After adjustment on these individual characteristics, living in a more affluent neighbourhood was associated with a lower risk of no CSLT (OR = 0.46; 95% CI = 0.25–0.83).

Conclusions

This study describes individual and contextual inequalities in cervical cancer screening and provides arguments in favour of the influence of residential areas on women health prevention practices, once adjusted on individual factors. Women health promotion needs to be targeted to the underserved women, especially in lower socio-economic status neighbourhoods.

False positive mammographic screening: factors influencing re-attendance over a decade of screening in BreastCheck, the National Breast Screening Programme in Ireland

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International studies on the effect of false positive mammographic screening on subsequent re-attendance at screening are inconsistent. The aim of this research was to quantify the impact of false positive mammography (by age group, assessment procedure and initial or subsequent screening), using BreastCheck clinical database with a decade of screening, on subsequent re-attendance in BreastCheck, the national breast screening programme for the Republic of Ireland, which screens women two-yearly. Re-attendance for subsequent screening is ~90%.

From programme commencement in 2000 to the end of 2007, 13 352 screening tests resulted in assessment; 10 632 were aged 50–62 years and of these 9746 were false positive. Following a false positive recall to assessment, re-attendance at subsequent screening differed significantly by procedure type (open biopsy

80.3%; core biopsy only 90.2%; no tissue sampling 91.4%; $P < 0.0001$) Re-attendance differed significantly by timing of false positive assessment in a woman's screening history (first versus subsequent screening 89.5% versus 93.5% $P < 0.0001$). Age group did not have a significant impact on re-attendance (50–54: 90.9%; 55–59: 90.4%; 60–62: 90.4%). After logistic regression, first screening, older age and open surgical biopsy were significant negative predictors of re-attendance.

BreastCheck is now fully digital since April 2008, with a resulting increase in recalls; re-attendance will be closely monitored.

Delayed motherhood is a public health issue

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Background

In Europe childbearing is delayed and births are planned. The mean age of motherhood has notably increased. This study examines perinatal outcomes and use of maternal health care by maternal age in 2008 in Finland.

Methods:

The study subjects, 24 760 primiparous and 34 173 multiparous mothers, came from the 2008 nationwide Finnish Medical Birth Register. Older mothers (35–39 and $\geq$40 years) were compared with younger mothers (20–34 years). Infant outcomes were adjusted for mother's background characteristics (marital status, socio-economic status, maternal smoking, previous pregnancies and deliveries, and urbanity of the residence) by logistic regression.

Results

Older mothers were more often highly educated, used more antenatal care, and had more often induced deliveries, Caesarean section and longer hospitalizations after delivery than younger mothers. Gestational diabetes and hypertension were more common among older than younger mothers. Most older mothers had successful pregnancies. However, the risk for poor infant outcomes was higher among older, especially primiparous mothers than among younger mothers. Among primiparous mothers aged 35–39 years, the adjusted odds ratios (95% confidence interval), as compared with 20–34 years old were: very low birth weight (<1500 g) 1.76 (1.23–2.53), low birth weight (<2500 g) 1.67 (1.41–1.97), need for respiratory treatment 1.50 (1.07–2.11) and intensive care 1.21 (1.07–1.37). Preterm birth [<37 gram weight), 1.45 (1.04–2.02)] low birth weight (1.59, 1.14–2.23), need for intensive care (1.64, 1.31–2.07), and perinatal mortality (2.69, 1.07–6.78) were more common also in mothers aged $\geq$40 years. Among older multiparous mothers the risks for poorer outcomes were increased compared with younger mothers, even though not as high as among primiparous mothers.

Conclusions

Regardless of advances in obstetrics and perinatal care, older mothers still have more problems during pregnancy and delivery, and higher risk for poorer infant outcomes.

7.11. Health care for migrants and ethnic minorities

Qualitative evaluation of the intercultural mediation programme of the Ministry of Health of Catalonia

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Background

Over the last decade Catalonia has been one of the Spanish regions that have received more immigration. In this context, the Catalan health system created the Immigration Health Plan (IHP) as an instrument to plan and to define the strategies to improve health care for migrant population. Considering that communication problems can be the first barrier to access to health care, in 2006 the IHP created an intercultural mediation programme.

Methods

This programme was evaluated for the period 2008–09 through an exploratory study, using qualitative research techniques. A total of 75 interviews were carried out and four focus groups were organized between May and September of 2009. The informants who integrated the sample belonged to the following groups: health professionals, migrant patients, intercultural mediators and health care managers.

Results

The professionals highlighted that the programme improves their capacity to diagnose specific medical problems in migrant population. At the same time, the presence of mediators facilitates the interpretation of the medical information and allows patients to achieve a better understanding of the diagnosis and treatment. The majority of the sample consider that mediation should be a permanent service for the health professionals, as well as for patients that cannot speak the official languages used in Catalonia or that have different cultural backgrounds.

Conclusions

The mediation services improve communication between health professionals and migrant patients and therefore improve the quality of the health care. The mediation services should be a permanent service within the health system, whilst foreign people still coming into our country.

Is informal care a substitution for home care among migrants in The Netherlands?

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Background

Among migrants the level of home care use seems to be lower than among the native population. As migrants may prefer informal care for several reasons, they possibly use these sources of care instead of home care.

We therefore, examined the use of home care in relation to household characteristics and the use of informal care, in order to see how these factors contribute to the explanation of ethnic disparities in home care use.

Method

Data were used from a survey among the native population aged $\geq$18 years, carried out in the framework of the second Dutch National Survey of General Practice ($N = 7772$). An additional sample was drawn from the four largest migrant groups in The Netherlands, i.e. those originating from Surinam ($N = 297$), the Dutch Antilles ($N = 262$), Morocco ($N = 370$) and Turkey ($N = 400$).

The survey contained information on home care use, informal care, indicators of need, household composition, informal social contacts, language mastery and acculturation.

Results

Among the native population 6.2% was using home care. Among migrants this percentage varied from 6.3% among Antilleans, 4.8% among Surinamese, 4% among Turks and 2.2% among Moroccan. After correcting for need, household characteristics and the use of informal care, home care use was lower among all migrant groups compared with the native population, except among the Antilleans. Use of informal care did not reduce but rather enhanced the use of home care. It did not explain ethnic disparaties in home care use.

Conclusions

Household composition and use of informal care are related to use of home care, but cannot explain ethnic disparities in utilization. Informal care use seems to function as a supplement to home care, possibly bridging the gap to home care use.

Use of general practitioner in relation to self-perceived health among Turkish immigrants in Denmark and The Netherlands: do patterns differ?

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Background

Differences in health-care utilization in relation to self-perceived health between immigrants and the majority population have been reported in some EU-countries. Yet, cross-country comparison of data availability and inequalities of immigrants' use of health-care services in relation to self-perceived health has not been carried out.

Methods

Danish national survey data from 2007 containing responses from 1131 ethnic Danes and 372 Turkish immigrants and Dutch national survey data from 2001 containing responses from 6046 ethnic Dutch and 322 Turkish immigrants were used. Both data sets included questions on self-perceived health (SF-12) and were linked to registry data on contacts to general practitioner (GP). Logistic regression models were used.

Results

Preliminary results showed that contacts to GP was more frequent in Turkish immigrants compared with the majority population in both The Netherlands [adjusted odds ratio (AOR) =1.72, 95% confidence interval (CI) = 1.35–2.91] and Denmark (AOR = 1.43, 95% CI = 1.08–1.89) after adjustment for sex, age and income. When also adjusting for self-perceived health, the statistically significant higher odds of contact to GP between Turkish immigrants and the majority population remained in The Netherlands (AOR = 1.43, 95% CI = 1.11–1.83) but disappeared in Denmark (AOR = 1.20, 95% CI = 0.90–1.61). Comparisons of ethnic inequalities in the use of health care and self-perceived health between two countries with available data were challenging due to different data sources, time of survey, data collection, measurement of contact intervals, and time cut-off points of contact data.

Conclusions

Harmonized data sources, time of survey, mode of data collection and language (e.g. availability of survey instrument in mother tongues) are essential for valid international comparisons. Possible explanations for differences between the countries will be discussed in the light of the organization of the health-care systems and the groups' social and ethnic characteristics.

Ethnic differences in management of anxiety and depression in general practice in urban areas in The Netherlands in 2007

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Background

A substantial part of the population in western countries has a non-western ethnic background, and there is widespread concern that access to and quality of care (QoC) for mental health problems for ethnic minority groups are lower in comparison to the host populations. Health services in The Netherlands are generally well accessible as a consequence of mandatory basic health insurances for all citizens, which provide an interesting setting for the study of ethnic disparities in care for anxiety and depression (CMD) in general practice.

Methods

Data from The Netherlands Information Network of General Practice in 2007 (89 practices, 340 000 patients) and population registries were collected. Prevalence of CMD in general practice, based on the International Classification of Primary Care was compared with the prevalence in the general population (indication for CMD detection). QoC was indicated by at least five general practice consultations, prescription of psychotropics for at most six weeks or at least 5 months, and/or referral to a mental health care specialist. Data were analysed using multilevel multiple regression techniques.

Results

CMD were prevalent among 6413 patients (4.43%), and more often registered among Turkish patients than among ethnic Dutch. Detection of CMD by GPs was less adequate among Turkish patients. Of patients diagnosed with CMD, 42.9% received guideline-concordant treatments. Guideline adherence was lower among Surinamese/Antillean patients (odds ratio = 0.70, 95% confidence interval = 0.51–0.96). No disparities regarding QoC were observed for Turkish and Moroccan patients compared with ethnic Dutch.

Conclusions

The quality of treatment among subjects diagnosed with CMD in Dutch general practice was comparable between ethnic groups. However, there were some unfavourable results among Turkish and Surinamese/Antillean patients, which underline the importance of continuing efforts to make GPs aware of the higher prevalence of CMD in some ethnic minority groups, and to further improve the accessibility to good quality care in general practice.

Utilization and effectiveness of medical rehabilitation among foreign nationals residing in Germany

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Background

In Germany, the proportion of foreign national residents receiving an invalidity pension is higher than that of Germans. Lower utilization and effectiveness of medical rehabilitation are presumed to be the main reasons. We aimed to examine whether differences in utilization and effectiveness of medical rehabilitation between Germans and foreign nationals are attributable to differences in socio-demography, socio-economic background and health status.

Methods

Utilization of rehabilitation was analysed for household members aged $\geq$18 years enrolled in the German Socio-Economic Panel in 2002–04 ($n = 19\,521$). Effectiveness of rehabilitation was defined by the occupational performance at the end of rehabilitation. It was examined by using an 80% random sample of all completed medical rehabilitations in the year 2006 funded by the German Statutory Pension Insurance Scheme ($n = 634\,529$).

Results

Foreign nationals utilize medical rehabilitation less often than Germans [odds ratio (OR) = 0.68; 95%confidence interval (CI) = 0.50–0.91]. For those who do, medical rehabilitation is less effective (OR for low occupational performance = 1.50; 95%CI = 1.46–1.55). Both findings are only partially attributable to socio-demographic, socio-economic and health characteristics: After adjusting for these factors, ORs for utilization and low occupational performance were 0.66 (95%CI = 0.49–0.90) and 1.20 (95%CI = 1.16–1.24), respectively.

Conclusions

Differences in the utilization and effectiveness of medical rehabilitation between Germans and foreign nationals cannot be explained only by socio-economic differences or poorer health before rehabilitation. In addition, factors such as the ability of the rehabilitative care system to accommodate clients with differing expectations, and migrant-specific characteristics such as cultural differences, seem to play a role.

Adaptation of the health-care system to a culturally and linguistically diverse population: the Catalan Government experience

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Immigration is a growing phenomenon in Catalonia. The reference population of the Catalan Health System for 2010 is 7 646 944 people. 15% of this population are migrants. This is a very important challenge for public services as it creates an important concern in relation to this social phenomenon and the capacity of the health systems to meet the new needs and demands from the newcomers.

In the year 2005, the Catalan Health Department created the Immigration Master Plan to set the objectives to improve health care for migrant population. The Plan sets actions to develop the three core strategies: Reception, Intercultural Mediation and Professional Training.

The Reception strategy has focused on developing written and audiovisual materials in nine languages and has created a web site about health and migration.

In order to implement the Intercultural Mediation strategy, the Catalan Health Ministry signed a formal agreement with a financial institution foundation for the period 2008–09. This agreement funded the training and contracting of new intercultural health mediators for the Health System. A quantitative and qualitative evaluation of this strategy was carried out during the last 2 years. For the quantitative evaluation, specific software was created to register mediators' activity. We have accounted more than 30 000 interventions in 28 languages addressed to people from 77 different nationalities. We have also analysed the characteristics of each intervention. The qualitative evaluation highlighted users satisfaction with the mediation services and shows that the programme of intercultural mediation should be kept and become a regular service available to health professionals and users form different cultural background.

The Health Professionals Training strategy pretends that our health professionals get the right knowledge to reach the grade of cultural ability that guarantees the quality of health services for migrant population in Catalonia.

7.12 Alcohol use

Cognitive ability measured in adolescence and later alcohol-related problems—longitudinal study on Swedish men

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Background

Cognitive ability is associated with several health-related outcomes and different mechanisms have been suggested: childhood circumstances, individual management of health and adult socio-economic circumstances. Previous research has presented diverse results regarding the association between IQ and alcohol-related problems. This study aimed at investigating the relationship between cognitive ability measured at age 18–19 years and later alcohol-related problems, while controlling for established risk factors for such problems.

Methods

A total of 43 834 men born 1949–51 in Sweden were followed from time of conscription for compulsory military training 1969–70 until 2006–07. At conscription, data on cognitive ability (IQ) was collected, as well as extensive information on family background, social adjustment and personality characteristics. Adult socio-economic position (education, occupation, income) was obtained from national censuses. Information on alcohol-related hospital admissions were collected from national comprehensive health-related databases.

Results

Cognitive ability had an inverse and graded association with later alcohol-related problems. For the follow-up between 1971 and 2007 the crude result showed a hazard ratio (HR) of 1.29 [95% confidence interval (CI) = 1.27–1.32] for one point decrease on the nine point IQ scale regarding alcohol-related hospital admissions (2341 cases). Adjusting for risk factors measured in adolescence (psychiatric diagnoses, low emotional control, social misbehaviour, smoking, risk use of alcohol) attenuated the association (adjusted HR 1.17, 95% CI = 1.15–1.19). When the cohort was followed between the years 1991–2007 (1 039 first admissions) the crude HR was lower, HR 1.21 (95% CI = 1.17–1.25). After adjustment for risk factors from adolescence (only adjusted risk factors measured in adolescence, HR 1.13, 95% CI = 1.10–1.17) and also the measures of achieved socio-economic position the HR was considerably lowered (fully adjusted HR 1.05, 95% CI = 1.02–1.09).

Conclusions

The association between cognitive ability and alcohol-related hospital admission among men was markedly attenuated when adjusted for risk factors. Our findings suggests that social position as adult could be a strong mediating factor.

The influence of parents on alcohol use in adolescence in the Netherlands, 2000–08

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Background

Alcohol use during adolescence provides risk for health and social participation. Recent studies have shown that the earlier the onset of alcohol use, the higher the risk of developing alcohol-dependence later in adolescence and adulthood. But not all those early starters will develop dependency. Evidence on protective and risk factors is important for public health interventions aiming at the reduction of alcohol related risks. Previous research have shown that parents strongly influences adolescents' behaviour. The objective of this study was to determine which parental factors predict the developing of problematic alcohol use during adolescence.

Methods

Data from 1641 adolescents (53.2% girls) participating in the prospective cohort study TRAILS, Tracking Adolescents' Individual Lives Survey, were analysed. At ages 10–12 years adolescents completed questionnaires on alcohol use and parent–child relationship (assessed by the subscale Emotional Warmth of the EMBU-questionnaire). From parents data were obtained about the family situation (divorced/not-divorced), socio-economic status (SES) and alcohol use. We used multivariate logistic regression to predict adolescents' problematic alcohol use reported at age 15-18 (defined as seven or more glasses a week for boys and six or more glasses a week for girls).

Results

Alcohol use in early adolescence increased the probability of problematic alcohol use during late adolescence [respectively odds ratio (OR) 1.83 and OR 3.18 for one consumption and >one consumption]. Also parental divorce (OR 1.46), low SES (OR 1.51) and father and mother alcohol use [(scale divided into six categories) respectively OR 1.15 and OR 1.21] increased this likelihood significantly. Sex and the parent–child relationship did not contribute to this prediction of problematic alcohol use.

Conclusions

Early alcohol use is an important predictor of problematic alcohol use in adolescents. Family factors also play in important role: parental divorce, low SES and high amounts of parental alcohol use contribute to the prediction of problematic alcohol use. This knowledge can be used for the identification of risk groups.

The distribution and characteristics of alcohol outlets across Glasgow, Scotland and associations with area deprivation

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Background

Alcohol is a significant and growing problem in Scotland, with alcohol-related death rates among the highest in Western Europe. Rates of alcohol-related morbidity and mortality are highest in deprived areas in Scotland. Alcohol availability may be a contributory factor and some studies (mostly north American) have found that alcohol may be more readily available in deprived areas. We examine the distribution of alcohol outlets by area deprivation across Scotland's largest city (Glasgow) using a variety of spatial scales (small areas and larger neighbourhoods or localities). We also explore whether there are systematic differences in the way alcohol is displayed and promoted in different areas across Glasgow.

Methods

All alcohol outlets ($n = 2221$, including pubs, off sales and other outlets such as restaurants and hotels) were mapped and density per 1000 residents and proximity to nearest outlet calculated across quintiles of area deprivation. Photographs were taken of the window displays of all off sales outlets ($n = 450$, comprising shops selling alcohol only and those which were general food stores licensed to sell alcohol). Photographs were subsequently coded and analysed to examine the characteristics of the outlets such as price promotions or signage related to harm reduction.

Results

The socio-spatial distribution of alcohol outlets varied by deprivation across Glasgow but not systematically. Some deprived areas contain the highest concentration while others in similar deprivation quintiles contain very few. Alcohol outlets in deprived areas were more likely to have price promotions for cut price alcohol. Less than 1% of outlets had any harm reduction signage, with little difference across areas.

Conclusions

Considerations of the local context are important in examining access to alcohol. There is scope to develop public health interventions around the sale and promotion of alcohol in local communities.

Reducing health inequalities by integrating public health with consumer protection

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Issue

Liverpool has amongst the worst indicators in England for binge drinking and hospital stays for alcohol-related harm. There is also a high incidence of smoking-related deaths, high smoking prevalence (28% of the adult population smoke) with ~19% of 11- to 18-year olds described as regular smokers.

Description

In recognition that treatment alone will not have a significant impact on tobacco- and alcohol-related harm, Liverpool Primary Care Trust has invested in a unique public health intervention. Since October 2008, a dedicated Alcohol and Tobacco Unit has been in place within the Trading Standards department of the City Council. This enforcement unit is funded by Liverpool Primary Care Trust and supported by Merseyside Police and works co-operatively with Her Majesty's Revenue and Customs. The unit aggressively targets illicit and counterfeit alcohol and tobacco sales and sales to children to support a range of health outcomes.

Headline results

- Approximately 2561 l of counterfeit and smuggled alcohol and £1 100 000 worth of illegal tobacco has been seized.
- Over 200 test purchases (i.e. under-age sales) have resulted in 27 vendors receiving a financial penalty for alcohol sales and fourteen prosecutions for tobacco.

- Intelligence links and system developed to monitor and undertake judicial interventions.
- Proactive campaigns conducted, targets include the student population, schools and music venues.
- Work with the trade representatives to encourage a responsible sales ethos.

Lessons

As fiscal policies are an effective deterrent for tobacco use and alcohol misuse, this innovative partnership has demonstrated that aggressive enforcement of existing legislation (e.g. Licensing and Trade Mark Legislation) can reduce the supply of cheap and illicit products. Multi-agency co-operation has been essential to the success of the unit and other areas are now considering replicating this example of good practice.

Sick-quitting, alcohol use and mortality in a British population-based survey

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Background

Moderate alcohol consumption have been reported to be associated with a decreased risk for coronary heart disease, diabetes mellitus, cancer and common mental disorders, compared with both abstention and high levels of consumption. Several studies have also investigated the association between abstainers and moderate alcohol consumers and mortality. Most of these have found increased risk for mortality among abstainers compared with moderate consumers. The reason for this increased risk is not yet clear, and competing explanations exists. One specific explanation that has been forwarded is that previous (heavy) drinkers are included in the abstention group (sick-quitters), thus increasing the risk for the abstention group as a whole. We aimed to investigate the contribution of sick-quitting to the relationship of alcohol use with all-cause mortality by separating lifelong abstainers from current abstainers in the sample.

Methods

We used the Health and Lifestyle Survey, a British population-based study initially conducted in 1984–85. Data from participants were linked to the national mortality registry. Self-reported alcohol consumption and alcohol-related problems as measured by the CAGE were exposures. The CAGE consists of four binary questions about alcohol-related problems. In the current survey, both current drinkers and ex-drinkers were asked the CAGE, the latter being asked about former use. Covariates were age and gender, and crude and adjusted hazard ratios (HRs) were calculated for both exposures.

Results

Of the 9003 interviews completed, 8602 (96%) participants had complete data. Among the current drinkers, those who scored 0–2 on the CAGE questionnaire had equivalent all-cause mortality compared with the lifelong abstainers in the sample. Those individuals scoring ≥ 3 were at increased risk. Among the current non-drinkers, individuals scoring 0, 1 and 4 were at increased risk. Compared with the lifelong abstainers, the current abstainers (sick-quitters) were at increased risk HR (95% confidence interval) = 1.13 (1.00–1.27) ($P = 0.047$).

Conclusions

In this large representative sample, we found that no group had a lower risk of all-cause mortality than the lifelong abstainers. This finding does not support the hypothesis that moderate alcohol use is beneficial to health.

Implementation and programme fidelity of a community action programme targeting alcohol use-related problems at licensed premises in Sweden.

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Background

A community action programme aiming to prevent alcohol-related violence and injuries by means of co-operation, responsible beverage service training structured supervision of on-licensed premises, has been developed and spread in Sweden during the last decade. Before the programme was spread it had been evaluated in Stockholm showing a violence reduction of 29%. The aim of this study was to analyse research-based components of the implementation process, the barriers and facilitators for successful implementation, in all municipalities ($N = 290$) in Sweden and relate these to programme fidelity.

Methods

We captured the aspects of implementation (2010) and the programme fidelity (2007 and 2008) by questionnaires in three separate surveys. The surveys were sent to all municipalities in Sweden and the response rates in all three surveys were high (94-98%). Programme fidelity and aspects of implantation was measured by using indexes created by the research group. The relation between implementation and programme fidelity was analysed by means of regression.

Results

The dissemination of the programme seems to be successful with 258 (89%) of the municipalities reporting that they work according to the programme. When controlling for programme fidelity however, the number of municipalities with complete utilization of the programme decreases to 25 (9%). For municipalities with high programme fidelity evaluation and feed back combined appeared to be the most significant implementation components, $t = 7.06$ ($P < 0.0001$).

Conclusions

To measure programme fidelity is of great importance in implementation research. Evaluation and feed back is in this study confirmed as significant factors for successful implementation of community action programmes.

7.13. Public health genomics

Use and appropriateness of genetic tests in the screening of hereditary forms of colorectal cancer: a critical appraisal of the quality of guidelines in public health genomics using the AGREE instrument

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Background

The strength of recommendations in guidelines should reflect the level and quality of supporting evidence. We evaluated the quality of guidelines for the secondary prevention of colorectal cancer in people with syndromes related to a genetic susceptibility (Lynch and Familiar Adenomatous Polyposis). We used the Appraisal of Guidelines, Research and Evaluation (AGREE) instrument, to our knowledge for the first time in the field of genetics.

Methods

Pubmed, Embase and Google databases were searched up to January 2010 to identify guidelines published in English language. Retrieved guidelines were classified based on whether they were developed by independent associations or by nationally endorsed societies. Six separate dimensions (domains) of guidelines quality were captured. The guidelines were evaluated independently by three investigators, and the scores were combined and standardized. Domain scores of independent societies' guidelines were compared with the endorsed ones using the two-sided Mann–Whitney statistics.

Results

The search yielded 16 guidelines, mostly from English speaking countries. Ten were developed by independent associations, six had national endorsement. Mean standardized scores for each domain were: Scope and purpose: 85.2 ± 22.5; Stakeholder involvement: 36.6 ± 25.4; Rigor of development: 51.4 ± 23.1; Clarity and presentation: 73.1 ± 18.8; Applicability: 35.9 ± 29.7; Editorial independence: 41.7 ± 41.0. Guidelines with national endorsement performed better in all domains. The difference was statistically significant for domains 1 ($P = 0.01$), 3 ($P = 0.03$) and 4 ($P = 0.003$).

Discussion

Recommendations for genetically determined forms of colorectal cancer are often imprecise and the average quality of the guidelines available is generally poor. The guidelines available pay little attention to the involvement of the various professional figures and of patients representatives, and to the policies for their application. The AGREE instrument is a useful tool and should also be used by guidelines developers to improve the quality of their work.

A case-control study on the effect of apolipoprotein E genotype on head and neck cancer risk

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Background

High serum cholesterol level is an established risk factor for cardiovascular disease (CVD) and Alzheimer diseases (AD), and it is strongly related with the inheritance of certain alleles within the Apolipoprotein E (apoE) gene. The $\varepsilon 4$ allele of the apoE gene is associated with hypercholesterolemia compared with the reference $\varepsilon 3$ allele, whereas the $\varepsilon 2$ allele with a reverse effect. ApoE gene is also involved in tissue repair, and growth and differentiation. While several evidences support for an increased risk of CVD and AD for people carrying the apoE $\varepsilon 4$ allele, its effect of cancer has been scanty explored. As the relationship between serum cholesterol level and head and neck cancer (HNC) is controversial, we explored for the first time the effect of apoE genotypes on HNC risk.

Methods

A total of 417 HNC cases and 436 hospital controls were genotyped for apoE. The relationship between HNC and putative risk factors was measured using the adjusted odds ratios (ORs) and their 95% confidence intervals (CIs) derived from logistic regression analysis. A gene-environment interaction analysis was performed.

Results

A borderline significant 40% decreased HNC risk (OR = 0.58, 95%CI: 0.31–1.05) was observed for individuals carrying at least one $\varepsilon 2$ allele (with reduced cholesterol level). A 60% risk reduction was noted among females carrying the $\varepsilon 2$ allele compared with those $\varepsilon 3$ homozygotes. A 2-fold increased HNC risk among those ever drinkers carrying the $\varepsilon 4$ allele, respect to those non drinkers with the $\varepsilon 3/\varepsilon 3$ genotype was observed.

Conclusions

Our study provides for the first time evidence of a possible protective effect of the $\varepsilon 2$ allele towards HNC, suggesting for a protective effect of low serum cholesterol levels towards HNC. Results can be interpreted also by keeping in mind that the as $\varepsilon 2$ allele is related with increased cellular antioxidant properties, which are known to be protective against cancer.

Genetic investigations in paternity cases in Portugal: a call for psychosocial and ethical recommendations

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Background

The Paternity Testing Commission of the International Society for Forensic Genetics has published several recommendations on biostatistics, laboratory management and quality control for genetic investigations in paternity cases. In this article we aim to expand the traditional technical and scientific requirements related to the collection, use and storage of genetic information in paternity cases by exploring the unspecified practices of informed consent and individual identification performed by experts working in Portuguese laboratories involved in paternity testing.

Methods

A qualitative and interpretative design was followed, grounded on interviews conducted in 2010 with experts involved in genetic paternity investigations ordered by courts by laboratories located in Portugal.

Results

Official technical and scientific recommendations on standard procedures and quality control in the field of paternity testing coexist with informal and heterogeneous laboratory practices. Specific recommendations on ethics and psychosocial issues related to genetic investigations in paternity cases are needed, drawing on debates around the implications of this activity to citizens' individual rights and well being, personal autonomy and privacy.

Conclusions

Good practices for genetic investigations of paternity cases should incorporate guidelines concerning the anonymization of data, the storage and content of biological samples and possible uses of the genetic information, in order to guarantee the quality and safety of the genetic databases.

Personalized medicine including genetic information optimises the drug therapy of multimorbid and multimedicated patients. A study in south-west Germany in 2009

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Background

Therapeutic problems including adverse drug reactions (ADRs) or non-responders often arise from drugs not fitting the metabolic profile of the patient or from incompatible drugs. Especially in hypertension, diabetes type II, and metabolic syndrome, where patients need to take many drugs, the individual metabolism and co-medication play a pivotal role in drug therapy. As a consequence, the medication of these patients needs to be adjusted by an expert system to their own phenotype of the drug metabolizing enzymes.

Methods

The observational cohort controlled clinical study MORE ('Medication Optimization to Reduce Events') enrolled 361 patients in south-Germany started in 2009. Data collection: Socio-demographic data, genetic constitution, diseases, medication and a daily medical diary. In appropriate cases the participating physicians optimized the drug therapy. Differences between patient groups regarding somatic effects were analysed by several multivariate analysis. Furthermore the cost effects of altered medication therapy was analysed with ANOVA.

Results

Preliminary data (150 patients) from the study has shown both medical and pharmacoeconomic benefits for certain groups. It shows a gain of life quality in the patient by reducing self-reported events (possible ADR) and non-responders. These patients, upon alteration of their medication reported:

(i) Less specific adverse reactions (e.g. muscle pain).

(ii) Less medication use. This result was collaborated through a subset of patients for which complete pharmaceutical data was available.

This resulted in significant savings per patient on average of 0.43 prescriptions per quarter. This also results in direct costs savings of 16–20% (*t*-test, $P < 0.05$).

Conclusions

The MORE-study demonstrates the benefit of medication optimization based upon a combination from pharmacogenetic and interaction information. Medical as well as economic benefits can be achieved by personalized drug therapy.

Online direct-to-consumer genetic testing: the possible impact on public health

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Background

The number of companies offers genetic testing directly to consumer (DTC) over the Internet is constantly increasing. Diagnostic and predictive possibilities made available by genetic testing have caused debates about negative health and psychological consequences due to a misleading interpretation of information provided by the websites.

The research is an updated analysis of websites offering DTC genetic tests and it aimed to describe the characteristics and the indications for testing provided by the websites, including presentation of risks and benefits of these tests. We focused the analysis on susceptibility genetic tests because of their potential impact on public health and prevention mainly considering that their scientific evidence and clinical relevance are still doubtful.

Methods

A systematic World Wide Web search was carried out in April 2010 using ©Google and ©Yahoo! search engines. Websites were analysed using a content analysis method.

Results

A total of 40 websites were found, mainly located in USA. Genetic tests for susceptibility to cardiovascular disease were the most frequent on offer. Only 53% of the sites clearly stated that susceptibility genetic testing was not aimed at diagnosing disease. Test results were communicated mainly through a personal online account or by e-mail (45%). Only one website required the results to be sent to the consumer's health care practitioner, although 68% encouraged consumers to contact a health care practitioner for result interpretation. Only 35% offered a counselling service, 20% mentioned specific risks relating to testing and 35% declared future use of genetic information.

Conclusions

The major result that appears from this study is the lack of exhaustive information provided by the websites necessary to a correct interpretation of the meaning and results of a genetic test. This fact raises concerns about how such tests could alter consumers' health perception and behaviour and impact on the demand for health care.

Finnish people's attitudes towards biomedical research and its sponsorship

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Background

A common view of biomedical research participation, culminating in informed consent, is that participants' own interests are primary. Advice on what information to give to the research subject suggests that subjects are interested mainly in their own well-being and they are not interested in research policy. The purpose was to study Finnish people's attitudes towards biomedical research and whether the research sponsor makes a difference to those attitudes.

Methods

A survey questionnaire was sent to a random sample of 25- to 64-year-old Finns ($n = 2400$) in 2007; 1188 (50%) responded. The questionnaires were anonymous, but were numbered to identify non-respondents for the second mailing.

Results

Respondents had a positive attitude towards biomedical research and there were only small variations by population group. When asked whether one's own clinical blood samples could be used in scientific biomedical research, 84% of the respondents would allow it. The most important reasons for giving routinely collected samples to a biobank were altruistic. Attitudes were strongly dependent on the sponsor of the research. Domestic research was looked at more positively than international research. Whether research was made by a public or private actor had less impact.

Conclusions

The results suggest that people want to be research participants to help in research of their own free will, and to choose whom they help. This has an impact on the way participants are informed, on the criteria used by ethics committees and other research regulators, and also on transparency and access to research results.