

4. ORAL PRESENTATIONS

Thursday, 8 November, 14.20–15.50

A.1. MIGRANT HEALTH ISSUES

The impact of immigration on tuberculosis trends in Malta, 1995–2010

Analita Pace Asciak

A Pace-Asciak¹, J Mamo², N Calleja³

¹Infectious Disease Prevention and Control Unit, Superintendence of Public Health, Msida

²Department of Public Health, University of Malta, Msida

³Department of Health Information and Research, Msida, Malta
Contact: analita.pace-asciak@gov.mt

Background

Due to its geographical position in the middle of the Mediterranean and at the threshold of Europe, Malta has been experiencing a large influx of irregular migration since 2002. Between 2002 and 2010, 13,195 immigrants are known to have landed in Malta by boat, many originating from Africa. Like other Western European countries, tuberculosis (TB) notification and incidence rates decreased steadily among Maltese nationals in recent decades. Nowadays, a substantial proportion of TB cases detected are among migrants from high-prevalence countries. Between 2003 and 2007, while the overall notification rates in Western Europe decreased in most countries, substantial increases were observed in Malta (+61.4% mean annual percent change in rate, 2003–2007). For effective TB control in Malta it is important to examine the effect of immigration on its TB epidemiology.

This study sets out to describe the TB trends in Malta and the characteristics of TB in these migrants and compare them with Maltese TB cases to tailor TB control strategies accordingly.

Methods

Retrospective population study of national TB surveillance data from 1995–2010.

Results

Between 1995–2010, the overall TB rate in Malta increased from 2.6/100,000 to 7.7/100,000 ($P=0.05$) while the Maltese rate decreased ($P<0.001$). The migrant TB rate was 347/100,000 compared to 2.7/100,000 Maltese rate. Sixty-nine percent of migrant cases were detected during the first 12 months of entry in Malta. The proportion of migrant TB cases increased from 33% in 2002 to 72% in 2010 ($P=0.004$). All migrant TB cases in 2010 entered Malta in the preceding years.

Conclusion

During 1995–2010, the overall TB rate in Malta increased. This rise may be mainly due to the recent large influx of migrants from high-prevalence countries and to the increasing proportions of migrant TB cases as the Maltese rate has decreased. Awareness of increased risk of TB disease in migrants needs to be an ongoing process not just at entry but for many years after arrival, even in resettlement countries. This is of importance as Malta often serves as a transit country into Europe. Following this study, screening protocols in new entrants from high-incidence countries have been revised and a national TB control strategy launched.

Effect of adopting host-country nationality (naturalisation) on perinatal mortality rates and causes among immigrants in Brussels

Judith Racape

J Racapé¹, M De Spiegelaere², M Dramaix¹, E Haelterman¹, S Alexander¹

¹School of Public Health - Free University of Brussels - Belgium

²Health and Social Observatory of Brussels - Belgium

Contact: jrcape@ulb.ac.be

Background

A number of studies refer to the “Epidemiological paradox”: despite their low socio economic status, immigrants have good pregnancy outcomes. However, perinatal mortality rates vary between ethnic groups and the relation with the immigrant status is unclear. The objectives of this work were to describe and measure inequalities in pregnancy outcomes, perinatal mortality and causes of perinatal deaths according to the current citizenship versus national origin of mothers and socio-economic status in Brussels during 1996–2008.

Methods

This study is a population-based cohort study using the data from linked birth and death certificates from the Belgian civil registration system. Data are related to all babies born during 1996–2008 and whose mother was living in Brussels, irrespective of the place of delivery (173 514). We used logistic regression to estimate the odds ratios (ORs) for the association between mortality, causes of deaths and nationality.

Results

Women of Morocco, sub-Saharan Africa and Turkey experience an 80% excess in perinatal mortality ($p<0.0001$ compared to Belgian). For sub-Saharan Africa women, this excess is caused principally by immaturity related conditions and reflects a high rate of preterm deliveries and a low socio-economic level. Paradoxically, despite their favourable pregnancy outcomes, Moroccan and Turkish experience a strong excess (40–50%, $p<0.05$ compared to Belgian) of perinatal mortality even after adjustment of mother's age, parity distributions and multiple births and socio-economic level. This excess of perinatal mortality is due mainly to congenital anomalies and asphyxia or unexplained deaths prior to the onset of labour. This excess of perinatal mortality is not observed for the mother who adopted Belgian citizenship.

Conclusions

In Brussels, patterns of inequalities in perinatal mortality vary according to nationality but those differences do not persist after the naturalisation. The explanation of the positive effect of naturalisation is probably due to a mix of determinants such as modes of use of health services or cultural contexts and these probably differ with the women nationalities. Further analysis should help to better understand the results observed.

Have immigrants in Norway higher risk of stillbirth and infant mortality?

Annett Arntzen

A Arntzen¹, SO Samuelsen², S Vangen³, C Stoltenberg⁴

¹Faculty of Business and Social Science, Vestfold University College, Tønsberg, Norway

²Department of Mathematics, University of Oslo, Oslo, Norway

³Norwegian Resource Centre for Women's Health. Department of Obstetric and Gynaecology. Oslo University Hospital, Rikshospitalet, Oslo, Norway

⁴Division of Epidemiology, Norwegian Institute of Public Health, Oslo, Norway

Contact: annett.arntzen@hive.no

Background

Epidemiological studies describe pregnancy outcomes of immigrant women in European receiving countries with conflicting results. Some groups have the same or even better perinatal health than the population of the receiving country, other have poorer pregnancy outcomes.

We have identified pregnancy outcomes among ethnic minority groups in Norway. By comparing the Norwegian

majority population with the largest minority groups who gave births in the period 1980 to 2010, we'll find whether negative pregnancy outcomes differ with ethnicity.

Within the Norwegian objective of social inequality of health, integration and equal rights is a central part. This includes social equity in pregnancy outcomes. If the pattern of pregnancy outcomes among minority groups differs significantly from the rest of the population, it may be necessary to materialize specific strategies to meet the needs of those groups.

Methods

Information from the Medical Birth Registry of Norway on all births was linked to the Country of Birth File and information from Statistics Norway on parents' education. Women in the eight largest immigrant groups and Norwegian women who gave births in Norway from 1980 to 2010 were identified ($N = 1,790,167$). The main outcome measure was stillbirth and infant mortality, and the differences between the ethnic groups were estimated as rates and relative risks approximated as odds ratios in logistic regression.

Results

Compared with the majority population, the relative risks of stillbirth were 1.7 (95% CI = 1.39–2.11) for Sri Lankans, 1.6 (1.36–1.96) for Somali and 1.5 (1.34–1.74) for Pakistani women. For the Iraqis (0.7, 0.57–0.97) and Vietnamese (0.8, 0.62–1.13) women the stillbirth risk was below the reference group. The relative risk for infant mortality was 2.2 (95% CI = 1.71–2.71) for Somali, 2.1 (1.79–2.41) for Pakistani, 1.7 (1.26–2.29) for Sri Lankans and 1.6 (1.19–2.22) for infants of Iraqi women. Only the Philippines had equal risk of infant mortality than the Norwegians, but not significant (1.0, 0.73–1.41).

Conclusions

Knowledge on the distribution of pregnancy outcomes between different immigrant groups in a society is important in allocating socioeconomic resources, and to achieve political goals of equity in health and social welfare.

Physical child abuse among asylum seekers in The Netherlands: association with individual, social unit and reception factors

Simone Goosen

S Goosen^{1,2}, K Stronks², AH Teeuw³, SN Brilleslijper-Kater³, AE Kunst²

¹Netherlands Association for Community Health Services, Utrecht, The Netherlands

²Department of Public Health, Academic Medical Center, University of Amsterdam, The Netherlands

³Department of Social Paediatrics, Emma Children's Hospital, Academic Medical Center, University of Amsterdam, The Netherlands

Contact: sgoosen@ggd.nl

Objectives

Studies into child abuse among asylum seekers are very rare. The aim of our study was to identify whether the incidence of newly recorded physical child abuse among asylum seekers is associated with individual, social unit and reception factors.

Methods

A database of electronic records from the community health services for asylum seekers, containing individual, social unit, reception and health data, was used. The study includes all children aged <18 years who lived in an asylum seeker reception centre in The Netherlands with at least one parent for at least three months between 1-1-2000 and 31-12-2008 ($N = 20,188$). Cases were defined as children with newly recorded physical child abuse. Multivariate analysis was carried out using Cox regression models.

Results

The total number of physical child abuse cases was 130. The incidence of recorded physical child abuse was 2.6 per 1000 person years. For nearly all subgroups the incidence was above 2.0 per 1000 person years. The risk of recorded physical child abuse was increased for girls (RR = 1.41, 95% CI 1.00–2.01), children with teenage mothers (RR = 2.00, 95% CI 1.33–3.02),

children born before arrival of their social unit in reception (RR = 1.73, 95% CI 0.93–3.24) and children relocated between asylum seekers centres in the preceding time interval (RR = 1.61, 95% CI 1.07–2.42). An inverse relation was found with length of stay (≥ 4 years versus 4–11 months: RR = 0.21, 95% CI 0.09–0.50). No statistically significant association was found with age-group, number of children in social unit and country of origin.

Conclusion

This study suggests that physical child abuse among asylum seekers is not limited to families from certain countries of origin or certain age groups. Special attention should be paid to families with a father only, with a teenage mother and families that are being relocated because of the elevated risk in these groups.

Use of Healthcare Services in a Foreign Country among Ethnic Danes, Turkish immigrants and their descendants in Denmark

Signe Smith Nielsen

SS Nielsen, S Yazici, SG Petersen, AL Blaakilde, A Krasnik

Center for Healthy Ageing, Department of Public Health, Faculty of Health Sciences, University of Copenhagen, Copenhagen, Denmark
Contact: ssn@sund.ku.dk

Background

Healthcare obtained abroad may conflict with care received in the country of residence. A special concern for immigrants has been raised as they may have stronger links to healthcare services abroad. Our objective was to investigate use of healthcare in a foreign country in Turkish immigrants, their descendants, and ethnic Danes.

Methods

The study was based on a nationwide survey in 2007 with 372 Turkish immigrants, 496 descendants and 1,131 ethnic Danes aged 18–66. Data were linked to registries on socioeconomic factors. Using logistic regression models, use of doctor, specialist doctor, hospital, dentist in a foreign country as well as medicine from abroad were estimated. Analyses were adjusted for socioeconomic factors and health symptoms.

Results

The use of cross-border healthcare varied from 1.4 to 15.1%, depending on group and service. Using logistic regression models with ethnic Danes as the reference group, Turkish immigrants were seen to have made increased use of general practitioners, specialist doctors, hospitals, and dentists in a foreign country (odds ratio (OR), 5.20–6.74), while Turkish descendants had made increased use of specialist doctors (OR, 4.97) only. For medicine, we found no differences among the men, but women with an immigrant background made considerably greater use, compared with ethnic Danish women. Socioeconomic position and health symptoms had a fairly explanatory effect on the use in the different groups.

Conclusions

Use of cross-border healthcare may have consequences for the continuity of care, including conflicts in the medical treatment, for the patient. Nonetheless, it may be aligned with the patient's preferences, and thereby beneficial for the patient.

Do neighbourhood environments contribute to ethnic differences in obesity, physical activity and dietary habits?

Oarabile Molaodi

OR Molaodi¹, AH Leyland¹, A Ellaway¹, A Kearns², S Harding¹

¹MRC/CSO Social and Public Health Sciences Unit, Glasgow, United Kingdom

²Department of Urban Studies, University of Glasgow, Glasgow, United Kingdom

Contact: oarabile@sphsu.mrc.ac.uk

Background

In England, obesity is more common in some ethnic minority groups than in Whites but little is known about the extent to

which ethnic minorities are more exposed to obesity promoting environments (e.g. fast food outlets). In adulthood, African origin and Pakistani women are more likely to be overweight/obese. South Asian and Chinese men and women are less likely to report recommended physical activity (PA) levels. We examine whether ethnic differences in PA, fruit and vegetable consumption and body size are related to density (number/1,000 population) of local food outlets and PA facilities.

Methods

Individual data from the Health Surveys for England (1999, 2004) were linked to area level data on crime and deprivation (Index of Multiple Deprivation domains), urbanicity and ethnic density (Census 2001) and number of fast food outlets, supermarkets, indoor and outdoor PA facilities (published lists). Multilevel modelling was used to examine the association between density of food outlets and PA facilities and meeting recommended PA level (≥ 30 mins or not of moderate/vigorous), fruit and vegetable consumption (≥ 5 portions a day or not), body mass index (BMI), overweight and obesity in Whites (10,082), Black Caribbean (1915), Black

African (726), Indian (2147), Pakistani (1888), Bangladeshi (1652), Chinese (1173) and Irish (2005) groups. All models were adjusted for area characteristics and individual socio-economic circumstances.

Results

Ethnic densities were generally higher in most than least deprived areas, least consistent for Indians. Area measures of ethnic density and deprivation were independently associated with occurrence of fast food outlets, supermarkets and outdoor PA less common in high than low ethnic density areas. Increased exposure, however, was generally not associated with PA or fruit and vegetable consumption or body size. Individual socio-economic factors played a significant role in patterning risk for some ethnic groups.

Conclusions

The occurrences of food outlets and PA facilities in neighbourhoods were linked to ethnic density but not to ethnic differences in PA, fruit and vegetable consumption or body size.

B.1. Workshop: Child and adolescent mental and emotional health-life course and mental health

Chair: Jutta Lindert, Germany

Organiser: EUPHA section on Public Mental Health

Child and adolescent mental health has an impact on mental health in adult and in late life. Recent research in the neurobiological, behavioural and social sciences has led to major advances in the conditions that influence child and adolescent mental health and the impact of child and adolescent mental health on later health outcomes. In the workshop we aim to 1) present data of a meta-analysis of the impact of early life experiences on mental health in later life; 2) present data on mental health of children and the factors associated with mental health e.g. exposure to smoking, and childrearing practices. The central role of early relationships will be investigated in the four presentations as a source of either support or risk and dysfunction in early and later life. Based on the findings we will discuss possibilities to increase the odds of favourable developmental mental and emotional outcomes through intervention measures.

Abuse in early life and depression and anxiety in later life

Jutta Lindert

J Lindert^{1,2}, O von Ehrenstein³, R Grashow², M Weisskopf²

¹Protestant University of Applied Sciences, Ludwigsburg, Ludwigsburg, Germany

²Harvard School of Public Health, Boston, USA

³University of California at Los Angeles, USA

Background

Depression and anxiety in adulthood might be abuse in early life. We aimed to systematically assess evidence on the relation of early life abuse with depression and anxiety in later life.

Methods

To assess evidence on the relationship between abuse and depression and anxiety we performed a systematic search of the electronic databases (from August 2011-October 2011, all age groups, any language, any population) of three databases: PUBMED, EMBASE and PSYCHINFO. Data were extracted after consideration of exclusion criteria and quality assessment, and then compiled into summary tables. To quantify the association of abuse with depression and anxiety we performed a meta-analysis and calculated pooled odds ratios (ORs) with respective 95% confidence intervals (CI). To quantify the

association of abuse and depression and anxiety we calculated pooled Odds Ratios. The I^2 statistic was used to assess heterogeneity.

Results

The search yielded 29 eligible studies with 139,625 participants. There was a statistically significant association between abuse and lifetime psychiatric symptoms of depression (sexual abuse: OR=2.16; 95%CI 1.62-2.87; physical abuse: OR=1.71; 95%CI: 1.39-2.09) and anxiety (sexual abuse: OR=2.42; 95%CI 1.96-2.99; physical abuse: OR=1.90; 95%CI 1.13-3.20). Associations persisted over the life course with peaks in younger and older age groups (age 18-30, over age 60).

Discussion

Histories of exposure to abuse are associated with an increased risk of depression and anxiety in adults.

Outlook

It might be necessary to move beyond a transactional definition of exposure to abuse.

Smoking and mental health problems in primary school European children in a set of western and eastern countries

Viviane Kovess

V Kovess¹, A Boyd², O Pez³, A Bitfoi⁴, MG Carta⁵, E Ceyda⁶, D Golitz⁷, S Lesinskiene⁸, M Zlatka⁹, O Roy¹⁰, R Kuipers¹⁰, E Susser¹¹

¹EHESP-Rennes, Paris, France

²Mailman School of Public Health, New York, USA

³EHESP- Rennes, Paris, France

⁴The Romanian League for Mental Health, Romania

⁵Associazione Università Europea del Mediterraneo, Cagliari, Italy

⁶Yeniden Health and Education Society, Istanbul, Turkey

⁷Center for Applied Sciences of Health (CASH), Leuphana University of Lüneburg, Lüneburg, Germany

⁸Lithuanian Society of Child and Adolescent Psychiatry, Faculty of Medicine, Vilnius University, Lithuania

⁹Foundation for Human Relations, Sophia, Bulgaria

¹⁰Faculty of Social Sciences, Radboud University, Nijmegen, Netherlands

Background

Smoking is detrimental to own health but has been documented to be detrimental for the surrounding and more specifically to children with an impact on among others asthma, birth weights and behaviour disorders. This presentation aims to measure the association between hyperactivity, conduct disorders and emotional disorders and mother's tobacco consumption at diverse period of time.

Method

The “School Children Mental Health Evaluation” project (SCHME), a multisite school-based survey of children age 6–11 in two Western (Netherlands and Germany) and four Eastern (Romania, Bulgaria, Lithuania, and Turkey) countries in the European region allows such comparisons by assessing the smoking behaviours of mother in detail: current smoking and smoking in front of the child, during pregnancy and during the first year of child, through a self-administered questionnaire together with the mental health of the children measured by SDQ (parents and teachers) as well as by the children themselves (“Dominic Interactive”).

Results

4059 children randomised in the two/three step procedure (randomisation of schools, of classes and of children in each of the country) were included into the analyses. Participation rate averaged 63%, once schools accepted. Being either a former or a never smoker compared to a current smoker decreases the OR of suffering from ADHD respectively 0.49 and 0.43 when measured by D.I., never smoker decrease by 0.75 when measured by SDQ parent and 0.66 for former and never smoker when measured by teacher SDQ; same relation apply when ADHD is pooled with conduct disorders and also apply to internalised disorders as measured by D.I. (0.60 and 0.72) only for never smoker measured by SDQ parents (0.79) and does not reach significance when measured by SDQ teachers. Smoking during pregnancy is associated with ADHD (OR = 1.7) and this effect remains for externalised and internalised disorders except internalised measured by teachers.

Outlook

This study confirms the association between maternal smoking and children mental health disorder whatever will be the informant and the country.

Parental Attitudes and mental health risks in children: West East European comparisons

Ondine Pez

O Pez¹, D Golitz², R Kuijpers³, S Lesinskiene⁴, M Carta⁵, A Bitfo⁶, V Kovess⁷

¹Université Paris Descartes, Paris, France

²Center for Applied Sciences of Health (CASH), Leuphana University of Lüneburg, Lüneburg, Germany

³Faculty of Social Sciences, Radboud University, Nijmegen, Netherlands

⁴Lithuanian Society of Child and Adolescent Psychiatry, Faculty of Medicine, Vilnius University, Lithuania

⁵Associazione Università Europea del Mediterraneo, Cagliari, Italy

⁶The Romanian League for Mental Health, Romania

⁷EHESP- Rennes, Paris, France

Background

Negative parenting is a key aspect of the parent-child relationship and can contribute to behavioural problems in childhood and later in adulthood. We aimed to examine the associations between negative parenting behaviours and child mental health, identify psychosocial correlates of negative parenting behaviour, evaluate relationship across seven countries in Europe.

Methods

“The School Children Mental Health Evaluation project” (SCHME) is a multisite school-based survey of children age 6–11 in three Western (Netherlands, Italy and Germany) and four Eastern (Romania, Bulgaria, Lithuania, and Turkey) countries in the European region. Mental health of the children has been measured by SDQ (parents and teachers) as well as by the children themselves (Dominic Interactive) and parental attitudes by “The Parenting Scale” a 30-item self-report scale covering 3 dysfunctional discipline styles: laxness, over-reactivity and verbosity completed by autonomy and care, from the “Parent Behaviors and Attitudes Questionnaire”.

Results

5127 children randomised in a two/three step procedure (randomisation of schools, of classes and of children in each of

the country) were included into the analyses. Participation rate averaged 63% once schools accepted. Parental attitudes large differ across countries and between West/East regions. Gender, number of children in the family, mother age and education, employment statute and mother psychological distress are attitudes determinants as well as countries and region in multivariate models. Child age and gender, mothers age, education, employment statute and psychological distress are associated with child internalised as well as externalised disorders but some of the attitudes: overreactivity, caring and verbosity contrary to laxness and autonomy promoting stay associated once the social variables are controlled for as well as country but not East/West region.

Conclusion

Most negative parenting are correlated with children mental health problems which gives bases for parental education as a powerful method for mental health prevention in children.

Association between childhood overweight and obesity with mental health problems: Results from the School Children Mental Health in Europe Project

Mauro Carta

M Carta¹, S Lesinskiene², V Kovess-Masféty³

¹Associazione Università Europea del Mediterraneo, Cagliari, Italy

²Lithuanian Society of Child and Adolescent Psychiatry, Faculty of Medicine, Vilnius University, Lithuania

³EHESP- Rennes, Paris, France

Background

Overweight has become an important health issue with epidemic proportions in the pediatric population among Western countries and it is related to health and psychiatric problems. The aim of the present study is to estimate the prevalence of overweight in school children from seven European countries and determine psychosocial and clinical factors associated with it.

Methods

The SCHME is a cross-sectional survey about primary school children health from seven West and Eastern European countries, with 5500 interviews completed by three informants (parents, teachers and children). The outcome variable was child weight (no overweight problems / overweight / obesity) based on the International Obesity Task Force (IOTF) definition. Lifestyle variables, parenting styles and socio-economic characteristics were collected in parent-administered questionnaires. Child psychopathology variables were assessed using child- and parent-reported instruments (Dominic Interactive (DI) and Strengths and Difficulties Questionnaire (SDQ)). The final sample consisted of 5074 children whose parents reported the outcome. For the analyses, the outcome was dichotomized in two categories: no overweight problems/overweight or obesity.

Results

Children were aged from 5 to 13 years, with a mean age of 8.70 (SD = 1.37) and 51% being girls. 19.8% had overweight problems (14.6% overweight and 5.2% obese). The prevalence of overweight problems ranged from 6.2% in Germany to 28.6% in Romania. In univariate analysis, having overweight problems was associated with being male, lower levels of education between parents, being an only child (OR = 1.32; 95% CI: 1.13–1.52), country. Age (OR = 0.93; 95% CI: 0.88–0.98) and unemployment of one parent (OR = 1.39; 95% CI: 1.09–1.77) were also significantly associated with childhood overweight problems. Regarding parenting styles, high laxness, high verbosity, high caring and low autonomous dimension were associated with overweight.

Conclusions

Overweight problems appear to be an important burden for school children, related to several psychosocial factors and psychopathology. Preventive programs designed to reduce weight problems in schools could contribute to reduce this burden.

C.1. PROMISING A HEALTHY LIFESTYLE

Decreased health-related quality of life among overweight and obese compared to normal-weight preschool and school children in eight European countries

Claudia Pischke

C Pischke¹, S Hense², T Veidebaum³, D Molnar⁴, S De Henauw⁵, M Tornaritis⁶, S Marild⁷, A Siani⁸, L Moreno⁹, K Bammann¹⁰

¹Department of Prevention and Evaluation, BIPS - Institute for Epidemiology and Prevention Research, Bremen, Germany

²Department of Epidemiological Methods and Etiologic Research, BIPS - Institute for Epidemiology and Prevention Research, Bremen, Germany

³Department of Pediatrics, Medical Faculty, University of Pécs, Pécs, Hungary

⁴National Institute for Health Development, Tallin, Estonia

⁵Department of Public Health/Department of Movement and Sport Sciences, Faculty of Medicine and Health Sciences, Ghent University, Ghent, Belgium

⁶Research and Education Institute of Child Health, Strovolos, Cyprus

⁷Sahlgrenska School of Public Health and Community Medicine; University of Göteborg, Göteborg, Sweden

⁸Unit of Epidemiology & Population Genetics, Institute of Food Sciences, National Research Council, Avellino, Italy

⁹GENUD Research Group, E.U Ciencias de la Salud, University of Zaragoza, Zaragoza, Spain

¹⁰Institute for Public Health and Nursing Care Research, University of Bremen, Bremen, Germany

Contact: pischke@bips.uni-bremen.de

Background

Previous research demonstrated an inverse relationship between overweight/obesity and health-related quality of life (HRQOL) in children aged 9 years and older. Few studies, however, have examined this relationship in children aged 2-9 years. Further, variations by sex and migration background are unknown.

Aims

To replicate the previously established inverse association of childhood weight status and HRQOL among children aged 2-9 years in the 'identification and prevention of dietary- and lifestyle induced health effects in children and infants' (IDEFICS) study. To examine possible variations by sex and migration background.

Methods

The population-based multi-centre IDEFICS study included 16,225 children from 8 European countries (Italy, Estonia, Cyprus, Belgium, Sweden, Hungary, Germany and Spain). Body mass index (BMI) categories for normal-, overweight and obese were defined according to the criteria of the International Obesity Task Force. HRQOL was assessed using an adapted version of the parent-proxy KINDL questionnaire including four scales on psychological well-being, self-worth, family environment, and the quality of social interactions with peers. HRQOL sum scores were transformed to range from 0-100. Migration background was defined as having either one or two parents born outside of the respective country.

Results

Of the 13,933 (86%) children with complete data for BMI and HRQOL (49% female; 45% pre-schoolers aged 2 to 5 years, 55% school children aged 6-9 years), 1,745 (12.5%) were categorized as overweight, 9,666 (6.9%) as obese and 11,222 (80.5%) as not overweight. Across all countries, overweight or obese children were more likely to have lower HRQOL sum scores than normal-weight children (OR: 1.3, 95% CI: 1.1-1.5). This association was most pronounced among children with two foreign parents compared to those with one or no foreign parent. No sex differences were observed.

Conclusion

Consistent with previous research, findings of the IDEFICS study demonstrate a psychological burden of paediatric overweight/obesity among children aged 2-9 years which was most pronounced among children with migration background.

Longitudinal analysis to illuminate the directionality and/or causality of weight status and HRQOL is warranted.

Lifestyle factors, anthropometric measures, and diet associated with normal weight obesity in a Finnish population-based study

Satu Männistö

S Männistö¹, K Harald¹, M Lahti-Koski¹, NE Kaartinen¹, SE Saarni¹, N Kanerva¹, H Tolonen¹, P Jousilahti²

¹National Institute for Health and Welfare, Helsinki, Finland

²Finnish Heart Association, Helsinki, Finland (ML-K)

Contact: satu.mannisto@thl.fi

Background

A new syndrome called normal weight obesity (NWO) has recently been identified as related to certain metabolic disorders. NWO is characterized as excessive body fat associated with a normal body mass index. We compared the lifestyle, anthropometric and dietary factors of NWO subjects to lean, overweight and obese Finnish subjects.

Methods

The population-based cross-sectional study included 4786 participants (25-74 years) from the National FINRISK 2007 Study and the subsequent more detailed health examination on obesity, which included anthropometric measurements. NWO was defined as BMI < 25 kg/m² and body fat percent for men (>20%) and women (>30%). Diet was assessed using a validated food frequency questionnaire. The analyses were adjusted for age, education, physical activity, smoking and alcohol consumption.

Results

The prevalence of subjects with a normal BMI was 28% in men and 41% in women. Of those, 33% of men and 44% of women were NWO. The NWO syndrome was related to sedentary lifestyle and ex-smoking. The NWO syndrome was also related to high consumption of milk, soft drinks (women), sugar (men), confectionery (women), and with low consumption of vegetables (women), meat (women), processed meat (men), fish (women) and soft drinks (men). Low protein (E%) intake was found in NWO subjects.

Conclusions

Anthropometric measures, specific unhealthy lifestyle and dietary factors were associated with NWO. From the public health perspective, specific screening of the NWO syndrome in health care might be necessary for early detection and prevention of obesity and obesity-related disorders.

An assessment of the impact of one's BMI and one's knowledge of the causes of obesity on the acceptance of healthy eating policies in Poland

Agnieszka Koziol-Kozakowska

A Koziol-Kozakowska¹, B Piórecka¹, B Niedźwiedzka²

¹Human Nutrition Department, Institute of Public Health, Faculty of Health Science, Jagiellonian University Medical College, Krakow, Poland

²Scientific Information Department, Institute of Public Health, Faculty of Health Science, Jagiellonian University Medical College, Krakow, Poland
Contact: beata.piorecka@uj.edu.pl

Prevention of diseases related to obesity is a priority in health policy. The aim of this study was to assess the extent in which one's BMI and one's knowledge of the causes of obesity determines one's willingness to accept government policies in the field of healthy eating in Poland.

The survey was based on a sample of 600 computer-assisted web interviews. Seven-item scale was designed to assess levels of knowledge. Items are scored on a 5-point scale from 'strongly disagree' to 'strongly agree' (Cronbach's alpha 0.77). Level of knowledge was divided into quartiles. Response range

was from 7 to 35 points - the higher number of points, the higher level of knowledge. Chi-Square test, Kruskal-Wallis test and Spearman's rank correlation were used to assess the relationship between BMI, education level and the level of knowledge about the causes of obesity and selected policies. The study group consisted of 58.8% women and 41.2% men, mean age of 38.95 ± 13.24 years. 35.4% of participants were overweight, 16.7% were obese; more men than women. In the study group, 27.7% of subjects had low level of knowledge about the causes of obesity (1 quartile) and 22.2% high (quartile 4). The level of knowledge correlated positively with almost all policies. The highest correlation was observed in relation to proposed fiscal policies like: impose taxes on unhealthy food and use the proceeds to promote healthier eating ($r=0.36$), cooperation with food companies to reformulate products ($r=0.35$), subsidies fruit and vegetables to promote healthier eating ($r=0.33$). Education level was not a significant factor except for one policy-the government should regulate the nutritional content of workplace meals-where higher education level was associated with lower support rates. Obese people were less supportive to decrease VAT rates for healthy foods and increase VAT for unhealthy foods. There was no correlation between levels of education and the knowledge of the causes of obesity.

To increase the acceptability of the policies the level of public awareness of the determinants of obesity and associated diseases must be increased.

Work carried out within the research project Eatwell (Interventions to Promote Healthy Eating Habits: Evaluation and Recommendations) 7 PR, KBBE 226713-EATWELL

Interventions for promoting physical activity as a mode of transport among school-aged children

Magdalena Thaller

M Thaller, F Schnabel, E Gollner

Fachhochschulstudiengänge Burgenland Ges.m.b.H., Pinkafeld, Austria
Contact: magdalena.thaller@fh-burgenland.at

Background

Walking, as a form of exercise, promotes health and can contribute to a reduction of traffic as well as reduced environmental pollution. The promotion of physical activity in early childhood has been shown to be an important instrument in improving levels of health and overall wellbeing. The aim of this study was to show the influence of walking to school on kinesic behaviour of children and to determine the impact of walking on CO₂ emission levels.

Method

A quantitative survey was carried out in seven primary schools which took part in the "Schoolwalker" aspect of the project "Gemeinsam gesund im Bezirk Oberwart". The project was funded by Fonds Gesundes Österreich, a business unit of Gesundheit Österreich GmbH. Data was collected first via a standardised questionnaire between October 2010 and June 2011. Second, via semi-structured interviews with teachers, changes in social skills, and levels of attention and concentration among children were ascertained.

Results

In addition to promoting social behaviour and increasing the number of children walking to school to 48.56%, we determined a reduction of 3.9 kg CO₂ per child per year. This corresponds to a total reduction of 1.4 tonnes (among 370 children).

Conclusion

Projects aimed at promoting physical activity, such as Schoolwalker, can lead to reductions in CO₂ hence promoting protection of the climate and environment. The "Health in all Policies" approach is necessary to promote health through policies which are under the control of non-health sectors, requiring considerable multi-sectoral collaboration. This requires an enhanced awareness and consideration of the interplay between health and especially transport and the environment. Conversely, health promotion should

increasingly consider the environmental impact of its policies by viewing environmental management as an instrument of health promotion. Further studies are necessary to create basic structural conditions to develop and promote walking to school and to integrate the topic "ecology" into health promotion.

Using new technologies to promote healthy nutrition and physical activity to children and their parents in Switzerland, 2010-2012: A social marketing success story

Natalie Rangelov

LS Suggs, N Rangelov

Università Della Svizzera italiana, Institute of Public Communication, Lugano, Switzerland
Contact: suzanne.suggs@usi.ch

Issue/problem

Inactivity and unhealthy diet are correlated with overweight and obesity, and their associated problems. Malta (72%) has the highest inactive population in Europe, followed by Serbia (68%) and the UK (63%). Switzerland's inactivity rates are increasing with Canton Ticino being the most sedentary (Ticino: 55%; Switzerland: 32%). Given the societal and economic consequences of these two behaviors, it is imperative to find effective strategies to promote healthy nutrition and physical activity (PA).

Description of the problem

Famiglia, Attività, Nutrizione (FAN) is part of Ticino's public health strategy for healthy weight, "Peso corporeo sano". It aims to promote healthy diet and PA to families with children (\geq ages 6-12) through the use of innovative communication strategies and new technologies. The development of FAN followed the Social Marketing framework. Formative research informed the content, timing, data collection tools, and tone of the program. Parents were randomized to receive weekly tailored content through: 1) Website, 2) Website + e-mail, or 3) Website + SMS. All children received a tailored letter weekly, by post. Process (Participation and Satisfaction) and outcome measures (behavioral difficulty, intentions, and behaviors) were assessed through surveys of parents and children and diet and PA logs of children.

Results (effects/changes)

Participation exceeded the goal of 250 families, with 556 parents and 750 children participating. 84% of families rated FAN positively. The letters to children were most appreciated. Children anticipated their arrival and they took the burden off of parents (i.e., FAN told them to eat more veg). At baseline parents had the most difficulty with PA and children with diet. At follow-up, all study groups showed significant change (decrease) in the difficulty of these behaviors. Parents' intention to be active improved significantly over time. Significant effects were seen for parents' fruit and vegetable and fiber consumption (increased). Children improved their fruit and veg consumption.

Lessons

Social Marketing facilitated high participation and satisfaction and positive outcomes. Lessons learned can assist others in designing programs targeting lifestyle behaviors to parents and children.

How well do we understand costs and benefits of physical activity programs and campaigns?

Alessandra Lafranconi

A Lafranconi¹, JS Evans², G Cesana³

¹Centro Studi Sanita' Pubblica, Università degli Studi Milano Bicocca, Milan, Italy; Cyprus International Institute, Limassol, Cyprus; Environmental Health, Harvard School of Public Health, Boston, US

²Cyprus International Institute, Limassol, Cyprus; Environmental Health, Harvard School of Public Health, Boston, US

³Centro Studi Sanita' Pubblica, Università degli Studi Milano Bicocca, Milan, Italy

Contact: alessandra625@hotmail.com

Background

Physical inactivity is responsible for 19 million of DALYs/yr worldwide, of which 16 million are due to cardiovascular disease (CVD). Numerous programs and campaigns promoting physical activity (PA) have been undertaken, but results on costs and benefits are not conclusive. Aim of the work is to perform a cost-benefit analysis of large-scale interventions intended to increase the population level of PA and thereby reduce CVD, in high-income European Countries (EUR-A).

Methods

Baseline levels of PA were estimated using data from the UK National Health Service (Physical Activity and Fitness, 2008), while efficacy and cost of interventions were retrieved from a recent review (Wu et al., Economic Analysis of Physical activity Interventions, 2011).

Estimates of CVD risk and its dependence on PA, long-term compliance with exercise programs, and achievement and maintenance of cardiovascular (CV) protection over time were taken from WHO's Global Burden of Disease analysis. CV epidemiological variables, obtained through the software DisMod II, and CVD patterns, reproduced from WHO's models, were used to estimate the number of DALYs attributable to physical inactivity, and thus the social cost,

for each control option (do nothing, individual intervention, and social support). The model was built in Analytica (version 4.2), Lumina Decision Systems.

Results

2.99 million DALYs [0.03,0,0]/yr were attributable to physical inactivity. Total effective DALYs [0.03,0,0] over a 5 year-time window were 13.9, 12.5 and 12.3 million, according to control option. Total cost, in billion US-\$, was 27.4 for individual intervention and 81.3 for social support. Total social cost estimates, in US-\$ (1 DALY=50,000 US-\$), were 695 (CV=7%), 651 (CV=25%) and 697 (CV=23%) billion.

Conclusions

Preliminary results seem to show that individual interventions maximize expected net benefits; social interventions, which maximize health benefits, don't appear to be cost-effective.

The integrated approach of the report is crucial to support the decision-making process on the relationship between PA and CVD, because it provides an integrated view of epidemiological, medical, economical and social aspects; it's also valuable in defining the need of further research in selected fields.

D.1. Workshop: European Guidelines on Public Health Genomics-The Declaration of Rome

Chairs: Ciaran Nicholl, JRC European Commission and Angela Brand, The Netherlands

Organiser: EUPHA Section on Public Health Genomics

Genome-based information and technologies (GBIT) is one of the top priorities on EC level and of high importance for the work of DG for Health and Consumers as well as other DGs such as DG INFSO as it underpins the Lisbon Agenda and the "Midterm Review on Life Sciences and Biotechnology-A Strategy for Europe" (Action 29). Furthermore, it is an integral component of the new Health Strategy "Health for Growth" and highly contributes to the EU 2020, Innovation Union, Horizon 2020 and Digital Agenda goals. As a cross-cutting research and policy area of public health it has significant and rising impact on the understanding of diseases, the development of evidence-based health policies and the prevention and delivery of care. It tackles both rare and common complex diseases and all related health problems since almost all health problems are caused by gene-environment interactions including epigenomic effects. Thus, GBIT enables us to understand the role and combination of health determinants. It had been recognized that this research will imply new opportunities for public health and that Europe needs to prepare for the conceptual changes in the analysis of health problems by giving guidance to the EU member states. The "European Best Practice Guidelines for Quality Assurance, Provision and Use of GBIT" prepared by the Public Health Genomics European Network (PHGEN II) within the last three years will have a high public health as well as EU added value: European policies on Public Health Genomics had been systematically assessed, gaps identified and European best practice guidelines developed, which will be implemented in the next years in the EU Member States. In the Declaration of Rome these best practice guidelines have been summarized and endorsed.

The workshop presents the results of PHGEN II including the Declaration of Rome.

Declaration of Rome-European guidance on Public Health Genomics

Angela Brand, Jonathan Lal

Institute for Public Health Genomics (IPHG), Maastricht University, Maastricht, The Netherlands

The Declaration of Rome (DoR), which had been endorsed on 19 April 2012, summarizes the policy research of PHGEN II by framing "European Best Practice Guidelines on the Quality Assurance, Pro-vision and Use of Genome-based Information and Technologies". These guidelines are a milestone for Public Health Genomics in Europe and beyond, since they will assist the EU Member States, Applicant and EFTA-EEA countries in the upcoming years with evidence-based guidance on the timely, responsible, effective and efficient integration of emerging genome-based innovations into healthcare systems for the benefit of population health. The DoR enhances the capacity of Europe to assess the societal impact and social utility of emerging knowledge and technologies in the highly dynamic field of genomics. PHGEN II used both the evidence base and the ethical, legal and social reasoning of leading experts to set up European guidelines which preserve the fundamental rights of citizens and which empower both experts and lay persons to make best use of the upcoming health innovations. The stakeholders can use the European guidelines on different levels, making the right decisions on a European, national, regional and local level.

Whereas (1) the ultimate objective of PHGEN II was to enable informed decisions at the macro, meso and micro levels regarding emerging genome-based information and technologies (GBIT) of quality assurance, provision and use, and (2) the means chosen by PHGEN II was to produce European best practice guidelines to support this decision-making process currently and in the future, meta-level guidance was needed. This meta-level guidance was achieved by ensuring that the Public Health tasks (the "10 Essential Public Health tasks") as described within the Public Health wheel or Public Health Trias (Assessment, Policy Development, Assurance) had been adequately fulfilled in each jurisdiction on the basis of a common understanding of best practice guidelines for each task. Within these best practice guidelines the translational research aspects had been combined with system management under the concept of Public Health Genomics (PHG).

Quality Assurance level of public health genomics information: Guidance for introduction of Genome-based information and technologies in Public Health

Karla Douw

K Douw¹, H Vondeling¹, E Swinnen², J Cassiman², H Howard², P Borry² on behalf of the PHGEN II Quality Assurance pillar

¹University of Twente, Health Technology & Services Research, Enschede, The Netherlands

²University of Leuven, Center Human Genetics, Leuven, Belgium

Public Health Genomics is about ensuring the responsible and effective translation of genome-based information and technologies for the benefit of population health. The discussion surrounding emerging genome-based information and technology (GBIT) is that guidance is needed to manage translation into public health practice. Guidance would ideally be aimed at identifying technologies that potentially yield added value, and to stimulate their appropriate and timely adoption and diffusion. Furthermore, guidance would be aimed at managing the entry of those technologies where there is uncertainty about the value they will provide in terms of public health significance. It is also stated that genomics combined supported by new Information and Communication Technologies (ICT) has the potential of revolutionizing health care, making it more personalized, participatory, preventive and predictive, and questions are raised if current policies and practices are up to the task of supporting this desired outcome. In Europe, the guidance referred to above, is prepared by the Public Health Genomics European Network, which is financed by the European Unions health programme. In the context of the Public Health Genomics European Network II project (PHGENII) a review of existing guidance for identifying and assessing GBIT, and its implications for public health was carried out. The review included peerreviewed and grey literature, web sites, and consultation of relevant European networks and key stakeholders. The review showed that there is a lot of literature providing recommendations on how to assess GBIT. In addition, a number of assessment practices were identified, mainly originating from the U.S. Europe seems to lag behind in anticipating this particular group of emerging health technologies. However, at the European level a general harmonized framework for Health Technology Assessment is being developed, and well-established networks are available to deal with new health technologies, including GBIT. The current and emerging frameworks will be described and analysed to what extent they will help support the desired outcome of GBIT in terms of a more personalized, participatory, preventive and predictive health care.

Provision level of public health genomics information: future challenges for professionals, policy makers and citizens

Roza Ádány

R Ádány¹, D Törőcsik¹, D Coviello², E Casati², on behalf of the PHGEN II Provision pillar

¹University of Debrecen, Debrecen, Hungary

²Fondazione IRCCS, Ospedale Maggiore Policlinico, Mangiagalli e Regina Elena, Italy

Background

In order to introduce genome-based information and technologies (GBIT) into public health it's important to validate technology in the diagnostic settings, to establish a clear relationship between genome-based information and contemporary methods of translation of medical, as well as public health research. In addition, the era of genomics ultimately calls for a well-educated public health workforce that is capable of handling and implementing GBIT.

Objective and methods

The Provision work package (PWP) of PHGEN II defined what, how and in what way (including general policy issues) genome-based services could be introduced in the system of healthcare from the perspective of public health, as well

as applied at the level of public health interventions. To develop European Best Practice Guidelines for the Provision of Genome-based Information and Technologies the PWP was divided into tasks that covered the related fields such as: Monitor health, Diagnose & Investigate, Inform, Educate, Empower, Mobilize Community Partnerships, Develop Policies, Enforce Laws, Link to/provide health care, Assure competent Workforce, Evaluate. Each task was dissected and discussed according to the followings: (1) state of the art, (2) focus points and policy-related priorities, (3) gaps identified, i.e. needs not reflected or not tackled properly by former policy guidelines, (4) present proposal to the guideline with presenting good practices. PWP revised the existing European policies and guidelines and provided new ones for decision makers to set up priorities in their acts and to help the understanding of the genomic implications in decision making processes by choosing the "right health/public health services for the right groups of patients and subpopulations".

Results

PWP addressed the challenges on how to integrate both cost effectiveness and regional specific issues with a focus on which kind of GBIT could be transferred from the research setting to the practice of health care and public health services. PWP also defined the training requirements and competencies for the professionals to be involved in public health genomics (PHG) interventions.

Lessons learned

The properly identified PHG indicators for health technology assessment and monitoring should enable experts to measure the impact of prevention, diagnosis/screening and care, allow policy makers to identify factors that are related to the health status, i.e. the physical, mental and social wellbeing of the population, and provide answers to geographical and/or ethnic differences. An intensive collaboration among EU member states is not only necessary but compulsory, in order to harmonize developments in curricula, prevent major discrepancies between countries and to empower future citizens. It should promote the acquisition of life long skills, such as being able to make informed decisions about practical life issues related to genomics, as well as understanding the implications of GBIT for society.

User levels of public health genomics information: challenges of tailored, evidence-informed guidance

Arja R. Aro

AR Aro¹, C Mischorr Boch¹, G Chassang², A Cambon Thomsen², on behalf of the PHGEN II Use pillar

¹University of Southern Denmark, Unit for Health Promotion Research, Esbjerg, Denmark

²Inserm & University of Toulouse, UMR 1027, Toulouse, France

Problem

The clinical field had produced evidence-based guidelines tailored for user groups such as medical professionals and patients. In public health, especially in policy area, defining user groups is less clear. Also the concept of evidence-informed is preferred to evidence-based; the former includes besides research evidence also experiences, values, resources and priorities of different stakeholders inherent to public health.

Objective and methods

The aim is to share lessons learned in the European Commission funded Public Health Genomics European Network II (PHGENII, GA 20081302), on issues concerning user levels and challenges related to tailored evidence-informed guidance in public health genomics. We analyzed the quality of 16 public health genomics policy and guidance documents in 2010-2012 by 'PHGEN Guidance Assessment Tool', which was modified from the AGREE instrument. The documents were selected out of 45, targeting uses and users of genome-based information and technologies. Analysis was done in parallel by Danish and French research groups. User levels were defined as a) policy makers, authorities and ethics committees; b) professionals or their organizations as users in their practice;

c) lay people and their representatives, including media. Evidence-informed approach was judged by an adjusted NICE instrument and based on Satterfield et al (2009).

Results

The results revealed that hardly any policy or guidance documents analyzed took into account the user levels and their needs e.g. in terms of relevance of information and health literacy. Further, the rigor of development of the guidance and the evidence-base was seldom explicitly mentioned, especially in terms of including relevant stakeholders in developing, testing or updating guidance.

Lessons learned

a) there is a need on European level to develop tailored public health genomics guidance, which takes into account different user levels and their health literacy as well as relevance of the information; b) to be able to coordinate and benefit from rapid genomics developments there is an urgent need to integrate public health and genomics know-how so that citizens are empowered to participate in developing future public health genomics policies and make informed choices in their own lives.

Case study of the PHGEN II Belgium National Task Force: Disorders associated to genetic pathways influencing smoking behaviour: Knowledge synthesis

Sylviane de Viron

S de Viron^{1,2}

¹Operational Direction of Public Health and Surveillance, Scientific Institute of Public Health, Brussels, Belgium

²Institute for Public Health Genomics (IPHG), Maastricht University, The Netherlands

Background

Smoking behaviour (initiation, persistence and cessation) is known to be a major public health problem worldwide influenced by multiple environmental and genetic factors. Genetic pathways influencing smoking behaviour are of two types: the pharmacokinetics (PK) and the pharmacodynamics (PD) of nicotine. The PK is based on genes influencing the metabolism of nicotine. The PD is composed of neurotransmitters influencing the cascade theory of reward. These two types of genetic pathways are also known to influence other disorders and psychological traits such as other addictions or personality.

Objectives

The aim of this study was (1) to make an inventory of the disorders using the same genetic pathway as smoking behaviour, (2) to formulate hypotheses for the relation between the different disorders, genetics and smoking behaviour.

Methods

Disorders associated to the same genetic pathways as smoking behaviour were extracted through a systematic literature review of English articles using HuGENet and Pubmed up to May 2012. These disorders were then classified and their relation to smoking was reviewed.

Results

Genes influencing the PK and PD of nicotine are also associated with diverse other disorders such as addictions, psychological, respiratory, cardiovascular, neurological, metabolic or immune disorders. Most of these disorders are also related to smoking behaviour. Either smoking increases the risk of the development of the disorder or they are interacting together or the disorder might be a confounder.

Conclusion

Many disorders are affected by the same genetic pathways as the one influencing smoking behaviour. Consequently, an attenuation of the effect of potential genes is susceptible during studies of smoking behaviour in populations with a specific disorder. This suggests that the effect of genes in smoking behaviour may differ between populations. Moreover, disorders related to smoking may also influence the outcome of smoking behaviour such as smoking cessation. This knowledge synthesis may partially understand the relation between smoking behaviour and disorders using the same genetic pathways. In the future, our goal is to improve smoking prevention and cessation through a better knowledge of genetic mechanisms influencing smoking behaviour in the general population as well as populations with specific disorders. When developing public health genomics European policies, emerging knowledge timely needs to be translated into healthcare. Thus, as stated in the Declaration of Rome keeping up with new insights from basic sciences and developing transdisciplinary agendas for translational research is essential.

E.1. TACKLING HEALTH DETERMINANTS

Contribution of dairy fat sources to the changes and educational variation in serum cholesterol in Russian and Finnish Karelia, 1992-2007

Laura Paalanen

LMP Paalanen¹, R Prättälä², T Laatikainen³

¹Department of Health, Functional Capacity and Welfare, National Institute for Health and Welfare (THL), Helsinki

²Department of Lifestyle and Participation, National Institute for Health and Welfare (THL), Helsinki

³Department of Chronic Disease Prevention, National Institute for Health and Welfare (THL), Helsinki, Finland
Contact: laura.paalanen@thl.fi

Background

Food habits vary by socio-economic group and geographic area. Unlike from many western countries, from Russia, data on socio-economic differences in food habits as well as in serum total cholesterol concentration are scarce. Our aim was to examine changes and educational differences in serum total cholesterol and in the consumption of major sources of saturated fat in 1992-2007 in two neighbouring areas: Russian and Finnish Karelia. Our secondary aim was to examine whether the foods associated with serum total cholesterol are different in the two areas. Our study period encompasses the early years of market economy in Russia after the collapse of the Soviet Union in 1991.

Methods

Data from cross-sectional risk factor surveys in the district of Pitkäranta, Republic of Karelia, Russia (n = 2672), and North Karelia, Finland (n = 5437), in 1992, 1997, 2002 and 2007 were used. Multivariate linear regression analysis was employed to examine the role of butter in cooking, butter on bread, fat-containing milk and cheese in explaining serum total cholesterol.

Results

In Pitkäranta, serum total cholesterol fluctuated during the study period (1992-2007), whereas in North Karelia cholesterol levels declined consistently. No apparent differences in cholesterol levels by education were observed in Pitkäranta. In North Karelia, cholesterol was lower among subjects with higher education in 1992 and 2002. In Pitkäranta, consumption of fat-containing milk was most strongly associated with cholesterol ($\beta = 0.19$, 95% CI 0.10-0.28) adjusted for sex, age, education and study year. In North Karelia, using butter in cooking ($\beta = 0.09$, 95% CI 0.04-0.15) and using butter on bread ($\beta = 0.09$, 95% CI 0.02-0.15) had a significant positive association with cholesterol.

Conclusions

In the two geographically neighbouring areas, the key foods explaining serum cholesterol levels varied considerably.

Regular monitoring of food habits is essential to enable nutrition education messages that are individually tailored for the target area and time.

Monitoring mortality among diabetic people - deaths from neoplasms increased in the insulin treated

Ilmo Keskimäki

I Keskimäki¹, E Forssas¹, R Sund¹, K Manderbacka¹, M Arffman¹, P Ilanne-Parikka²

¹National Institute for Health and Welfare, Service System Department, Helsinki, Finland

²Finnish Diabetes Association, Tampere, Finland

Contact: ilmo.keskimaki@thl.fi

Background

The national 10-year Development Programme for the Prevention and Care of Diabetes (DEHKO) was launched in Finland in 2000. The program focused on improving early diagnosis of type 2 diabetes and preventing diabetes-related complications. The FinDM database based on a national individual level linkage scheme of health insurance and care registers was established for epidemiological monitoring of diabetes and its complications. This study monitors mortality trends among people with diabetes during the DEHKO programme.

Methods

The FinDM database was used to explore mortality from different causes of death in non-insulin-treated and insulin-treated diabetic people in 1998–2007. Relative excess mortality in diabetic and non-diabetic people was analysed using Poisson regression models.

Results

The number of diabetic people in Finland increased by 66% from 1997 reaching 284 832 in 2007. Like among non-diabetic people, all-cause mortality decreased in people with diabetes. Compared to the non-diabetic and insulin treated diabetic, the decrease was somewhat faster among non-insulin treated diabetic people. Overall excess mortality remained high in diabetic people; in 2003–07 RRs in the non-insulin treated was 1.82 for men and 1.95 for women and in the insulin treated 3.45 and 4.29. The high excess mortality was particularly due to coronary heart disease; in the insulin treated RR was 4.71 in men and 7.80 in women. A striking result was mortality from malignant neoplasms in insulin treated diabetic people; in addition to relative excess mortality the age adjusted mortality increased in both genders by 10–15%.

Conclusions

Compared to non-diabetic people our monitoring showed declining excess mortality in non-insulin treated diabetic people mainly due to a decrease in CHD mortality. For insulin treated diabetic people, relative excess mortality remained unchanged and mortality from neoplasms increased.

Smoking cessation counseling preparedness among healthcare providers in oncology center in Yerevan

Narine Movsisyan

NK Movsisyan, A Harutyunyan, V Petrosyan

Center for Health Services Research and Development, American University of Armenia, Yerevan, Armenia

Contact: nmovsesi@aua.am

Background

Smoking cessation counseling by health professionals was shown to be effective in increasing cessation rates. However, little is known about smoking cessation training and practices in transition countries such as Armenia, where high smoking prevalence contributes to thousands of preventable deaths from cancer and chronic disease each year. This study aimed to examine preparedness and attitudes toward smoking cessation counseling among physicians and nurses in a national oncology center in Yerevan, Armenia.

Methods

The self-administered questionnaire was used to assess health providers' training and attitudes on smoking cessation

counseling. Trained interviewers collected data in June–July 2009; the study team analyzed them using SPSS and STATA statistical packages. Descriptive statistics, chi-square and t-tests were applied and multiple logistic regression used to analyze attitudinal differences after controlling for smoking status, occupation, age, and gender.

Results

The survey response rate was 58.5% (93/159) for physicians and 72.2% (122/169) for nurses. Mean age did not differ between the two groups. The majority of nurses and half of physicians were females. Smoking prevalence among the health professionals was 17.21 (95% CI = 12.1–22.3) and was higher in physicians compared to nurses (31.2.6% vs. 6.6%, $p < 0.001$). About 42.6% of nurses reported having a formal training on smoking cessation methods as opposed to 26.9% of physicians. Both groups showed high support for routinely assisting the patients to quit smoking. The nurses were more positive about serving as “role models” for patients than the physicians ($p = 0.05$). They also showed more interest for smoking cessation training; however, the difference was not significant. Smoking status was predictive of respondents' attitudes on all cessation related statements (OR 2.3–4.2, $p < 0.05$).

Conclusions

The study revealed a critical need for integration of cessation counseling training in the medical education in Armenia. Based on the evidence that nurses were more prepared and had more positive attitudes on cessation counseling compared to the physicians, we conclude that nurses have been untapped resource to be more actively engaged in smoking cessation interventions in healthcare settings.

Human risk assessment near two estuarine environments

Carlos Matias Dias

AC Machado¹, EJ Paixão¹, SP Silva¹, S Caeiro², C Matias Dias^{1,3}

¹Department of Epidemiology, Instituto Nacional de Saúde Dr. Ricardo Jorge, Lisboa, Portugal

²Department of Science and Technology Universidade Aberta and Instituto do Mar e Ambiente Lisbon, Portugal

³National School of Public Health (Escola Nacional de Saúde Pública - Universidade Nova de Lisboa)

Contact: carlos.dias@insa.min-saude.pt

Background

Highly populated river estuaries are susceptible to contamination and potential human health impacts. Among the 10 main estuaries which have been subject of environmental studies in Portugal, the Sado River Estuary has been shown to be contaminated. This study aims to assess potential contamination routes and health effects on local populations who have documented intense fishing and agricultural activities.

Methods

A cross-sectional study compared the Carrasqueira population, a small community on the southern shore of the industrialized Sado Estuary and the Vila Nova de Mil Fontes population, on the north shore of the Mira estuary, 100 km to the south, where contamination is absent. Participants selected by simple randomization from registration lists of local Health Centers responded to a structured questionnaire in home face to face interviews by trained interviewers. Data was collected on health status (diagnosed illnesses, use of medications), health determinants (tobacco, alcohol consumption), use of health care (medical appointments and hospitalization), reproductive history and potential routes of professional and leisure exposure and contamination to estuarine water and fish.

Results

From the 202 participants, fishermen and farmers were more likely to have higher risks of direct and indirect exposure to river estuaries, especially in Carrasqueira. The exposed population of Carrasqueira had higher frequency of leisure activities with higher probability of exposure, a higher proportion of chronic heavy metal related morbidity

(OR = 1,913; IC95%: 1,007-3,635), and congenital anomalies (OR = 1,527; IC95%: 0,474- 4,918). Only age was retained as confounder in logistic regression, resulting in a 2,361 higher risk of having at least one of the diseases in Carrasqueira compared to VNMF (IC95%: 1,189-4,691). Miscarriages under 20 Weeks, fetal deaths and congenital anomalies were also more frequent in the population living near the contaminated estuary.

Conclusions

These results support possible health effects of exposure to estuary contaminants and support further studies using bioindicators of exposure and outcome. A prospective comparative cohort in both populations is under preparation.

Comparison of self-reported and measured hypertension in the EHES Pilot Project

Hanna Tolonen

T Tuovinen, K Kuulasmaa, for the EHES Pilot Project

Chronic Disease Epidemiology and Prevention Unit, National Institute for Health and Welfare, Helsinki, Finland
Contact: hanna.tolonen@thl.fi

Background

Hypertension is a known, modifiable risk factor for cardiovascular disease mortality and morbidity. Reliable population level estimates about the prevalence of hypertension are needed to target prevention activities. Currently, most of the information is based on self-reported data. In the European Health Examination Survey (EHES) Pilot Project, 12 countries conducted pilot surveys among 25-64 year old, using standardized measurement protocols and questionnaires to collect data on both self-reported and measured hypertension.

Methods

In EHES Pilot, self-reported hypertension was based on question "Do you have or have you ever had high blood pressure (hypertension) diagnosed by a medical doctor?". Measured hypertension was defined as systolic blood pressure ≥ 140 mmHg or diastolic blood pressure ≥ 90 mmHg, or self-reported use of antihypertensive drug treatment. Use of antihypertensive drugs was defined using two questions: "During the past two weeks, have you used any medicines (including dietary supplements such as herbal medicines or vitamins) that were prescribed or recommended for you by a doctor (for women, include also contraceptive pills or other hormones)?" and "Were they medicines for high blood pressure?".

Results

Mean systolic blood pressure in men was 122-134 mmHg and in women 109-126 mmHg and mean diastolic blood pressure 74-84 mmHg in men and 69-78 mmHg in women between populations. The prevalence of hypertension based on measured blood pressure and self-reported use of antihypertensive drugs varied from 14% to 38% among men and from 12% to 35% among women in the pilot areas. Proportion of those who told that they have been diagnosed by a doctor to have a hypertension varied from 10% to 31% among men and from 12% to 39% among women. The difference between self-reported hypertension and measured hypertension varied from -18.6 to 0.1 percent points among men and from -13.5 to 3.5 percent points among women.

Conclusions

In most of the pilot surveys, self-reported hypertension was lower than measured hypertension. The difference between self-reported and measured hypertension varies between populations and between men and women. Therefore, measurement data are needed for reliable estimates of hypertension in Europe.

Early detection of common mental disorders: perceptions of stress and depression among case workers managing sickness benefit claims

Eva Ladekjær Larsen

E Ladekjær Larsen¹, CV Nielsen², HJ Søgaard³, C Jensen¹

¹Public Health and Quality Improvement, Central Denmark Region

²Public Health and Quality Improvement, Central Denmark Region and Institute of Public Health, Aarhus University, Denmark

³Research Unit West, Centre for Psychiatric Research, Central Denmark Region, Denmark

Contact: eva.larsen@stab.rm.dk

Little is known of the challenges involved when mental health screening programs take place in non-clinical settings. As the practice of screening move from clinical to non-clinical contexts the tests may have significantly different meanings. Using the case of implementing a screening questionnaire testing common mental disorders (CMD) among long term sick listed in Denmark this study explores: 1) How case workers experience the process of implementing a screening program 2) how these experiences are related to their perceptions of a) common mental disorders and b) their own working tasks.

The study was designed in three phases and took place in Sept. - Dec. 2011: First three caseworkers were followed during three working days. Here working routine was observed and their perceptions of CMD were digitally recorded. Second, fieldwork was done at two courses aimed at introducing the screening questionnaire and teaching CMD. Finally fieldwork was repeated as in the first phase, here recording case workers' use of the questionnaire. A total number of 30 case workers participated in the study. The data material consists of transcripts of 6 individual interviews, 2 focus group interviews, fieldnotes and course material. The analysis was guided by a phenomenological, thematic approach.

Generally the case workers found the screening program meaningful. However their working tasks: to administer legislation, to assess entitlement of sickness benefit, to assist sick listed in returning to work, and to assess their workability, were found to challenge a successful integration of the program. Challenges were related to lack of resources to secure proper follow-up, worrying that the program would provoke unmanageable traumatic reactions and that the increased focus of mental health would pathologise existential or social problems. Finally case workers found the program to lack information of how to take action in case a person reported CMD.

Results suggested that the screening program could be improved by integrating social workers in designing the programs and/or organising their duties differently to ensure follow-up. The relevance and usability of health related screening programs may be difficult to transfer to nonclinical settings.

F.1. Workshop: Health 2020 and the European Action Plan for strengthening public health - the contribution of NGOs for its realisation

The vision for Health 2020 is for a WHO European Region in which all people are enabled and supported in achieving their

full health potential and well-being and in which countries, individually and jointly, work towards reducing inequities in

health within the Region and beyond. Health 2020, the new WHO European health policy framework, will be outlined in this session, followed by further detail of the European Action Plan for strengthening public health services and capacity, (the EAP). The purpose of the EAP is to ensure that Public Health services are strengthened to respond to the current and emerging public health challenges facing the WHO European region. The overall vision is to support the delivery of the Health 2020 policy framework by promoting population health and well being in a sustainable way. There are ten Essential Public Health Operations, (EPHO) which form the basis of how to take forward the EAP, which will be described. The seventh EPHO: *Assuring a sufficient and competent public health workforce*; ninth EPHO: *Advocacy, communication and social mobilization for health*, and tenth EPHO: *Advancing public health research to inform policy and practice*, are especially relevant to the role of academic related NGOs. The panel members will explore their role in taking forward this important agenda.

Presentation one:

“Health 2020 – a vision for improving health and well-being and reducing inequalities across the WHO European” Region
Dr Hans Kluge, Director Health Systems and Public Health, WHO European Region

Presentation two:

“The European Action Plan for strengthening public health

services and capacity – the contribution of NGOs”, Dr Jo Nurse, Senior Public Health Advisor, Public Health Services, Health Systems and Public Health Division, WHO European Region

Panel Discussion:

What role can academic NGOs play in supporting the implementation of the European Action Plan for the following Essential Public Health Operations:

- EPHO 7: *Assuring a sufficient and competent public health workforce*;
- EPHO 9: *Advocacy, communication and social mobilization for health*;
- EPHO 10: *Advancing public health research to inform policy and practice*

Panel members (tbc):

- Prof Walter Ricciardi, President of EUPHA
- Monika Kosinska, Secretary General, EPHA
- Dr. Clive Needle, Director, EuroHealthNet
- Prof. Helmut Brand, President of ASPHER
- Prof. Hanne Tonnesen, Director, WHO CC and of HPH Secretariat, International Network of HPH and Health Services (HPH)

General Discussion:

How can we all take forward this agenda in an innovative and dynamic way?

G.1. Workshop: Health information

The Health Information Workshop will be divided in 3 different sections.

The first section will focus on the three big international organisations EC/OECD/WHO EURO and the workshop will be chaired by Stefan Schreck (Head of Health Information Unit, DG SANCO, European Commission) At the moment all three organisations are working together to increase cooperation and coordination of health information systems. The aim of this approach is to have a better communication between Member States of all three organisations, avoid duplications in data collection and identify synergies and areas of cooperation such as joint data collections. A concrete example of this work is two joint data collections between OECD, Eurostat and WHO. This will be presented by Gaetan Lafortune (Senior Economist/Principal Administrator, OECD Health Division). Then WHO will present “how we work together”, with the focus on the new work on the integrated health info system for Europe but also the EC funded work on our *Atlas of Health Inequalities* which is now on-line at WHO which will be presented by Claudia Stein (Director Division of Information, Evidence, Research and Innovation WHO/EURO).

The second part will continue with the health inequalities. It is three years since the Commission adopted the EU Strategy to reduce health inequalities “Solidarity in health”. This presentation provides an overview of data on the health

inequalities situation in the EU and the policy response to it at EU and Member State levels. It draws on information collected by Eurostat as well as from an as yet unpublished study funded through the EU health programme by a consortium led by University College London. Key indicators include mortality and life expectancy at EU Member State and NUTS2 levels and self-perceived health and restrictions in daily activities by income group and educational level from the EU Survey of Income and Living Conditions (EU SILC).

Results show a mixed picture with recent declines in overall levels of health inequality as assessed by some indices, and increases in others. Policy analysis shows an overall increase in the policy response at EU and Member State level compared to work carried out in 2005. Implications are discussed. Presented by Charles Price (Health Determinants Unit DG SANCO, European Commission).

The third part of the workshop will concentrate on how presentation of data and evidence can change or influence policy. Policy makers need information in a different form to that which researchers often provide it. The links between data, evidence and policy are complex and need active management. Often the process of delivering the information is as important in influencing policy as the content itself. This part of the workshop will be presented by Professor Peter Littlejohns, Kings College, UK and illustrated with examples for discussion.

H.1. Workshop: Health reporting: how can we make sure that we meet policy makers’ needs?

Chairs: Marieke Verschuuren, The Netherlands and Natasha Muscat, Malta

Organiser: EUPHA section for Public Health Monitoring and Reporting

Workshop abstract

Health reporting is an essential chain of the public health policy cycle. However, knowledge about to what extent health reports are taken up by policy makers is limited. This also

holds true for quality criteria; how can public health researchers be sure that they meet policy makers’ needs?

In this workshop the interface between health reporting and policy making will be explored. First, the outcomes of a recent literature search on quality criteria will be presented; what quality criteria have been developed, and how are they applied in practice and the question of style versus substance?

After that, two good practice examples of public health reporting from the United Kingdom will be presented.

Lastly, potentially conflicting interests in health reporting will be addressed, using the example of health performance assessment reports.

Participants of this workshop will be presented with new knowledge on quality criteria and insights into how health reporting and policy making work in practice. Moreover, they can learn from good practice examples and exchange experiences and ideas during the discussion. This workshop will be of interest to all working on the interface of health reporting and public health policy, either as researcher or as policy maker.

Style and Substance: A literature review of approaches to public health reporting

Neil Riley

N Riley

Public Health Wales, Cardiff, United Kingdom

Background

The emerging WHO Health 2020 strategy and policy framework places the need for new methods of governance at the centre. One aspect of health governance is in promoting transparency and accountability - providing the means for diverse stakeholders to understand policy dynamics and their impact on health outcomes. Health reporting is an essential component of monitory democracy but applications are varied across Europe.

Methods

A systematic review of published literature was undertaken. The review specifically aimed to ensure that non-English sources were looked at as far as possible. In addition the review looked at non-health literature on mechanisms of reporting that filled a similar role in different public sectors. In addition there was an extensive search of grey literature and government sources at different administrative levels including national, regional and local governments

Results

The literature review presented mixed results and no dominant methodology or approach of what worked. In many cases the impact of health reports did not appear to have been evaluated and judgements could not be made of their success or failure.

Conclusions

Health reporting is vital to support development of public health. To strengthen this function it may be worth examining practices in other sectors. As Health 2020 is further developed there is a potential role for the creation of pan-European guidelines of evidence-based good practice.

DPH Reporting - the Sheffield experience

Jeremy Wright

L Brewins, J Wright

NHS Sheffield, Oxford, United Kingdom

Background

The purpose of the Annual Director of Public Health Report is to give an independent assessment of the health of the local population and to make recommendations as to how it may be improved. Although many individuals and organisations are involved in its production, the report is prepared and presented by the DPH to and on behalf of the people.

Method

We will examine the ways in which a series of UK Director of Public Health Reports has been used as a vehicle for setting health challenges, advocating for change and providing local communities and their representatives with evidence-based and impartial intelligence about the state of health in their area.

Results

Covering a reporting period of 6 years, a number of factors in the design and delivery of the report are considered to have enhanced its impact on local policy makers.

Conclusions

Key factors include: linking the theme and content of the report with local priorities; addressing the report's recommendations directly to policy makers; reporting on progress on implementing the recommendations; communication strategy; producing the report as a website resource.

The Director of Public Health's Annual Report: positively influencing the transition of public health to local authorities and securing a more effective service

Patrick Saunders

P Saunders

Sandwell PCT, West Bromwich, United Kingdom

Background

The current restructuring of public health in England presents major challenges to the continuity and development of the service. The Director of Public Health's Annual Report is a resource which can both positively influence that transition and also secure a more effective service within the new structures.

Methods

We describe the collaboration with key partners in developing and delivering an Annual Report focussing on the 'classic' public and environmental challenges that were at the heart of the early public health movement. In addition, we show how the report contributes to effective organisational transition drawing on the literature from business mergers.

Results

This report develops innovative analytical processes releasing the utility of local authority datasets, providing evidence to underpin and drive service delivery and shapes the planning and preparation of the health economy for organisational reforms.

Conclusions

The Annual Report can, and must, add value to local communities in health and well being gain, for the local administrations in terms of efficiency, joint working, effectiveness and democratic accountability, and should be central to framing the new public health structures.

From the discussion of the impact of PH reports towards the development of Health Information System Performance Assessments

Kai Michelsen

K Michelsen

Department of International Health, Maastricht University, The Netherlands

Background

The aim of PH reports is to be useful for decision / policy makers and to realize an impact on decision / policy making. But the previous discussions about opportunities and activities to maximize the chances to realize and impact by PH reporting activities have been characterized by some obstacles and pitfalls: a) Push factors are overemphasized and pull factors neglected; b) the constellations are too complex for one size fits all approaches, c) the focus on PH reports is too narrow (HNA, HTA, HIA, performance and capacity assessments are neglected but relevant for impacts on decisions/policies), d) the fundamental challenges have already been addressed (and also not solved) e.g. under the headlines of realizing an impact with research, evidence-based policy making or political consultancy.

It is promising to analyze the issue from another angle by looking at the capacities and performance of Health Information Systems (HIS) in line with the broader aim to develop Health System Capacity Assessments (HSCA) and Performance Assessments (HSPA).

Method

The requirements for HISPA are specified by a) screening tools for HSCA and HSPA with regard to the integral assessment of

HIS, b) analyzing the tools with regard to the information needs of relevant actors within the respective frameworks, c) translating / transferring overarching goals, functions and dimensions framing HSPAs in concepts for HIS Performance Assessments (HISPA).

Results

A (draft) version of a framework for a HISPA as an integral element of a HSPA is introduced. The framework, including an assessment of measures for quality improvement, has the potential to maximize at least the capacities to realize an

impact on decision/policy making by activities linked with the production and dissemination by the HIS, by a) defining overarching goals, functions and dimensions to assess the performance of HIS, b) specifying information needs by the different relevant actors, in line with their interest, responsibilities and competencies, c) identifying gaps and thereby d) at least precluding bottom up approaches for quality improvement, taking the production and dissemination of information and knowledge as well as the information needs and capabilities of decision / policy makers into account.

I.1. ALL INCLUSIVE HEALTH SERVICES RESEARCH

New prescriptions of opioids and risk of fall-related injury: a national, register-based case-crossover study

Jette Möller

KC Söderberg^{1,2}, J Möller¹, L Laflamme¹

¹Karolinska Institutet, Department of Public Health Sciences, Division of Public Health Epidemiology, Stockholm, Sweden

²Department of Clinical Pharmacology, Karolinska University Hospital, Huddinge, Stockholm, Sweden
Contact: jette.moller@ki.se

Background

There are few epidemiological studies of opioid use and fall-related injuries and the results are inconsistent, and studies among younger persons (<65 years) are even more sparse. This is the first study of the short-acting effects of newly prescribed opioids and the risk of fall-related injury among all adult ages.

Methods

We identified 176 883 cases with a first fall-related injury in persons aged 18 years or older from the Swedish Patient Register during the period 20050701-20091231. Information on dispensed drugs from the Swedish Prescribed Drug Register was linked to the cases. Opioid use was classified according to the Anatomical Therapeutic Chemical (ATC) Classification System. We employed a case-crossover design and investigated the dispensal of opioids 28 days preceding the fall-related injury, compared to dispensal during an equally long control period. Conditional logistic regression was used to estimate the odds ratio (OR) and 95% confidence interval (CI).

Results

In total 7875 (4.5%) patients had new prescriptions of opioids in the 28 day period prior to the fall injury. Tramadol was the most frequently prescribed opioid (1.9%), followed by codeine (1.2%). We found consistently increased risks of fall-related injuries associated with all new prescriptions of opioids, most pronounced in the youngest age group, 18-49 years [OR 5.6 (95% CI 4.8-6.6)]. We also found that the more recent prescription date in reference to the fall-related injury, the higher risk with the most pronounced risk in the first seven days after dispensation, for all opioids the OR was 5.0 (95% CI 4.7-5.4) and a decline for the 22-28 day period to OR=1.2 (95% CI 1.1-1.4). These results are preliminary.

Conclusions

Our results highlight the importance of being observant and inform the patient about the risk increases of fall-related injuries when opioids are newly prescribed, especially during the first week. The public health impact is large as opioids are commonly used medications.

The role of primary care in reducing hospital admissions for patients with Chronic Obstructive Pulmonary Disease

Leonie Hunter

LC Hunter¹, CJ Weir², CM Fischbacher³, S Wild⁴, D McAllister⁴, N Hewitt¹, RM Hardie¹

¹Department of Public Health and Health Policy, NHS Lothian, Edinburgh, United Kingdom

²MRC Hub for Trials Methodology, Centre for Population Health, University of Edinburgh, United Kingdom

³Information Services Division, NHS National Services Scotland, Edinburgh, United Kingdom

⁴Centre for Population Health, University of Edinburgh, United Kingdom
Contact: leonie.c.hunter@nhslothian.scot.nhs.uk

Background

Chronic obstructive pulmonary disease (COPD) is the fourth leading cause of death worldwide; it is the third most common reason for hospital admission in Scotland. Obtaining evidence for how interventions in primary care can reduce hospital admissions for COPD is important to influence policy and practice, improve patients' quality of life and reduce healthcare costs.

Methods

Primary care data were extracted from 72 (70%) of 103 eligible general practices in Lothian, Scotland for patients with COPD, and linked to hospital admissions, spirometry, and mortality data. The study included people whose COPD was diagnosed between 2000 and 2008 with follow-up until 31st March 2010. A Cox proportional hazards regression model was used to determine which interventions in primary care were associated with delay in hospital admission for exacerbation of COPD. The model included adjustment for age at diagnosis, sex, socio-economic status, disease severity, smoking status, body mass index, previous admission for COPD, previous intervention for respiratory disease, co-morbidities, palliative care, prescriptions of statins and beta blockers.

Results

There were 7072 people with COPD in the cohort of whom 26% had one or more hospital admissions during 4.4 years mean follow-up time. In the adjusted model the following interventions were associated with delay or avoidance of hospital admissions: influenza vaccination (HR 0.5; 95%CI=0.5-0.6), pneumococcal vaccination (HR 0.6; 95%CI=0.6-0.7), annual review (HR 0.3; 95%CI=0.26-0.33), inhaler check (HR 0.4; 95%CI=0.3-0.4), confirmation of diagnosis by spirometry (HR 0.5; 95%CI=0.5-0.6), self-management plan (HR 0.2; 95%CI=0.1-0.3), record of smoking status (HR 0.2; 95%CI=0.18-0.23) and pulmonary rehabilitation (HR 0.2; 95%CI=0.2-0.3). For smokers, record of smoking cessation advice (HR 0.5; 95%CI=0.4-0.6) was associated with delay or avoidance of hospital admission.

Conclusions

This unique linked dataset provides evidence for strong associations between a range of primary care interventions and delayed or averted admission to hospital for patients with COPD. Further support should be provided to primary care to target patients with COPD with these interventions in the anticipation that hospital admissions will reduce.

Variation in patterns of utilization of primary percutaneous coronary intervention in selected european countries: 2003-2008

Kristina Grönberg Laut

KG Laut¹, CP Gale², SD Kristensen³, TL Lash⁴

¹Department of Cardiology, Aarhus University Hospital, Skejby, Denmark,
²Department of Clinical Epidemiology, Aarhus University Hospital, Aarhus, Denmark

²Department of Cardiology, York Teaching Hospital NHS Foundation Trust, York, United Kingdom

³Department of Cardiology, Aarhus University Hospital, Skejby, Denmark

⁴Department of Clinical Epidemiology, Aarhus University Hospital, Aarhus, Denmark, Department of Epidemiology & Prevention, Wake Forest School of Medicine, Winston-Salem, NC, USA

Contact: kristina@laut.dk

Background

International guidelines recommend primary percutaneous coronary intervention (PPCI) as the first choice treatment for patients with ST-elevation myocardial infarction (STEMI). Despite evidence to support its effectiveness, important differences in access to PPCI exists between European countries, representing an urgent public health problem.

We aimed to study five-year trends in the implementation of PPCI for STEMI across 12 EU countries and to investigate whether health care-associated economic and demographic country-level characteristics are associated with observed differences in utilization of PPCI.

Methods

An ecological study of aggregated data from national and international registries in Austria, Belgium, Denmark, England, Germany, Italy, Portugal, Scotland, Spain, Sweden, Northern Ireland and Wales. Main outcome was number of PPCI per million population, collected for the years 2003–2008. The individual country's yearly increase in utilization of PPCI was modelled using linear regression. We applied random coefficient models to quantify any association between PPCI use and country-level parameters.

Results

The overall utilization rate throughout the countries increased at the rate of 1.16 (95% CI 1.09, 1.29) per million per year. Country-level utilization rates varied from 0.84 (95% CI 0.52, 1.30) to 1.38 (95% CI 1.15, 1.64) per million per year. Numbers of physicians per 100,000 population and numbers of acute care beds per 100,000 population were positively associated with the use of PPCI. No association was found between patient-level factors, country-level healthcare characteristics, and country-level financial characteristics and PPCI utilization.

Conclusion

We detected a substantial variation in the use and rate of implementation of PPCI between countries. Differences in utilization rates of PPCI can partly be explained by countries' supply factors, such as the number of physicians and number of acute care beds, rather than country-level finances, patient-level factors, or healthcare characteristics.

Knowing the level of variation across countries and understanding the reasons behind is a prerequisite for reducing or eliminating such gaps in access to health care.

Two-year follow-up in a randomised clinical trial comparing multidisciplinary and brief intervention in a hospital setting in Denmark

Chris Jensen

C Jensen¹, OK Jensen², CV Nielsen¹

¹MarselisborgCentret, Public Health and Quality Management, Central Denmark Region and Department of Clinical Social Medicine and Rehabilitation, School of Public Health, Aarhus University

²The Spine Center, Department of Internal Medicine, Region Hospital Silkeborg, Denmark

Contact: chris.jensen@stab.rm.dk

Issue/problem

One-year follow-up in a randomized trial in sick-listed employees with low back pain comparing two interventions showed similar return to work (RTW) rates. The effects were modified by specific workplace related factors, which were confirmed in a validation study. The aim of present study was to perform two-year follow-up analyses and compare effects when using different outcome measures.

Description of the problem

A total of 351 employees sick-listed for 3–16 weeks due to LBP were recruited from their general practitioners and randomly allocated to a brief or multidisciplinary intervention at Region

Hospital Silkeborg from 2004 to 2007. In the multidisciplinary intervention a case manager coordinated biomedical, social and occupational efforts to facilitate RTW. The brief intervention included only clinical examinations and reassuring advice on RTW from a medical doctor and a physiotherapist. RTW rates, RTW status, sick leave weeks and sick leave relapse were studied.

Results

During the two-year follow-up 80.0% and 77.3% had RTW at least four consecutive weeks. The percentages with RTW at two-year follow-up were 61.1% and 58.0% in the brief and multidisciplinary intervention groups, respectively, and 16.6% and 18.8% were on sick leave in the two groups. Twelve percent were employed in modified jobs or participated in job training. The number of weeks on sick leave in the first year was significantly lower in the brief intervention group (median 14 weeks) than in the multidisciplinary intervention group (median 20 weeks), but during the second year the number of weeks on sick leave were not significantly different between intervention groups. Subgroups characterised by specific work related factors (at risk of losing job (Y/N) and no influence on work planning (Y/N)) modified the effect of the intervention groups on RTW rates ($p=0.017$). No difference in long-term sick leave relapse was found between intervention groups.

Lessons

The effects at two-year follow-up were in general similar to the effects at one-year follow-up, also in specific subgroups. However, the results were partly different when using different outcome measures and it is recommended to use several outcome measures in RTW studies.

Cancer patients' rehabilitation in Europe: results from the Eurochip-3 project

Piret Veerus

P Veerus¹, E Van Hoof^{2,3}, L Travado⁴, J Hoekstra-Weebers⁵, P Baill⁶

¹National Institute for Health Development (TAI), Tallinn, Estonia

²Faculty of Psychological and Educational Sciences, Free University of Brussels, Belgium

³Belgian Cancer Center, Scientific Institute of Public Health, Belgium

⁴Clinical Psychology Unit, Central Lisbon Hospital Center-Hospital S. José, Lisbon, Portugal

⁵Integraal Kankercentrum Nederland (IKNL), Groningen/Enschede, Netherlands

⁶Istituto Nazionale dei Tumori, Milan, Italy

Contact: piret.veerus@tai.ee

Background

There are about twenty million cancer patients in Europe, and the number is increasing. Cancer patients' rehabilitation has been recognised as a part of integrated care to restore the patients' physical and psychosocial status and quality of life as far as possible.

Methods

European Cancer Health Indicator Project EUROCHIP-3 collected data on cancer rehabilitation programmes across the European Union with the aim to map the present situation in the European Union and to provide equal opportunities for all citizens in the future. From 2009–2011, a two-step survey was performed, and altogether 35 experts from 27 countries were consulted.

Results

All 27 countries completed the survey. Most respondents provided a definition of rehabilitation similar to the WHO definition of rehabilitation, including physical, psychological and social domains in the definition. Cancer rehabilitation was reported to be included in the national cancer plans in 18 countries. Guidelines for cancer patient rehabilitation exist in five countries. Training courses for professionals involved in rehabilitation are available in 15 countries, and counselling for cancer patients and their family members in 24 states. Rehabilitation services are offered in specialised rehabilitation centres for cancer patients, in comprehensive cancer care centres, in general rehabilitation centres, in general, private and university clinics, in health centres, hospices, and resorts.

Conclusions

In many European countries, cancer patients' rehabilitation services are fragmented with vast differences in availability and competence between countries. Cancer patients' rehabilitation should be on the political and financial agenda in all European countries to ensure that each cancer patient receives the care needed, and it should be included in national cancer plans. The development and implementation of uniform rehabilitation guidelines and quality assurance guidelines may help to increase the quality of rehabilitation.

Changes in irregular treatment of hypertension in the former Soviet Union between 2001 and 2010

Bayard Roberts

B Roberts¹, A Stickley², D Balabanova¹, C Haerpfer³, M McKee¹

¹London School of Hygiene and Tropical Medicine

²Stockholm Centre on Health of Societies in Transition (SCHOST), Södertörn University, Department of Global Health Policy, Graduate School of Medicine, University of Tokyo

³Department of Politics and International Relations, University of Aberdeen
Contact: bayard.roberts@shmt.ac.uk

Background

Hypertension is one of the leading causes of avoidable mortality in the former Soviet Union (fSU), and the declines in hypertension in Western Europe have not been observed in the fSU. However, there is limited information on treatment behaviour for hypertension across the fSU. In previous work we highlighted patterns of irregular hypertension treatment in eight countries of the former Soviet Union in 2001. This paper presents new data on changes in the use of hypertension treatment in the same countries.

Methods

Using nationally representative household survey data from 18 420 (2001) and 17 914 (2010) respondents (aged 18+) from Armenia, Azerbaijan (2010 only), Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia, and Ukraine, we describe changes in rates of irregular treatment use (less than daily) between 2001 and 2010. The rationale for using daily treatment was the substantial evidence on the importance of treatment for hypertension being taken at least daily. The outcome measure was derived from two questions; whether an individual had ever been told by a doctor that their blood pressure was too high, and how frequently they were taking their medication. Frequency of treatment was then dichotomised into a binary outcome of daily or less than daily treatment. Multivariate logistic regression was also used to analyse the characteristics associated with irregular treatment.

Results

Irregular treatment was extremely high at 74% in 2001 and only fell to 68% in 2010 (all countries combined). Irregular treatment remained particularly high in 2010 in Armenia (79%), Kazakhstan (73%), Moldova (73%). Recurring characteristics associated with irregular treatment in both 2001 and 2010 included gender (men), younger age, higher fitness levels, and consuming alcohol and tobacco.

Conclusions

The study quantifies the scale and pattern of irregular treatment for hypertension in a range of fSU countries in 2001 and in 2010. Irregular hypertension treatment continues to be a major problem in the countries of former Soviet Union and this requires an urgent response. The findings also highlight characteristic associated with irregular treatment which can help inform activities to improve treatment in the fSU.

K.1. ORGANISING HEALTH 1

National burden of diseases and establishment of health priorities in the state of Qatar

Abdulbari Bener

A Bener

Advisor to WHO Consultant & Head, Dept. of Medical Statistics and Epidemiology Hamad Medical Corporation Dept. of public Health, Weill Cornell Medical College, Doha, Qatar
Contact: abb2007@qatar-med.cornell.edu

Aim

The Qatari's Burden of Disease (QBoD) studies for the year 2000 and 2010 provided a comprehensive and detailed assessment of the size and distribution of health problems in population.

Methods

The QBoD study applied the methods developed for the original Global Burden of Disease study to data specific to Qatar to compute the DALYs. DALY is a summary measure of population health that combines time lost due to premature mortality (years of life lost [YLL]) with time spent in ill-health (broadly-termed disability) arising from incident cases of disease or injury (years of life lost due to disability [YLD]). DALYs, stratified by gender and age group, were calculated for more than 100 specific health conditions for the Qatari resident population for the year 2002 and 2010. It is the first BoD study to use disability-adjusted life years (DALYs) to quantify the total disease burden.

Results

The two leading causes of burden of diseases in Qatar are ischemic heart disease and road traffic accidents in 2010, but in the year 2000, unipolar depressive disorders ranked first and ischemic heart disease was the 3rd leading cause. Another important factor was that ischemic heart disease accounted 11.8% of total DALYs, but it was quite lower in 2000 (5.4%). Also, the proportion of road traffic accidents increased to 10.3% in 2010 from 6.6% in 2000. Even mental

disorders make an important contribution to the burden of disease in Qatar. It is noteworthy that from 15 leading causes of disease burden for women, five of them are related to mental disorders. But for men, chronic diseases like ischemic heart disease (15.7%) cerebrovascular disease (5.8%), diabetes mellitus (1.1%) and hypertensive heart disease (0.7%) accounted great burden and an important source of lost years of healthy life for them. Qatar total burden of disease across all disease for men in 2010 was 222.04 DALYs per 100,000 populations, while it was only 71.85 for women. This shows that men's burden of disease is three times more than women.

Conclusion

This study provides an objective and systematic assessment of the fatal and nonfatal health conditions in Qatar to support priority setting in public health policies and research.

Accessibility and affordability of health care in the former Soviet Union

Bayard Roberts

D Balabanova¹, B Roberts¹, E Richardson¹, C Haerpfer², M McKee³

¹London School of Hygiene and Tropical Medicine

²Department of Politics and International Relations, University of Aberdeen

³Faculty of Public Health and Policy, London School of Hygiene and Tropical Medicine

Contact: bayard.roberts@shmt.ac.uk

Background

Since the collapse of communist rule, the countries of the former Soviet Union have experienced major political, social and economic challenges. These have included the rapid and diverse changes in the funding and delivery of health care over the past two decades. Our objective was to assess accessibility and affordability of health care in 8 countries of the former Soviet Union.

Methods

Nationally representative cross-sectional household surveys using stratified multistage sampling were conducted in 2010 with 16 200 individuals aged 18+ in Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Moldova, Russia and Ukraine as part of the HITT project (<http://www.hitt-cis.net/>). Data were collected using standardised questionnaires on demographic, socio-economic and health care access characteristics. Descriptive and multivariate regression analyses were used.

Results

Almost half of respondents who had a health problem in the previous month which they viewed as needing care had not sought care, with lowest consultation rates in Georgia (39%) and the highest in Moldova (70%). After adjustment in the multivariate analysis ($P < 0.05$), respondents less likely to seek care included those living in Armenia, Georgia, or Ukraine, in rural areas, aged 35–49, with a poor household economic situation, and high alcohol consumption. Cost was the most common reason for not seeking health care when needed, with cost of treatment (26%) and cost of drugs (16%) the most cited explanations for not seeking care when considered necessary. The proportion of those with illness seen as justifying care who cited unaffordability (of either treatment or drugs) varied from 70% and 58% respectively in Georgia and Azerbaijan to under 5% and 3% respectively in Russia and Belarus. Most respondents who did obtain care had to make out-of-pocket payments, with median amounts varying from \$13 in Belarus to \$100 in Azerbaijan.

Conclusions

Access to health care and within-country inequalities appear to have improved over the past decade. However, considerable problems remain, including out-of-pocket payments and unaffordability of care and drugs despite efforts to improve financial protection.

Health care unsustainable? Take Malta...

Julian Mamo

J Mamo

Public Health Department, University of Malta
Contact: julian@mamo.com

Across and beyond Europe, unsustainable systems of health can't go on spending this way. There are no easy solutions but console yourself with the case of Malta.

The debate on Malta's unsustainable health care has been for long in the headlines but more so recently, when the European Union Commissioner for Health added to the concerned voices regarding Malta's long term financial future given the current rate of health expenditure.

The EU Commissioner described a 'culture of dependency' which continues to be nurtured by local politicians who have 5 year electoral goals as opposed to leading towards less popular yet more sustainable disease rate reductions. Malta's national debt recently rose further to 4.6 billion Euro.

However, similar problems exist across Europe and politicians everywhere, it seems, trade the needed for the popular, often bowing to pressures, further reinforcing the dependency culture.

EU directives for health care across member states are common but are cost:benefit ratios equally sound in tiny Malta or Cyprus?

A change in the democratic system of governance has been proposed locally. Included is the introduction of the 'principle of an annual balanced budget'. Delivery of health care based on extensive means testing has been proposed to curb extensive spending on free health services. This would require the hitherto unusual agreement of both political parties.

Can your politicians agree to let technocrats have their way as the Italian system is demonstrating at the moment?

A New Conceptual Model for Public Health System Strengthening

Dennis Lenaway

D Lenaway, HN Perry

Center for Global Health, Centers for Disease Control and Prevention, Atlanta, GA, USA

Contact: DLenaway@cdc.gov

Public health system strengthening is a vital sub-component to Health System Strengthening (HSS). Efforts to build public health infrastructure and core capacities often focus only on single program needs rather than system-wide strengthening, resulting in a fragmented approach that is both inefficient and ineffective. We propose a conceptual model for public health system strengthening that articulates how infrastructure investments provide the essential foundation for creating public health programs, policies, and interventions that impact community health. There is global consensus that the Essential Public Health Functions form the knowledge base for describing public health. An equally important concept is the demand that public health translate knowledge to action. Our graphic model places the dynamic of knowledge to action along the X-axis, and the continuum of public health system strengthening along the Y-axis. In an ascending step-wise fashion, the conceptual model moves from "functions" (EPHF) to "structure" (National Public Health Institutes) to "core capacities" (surveillance, epidemiology, laboratory, and response) to "programs" (e.g. TB) to "impact." As knowledge is translated through infrastructure building, there is simultaneous strengthening of the public health system. We enhance the model by suggesting that each step requires assessment, planning, implementation and evaluation. Knowledge already exists to operationalize this model; PAHO, WHO-ER and the U.S. Public Health Accreditation Board have developed effective standards and measures associated with the EPHFs to support organizational capacities for National Public Health Institutes. Strengthening core capacities of surveillance, laboratory, epidemiology and response are well described by IDSR (Integrated Disease Surveillance and Response), a strategy of WHO's Regional Office for Africa. We believe public health needs more attention and focus on developing conceptual models that describe how investments in infrastructure support programs, policies and interventions. Our model linking system strengthening with translating knowledge to action might provide a suitable reference to allow leaders and policy-makers to make just such investments possible.

Capacity Development to Address International Health Regulations (IHR) in Africa

Helen Perry

HN Perry, DD Lenaway

Center for Global Health, Centers for Disease Control and Prevention, Atlanta, Georgia, USA

Contact: DLenaway@cdc.gov

The International Health Regulations (2005) call on countries to meet core capacity requirements for national surveillance, reporting, notification, verification, response and collaboration activities. The IHR (2005) specify that these capacities should be functional at community, intermediate and national levels. They further recommend that the core capacities be met through strengthening existing structures. In African countries, these capacities are being developed through the Integrated Disease Surveillance and Response (IDSR) framework. IDSR is a strategy adopted in 1998 by the Member States of the World Health Organization's Regional Office for Africa (WHO-AFRO) and developed in partnership with the U.S. CDC. The strategy aims to develop and implement comprehensive surveillance and response systems that meet African priority diseases, conditions and events. IDSR is organized around improving functions of surveillance rather than on single-disease requirements thus contributing to improving the national public health system in African countries.

Implementation of IDSR over the last decade has focused on improving the use of data at community, health facility, district and national levels to achieve more timely detection and response to communicable and non-communicable diseases that afflict African communities. With the coming into force of the IHR (2005), the WHO-AFRO Member States declared that the IHR core capacities for surveillance and response would be implemented through the IDSR framework. We present the development of the IDSR framework and how the IHR (2005) requirements were included in the revised IDSR Technical Guidelines and IDSR training materials. Research data suggests that implementation across all 46 countries in the African region have been mixed, yet additional analysis shows IDSR has begun strengthening early warning capacities in African countries leading to improved detection and response to both local and national public health events, as well as public health events of international concern targeted by the International Health Regulations. We recommend other countries in areas outside Africa consider using IDSR as a best-practice to meet the IHR (2005) requirements, including the European Union.

A tool for public health workforce assessment, The Netherlands

Marielle Jambroes

M Jambroes, ML Essink-Bot, T Plochg, K Stronks
Academic Medical Center Amsterdam, Dept Public Health
Contact: m.jambroes@amc.uva.nl

Background

Assessing the capacity of the current public health workforce is required as a first step towards assessing the impact of future changes on the workforce composition.

We defined nine public health core functions for The Netherlands, for example 'Disease prevention and control',

'Development and evaluation of health policies' and 'Health promotion and social participation'. We developed a questionnaire to assess the workforce capacity based on these core functions and performed a feasibility study to test the questionnaire.

Methods

An online questionnaire was distributed among 580 employees of a medium-sized municipal health service (MHS). Employees were asked to indicate whether each of the core functions is part of their work and if so, the time spent per core function. The validity of the questionnaire was tested by interviewing respondents retrospectively.

Results

Response was 217/580 (37%). This appeared to be a representative sample of the total MHS with regard to sex and age distribution. 186 (88%) indicated that at least one core function was part of their work and 77 (37%) persons executed four or more. Most hours were spent on the core function 'Disease prevention and control'; the least hours were spent on 'Assuring a competent workforce'. The number of people with a higher professional education background was highest in the core functions 'Monitoring and analyses of health status', 'Health promotion and social participation' and 'Disease prevention and control', suggesting the workforce capacity differs per core function. Individual estimation of the numbers of hours spent per core function was experienced as the most difficult part of the questionnaire.

Conclusion

Respondents appreciated the topic and the length of the questionnaire and although some questions were experienced as difficult to fill-out, the results seem to resemble daily practice. So the questionnaire seems a promising tool for public health workforce assessment!

L.1. EMPLOYMENT AND HEALTH

Unemployment and Coronary Heart Disease Among Middle-aged Men in Sweden: register follow-up of 49 321 men in the 1990s recession

Andreas Lundin

A Lundin¹, D Falkstedt², T Hemmingsson³

¹Lundin A, Dep of Public Health Sciences, Karolinska Institutet, Stockholm, Sweden

²Falkstedt D, Dep of Clinical neurosciences, Karolinska Institutet, Stockholm, Sweden

³Hemmingsson T Dep of Public Health Sciences, Karolinska Institutet, Stockholm, Sweden

Contact: andreas.lundin@ki.se

Background

Although unemployment is considered a stressful life event the association with Coronary Heart Disease (CHD) remain unclear. This study examines the long-term association between unemployment and later hospitalization due to CHD.

Methods

The study was based on a Swedish military conscription cohort of 18–20 year-olds from 1969, with information on health status and health behaviors. Information on unemployment was obtained from national registers at age 41–45, and subsequent CHD information was obtained from hospital registers. Cox analyses were run on the 37,590 individuals who were in paid employment in 1990 and 1991.

Results

It was found that ≥ 90 days of unemployment was associated with subsequent CHD during 12 years follow-up. After adjusting for confounders there was no statistically significant association. When follow-up was split into three time-bands, it was found that those with ≥ 90 days of unemployment had increased long-term risks (HR=1.36, 95% CI 1.03 to 1.80), while short and medium-risks were non-significant

(HR = 0.83, 95% CI 0.57 to 1.20 and HR = 1.12, 95% CI 0.84 to 1.49, respectively).

Conclusion

Unemployment was associated with long-term risks of CHD after adjusting for confounders. We interpret our findings of long-term but not short term increased risk of CHD associated with unemployment as potentially the somatic result of a process started by stress. A too short follow-up period might not reveal the somatic consequences induced by unemployment.

Unemployment and self-reported health status: a comparative study of Canada, Germany and the United States

Christopher McLeod

CB McLeod

School of Population and Public Health, University of British Columbia, Vancouver, Canada
Contact: chris.mcleod@ubc.ca

Background

Previous research has found that the relationship between working conditions and health may vary by variety of capitalism or welfare regime. This study examines the relationship between unemployment and self-reported health status (SRHS) in Germany, a coordinated market economy, and the United States and Canada, two liberal market economies with differing levels of protection or the unemployed.

Methods

Three working-age cohorts were derived from comparable longitudinal household surveys, the German Socio-economic

Panel (1994–2004), the American Panel Study of Income Dynamics (1984–1997), and the Canadian Survey of Labour and Dynamics (1996–2005). Unemployment was defined as unemployed at the time of the survey using a standardized ILO definition. Random effects logistic regression was used to estimate the odds of a transition to fair/poor health from good/very good/excellent health for the unemployed compared to the employed adjusting for demographic and socioeconomic measures and prior health status. Education-stratified models were examined, along with models examining receipt of unemployment benefits as a possible mediator between unemployment and SRHS.

Results

Unemployment was associated with poorer SRHS in all three cohorts (German: 1.7 (95% CI: 1.5–1.9), Canadian: 1.5 (95% CI: 1.4–1.9), American: 1.7 (95% CI: 1.5–1.9)). There was no relationship between unemployment and poorer SRHS among those with high levels of education in the German and American cohorts. The receipt of unemployment benefits did not mediate the effect of unemployment on SRHS in the German cohort, but did mediate the association in the Canadian and American cohorts. The unemployed in receipt of benefits had higher household incomes than those not in receipt of benefits in all cohorts, but in the American and Canadian cohorts those in receipt of benefits had shorter spells of unemployment.

Conclusions

Unemployment was negatively associated with poorer SRHS in all three countries. Who is at risk of poorer health differs across countries; in Germany, the long-term unemployed are at greatest risk of reporting poorer health, while in Canada and the United States it is the unemployed of low education or those not in receipt of unemployment benefits.

Moving from worklessness to employment: assessing the health impact taking account of the role of psychosocial job quality

Kathryn Skivington

K Skivington, F Popham, L Bond, M Benzeval

CSO/MRC Social and Public Health Sciences Unit, Glasgow, United Kingdom
Contact: kathryn@sphsu.mrc.ac.uk

Background

Few studies have taken account of job quality in assessing the health impact of transitions from worklessness to employment. Those that have suggest moving into a low-quality job is worse for health than staying unemployed, but we do not know if this is true for other forms of worklessness or whether this varies by different aspects of job quality e.g. psychosocial job demand and/or control. The current paper investigates this.

Methods

Analysis of the West of Scotland Twenty07 Study, a longitudinal study with five waves (1987–2008). Respondents who participated in two consecutive waves, and were workless at the first, were included in analyses using Generalised Estimating Equations (622 respondents; 806 transitions). Karasek's job control and demand questionnaire measured job quality; demand and control scores were included separately and in mutually adjusted models. Health outcomes were self-rated health and anxiety. Analyses adjusted for demographics, socioeconomic status and prior health and workless status.

Preliminary Results

Self-rated health: In the fully adjusted model, compared to those who moved into low-control jobs, those moving into high-control jobs had double the odds of good self-rated health (OR 2.062, 95% CI 1.142, 3.724), and those who remained workless had significantly lower odds (OR 0.419, 95% CI 0.275, 0.640) of good self-rated health; adjusting for job demand had little impact. In terms of job demands, those who remained workless had significantly lower odds of good self-rated health than those who moved into low-demand jobs, but the association was not significant when job control was adjusted for.

Anxiety

In the fully adjusted model, the odds of being anxious were significantly higher for those who moved into high, compared to low, demand jobs (2.342, 95% CI 1.312, 4.179); remaining workless was associated with increased anxiety odds, but this was not statistically significant (OR 1.509, 95% CI 0.945, 2.412). Job control was not a significant predictor of anxiety.

Conclusion

Policies to support people into work should consider employment as multidimensional; demand and control characteristics impact differently on health.

Effectiveness of a problem solving intervention for workers to promote sustainable employability

Wendy Koolhaas

W Koolhaas¹, JLL Van der Klink¹, JW Groothoff¹, MR De Boer^{1,2}, S Brouwer¹

¹University Medical Center Groningen, University of Groningen, department of Health Sciences, Community and Occupational Medicine, Groningen, The Netherlands

²VU University, department of Health Sciences, Amsterdam, The Netherlands

Contact: w.koolhaas@umcg.nl

Background

In all European countries higher and prolonged labour force participation throughout a worker's life is warranted to safeguard the social and economic realities of an ageing society. Societal productivity and growth can only be achieved through a healthy and inclusive workforce. In order to achieve this ambition, we developed the intervention 'Staying healthy at work'. The aim of the current study is to describe the results of a quasi-experimental controlled trial designed to evaluate the effectiveness of the problem-solving based intervention compared to usual practice.

Methods

The study was designed as a two-armed cluster randomized controlled trial with a 1-year follow-up. Measurements were performed at baseline, at three and 12 months. The intervention offers a strategy to improve the problem-solving capacity of both workers and supervisors. The primary outcomes of the study were work ability, perceived health status and productivity. The secondary outcomes of the study were changes in perceived fatigue, psychosocial work characteristics, work attitude, self-efficacy and work engagement.

Results

Analyses were performed in both groups for 88 workers in the intervention and 66 workers in the usual practice group. In the intervention group no statistically significant effect on productivity and an adverse effect on work ability ($b = -1.329$, 95% CI -2.45- -0.20) and vitality (OR = 0.099, 95% CI 0.02–0.46) was found compared to workers in the usual practice. Analysis of the secondary outcomes showed that the intervention increased work attitude ($B = 5.289$, 95% CI 9.59–0.99), self-efficacy (persistence subscale) ($B = 1.45$, 95% CI 0.43–2.48) and skill discretion ($B = 1.78$, 95% CI 0.74–2.83) compared to usual practice. No statistically significant effects of the intervention were found on fatigue and work engagement and between the intervention effect and time of follow-up for any of the outcomes.

Conclusion

The present study shows no superior effect of the intervention on the primary outcomes work ability, vitality and productivity compared to usual care. However, the intervention increased the attitude, self-efficacy and skill discretion of workers. The results show the relevance of behavioral determinants in intervening sustainable employability.

Associations between workplace health promotion and employee health in 60 municipal social care organizations in Sweden 2008

Cecilia Ljungblad

C Ljungblad^{1,2}, F Granström³, L Dellve⁴, I Åkerlind¹

¹School of Health, Care and Social Welfare, Mälardalen University, Sweden

²Department of Clinical Neuroscience, Section of Personal Injury Prevention, Karolinska Institute, Sweden

³Centre for Clinical Research, Sörmland County Council, Uppsala University, Sweden

⁴School of Health and Technology, KTH-Royal Institute of Technology, Sweden

Contact: cecilia.ljungblad@mdh.se

Background

The workplace is an important arena for health promotion since many people spend a great time of their life there. The ideas behind workplace health promotion (WHP) are based on the salutogenic perspective and imply that employee health may be a product of individual behaviour as well as a product of the work environment. Consequently, managers can promote employee health both by strengthening personal health practices and resources by offering various health-specific programmes, activities, and measures, and by forming a well-functioning work organization in general, beneficial for productivity, well-being, and health. Research concerning how well this corresponds in practice has so far been performed to a limited extent. This study investigated the extent to which differences in employee health and sickness absence between Swedish municipalities in the social care sector are related to general psychosocial work conditions and WHP.

Method

In a random sample of 60 out of 290 municipalities in Sweden, 15,871 municipal social care employees working with elderly and disabled clients were sent a questionnaire concerning psychosocial work environment, leadership, WHP, and self-rated health. The responses (response rate 58.4%) were complemented by register data on sickness absence.

Results

A structural equation modelling analysis using employer-level data demonstrated that employers with more favourable employee ratings of the psychosocial work conditions, as well as of specific health-promoting measures, had better self-rated health and lower sickness absence levels among employees.

Conclusions

The results from this representative nationwide sample of employers within one sector corroborate recent theories about health consequences of general psychosocial work conditions. However, traditional health-specific measures directed to individuals, such as fitness activities and stress counselling, still stand out as essential and justify their use in a comprehensive workplace health approach.

Burnout among medical professionals-social and economic dimensions

Jasmine Pavlova

J Pavlova, L Afanasieva, D Popov

Medical University-Sofia, Bulgaria

Contact: jpavlova@abv.bg

Bulgarian medical professionals are working in conditions of health system reform more than 20 years. Workload is a key dimension of organizational life. From the organization's perspective, workload means productivity. From the individual's perspective, workload means time and energy. Finding a compromise between the two perspectives is a fundamental challenge in maintaining a balanced relationship with work. The consequences of burnout are potentially very serious for the staff, the patients and the larger institutions in which they interact.

The purpose of this study was to examine the economic aspects and consequences of burnout for health professionals. For its implementation were solved the following tasks: analysis and assessment of the environment in which they live and work, analysis and evaluation of burnout rate; possible approaches to solving problems.

Participants and data collection: 1500 doctors and 1500 nurses (154 midwives included), volunteers, from the six regions in Bulgaria have completed an anonymous questionnaire on burnout rate.

Disparities in geographic regions, in types of healthcare facilities, in physicians and nurses per 10 000 of the population create conditions for further stress in the work of medical professionals.

The distribution of respondents by gender and age groups is as follows: 25,8% of physicians respondents are in young labour active age, among nurses they are 44,9%.

Especially alarming is the fact that more than 50% of our respondents physicians and nurses show moderate to high and very high degree of burnout. The analysis of the degree of burnout by age groups shows some differences between doctors and nurses.

Sources of stress have increased despite the development of new information technologies and communication and reduction of working time. The future is bright for those who had the courage to recognize the damage of stress, to help their employees to overcome it and have managed to organize the activity of environment-friendly human factor.

Prevention of the burnout syndrome should be developed and implemented in programs at individual and team level. With their help at the first signs specialists and the managerial tem of the health institution will be able to take adequate measures for treatment and rehabilitation.

M.1. Workshop: Understanding the causes of chronic diseases burden in Europe-how can recent advances, new concepts and future perspectives in relation to migrant/ethnic health help?

Chairs: Charles Agyemang, The Netherlands and Iveta Nagyova, Slovakia

Organiser: EUPHA section on Migrant and Ethnic Minority Health & EUPHA section on Chronic and Non-communicable Diseases

Chronic diseases such as cardiovascular diseases (CVD) and diabetes are major public health burdens in most ethnic minority and migrant populations living in Europe. The causes are incompletely understood, but they are likely to be multifaceted. Traditionally, ethnicity and health research has mostly concentrated on comparing the health of ethnic minority groups with the majority populations of the countries

in which they live. This is an important area of research which illuminates ethnic inequalities in health. However, in recent times, the need to search for other models in explaining ethnic inequalities in health is increasing. International comparative studies including the European Commission's (EC) funded MEHO project, recently showed that a lot can be learned from comparing similar ethnic groups living in different European countries. Equally, comparing migrant populations to similar populations in their countries of origin may generate new knowledge about factors that predispose them to poor health outcomes.

The aim of this joint workshop between the two EUPHA sections (i.e. Migrant and ethnic minority health & Chronic diseases) is to discuss the recent advances in ethnicity and health research on chronic diseases in Europe. In particular, the lessons from the MEHO project and their implication for future research will be discussed. Furthermore, the potential impact of comparing migrant populations with similar populations in their countries of origin will be discussed using the recent EC funded RODAM project as a case study (<http://www.rod-am.eu/>). Additionally, the recent project on role of severe chronic diseases on remigration of migrants to their country of origin will be discussed.

Three key papers will be presented by researchers from the leading institutes on ethnicity and health in Europe (University of Edinburgh; University of Amsterdam and University of Copenhagen).

From epidemiological surveillance to epidemiological explanations in ethnicity and health research: the example of cardiovascular diseases

Raj Bhopal

R Bhopal

Edinburgh Ethnicity and Health Research Group, Public Health Sciences Section, Edinburgh Ethnicity and Health Research Group, Centre for Population Health Sciences, University of Edinburgh, United Kingdom

By the early 1960s clear epidemiological evidence was showing major, and often very unexpected, variations in the incidence and/or mortality from cardiovascular diseases. For example, one of the earliest such studies showed that the largely vegetarian, non-smoking South Asian (mainly Indian) population in South Africa had higher rates than the South African population. In the subsequent decades, a number of countries have consolidated this evidence base with national analyses of mortality rates, in particular, and to a lesser extent morbidity rates. Amongst the European nations leading in this endeavour we can include the UK and The Netherlands. The MEHO project recently demonstrated that, across Europe, few countries are well placed to describe cardiovascular diseases by ethnic group/migrant status. Nonetheless, MEHO also showed that there are very many interesting and important variations that warrant both further research and policy and service action. Variations of the size demonstrated also require to be explained. Explaining them requires information within datasets on both ethnic group and on potential confounding, mediating, interacting and causal factors. While basic surveillance data are scarce, explanatory information of this kind is largely non-existent with relatively few exceptions in limited ethnic groups in regional or citywide studies (mostly starting as cross-sectional). Two very recent advances will be discussed, firstly, the experience of data linkage in this field, with particular reference to the Scottish Ethnicity and Health Linkage Study, and secondly, the development of three large-scale cohort studies that are poised to fill the gap i.e. the West of London cohort study (LOLIPOP), HELIUS (Netherlands), and UK Biobank. The need for research across the lifespan will be emphasised, with particular reference to birth cohort studies. Finally, I will consider the potential benefits of more sophisticated designs where comparisons are made between migrant/ethnic groups within the country, across different European countries, and simultaneously, in the countries of origin.

Type 2 diabetes and obesity among sub-Saharan African native and migrant populations: dissection of environment and endogenous predisposition

Charles Agyemang

C Agyemang¹, Erik Beune¹, C van der Veer¹, AE Kunst¹, S Bahendeka², K Stronks¹, on behalf of the RODAM Consortium

¹Department of Public Health, Academic Medical Centre University of Amsterdam, The Netherlands

²IDF, African Region, Kampala, Uganda

Sub-Saharan Africa (SSA) origin populations in Europe have increased substantially for the last few decades. Evidence suggests that the risk of Type II diabetes (T2D) and obesity is higher in these populations than in European host populations. By the same token, the prevalence of T2D and obesity are on the rise in many SSA countries. The reasons for these observations are not well understood, given the absence of data on the relative importance of environmental and genetic factors. With the increasing prevalence of T2D and obesity and their adverse complications in these populations, there is an urgent need to unravel the underlying factors to guide prevention and treatment efforts. The RODAM (acronym for Research of Obesity & Diabetes among African Migrants) is a recent European Commission (FP-7) funded project, which addresses these fundamental health issues among a homogeneous, and one of the largest SSA migrant groups in Europe (i.e. Ghanaians) (<http://www.rod-am.eu/>). RODAM thus aims to: study the complex interplay between environment (e.g. lifestyle) and (epi)genetics in T2D and obesity; identify specific relevant risk factors to guide intervention; provide basis for improving diagnosis and treatment. In a multi-centre study, 6250 Ghanaians aged ≥ 25 years will be recruited in rural and urban Ghana, Germany, The Netherlands, and the UK. The differences in prevalence rates within Ghana on the one hand, and three European countries on the other, will allow us to unravel environmental as well as (epi)genetic factors in relation to T2D and obesity. This unique study will generate relevant results that will ultimately guide intervention programmes and will provide a basis for improving diagnosis and treatment among SSA migrants in Europe as well as in their counterparts in Africa and beyond.

Is there an association between severe disease and remigration among migrants?

Marie Norredam

M Norredam¹, OH Hansen², AE Kunst³, JH Pedersen¹, M Kristiansen¹, A Krasnik¹, C Agyemang³

¹Danish Research Centre for Migration, Ethnicity, and Health, Section for Health Services Research, Department of Public Health University of Copenhagen; Denmark

²Section for Biostatistics, Department of Public Health, University of Copenhagen, Denmark

³Department of Public Health, Academic Medical Centre University of Amsterdam, The Netherlands

European studies show lower all-cause mortality among migrants versus host populations. Results are explained by 'the healthy migrant effect', but also by 'the Salmon bias' entailing the remigration of severely ill individuals. We set out to investigate the latter hypothesis. Our study aim was to assess whether severely ill migrants were more likely to re-migrate to their home country than those not severely ill. The study cohort was obtained through the Danish Immigration Service. Migrants were included if they had obtained residence permission as refugees or through family reunification in Denmark between 1.1.1993 and 31.12.2010. We identified 116,073 migrants. \bar{x} 18 years. The study cohort's civil registration numbers were cross-linked to the Danish National Patient Registry (LPR), which contains discharge diagnoses (ICD-10). From the Danish Civil Registration System we obtained data on date of registered emigration events. In regression, the independent variable was disease occurrence and the dependent variable remigration status. We adjusted for age, sex and income and stratified for county of origin. We expect to find that the prevalence of disease will affect the likelihood to re-migrate, but that the size and even the direction of this association strongly differs according to discharge diagnosis, country of origin, and types of outmigration (remigration vs. migration towards another host country). Such findings would imply that salmon bias has a large potential in affecting observed mortality rates, but mostly that its actual effect strongly depends on specific conditions.

N.1. INFECTIOUS DISEASES 1

Antibiotic resistance of *Escherichia coli* isolates from stool samples of healthy children aged 3 to 14 years in Ujjain, India

Peter Barrett

P Shaky¹, P Barrett², V Diwan^{2,3}, Y Marothi¹, A Pathak², N Chhari⁴, H Shah¹, A Tamhankar⁵, CS Lundborg²

¹Dept Microbiology, R.D.Gardi Medical College (RDGMC), Ujjain, India

²Div of Global Health, Karolinska Institutet, Stockholm, Sweden

³Dept Public Health & Environment, RDGMC Ujjain, India

⁴Dept Community Medicine, RDGMC, Ujjain, India

⁵Indian Initiative for Management Antibiotic Resistance, Dept Environmental Medicine, RDGMC, Ujjain, India

Contact: peterbarrett1@hotmail.com

Background

Antibiotic resistance is a growing global health problem. Commensal *E. coli* can act as reservoirs of antibiotic resistance genes and faecal *E. coli* are a useful indicator of the spread of acquired resistance. *E. coli* cause a large burden of disease in children worldwide and resistant organisms pose significant treatment challenges. Resistance patterns in Asia are relevant to European and international contexts due to widespread dissemination of resistant bacteria through global trade and travel.

Aim

To describe and analyse antibiotic resistance patterns in *E. coli* isolated from stool samples of healthy children in Ujjain, India and to correlate occurrence of resistance with demographic variables.

Methods

The study was conducted in 30 rural villages in Ujjain, India. 20 children aged 3–14 years from each village were randomly selected. Children's parents were interviewed using a confidential questionnaire, and stool samples were collected from participants (n = 529). *E. coli* were isolated from stool samples and sensitivity testing to 19 different antibiotics was done using standard disc diffusion methods.

Results

72% of samples were resistant to at least one antibiotic. 33% were multi-drug resistant and 13% were ESBL-producers. Very high levels of cross-resistance were seen for 15 (79%) of the antibiotics studied. Resistance rates varied significantly based on the villages in which children lived. Children with literate mothers were more resistant to penicillins and fluoroquinolones. Girls were more resistant to tetracycline and cephalosporins than boys. Children from larger families were more resistant to tetracycline.

Conclusion

Antibiotic resistance and cross-resistance are very common in *E. coli* of healthy Indian children. Maternal education may increase risk of children's resistance, possibly due to increased access or consumption of antibiotics for these children in resource poor settings. Overall, demographic variables affect resistance patterns for separate antibiotic classes differently. This study aids national and international surveillance efforts of resistant commensal bacteria.

Needlestick injuries in healthcare workers in the European Union: current management policies of the risk for hepatitis B infection

Antoon De Schryver

AA De Schryver¹, G François¹, B Claesen¹, M van Sprundel¹

¹IDWE Occupational Health Services/University of Antwerp, Belgium, Department of Epidemiology and Social Medicine, University of Antwerp, Belgium, IDWE Occupational Health Services, Leuven, Belgium, Department of Epidemiology and Social Medicine, University of Antwerp, Belgium

Contact: antoon.deschryver@idewe.be

Background

The risk of transmission of blood-borne pathogens, including hepatitis B virus (HBV) to healthcare workers (HCWs) is well known. A new European Union (EU) Directive has been introduced to prevent injuries and infections to HCWs from needlesticks. The Directive proposes an integrated approach establishing policies in risk assessment, risk prevention, training, information, awareness raising and monitoring

Methods

We performed a cross-sectional survey of representatives from the Occupational Medicine section of the European Union of Medical Specialists (UEMS), to find out current policies regarding post-exposure management of needlestick injuries and HBsAg positive HCWs in the EU Member States (MS).

Results

≥ Answers were received from 15 MS, representing 89% of the population and 90% of HCWs in the EU-25. National or international guidelines for post-exposure management were followed by 16 MS. For HCW not vaccinated against HBV, 15 MS recommended hepatitis B immunoglobulin (HBIG) and HBV vaccination; for HCWs vaccinated against HBV but without known serology after vaccination, serology (mostly combined with other measures) was recommended in 10 MS; for HCWs vaccinated and anti-HBs titer ≥10 mIU/ml after completion of a full vaccination course no supplementary measures were recommended in 10 MS; for non-responders 7 MS recommended HBIG and HBV vaccination, 6 MS vaccination only. National guidelines for management of HBs Ag positive HCWs were present in 8 MS. In 12 MS restrictions to perform duties applied, in 8 MS exposure-prone procedures (EPPs) were explicitly mentioned. HBV-DNA testing was available in 16 MS, but only 4 MS had defined a limit above which restrictions would apply. Only 8 MS answered the question on implications for the HCWs' career: in 6 MS no EPPs would be allowed, in 2 MS no EPPs would be allowed until cleared below a limit (1000 copies/ml).

Conclusions

These results, representing the large majority of HCWs in the EU-25, show the variation as to how EU legislation is translated into practice in different EU MS. More consultation between key actors from MS at EU level could help to optimise the way this matter is dealt with in different MS. This can contribute to further reducing HBV transmission to HCWs.

Health Technology Assessment of needlestick-prevention devices to enhance safety of healthcare workers

Nicola Nicolotti

N Nicolotti¹, G De Carli¹, G La Torre², R Saulle², A Mannocci², A Boccia², G Ippolito¹, V Puro¹

¹Department of Epidemiology and Preclinical Research, L. Spallanzani National Institute for Infectious Diseases (INMI), IRCCS, Rome, Italy

²Department of Public Health and Infectious Diseases, Sapienza University of Rome, Rome, Italy

Contact: nicola.nicolotti@inmi.it

Background

Approximately 900,000 healthcare workers (HCW) in Italy are at risk of severe bloodborne infections (HBV, HCV and HIV) through blood-contaminated needle stick injuries (NSI). Every year around 26,000 NSI are reported in Italian hospitals. Needlestick-prevention devices (NPD) represent one of the most effective interventions to decrease exposure and infection with bloodborne pathogens. Their use in Italy has been significantly limited by the need of supplementary education, training and cost. On March 8 2010, an European Directive (2010/32/EC) has been approved. It will support, after

transposition into national law, NPD widespread adoption in EU Member States.

The aim of our study is to provide evidence to evaluate the optimal strategy of NPD implementation in the national health care setting using an Health Technology Assessment (HTA) approach (RF-2009-1530527).

Methods

Using HTA methodology, NPD are evaluated, by systematic review of scientific literature and consulting national and international experts, in terms of efficacy/effectiveness, performance, impact on hospitals, patients, procedures. To evaluate the effectiveness of NPD, a trial before/after on NPD implementation will be conducted in hospitals participating to the Studio Italiano Rischio Occupazionale da HIV (SIROH) Network.

Results

Starting from our systematic review, sharps injuries in Italy and in the other European country remain common and under-reported. In particular, SIROH network data showed an NSI rate per year, using conventional device, of 9.82 per 100,000 used devices. The underreporting of blood and body fluid exposures ranged between 17% and 97%, the greatest percentage in case of complex reporting procedure or in the absence of specific educational programmes. Retrieved studies showed the efficacy of NPD to reduce injuries. It ranged between 16% and 100%, the greatest reductions achieved by blunt suture needles and safety cannulae. At the moment, 16 hospitals are collecting data for the study on effectiveness.

Conclusions

The use of NPD could improve safety of HCW and reduce the incidence of NSI. Their introduction in a health care setting should be preceded by appropriate educational programmes and HCW should be involved in evaluating products before introduction.

Klebsiella pneumoniae carbapenem producers in Intensive Care Unit: first results about clinical and environmental surveillance in teaching hospital "Umberto I", Rome

Maria De Giusti

M De Giusti¹, L Marinelli¹, A Giordano¹, A Cottarelli¹, C Marzuillo¹, A Carattoli², D Fortini², C Venditti², C Mancini¹, GB Orsi¹, P Lucchetti¹, GA Messano¹, P Ursillo¹, R Saulle¹, B Unim¹, D Tufi¹, V Renzini¹, A Boccia¹, G La Torre¹

¹Department of Public Health and Infectious Diseases-Hygiene Unit, Sapienza University of Rome, Italy

²Department of Infectious Diseases, National Institute of Health, Rome, Italy
Contact: maria.degiusti@uniroma1.it

Background

The aim of our study is to evaluate the effectiveness of epidemiological surveillance and prevention strategies of *Klebsiella pneumoniae* (KPC) infections in a teaching hospital in Rome.

Methods

An epidemic KPC cluster (8 cases) occurred in Nov 2010 in the Intensive Care Unit (ICU) of the teaching hospital "Umberto I" in Rome, after that an epidemiological surveillance focused on patients, environment and KPC was activated.

From Nov 2010 to Apr 2012; 251 patients were admitted in the ICU and 158 epidemiological investigations has been conducted in the hospital.

Strains from clinical and environmental ICU samples were identified and characterized for antibiotic resistance through Vitek2 compact (BioMérieux Italia). Bacterial RNA was analyzed through real-time NucliSENS EasyQ KPC (BioMérieux Italia) to confirm KPC presence.

Fifteen environmental strains have been characterized by Pulsed Field Gel Electrophoresis and PCR for KPC gene and matched with KPC clinical isolates. MultiLocus Sequence Typing was performed to link a clonal strain.

Results

We isolated 146 KPC strains from clinical ICU samples, and 69 from environmental ones (only 58 out of 69 KPC).

Eleven out of fifteen (73%) of the environmental strains showed the same PFGE profile of the clinical ones. The epidemic environmental clone has been identified as ST512 (clonal complex CC-258). This clone is persistent in the environment with the extension of the resistance to colistin. In the last 9 months of ICU surveillance we observed an 33.33% increase of KPC clinical isolations and a 8.33% decrease of environmental ones.

The epidemiological survey showed widespread cases in the hospital.

Conclusions

In Europe 2010 will be remembered as the year in which extensive drug resistant carbapenem producers bacteria (XDR-KPC), including *Klebsiella pneumoniae* (KPC), attracted global attention.

Our study highlights the central role of the traditional and molecular epidemiological approach to obtain a good risk management of hospital infection from bacteria XDR-KPC.

***Pseudomonas aeruginosa* versus Non Fermentative Gram Negative Bacteria antibiotic resistance: an environmental investigation in a Teaching hospital in Rome**

Serena Carovillano

S Carovillano, S Bruno, G Quaranta, MG Ficarra, C Turnaturi, W Ricciardi, P Laurenti

Institute of Hygiene, Catholic University, Rome Italy

Contact: serena_car@tiscali.it

Background

The 2010 European Antimicrobial Surveillance System Annual report showed high proportions of resistance, despite of the situation appears generally stable in Europe with few countries reporting significant increasing (Malta and France) or decreasing (Greece, Italy, Germany) trends to different antimicrobial agents. High proportions of *Pseudomonas aeruginosa* resistance were reported by many countries especially in southern and eastern Europe.

Methods

A cross-sectional study was carried on to compare the antibiotic resistance of *P. aeruginosa* towards all the other Non Fermentative Gram Negative Bacteria (NFGNB) isolated from different aqueous sources in generic and high-risk wards of a Teaching Hospital in Rome.

Municipal water, dialysate, fluid for the bronchoscopes disinfection effectiveness assay, double osmosis treated water samples were routinely collected from September 2004 to September 2010. *P. aeruginosa* was identified by growth characteristics and biochemical fermentation tests; the antimicrobial susceptibility was automatically evaluated with ATB PSE 5 strips (BioMérieux). The chi-squared test (χ^2) was performed to investigate the differences of the resistance between *P. aeruginosa* isolates versus the other NFGNB; the statistical significance was set at $p < 0.05$.

Results

Out of 2016 samples, 116 strains were isolated, 40 of them (34.5%) were *P. aeruginosa*. Among the 19 tested antibiotics, significant differences in resistance ($p < 0.001$) between the two bacterial groups were observed for: Amikacine ($\chi^2 = 18.56$), Ampicil-sulbactam ($\chi^2 = 25.37$), Colistine ($\chi^2 = 40.65$), Cotrimoxazole ($\chi^2 = 54.01$), Gentamicine ($\chi^2 = 25.72$) and Tobramycine ($\chi^2 = 23.17$).

Conclusions

Our results suggest a restraint of *P. aeruginosa* resistance to the new antimicrobial agents tested, such as carbapenems, fluoroquinolones and cephalosporins, if compared to all the other NFGNB resistance, suggesting judicious and prudent use of new drugs.

The understanding of the ecological role for antibiotics and antibiotic resistance in environments may help to predict and control the emergence and future evolution of resistance of clinical samples, integrating environmental evidence-based data in the clinical practice.

Density of antibiotic use in hospitals within the EurSafety Health-net project

Annette Jurke

A Jurke¹, J Ludwigs², R Köck², M Rohde³, I Daniels-Haardt⁴, AW Friedrich⁵

¹Infectology and Hygiene, NRW Centre for Health, Münster, Germany

²Institute of Hygiene, University Hospital, Münster, Germany

³R&D Division Health, OFFIS Institute for Informatics, Oldenburg, Germany

⁴Health protection and health reporting, NRW Centre for Health, Münster, Germany

⁵Universitair Medisch Center, Medische Microbiologie en Infectiepreventie, Groningen, Nederland

Contact: annette.jurke@lzg.nrw.de

The prudent use of antibiotics is a major preventive measure to forestall the selection and spread of multidrug-resistant bacteria. It is important to monitor the density of antibiotic use in hospitals cooperating within a quality network for the prevention and control of healthcare-associated infection using an analytical information system.

Within the Dutch-German EurSafety Health-net project (www.eursafety.eu), German hospitals in the EUREGIO Gronau/Enschede provided data on the use of antibiotics in intensive care units (ICUs) and other (non-intensive care) wards. The data were assessed separately for the second half-year 2009 and the first half-year 2010 using a

Multidimensional Statistical Data Analysis Engine. The use of antibiotics was reported by hospital pharmacies based on the Anatomical Therapeutic Chemical (ATC) code and in gram and transformed into daily defined doses (DDD) as defined by the World Health Organization (WHO). Comparability was achieved by calculating DDD/100 patient-days (pd).

Thirty-four regional hospitals within the network provided data on the use of antibiotics. The median (mean) density of antibiotic use on non-ICU wards was 48 (56) DDD/100 pd in 2009 and 47 (53) DDD/100 pd in 2010. Of note, in the non-ICU setting, extended-spectrum penicillins (J01CA), cephalosporins (J01DB-DE), carbapenems (J01DH) and quinolones (J01M) accounted (2009/2010) for 2.8%/2.4%, 39%/41.7%, 1.9%/2.2% and 11.7%/8% of the total antibiotic use, respectively. On 25 ICUs, the median (mean) density of antibiotic use was 108 (110) DDD/100 pd in 2009 and 109 (114) DDD/100 pd in 2010. On different ICUs the use of the broad-spectrum antibiotics vancomycin, teicoplanin, linezolid, carbapenems and tigecyclin together represented between 5% and 48% of the total use of antimicrobial agents.

The total regional use of antibiotics was comparable to data from other regions published in the German GERMAP 2008 and the Dutch NethMap 2010 reports. However, between the hospitals, we observed a broad range of antibiotic use both with respect to the density and the types of antimicrobial agents used. Together with regional data on bacterial antibiotic-resistance, this data can be used by the network hospitals for discussions aiming to improve local antibiotic policies.

Friday, 9 November, 10.30–12.00

A.3. PUBLIC HEALTH GENOMICS

Leisure time activities in adolescence in the presence of susceptibility genes for obesity: Risk or Resilience against overweight in adulthood? The HUNT study

Koenraad Cuypers

K Cuypers¹, KAA De Ridder^{2,3}, K Kvaløy¹, M Skjei Knudtsen⁴, S Krokstad¹, J Holmen¹, T Lingaas Holmen¹

¹Department of Public Health and General Practice/HUNT research Center, Norwegian University of Science and Technology, Levanger, Norway

²Department of Public Health and General Practice, Norwegian University of Science and Technology, Trondheim, Norway

³Department of physical medicine and rehabilitation, Levanger Hospital, Nord-Trøndelag Health Trust, Levanger, Norway

⁴Department of Health Promotion, Nord-Trøndelag County Council, Steinkjer, Norway

Contact: koenraad.cuypers@ntnu.no

Background

Environment, health behavior, and genetic background are important in the development of obesity. Adolescents spend substantial part of daily leisure time on cultural and social activities, but knowledge about the effects of participation in such activities on weight is limited.

Methods

A number of 1450 adolescents from the Norwegian HUNT study (1995–97) were followed-up in 2006–08 as young adults. Phenotypic data on lifestyle and anthropometric measures were assessed using questionnaires and standardized clinical examinations. Genotypic information on 12 established obesity-susceptibility loci were available for analyses. Generalized estimating equations were used to examine the associations between cultural and social activities in adolescence and z-scores of adiposity measures in young adulthood. All associations were adjusted for pubertal development status, physical activity change from adolescence to adulthood, and socioeconomic status. In addition, interaction effects of a genetic predisposition score by leisure time activities were tested.

Results

In girls, participation in cultural activities was negatively associated with z-scores of waist circumference (WC) ($B = -0.04$, 95%CI: -0.08 to -0.00 , $p = 0.05$) and with z-scores of waist-hip ratio (WHR) ($B = -0.058$, 95%CI: -0.11 to -0.01 , $p = 0.02$). However, participation in social activities was positively associated with z-scores of WC ($B = 0.040$, 95%CI: 0.00 to 0.08 , $p = 0.03$) in girls and with z-scores of BMI ($B = 0.027$, 95%CI: 0.00 to 0.05 , $p = 0.05$) in boys. The effect of the obesity-susceptibility genetic variants on anthropometric measures was lower in adolescents with high participation in cultural activities compared to adolescents with low participation.

Conclusion

This study suggests that the effects of cultural activities on body fat are different from the effects of participation in social activities. The protective influence of cultural activities in adolescents against overweight in adulthood and their moderating effect on obesity-susceptibility genes suggest that even cultural activities may be useful in public health strategies against obesity.

The importance of genetic and shared environmental factors for the associations between job demands, control, support and burnout

Victoria Blom

V Blom¹, G Bergström², L Bodin², L Hallsten¹, P Svedberg¹

¹Division of Insurance Medicine, Department of Clinical Neuroscience, Karolinska Institutet, Stockholm

²Division of Intervention and Implementation Research, The Institute of Environmental Medicine, Karolinska Institutet, Stockholm, Sweden

Contact: victoria.blom@ki.se

Background

Within occupational health research, one of the most influential models is the Job Demand-Control Support model, JD-C-S. Numerous studies have applied the model to different domains with both physical and psychological health outcomes, such as burnout. Twin design provides a unique and powerful research methodology for examining the effects of environmental risk factors for burnout while taking familial factors (genetic and shared environment) into account. To our knowledge, this has not been done before.

Methods

A total of 14 793 individuals from the Swedish Twin Registry who were born between 1959 and 1985 and who participated in the Study of Twin Adults: Genes and Environment (STAGE) web-based questionnaire in 2005 with complete information on the variables included in the analyses. Of these were 7109 complete same sexed twin pairs (4089 monozygotic (MZ) and 3103 dizygotic (DZ) same-sexed). Generalized Estimation Equations (GEE) were used to assess estimates of associations while adjusting for the non-independence between members of a twin pair. Comparisons of between-pair effects, within-pair effects and effects for MZ and DZ twin pairs were done.

Results

The results showed a significant difference between the within-pair effect and between-pair effect as regards job demands within pairs ($\beta = .53$, $p < .001$, CI .46-.60) compared to between pairs ($\beta = .48$, $p < .001$, CI .41-.54) and support within pairs ($\beta = -.58$, $p < .001$, CI -.65-.52) compared to between pairs ($\beta = -.67$, $p < .001$, CI -.74-.60), indicating that familial factors were involved in the associations. As regards control, there was no significant difference between the within-pair effect and between-pair effect. Further, the effects were similar in DZ and MZ twins as regards all predictor variables, implying that the associations between job demands and burnout and support and burnout are confounded by shared environmental factors rather than genetic factors.

Conclusions

The study results suggest that shared environment seem to be of importance in the association between job demands and burnout as well as support and burnout, but not between control and burnout. This is new and important knowledge within the occupational health field, and of interest for health prevention activities.

Exploring online direct-to-consumer genetic test: a systematic review

Enrico Lirangi

E Lirangi¹, L Covolo¹, A Caruana², S Rubinelli³, U Gelatti¹

¹Section of Hygiene, Epidemiology and Public Health, Department of Experimental and Applied Medicine, University of Brescia, Italy

²Post-graduate School of Public Health, University of Brescia, Italy

³Department of Health Sciences and Health Policy, University of Lucerne and Swiss Paraplegic Research, Switzerland
Contact: enricolirangi@gmail.com

Background

For several years, direct-to-consumer (DTC) genetic tests can easily be purchased through the internet independently of a physician referral or approval for testing, with the possibility to get genetic information outside the clinical context. There is a broad debate about their validity, their impact on individuals and what people know and perceive about it. However, there has been no systematic review on this issue. The aim of the study was to perform a systematic review of the scientific literature dealing with DTC genetic testing to evaluate the state of the art regarding this topic.

Methods

We carried out the research through PubMed, Web of Knowledge and Embase and the gray literature on the Internet using Google Scholar according to Prisma Statement Checklist. We used "Direct-to-consumer genetic test" as keyword. We selected articles in English with original data, dealing with DTC genetic testing.

Results

We obtain 998 records and we selected 54 relevant articles. On the basis of the main focus treated in the articles, we identified four categories: 1) articles investigating knowledge on, attitude to use and perception of DTC genetic tests ($n = 30$); 2) articles analyzing web sites selling DTC genetic tests ($n = 13$); 3) articles focusing on possible impact of the genetic risk information ($n = 7$) 4) articles analyzing the quality of the tests ($n = 4$).

Conclusions

Up to now, there are few articles with data on DTC genetic tests. Most of them analyze the attitude, knowledge and perception about DTC genetic tests highlighting on the one hand an interest in using DTC genetic test and on the other hand the need of an healthcare professional in order to help interpreting the results of the test. The articles investigating the content analysis of the websites selling these tests are in agreement that the information provided by the companies about genetic tests are not completely comprehensive and exhaustive for the consumer. As regards the possibility that risk information can modify consumer health behavior there are few studies and the results are contrasting. Data from studies investigating the quality of the tests offered confirm that they are not informative with little predictive power and so not yet useful in measuring properly genetic risk.

Assessment of the health and the economic burden of haemophilia in Belgium: A rare, very expensive and largely unknown disease with multiple public health challenges

Séverine Henrard

S Henrard¹, C Hermans², B Devleeschauwer³, N Speybroeck⁴

¹Institute of Health and Society (IRSS), Université catholique de Louvain, Brussels, Belgium and Haemostasis and Thrombosis Unit, Division of Haematology, Cliniques universitaires Saint-Luc, Brussels, Belgium

²Haemostasis and Thrombosis Unit, Division of Haematology, Cliniques universitaires Saint-Luc, Brussels, Belgium

³Institute of Health and Society (IRSS), Université catholique de Louvain, Brussels, Belgium and Department of Parasitology, Virology and Immunology, Faculty of Veterinary Medicine, Ghent University, Merelbeke, Belgium

⁴Institute of Health and Society (IRSS), Université catholique de Louvain, Brussels, Belgium

Contact: severine.henrard@uclouvain.be

Background

Haemophilia is a rare hereditary haemorrhagic disease requiring regular intravenous injections of clotting factor (CF). The aim of this study is to estimate the health and the economic burden of haemophilia in Belgium. This study may also be useful in a global future evaluation of haemophilia since worldwide such a study has never been done. Moreover, the study fits with the growing interest for haemophilia of the Belgian government as part of its priority planning for rare and chronic diseases.

Methods

The burden was expressed in Disability-Adjusted Life Years (DALYs), the number of lost healthy years resulting from both disability and premature mortality. The World Health Organization Global Burden of Disease approach was used employing an incidence perspective. Data were drawn from the literature when data from federal institutions and health insurance were not available. Disability weights for DALY calculations were derived using the quality-of-life tool EuroQol (adults) and Haemo-Qol (children). The analyses take account for the type of haemophilia, severity and age groups.

Results

In Belgium, haemophilia results in 196.6 DALYs (95% Credibility Interval [CrI] = 106.4–302.3). This represents a mean of 14.8 DALYs by person with haemophilia (PWH) (95% CrI = 12.2–17.6), with large differences regarding the severity of haemophilia (36.3 DALYs per severe PWH against less than 2.5 DALYs per moderate or minor PWH). The total costs reach a mean of 6.7 million Euros per PWH during his

life, including 80.0 % (5.4 million Euros) for the CF. In 2009, the expenditures in CF costed 70.7 million Euros for the 936 PWH in Belgium, holding the 17th place in the ranking of total net drug expenditures of the ambulatory health care insurance, with the 226th place in the ranking of the defined daily dose.

Conclusions

The analysis shows a high economic burden compared to a small health burden, with a cost of 452,245 Euros per DALY. On the other hand, a high individual health burden is observed. Despite the major therapeutic developments and a consequent investment in the substitutive treatment, the haemophilia impact on public health remains significant, especially for people with severe haemophilia. Initiatives for reducing this burden should be identified and supported.

A systematic review of the literature on the human genetic variations in response to vaccination

Paolo Di Giannantonio

P di Giannantonio, W Mazzucco, R Amore, W Ricciardi, S Boccia
Institute of Hygiene, Università Cattolica del Sacro Cuore, Roma
Contact: sboccia@rm.unicatt.it

Background

Vaccinomics is a term that refers to the investigation of heterogeneity of host genetic markers at the individual or population level that may result in variations of humoral, cell-mediated, and/or innate immune responses to vaccines. Studying genetic heterogeneity of human response to vaccines is supposed to both afford a better understanding of the way vaccine works, and help in developing future vaccines that are protective. With this premise in mind, we performed a systematic review of the literature on the studies concerning the association between human genetic variations in response to vaccination.

Methods

A detailed literature search on the case-control and cohort studied was conducted on Medline and Google. The Medline query was structured as reported below: ((pharmacogenetics[mesh] OR pharmacogen* OR genetic association OR genetic susceptibility OR immunogenetics) AND (vaccine[mesh] OR vaccin OR vaccina* OR vaccine* OR vaccini* OR vaccino* OR vaccinu*)) OR vaccinom*.

Results

From the literature search, 1940 articles were retrieved, of which 276 screened by title. After careful abstract reading, 54 resulted eligible, of which 28 articles were eventually deemed eligible. From the 28 articles, more than 50% were conducted in the USA (Minnesota), and were conducted on the MMR (Measles, Mumps, and Rubella) vaccine. The remaining studies were conducted on hepatitis B and A vaccines. The age group most studied ranged between 5 and 18 years. Almost 75% of the primary studies were concerned the HLA (Human Leukocyte antigen) genes, followed by Interleukin (IL), Tumor necrosis factor (TNF), Granulocyte-macrophage colony-stimulating factor (GM-CSF).

Conclusions

As the increasing application of vaccinomics due to the application of whole-genome scanning occurs, the ever-growing body

of genomic data on the individual inherited vaccine response will be responsibly managed by public health personnel to enable timely improvement of vaccination practices.

Economic implications of genetic and pharmacogenetic testing: a review of reviews and updated systematic review

Paolo Villari

F Pelone^{1,2}, E D'Andrea¹, P Ursillo¹, M De Giusti¹, P Villari¹

¹Department of Public Health and Infectious Diseases, Sapienza University of Rome, Rome, Italy

²Institute of Hygiene and Public Health, Catholic University of the Sacred Heart, Rome, Italy

Contact: elvira.dandrea@gmail.com

Introduction

In Europe, as well as worldwide, it is becoming imperative to demonstrate that genetic testing offer added value in terms of the relative costs and health benefits, compared with current practice. Given this background, our analysis seeks to summarize the health economic literature on genetic testing, including predictive genetic and pharmacogenetic tests.

Methods

A review of economic reviews was conducted (Pubmed, Econlit, and Cochrane database of Systematic reviews). Only articles including economic evaluations (defined as an evaluation of both costs and clinical outcomes) of genetic testing interventions were included. Any economic review reporting cost-effectiveness, cost-utility or cost-benefit analyses (CEA, CUA, CBA) was included regardless of participants' age, countries and social conditions. Extraction of articles and quality assessment was performed independently by two authors. Since February 2012, we have been conducting a systematic literature search, starting with the first such publications from 2004 to update the current evidence.

Results

In total, 146 articles were identified. The review included 9 economic reviews. The majority (6) were published after 2006, the earliest (2) are from 2004, and the most recent is from 2011. Mainly, the reviews are focused on cost-effectiveness analysis of predictive genetic (3 reviews, 46 CEAs), and pharmacogenetic testing (6 reviews, 76 CEAs). Only two analyses reported results on the CBA and CUA of pharmacogenetic testing. The most recent economic analyses were generally of higher quality. However, the retrieved reviews indicate the need to improve the current quality of the economic evidence base.

Conclusions

Our preliminary findings indicate the important role genetic testing could play in the 21st century. Pharmacogenetic tests can help identify potential optimal drug therapy on an individual level, while predictive genetic tests provide information about personal risk of developing a specific disorder and the best corresponding care pathway. High quality economic evaluations of genetic testing are strongly needed to ensure that the evidence base is sufficiently robust to inform resource allocation decisions at local and national levels.

B.3. RISK AND VULNERABILITY

Association of demographical and environmental characteristics with health and lifestyle in European urban areas between 2005 and 2010

Laurens Van Buren

LP Van Buren¹, EM Koster¹, R De Gelder¹, J Higgerson², A Verma², C Birt³, EJC Van Ameijden¹

¹Municipal Health Service Utrecht, Utrecht, The Netherlands

²Manchester Academic Health Sciences Centre, University of Manchester, United Kingdom

³University of Liverpool, Liverpool, United Kingdom

Contact: l.van.buren@utrecht.nl

Background

In Europe, over 70% of the population lives in urban areas (UAs). The demographical and environmental characteristics of UAs differ from those from non-urban areas, and the health status of the urban population varies considerably between European urban areas. The aim of this study is to investigate whether sociodemographical and environmental characteristics of UAs are related to health and lifestyle in these UAs.

Methods

In the European Urban Health Indicator System Part 2 (EURO-URHIS 2) project, data on mortality, morbidity, lifestyle and determinants was collected in a comprehensive way. Part of the data collection consisted of the collection of routinely available data (2005–2009) from 24 UAs in 10 European countries (EC) and a postal survey among adults aged 19 years or older in 16 UAs in nine EC. Using aggregated data per UA, an ecological analyses was performed by calculating correlations between a variety of sociodemographical and environmental determinants and health and lifestyle outcomes using Spearman's test.

Results

Correlations were the strongest, most consistent and statistically significant for the determinants 'living with a partner', 'enough money for daily expenses', 'living over five years in the neighbourhood' and 'good social cohesion' in relation to outcomes that broadly measure health status (life expectancy, healthy life expectancy (HLE) and general health). For example, for HLE among males at age 15, the correlations are: living with a partner ($n=15$, $r^2=.590$, $p=.001$); enough money for daily expenses ($n=13$, $r^2=.574$, $p=.003$); living over five years in the neighbourhood ($n=15$, $r^2=.681$, $p<.000$); and good social cohesion ($n=15$, $r^2=.364$, $p=.017$). The direction and statistical significance of the correlations for the other broad health indicators are consistent with these results. Population density and unemployment were not associated with health outcomes in UAs. Lifestyle outcomes showed more heterogeneous associations.

Conclusions

On the UA level, social determinants (having a partner, having enough money, living over five years in the neighbourhood and living in a neighbourhood with good social cohesion) were consistently associated with broad health outcomes that summarise the health status of the population of European UA.

Impact of ethnicity and acculturation on the survival probability of a Greek population

Christos Nikolaidis

C Nikolaidis, TG Constantinidis, I Alexandropoulou, T Parasidis, P Mandalos, A Varela, TC Constantinidis
Regional Laboratory for Public Health-Eastern Macedonia and Thrace, Hellenic Center for Disease Control and Prevention (HCDCP), Alexandroupolis, Greece
Contact: cnikola@med.duth.gr

Background

Structural organization of modern European populations presents considerable internal heterogeneity. Several social groups, such as ethnic minorities or immigrants, constitute population clusters that may critically affect the demographic and epidemiological characteristics of the whole.

Methods

Data for the period 1999–2008 were collected from the Mortality Registry of the city of Alexandroupolis (NE Greece). Sex, date and place of birth, as well as cause of death were recorded. Among the total mortality records ($N=3879$), 84.5% were associated with the native population, 6.6% with a Roma minority and 6.3% with Repatriated Greeks from the former U.S.S.R. Survival analysis was performed by the Kaplan-Mayer method and statistical evaluation was carried out using the Log Rank (Mantel-Cox) test.

Results

The survival analysis revealed statistically significant differences among social groups ($\chi^2=107.11$, $p<0.001$) in both males ($\chi^2=78.9$, $p<0.001$) and females ($\chi^2=35.02$, $p<0.001$). These differences were equally significant in between groups, with the exception of Roma and Repatriated females ($\chi^2=0.032$, $p=0.717$). The median survival time was 77 years for the native population (74 years for males and 80 for females), 72.5 years for the Repatriated Greeks (68 years for

males and 77 for females) and 69.5 years for the Roma (65 years for males and 74 for females). The survival curve of the Roma showed a sudden drop in the early stages that probably reflects to high infant mortality rates. As regards Repatriated Greeks, a significant divergence occurred in the survival of males 25–65 years old, when compared to the native population.

Conclusions

The survival analysis revealed critical characteristics in the life expectancy of different social groups. These disparities may be attributed to high infant mortality rates among Roma people and acculturation phenomena among Repatriated Greeks. In the former case, certain demographic characteristics (e.g. high fertility rates) may apply, whereas in the latter it is critical to analyze individual causes of death, in order to elucidate risk factors and devise efficient mortality avoidance policies.

Ranked vulnerability? IQ as a predictor of mortality and marginalization in 79 117 young Swedish men diagnosed with CMD in adolescence

Jesper Löve

J Löve, G Hensing, T Johnsson, M Söderberg, M Waern, M Åberg, K Torén
Unit of Social Medicine, Dept. of Public Health and Community Medicine, The Sahlgrenska Academy, University of Gothenburg, Sweden
Contact: jesper.love@socmed.gu.se

Background

Not much is known about factors that strengthen or hinder a positive life course development in young people diagnosed with Common Mental Disorders (CMD). The aim of this study was to investigate if intelligence quotient (IQ) was associated with marginalization and mortality in young men diagnosed with CMD.

Methods

The study was based on a cohort of all Swedish young men that were diagnosed with CMD during military conscription between 1969 and 2005 ($N=79117$). IQ was tested at the time of conscription and measured on a Stanine scale. Outcome variables were disability pension (DP), attained educational level, sick-leave days/year, income, and all-cause mortality. All based on information from the Longitudinal Register of Education and Labor Market Statistics. The follow-up period was up to 36 years. Cox regressions and analyses of variance were used. All analyses were adjusted for conscription year and testing center. Adjustments were also made for father's educational level and for own educational level.

Results

IQ predicted both future marginalization and mortality in this group of Swedish men diagnosed with CMD in adolescence. In the crude analyses a higher level of IQ was associated both with attaining a disability pension, HR 0.16 (95% CI, 0.13–0.19) and a lowered risk of mortality, HR 0.29 (95% CI, 0.19–0.43), for level nine in relation to level one on the Stanine scale. The associations followed a clear and inverse gradient with a decreased point estimate for every higher step in IQ. These results remained even after adjusting for father's educational level. The mediating effect of attained educational level was weak in relation to both DP and mortality. Statistically significant differences ($p<.05$) between all nine levels of the Stanine scale in relation to mean of attained education, sick-leave, and income were found.

Conclusions

IQ at age 18 was a strong predictor of marginalization and mortality even in this group of young men diagnosed with CMD. Hence, adolescents lower in IQ that are diagnosed with CMD may require additional support in order to strengthen their chances of a positive life development. Yet, in order to design more specific interventions future studies must strive to reveal the mechanisms behind the observed associations.

Job loss and suicidal thoughts in Belgium

Guido Van Hal

F Vanderroot¹, S van der Wielen¹, K van Nunen², F Louckx³, G Van Hal²

¹GP, Medics for the People, Belgium

²University of Antwerp, Antwerp, Belgium

³Free University of Brussels, Brussels, Belgium

Contact: guido.vanhal@ua.ac.be

Background

The economic crisis of 2009 has led to reorganizations and failures with a lot of dismissals of employees. GPs are confronted with the consequences hereof.

Methods

An anonymous self-administered questionnaire was executed in patients aged 18–50 years recruited in both a Flemish and a Walloon GP practice.

Results

Of all eligible patients (n=1,818), 377 completed the questionnaire (21%). More than one out of five (82/377; 21.8%) has been confronted with job loss the past year (being dismissed or job loss in family, friends or colleagues). Almost 10% (36/377; 9.5%) lost their job themselves the past year. More than one out of four (98/377; 26.0%) ever had suicidal thoughts and 11.7% (44/377) seriously considered making an end to their life the past year. In the bivariate analysis, several characteristics show an increased percentage of respondents with suicidal thoughts compared to respondents without that characteristic: being single (21.0% vs. 8.8%, $p=0.002$), having it difficult to make ends meet (17.4% vs. 6.8%, $p=0.005$), not having satisfying social contacts (37.7% vs. 7.6%, $p<0.001$), being chronically ill (19.8% vs. 9.7%, $p=0.010$), having sleeping problems (26.0% vs. 6.3%, $p<0.001$), having a poor self-rated health (33.3% vs. 9.9%, $p<0.001$) having a worsened health compared to a year ago (26.0% vs. 8.5%, $p<0.001$), being confronted with job loss the past year (19.5% vs. 10.8%, $p=0.045$), being fired themselves the past year (36.4% vs. 10.5%, $p<0.001$) and having had to cope with job insecurity (28.1% vs. 10.7%, $p=0.015$). In the logistic regression analysis, the following characteristics showed a statistical significant relationship with having suicidal thoughts: being single (OR 8.9, 95%CI: 2.2–36.5), not having satisfying social contacts (OR 7.1, 95%CI: 1.6–30.7), being chronically ill (OR 6.8, 95%CI: 1.6–30.0) and being fired last year (OR 9.3, 95%CI: 1.9–45.6).

Conclusions

Several studies have shown that unemployment is associated with suicidal thoughts but only few studies focused on job loss as such. We found a statistical significant relationship between being fired in the past year and having suicidal thoughts. Our study stresses the important role of the GP in the continuous and reinforced assessment of suicidal risk in times of recession.

Can financial insecurity and condescending treatment explain the higher prevalence of poor self-rated health in women than in men? A population-based cross-sectional study in Sweden

Inna Feldman

A Molarius¹, F Granström², I Feldman³, M Kalander Blomqvist⁴, H Pettersson³, S Ello^{4,5}

¹Västmanland County Council, Competence Centre for Health, Västerås and Karlstad University

²Sörmland County Council, Research & Development Centre, Eskilstuna

³Uppsala County Council, Department of Community Medicine, Uppsala

⁴Värmland County Council, Department of Community Medicine, Karlstad

⁵Örebro County Council, Department of Community Medicine and Public Health, Örebro, Sweden

Contact: inna.feldman@lul.se

Objectives

Women have in general poorer self-rated health than men. Both material and psychosocial conditions have been found to

be associated with self-rated health. We investigated whether two such factors, financial insecurity and condescending treatment, could explain the difference in self-rated health between women and men.

Methods

The association between the two factors and self-rated health was investigated in a population-based sample of 35,018 respondents. The data were obtained using a postal survey questionnaire sent to a random sample of men and women aged 18–75 years in 2008. The area covers 55 municipalities in central Sweden and the overall response rate was 59%. Multinomial odds ratios for poor self-rated health were calculated adjusting for age, educational level and longstanding illness and in the final model also for financial insecurity and condescending treatment.

Results

The prevalence of poor self-rated health was 7.4% among women and 6.0% among men. The prevalence of financial insecurity and condescending treatment was higher in women than in men. The odds ratio for poor self-rated health in relation to good self-rated health was 1.29 (95% CI: 1.17–1.42) for women when adjusted for age, educational level and longstanding illness. The association became, however, statistically non-significant when adjusted for financial insecurity and condescending treatment.

Conclusion

The present findings suggest that women would have as good self-rated health as men if they had similar financial security as men and were not treated in a condescending manner to a larger extent than men. Longitudinal studies are, however, required to confirm this conclusion.

What is the financial situation of adult disabled people in Flanders (Belgium) and what factors influence their income and access to health care?

Bart Vriesacker

M Adams¹, N Augustyns¹, B Vriesacker¹, H Janssens², G Van Hal¹

¹Student Master of Medicine, Faculty of Medicine, University of Antwerp, Antwerp, Belgium

²Catholic Association for People with a Disability, Belgium

Contact: bart.vriesacker@ua.ac.be

Background

Current literature shows that people with a disability have a lower income than people without a disability. Lower income predisposes to difficulties with access to health care. The goal of this study is to investigate the relationship between income, poverty and access to healthcare of adult disabled people in the Flemish region.

Methods

In December 2009, a survey (paper and online version) was distributed to all members of the Catholic Association for people with a Disability (CAD) and the Association for Persons with a Disability (APD). The 2008 standard poverty threshold of the European Statistics on Income and Living Conditions (EU-SILC) was adjusted for inflation according to the consumer price index and adopted in this study. Descriptive statistics were performed to determine associations. Two binary logistic regression models were constructed for poverty and for inability to access health care because of financial shortage.

Results

A total of 2,006 people with a disability filled in the survey. 24.8% of respondents had an income that is under the poverty threshold. The regression model for poverty had a Nagelkerke R^2 of 0.302. Factors related to having an income lower than the poverty threshold were having children (OR 3.126, 95% CI 2.017–4.843) and a high level of independence (OR 2.457, 95% CI 1.629–3.762). 30.4% of the respondents did not seek necessary medical help because of financial shortage. The regression model for inability to access health care had a

Nagelkerke R^2 of 0.175. A high level of independence was the most important predictor for the inability to access health care (OR 6.087, 95% CI 3.353–11.049).

Conclusions

This is the first large scale study in Flanders that focused solely on poverty and access to health care among people with a disability. The results of this research show that poverty as

well as difficult access to health care are problems that people with a disability in Flanders are frequently faced with, especially for people with a higher level of independence. Future research on this topic should focus on disability related costs and barriers preventing good access to health care, as well as solutions to improve the current position of disabled people in society.

C.3. LOOKING AT LIFESTYLES

The association between family affluence and health and healthy lifestyles in adolescents aged 14–16 years in 20 European urban areas in 2010

Rianne de Gelder

R de Gelder¹, EM Koster¹, LP van Buren¹, A Verma², C Birt³, EJC van Ameijden¹

¹Municipal Health Service Utrecht, The Netherlands

²Manchester Academic Health Sciences Centre, University of Manchester, United Kingdom

³Division of Public Health, University of Liverpool, United Kingdom
Contact: r.de.gelder@utrecht.nl

Background

Among adults, the risk of developing health problems and having an unhealthy lifestyle has been associated with lower socio-economic status. Such associations may also be observed in youth living in less affluent families. Furthermore, differences in family affluence may be more pronounced in urban areas than in non-urban areas. The objective of this study is to assess the association between family affluence and health (determinants) in adolescents living in European cities.

Methods

Within the European Urban Health Indicator System Part 2 (EURO-URHIS 2) project, 13 850 adolescents aged 14–16 years, living in 20 urban areas (UAs) in 9 countries throughout Europe completed a questionnaire at the end of 2010. Outcome measures were family affluence (8-points Family Affluence Scale (FAS)), psychological problems (Strengths and Difficulties Questionnaire (SDQ)), a less than good self-perceived health, being overweight or obese (based on self-reported body height and weight), daily smoking, drinking 5 or more units of alcohol on 1 occasion over the past 30 days ('binge drinking') and vigorous physical activity for 2 or more hours per week. Associations between FAS and health were analysed using logistic regression.

Results

In most European UAs, a negative association between FAS score (higher FAS > higher affluence) and psychological problems was observed (median odds ratio (MOR): 0.91 per 1-unit increase in FAS, range: 0.73–1.18). However, this association only reached statistical significance in 7 of the 20 UAs. The association between FAS score and 'less than good health' was also negative in the majority of UAs (MOR: 0.89 per 1-unit increase in FAS, range: 0.74–1.27), but statistically significant in only 5 of the UAs. No clear associations between FAS and being overweight/obese, and between FAS and daily smoking were observed. Higher FAS scores were positively associated with binge drinking and regular physical activity in most UAs (MOR binge drinking: 1.13, range: 0.92–1.45; MOR physical activity: 1.20, range: 0.96–1.55, per 1-unit increase in FAS).

Conclusion

High family affluence was associated with lower risk of psychological problems and less than good self-perceived health, and with higher odds of binge drinking and regular physical activity.

Health and associations with leisure activities in Swedish children aged 2–17 years

Leeni Berntsson

LT Berntsson, KC Ringsberg

The Nordic School of Public Health, NHV, Göteborg Sweden
Contact: berntsson@privat.utfors.se

Background

Three cross-sectional time series studies, randomised and stratified for age and gender, on 2–17 years old children's health and wellbeing in all the five Nordic countries has been performed in 1984, 1996 and 2011. Data from 1984 and 1996 showed an increase of long-term illness (LTI) and psychosomatic complaints (PSC). There is a need to explain which factors are associated with the increase of children's health problems to design successful strategies of prevention and health promotion. The aim of this study was to analyze Swedish children's health and leisure activities in 2011 and to examine associations between the children's health and activities.

Methods

Mailed questionnaires contained same questions in each study. Here the Swedish data of 1461 children from 2011 is used. Response rate was 45.7%. Associations between the health indicators, the absence of LTI, 13 diagnoses, the absence of PSC, six symptoms, and 12 activities were calculated using Fisher's exact probability test. Data were analyzed for the age groups, 2–6, 7–12, 13–17 and 2–17 years.

Results

72.6% of the children were healthy and 27.4% had at least one LTI. LTI among boys, 30.4% was higher than girls 24.0%, ($p < 0.01$). PSC had increased from 18.6% in 1996, to 23.1% in 2011. Children aged 2–6 years were healthiest ($p < 0.001$) compared to the two older groups. Girls were more active than boys except for playing video/computer games ($p < 0.001$). In the total group reading books, and visits or visited by friends, were positively associated to health ($p < 0.001$). Watching TV/video/ DVD were positively associated to absence of PSC ($p < 0.05$). Sport was positively associated to absence of PSC ($p < 0.01$), and LTI ($p < 0.05$) in 7–17 year olds. Playing video/computer games were negatively associated to LTI ($p < 0.05$), surf/blog on the Internet negatively to LTI and PSC ($p < 0.001$).

Conclusions

The health of children aged 2–17 years in Sweden has declined during the period 1984–2011. Positive associations were found between some activities and health and some with ill health. We hope that in future there will be more focus on the activities that have positive associations with health in order to promote health among children.

Systematic screening and repeated lifestyle intervention does not reduce 10 years incidence of cardiovascular disease in the general population

Torben Jorgensen

T Jorgensen, C Pisinger

Research Centre for Prevention and Health, Copenhagen, Denmark
Contact: torben.jorgensen@glo.regionh.dk

Background

Systematic screening and lifestyle counselling of the general population is recommended in several countries. Very few studies have addressed the effect on public health. We examined the effect of a systematic five year non-pharmacological intervention in a general population on incidence of ischemic heart disease (IHD), stroke and total death.

Methods

From a total population of 61,301 persons aged 30 to 60 years, living in the suburbs of Copenhagen, an age- and sex-stratified random sample of 13,016 was drawn. They were invited for screening of their risk for developing cardiovascular disease and a lifestyle counselling on diet, smoking, physical activity and alcohol. Persons at high risk were further offered group-based counselling through a six months period. High risk persons were re-invited after one and three years, where screening, individual lifestyle counselling and group-based counselling were repeated. After five years all were re-invited for a final screening and counselling. The participation rate was 52.5%. The total cohort was linked to central registers as regards total mortality and development of fatal and non-fatal IHD and stroke. Analyses were done according to intention to treat principle.

Results

Modest, but significant positive changes in lifestyle after five years among participants, was seen. No effect was seen on 10 year incidence of fatal and non-fatal IHD (HR=1.03; 95% CI=0.94–1.13), fatal and non-fatal stroke (HR=1.01; 95% CI=0.94–1.09), or total mortality (HR=1.01; 95% CI=0.93–1.10) among the 13,016 invited compared with the 48,285 in the control group.

Conclusion

Systematic screening and life style counselling in the general population does not influence cardiovascular morbidity or mortality. A major reason for this lack of effect is that persons from lower social classes - where unhealthy lifestyle is prevalent - attend these screening programmes less frequent than persons from the higher social classes and they have a higher drop-out rate. The study underlines the necessity for structural changes in society to combat the burden of cardiovascular diseases.

The role of lifestyle on exit from work among Dutch employees

Suzan Robroek

SJW Robroek¹, A Rongen¹, F Otten², K Arts², M Schuring¹, A Burdorf¹

¹Erasmus University Medical Center, Department of Public Health, Rotterdam, The Netherlands

²Statistics Netherlands, Heerlen, The Netherlands

Contact: s.robroek@erasmusmc.nl

Background

With the ageing population there is a need to increase work participation. To develop successful interventions, insight in determinants of exit from work is needed. Previous studies showed that poor health and unfavourable work characteristics are related with an increased risk of exit from work. The current study investigates the role of lifestyle factors and obesity on unemployment, disability pension, and early retirement.

Methods

More than 15,000 Dutch employees participated in a prospective study with ten years follow-up. Lifestyle factors and weight and height were measured at baseline with the Permanent Quality of Life Survey during 1999–2002. Employment status was ascertained monthly from 1999 up to 2008 by Statistics Netherlands based on tax records of social benefits and gross wages. Cox proportional hazards analyses were used to investigate the relation between lifestyle factors, obesity, and exit from work, after adjustment for age, sex, education, marital status, and self-perceived health.

Results

In the univariate analyses smoking and a lack of exercise were related with an increased risk of exit from work due to disability pension (HR_{smoke}=1.39; HR_{non-exercise}=1.84) and unemployment (HR_{smoke}=1.57; HR_{non-exercise}=1.26). These relations remained statistically significant after adjustment for demographic characteristics. Additional adjustment

for self-perceived health attenuated the relations between a lack of exercise and exit from work due to disability (HR=1.23, 95%CI=0.99–1.51) and unemployment (HR=1.08, 95%CI=0.97–1.22). The increased risk among smokers on disability (HR=1.33, 95%CI=1.09–1.63) and unemployment (HR=1.44, 95%CI=1.29–1.61) remained statistically significant.

In the univariate analyses, workers with obesity were more likely to exit work due to disability (HR=1.50, 95%CI=1.05–2.13), early retirement (HR=1.42, 95%CI 1.15–1.74), and unemployment (HR=1.26, 95%CI=1.04–1.53). These relations were attenuated to non-significance after adjusting for demographic characteristics.

Conclusion

The results indicate that an unhealthy lifestyle plays a role in exit from work. To maintain a productive workforce, it should be considered to integrate health promotion activities with activities aimed at occupational health and safety.

How new public health ambitions turn into individual lifestyle interventions: A discourse analysis

Janneke Harting

J Harting, W Krebbekx, K Stronks

Department of Public Health, Academic Medical Center University of Amsterdam, Amsterdam, The Netherlands

Contact: j.harting@amc.uva.nl

Background

Health and health-related behaviours are influenced by individual, environmental and social determinants. To improve health, public health initiatives should preferably address a combination of these determinants. The practical application of this understanding has appeared to be difficult, for example in the Dutch experiment with a health broker role. This role, aimed at achieving integrated policies in public health, resulted in lifestyle interventions rather than interventions that (also) included environmental and societal determinants. The purpose of our study was to examine the underlying notions that induced this lifestyle drift.

Methods

We opted for a discourse analysis of data collected during the Dutch health broker experiment (2007–2010). A discourse analysis is a critical analysis of the use of language and the reproduction of dominant paradigms or ideologies. We purposively selected one Dutch municipality taking part in the health broker experiment. In our discourse analysis, we included documents, such as project proposals and policy documents, as well as transcripts of bilateral conversations and collective meetings.

Results

Initially, the discourse mainly reflected the new public health paradigm. In translating the corresponding broad conceptualization of health and its wide range of determinants to policy and practice, the new public health discourse was overtaken by other notions. For example, the scientific dialogue appeared to be mainly guided by epidemiological and biomedical models to which the individual perspective is core. The political debate was strongly driven by neo-liberal opinions emphasizing individual responsibility. Despite a tendency towards collective steering through network governance, the expressions regarding administrative issues still reflected strong accountability mechanisms related to hierarchical sectoral silos. Each of these underlying notions contributed to the lifestyle drift observed.

Conclusions

Starting from a new public health paradigm, ambitions to achieve integrated public health policies may be hampered by influences of partially conflicting scientific, political and administrative ideologies.

Evaluation of an intervention study targeting health behavior change in elderly (northern Germany 2007–2009)

Katharina Maria Gallois

KM Gallois¹, C Buck¹, JA Dreas², H Hasse³, H Zeeb¹

¹Dept. of Biometry and Data Management, BIPS - Institute for Epidemiology and Prevention Research GmbH, Bremen

²German Institute on Addiction and Prevention Research, Catholic University of Applied Science, Cologne

³Coburg University of Applied Sciences, Coburg, Germany

Contact: gallois@bips.uni-bremen.de

Background

Health behavior change remains one of the major public health challenges, especially with respect to the elderly population. The study OPTIMAHL 60plus covers development and evaluation of an innovative counseling aid in an intervention study to improve the nutrition and physical activity behavior according to standard recommendations in elderly from age 57 and above. The direct involvement of low socio-economic status groups, as one goal of the study, may help to reduce inequalities in health.

Methods

OPTIMAHL 60plus is a quasi-experimental study where participants were assigned in clusters to an intervention versus control group. The study was conducted in low socio-economic-status districts in northern Germany. The developed counseling aid pictured standard guidelines: daily intake of five servings of fruits and vegetables, three servings of dairy

products per day, one serving of fish per week plus 30 minutes of moderate/vigorous physical activity per day. The intervention group received the counseling aid and regular group meetings. The control group received standard health information by post. Face-to-face interviews (24-hour recall, frequency questionnaire) were conducted at T0 and T1. χ^2 -tests, sign-test and logistic regression were used for statistical analyses.

Results

423 elderly (329 women and 94 men) participated at baseline and 369 (293 women and 76 men) after 3-months intervention. Significant differences comparing the intervention versus control group at T1 could not be shown. Significant changes from T0 to T1 in the intervention group were identified for daily fruit and vegetable (χ^2 -test, $p=0.04$), and for weekly fish consumption (χ^2 -test, $p=0.04$). However, similar results could be shown for the control group, hinting towards unspecific time-dependent changes in both groups.

Conclusions

A practical counseling aid for elderly was developed and evaluated. Changes in the health behavior of elderly were identified for several components, but effects could neither clearly be traced to the intervention nor to which intervention component. Further studies need to be undertaken to identify exactly which intervention study components are most effective.

D.3. Workshop: Regional health reporting; what is happening in Europe?

Chairs: Neil Riley, Wales and Hans van Oers, The Netherlands

Organiser: EUPHA section on Public Health Monitoring and Reporting

In many countries in Europe authority for public health policy (partly) lies at the regional level. Therefore public health monitoring and reporting activities do not only take place at national level, but also at regional level and municipality. The regional public health policy cycle therefore is becoming more important. Many activities to improve and support regional health reporting have been taken place and are taking place in Europe, both at the level of intra-/supranational organisations and within regions and countries. In this workshop, we take stock of the situation regarding regional health reporting in Europe.

First, the 'state of the art' will be presented; what have been important international developments during the past years (e.g. the EU funded ISARE projects, WHO regions for health network), what is happening in the European countries regarding regional health reporting? After that, an example of a regional health reporting tool will be presented from The Netherlands. This tool is based on the outcomes of a concept mapping exercise, which shows that for greater effectiveness of health reporting, 'interaction' between producers and users should be given a more prominent role in the research process. Finally, the inequalities Atlas developed by WHO-Euro will be presented, which displays European Commission (Eurostat) regional data on a large number of health indicators in an interactive way. The focus of this presentation will be on the usefulness of this tool for regional health policy makers.

Participants can get inspiration from the overviews, tools and reporting examples presented, and they can exchange experiences and ideas during the discussion. This workshop therefore will be of interest to all making or using regional health reports.

Regional Health Reporting - the state of the art

John Wilkinson

J Wilkinson

North East Public Health Observatory, University of Durham, Durham, United Kingdom

This presentation will provide an introduction to the session on regional health reports. It will deal with important questions and set the current scene:

1. What do we mean by health reporting?
2. What do we mean by region?
3. What are the current problems and challenges to this activity?
4. Why is it important to produce health reports at a regional level?
5. What needs to be done in the future?

This talk will be illustrated with examples of systems of health reporting in Europe and with examples of health reports and reporting systems.

Health reporting means different things in different countries, to some extent the way in which health reporting occurs is closely interrelated to the public health system that exists in that country. Regions mean different things in different countries, compounded by the problem of size, for example regions of larger countries such as the UK and Germany, exceed the population of many European countries.

Public Health Reporting is changing, no longer is it sufficient to produce simply paper printed copies. The internet has been a massive development in the way in which information is transmitted to professionals and the wider population. This has spawned the development of sophisticated tools and websites. At the same time, tools are not a simple solution. Tools often required skills to use them to best effect and this in itself produces demands on a scarce workforce.

Does public health reporting need to be done solely by the state, in some countries (such as the UK), there has been considerable private enterprise involved with producing these

reports? Has this been a success and is this a viable option for other countries? And finally this presentation will look to the future, what needs to be done next?

Strengthening the knowledge base of regional public health reporting

Marja van Bon-Martens

MJH van Bon-Martens^{1,2}, P Achterberg³, JAM van Oers^{1,3}, LAM van de Goor²

¹Academic Collaborative Centre for Public Health Brabant, Tranzo, Tilburg School of Social and Behavioral Sciences, Tilburg, The Netherlands

²Regional Health Service (GGD) Hart voor Brabant, 's-Hertogenbosch, The Netherlands

³Centre for Public Health Status and Forecasting (cVTV), National Institute for Public Health and the Environment (RIVM), Bilthoven, The Netherlands

Introduction

In The Netherlands, assessments of municipal public health are carried out by 28 Regional Health Services (RHSs) to stimulate evidence-based health policymaking at the local level. Therefore, the RHSs are challenged to make their epidemiological information more useful for local public health policymaking.

Methods

In the absence of scientific guidance, regional public health reports (PHR) for the Local Authorities were developed and evaluated in two pilot RHS regions. Based on their evaluation and literature, a theoretical framework for the quality of regional public health reporting in The Netherlands was developed, using the method of concept mapping with experts.

Findings

The pilot study concluded that the empirical model for a regional PHR could be characterized by its products, its content and design, and its underlying process and organization. These regional PHRs have become well known and widely used. The final concept map, as theoretical framework for a good regional PHR, consisted of 97 criteria, plotted in two dimensions: a 'product' dimension, ranging from 'production' to 'content', and a 'context' dimension, ranging from 'science' to 'policy'.

Discussion

The criteria in the concept map can already be used by the producers of regional PHRs as a checklist for improving the quality of their reports. For greater effectiveness, 'interaction' between producers and users should be given a more prominent role in the research process, for which the empirical regional PHR model provides a practical tool.

Activities of intra- and supranational organisations in the field of regional health reporting; WHO's inequalities atlas as a tool for policy makers

Enrique Loyola

E Loyola, I Rakovac, C Stein

Division of Information, Evidence, Research and Innovation, World Health Organization regional Office for Europe. Division, Copenhagen, Denmark. Policy makers and public health professionals have increasingly recognized the need to monitor, evaluate and present more disaggregated country data for comparisons at both national and international levels, a paradigm that contrasts with the common use of national averages. Disaggregated information is also increasingly available to address this need (though further standardization is required) and must be presented in ways that are more easily managed and understood by these target audiences.

WHO Europe has recently developed an Atlas of Health Inequalities system using subnational level data (NUTS2) for 281 regions of the European Union, aiming to provide a tool to answer common questions from policy makers: 1) how does region X perform in health and its main determinants in the broader European context?; 2) how does it compare with others sharing similar levels of health indicators with regards to their determinants?; 3) Is there a regional health pattern that may be identified with regards to health and determinants to suggest potential areas of intervention or targeting specific regions?; 4) Has the situation in the region improved or deteriorated over a period?

Another relevant aspect in this type of reporting is identifying key health issues whose elements may be integrated and organized into themes. This means putting together and present health determinants, risk factors and outcomes in a way that allows to understand a process or a story (e.g. amenable mortality and health care systems indicators, environment factors and health, and others) and not only as a long list of indicators. In addition to this information, some basic interpretation of findings and examples of policy options for addressing the health issues need to be provided to orient potential courses of action.

Finally, access, review and discussion of regional data may enable policy makers, the public health community and citizens at large to establish dialogues to understand main health issues, prioritize them and propose solutions accordingly.

WHO Europe is further developing its Atlas system and will present examples that may be used as guidance for countries and regions (or smaller geographical or administrative levels) to develop their own monitoring systems.

E.3. HEALTH INEQUALITIES THROUGH THE LIFE COURSE

Measuring socioeconomic inequalities in life satisfaction among adolescents: results from the international study in 39 countries, 2009/2010

Apolinaras Zaborskis

A Zaborskis

Medical Academy, Lithuanian University of Health Sciences, Kaunas, Lithuania

Contact: apolinaras.zaborskis@ismuni.lt

Background

Socioeconomic factors play a crucial role in young people's well-being and social development. Therefore, there are scarce research findings in this area from the cross-national perspective. This study aims to analyze various approaches to measure socioeconomic inequalities in life satisfaction among adolescents in 39 countries.

Methods

The data (n=195,218) were obtained from the Health Behaviour in School-aged Children (HBSC) study in 2009/2010, which was completed in 37 European countries, the USA and Canada. The 11-, 13- and 15-year olds were surveyed by means of self-report anonymous questionnaires. Students' life satisfaction was rated using the Cantril ladder numbered from zero (the lowest life satisfaction) to ten (the highest life satisfaction). Measures of socioeconomic inequalities employed the full scale of scores (from 0 to 7), which has been specially developed for the international nature of the HBSC study. The results of the study have been validated against macroeconomic indices, which were taken from the Global Reports. All analyses were performed with SPSS17.

Results

Using two approaches (regression-based and aggregate measures) we proposed ten measures of life satisfaction inequality among adolescents. The Relative Index of Inequality (RII) derived from linear regression for the proportions of high life satisfaction and the extreme difference D from nonparametric Kolmogorov-Smirnov test were the most reliable measures and represented two approaches of analysis. The lowest adolescents' life satisfaction inequality was found in Netherlands (RII=1.09) and Ireland (RII=1.09), while the highest inequality was found in Turkey (RII=1.64) and Romania (RII=1.49). The RII measure correlated with the following macro-indices: with Gini index ($\rho=0.397$, $p=0.013$), with Gross National Income per capita ($\rho=-0.347$, $p=0.033$), and with Human Development Index ($\rho=-0.511$, $p=0.001$).

Conclusions

Different approaches to measure inequalities in life satisfaction among adolescents allow deeper exploration of the interplay of micro- and macro-socioeconomic factors on adolescents' well-being from the cross-national perspective.

Associations of socioeconomic indicators with disability-free life expectancy among urban citizens in Slovakia

Martina Behanova

M Behanova^{1,2}, I Nagyova^{1,2,3}, Z Katreniakova^{1,2,3}, JP van Dijk^{1,4}, SA Reijneveld⁴

¹Graduate School Kosice Institute for Society and Health, Safarik University, Kosice, Slovak Republic

²Institute of Public Health - Department of Social Medicine, Faculty of Medicine, Safarik University, Kosice, Slovak Republic

³Slovak Public Health Association - SAVEZ, Kosice, Slovak Republic

⁴Department of Community & Occupational Health, University Medical Center Groningen, University of Groningen, The Netherlands

Contact: martina.behanova@gmail.com

Background

Tackling socioeconomic health inequalities is among the main priorities of the European Commission and WHO. Populations with a high socioeconomic status can expect to live longer and with a shorter period of disability. However, estimates of socioeconomic differences in health expectancy among urban populations are lacking. The aim of this study was to examine differences in disability-free life expectancy (DFLE) by socioeconomic status (SES) indicators and their associations with DFLE among urban citizens.

Methods

We calculated DFLE using the Sullivan method. Data on educational level (low, secondary, university), annual household income (low, medium, high) and morbidity (prevalence of citizens restricted by a long standing illness) were used from the EU-FP7 EURO-URHIS2 project (response rate 43.2%, N = 1248, males 48.3%, mean age 59.7 ± 16.3 years; two major Slovak cities) and combined with mortality data from the Statistical Office of the Slovak Republic. We used linear regression analyses to explore the associations between DFLE and SES indicators (dummies for each category) by gender.

Results

Males with low education had a significantly lower DFLE than those with a university education ($B=-3.55$ [95% confidence interval=-5.92;-1.18]). Females with low and secondary education had a significantly lower DFLE than university educated ($B=-10.65$, [-13.10;-8.19] and $B=-4.90$ [-6.43;-3.37]). Both males and females with low ($B=-8.64$ [-10.20;-7.09] and $B=-11.25$ [-12.99;-9.52]) and medium ($B=-5.68$ [-7.14;-4.21] and $B=-6.29$ [-7.99;-4.60]) income status experienced significantly fewer years without disability than their counterparts from high income groups. The linear regression models with both SES indicators explained 16.4% of the total variance of DFLE for males and 22.8% for females.

Conclusions

DFLE is an important health indicator which provides greater insight into social differences in health than measures relying solely on longevity. Findings confirm that a SE gradient is

present in this urban population regarding life expectancy without disability. Policies should target low SES groups when aiming to increase the length of a disability-free life for city residents.

The geography of chronic obstructive pulmonary disease: A population-based study of Norway

Thomas Halvorsen

T Halvorsen, PE Martinussen

SINTEF Technology and Society, Dept of Health Research, Trondheim, Norway

Contact: thomas.halvorsen@sintef.no

Background

Chronic obstructive pulmonary disease (COPD) is a major cause of chronic morbidity and mortality throughout the world. In 2001 COPD was the fifth leading cause of death in high income countries, and was also estimated to be a leading cause of disability-adjusted life years. COPD usually strikes during working age, and therefore also implies large additional social costs. By exploring geographic differences in COPD one may identify factors that are associated with lower prevalence, and thereby discover care practices that are related to better outcomes. This may again stimulate policy changes at a more local level, which can help improve the care and allocation of resources for this patient group. The role of the local socioeconomic environment in determining health is important, and particularly so in the case of COPD due to its high association with smoking in particular, and low socioeconomic status in general.

Methods

The study includes the entire Norwegian population, 4,799,252 persons, from the year 2009. Individuals with a COPD diagnosis are selected using the Norwegian Prescription Database (NorPD) and complemented with data from Statistics Norway (SSB). Having both individual level data and data on the municipality level we employ a multilevel approach in our analysis. We also apply GIS to analyse the spatial patterns of COPD across the 430 Norwegian municipalities.

Results

The study finds strong support for the relevance of age and sex, but also find that a number of community variables impact the prevalence of COPD. Especially variables related to living conditions, immigration and industry structure seem to be important.

Conclusions

This is the first study to include the whole population of a country in the study of COPD prevalence. Important insights about the geography and potential causes of COPD in Norway have been gained, but our aim is not merely to address these problems in a national setting. By comparing our results with studies from other countries we seek to illuminate how our findings ties into the empirical knowledge gained in other national contexts.

"Low birth weight paradox" revisited: Persisting social inequalities early in life and evolving role of maternal smoking

Ilona Koupil

U Sovio¹, A Dibden², I Koupil³

¹Faculty of Epidemiology and Population Health, London School of Hygiene and Tropical Medicine, London, United Kingdom

²Centre for Cancer Prevention, Wolfson Institute of Preventive Medicine, Queen Mary University of London, London, United Kingdom

³Centre for Health Equity Studies (CHESS), Stockholm University / Karolinska Institute, Stockholm, Sweden

Contact: ilona.koupil@chess.su.se

Background

In all European countries, infant mortality rates have fallen considerably in the past decades. However, it is unclear how social differences in infant mortality and the so called "low birth weight (LBW) paradox" (higher risk of death for

low birth weight infants from socially more privileged families) have developed over time. An emerging LBW paradox was detected in Sweden between 1970s and 1980s and findings consistent with LBW paradox were also observed among Czech women in 1989–1992.

Methods

We studied associations between family social characteristics and infant mortality, with special focus on exploring the “LBW paradox” in a Swedish cohort of 13,741 singletons born 1915–1929 and compared the results with more recent findings from Sweden and other European countries. Associations and potential mediation effects were studied using Cox regression. Analyses were repeated for neonatal and post-neonatal periods.

Results

Mother’s single marital status, high parity, LBW, low gestational age and male sex were associated with infant mortality in fully adjusted models, whereas the associations of maternal social class, region of residence and maternal age appeared to be largely mediated through other variables. Contrary to studies reporting a “LBW paradox”, no interactions between gestational age or birthweight and maternal social characteristics on infant mortality were observed in this study. High maternal age, LBW, and low/high gestational age were associated with neonatal mortality, whereas single marital status, high parity, LBW, low gestational age and male sex were associated with post-neonatal mortality. An association of family social class with post-neonatal mortality was largely mediated by length of gestation, birth weight and maternal parity.

Conclusions

Our findings of determinants of neonatal and post-neonatal mortality in 1915–1929 are strikingly consistent with results from contemporary cohorts. On the other hand, there is no evidence of a LBW paradox in the historical cohort and we speculate that increasing rates of maternal smoking, together with its clear social patterning, might be the driving force beyond the LBW paradox observed in more recent European cohorts.

Social differences in pre-pregnancy body mass index (BMI) and gestational weight gain: an opportunity to reduce long-lasting inequality in maternal and offspring health

Natalie Holowko

N Holowko¹, G Mishra², I Koupil¹

¹Centre for Health Equity Studies (CHESS), Stockholm University / Karolinska Institutet, Stockholm, Sweden

²School of Population Health, University of Queensland, Brisbane, Australia
Contact: ilona.koupil@chess.su.se

Background

Pregnancy is a critical stage for development of female obesity through excess weight women may gain and retain during and beyond this period. Both low and high maternal weight have been linked to increased risk for disease in the offspring. We investigated social patterning of pre-pregnancy body mass index (BMI) and gestational weight gain (GWG) in primiparous women.

Methods

In 4,009 women from the Uppsala Birth Cohort Study (UBCoS), we studied social variation and time trends in pre-pregnancy BMI and GWG from 1982 to 2008, using multinomial regression analysis. All women were primiparous, Swedish-born women with singleton pregnancies. Results were adjusted for calendar year, maternal age, family situation (BMI and GWG), and maternal chronic disease and smoking in pregnancy (GWG). We used WHO criteria to assess pre-pregnancy BMI and the Institute of Medicine’s (IOM) guidelines to assess whether weight gain in pregnancy was inadequate, appropriate or excessive for a given pre-pregnancy BMI.

Results

67% of women were of normal pre-pregnancy BMI, 20% were overweight and 8% obese. Proportion of women with BMI of 25+ kg/m² and GWG above recommended range increased

over time. Higher pre-pregnancy BMI was associated with higher probability of gaining weight above a range recommended by IOM: the proportion with excessive weight gain increased from 15% among underweight women to 43% normal weight, 75% overweight and 73% obese women respectively. Compared to university educated, women with elementary education had higher risk of being underweight (fully adjusted OR 1.94, 95% CI 1.08–3.46), overweight (1.51, 1.11–2.05) or obese (4.49, 2.92–6.92) pre-pregnancy. Independent of pre-pregnancy BMI, lower education was also associated with higher probability of excessive weight gain.

Conclusion

Pre-pregnancy BMI was strongly associated with gestational weight gain. Women of lower education were less likely to start pregnancy with a BMI within normal range and less likely achieve optimal weight gain in pregnancy. Interventions that aim to reduce inequality and promote healthy outcomes for mother and child need to target growth patterns in girls and weight management in women in pre-conception period as well as during pregnancy.

Lifecourse models of socioeconomic status and allostatic load: Evidence from the West of Scotland Twenty-07 Study (1987–2007)

Tony Robertson

T Robertson, F Popham, M Benzeval

Medical Research Council/Chief Scientist Office Social & Public Health Sciences Unit, Glasgow, United Kingdom

Contact: t.robertson@sphsu.mrc.ac.uk

Background

Lower socioeconomic status (SES) is known to be associated with greater risk of morbidity and mortality. Increasingly, research is focusing on the biological processes that may help explain these inequalities. Our aim was to examine how SES across the lifecourse (measured at three critical periods and accumulated over time) is associated with the cumulative physiological burden measured using allostatic load (AL), which is an index of biomarkers representing key biological functions important to health. Our hypothesis was that accumulated SES would show the strongest association with AL.

Methods

Data are from the 1970s (n = 863) and 1950s (n = 863) cohorts of the community-based West of Scotland Twenty-07 Study. The baseline survey was conducted in 1987 (when respondents were aged 15 and 35) and were followed-up on four occasions over the next 20 years. Binary SES measures (1 = high) were based on parental occupational class at ages 15 (childhood) and own household class at 35 (adulthood) and highest educational attainment (transition from youth to adulthood). AL was produced by summing nine binary biomarkers (score of 9 = poorest AL) measured in 2007. Linear regression was used to compare competing lifecourse models. Sex and cohort were adjusted for in all models.

Results

Poorer AL was associated with lower SES in childhood ($\beta = -0.465$, SE = 0.111, $P < 0.001$), the transition to adulthood ($\beta = -0.623$, SE = 0.124, $P < 0.001$) and adulthood ($\beta = -0.408$, SE = 0.129, $P = 0.002$). When comparing critical periods, transition to adulthood was the most important. For the accumulation model lower SES was associated with poorer AL ($\beta = -0.330$, SE = 0.055, $P < 0.001$) and partial F-test comparisons confirmed that the accumulation model had the best-fit of all models when compared to a fully saturated model.

Conclusions

AL was most strongly associated with accumulated SES, confirming the hypothesis that long-term exposure to lower SES is detrimental to healthy functioning of the body. However, our results also identified that the transitional period of young adulthood may be a sensitive period for SES to impact on the body’s physiological systems as people face the stresses and strains of the transition from youth into their adult roles. Potential mediators of these pathways should be explored.

F.3. Workshop: Participation, evaluation and project quality in the EU Health Programme

Chairs: Stephan Van den Broucke, Belgium and Dirk Meusel, EAHC

Organiser: Executive Agency for Health and Consumers

While the strategic objectives for the EU policy with regard to health are defined by the Strategy "Together for Health: A Strategic Approach for the EU 2008–2013", the instrument to achieve these objectives is the Community Action Programme for Public Health. The current Health Programme runs from 2008 until 2013. Institutions, associations, and organizations in the Member States are encouraged to participate in the Programme by submitting proposals for projects, operating grants, conference grants and joint actions of the Commission and the Member States with a European dimension and in line with the priorities set by the Commission.

The evaluation of these proposals and of their implementation is entrusted to the Executive Agency for Health and Consumers (EAHC). Since its establishment in 2006, the EAHC has made considerable efforts to increase the participation in the Programme and to optimize the evaluation procedure, in an effort to increase the Programme's reach and effectiveness.

This workshop will provide a unique "insider's" perspective on the implementation of the Health Programme, presenting objective and quantified data with regard to the participation in the Second EU Health Programme, the reliability of the evaluation process, and the technical quality of project proposals. In a first presentation, a detailed analysis will be presented of the participation in the Programme, both successful and unsuccessful, by organizations from different Member States, with specific attention to countries who became EU member States after the 2004 and 2007 enlargements. The second presentation will take a closer look at the evaluation of proposals that are submitted to the EU Health Programme, focusing especially on the way in which expert evaluators reach a consensus on the decision on funding. The third presentation will detail the evolution of the technical quality of proposals for project and joint actions between 2008 and 2011, against the backdrop of the efforts of the EAHC to improve the quality of proposals.

The participation of Member States in the EU Health Programme

Stephan Van den Broucke

S Van den Broucke, G Dargent, I Keller

Department of Psychology, UC Louvain, Belgium, Executive Agency for Health and Consumers, Luxembourg

Background

While the strategic objectives for the EU health policy are defined by the Health Strategy, their achievement depends on the participation of the health sector in the Community Action Programme for Public Health. Institutions, associations, and organisations in the Member States (MS) can participate in the Programme by submitting proposals for projects, operating and conference grants, and joint actions. To maximize the programme's reach and the equitable distribution of resources, participation should ideally be well distributed across MS. Efforts to increase participation over the past years include the organization of decentralized information days, distributing information brochures and setting up a call website and helpdesk.

Method

Statistical analysis of the database of applications submitted in response to the Calls for Proposals 2008 through 2012 provides

a detailed description of the participation, both successful and unsuccessful, of organisations from the different MS, related to the different financing mechanisms, strands and priority areas.

Results

Participation by Member States remained stable throughout the Programme, with more than 90% of the applications made by organisations from countries that were EU MS before the 2004 enlargement (EU15). However, participation of EU12, EEA countries and Candidate EU MS is much stronger when participation as associated partners is considered. Most countries participate in several proposals, and some, including several EU12 countries, are represented in a large number of proposals. Project and conference proposals submitted by organisations from the EU12 are less likely to be accepted for funding than those from the EU15, but the difference is not statistically different. On the other hand, participation of EU12 countries as associated partners enhances the likelihood of a proposal to be funded, although proposals with predominantly participants from the EU12 are less successful.

Conclusions

Despite efforts to involve all MS in the programme, EU12 countries as well as EEA countries and candidate Member States remain largely underrepresented as lead partners of proposals. However, while the threshold to take charge of an application may be too high for organisations without a proven capacity in project management, participation as associated partners may be a more realistic goal in the short term, and could help to develop the capacity to lead projects at a later stage.

Evaluation of projects submitted to the EU Health Programme: Evaluating the evaluators

Guy Dargent

G Dargent

Executive Agency for Health and Consumers, Luxembourg

Background

The evaluation of proposals for projects, operating or conference grants and joint actions submitted to the Community Action Programme for Public Health involves a screening of the compliance with formal criteria and with financial and organizational criteria, and an evaluation of the award criteria. For the latter, external experts evaluate each proposal individually on pre-defined criteria, and then hold a panel meeting resulting in a consensus evaluation of each proposal. Using panels of external experts enhances the objectivity and fairness of the evaluation, but does not exclude potential bias caused by individual scoring tendencies or group processes. An analysis of the evaluation process can help to identify potential bias.

Method

Since there is no 'gold standard' to compare the results of the evaluations against, a proxy method was developed to evaluate the quality of each individual evaluator and the influence of the group on the final decision. The tendency of the evaluators to systematically give high or low marks was assessed via the average and standard deviation (SD) of the marks given by each evaluator as an indicator. To verify if no bias was introduced by grouping the evaluators in panels, a severity index was computed for each panel, allowing the classification of panels as 'generous', 'median' or 'strict'.

Results

A sufficient degree of variability was found for the evaluator scores, meaning that they did not show a tendency to

systematically give the same award scores, but varied their scores on the basis of the quality of the proposals. On the other hand, a statistically significant difference was found between the marks given by 'generous', 'median' or 'strict' panels. This may be due to differences in the quality of the proposals assessed by different panels, but could also reflect differences in severity.

Conclusion

The scoring by the individual evaluators seems sufficiently varied and balanced to conclude that the evaluation is fair. However, an effect of panel composition was found, in the sense that proposals evaluated by "stricter" panels are less likely to be accepted for funding than proposals evaluated by more "generous" panels. It is recommended to take account of the differences in severity among panels by weighing the results of the consensus evaluation on the basis of the severity index and using this information as input for the decision to fund.

The technical quality of project proposals submitted to the Health programme: evaluation, evolution and measures for improvement.

Dirk Meusel

D Meusel¹, S Van den Broucke²

¹Executive Agency for Health and Consumers, Luxembourg

²Department of Psychology, UC Louvain, Belgium

Background

Projects are an important financing mechanism within the EU Community Action Programme for Public Health. Although the success of a project depends on a number of factors, it is generally agreed that the technical and methodological quality of a project plan to a considerable extent determines the success of its outcomes. Therefore, the Executive Agency for Health and Consumers (EAHC) has taken measures and actions over the course Health programme to improve the technical quality of project proposals, including the

development and publication of guidelines and factsheets on project planning and management, and the organisation of workshops. The systematic monitoring of the quality of the quality of proposals submitted to the successive Calls between 2008 and 2011 allows for a partial evaluation of the effect of the quality improvement measures.

Method

Projects and joint actions submitted for funding in response to the Calls of 2008 through 2012 were assessed by teams of three evaluators using an evaluation checklist giving consensus scores on 3 aspects of project quality: policy and contextual relevance (5 criteria, score 0–8), technical quality (5 criteria, scored 0–6) and management quality (6 criteria, scored 0–5).

Results

Multivariate analysis of the award scores for projects and joint actions from 2008 to 2011 showed that the average total quality of the project proposals remains relatively stable over the years. However, the technical quality and, to a lesser extent, the management quality of the proposals increased significantly. Detailed analyses revealed that for technical quality the main improvements were achieved for the provision of the evidence base, content specification and innovation and complementarity, whereas the evaluation and dissemination decreased in quality. For management quality, the main improvements were achieved for budget planning and for quality of the partnership.

Conclusion

Data over the different years of the Health programme show an improvement of the scores for technical quality and to a lesser extent also management quality of proposals submitted for funding. Although these improvements cannot be entirely attributed to the efforts of the EAHC, they suggest that investing in training and support to enhance project quality is useful.

G.3. Workshop: Health literacy in Europe

Chair: Helmut Brand, The Netherlands

Organiser: The HLS-EU Consortium, HLS-EU coordinator: Kristine Sorensen, Dept. of International Health, Maastricht University, The Netherlands
k.sorensen@maastrichtuniversity.nl

Objectives

The aim of the workshop is to share the results of the European Health Literacy Survey and place health literacy in a European health policy context based on three presentations:

1. Health literacy on the European health agenda - results of a policy analysis on data from policy papers, and semi-structured in-depth interviews with key informants involved in advancing health literacy in Europe.
2. Comparative results of the European Health Literacy Survey - a study in eight European member states
3. Results of the European Health Literacy Survey in Ireland - national aspects

The participants in the workshop will gain knowledge and insights in the recent developments of health literacy in Europe, the historical and political perspectives as well as on the results of the comparative and on selected national aspects of the European Health Literacy Survey, performed in 2011 by the European Health Literacy Consortium in eight countries: Austria, Bulgaria, Germany, Greece, Ireland, The Netherlands, Poland and Greece. A follow-up discussion with the audience will focus on the impacts of the survey results, their proposals for measures to be taken and suggested ways forward to advance health literacy in Europe.

Health literacy on the European health agenda

Kristine Sorensen

K Sorensen, H Brand

Dept. of International Health/CAPHRI, Faculty of Health, Medicine and Life Science, Maastricht, The Netherlands

Introduction

Health literacy has become part of the European health agenda in recent years. The aim of the study is to illustrate through a policy analysis how the topic has evolved historically and politically at European level in order to shape recommendations for future actions in the field of health literacy.

Methodology

Data is derived from semi-structured in-depth interviews with key informants involved in health literacy activities at national and European level. The informants were recruited through 'Health Literacy Europe' or through snow-ball sampling asking key informant to recommend other suitable interviewees for the study. The theoretical framework applied is linked to Stone's 'the policy paradox'. Data analysis is conducted with NVivo.

Results

14 key informants were identified and interviewed. They represented various sectors such as governments, research, the European Commission and public health institutes. The study resulted in an outline of events and milestones significant for the development of health literacy in Europe for the last 15 years. Enabling factors for advancing health literacy relates to budget, availability of facts and figures, and tailor-made intervention methodologies. Hindering factors relates to

attitudes towards health literacy as concept, unclear action strategies and lack of political involvement at national and European levels.

Discussion

Since health literacy is a relatively new topic on the European scene the policy analysis was rather an agenda setting analysis than a policy analysis, since only very few countries have integrated health literacy as part of policy. Since the European Health Literacy Project (2009–2012) the awareness has expanded tremendously and it is likely that it has been a tipping point in terms of health literacy getting politically focus and a more sustainable integration into health policies at national and European levels. The lack of knowledge in terms of the concept among health professionals and decision-makers is a pace maker in terms of the further diffusion of the concept into policy and practice for the benefit of public health. It can be overcome by enhancing health literacy skills in educational curricula for professionals.

The Comparative results of the European Health Literacy Survey

Jurgen Pelikan

J Pelikan, F Roethlin, K Ganahl

The Ludwig Boltzmann Institute of Health Promotion, Vienna, Austria

Introduction

Only little research exists concerning health literacy in Europe. National data was available for Switzerland, but no other country could provide insights to the status of health literacy. The European Health Literacy Survey took place in 2011 in eight countries using a newly developed tool focusing on how easy or difficult it is for people to access, understand, appraise and apply information to make decisions in terms of healthcare, disease prevention, and health promotion.

Methodology

The study used an 86-item questionnaire with 47 items relating to health literacy and the rest to personal and socio-economic determinants as well as health behaviour indicators. The tool is related to a conceptual framework and definition developed by the HLS-EU consortium and is called HLS-EU-Q86. The sample included 8000 people, 1000 in each of the participating countries. The survey took place in summer 2011.

Results

The survey showed (measured by HLS-EU-47 and by NVS Test):

That limited health literacy is not a minority problem in Europe, but affects considerable proportions of the general population and majorities in specific vulnerable sub-populations.

That there is a considerable social gradient not just for self-assessed health, but also for health literacy.

That health literacy is only to a moderate degree associated with selected measures of health behaviour or indicators of health service use, but more strongly with indicators of self-assessed health.

All these results vary substantially in degree between the 8 included member states.

Methodologically it is of interest, that the sub-indices for the three domains of health literacy for health care, for disease prevention and for health promotion are highly inter-correlated, but correlation of HLS-EU indices with a measure for functional health literacy (NVS-test) is of moderate degree.

Discussion

The survey provides relevant insights to the status of health literacy in eight European countries. Results vary between the countries and in terms of different aspects of health literacy. As a benchmark of health literacy, the survey provides useful information for decision-makers and health professionals on how to tackle the health literacy challenges in the general population as well as in specific vulnerable sub-populations.

Health Literacy in Ireland: Results of the European Health Literacy Survey.

James Fullam

J Fullam, G Doyle

University College Dublin, University of Ireland, Dublin, Ireland

Introduction

Health literacy has been on the periphery of the public policy agenda in Ireland since the early 2000s, and there is a growing academic interest in the field. In spite of this there exists no national level measure of health literacy in Ireland. The European Health Literacy Survey HLS-EU represents the first attempt to measure health literacy in the Irish context..

Methods

A cross-sectional survey was carried out with a nationally representative sample of Irish adults, data was collected between the 04th and 27th of July 2011. A multi-stage, random sampling design was used to collect the data. All interviews were conducted face-to-face in people's homes using PAPI (Paper Assisted Personal Interview). Analyses were carried out using PAWS Statistics V18.

Results

Data was collected from a sample of 1005 individuals (response rate 69%). Of those 10.3% had inadequate health literacy, 29.7% had problematic health literacy, 38.7% had sufficient health literacy and 21.3% had excellent health literacy. Functional health literacy, measured using the Newest Vital Sign, showed that of the respondents, 19.9% showed a high likelihood of limited functional health literacy, 22.5% showed a possibility of limited functional health literacy and 57.6% had adequate functional health literacy. Health literacy correlated positively with education, self-assessed social status. Health literacy correlated negatively with financial deprivation and self-assessed health.

Discussion

The results show that a large proportion of Irish adults have poor health literacy and poor functional health literacy. The results provide an evidence base for the integration of health literacy into policy, especially health and education policies. Specific policy recommendations derived from the findings of the study may be made. Decreasing literacy demands in the healthcare system and addressing low health literacy through education and public awareness may ameliorate the effects of poor health literacy.

H.3. Workshop: Impact Assessments: Ready to start (or continue) running for health protection and promotion?

Chairs: Rainer Fehr, Germany and Gabriel Gulis, Denmark

Organiser: EUPHA section on Health Impact Assessment (HIA)

For good reasons, in Public Health there is a clear preference for pro-active approaches, including the protection and promotion of health. Likewise, there is profound awareness

of forces from outside the health sector influencing human health, for better or worse; this is reflected in WHO's "Health in all policies" approach.

Prospective Assessments, especially Environmental Impact Assessment, Strategic Environmental Assessment, and Social Impact Assessment, are the logical combination of a

pro-active attitude with an intersectoral approach. The focus of these different “cultures” varies, but they regularly aspire to include human health.

Over the years, dedicated Health Impact Assessment (HIA) developed its own - diversified - methodology and practice. Within EUPHA, the newly created HIA section seeks to explore how to make best use of this approach. One of the section objectives is to bring together these different strands of impact assessment development.

From this background, the workshop will discuss the conceptual (and, where appropriate: legal) bases of the assessments; the respective opportunities to promote and protect human health; and the specific methodologies (both qualitative and quantitative), tools and experiences relevant to identify human health impacts.

Key questions to be discussed include the following: (i) How can the various assessments contribute best to promoting and protecting human health? (ii) What tools and experiences can be shared across the types? (iii) How much integration is advisable?

This workshop continues earlier related discussions, some of them led under the headline of “family of Impact Assessments”. - After brief introductory statements made by the presenters, the workshop evolves into round table discussion, soon also involving the audience at large.

In order to demonstrate the existence of separate assessment “cultures” as well as emerging cross-cutting discussions, the abstracts associated with this workshop make a point of including selected key references.

Social Impact Assessment: an opportunity for health issues in public policies and private investments

Lea den Broeder

L den Broeder¹, F Vanclay²

¹National Institute for Public Health and the Environment; Bilthoven

²Faculty of Spatial Sciences, University of Groningen, Groningen, The Netherlands

EUPHA has started a Health Impact Assessment (HIA) section. This contribution links to that development. HIA is a member of the broader ‘family of Impact Assessment’ approaches that have in common that they look prospectively into policies, programmes, plans and projects to ensure better decision making and a sustainable future. Social Impact Assessment (SIA) is the closest member of that family of Impact Assessment to HIA.

SIA looks into the consequences of planned developments on communities. Like HIA, it looks beyond the physical-environmental issues, making visible what the planned changes will mean to people’s lives, livelihoods and landscapes. Thus it amends the often technocratic approach of Environmental Impact Assessment (EIA). It looks beyond the negative impacts and predicted risks, to include options for the enhancement of peoples’ wellbeing. It applies a participatory process approach providing space for the needs and concerns of all stakeholders, including the various impacted communities.

It is understandable that joining up HIA and SIA has often been suggested. However there are also differences, especially methodological, and the fact that HIA is often carried out as a stand-alone exercise, while SIA is often linked to EIA. Furthermore, SIA is more frequently part of the assessment policies of the private sector, such as mining and oil companies, than HIA. What are the implications of the similarities and differences between SIA and HIA? What issues would need to be resolved for better coordination of both? How could such coordination benefit both approaches, and would joining up really be the best option?

Tackling these questions will contribute to harvesting the range of benefits related to the family of impact assessments.

Environmental Assessments and health

Ben Cave

F Viliani¹, S Vohra², B Cave³, B Staatsen⁴

¹Public Health at International SOS Ltd., London

²IOE Centre for HIA, Institute of Occupational Medicine, London

³Ben Cave Associates Ltd, Leeds, United Kingdom

⁴National Institute for Public Health and the Environment, Bilthoven, The Netherlands

Environmental Assessment (EA) is the most widespread approach, across the world, to analysing the ways in which new projects and plans might affect the environment. This includes effects on human communities. EA is the only approach for which national legislation and guidelines exist in almost all countries. In addition, multilateral environmental agreements to protect biodiversity, the atmosphere, and water and to reduce the use of harmful chemicals provide an additional regulatory backbone for EA and for its enforcement. Lastly, International Financial Institutions have developed environmental and social policies aimed at scrutinizing projects that they finance in terms of their potential effects.

Over time, the scope of EA has expanded dramatically and it is now used to cover all kinds of environments including social and health issues. However, this expansion has not been done systematically or clearly. Widely accepted guidelines for the integration of health and wellbeing issues into EA do not yet exist. A review of research reveals that, despite the promise of EA as a mechanism to improve human health and wellbeing, there has been a consistent lack of either a systematic or a full coverage of human health and wellbeing. This gap has been identified in high-, and in low- to middle-income countries for example in Australia, Brazil, Ghana, across the EU, in Nigeria and the US.

This presentation will briefly describe the state-of-the-art in considering health and wellbeing in EAs; it will examine gaps in practice and in theory; and it will report results from a similar discussion within the International Association for Impact Assessment. This will serve as background for an interactive discussion on why gaps exist and what might be done to improve both theory and practice.

Strategic Environmental Assessment, health and Health Impact Assessment

Julia Nowacki

T Fischer¹, J Nowacki², MR do Partidario³

¹4imPIAct Research Team, School of Environmental Sciences, University of Liverpool, Liverpool, United Kingdom

²WHO Centre for Environment and Health, Bonn, Germany

³Instituto Superior Técnico, Technical University, Lisbon, Portugal

There have been requirements for considering health in strategic environmental assessment (SEA) in a number of countries for some years now. These include e.g. Canada, New Zealand and Australia. Furthermore, the EU SEA Directive which is currently valid in 27 EU member states explicitly asks for health aspects to be assessed. The consideration of health through SEA is also advocated in other European and UNECE countries through the Kiev Protocol to the Espoo Convention on EA in a trans-boundary context.

To date, the extent to which health is being considered in SEA as well as the integration of HIA with SEA has been researched only occasionally (see references). Results indicate that whilst health aspects do have a firm place in current SEA practice, there are currently shortcomings and problems. For example, whilst biophysical aspects are routinely considered, other aspects connected with the social model of health are often ignored.

Our contribution draws together the evidence presented in the international professional literature to date on how human health can be promoted through SEA. In this context, we refer to concrete practice examples and present the methodologies and tools currently used from various countries throughout the world. Furthermore, evidence will be presented for how integration across IAs can be made to work effectively in order

to achieve a more balanced representation of all sustainability aspects, including health.

Health Impact Assessment: Present and Future Directions

Monica O'Mullane

M O'Mullane¹, M Martuzzi², P Martin-Olmedo³, M Kvakova¹

¹Trnava University, Trnava, Slovakia

²World Health Organization - Regional Office for Europe, European Centre for Environment and Health, Bonn, Germany

³Escuela Andaluza de Salud Pública, Cuesta del Observatorio, Granada, Spain

Health Impact Assessment (HIA) involves the estimation of expected and unexpected effects of projects, programmes and policies. HIA has grown over the past two decades and has been endorsed by international organisations such as WHO and World Bank. The EU has endorsed health protection in the treaties of Maastricht 1993 and Amsterdam 1998. Conceptually, HIA draws from Environmental Impact Assessment (EIA), the healthy public policy dimension, and from policy appraisal and sciences.

HIA provides an opportunity to promote and protect human health given its multidisciplinary nature, its focus on inter-sectoral working, its use of qualitative and quantitative

evidence and consultation with relevant stakeholders. The way that HIA has been fostered and developed in parts of the world varies, due to politico-administrative contexts, the pre-existence of other IAs and acceptance of the assumptions underlying HIA. There are numerous examples of HIA cases of good practice, however, the critical question is, why is it strong in some countries and nearly unheard of in others?

A variety of methodologies exist for HIA. Two main developments have been made in HIA methodology:

the 5 or 6 stage process exists and there exists also the HIA approach. The Merseyside Guidelines combine procedures for HIA with methods. Routine data has been used more and more in quantitative models of HIA with an emphasis on epidemiology and toxicology.

An important question refers to the feasibility of integrating HIA with other IAs. The EU has developed an Integrated Impact Assessment (IIA) Framework for European Union planning and spending as a tool to structure the process of policy making. Such an IIA can assess the possible impact of proposals on a range of issues that previously may have been assessed separately - such as economic, environmental, sustainability, equality, health and quality of life. The disadvantage for this is that public health is diluted and competing for attention amongst the other foci for IA.

I.3. Workshop: Benefits of primary care from different perspectives; results from an international survey among GPs and patients in 34 countries

Chair: Wienke Boerma, The Netherlands

Organiser: QUALICOPC Consortium

Today, strengthening primary care is worldwide probably higher than ever on the agenda of scientist and policy makers. The policy strategy towards primary care reinforcement is often based on the notion that a strong primary care system has the potential to contribute to overall health system performance and health. Prior studies have shown a relationship between primary care and outcomes such as costs, quality and accessibility of care. However, these results should be considered with care because of the limited generalisability of the results to the European context.

In this workshop we aim to discuss the benefits of primary care systems from different perspectives. First, results from a recent study in 34 countries will be discussed. Main themes are outcomes as perceived by patients and avoidable hospitalisation as an indicator of quality of primary care. Then, an overarching discussion will be started by going into what can be considered as a good practice of primary care at the macro level. What specific organisational forms incorporate the core values of primary care and how can these address the future challenges of primary care?

The results presented in this workshop are derived from the Quality and costs of primary care (QUALICOPC) study. In this study around 7,000 GPs and 70,000 from 34 countries are surveyed. Countries include 27 EU member states, Iceland, Norway, Turkey, Switzerland, Australia, Canada and New Zealand. The QUALICOPC study is funded by the European Commission under the Seventh Framework Programme.

Patient evaluations of primary care

Willemijn Schäfer

WLA Schäfer¹, GWG Boerma¹, FG Schellevis^{1,2}, PP Groenewegen^{1,3}

¹Nivel, Netherlands Institute for Health Services Research, Utrecht, The Netherlands

²Department of General Practice, EMGO Institute, VU University Medical Center, Amsterdam, The Netherlands

³Utrecht University, Department of Sociology, Department of Human Geography, Utrecht, The Netherlands

Background

So far, studies about people's appreciation of primary care services has shown that patient satisfaction seems to be lower in health care systems with regulated access to specialist services by gate keeping. Nevertheless, international comparative research about patients' expectations and experiences with health care is scarce.

Methods

With the QUALICOPC study information on the experiences of about 7000 patients in 34 countries was collected. Patients were surveyed about topics such as perceived access, continuity of care and perceived quality. Moreover, about 7000 patients were asked about what the find important in primary care. Data at the level of the primary care practice were collected through GP surveys. Furthermore, the PHAMEU (Primary Health Care Activity Monitor) study provided data on how primary care is organised in these countries. Data were statistically analysed by means of 3 level multilevel models.

Results

A general description will be provided of how PC services are evaluated by the patients in different countries. Evaluation will focus on several aspects as perceived by patients: continuity of care, coordination, communication, patient centeredness, accessibility and general quality aspects. Furthermore, it will be explained how variation is found to be related to characteristics of individual patients, GP practice features and how primary care is organised in a country. Due to the strong influence of GPs on aspects such as continuity of care and patient centeredness (which are valued most important by patients), the main part of the variation in patient evaluations of PC services is expected to be related to the level of the GP practice. Patient evaluations of PC services

with regard to availability/ accessibility are mainly related to primary care organisation in a country.

Conclusions

Much variation is expected in patient evaluation of primary care services. Variation is hypothesised to relate to patients' personal preferences, local practice conditions and how the health care system has been organised in a country. Insight into factors related to patient's evaluations can help tailoring health systems and delivery of its services to a more demand driven approach.

How primary care can avoid hospitalizations

Tessa van Loenen

T Van Loenen¹, MJ Van den Berg², GP Westert¹

¹IQ Scientific Institute for Quality of Healthcare, Radboud University, Nijmegen, The Netherlands

²RIVM- National Institute for Public Health and the environment, Bilthoven; and Tranzo, Tilburg University, Tilburg, The Netherlands

Background

Ambulatory care sensitive conditions are conditions for which acute hospitalization can be avoided when primary care is appropriately organized, effective and available. Examples of such conditions are asthma, COPD and heart failure. Hospitalization rates for such conditions are often used for assessment of health systems. Although a substantial body of literature is available, many questions remained unanswered. In our study we developed an explanatory model organizing factors inside and outside primary care. Using this model, we try to explain the differences in avoidable hospitalization (AH) between countries.

Methods

For the theoretical part of the study, a review of the literature was undertaken, searching all reported factors that may affect AH-rates. These factors were grouped into factors related to patients, providers, primary care systems and general health systems and the economy of countries. For the empirical part, data on more than 20 European countries were collected. Part of these data origin from secondary sources such as OECD, World bank and WHO. Characteristics of primary care systems were collected within the QUALICOPC-study, these data contain surveys among primary care doctors and their patients. Multilevel analysis will be carried out to analyze the relative influence of factors on patient, provider and system level.

Results

Rates of AH differ considerably between countries. In many studies, these differences are related to access to primary care. One of the most important determinants of this access is health insurance coverage. Little is known about the effect of

characteristics of primary care. Using data of QUALICOPC, three important characteristics of primary care can be distinguished: the range of the task profile of primary care doctors, the position of primary care within the health system (central versus marginal) and accessibility. On patient level, the propensity to seek care was measured on two dimensions: in case of minor complaints and in case of severe complaints.

Conclusions

Insurance coverage is often considered one of the most important factors affecting AH-rates. However, also countries with universal coverage vary considerably. A more detailed analysis of the character and organization of primary care may contribute to our understanding of avoidable hospitalization.

Good Practices in European Primary Care

Stephanie Heinemann

S Heinemann, S Greß

University of Applied Sciences Fulda, Fulda, Germany

Background

The term “good practice” is often used in the European primary care setting without clearly defining this term.

Aim

To define and analyze the term “good practice” in primary care and identify examples of good practice in European primary care with reference to physician and patient autonomy.

Methods

Literature review to define the term “good practice” in European primary care, identifying macro-level “good practices” for physician and patient autonomy.

Results

The concept of good practices can be defined as recommendations for appropriate action based upon evidence, bringing health systems closer to reaching their policy goals. Structured pay-for-performance systems and disease management programs give physicians less room for autonomous decision-making. Reduced physician autonomy leads to less variation in clinical practice and fewer complications in chronic conditions. Patient autonomy is curbed by gatekeeping systems. Research shows that gatekeeping can reduce costs without any significant differences in quality but with reduced patient satisfaction.

Discussion

Good practices in European primary care are difficult to identify, because there are many variables and perspectives to be considered which in part counteract each other. Healthcare systems must prioritize their healthcare system goals in order to find the good practices needed to reach them.

K.3. ORGANISING HEALTH 2

Have geographical inequalities in health across Europe increased during the period 1991 to 2008?

Jamie Pearce

J Pearce¹, R Mitchell², E Richardson¹, N Shortt¹, H Tunstall¹

¹Centre for Research on Environment Society & Health (CRESH), School of GeoSciences, University of Edinburgh, Edinburgh, United Kingdom

²Centre for Research on Environment Society & Health (CRESH), Section of Public Health and Health Policy, Faculty of Medicine, University of Glasgow, Glasgow, United Kingdom

Contact: jamie.pearce@ed.ac.uk

Background

Recent studies have noted widening health inequalities between rich & poor areas in a number of OECD countries. However few studies have compared the temporal course of geographical inequalities across a range of countries. We examine whether geographical inequalities in health in 19 European countries during the period 1990–2008, a period of

wide scale international migration & rapid socio economic change.

Methods

All available life expectancy (at birth) & socioeconomic (household income) data were obtained for NUTS2 regions of Europe (maximum n = 229) from Eurostat for the period 1990–2008. Geographical inequalities in health were calculated for each year over the study period by calculating the ratio of the highest to lowest deciles of life expectancy. A measure of socio-spatial inequalities (Slope Index of Inequality) was calculated for those years where the socioeconomic data were available (2001 to 2008).

Results

Overall life expectancy increased during the period for males & females in all countries included. In 1991 life expectancy ranged from 65.2 (males in Estonia & Lithuania) to 81.1 (females in Spain). There was limited adjustment to the life

expectancy rankings: regions experiencing relatively high or low life expectancies in 1991 tended to maintain their position. For males geographical inequalities in health increased between 1991 & 2008. By the end of the period, the gap in male life expectancy between the top & bottom decile of areas was approximately 10 years. For females there was a modest decrease in this geographical divide. An inspection of the SII values (2001 to 2008 only) demonstrates that when sorted by socioeconomic status, inequalities in life expectancy rose for males & females with stronger effects for males. The overall conclusions were not affected by excluding particular regions of Europe.

Conclusions

The findings demonstrate that since the 1990s there has been a rise in geographical inequalities in life expectancy across regions of 19 Europe countries. The implications of neoliberal social & economic agendas, & issues such as differentiated & health selective migration, emigration, & immigration are discussed.

The European Health Interview Survey (EHIS) wave 1-An European overview on Health Determinants, Chronic Diseases and Health Care

Jürgen Thelen

J Thelen¹, NH Kirsch¹, C Lange¹, B De Norre², I Slaharova², M Verschuuren³

¹Robert Koch Institute, Berlin, Germany

²DG Eurostat, Luxembourg, Luxembourg

³National Institute for Public Health and the Environment, Bilthoven, The Netherlands

Contact: thelenj@rki.de

Background

The European Health Interview Survey wave 1 (EHIS w1) was the first European Health Interview Survey based on a common instrument developed jointly by the EU Member states and Eurostat. It covers a broad range of health topics including socio-demographic background, health status, health determinants and health care use. The EHIS has been designed to provide data for important European indicator sets like the European Community Health Indicators and indicators for monitoring EU-Strategies such as the open method for coordination in the field of social protection and social inclusion.

Methods

EHIS w1 was performed in 17 European countries between 2006 to 2009, using partly input harmonisation via a model questionnaire, common guidelines and a translation protocol but permitting different survey and sampling methods. The available data provide a unique overview regarding public health priorities across Europe such as population-based prevalence for chronic diseases and health determinants and also allow for analyses according to socio-economic variables. EHIS w1 data is complemented with data collected by the joint action for ECHIM (European Community Health Indicators Monitoring) to provide data for the countries not covered by EHIS w1.

Results

EHIS w1 results are presented focusing on the European wide distribution of prevalence data for the most important chronic diseases and underlying risk factors. In combination with methodological considerations concerning the different survey and sampling methods, limitations regarding the cross-country comparability of the data are discussed. It is suggested that methodological factors and characteristics of health systems should be taken into account when explaining the differences and patterns across Europe.

Conclusions

EHIS w1 is a valuable source for public health monitoring and reporting in Europe. To further enhance its value, the survey should be repeated every five years to allow for the building of time trends. EHIS wave 2 (2014) shall be carried out under a European Commission implementing regulation that is

currently developed in the European Statistical System. Some of the changes between EHIS w1 and wave 2 will be explained taking into account current trends in survey technologies.

Building successful collaborations between Public Health and Primary Health Care

Paolo Parente

P Parente, S Capizzi, ML Specchia, AG de Belvis, M Marino, MA Veneziano, W Ricciardi

Institute of Public Health and Preventive Medicine-Catholic University 'Sacro Cuore', Rome, Italy

Contact: pparente87@hotmail.it

Background

In the European framework, as well as in Italy, the importance and relevance of Primary Health Care (PHC) is dramatically growing. The relationship between Public Health (PH) and PHC needs a better integration at the different levels of the healthcare system in order to improve health and social outcomes.

The aim of this study was to review international models and approaches supporting the integration of PH and PHC and to classify them on the basis of their main focuses.

Methods

A narrative literature search of observational studies, on the main scientific databases, was performed in order to find out journal articles focused on the interventions promoting the integration between PH and PHC. The studies were classified according to: country, type of intervention and reported outcomes (efficacy, effectiveness, cost-effectiveness).

Results

149 studies, including 20 reviews, were preliminarily obtained. A total of 13 studies met all the inclusion criteria.

The final set of the documents provided broad coverage of the topic. Four models of integration were identified: General integration, Chronic disease prevention, Targeted prevention or care delivery and Infection control. Models differed in their level of implementation, stage of development and focus.

Conclusion

Our review, by classifying the main characteristics and results of the experiences retrieved, showed a relatively scarce application of the integration models worldwide.

On the other hand, countries like Canada are leader in developing models of integrated health systems that combine tailored approaches to influence personal health behaviour and community-oriented approaches to influence the population health.

In addition, our results revealed the lack of experience of evaluation of such integration sustainability, not only in terms of cost-effectiveness, but also in terms of better health, better work conditions and self perceived quality of care in the population. Moreover, collaboration between PH and PHC seems to be a strategy to achieve the principles of equity and access in healthcare and to ensure a more equal distribution of healthcare services.

European health status (2005–2009) in 24 urban areas compared to national level data

Emmy Koster

EM Koster¹, R de Gelder¹, LP van Buren¹, CA Birt², A Verma³, EJC van Ameijden¹

¹Municipal Health Service Utrecht, The Netherlands

²Division of Public Health, University of Liverpool, United Kingdom

³Manchester Academic Health Sciences Centre, University of Manchester, United Kingdom

Contact: emmy.koster@utrecht.nl

Background

In Europe, over 70% of the population lives in urban areas. Most international comparative health research is done using national level data as reliable and comparable urban data is often unavailable. National data may not capture the specific urban characteristics and may mask the differences between urban areas within a country. This study aims to investigate

whether health is different in urban areas as compared to their corresponding countries.

Methods

The European Urban Health Indicator System Part 2 (EURO-URHIS 2) project is the first to comprehensively monitor urban health. Part of the project was the collection of routinely available data on both the urban and national level. Data relating to the most recently available year (2005–2009) were collected for 10 European countries and 24 urban areas within those countries. National and urban area level data of 11 health indicators were compared and geographical patterns within Europe were investigated.

Results

The urban population in Eastern Europe is predominantly less healthy than people living in Western European urban areas, except for mortality from diseases of the respiratory system. In some countries and for some indicators, people living in urban areas are better off as compared to the national results, whereas in other countries and for other indicators it is vice versa. The largest differences between urban area and national level data were observed for mortality from transport accidents that is on average 35% lower in urban areas as compared to country data (interquartile range -45% to -19%), teenage pregnancies occur 24% less in urban areas (-42% to -4%), and mortality from malignant neoplasms is 7% higher (1% to 13%). For life expectancy, incidence of tuberculosis, infant mortality, all-cause mortality, and mortality from diseases of the circulatory and respiratory system, people in Eastern Europe are significantly better off in urban areas, whereas people in Western Europe are worse off in urban areas.

Conclusion

National level data do not reflect the health status at the urban area level. In order to identify health problems in urban areas and provide information for local health policy, health monitoring and international benchmarking should also be conducted at the local level.

How do municipalities conceptualize integrated public health policy? An empirical analysis

Dorothee Peters

DT Peters, J Harting, K Stronks

Department of Public Health, Academic Medical Center-University of Amsterdam, Amsterdam, The Netherlands
Contact: d.t.peters@amc.nl

Background

Integrated public health policy (IHP) is a policy strategy that creates opportunities to tackle determinants of public health from outside the health system, so-called social determinants of health (SDH). Empirical research on the conceptualisation of IHP by local governments has hardly been done. In this presentation we present an empirical analysis of the conceptualizations of IHP in local settings, related to its characteristics in the literature about IHP, policy science and public administration sciences.

Method

The empirical context is a pilot program of the Dutch Ministry of Health, Wellbeing and Sports. This program gave 34 pilots the opportunity to experiment with the development of IHP on health themes obesity, smoking, alcohol and drugs abuse. We carried out a content analysis of the application forms of the pilots and interviews with 34 project leaders. In the analysis we focus on variables of the policy process, (e.g. type of policy instruments), variables in network perspectives (e.g. type of actors involved) and variables of IHP (e.g. SDH addressed).

Results

In the pilots we have observed three different conceptualizations of IHP. In none of these, SDH played a central role. The

first is based on implementation of health policy in settings inside and outside the health sector, in order to reach the target group more effectively (characteristics of intersectoral action). The second addresses the development of IHP, the involvement of (semi-) public and private organizations from other sectors in this process and a mix of policy instruments (characteristics of healthy public policy and public private partnership). The third involves characteristics of interactive policy making, giving citizens a central role in the development of IHP.

Conclusion

In the pilots IHP has been conceptualized in many different ways, ranging from an implementation strategy to a strategy promoting citizen participation. In contrast with the literature, SDH did not function as the starting point of the policy process of IHP.

Managing Health and Welfare Promotion in Finnish Municipalities

Tiina Heiliö

TSM Heiliö, VMA Saaristo, KK Wiss

National Institute for Health and Welfare (THL), Tampere, Finland
Contact: tiina.heilio@thl.fi

The national Health Care Act in Finland emphasizes the responsibilities of local authorities in promoting the health and welfare of residents. After the law entered into force in May 2011, there has been an emerging need for information on the effects of on-going reforms regarding municipal structures and organization of services, including the formation of partnership areas for social welfare and health care services. Development of an online service (known as TEAvisari) that provides local and regional actors with compatible information of health promotion capacity building (HPCB) has a central role in enhancing evidence-based management. Moreover, considering the current financial challenges in Europe, the integration of the Health in All Policies (HiAP) approach into strategic management has become increasingly important also in municipalities.

A data collection questionnaire was used to measure HPCB among municipal management in 2011. The dimensions explored were: commitment; management; monitoring and needs assessment; resources and competence; and participation. The responded municipalities (58%) covered 82% of the population of the country. Associations were tested using Pearson's chi-squared test.

Two thirds of respondents were members of a partnership area. In up to 37% of municipalities the responsibility for the sector had not been assigned to any particular official, with a significant difference between members (42%) and non-members (27%) of partnership areas ($p=0.046$). Most (90%) had assigned the primary responsibility for monitoring population health to a certain body. Monitoring living standards (76% vs. 53%, $p=0.032$) and reporting measures taken in an annual report (45% vs. 11%, $p=0.005$) were associated with assigning the responsibility.

Compared to a corresponding study in 2007, fewer municipalities utilized monitoring as a basis for decision making in 2011. Regarding implementation of the Health Care Act as well as HiAP and evidence-based management, this trend raises concerns. It can be argued that while some obligations have been shifted to the partnership areas, the connections to the relevant actors remaining in the municipal organizations have in many cases weakened. Strategic and structural harmonization needs further attention.

L.3. COVERING HEALTH AT WORK

The effects of a group based stress treatment programme (the Kalmia concept) targeting stress reduction and return to work. A randomized, wait-list controlled trial

Bo Netterström

B Netterström, Y Ladegaard

Department of Occupational and Environmental Medicine, Bispebjerg Hospital, Copenhagen, Denmark
Contact: bnet0002@bbh.regionh.dk

Objective

The aim of this study was to evaluate the effect of a group based multidisciplinary stress treatment programme on reduction in symptom levels and return to work (RTW) rate.

Methods

General Practitioners referred 199 patients with persistent work related stress symptoms to the project. Inclusion criteria were being employed and on sick leave. Using a randomized wait list control design, the participants were randomized into three groups: intervention group (70 participants), treatment as usual (TAU) (12 consultations at a psychologist) group (71 participants) or wait list control (WLC) group (58 participants).

The Stress Therapy Concept in Kalmia consists of an integrative approach of group/individual psychotherapy, 2.5 hours per week, and Basic Body Awareness Therapy (BBAT) with mindfulness meditation, 1.5 hours per week, running in a parallel process complemented with workplace dialog. Each therapy program starts with a comprehensive interview to uncover and clarify the elements in the person's life which has brought it to its current position. The psychotherapeutic therapy method is based on an integrative approach that draws on recent understanding of stress in the relationship between brain functions, affect regulation, problem solving and interpersonal relating.

Treatment in the intervention group and TAU group lasted approx. 3 months

Results

Reductions in symptom levels (MDI and SCL92) were significantly larger in the intervention group and TAU group compared to the WLC group ($P=0.001$). Regarding RTW, 66% of the participants in the intervention group had returned to work/the labor market full time after three month. This was significantly higher than in the TAU (36%) and WLC group (22%) ($P<0.001$). Results on one year follow up will be presented.

Conclusion

The stress treatment programme shows significant effects on reductions in symptom levels and RTW rate compared to a wait-list control group and regarding RTW rate to Treatment as usual.

Work stress in a ready-made garment factory in Dhaka, Bangladesh-its measurement and associations with self-rated health and physical complaints

Maria Steinisch

M Steinisch^{1,2}, R Yusuf³, J Li^{1,4}, O Rahman³, MH Ashraf^{2,5,6}, C Strümpell^{2,5}, JE Fischer^{1,2}, Loerbroks^{1,2}

¹Mannheim Institute of Public Health, Social and Preventive Medicine, Mannheim Medical Faculty, Heidelberg University, Mannheim, Germany

²Cluster of Excellence 'Asia and Europe in a Global Context, Changing Asymmetries in Cultural Flows', University of Heidelberg, Heidelberg, Germany

³Centre for Health, Population and Development, Independent University, Bangladesh, Dhaka, Bangladesh

⁴Institute of Occupational and Social Medicine, University of Düsseldorf, Düsseldorf, Germany

⁵Department of Anthropology, South Asia Institute, University of Heidelberg, Heidelberg, Germany

⁶Department of Anthropology, Jahangirnagar University, Dhaka, Bangladesh

Contact: steinisch@asia-europe.uni-heidelberg.de

Background

Bangladesh is one of the leading producers and exporters of ready-made garments (RMG) with 3.6 million workers. Asian and Western media have increasingly featured the adverse working conditions in Asian RMG factories. Yet, scientific evidence is markedly sparse. This study aimed to characterize the main components of work stress and their associations with health outcomes in RMG workers from Dhaka, Bangladesh.

Methods

We conducted a cross-sectional study among 531 workers (response rate 98%) from a RMG factory in February and March 2012. The work stress interview combined a 7-item version of the Effort-Reward Imbalance model with seven setting- and culture-specific items derived from previous ethnographic research. Health outcomes included self-rated health and seven common physical symptoms. The work stress interview was psychometrically evaluated by factor analysis and Cronbach's alpha. Multivariate logistic regression was used to estimate odds ratios (OR) for associations.

Results

Three latent factors were extracted which were labeled 1) "work-related demand" (WD), e.g. time pressure; 2) "interpersonal resources" (IR), e.g. trust and support; and 3) "work-related values" (WV), including security, promotion prospects, and freedom. Cronbach's alpha coefficients for these three scales were 0,75; 0,58; and 0,41 respectively. WD and IR were significantly associated with most self-reported health outcomes (ORs ranged from 1.66 to 4.00) whereas WV was not associated with any health outcome.

Conclusion

High work-related demands and poor social interactions represent key components of work stress and are important determinants of poor health in RMG factories in Dhaka, Bangladesh. In contrast, work-related values, as captured by well-established Western work stress scales, seem to be of little relevance. Our study illustrates that the main components of work stress vary across cultures and settings. The associations of psychosocial work conditions with health, as measured in this study, underline the public health relevance of the current discussion about adverse working conditions in Asian RMG factories.

Changes over time in social class inequalities in health among employees from Finland, Britain and Japan

Eero Lahelma

E Lahelma¹, T Lallukka¹, O Pietiläinen¹, O Rahkonen², M Kivimäki^{3,4}, J Ferrie^{3,5}, M Shipley³, T Tatsuse⁶, M Sekine⁶

¹Hjelt Institute, Department of Public Health, University of Helsinki, Helsinki, Finland

²Population Research Unit, Department of Social Research, University of Helsinki, Helsinki, Finland

³Department of Epidemiology and Public Health, University College London, London, United Kingdom

⁴Finnish Institute of Occupational Health, Helsinki, Finland

⁵School of Community and Social Medicine, University of Bristol, United Kingdom

⁶Department of Welfare Promotion and Epidemiology, University of Toyama, Toyama, Japan

Contact: eero.lahelma@helsinki.fi

Background

Large health inequalities between social classes are a major public health challenge. International comparisons suggest variation in the magnitude of health inequalities across European and non-European populations. However, how these inequalities change over time across various national

contexts is poorly understood. We followed social class inequalities in health among women and men in Finland, Britain and Japan in 1998–2007, considering key covariates.

Methods

Employee cohorts from the Finnish Helsinki Health Study ($n = 7332$), British Whitehall II study ($n = 5002$), and Japanese Civil Servants Study ($n = 3399$) were used. Hierarchical occupational social classes included managers, professionals and clerical employees. Poor physical health functioning was measured by the lowest quartile of the Short Form 36 (SF-36) physical component summary (PCS). Class inequalities in PCS were measured by the relative index of inequality (RII), adjusting for age, marital status, social relations, job strain and working overtime.

Results

Health inequalities were larger at follow up than at baseline among men from Finland (adjusted RII at baseline 2.81, 95% CI 1.07–4.01, and at follow up 4.18, 1.91–6.99) and Britain (RII at baseline 1.70, 1.07–2.68, and at follow up 1.97 to 1.24–3.12). There were large inequalities also among women from Finland and Britain but they narrowed somewhat over the follow up. Among men from Japan health inequalities did not reach statistical significance. Among women from Japan those in lower classes had better health and this remained stable. Adjusting for covariates had modest effects on the found inequalities.

Conclusions

Women's and men's health inequalities tended to change towards divergent directions in Britain and Finland: among men inequalities widened in particular in Finland but among women they narrowed. Japan differs from the two western countries as among men health inequalities could not be confirmed and among women they showed a stable contrasting pattern. Sociodemographic and work-related covariates affected the inequalities only modestly. Reasons for the gender differences and the country divide warrant further scrutiny. Among Finnish and British male employees efforts are needed to curb the unequal health development.

Changes in binge drinking and subsequent sickness absence—a prospective study among middle-aged employees

Aino Salonsalmi

A Salonsalmi¹, M Laaksonen^{1,2}, O Rahkonen¹, E Lahelma¹

¹Department of Public Health, Hjelt Institute, University of Helsinki, Helsinki, Finland

²Finnish Centre for Pensions, Finland
Contact: aino.salonsalmi@helsinki.fi

Background

Binge drinking is a fundamental feature of Finnish drinking habits and has increased among women. Alcohol drinking is associated with sickness absence but less is known about changes in drinking habits and their contribution to sickness absence. In this study we aim to examine changes in binge drinking and their associations with short, self-certified, and long, medically confirmed, sickness absence spells.

Methods

The baseline data was collected among 40- to 60-year-old employees of the City of Helsinki in 2000–2002. A follow-up survey was conducted among the participants of the baseline data collection in 2007. Short (1–3 days) and long (3+ days) sickness absence spells were followed by means of the employer's register from 2007 to the end of 2010 yielding a mean follow-up time of 2.8 years. The study includes 3335 women and 697 men. Binge drinking was defined as drinking 6 units on the same occasion. The analyses were made using Poisson regression.

Results

The prevalence of binge drinking remained essentially the same during the follow-up (24%). Previous binge drinking was not associated with either short or long sickness absence spells compared with those not binge drinking at either data

collections. Those who had started binge drinking had increased level of short sickness absence spells (Rate ratio = RR 1.18, 95% confidence interval = CI 1.03–1.37 for women and RR 1.62, CI 1.13–2.30 for men) but not of long sickness absence spells. Constant binge drinkers had increased risk of short sickness absence spells among both women (RR 1.38, CI 1.25–1.53) and men (RR 1.44, CI 1.12–1.85) but an elevated level of long sickness absence spells was found among women only (RR 1.39, CI 1.22–1.58).

Conclusion

Binge drinking increases the amount of short sickness absence spells and continuous binge drinking elevates the risk of long sickness absence spells as well. On the other hand, the risk of sickness absence was not increased if binge drinking had terminated. Together these findings underlie the importance of binge drinking on employee health and the detrimental effect of continuous binge drinking. The findings also encourage in decreasing unhealthy drinking habits by suggesting that previous binge drinking is not associated with sickness absence.

Who is enrolled in bonus programmes of the German statutory health insurance? Results of the study “German Health Update” (GEDA) from 2009

Susanne Jordan

S Jordan, E von der Lippe, A Starker, A Franke

Robert Koch Institute, Department of Epidemiology and Health Reporting, Berlin, Germany

Contact: jordan.su@rki.de

Background

German statutory health insurance funds can give their insured persons a bonus in form of cash or non-monetary premiums for the use of preventive measures, such as screenings or health behaviour change programmes. Bonus programmes should act as incentives or rewards and are intended to motivate for health-conscious behaviour. At the same time, they serve as a marketing tool for statutory health insurance funds, which are competing with each other. This study will describe the characteristics of the insured persons who participate in bonus programmes.

Data and Methods

“German Health Update” (GEDA) is a population-wide, representative telephone health survey of the German population aged 18 years and over. 21 262 computer-assisted telephone interviews have been carried out from July 2008 to June 2009. In our study, 17 599 of these persons were included who reported being covered by statutory health insurance. Data on participation in a bonus programme and prevention measures in the last twelve months have been analysed stratified by sex, age, social status and statutory health insurance fund.

Results

20.4% of the insured persons participated in a bonus programme (95% CI = 19.6–21.2). Considering all factors simultaneously, bonus programme participants used preventive services significantly higher than non-participants (OR = 2.60, 95% CI = 2.39–2.84). Older insured were more likely to be enrolled in a bonus programme than younger people (e.g. 18- to 29-year-olds compared to persons aged 65 years and older: OR = 0.49, 95% CI = 0.43–0.56). The chance for participating in a bonus programme was significantly lower in groups with low social status than with high social status (OR = 0.85, 95% CI = 0.74–0.98).

Conclusion

Insured persons in bonus programmes have better health behaviours than non-participants. Older insured and insured persons with high social status benefit more often from bonus programmes, although they have an above average use of preventive services even without being enrolled in a bonus programme. Bonus programmes schemes should be more targeted at groups who participate less in preventive measures, as social vulnerable groups.

Mental health problems and self-assessed work capacity as determinants of time until return to work. A prospective general population cohort study from Western Sweden

Monica Bertilsson

M Bertilsson¹, M Vaez², G Ahlborg^{3,4}, M Waern⁵, G Hensing¹

¹Department of Social Medicine, The Sahlgrenska Academy at the University of Gothenburg, Sweden

²Department of Insurance Medicine, The Karolinska Institute, Stockholm, Sweden

³Department of Occupational and Environmental Health, The Sahlgrenska Academy at the University of Gothenburg, Sweden

⁴Institute of Stress Medicine, Region Västra Götaland, Sweden

⁵Department of Psychiatry and Neurochemistry, The Sahlgrenska Academy at the University of Gothenburg, Sweden

Contact: monica.bertilsson@socmed.gu.se

Background

The aim of this prospective study was to investigate associations between mental health problems, self-assessed work capacity and time until return to work (RTW) in a cohort of individuals initially off sick in a new spell of all-cause sickness absence.

Methods

The study is part of the Health Assets Project, Västra Götaland's region, Sweden, 2008. All individuals (19–64 years) who reported sick between the 18th of February and 15th of April 2008 were included and received a mailed questionnaire on health, family and work situation. The final study population consisted of 1082 individuals (67% women) still off sick when answering the questionnaire. Register data on benefit compensated sick-leave days was used to estimate

time until RTW. Self-reported persisting mental illness, WHO-10 mental wellbeing index and work capacity in relation to mental, physical, knowledge and collaborative demands at work were used as predictors. Logistic regressions were used to estimate odds ratios (OR) with 95% confidence intervals (CI) for the likelihood of late RTW (105–331 days off sick).

Results

A total of 54% had a late RTW. OR for late RTW were higher among those with persisting mental illness (OR 1.75 CI 1.21–2.52) and among those with low mental well-being (OR 2.18 CI 1.69–2.82) also after adjusting for age and gender. Individuals with low capacity in relation to knowledge (OR 2.06, CI 1.44–2.95) and collaborative (OR 2.04, CI 1.49–2.79) demands at work also had higher OR for late RTW. The association between persisting mental illness, low mental wellbeing and late RTW remained significant after adjusting for work capacity (each item separately) except for persisting mental illness adjusted for work capacity in relation to mental demands. The strongest OR was found between low mental wellbeing and late RTW after adjusting for age, gender and physical work capacity (OR 2.14 CI 1.64–2.78).

Conclusion

Mental health problems increased the likelihood of late RTW regardless of the impact of work capacity. Low mental wellbeing was a stronger predictor of late RTW than persisting mental illness. Thus it is important to identify and treat mental health problems in persons on all-cause sick-leave in order to promote RTW and avoid long durations of sickness absence.

M.3. Pro/con workshop: Priority actions for the noncommunicable disease crisis: implications of the UN high level meeting for the European region, one year later

Chairs: Gauden Galea, WHO/Europe and Iveta Nagyova, Slovakia

Organiser: WHO/EURO Division of Noncommunicable Diseases, Health Promotion & EUPHA section on Chronic Diseases

I Nagyova^{1,2}, G Galea³, D Stuckler^{4,5}

¹Safarik University, Faculty of Medicine, Institute of Public Health, Department of Social Medicine & Graduate School Kosice Institute for Society and Health-KISH, Kosice, Slovak Republic

²Slovak Public Health Association-SAVEZ

³WHO Regional Office for Europe, Division of Noncommunicable Diseases and Health Promotion, Copenhagen, Denmark

⁴University of Cambridge, Department of Sociology, Cambridge, United Kingdom

⁵London School of Hygiene & Tropical Medicine, Department of Public Health and Policy, London, United Kingdom

Background

The spread of non-communicable diseases (NCDs) presents a global crisis; in almost all countries and in all income groups, men, women, and children are at risk of these diseases. In September 2011, world leaders met at the United Nations in New York to discuss noncommunicable diseases. Since that meeting, the World Health Organization (WHO) has been developing a Global Monitoring Framework and the United Nations Secretary-General is preparing to report to the 67th session of the General Assembly in September 2012 on ways to tackle noncommunicable diseases across different sectors. Three issues are high on the agenda: How to monitor progress in the implementation of the UN high level meeting Political Declaration? How to achieve effective multisectoral partnerships? What does this mean for Europe?

Workshop objectives and layout

This workshop aims to inform and stimulate further debate by reviewing the actions that resulted from the UN high level meeting, including the consultations on targets, indicators, and multisectoral partnerships and to identify the challenges for

public health to fight NCDs in the European region. The workshop will be organized as a debate session consisting of two presentations. The first presentation will explore options for the way forward and the follow-up actions to be taken to move from high-level commitments to effective action. The second presentation will address the barriers, the inequity, and the readiness of all sectors to tackle NCDs meaningfully. Finally, a panel of experts will have an interactive discussion with the audience. The discussion will be stimulated by several provocative propositions from the two presentations.

United Nations high level meeting on NCDs: translating political commitments into effective action

Gauden Galea

G Galea

WHO Regional Office for Europe, Division of Noncommunicable Diseases and Health Promotion, Copenhagen, Denmark

Issue/Problem

A relatively small group of health conditions is responsible for a large part of the disease burden in Europe. Of the six WHO regions, the European Region is the most affected by noncommunicable diseases, and their growth is startling. The impact of the major noncommunicable diseases-like cardiovascular diseases, cancer, diabetes, chronic respiratory diseases and mental disorders-is equally alarming: taken together, these five conditions account for an estimated 86% of the deaths and 77% of the disease burden in the Region.

Description

The main common risk factors, underlying determinants and opportunities for intervention for NCDs are well known.

Tobacco use, foods that are high in salt, fat, and sugar, harmful consumption of alcohol, and physical inactivity cause more than two-thirds of all new cases of NCDs and increase the risk of complications in people with noncommunicable diseases. The NCDs epidemic affects all countries, but low- and middle-income countries carry an additional burden as policies, legislations and regulations to tackle NCDs either do not exist or are inadequate in these countries. In addition, their health systems usually have fewer resources for the prevention and early detection of disease, as well as to provide comprehensive health care to those with diseases.

Results (effects/changes)

WHO/Europe develops norms and standards, guidance and public health tools to help countries implement effective programmes and address risk factors. In the year since the UN high level meeting, Europe has moved on rapidly and the Region has been a protagonist in the development of global thinking on the follow up.

Lessons

This presentation will review the process of consultation and development of the voluntary global targets and indicators. It will review the level of achievement to date, the level of coverage of the selected indicators, and the policy implications of these goals for European Member States. The multisectoral implications will be reviewed especially in the light of current challenges (the financial crisis) and innovations (such as the increasing adoption of food taxes). What does this mean for the public health practitioner in Europe?

Implementation of the UN Political Declaration on NCDs: barriers, inequity and challenges

David Stuckler

D Stuckler^{1,2}

¹University of Cambridge, Department of Sociology, Cambridge, United Kingdom

²London School of Hygiene & Tropical Medicine, Department of Public Health and Policy, London, United Kingdom

Issue/Problem

The UN Political Declaration on NCDs is a landmark achievement to start supporting countries in addressing NCDs and mitigate their health and socioeconomic impacts. Yet, thus far, member states, donor and international development community have been slow to respond. There is lack of adequate recognition of NCDs as a development issue, lack of coordinated approach to identify opportunities to support Member States in addressing NCDs and lack of clearly defined responsibilities across the UN System to scale up work on NCDs. Why we have not made greater progress? Part of the

problem is that powerful corporations, and vested interests which influenced them, benefit from status quo.

Description

“Unhealthy commodities” †”soft drinks and highly processed foods that are high in salt, fat, and sugar as well as tobacco and alcohol†” are leading risk factors for chronic disease. The scale of their spread across Europe and into low- and middle-income countries is not known. Although there is preliminary evidence suggestive of consumption of unhealthy commodities and system of food trade and market integration, a systematic and global examination of this relationship is needed. Econometric analysis of market and industry data on retail sales and volume of these commodities in 80 countries from 1997 to 2010 has been used to describe trends in unhealthy food, beverage and tobacco commodities.

Results (effects/changes)

Unhealthy foods (processed foods, soft drinks, confection, oils and fats) are being consumed most rapidly in low- and middle-income countries, with little or no growth expected in Europe. The pace of increase is faster than has historically occurred in high-income countries. Multi-national companies have already entered food systems of middle-income countries to a similar degree as in European countries. Greater intake of unhealthy foods correlates strongly with higher tobacco and alcohol sales, suggesting common underlying consumer forces. Free-trade agreements with the United States appear to be a significant risk factor of higher soft drink consumption.

Lessons

Policies to limit exposure to unhealthy commodities as countries enter global trading markets may play a crucial role in reducing chronic disease risk in both Europe and developing countries. Prevalence of unhealthy commodities may serve as a quantitative indicator for future epidemics of NCDs, particularly in settings where surveillance is limited.

Panellists

- Gauden Galea, Director, Division of Noncommunicable Diseases and Health Promotion, WHO Regional Office for Europe WHO
- David Stuckler, University Lecturer and Senior Researcher, University of Cambridge, Department of Sociology, Cambridge, United Kingdom and London School of Hygiene & Tropical Medicine, Department of Public Health and Policy, London, United Kingdom
- Michael Hubel, Head of Health Determinants Unit, DG SANCO, European Commission (to be confirmed)
- Iveta Rajnicova-Nagyova, President of the EUPHA section on Chronic Diseases

N.3. IMMUNISATION POLICY AND PRACTICE

Knowledge and attitudes of Public Health residents to immunisation programmes from five European countries

Stephen Dorey

SG Dorey¹, M Barthoulot², A Peralta³, L Reques⁴, B Simone⁵

¹North London public health specialist registrar, London, United Kingdom

²Médical Resident in Public Health, University of Strasbourg, France

³Public Health Unit of Amadora, Lisbon Regional Health Administration, Portugal

⁴Medical Resident of Public Health, Escuela Nacional de Sanidad, Instituto de Salud Carlos III, Spain

⁵Institute of Hygiene and Preventive Medicine, Università Cattolica del Sacro Cuore, Rome, Italy

Contact: stephendorey@hotmail.com

Background

The European Union recently encouraged Member States to increase health professionals awareness of the benefits of vaccines and strengthen support for immunisation programmes. Public health specialists are key to involving clinical doctors in reducing the burden of vaccine-preventable disease

and taking an active stance promoting the benefits of MMR vaccination.

Objectives

This survey was developed by EuroNet MRPH (medical residents in public health) to investigate knowledge and attitudes of public health residents towards vaccine preventable disease and immunisation.

Methods

The survey involved public health residents from Italy, France, Spain, Portugal and the UK. It was translated and disseminated via email using an online platform, running from April 2nd to April 18th 2012. It included: self-reported knowledge on vaccines, awareness of epidemics and prevention campaigns, attitudes towards vaccination (perceived importance). Questions included likert scales (1–5).

Results

The total population of residents was 1514, of whom 1304 (86%) would have received the survey achieving a response rate of 25.2% (from 44% Portugal to 13.8% UK). When asked

about perceived self-awareness of current outbreaks 26.4% said they did not feel aware. Over 26% reported their own level of knowledge on vaccines as insufficient and only 53.6% named campaigns at any level addressing vaccine preventable diseases. Perceived importance of knowledge on this subject was high (mean likert 4.33) most agents scoring higher than 4 on likert (polio and tetanus highest), the lowest scores were for varicella, HPV (for men) and rotavirus.

Conclusions

Residents seem to consider vaccination against preventable disease important and an issue they should have knowledge on, however a high proportion felt they had insufficient knowledge on the raising questions about levels of training and confidence amongst residents.

Key to tackling the resurgence of vaccine preventable disease in Europe will be ensuring health care workers have adequate knowledge of diseases and the options to combat them. This survey however indicates public health residents may not always feel sufficiently equipped to deal with vaccinal issues.

Vaccination against hepatitis B before surgery with a two-dose regimen in hospitals in West Pomerania, Poland in the context of anti-HBs levels

Maria Ganczak

M Ganczak¹, S Faraj², A Zeyara³, A Szczeniowski⁴

¹Department of Public Health, Pomeranian Medical University, Szczecin, Poland

²Ringerike sykehus, Vestre Viken HF, Norway

³Pomeranian Medical University, Szczecin, Poland

⁴Medical College, Legnica, Poland

Contact: ganczak2@wp.pl

A two-dose vaccination schedule against HBV before surgery is widely accepted in Poland. An anti-HBs antibody (Anti-HBs) level between 0–10 mIU/ml after HBV vaccination is considered as none response, 10.1–100 mIU/ml level-a poor response.

Objective

To assess the number of patients vaccinated against HBV before surgery with 2 doses of vaccine and presenting a protective level of anti-HBs.

Methods

Consecutive patients from surgical/gynecologic wards of 10 randomly selected hospitals in West Pomerania, Poland, hospitalized between November 2010 and March 2012 vaccinated against HBV only with a two-dose regimen were asked to complete an anonymous questionnaire. Serum samples were assayed for anti-HBs with the use of third-generation testing methods.

Results

There were 140 participants (60% women, with a mean age of 48.9 years); 83.6% were immunised at the request of referring surgeons. Regarding anti-HBs titer after taking 2 doses of HBV vaccine-in 18.6% of the subjects it was 0.0 mIU/ml, in 33.6% between 0.1–10 mIU/ml, in 25% between 10.1–100 mIU/ml, in 22.9% > 100 mIU/ml. Almost half of the patients-48.6% were operated on within 0–60 days of taking the second vaccine dose, 15%-61–180 days after, and 34.4% >180 days after. The mean anti-HBs titer in those vaccinated 0–60 days before surgery was 158.2 mIU/ml, 61–180 days before surgery-262.7 mIU/ml, more than 180 days-127.1 mIU/ml. In those vaccinated 0–60 days before surgery, 64.7% had anti-HBs titer below the protective level, in those vaccinated 61–180 days before surgery 23.8% had anti-HBs titer below the protective level ($p = 0.002$), in those vaccinated > 180 days before surgery-47.1% ($p = 0.08$).

Conclusions

One in two patients vaccinated against HBV with a two-dose regimen had anti-HBs titers below a protective level prior to surgery, the highest percentage of those unprotected was observed in the group vaccinated less than 2 months before surgery. In more than a third of cases the standard three-dose regimen could have been implemented, as participants

had time to complete a third dose. As a two-dose regimen of HBV vaccine does not protect against HBV infection a significant fraction of operated patients, more efficient vaccination strategy should be implemented to achieve better protection.

Lessons learned of public health assessment of eight HPV vaccination programs implemented in low and middle income countries

Joel Ladner

J Ladner¹, MH Besson², R Hampshire³, L Tapert², M Chirenjed⁴, J Saba²

¹Rouen University Hospital, Rouen, France

²Axios International, 7 boulevard de la Madeleine, Paris, France

³Axios Healthcare Development, Cleveland, USA

⁴University of Zimbabwe, Harare, Zimbabwe

Contact: joel.ladner@univ-rouen.fr

Background

Cervix cancer, preventable, continues to be the third most common cancer in women worldwide, especially in lowest income countries. The objective was to describe the results of and key concerns in eight HPV vaccination programs conducted in seven lowest income countries through the Gardasil Access Program (GAP).

Methods

The GAP provides free HPV vaccine to organizations and institutions in lowest income countries. The HPV vaccination programs were entirely developed, implemented and managed by local institutions. Institutions submitted application forms with institution characteristics, target population, communication delivery strategies. After completion of the vaccination campaign (3 doses), institutions provided a final project report with data on doses administered and vaccination models. Two indicators were calculated, the program vaccination coverage and adherence. Qualitative data were also collected and analyzed.

Results

A total of eight programs were implemented in seven countries. The eight programs initially targeted a total of 87,580 girls, of which 76,983 received the full 3-dose vaccine course, with mean program vaccination coverage of 87.8%; the mean adherence between the first and third doses of vaccine was 90.9%. Three programs used school-based delivery models, 2 used health facility-based models, and 3 used mixed models that included schools and health facilities. Models that included school-based vaccination were most effective at reaching girls aged 9–13 years. Mixed models comprising school and health facility-based vaccination had better overall performance compared with models using just one of the methods. Increased rates of program coverage and adherence were positively correlated with the number of vaccination sites. Qualitative key insights from the school models showed a high level of coordination and logistics to facilitate vaccination administration.

Conclusion

Mixed models that incorporate both schools and health facilities appear to be the most effective at delivering HPV vaccine. This study provides lessons for development of public health programs and policies as countries go forward in national decision-making for HPV vaccination.

Vaccination of Roma population in France: coverage and obstacles

Sophie Laurence

C Lazarus, S Laurence, N Drouot, JF Corty

Médecins du Monde, Direction des missions France, Paris, France

Contact: sophie.laurence@medecinsdumonde.net

Medecins du Monde (MdM) is working since 1992 with Roma settled in and around major cities. The objective of this study is to assess as accurately as possible immunization coverage for all vaccines required or recommended in France.

The study seeks also to identify the causes and factors of non-vaccination.

This cross-sectional study used questionnaires covering living conditions, access to health insurance, immunization status and reasons for non-vaccination. Univariate analysis was performed using appropriate parametric tests. For categorical variables, odds ratios are presented with their confidence intervals.

281 persons from the Roma community were interviewed from July 2010 to June 2011 on 3 fields (Nantes, Strasbourg and Bordeaux). The immunization coverage is generally satisfactory for the only vaccine mandatory, the DTP (84.3%; 95%CI = 76.0%-90.6%). But the coverage rates are much lower against measles, mumps and rubella (50.9%; 95%CI = 41.1%-60.7%), against Haemophilus Influenza B (48.1%; 95%CI = 38.4%-58.0%), against Tuberculosis (38.9%; 95%CI = 29.7%-48.7%), against Pneumococcus (12.6%; 95%CI = 6.6%-19.7%), against Meningococcus C (3.7%; 95%CI = 1.0%-9.2%) and against Hepatitis (Hép B: 43.5%; 95%CI = 34.0%-53.4%).

Children followed by the services of maternal and child protection or in school age are supposed to be more protected and consequently more vaccinated, though only 52.7% (95%CI = 42.0%-60.4%) of children in school age were vaccinated. Also, less than a third of children under 6 years (30.2%; 95%CI = 21.3%-40.4%) were actually followed by maternal and child protection. A majority of people has probably benefited from vaccination at some point, but the objective data is difficult to verify, or unavailable.

The main reason for non-vaccination remains the lack of information: they didn't know where to go for vaccination (43.8%; 95%CI = 33.3%-54.7%), they didn't know their status or if they needed booster vaccination (19.1%; 95%CI = 11.5% - 28.8%).

Given the low rates of immunization coverage and the barriers identified, it is needed to adapt the strategies for prevention and vaccination, in close partnership with the key public services concerned (maternal and child protection and vaccination centers).

Effectiveness and harms of seasonal and pandemic influenza vaccines in children, adults and elderly: a critical review and re-analysis of 15 meta-analyses

Lamberto Manzoli

L. Manzoli¹, JPA Ioannidis², ME Flacco¹, C De Vito³, P Villari³

¹University of Chieti, Italy

²Stanford University School of Medicine, Stanford, USA

³Sapienza University of Rome, Italy

Contact: lmanzoli@post.harvard.edu

Background

Up to 2011, 15 meta-analyses have been published evaluating the efficacy/effectiveness and harms of diverse influenza vaccines-seasonal, H5N1 and 2009(H1N1)-in various age-classes (healthy children, adults or elderly). These meta-analyses have often adopted different analyses and study selection criteria. Because it is difficult to have a clear picture of vaccine benefits and harms examining single systematic reviews, we compiled the main findings and evaluated which could be the most reasonable explanations for some differences in findings (or their interpretation) across previously published meta-analyses.

Methods

For each age group, we performed analyses that included all trials that had been included in at least one relevant meta-analysis, also exploring whether effect sizes changed over time.

Results

Although we identified several discrepancies among the meta-analyses on seasonal vaccines for children and elderly, overall most seasonal influenza vaccines showed statistically significant efficacy/effectiveness, which was acceptable or high for laboratory-confirmed cases and of modest magnitude for clinically-confirmed cases. In children aged < 2 years, the

available evidence on parenteral inactivated vaccines remains scarce, but several studies reported positive results for live-attenuated vaccines. Efficacy was consistently modest for adults, and did not seem to relevantly change over time, except for the elderly. Some outcomes have results that seem incongruent when juxtaposed, e.g. the huge impact on all-cause mortality in the elderly as opposed to far more modest effects against influenza cases. Pre-pandemic H5N1 and pandemic 2009(H1N1) vaccines can achieve satisfactory immunogenicity, but no meta-analysis addressed vaccination impact on clinical outcomes. Data on harms are reassuring, but their value is diminished by inconsistent reporting.

Conclusions

A new generation of more highly effective seasonal vaccines is certainly advisable. There is still a unmet need for adequately powered publicly-funded RCTs on both young children and elderly. However, the use of influenza vaccines is recommended worldwide, and this makes the conduct of pragmatic RCTs with hard clinical outcomes difficult. Ethics committees should acknowledge such need.

Impact of missed opportunities on Up To Date immunization coverage in South Backa County (Serbia) in children born from 2001 -2005

Vladimir Petrovic

V Petrović, Z Seguljev

Institute of Public Health of Vojvodina, Center for Disease Control and Prevention, Novi Sad, Serbia

Contact: vladimir.petrovic@izjzv.org.rs

Background

Timely immunization with primary series of vaccines is crucial to reduce the risk of vaccine preventable diseases and only officially recognized medical contraindications represent true reasons for skipping over immunization. Goal of the study was to evaluate impact of missed opportunities on Up To Date (UTD) immunization coverage with combination series 3:3 (three doses of vaccines against diphtheria, tetanus and pertussis and three doses of vaccines against polio) by 6 months of age.

Method

In the period from January 1, 2001 to December 31, 2005, total of 26 719 children were born in and had residency in South Bačka County. Systematic sample (representative) comprised 2226 (8,3%) of the target population. Modified (migrants excluded) birth certificates follow back method was used to obtain necessary data. Drop-out rate of 7,5% comprised 168 originally selected participants: 17 died, 75 moved away and 76 parents refused to give written consent. By the end of the study immunization records of 2058 participants (7,7% of the target population) were checked and provider validated.

Results

Total of 1237 (60,1%) (95%CI:58,0%-62,2%) children were covered with combination series 3:3 by 6 months of age, while 728 (35,4%) (95%CI:33,3%-37,5%) remained incompletely immunized and 93 (4,5%) (95%CI:3,6%-5,4%) were unimmunized. True medical contraindications were reasons of underimmunization in 257 children and as a result of missed opportunities 564 children remained underimmunized, reducing the UTD immunization coverage for 12,5% and 27,4%, respectively. Dominant reason of underimmunization among missed opportunities were false medical contraindications for 351 children, reducing the coverage for 19,0%. Dominant false medical contraindications in underimmunized children were mild upper respiratory infections and chronic illness registered in 141 (40,6%) and 38 (10,9%) children, respectively.

Conclusions

Effective protection of children and safe level of community immunity against vaccine preventable diseases is not reached by 6 months of age predominantly because of missed opportunities. Introduction of electronic immunization registry accompanied with further research on immunization status assessment and education of physicians is needed.

Friday 9 November, 13.00–14.30

A.4. Workshop: Theory guided health promotion intervention: Examples and critical assessment

Chairs: Christiane Stock, Germany and Thomas Abel, Switzerland

Organiser: EUPHA section on health promotion

It is widely accepted that the use of theory is important in evidence-informed health promotion in order to focus interventions on the most relevant factors to achieve change. Several intervention planning frameworks take this into account. Intervention Mapping as a planning approach developed by Kay Bartholomew and others puts a special emphasis on the importance of developing theory and evidence informed programmes. This workshop will provide insight into the importance of theory in health promotion and into the Intervention Mapping framework in an introductory presentation by the chair persons. Three different presentations will follow as examples for theory-guided interventions using the Intervention Mapping framework. The first presentation from Rick Prins, The Netherlands, uses tailoring and components of socio-ecological models to improve physical activity among adolescents. The next presentation from Holger Hassel, Germany, builds on a multi-level framework on individual level, workplace and community level to improve nutrition and physical activity of children and quality of life of pre-school staff. The final presentation from Lea Maes, Belgium, presents results from a school-based intervention trial to improve nutrition and physical activity using social capital as theoretical approach. The presentations will be followed by a discussion with the audience and will have a focus on potential conflicts between theory and evidence.

Theory and evidence based development does not always result in effective interventions: The case of YouRAction, an intervention to promote physical activity among adolescents

Rick Prins

RG Prins, J Brug, A Oenema

Department of Public Health, Erasmus MC, Rotterdam, The Netherlands

Background

Increasing physical activity (PA) among adolescents is an important health promotion goal. PA has numerous positive health effects, but the majority of Dutch adolescents do not meet PA guidelines. This study describes effects of a theory-based computer-tailored intervention which targets individual and environmental factors determining PA among adolescents on moderate-to-vigorous PA (MVPA).

Methods

The intervention development was guided by the Intervention Mapping protocol, to ensure a theory- and evidence based intervention. Two versions of the intervention were developed: one that targets individual determinants, such as attitude and self-efficacy (YouRAction) and an extended version that also provides feedback on opportunities to be active in the neighbourhood (YouRAction+e). Both versions aimed to increase levels of MVPA among adolescents. The effects of the interventions were studied in a three-armed cluster randomized trial with measurements at baseline, one and six months post intervention. School classes were assigned to one of the study arms (YouRAction, YouRAction+e and Generic Information (GI) control group). MVPA was derived from self-reports at all time points. Use of the interventions was measured by webserver logs and appreciation by self-reports.

Multilevel regression analyses were conducted to study the effects of the intervention against the GI control group. ANOVA's and chi-square tests were used to describe differences in use and appreciation between study arms.

Results

There were no statistically significant intervention effects on compliance with the MVPA guideline or minutes spend in MVPA. Access to the full intervention was significantly lower for YouRAction (24.0%) and YouRAction+e (21.7%) compared to the GI (54.4%).

Conclusion

This study could not demonstrate that the YouRAction(+e) interventions were effective in promoting MVPA among adolescents, compared to generic information. Insufficient use and exposure to the intervention content may be an explanation for the lack of effects.

Growing up healthy! A participatory health promotion programme for kindergartens

Holger Hassel

H Hassel, M Axt-Gadermann, B Schmidt, B Thumann

University of Applied Sciences, Coburg, Germany

Background

“Growing up healthy in kindergartens (Gi-Kitas)” is a study carried out in collaboration with the rural district Coburg in eight kindergartens. Three health promotion strategies are integrated in the study: workplace health promotion, health education and community-based intervention. Gi-Kitas aim to improve the nutrition and physical activity of children and the quality of life of the nursery nurses with special attention to the conditions in the community.

Methods

Intervention Mapping was applied in a modified form and the intervention development was informed by (1) literature on changeable determinants and effective interventions of growing up healthy (2). By means of focus group discussions the expectations of nursery nurses and parents were analysed. Additionally local barriers and difficulties were identified in a participatory way. Gi-Kitas is evaluated through interviews with the head of each kindergarten before and after the intervention phase of 12 months. Nursery nurses and parents are asked to fill out a questionnaire. Furthermore, the quality of the second breakfast of the children is assessed two times. The acceptance and outcomes of the intervention are measured by seven criteria. At baseline 62 nursery nurses (97%) and 127 parents (56% of the sample) filled out the questionnaire. The second breakfast of 171 children (74% of the sample) was assessed.

Results

The development of the Gi-Kitas intervention resulted in a standardized intervention framework with seven different modules focusing on nutrition and physical activity of children, parental involvement, teamwork and the living conditions in the community. The intervention focused on environmental and personal factors in the family, kindergarten and community setting. The evaluation at baseline showed that the kindergartens have already implemented different kinds of activities. However, in all kindergartens there is scope for improvement, especially regarding health promotion for nursery nurses and parental involvement.

Conclusions

The intervention development needs to be done systematically. The Intervention Mapping protocol is a useful tool for the structural planning and development of the health promotion programme. In order to create a sustainable health promoting atmosphere in kindergartens, a close collaboration between nursery nurses, parents and the community is necessary. The Gi-Kitas intervention supports kindergartens in their pre-existing efforts.

Does context matter? Effects of a 2-year healthy eating and physical activity intervention for 3 to 6 year olds in high and low SES communities: The POP-project

Lea Maes

L. Maes, V. De Coen, C. Vereecken, V. Verbestel, I. Huybrechts, I. De Bourdeaudhuij

Department of Public Health, Ghent University, Ghent, Belgium

Background

The purpose of the present study was to evaluate the effects of a school-based 2-year multicomponent intervention on BMI, eating and physical activity behaviour in Flanders, Belgium targeting children aged 3 to 6 years in high and low SES communities. The intervention consisted of changes in school policy, implementation of classroom activities and had an emphasis on the involvement of the parents. The support of community agencies for the intervention messages was sought for.

Methods

The study used the Intervention Mapping framework. Elements of psycho-social theories underpinned the activities

and materials of the intervention. Community capacity was considered as a possible moderator for intervention effects. Intervention effects were measured with a cluster randomised controlled trial. Thirty-one pre-primary and primary schools in three different intervention and three paired matched (on SES profile) control communities in Flanders, Belgium were included. BMI z-scores at baseline and follow-up were calculated for 1102 children. Questionnaires with socio-demographic data and food-frequency questionnaires were available from 694 of these 1102 children.

Results

No significant effects were found on BMI z-scores for the total sample. However, there was a significant decrease of the BMI z-score of $\hat{\mu}=0.11$ in the low SES intervention community compared with the control low SES community, where the BMI z-score increased 0.04 ($F=6.26$, $p=0.01$). No significant intervention effects could be found on eating behaviour or on physical activity or screen-time. There were no significant interaction effects of age and gender of the children on the outcome variables.

Conclusion

Although no significant effects were found on BMI z-scores for the total sample, this intervention had a promising effect in the low-SES community reducing excess weight gain among young children. Community capacity and health promotion policies in the communities should be further explored as possible moderators of intervention effects of school based interventions.

B.4. Workshop: Well being: an outcome measure for Public Health and Public Mental Health

Chairs: Jutta Lindert, Germany and Claudia Stein, WHO/Europe

“Wellbeing” is an emerging concept in Public Health and in policy development. Well-being overlaps with concepts of “self-satisfaction” and “quality of life. The realms of human development, environmental sustainability, mental health in society and socio-economic progress have all incorporated measures of well-being to some extent already. However, “Well-being” has been defined in a variety of ways and has been measured with a wide variety of generic and specific instruments. To be a reliable policy target well being needs to be measured with a validated assessment instrument in a validated assessment mode for a variety of population groups. First, we will present in the round table workshop an 1) overview of existing measures in the field of well-being, 2) identify domains of well-being identified in the available measures, 3) discuss advantages and disadvantages of these measures, and 4) present and discuss psychometric properties of available instruments. Second we will present data from the OECD which covers 11 domains of wellbeing. Third, we will propose a pilot conceptual model for well-being for further discussion. The workshop is a round table involving key stakeholders in the development of measuring well-being.

Well being: a systematic review on available measures

J. Lindert^{1,2}, P. Bain³, A. Nigsch³, C. Stein³

¹Protestant University of Ludwigsburg, Ludwigsburg, Germany; Harvard School of Public Health, Boston, USA

²Harvard School of Public Health, Boston, USA

³World Health Organization, Copenhagen, Denmark

Background

Well being is a new concept of health outcome which needs careful measurement. We aimed to systematically assess studies using well being as outcome measure.

Methods

We reviewed studies from a variety of disciplines (e.g. epidemiology, Public Health, medicine, psychology, economics). We performed a systematic search of the four electronic databases: PUBMED, PSYCHINFO, EMBASE, ECOLIT. Data were extracted after consideration of inclusion and exclusion criteria, and then compiled into summary tables. To assess domains we conducted a narrative review.

Results

The search yielded 9865 eligible studies (only PUBMED). The paper on measures of well being were carefully investigated. Measures differ in their domains of wellbeing, target groups (e.g. children, adults, older persons, persons with disabilities) and psychometric properties. Measures are compared according to their domains, target groups and psychometric properties.

Outlook

It might be necessary to carefully consider the variability of measures and to pilot a measure which might be valid and reliable in as many countries as possible. A common measure and guidelines on assessment procedures are highly needed. This common measure may promote public discourse about what matters for well-being and health and provide a new Public Health approach for investigating the health of populations, including of populations living with chronic diseases.

Presentation 2

C Exton, R Boarini

Organisation for Economic Development, Paris, France

Background

Good evidence plays a vital role in good policy-making. This presentation will consider how better defining and measuring well-being can add value in the policy-making process. It will explore how we can best communicate findings, and discuss what might change as a result of providing policy makers with better evidence on well-being. Methods: The OECD's overall framework for measuring well-being covers 11 different life domains, including health status, work and life balance, social connections, civic engagement and governance, environmental quality, personal security, subjective well-being, and material living conditions. We have developed a set of comparable and comprehensive indicators across a range of around 40 different countries, and data includes both objective and subjective measures drawn from both official and non-official statistical sources.

Results

There are a variety of ways in which empirical data on both objective and subjective well-being measures can be analyzed and communicated to inform the policy-making process. These include: Monitoring progress over time, to identify if changes in society are having a positive or negative impact on well-being; identifying inequalities in well-being within societies; international bench-marking.

Conclusion

The concept of "well-being" can add significant value by offering a common framework for analysis that can encourage a more joined-up approach to policy-making, and consideration of a wide range of outcomes. However, communicating the overall picture from a large set of diverse indicators can be challenging, and novel techniques may be required to support data users.

Presentation 3C Stein¹, R Sadana²¹Division of Information, Evidence, Research and Innovation, World Health Organization Regional Office for Europe, Copenhagen, Denmark²World Health Organization, Geneva, Switzerland**Background**

The European Region is adopting a new public health policy *Health 2020* to improve the health and well-being of European populations. Using the best available evidence, its implementation across the countries of the Region should reflect this purpose, and gain this end result. The question is whether, and how, targets can assist this purpose. Targets are not an end in themselves they are a means to an end, which is to motivate and inspire the implementation of *Health 2020*. All the targets should aim to promote health and well-being, by setting realistic goals and monitoring progress towards those goals as the policy is implemented.

Methods

Through an extensive process of consultation overarching targets have been established in the three areas of *Health 2020*: 1) Reducing the burden of disease and risk factors, 2) enhancing health and well-being and 3) improving governance and systems for health. In order to best inform this effort, the WHO Regional Office for Europe has embarked on an initiative for the measurement and target setting for well-being in Europe through an international expert group. This group advises on the definition, concept and measurement of well-being. It is anticipated that European targets for well-being will be available by 2013; this is being described in the presentation.

Conclusions

Historically in the European region targets were first suggested as part of the first common health policy: the European strategy for attaining health for all. Aptly described as a "wonderful blend of today's realities and tomorrow's dreams", 38 specific regional targets were adopted at the 34th session of the Regional Committee in Copenhagen in September 1984. Since then, targets have been very successful in raising awareness and facilitating political and organizational support – the Millennium Development Goals are a good example. As 'healthy citizens' are at the centre of *Health 2020* and well-being is at the centre of WHO's definition for health, targets in the area of well-being will be essential for the successful implementation and monitoring of the *Health 2020* policy.

C.4. TOBACCO AND ALCOHOL

Youth exposure to television alcohol advertising in the UK and The Netherlands in 2011

Eleanor Winpenny

S Patil¹, MN Elliott², E Winpenny¹, C Rohr¹, E Nolte¹¹RAND Europe, Cambridge, United Kingdom²RAND Corporation, Santa Monica, US

Contact: winpenny@rand.org

Background

There is increasing evidence that youth exposure to alcohol marketing is a risk factor for underage drinking. Much of the research to date around alcohol advertising and young people has focussed on assessing its content while our understanding of the actual levels of exposure remains inadequate. This study aims to contribute to filling this gap by analysing youth exposure to television alcohol advertising in the UK and The Netherlands.

Methods

We obtained data for each country on viewership and on alcohol advertising for the ten television channels with the highest number of viewers, for December 2010 to May 2011. We first analysed viewership and alcohol advertising patterns by age, across months, dayparts and television channels, for each country. We then carried out regression analyses to assess whether younger people in the audience are more likely to be exposed to alcohol advertising compared to adults.

Results

Viewership and alcohol advertising volume varied substantially across channels, months and dayparts in both countries. We find that, in the UK, children and adolescents aged 10–15 years were significantly more likely to be exposed to alcohol adverts compared to adults aged 25 and over (Incidence rate ratio (IRR)=1.09, 95% CI=1.02–1.17, $p=0.01$). Those aged 16 to 24 years also showed a significant but smaller overexposure (IRR=1.02, 95% CI=1.01–1.04, $p<0.01$) whereas children aged 4–9 were underexposed compared to adults (IRR=0.88, 95% CI=0.79–0.97, $p=0.01$). Similarly, in The Netherlands, those aged 13–19 were significantly more likely to be exposed to alcohol adverts compared to those aged 20 years and older (IRR=1.29, 95% CI=1.19–1.39, $p<0.01$) whereas children aged 6–12 were underexposed (IRR=0.69, 95% CI=0.62–0.77, $p<0.01$).

Conclusion

Our findings suggest that young people in the UK and The Netherlands have a disproportionately higher exposure to television alcohol advertising than would be expected from general viewership patterns. Our data suggest that alcohol advertising practices should be modified to limit exposure of underage viewers.

Binge drinking: a new challenge among the students in higher education

Marie-Pierre Tavoracci

MP Tavoracci¹, S Grigioni², L Richard², P Déchelotte², J Ladner¹

¹Department of Epidemiology and Public Health, INSERM U10 73,

Rouen University Hospital, France

²Department of nutrition, Rouen University Hospital, France

Contact: Marie-Pierre.Tavoracci@chu-rouen.fr

Background

Binge drinking (BD) and behavioural risk factors among students in higher education are unknown then the objectives was to identify the prevalence and the factors associated with the regular BD in this population.

Methods

French Students in higher education completed an anonymous online questionnaire on the website specifically dedicated to students: www.tasanteenunclic.org. The questionnaire included age, gender, the curricula, regular smoker (at least one cigarette per day), the regular alcohol or cannabis consumption (at least 10 times per month), alcohol misuse (ADOSPA test), the regular drunkenness (10 times of acute drunkenness per year), tendency to cyber-addiction (Orman test). The level of perceived stress was measured by the score of Cohen (on 40). The regular BD was determined as a consumption of five or most alcoholic drinks on one occasion at least once a week

Results

A total of 1,873 students were included. The mean age was 20.8 years (standard deviation [SD] = 2,1), the sex ratio M:F = 0.51. The mean perceived stress score was 17.9 (SD 7.2) and 27.5% of the students have a risk to cyber-addiction. Tobacco was the most common regular substance used (23.2%), followed by alcohol (20.1%) and cannabis (3.7%). Regarding high risk alcohol consumption, 32.5% of the study population misused alcohol according to the ADOSPA questionnaire, 18.7% of students experienced frequent drunkenness, and the prevalence of BD was about 16.3%. After logistic regression, the BD was significantly associated with the male sex ORa = 3,1 95%CI [2,2–4,3], with the regular alcohol consumption ORa = 6,9 95%CI [4,7–10,2], with an alcohol misuse ORa = 2,7 95%CI [1,9–3,8] regular drunkenness ORa = 9,4 IC95[6,5–13,5], regular smoker ORa = 1,7 95% CI [1,1–2,5] and with the regular consumption of cannabis ORa = 3,6 95%CI [1,8–7,0]. The stress, the tendency to cyber-addiction and the curricula were not significantly associated with the regular binge drinking.

Conclusion

Regular BD is frequent among students, especially male students, in higher education. BD is not isolated behaviour and is associated not only with regular alcohol consumption but also alcohol misuse. In addition, it is also linked to other associated behavioural risk factors such as tobacco and cannabis.

Impact of Tobacco Control Law in Turkey

Hilal Ozcebe

H Ozcebe, N Bilir

Hacettepe University Faculty of Medicine Dept of Public Health Ankara Turkey

Contact: hilalozcebe@gmail.com

Tobacco control law came into force for the first time in 1996, and amended in 2008, made Turkey complete smoke-free country. Impacts of tobacco control law can be evaluated in various areas;

Improve in indoor air quality

The measurements of air quality were conducted before and after the two stage of implementation of the law. PM2.5 levels were measured at the various indoor places such as public offices, restaurants-bars, shops, etc. and up to 90% reductions in PM2.5 values were detected.

Health benefits

The acute health effects of tobacco control strategies were measured by the emergency admission. The study conducted

in the capital of Turkey showed that the percentages of emergency admissions were reduced due to cardiac and respiratory health problems among all admissions after the implementation of the law, particularly among the males (20% and 30% respectively).

Reduced symptoms among hospitality employees

Workers at the restaurants, bars and coffee-houses declared fewer symptoms after the implementation of the law, such as watery eyes, cough, respiratory problems, stuffy nose etc. The carbon monoxide and cotinine levels of the workers were also decreased significantly, especially among the non smoker workers.

Reduction in tobacco sales

Tobacco control strategies provided to decrease the prevalence of smoking in the long term, but the rate of tobacco sales was accepted as a trace of decreasing tobacco prevalence. Tobacco (cigarette) sales showed an increasing trend until the year 2000. Tobacco sales in 2000 was 117.7 billion stick, but it was decreased 93.5 billion stick in 2010 and 91.2 in 2011. The number of cigarette stick sales in 2010 dropped below 100 billion for the first time. Tobacco sales reduced by 22.6% and per capita consumption reduced by 25.9% between 2000 and 2011.

Economic benefits

During the last two years 800 million packs less cigarettes were sold/bought, and more than 5 billion TRL (3 b. USD) were saved.

Conclusions

Turkey had great achievements on tobacco control particularly during the last years. The positive impacts were seen in many areas. But, the evaluation should be continued in the different areas.

Public support for price increases on alcohol and tobacco in the former Soviet Union

Bayard Roberts

B Roberts¹, A Stickley², A Murphy¹, K Kizilova³, D Rotman⁴, C Haerper⁵, M McKee¹

¹Faculty of Public Health and Policy, London School of Hygiene and Tropical Medicine

²Stockholm Centre on Health of Societies in Transition (SCOHST),

Södertörn University, Department of Global Health Policy, Graduate School of Medicine, University of Tokyo

³East-Ukrainian Foundation for Social Research, Kharkiv National University, Ukraine

⁴The Centre for Sociological and Political Research, Belarussian State University, Belarus

⁵Department of Politics and International Relations, University of Aberdeen, United Kingdom

Contact: bayard.roberts@lshtm.ac.uk

Background

Populations in the countries of the former Soviet Union (fSU) are among the highest consumers of alcohol and tobacco in the world (particularly men), with alcohol and tobacco leading causes of the burden of disease in the region. Price increases on alcohol and tobacco are key components in controlling their consumption. However, little information exists on public support for alcohol and tobacco price increases in the fSU. Such information is useful in guiding policy responses on price increases. The aim of our study was to measure levels of public support for price increases on alcohol and tobacco in 9 fSU countries and to examine the characteristics influencing such support.

Methods

Standardised cross-sectional surveys were conducted in 2010 with 18000 respondents aged 18+ in Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia, and Ukraine. Respondents were asked a range of questions on their support for price increases on alcohol (beer and spirits) and tobacco (all types), along with questions on knowledge of their health effects as well as respondent demographic and socio-economic characteristics. Multivariate logistic regression

analysis was used to examine characteristics associated with support for tobacco and alcohol price increases.

Results

Support for price increases on beer varied from 8% in Georgia and Armenia to around 30% in Kyrgyzstan, Azerbaijan and Russia, and support for price increases on spirits ranged from 11% in Armenia to around 40% in Kyrgyzstan and Moldova. Support for price increases on tobacco varied from 38% in Georgia to around 70% in Belarus and Moldova. Common characteristics associated with supporting price increases on alcohol and tobacco included higher levels of education, good household situation, being a former or never smoker, low alcohol consumption, and knowledge on the harmful health effects of tobacco and alcohol use.

Conclusions

This study provides evidence of public support for alcohol and particularly tobacco price increases in the study countries. Policy makers seeking to tackle harmful drinking and tobacco use through price mechanisms may have more support than they realise and should seek to develop and capitalise on such support.

Reduced Secondhand Smoke Exposure in Homes, Armenia, 2010

Arusyak Harutyunyan

A Harutyunyan, NK Movsisyan, V Petrosyan, D Petrosyan

Center for Health Services Research and Development, American University of Armenia, Yerevan, Armenia

Contact: aharutyunyan@aua.am

Background

Majority of households (82.2%) in Armenia had at least one smoker and about 70.0% had no smoking restrictions in their homes in 2007. This clinical trial aimed to develop and test a novel approach for educating non-smoking mothers and smoking family members on dangers of SHS and provide a feasible approach to promote smoke-free home policies in Yerevan, Armenia.

Methods

Households with 2–6 year-old children daily exposed to SHS at home were selected by multistage random sampling and randomized into intervention and control groups. The intervention included a counseling session, distribution of a tailored educational brochure, demonstration of home air pollution by SidePak-assisted measurement of particulate matter 2.5, and two follow-up counseling calls. The control group received only a brief educational leaflet. The research team used environmental measurements (airborne nicotine monitors), biomarkers (hair samples from children) and surveys (non-smoking mothers and smoking family members) to identify SHS exposure and explore knowledge about SHS health hazards at baseline and four months follow-up. The study used paired t-test and logistic regression for data analysis.

Results

250 households were enrolled and 224 completed the study. The mothers' survey suggested that the change in knowledge score was significantly higher in the intervention group compared to controls (1.8 vs. 0.7, $p < 0.05$). At baseline and follow-up the mothers' knowledge was higher than that of smokers from the same household ($p < 0.001$). More households from the intervention group compared to controls reported having restricted indoor smoking at follow-up (23.3% vs. 18.6%; OR = 1.3, $p = 0.34$) and decreased children's SHS exposure from daily to less than daily (20.0% vs. 12.2%; OR = 1.8, $p = 0.10$).

Conclusions

Educational programs that directly or indirectly (through non-smoking mothers) target household smokers' behavior change may be effective in educating family members about the health hazards of SHS, promoting smoking restrictions at homes and ultimately decreasing children's exposure to SHS. This

intervention model can be tested in other settings, such as primary health care pediatric offices, to educate and empower non-smoking mothers to reduce children's SHS exposure at homes.

Knowledge, attitude and behaviours on smoking among medical doctors specializing in Public health in Italy: results of a multicentre study

Rosella Saulle

G La Torre¹, R Saulle¹, A Boccia¹, F Angelillo², V Baldo³, M Bergomi⁴, P Cacciari⁵, S Castaldi⁶, G Del Corno⁷, F Di Stanislao⁸, E Franco⁹, P Gregorio¹⁰, C Grillo¹¹, P Grossi¹², F La Rosa¹³, N Nante¹⁴, M Pavia¹⁵, G Pelissero¹⁶, M Quarto¹⁷, G Ricciardi¹⁸

¹Department of Public Health and Infectious Diseases, "Sapienza" University of Rome, Italy

²Department of Public, Clinical and Preventive Medicine, University of Napoli (SUN), Italy

³Department of Environmental and Public Health, University of Padova, Italy

⁴Department of Science of Public Health, University of Modena e Reggio Emilia, Italy

⁵Department of Medicine and Public Health, University of Bologna, Italy

⁶Department of Public Health and Microbiology, Virology, University of Milano, Italy

⁷Department of Clinical Medicine and Prevention, University of Milano Bicocca, Italy

⁸Department of Biomedicine Science-Section of Hygiene, Preventive Medicine and Public Health, University of Ancona, Italy

⁹Department of Public Health, University of Tor Vergata, Rome, Italy

¹⁰Department of Clinical and Experimental Medicine, University of Ferrara, Italy

¹¹Department of Hygiene, Preventive Medicine and Public Health

"R. De Blasi", University of Messina, Italy

¹²Department of Clinical Medicine, University of Varese Insubria, Italy

¹³Department of Public Health University of Perugia, Italy

¹⁴Department of Physiopathology, Experimental Medicine and Public Health, University of Siena, Italy

¹⁵Department of Experimental and Clinical Medicine "Gaetano Salvatore" University of Catanzaro, Italy

¹⁶Department of Preventive Medicine-Section of Hygiene, University of Pavia, Italy

¹⁷Department of Biomedical Science and Human Oncology- Section of Hygiene, University of Bari, Italy

¹⁸Institute of Hygiene, University "Cattolica" of Rome, Italy

¹⁹Department of Public Health and Community Medicine, Section of Hygiene and Preventive Medicine, University of Verona, Italy

²⁰Department of Medicine and Aging Science, University "G. Annunzio" Chieti, Italy

²¹Department "G.F. Ingrassia" Hygiene and Public Health, University of Catania, Italy

²²Department of Public Health and Microbiology, University of Turin, Italy

²³Department of Science Preventive Medicine, Section of Hygiene, University "Federico II" of Napoli, Italy

²⁴Department of Health Promotion Science "G. D'Alessandro". University of Palermo, Italy

²⁵GHPSS Public Health Collaborative Group

Contact: rosella.saulle@uniroma1.it

Background

The World Health Organization, the U.S. Centers for Disease Control and Prevention, and the Canadian Public Health Association have developed the Global Health Professions Student Survey (GHPSS) questionnaire in order to collect data on tobacco use and cessation counselling among health profession students. The aims of this study were to examine smoking prevalence, knowledge, attitudes and behaviours among medical doctors specializing in Public health (MDSPH) in Italy, using the GHPSS approach.

Methods

A multicentre cross-sectional study was carried out in 24 Italian Schools of Public Health (n.456 MDSPH) from January to April 2012. Questionnaires were administered in anonymous, voluntary and self-administered via a special web-site, created ad hoc for the survey. The questionnaire was composed of 44 questions, distributed in 6 sections on: tobacco use prevalence, exposure to environmental tobacco smoke, attitudes, behaviour/cessation, curriculum/ training and demographic information.

Results

388 Italian MDSPH answered to the questionnaire on the web-site (85%). 247 (63.7%) were females and 247 (63.7%) were over 30 year old. 81 MDSPH (20.9%) declared to be smokers.

Regarding attitudes towards tobacco use, 309 (79,6%) considered health professionals as behavioural models for patients, and 375 (96,6%) thought health professionals have a role in giving advice or information about smoking cessation. 348 (89,7%) of responders had received smoking cessation training during their medical school years.

Conclusions

Healthcare professionals play a key role in the process of smoking cessation both as advisers and behavioural models for

the citizens, especially in their role in helping smokers who wish to quit. Given the high prevalence of smokers among MDSPH and the key role of these professionals as behavioural models, our results highlight the importance of focusing attention on smoking cessation training addressed to medical doctor specializing in Public Health.

D.4. Workshop: What health research do you want for Europe?

Chair: Walter Devillé, The Netherlands

Organiser: EUPHA Lead for Research

Public health research in Europe includes health determinants, health promotion and health services-operating at system and organisational levels. Health policy and practice should be evidence-based; and evidence is created through research. But how is research created? What systems exist, what are needed? Also, in a global field, there has been an emphasis on increasing research towards the MDGs.

This Workshop will explore the current position for health research in two 'northern' continents, and EU support towards the research in other global regions. The format will be panel presentations by the main speakers, invited interventions from the floor from representative organisations (including EPHA, EHMA, ASPHER, IEA) and opportunities for conference participants for lively questions and discussion on health research policy.

European public health research – time for change?

Barbara Kerstiëns

B Kerstiëns

Infectious Diseases and Public Health Unit, Directorate for Research and Innovation, European Commission

Climate change, an ageing population, rising costs of health and social care systems are some of the challenges Europe has to address to safeguard the health of its citizens. Incremental development, based solely on present knowledge, is not sufficient; new ideas and knowledge must be sought and implemented. The European Commission's proposed research agenda 'Horizon 2020' seeks to meet these new challenges, and represents a break from the past. It brings together all research and innovation funding on EU level into one single programme. In terms of health research, close collaboration between academia, industry, healthcare providers and regulatory agencies will be needed to meet the challenges. It inevitably leads to the question whether stronger links and synergies between national and EU research activities should be developed, and if so, how? Also, is there a need for a European strategic public health research agenda?

This presentation will offer a basis for a wider discussion on policies and programmes for research and innovation in public health. It focuses on what can be realistically achieved at EU level and, in connection thereto, how we should proceed.

Health research in Canada: actions and needs

Sarah Viehbeck

S Viehbeck, E Di Ruggiero, N Edwards

Institute for Public and Population Health, Canadian Institutes for Health Research, Ottawa, Canada

CIHR has 13 virtual institutes, networks of researchers collaborating across sectors, disciplines and regions, giving support from bio-medical and clinical research to research on health systems, health services, and health determinants. In the period 2007–2014, the Institute of Population and Public Health is supporting four broad research areas-equity, interventions, implementation, and methodologies. An international review in 2011 has proposed future-oriented health concerns such as climate change and chronic diseases in LMICs, and the need to demonstrate a return on research investment. Broader approaches require knowledge synthesis, data platforms, scientific capacity and strategic partnerships within and outside of the health sector. To raise funding allocations for health systems sciences relative other areas of investment, it is also critical to address the mix, mandates and reporting of peer review committees in open grants competition. In its coming programme from 2014, IPPH will seek to fund fewer but larger, more generalisable and scalable activities, with a focus particularly on interventions.

European support for global health research

Francisco Beccerra

F Beccerra¹, S Gerstl²

¹Council on Health Research for Development, Geneva, Switzerland

²Consultant, Epicentre, MSF-France

The European Commission's international health research programme call for 2012 was directed towards health systems research, seeking consortia of at least 8 partners. The maximum EU funding for proposals was up to €6 m over 5 years, and total EU budget was €18 m. Of 8 proposals reaching the second stage, the final selection was for three.

As a case-study, MASCOT, funded by EU's Health research call for 2011, addresses the health-related Millennium Development Goals through support for research on systems for maternal and child health. There are 11 partners from 3 geographical areas (Europe, Africa and Latin America). MASCOT will create North-South and South-South links, and provide evidence for policy advice and practice, map institutions and research teams, and detect research results, strategies, programs and policies.

The two-stage process continues to require considerable investment, with low absolute success. How can better comparative evidence for health systems research be generated? Should the research community develop a 'clearing house' or register on existing international collaborative research, so as better to define needs and strengthen the case for future funding?

E.4. Workshop: Social inequalities in health expectancy

Chairs: Henrik Brønnum-Hansen and Bernard Jeune, Denmark

Organiser: European Health & Life Expectancy Information System

The main aim of the Joint Action European Health and Life Expectancy Information System (JA:EHLEIS) is to promote the Structural Indicator Healthy Life Years (HLY).

Preceding the Joint Action the EHLEIS team has studied several summary measures of population health (SMPH) indicating the quality of the remaining years that a person is expected to live (i.e. free of chronic disease, free of disability and in good perceived health) in order to develop an indicator for systematically monitoring health trends and gaps among the European countries and to identify their determinants. An important issue is monitoring social inequality in life and health expectancy in Europe.

Monitoring the 'healthy life years' by socioeconomic status in Europe: how far are we from this undoubtedly relevant objective?

Emmanuelle Cambois

E Cambois¹, JM Robine², and the JA-EHLEIS team

¹The French National Institute for Demographic Studies, INED, Paris, France

²The French National Institute of Health and Medical Research, INSERM, Montpellier, France

The European structural 'healthy life years' (HLY) allows assessing the functional health of the population in the context of an increasing life expectancy. HLY is now routinely produced at the European level to monitor health trends and differential within Europe. Besides, there is a strong demand for completing the information and producing HLY by socioeconomic status (SES) to monitor social differentials within EU countries. Indeed, HLY by SES should allow further monitoring of health and mortality inequalities. While, the relevance of the declination of HLY by SES is clear, the calculation raise a number of methodological barriers; the major issues to deal with are the availability of the requested data and the robustness of the available data. Within the European Joint Action on HLY (JA-EHLEIS), we address this question within a dedicated work-package which explores the relevance and feasibility of a routine production of HLY by SES in Europe. In this presentation, we first give an overview of what is so far available at the national and European levels; second we illustrate what could be achieved based on the example of French calculations; and third we describe the methodological issues which will be discussed within the JA-EHLEIS to improve the feasibility of routinely produced HLY by SES in Europe.

Estimating social inequality in Healthy Life Years in Belgium

Herman Van Oyen

H Van Oyen, R Charafeddine

Public Health and Surveillance, Scientific Institute of Public Health, Brussels, Belgium

Background

The objective of the Europe 2020 flagship initiative of the European Innovation Partnership on active and healthy ageing is to add, by 2020, two healthy life years to the average healthy life span of European citizens. The estimation of the Healthy Life Years (HLY) indicator by socio-economic position (SES) in Belgium was based on census data. However, as after 2001 no census is planned anymore in Belgium, the objective of the presentation is to explore different possible methods as alternative to the census to be used in Belgium to estimate and update HLY by SES defined by educational attainment.

Methods

The estimations of HLY by SES need, next to disability information by SES, mortality rates by SES. Two methods are evaluated: (1) unlinked methods using mortality rates by SES generated from two different cross-sectional datasets; (2) linked method using linked record studies other than the census such as surveys. For the later method, we explored the utility of using the mortality follow-up of two surveys: the Health Interview Survey (HIS) which occurs every 5 years and the yearly Survey on Income and Living Conditions (SILC). Disability was defined by the Global Activity Limitation Indicator instrument (GALI): "For at least the last 6 months, have you been limited because of a health problem in activities people usually do?"

Results

The unlinked method is subject to the numerator-denominator bias in the mortality rate estimation inducing an overestimation of the life expectancy at age 20 by 15 to 20 years. The bias is differential by SES leading to an underestimation of the inequality. The second method explored suggests that mortality rates by SES estimated using the 3 years follow-up of survey participants were close to the rates observed in the census follow-up. Deviation due to participation selection is higher in the HIS. The HLY variances using HIS or SILC were comparable. The inequality in HLY among e.g. women at age 25 was 16 years in the HIS compared with 12 years in the SILC follow-up.

Conclusion

Because of the numerator-denominator bias, a monitoring of the inequalities in HLY based on the unlinked method is not appropriate. Estimates of HLY are not interchangeable between HIS and SILC. To monitor HLY by SES in Belgium, we recommend the use of the SILC as it is a yearly survey and is the survey used to monitor the HLY at the European level.

Disparities in health expectancies by level of education: the double disadvantage of lower socio-economic groups

Wilma Nusselder

W Nusselder¹, JW Bruggink², and the JA-EHLEIS team

¹Department of Public Health, Erasmus MC, Rotterdam, The Netherlands

²Statistic Netherlands, Heerlen, The Netherlands

Educational differences in health expectancy have been reported to be substantial and persistent. Prior research indicates that educational differences in health expectancy are larger than gaps in life expectancy, suggesting a double disadvantage of lower socio-economic groups. The aim of this study is to assess the contribution of both mortality and disability disadvantages at different ages to educational disparities in life expectancy without disability (DFLE) and with disability (LwD) in The Netherlands.

We used data on mortality by level of education, age and sex, derived by Statistics Netherlands based on individual linkage of information on educational attainment based on large Labor Force Surveys with information on vital status based on the municipal population registries for the period 2007–2010. Prevalence of disability (including mobility, hearing and seeing limitations) by level of education, age and sex was obtained from the health survey. Education was measured according to the highest completed level and was classified as 'elementary', 'lower secondary', 'upper secondary' and 'tertiary'. We used the Sullivan method to calculate DFLE and LwD and decomposition analysis was used to assess the contributions of mortality and disability and different age groups to educational differences in DFLE and LwD.

In 2007–2010 DFLE at age 0 for the men with elementary education was 63.5 years, i.e. 13.0 years lower as compared to men with tertiary education (DFLE of 76.5 years). For the lower and upper secondary educational groups the gaps were 9.4 and 4.2 years respectively. Decomposition analyses showed that the 13.0 years gap between men with only elementary education and men with tertiary education is a combination of both higher disability (7.7 yrs) and higher mortality (5.3 yrs) among men with only elementary education. The age groups 80+ contributed most to the mortality differences and the ages 45–64 years to the disability differences. At the workshop we will also present the results for the intermediate educational groups and for partial life expectancies between age 55 and 70, which play a core role in the discussion on the retirement age and for women. The presentation will also include a comparison with the period 1997–2000.

Health in Sweden and Social Disparities

Maria Danielsson

M Danielsson

The National Board of Health and Welfare, Stockholm, Sweden

Sweden is one of the most egalitarian countries in Europe and is also amongst the healthiest of comparative countries. In particular, men in Sweden have the best health in Europe when comparing healthy life expectancy (HLY) between countries.

Sweden does, however, have significant and growing social disparities in mortality. Since 1990 for example, life expectancy at age 30 rose nearly 5 years for women with a post-upper-secondary school education but increased only 2 years for women who completed only compulsory school education (9 school years).

Gender disparities in mortality, on the other hand, have shown a marked decline over the same period. Since the beginning of the 1980's, men's average life expectancy rose more rapidly than women's. Gender disparity has thus declined from 6 years at the end of the 1970's to 4 years in 2010.

Health conditions also differ between generations with the greatest improvement seen amongst the elderly in Sweden, including both mental and physical health. Among younger generations, especially youth, impaired mental well-being has become more common. Suicide attempts or other self-destructive behaviour has also risen significantly among 16–24 year old women and men.

Health inequality has several dimensions which HLY as the primary measure of health development may describe more sufficiently among certain groups than others, depending on what measurement is used for the health component in HLY.

Monitoring Healthy Life Years in the US: Challenges and Opportunities

Jennifer Madans

J Madans, M Molla

National Center for Health Statistics, Hyattsville Maryland, USA

The National Center for Health Statistics in the US supports ongoing data collections that provide information on life expectancy and on various measures of health. Several of these measures are used to monitor major governmental initiatives such as 'Healthy People'. These include years of life free of activity limitation, in good or better health or without chronic conditions. However there is great interest in developing improved measures of population health which are policy sensitive. There is also interest in being able to estimate and monitor disparities across key population subgroups defined by race/ethnicity and SES. Initiatives are currently underway both in the US and internationally to develop improved measure of health. These efforts focus on functioning as the key dimension of health. There also remain major challenges in monitoring disparities in healthy life expectancy given the constraints inherent in obtaining information from death certificates on SES but programs to link mortality data with survey data hold promise in meeting these challenges. In this presentation, we will provide a brief overview of the history of how healthy life years have been used in the US and will describe current activities to improve on these measures.

F.4. Workshop: Small countries living up to the challenges of implementing European Union health directives

Chairs: Helmut Brand, The Netherlands and Kenneth Grech, Malta

Organiser: Ministry of Health, the Elderly and Community Care, Malta

The European Union has taken a more central role in development of health policy over the past years. The accession of a number of small countries in 2004 has meant that more attention needs to be paid to the possible impact and challenges arising from the implementation of certain policies and directives in small countries. The workshop will discuss this issue through the analysis of health surveys, medicines policy and cross border care.

Running big health surveys in small countries

Neville Calleja

N Calleja¹, P Garthwaite²

¹Directorate of Health Information and Research, Gwardamangia, Malta

²Open University, Milton Keynes, United Kingdom

In addition to administrative sources and health registers, health surveys are a major source of information on the health of a country, especially at community level. However, the accuracy of survey results is largely determined by the sample size, or the number of people in the survey, rather than the proportion of the national population included in the sample. Hence, the cost per capita of a useful survey tends to be much

greater for small countries. This presentation briefly discusses international health survey methodology and focuses on the problems encountered by smaller states in their implementation. Health interview and examination surveys in Malta are taken as a typical example. The methods used to conduct these surveys and disseminate their results are described. Difficulties encountered include scanty survey infrastructure, difficulties in recruiting large samples as recommended by international organisations, survey fatigue, and lack of resources for marketing and analysis.

Low-cost solutions, in most cases exploiting specific characteristics of small states, have been devised to address some of these issues, such as marketing and incentives, which. The role of external entities in such surveys is also described.

Can small countries keep up in the cross border game?

Natasha Azzopardi Muscat

N Azzopardi-Muscat^{1,2,3}, M Dalmás², H Brand³

¹Department of Health Services Management, Faculty of Health Sciences, University of Malta

²Department of Health, Ministry for Health the Elderly and Community Care Malta

³Department of International Health, CAPHRI, Maastricht University, The Netherlands

As the deadline for implementation of the Directive on Patients Rights and Cross Border Care looms nearer Member States are in the process of understanding how best to set up the administrative structures and systems to implement this directive. Most of the attention is being given to criteria and mechanisms for approval and subsequent reimbursement of the costs of cross border care. It appears that most of the focus is on managing the clinical and financial impact of the increase in cross border patient movement.

There is another important aspect which has emanated from the cross border care directive, namely the development of networks of centres of reference. Studies on motives of patients who seek cross border care have clearly shown that one of the most important reasons for patients to seek care outside of their own country is associated with the perception of better quality of care. This is more marked in rare conditions where the care sought is of a highly specialised nature.

Evidence has shown that small countries experience a relatively larger outflow of patients seeking health care in another Member State. It is foreseen that the creation and explicit labelling of centres of reference will act as a pull factor attracting patients from other countries. Unless small countries take steps to support the development of centres of reference within their own institutions they are at risk of falling off the map in terms of European cross border health care activity.

Due consideration should be given to the use of special funds such as the Cohesion Funds to support the capacity building of centres of reference across all of the European Union including small EU Member States.

Ensuring affordability and access to medicines in small markets

Isabelle Zahra Pulis

I Zahra-Pulis, N Azzopardi-Muscat

Directorate for Pharmaceutical Affairs Ministry for Health the Elderly and Community Care Malta

In recent years increasing attention is being paid to the issue of access to medicines in small and peripheral countries of the European Union. Registration of medicines in the European Union is a complex highly regulated policy area with the objectives of ensuring quality, safety and efficacy. Access and

affordability have emerged as new important objectives requiring the appropriate policy instruments. Regulations such as abridged registration procedures have gone some way to ensure that important medicines are not withheld from small market in the European Union. Serious problems do yet remain and products such as Orphan Medicines present a challenge for small countries to sustain in their markets. A working group on access to medicines in small markets has come up with a number of proposals to redress the situation but these require engagement of the European pharmaceutical industry to be truly effective.

Challenges for health systems from the cross-border facilitation for a small country-view from Slovenia

Tit Albreht

T Albreht, RP Brinovec

National Institute of Public Health of Slovenia Ljubljana, Slovenia

With the coming into force of the Directive on the rights of patients in cross-border care in the European Union member states, there are many challenges for everyone involved, apart from the 'gains' of opened health markets, which had traditionally been promoted as the main benefit for the EU citizens.

From the point of view of the smaller member states, we can mostly state the following aspects:

1. The increased movement of smaller member state nationals to other, mostly bigger, member states
2. The former may or may not be preceded or followed by an increased movement of health professionals, mostly for career opportunities, but also for better salaries
3. Flexibility of health systems in smaller member states are lesser because they cannot adapt quickly enough to big swings in demand for certain types of services.

It is often seen that smaller EU member states should have a good position in the competition for health services among EU citizens. It is difficult to estimate at this stage if this can prove to be true. In any case, smaller EU member states will have to monitor developments on their own and EU health markets in order to try to adapt for major changes in the demand for health services.

G.4. HEALTH LITERACY

The cancer knowledge, attitudes and behaviors of the people aged 40 and over

H Mumcu¹, F Çetinkaya²

¹Public Health, Health Science Faculty, Trabzon, Turkey

²Public Health, Medicine Faculty, Kayseri, Turkey

Contact: hkumucu@yahoo.com

Background

In this present study, it was aimed to determine the knowledge, attitudes and behaviors of people who were not diagnosed with cancer in the city center of Trabzon Turkey.

Methods

In this cross-sectional study the research population consists of 102.600 people aged 40 and over aged group and the sample of the study consists of 1200 people. The participants were visited in their homes and the questionnaires were filled using face to face interview technique.

Results

The frequency of the participants who have family cancer history and who have lost their first degree relatives due to cancer is 33.0% and 28.5%, respectively. The most common cancer deaths were lung cancer (30.3%), stomach cancer (13.9%) and breast cancer (11.0%). The results show that 47.7% of the participants do not know the symptoms of cancer. Fatigue (14.2%), pain (9.1%) and weakness (6.2%) are most known cancer types. The participants express that

smoking (95.7%), radiation (89.4%), family history of cancer (83.0%), obesity (67.6%), inadequate physical activity (60.4%) and aging (44.4%) cause cancer. Some of the cancer perceptions of the participants are found as; "stress and sadness lead to cancer" (86.4%), "early diagnose of cancer is possible" (85.5%), "cancer can be treated" (82.1%), "cancer is inherited" (76.4%), "cancer occurs in the long term" (53.8%). 13.8% of the participants think that cancer is contagious. The frequency of those who think that cancer is a preventable disease is 72.5%. The relationship between the perception of cancer occurring in the long term and the perception of cancer inheritance and gender is found to be significant. For the early detection of cancer, 45.3%, 29.2%, 22.7%, 28.7% of the female participants indicated that they practice breast self examination, pap-smear, clinical breast examination and mammography, respectively. The frequency of the females aged 50 and over having mammography is 29.7%. 15.8% of the male participants have had specific antigen test.

Conclusions

The research findings show that the participants have misinformation and misperceptions about cancer and inadequate screening behaviors. There is a need to change this misinformation and current perceptions regarding cancer and inform the society about screening programs.

Finnish university students' awareness of age-related fertility

Suvi Nipuli

S Nipuli, E Hemminki, R Klemetti

National Institute for Health and Welfare, Helsinki, Finland

Contact: suvi.nipuli@thl.fi

Background

In Western countries postponing motherhood is common especially among highly educated women. In 2011 in Finland the average age at first birth was 28.4 years. Delayed childbearing can cause involuntary childlessness, smaller families than desired and medical risks for the mother and child. This study aims to assess Finnish university students' awareness of age-related fertility.

Methods

Data collection using a structured questionnaire was carried out in 2011. Survey participants were randomly selected university students from nine different universities in Finland, recruited at the time of their check-in for the autumn semester. Of the 2057 invited students, 67% ($n=1368$) participated. Gender and age were asked of participants and non-participants. Descriptive statistics and logistic regression (adjusted for age and gender) were used in analyzing the data. Students aged 35 or older ($n=76$) were excluded from these analyses.

Results

In total, 86% of female and 71% of male students knew that it is more difficult to become pregnant for a 35-year-old woman than for a 25-year-old. The critical period of decreasing female fertility with age (30–35 years) was known by 64% of female and 46% of male students. In each age group, female students' knowledge was higher than that of male students. The youngest age group (18–24 years) had the poorest knowledge. Of the students, 7.4% had a child or children or was pregnant at that moment. Only half of the childless students perceived that they had enough information about age-related female fertility. Mostly, the students reported having inadequate information about female age-related fertility. In adjusted analyses, the odds ratios (OR) for knowing about increased difficulties in becoming pregnant with age were higher among students with self-reported knowledge on age-related fertility (OR: 2.36; 95% CI: 1.74–3.22). The critical age of female fertility was also better known among these students (1.70; 1.35–2.14).

Conclusion

Students' awareness of age-related fertility was insufficient and differed by student's gender, age and information received. To empower future parents, fertility education should be offered to both female and male students.

Evaluation of the impact of a brief, HPV-focused educational intervention on Hungarian adolescents' knowledge, beliefs, attitudes and sexual behaviour

Erika Marek

E Marek^{1,4}, T Dergez², G Rebek-Nagy³, I Szilard⁴, Z Katz⁴, I Kiss¹, I Ember¹, P Gocze⁵

¹Department of Public Health Medicine, Medical Faculty, University of Pecs,

²Institute of Bioanalysis, Medical Faculty, University of Pecs, Pecs

³Department of Languages for Specific Purposes, Medical Faculty, University of Pecs, Pecs

⁴Chair of Clinical Infectology and Migration Health, Medical Faculty, University of Pecs, Pecs

⁵Department of Gynaecology and Obstetrics, Medical Faculty, University of Pecs, Pecs, Hungary

Contact: erika.marek@freemail.hu

Background

The alarming national data of cervical cancer incidence and mortality (nearly 1100 new cases and 500 deaths yearly) as well as the thoughtprovoking results of a Hungarian survey demonstrating adolescents' low level of understanding of Human papillomavirus (HPV) infection and HPV vaccination encouraged the authors to design and conduct an educational intervention.

Objectives

The aim of this survey was to explore the impact of a brief, school-based, HPV-focused program on adolescents' knowledge, beliefs, attitudes and sexual behaviour.

Study population and Methods

A self-administered anonymous questionnaire was completed by 394 male and female adolescents in Sept, 2010. Nearly half of the students (48.5%) had undergone a 45-min lesson. Three months following the education both groups were retested. Data were analysed using Statistical Package for the Social Sciences (SPSS).

Results

Following the education significant increase was detected in cervical cancer awareness: causal relation between HPV and cervical cancer (7.9%→22.1%, $p<0.05$) and perception of HPV vaccination (61.3%→85.9%, $p<0.05$). Similarly, enhancement was observed in health-related beliefs, such as 'HPV may cause cervical cancer' (64.9%→81.0%, $p<0.05$) or 'cervical cancer may be prevented by vaccination' (66.5%→85.3%, $p<0.05$). Also slight increase (10%) was detected in girls' intention to participate in gynaecological screening. On the other hand, no significant changes were detected in sexual behaviour. However, our data drew the attention that Hungarian adolescents have been practising extremely risky sexual behaviour recently. Nearly half of the sexually active adolescents had engaged themselves in 'one-night relationship' (41.1%) as well as had already intercourse without taking any safety measures (44.3%).

Conclusions

In addition to providing adolescents with clear, meaningful information about the implications of an HPV infection and addressing their fears of screening and vaccination, health education should focus on improving their safe sex behaviour by promoting the use of condoms and reducing the number of sexual partners to limit the spread of HPV and encouraging the participation in regular cervical screenings, thus reducing the incidence of cervical cancer.

Do antibiotics kill viruses? A cross-sectional study about preconceived ideas of patients in primary health care in Austria concerning antibiotics and their effects

Kathryn Hoffmann

K Hoffmann, D Stelzer, L Heschl, M Maier

Department of General Practice and Family Medicine, Center for Public Health, Medical University of Vienna, Vienna, Austria

Contact: kathryn.hoffmann@meduniwien.ac.at

Background

The special Eurobarometer 2010 report on antimicrobial resistance included a survey assessing how knowledgeable Europeans are about antibiotics and their effects. With 1.9 out of four correct answers Austria was together with Romania, Portugal and Hungary ranked at the end of the EU27-countries. Based on these alarming results it was the aim of this study to repeat such a survey for Austria including the analysis of demographic characteristics of patients and General Practitioners (GP) to assess possible predictors for the outcome.

Method

Within the context of the European APRES study an additional 12-item questionnaire was developed with six knowledge questions about antibiotics, five demographic data questions and one question asking for the source of information. The cross-sectional study lasted from November 2010 till July 2011 and took place in 20 GP offices all over Austria. Each GP tried to recruit 200 patients to complete the questionnaires. The knowledge variables were defined as dependent, the others as independent variables. Statistical analyses included descriptive statistics as well as statistical tests for subgroup analyses and regression models.

Results

Overall, 3278 questionnaires were completed. On average, 2.8 out of the six knowledge questions were answered correctly. People with primary education only answered in the mean 2.2 questions correctly; people who graduated from university had 3.8 right answers. Being a woman was associated with significant better knowledge regardless the level of education compared to the men. The question “do antibiotics kill viruses” answered 50.3% of the patients false. GPs were selected as the main source of information (56%) related to antibiotics, especially, from patients with a lower level of education.

Conclusion

The low knowledge shown in the Eurobarometer report could be confirmed. In general, being male with low education was significantly and negatively associated with knowledge about antibiotics. These results can support GPs which are an important source of health information to define specific target groups where more effort is needed to inform and empower patients.

Community health project: knowledge attitude and practices for healthy living and the prevention of chronic diseases

Marine Gambaryan and Lina Langer

MH Gambaryan, LH Langer

FSM.est – Association for Health and Sustainable Development Iasi, Romania

Contact: mgambar@mgnicpm.com

Chronic non-communicable diseases (NCD) are growing public health problem in most Eastern European countries. People still have limited access to preventive health services and the health system is mainly curatively oriented.

The Health Education Project is implemented by Romanian NGO-FSM.est in the framework of “Integrated Family and Community Health” Program in North East of Romania and the Republic of Moldova and aims to build up capacity of community members to maintain good health, to increase their knowledge about health promotion and prevention of common chronic diseases.

FSM.est is applying a multifaceted approach to health which includes initiating and supporting self-help and other Community Groups(CG), training health professionals to work with CG members and developing together Health modules for selected topics to address the most pressing health problems in the communes.

The results of the first Phase of this Project running from 2009–2011 were evaluated by means of baseline-end line survey to measure changes in knowledge of CG members involved in the project. 100 Community members from groups in Romania and 51 from groups in the Republic of Moldova had completed baseline-end line questionnaires on health topics with one year interval.

Results showed that participants had significantly increased knowledge in all topics- in “Healthy Heart”: from 14.3 to 74.4% ($p < .001$), “Respiratory health and Smoking and health”: from 18.9 to 72.1% ($p < .001$), “Diabetes”: from 12.9 to 73.4% ($p < .001$) which shows the success of group based HE trainings. In average, knowledge had increased by 78.4% ($p < .001$) in “Cancer prevention”, by 32% ($p < .01$) in “Women’s health” and by 39.5% in “Emotional health”. In topics “Alcohol and health” knowledge had improved from

31.5% to 82.5%, in “STI& HIV/AIDS prevention”- from 6.6 to 56.26% ($p < .001$).

The evaluation also showed: community group based HE Project was successful to build up sound competences for applying acquired Health knowledge in everyday life like healthier nutrition and using acquired skills and knowledge to communicate with others in community about healthy lifestyle, signs of diseases, detection/prevention methods. Community groups based HE may be largely implemented to contribute to prevention of NCD in communities.

Use of internet among pregnant women: a 2011 survey in a sample of women in Turin, Italy

Fabrizio Bert

F Bert¹, MR Gualano¹, G La Torre², R Siliquini¹, S Scoffone¹, F Mana¹, T Todros³

¹Department of Public Health, University of Torino, Italy

²Department of Public Health and Infectious Diseases, Sapienza University of Rome, Italy

³Department of Obstetrics and Gynaecology, University of Turin, Italy

Contact: fabrizio.bert@unito.it

Background

Nowadays the rapid expansion of the Internet for seeking health related information has been growing considerably worldwide, especially in women. To date, few studies analyzed the use of internet by pregnant women to seek information about their pregnancy. Our survey is part of a multi-center study which aims to assess the prevalence of Internet use for health-related purposes among pregnant women and the possible consequences of their web research.

Methods

An ad hoc questionnaire was realized and administered, in anonymous and voluntary way, to a sample of pregnant women in Turin, Italy. Women were asked to fill the questionnaire in the hospital’s waiting rooms of ultrasound scan or blood tests laboratories. Statistical analysis was performed using STATA MP 11, using descriptive statistics and chi square tests to find differences between categorical variables. Level of significance was set at $p \leq 0.05$.

Results

The survey included 248 pregnant women, aged from 20 to 46 years (mean age \pm SD: 33.9 ± 4.9). Of them, 81.5% were Italian. The prevalence of internet use was 93.9%, among these 87.9% for seeking information about pregnancy, without statistically significant differences by gestational age. The most common reason to use the web was the quickness of gathering information (63.7%). Most searched topics were the fetal development (51%) and the lifestyle during pregnancy (48.8%). Around 30% of women decided to change their lifestyle as a consequence of their web search, with statistically significant differences between Italian and foreign women (25.5% VS 48.6%, respectively; $p = 0.006$).

Conclusions

The high prevalence of pregnant women using the web to seek health information and consequently modify their health behaviors and relationships with their medical providers may suggest a strong public health impact in all European countries, and further studies and surveys investigating this hot topic in Europe are needed. Moreover, it would be necessary to plan and implement educational and prevention programs addressing this important issue.

H.4. Workshop: Implementation of HIA

Chairs: Gabriel Gulis, Denmark and Rainer Fehr, Germany

Organiser: EUPHA section on health impact assessment

Health impact assessment and health in all policies both are well developed on research level but implementation in routine

daily work is lagging behind. Both HIA and HiAP have a strong theoretical background in wider determinants of health and relatively well developed methodologies. The proposed workshop by bringing examples from four European countries will discuss relation of HIA and HiAP, guideline development,

and overall implementation both on local and national level and provide a solid base for discussion on how best to support implementation of HIA and HiAP.

Impact Assessment for the Health in All Policies process: an action research study in Dutch municipalities

Mieke Steenbakkers

M Steenbakkers¹, M Jansen², H Maarse³, N de Vries⁴

¹Regional Public Health Service (PHS) South Limburg, The Netherlands

²Health Service Research, CAPHRI, Maastricht University, The Netherlands

³Health Education and health promotion, CAPHRI, Maastricht University, The Netherlands

⁴Academic Collaborative Centre for Public Health Limburg, The Netherlands

The Dutch government encourages municipalities to develop 'Health in All Policies' (HiAP). The development of such a policy requires inter-sectoral collaboration, however municipalities show little initiative in this regard. Operating in an advisory role, the regional Public Health Service (PHS) has supported municipalities in South-Limburg in setting up inter-sectoral collaboration. A coaching program for municipal stakeholders was developed and implemented to improve HiAP, using obesity as an example.

To assess the impact of this coaching program, civil servants, managers and municipal councilors were invited to fill in an Internet questionnaire prior to and at the completion of the program. By means of a log-book all activities were registered in coached municipalities and in-depth interviews were held with municipal managers. Impact Assessments were scored depending on the stage of the HiAP process.

Six of the nine coached municipalities showed concrete impact of health proposals in non-health policy sectors. The results show that more support and involvement at each system level stimulates the development of HiAP. The program contributed positively to the implementation of HiAP interventions targeting obesity. The pretest results for coached municipalities were better compared to non-coached municipalities. However, after 30 months of coaching this positive starting position faded away. We recommend that the municipal management become more involved in the HiAP process, develop an instrument for an Impact Assessment, and advise the PHS to increasingly demonstrate their expertise. Here lies a challenge for municipalities and their regional PHS.

Development of guidelines for Health Impact Assessment in Italy

Francesco Di Stanislao

MR Gualano¹, F Di Stanislao², R Siliquini¹, E Draghi², S Fulvi¹, F Bert¹, and Study group 3

¹Department of Public Health, University of Torino, Italy

²Department of Biomedical Sciences, Section of Hygiene and Public Health, Polytechnic University of Marche Region, Ancona, Italy

Study group 3 Moirano F (Agenas), Bever F (Italian Health Minister), Scodotto S (Sicilia Region), Pizzuti R (Campania Region), Bux F (Puglia Region), Romano G (Calabria Region)

Issue/Problem

Health impact assessment (HIA) is a multidisciplinary method aimed at assessing the health effects of policies, plans and projects using quantitative, qualitative and participatory techniques. In many European Countries, like in Italy, there is a lack of implementation of HIA evaluation procedures and it would be necessary to develop instruments and protocols in order to improve the specific skills of professional involved in the evaluation process.

Description of the problem

The Italian National Agency for Regional Health Services (AGENAS) is carrying out a project of implementation of HIA methods, through the development of guidelines in some Southern Italian regions. Public health search engine and institutional websites were consulted to recollect international data existing in this field. Periodically focus groups are then organized with regional representatives in order to discuss the

scientific literature and to identify the guidelines' contents: source of data, stakeholders, screening and scoping phase checklist tools, priority areas, monitoring and reporting plans.

Results

Four regions (Calabria, Campania, Puglia, Sicilia) took part to the project. A total of 54 regional representatives participated to the monthly focus groups where, after brainstorming, 8 grids (1 for screening and 1 for scoping, for each region) were realized, for a total of 18 indicators identified for each list. Three tables with possible data sources, stakeholders to be engaged and population groups at higher risk to be affected by the proposal subject of HIA were elaborated.

Lessons

After the development of regional guidelines, 8 simulations of HIA evaluation for each region will be performed in order to validate their usability not only in the particular regional context but also their application in other European Countries where guidelines for HIA are not available. It would be recommended that HIA is considered a priority in the public health agenda, as a fundamental instrument in helping decision-makers to make choices about alternatives to prevent disease/injury and to actively promote health.

Evaluation of Implementation Models for Local Level Health Impact Assessment in Denmark

Henrik Noergaard

MW Fredsgaard¹, H Noergaard²

¹Unit for Health Promotion Research, University of Southern Denmark, Esbjerg, Denmark

²Horsens Healthy City, The Municipality of Horsens, Denmark

Issue/Problem

The incentive for integrating health in all policies in Danish municipalities came with the structural reform in 2007. Health impact assessment (HIA) became an interesting new discipline in Denmark to support a qualified use of knowledge on health effects in the development of policies, plans and projects across sectors. However, the experiences with HIA are scarce; Few HIAs have been conducted in Denmark and the efforts to implement HIA have decreased in the municipalities the last couple of years. The feasibility of conducting full HIAs on local level proposals on policies, plans and projects have been questioned due to the lack of ability to influence policy making on an early stage and the frustration on the lack of resources within the municipalities to conduct good quality HIAs, which are able to influence decision making.

Description of the problem

The need of capacity building and useful models for integrating HIA into the existing local political contexts in Denmark, lead to a three year project funded by the Danish Ministry of Health and Prevention lead by the Danish Healthy Cities Network on how to implement HIA in Danish municipalities and regions.

Results

A one-year pilot study was conducted as part of the overall HIA-project with the aim of developing and testing different models to implement HIA in Danish municipalities. The pilot process also included capacity building and expert consultation. Three models were developed in the Spring 2011 and tested in three municipalities in the Autumn 2011-Spring 2012, all members of the Healthy Cities Network.

A model to integrate HIA into the statutory environmental impact assessment of plans and programmes was tested in the Municipality of Viborg and the Municipality of Kolding. A model including a case by case assessment of the need for HIA on both plans and projects was tested in the Municipality of Fredericia. Finally, a systematic strategic sustainability assessment model was tested also by the Municipality of Kolding.

Lessons

The evaluation of the pilot study identified influential mechanisms and outcomes which provide knowledge for the

further support of the implementation of HIA as well as the development of a guideline and a strategy for implementing HIA in Danish municipalities.

Implementation of HIA in Latvia

Gabriel Gulis

G Gulis¹, M Soeberg¹, M Martuzzi², J Nowacki³

¹Unit for Health Promotion Research, University of Southern Denmark, Esbjerg, Denmark

²University of Otago, Wellington, New Zealand

³WHO European Centre for Environment and Health, Bonn, Germany

Latvia's new public health strategy gives priority to health in the policies of all sectors. Specifically organizations and institutions and other sectors should be jointly responsible for maintaining and improving public health by recognizing and addressing the broader economic, social, environmental, and cultural determinants of health in policy development. With support of WHO EURO a detailed interview process was conducted with administrative and expert based institutions in Latvia with aim to develop an implementation model for HIA in Latvia. The presentation will provide insight into the process and present the developed model.

I.4. Workshop: Integrated mental health care: needs and models

Chairs: Jutta Lindert, Germany and Pablo Nicaise, Belgium

Organiser: EUPHA section on Public Mental Health

As a result of the deinstitutionalisation of psychiatric services in Europe, fragmentation in mental health care delivery systems has become a public mental health issue in many countries in Europe. Fragmentation may contribute to inefficiency and ineffectiveness in healthcare delivery, and to health inequalities. There might be a lack of continuity and coordination in (mental) health and social care delivery, due to structural divisions, separate administrative and policy sectors, complex and diverse funding schemes, and distinct professional backgrounds. This affects people with chronic, multiple, and complex needs, such as chronic and severe mentally ill users, multi-morbid, and disabled. Such vulnerable users require integrated care of both a medical and social nature within a multidisciplinary integrated approach, covering a wide variety of physical, mental health, and social care interventions.

Integration of care can be achieved with the help of tools and interventions at different levels: the level of the user, e.g. case-management or individualised care planning, the level of the services, e.g. comprehensive community mental health centres, and the level of the whole system, e.g. referrals or managed care. Research has been investigating how to improve integration of care delivery for such vulnerable groups. However, on the one hand, there is a lack of consensus on how to define integration of care, how to measure it, and which data sources best capture the concepts measured. On the other hand, studies carried out on strategies for system integration (the Robert Wood Johnson Foundation programme, ACCESS, the Fort Bragg Experiment, Housing First...) failed to detect measurable effects at the level of the user.

How can we address the fragmentation issue in mental health care delivery, how can we measure it at the different levels, how research can assess and contribute to integrated mental health delivery policies, and how integrated mental health care affect user's outcomes?

Domestic violence in late life and health and social care needs

Jutta Lindert

J Lindert^{1,2}, H Barros³, M Stankunas⁴, F Torres-Gonzales⁵, E Ioannidi⁶, G Melchior⁷, JF Soares⁸, and the ABUEL research group

¹Department of Public Health Science, Protestant University of Ludwigsburg, Germany

²Department of medical Psychology and medical Sociology, University of Leipzig, Germany

³Department of Clinical Epidemiology, Predictive Medicine and Public Health, University of Porto Medical School, Porto, Portugal

⁴Department of Health Management, Kaunas University of Medicine, Lithuania

⁵Departmental Section of Psychiatry and Psychological Medicine, University of Granada, Spain

⁶Socio Economic Research Centre, National Institute of Health and Science on Aging (INRCA), Ancona, Italy

⁷Department of Sociology, National School of Public Health, Greece

⁸Department of Public Health Sciences, Mid Sweden University, Sundsvall, Sweden

Background

Domestic violence in late life is an increasing public health problem, however less is known about factors influencing use of health and social care among people aged 60–84 years. We aimed to 1) estimate the scope of domestic violence among persons aged 60–84 in 7 cities in 7 countries, 2) assess correlated factors of domestic violence; and to 3) investigate health care use among those exposed to domestic violence.

Methods

We conducted a cross-sectional community based study. To assess factors associated with health and social care use we conducted logistic regression analyses with respective 95% confidence intervals (CI).

Results

N=4467 older individuals completed interviews with about N=650 interviews per city. Mean response rate was 48.8%. Mean age of participants was 70 years; 42.7% (N=1908) of the sample were male. The overall abuse prevalence rate varied from 12.7% (95%CI: 10.2–15.6) in Italy to 30.8% (95% CI: 27.2–34.6) in Sweden. The reported most common single form of abuse was psychological abuse with 10.4% (95% CI: 8.1–13.0) in Italy and 29.7% (95%CI: 26.2–33.5) in Sweden. Domestic violence was related to utilization of health but not of social care institutions.

Discussion

Health and social care institutions caring for older people need an integrated approach to assessing and caring for older people. Institutions specialized for younger victims of domestic violence do not meet the needs of older people.

Factors associated with quality of services for marginalized groups with mental health problems in 14 European countries

Diogo Costa

D Costa¹, A Matanov², R Canavan³, E Gabor⁴, T Greacen⁵, P Vondráčková⁶, U Kluge⁷, P Nicaise⁸, J Moskalewicz⁹, JM Díaz-Olalla¹⁰, C Straßmayr¹¹, M Kikkert¹², JF Soares¹³, A Gaddini¹⁴, H Barros¹, S Priebe²

¹Department of Clinical Epidemiology, Predictive Medicine and Public Health, University of Porto Medical School, Porto, Portugal

²Unit for Social and Community Psychiatry, Queen Mary University of London, London, United Kingdom

³Health Promotion Research Centre, National University of Ireland, Galway, Ireland

⁴National Institute for Health Development, Budapest, Hungary

⁵Laboratoire de recherche, Etablissement public de santé Maison Blanche, Paris, France

⁶Department of Addictology First Faculty of Medicine, Charles University, Prague, Czech Republic

⁷Clinic for Psychiatry and Psychotherapy, Charité, University Medicine Berlin, Germany

⁸Institute of Health and Society (IRSS), Université catholique de Louvain, Bruxelles, Belgium

⁹Institute of Psychiatry and Neurology, Warsaw, Poland

¹⁰Madrid Salud, Madrid, Spain

¹¹Ludwig Boltzmann Institute for Social Psychiatry, Vienna, Austria

¹²Academic Medical Center, University of Amsterdam, The Netherlands

¹³Department of Public Health Sciences, Mid Sweden University, Sundsvall, Sweden

¹⁴Laziosanità ASP-Public Health Agency, Lazio Region, Rome, Italy

Background

The quality of mental health care delivery for socially marginalized groups can be influenced not only by service characteristics, but also by the socio-economic context of the respective countries (e.g. the Gross national product as proxy for economic activities). However, there is little research evidence on the impact of such contextual factors on providing mental health services to socially marginalized groups.

Objective

To assess the organisational quality of services providing mental health care for socially marginalized groups in 14 European capital cities and to explore the association between organisational quality and service and country-level characteristics.

Methods

617 services were identified and assessed in two highly deprived areas in 14 European capital cities. A Quality Index of Service Organisation was developed and implemented across all sites. Service and country level characteristics were tested as predictors of the Quality Index using linear regressions and random intercept linear models in a multi-level approach.

Results

The number of different programmes provided was the only service characteristic significantly correlated with the Quality Index ($p < 0.05$). Nearly 15% of the variance of the Quality Index was attributed to country-level variables, with national Gross Domestic Product (GDP) explaining 12% of this variance.

Conclusions

Socio-economic contextual factors, in particular the national GDP are likely to influence the organisational quality of services providing mental health care for marginalized groups. Such factors should be considered in international comparative studies. Their significance for different types of services should be explored in further research.

Integrated mental, social and medical care for people living with HIV/AIDS

Aleksandra Skonieczna

J Moskalewicz¹, M Welbel¹, T Mańkuszewski², A Skonieczna²

¹Institute of Psychiatry and Neurology, Warsaw, Poland

²Social AIDS Committee, Warsaw, Poland

Background

Integrated mental, social and medical care for people living with HIV is highly needed. We aimed to identify needs for care of people living with HIV/AIDS in relation to mental health and on barriers in their access to mental health care and support.

Methods

Cross sectional study in ten countries in Europe (BU, CZ, EST, HU, LV, LT, PL, RO, SL, SI) between February 2010 and May 2012: 'Mental and Social care for people living with HIV/AIDS' (MAIDS). Analysis of the current system of mental health care for people living with HIV/AIDS including legislation and policies, institutional analysis, assessment of needs, barriers, and relevant solutions in mental health care for people living with HIV/AIDS; Delphi Process with experts on assessment of needs, barriers, and relevant solutions in mental health care for people living with HIV/AIDS; assessment of perspectives for people living with HIV/AIDS and for health care staffs with focus group interviews; quantitative assessment and analysis of services related to mental health care in facilities providing care for people living with HIV/AIDS

(Centers for HIV counselling & testing; ARV therapy centres, and other organizations providing mental health care and support); description of structural and organisational issues of provided services, i.e. their accessibility, scope, financing etc., with an emphasis on provided mental health care.

Results

340 facilities were contacted of which 146 responded. Among them 105 facilities (72%) reported providing HIV testing, 110 (75%)-HIV pre-test counselling, 103 (71%)-HIV post-counselling. Around 50% reported having established procedures of referrals to mental health care: only for people with HIV-78 (53%) and for all patients and clients with emotional and psychological problems-70 (48%). Need for interdisciplinary treatment and diagnostic measures was analysed by content analysis. Additionally, establishing a system of training on mental health related topics for health care specialists and other professional staff involved in care for people living with HIV/AIDS together with a prevention policies, including mental health promotion, mental health support and care.

Conclusion

Regional spread of facilities for people living with HIV/AIDS is important for integrated care. Interdisciplinary centers are highly needed. Co-operation between organizations working in the area of care for people living with HIV/AIDS and those working in related fields is necessary.

Integration of care in mental health and social care delivery systems: Social Network Analysis comparisons across Europe

Pablo Nicaise

P Nicaise¹, V Dubois¹, A Matanov², S Tulloch², T Graecen³, C Straßmayr⁴, R Canavan⁵, AH Schene⁶, M Welbel⁷, S Priebe², V Lorant¹

¹Institute of Health and Society (IRSS), Université catholique de Louvain, Brussels, Belgium

²Unit for Social and Community Psychiatry, Queen Mary University, London, England

³Laboratoire de recherche, Etablissement Public de Santé Maison Blanche, Paris, France

⁴Ludwig Boltzmann Institute for Social Psychiatry, Vienna, Austria

⁵Health Promotion Research Centre, National University of Ireland, Galway, Ireland

⁶Academic Medical Center, University of Amsterdam, Amsterdam, The Netherlands

⁷Institute of Psychiatry and Neurology, Warsaw, Poland

Background

Socially marginalised people with mental health disorders have complex needs that require integrated care from different services. However, in many western countries, fragmentation in mental health and social care delivery systems is highly prevalent. European countries have implemented different organisational mechanisms at the service or at the system levels to address this issue. Due to the complexity and diversity of mental health and social care delivery systems, integration of care is challenging to describe and assess.

Method

Within a European research project on mental health in socially marginalised groups, data on referrals and service meetings were collected across mental health and social care services in 8 deprived areas of several European capitals in 2008–2009 (London, Brussels, Paris, Dublin, Vienna, Amsterdam, Warsaw). The relations declared between services were processed with Social Network Analysis (SNA) indicators on density of ties, centrality of services, and homophily, to assess three levels of integration of care: linkage, coordination, and full integration.

Results

In each area, the number of services selected ranged from 32 to 54. The levels of linkage between mental health and social care services were low (average degrees: from 3.36 (Paris) to 9.89 (London)). Services were more likely to develop relationships with similar services (homophily) across all areas. In some areas, the centrality of some services was high, e.g. general hospitals in Paris. General health and generic social care

services were more likely to take on brokerage roles between mental health and targeted social care services, although these services were not always mandated for coordination. There were very few fully integrated services, generally in peripheral positions.

Conclusions

SNA measurements offer an innovative method to assess the structure of relationships between health and social care services at the system level. Despite the diversity of health

delivery systems across European capitals, fragmentation in mental health and social care is an issue everywhere. The three levels of care integration, i.e. linkage, coordination, and full integration, should address different users' needs and policy operations. However, the study revealed gaps in the achievement of each of those levels. The results are particularly relevant for policy-makers to monitor and compare the implementation of care integration policies across Europe over time.

K.4. Workshop: Improving quality and safety for EU patients – EU legislation in the field of transfusion and transplantation

Chair: Raluca Siska Ioana, DG Health and Consumers and Dirk Meusel, EAHC

Acknowledging that transfusion and transplantation of human tissues, cells and organs are important and strongly expanding medical fields, which offer excellent opportunities for therapy, the European Union aimed for a harmonised regulatory approach across Europe. Since 2002, a comprehensive package of binding rules to increase safety and quality in the transfusion and transplantation systems of the EU Member States was gradually introduced (Directive 2002/98/EC for human blood and blood components; Directive 2004/23/EC for tissues and cells for human application, and Directive 2010/53/EU for human organs intended for transplantation). The three directives were accompanied by EU-funded projects under the Public Health Programme supporting both health professionals and the National Competent Authorities in their efforts to implement the legal requirements in these areas. This workshop will focus on public health aspects of transfusion and transplantation, such as organisation of transfusion and transplant systems, harmonisation among and mutual learning between Member States and regions, illegal and fraudulent activities, cross-border exchanges, and donor management.

Donor management in Europe – creating a safe and sufficient donor population in Europe by comparing and recommending good donor management practices – the DOMAINE project

Wim de Kort

W de Kort

Sanquin Blood Bank, Nijmegen, The Netherlands

With an aging population and advances in medical treatment requiring blood transfusions, the demand for blood continues to increase. However, the number of potential donors is decreasing, the process being amplified by the introduction of more stringent safety measures necessary to protect patients from emerging diseases. Furthermore, the free movement of European citizens influences availability of blood components and blood donors. Until recently, only limited guidance was available on donor management: how to make sure to have the right number of donors for the required amount of blood products. DOMAINE has fulfilled the need for guidance amongst blood establishments.

DOMAINE conducted a survey to analyse current donor management practices in Europe. In the second phase a Donor Management Manual was published, identifying and recommending good donor management. In 2011, a Donor Management Training Programme was developed, to disseminate the information of the manual. Both manual and training have helped blood donor managers and policy makers to improve management processes. The presentation will summarise the main conclusions of the DOMAINE Manual and Training.

Supporting the implementation of the tissues and cells Directives SOHOVS, EUSTITE and Eurocet-128

Deirdre Fehily

D Fehily, P Di Ciaccio, A Nanni Costa

Italian National Institute of Health, Rome, Italy

European Directives adopted in 2004 and 2006 require Member States to put in place a number of regulatory systems for tissue and cell transplantation and artificial reproduction. The presentation will summarise the main activities and outputs of three projects which aim to support the implementation of Directive 2004/23/EC for tissues and cells for human application. Key elements are inspection and accreditation, vigilance, with reporting of adverse incidents, and traceability using a common coding system.

The SOHOVS project is working to develop a shared view of how serious adverse reactions and events associated with tissue and cell donation or human application, are reported, evaluated and investigated. Guidance documents for competent authorities and for users in hospitals have been drafted which can be used for national procedures. A training programme ensures that officials will quickly be able to fulfil their responsibilities.

The EUSTITE project produced guidelines for the inspection of tissue establishments, which have been adopted as a legally binding EU Decision and Operational Manual for Competent Authorities. Guidelines have been translated into the official languages of the EU. The project also provided training for inspectors from 26 Member States.

The Eurocet-128 project is compiling reference compendia for the application of a single European coding system for tissues and cells. The consortium is now working with Member States to build compendia of tissue establishments and tissue and cell products for the EU.

Psychosocial follow-up of living donors and quality system indicators and methodology on organ donation in Europe ELIPSY, ETPOD, EULID, and ODEQUS projects

Marté Manyalich

M Manyalich

Hospital Clínic de Barcelona, Barcelona, Spain

ELIPSY aimed to improve the psychosocial well-being and quality of life of donors. The project has established a strategy for the living donor follow-up, by designing living donor follow-up tools and methodologies, based on a survey of current practices, considering the psychosocial well-being, quality of life and perception of the process to evaluate the impact of the donation process on the donor. It has designed a recipient follow-up methodology, based on a survey of current practices, using the best indicators with the purpose to link recipient's outcome to the living donor's follow-up. The presentation further summarises the work done on living

donation in the frame of other two projects, ETPOD and EULID.

ODEQUS worked on determining the standards of best practices and to develop quality indicators for donation after brain death, after cardiac death and living donation in order to create tools to evaluate the overall quality in organ donation. Based on the identification of quality standards and related

quality indicators, ODEQUS provided tools to improve the quality in the clinical process and management in the three types of organ donation mentioned. Main deliverables were: quality standards and indicators; Data Gathering System on organizational structure and clinical procedures; training for organ donor professionals and services.

L.4. EXAMINING SICKNESS ABSENCE

Development and validation of prediction models for sickness absence in The Netherlands

Corne Roelen

CAM Roelen^{1,2}, U Bültmann², W van Rhenen^{1,3}, JW Groothoff², JIL van der Klink², JWR Twisk^{4,5}, MW Heymans^{4,5}

¹365/Occupational Health Service, Utrecht, The Netherlands

²Department of Health Sciences, University Medical Center Groningen, University of Groningen, Groningen, The Netherlands

³Center for Human Resource, Organization and Management Effectiveness, Business University Nyenrode, Breukelen, The Netherlands

⁴Department of Methodology and Applied Biostatistics, Faculty of Earth and Life Sciences, VU University, Amsterdam, The Netherlands

⁵Department of Public and Occupational Health, EMGO+ Institute for Health and Care Research, VU University Medical Center, Amsterdam, The Netherlands

Contact details: corne.roelen@365.nl

Background

Earlier research has shown that preventive consultations were cost-effective in reducing sickness absence (SA) in employees at high risk, but not in those at moderate or low risk of SA. Questionnaires can identify high-risk employees, but often have moderate response rates and healthy rather than unhealthy employees tend to participate in surveys. The aim of this study was to develop and validate prediction models to identify employees at risk of high SA, with variables that are easy to obtain by physicians.

Methods

Prediction models for SA days and SA episodes were developed using self-rated health (SRH) and prior SA as predictors. SRH was measured as excellent, good, fair, and poor in a development sample of 535 hospital employees and a validation sample of 633 office employees. Prior SA was retrieved from occupational health service registries. Logistic regression models linked the predictors to high (≥ 90 th percentile) versus non-high SA during 1-year follow-up. Calibration, i.e. the agreement between predicted and observed probabilities of high SA, was performed with the Hosmer-Lemeshow (H-L) test and considered acceptable if H-L $P \geq 0.05$. Discrimination, i.e. the ability to distinguish between employees with and without high SA, was assessed by the area under the ROC-curve (AUC) and considered poor if AUC = 0.6–0.7, fair if AUC = 0.7–0.8, and good if AUC > 0.8.

Results

In the development sample, the SA days prediction model showed acceptable calibration (H-L $P = 0.15$) and fair discrimination (AUC = 0.73). The SA episodes prediction model showed acceptable calibration (H-L $P = 0.41$) and good discrimination (AUC = 0.83). In the validation sample, the SA days model still showed acceptable calibration (H-L $P = 0.45$), but discrimination degraded to poor (AUC = 0.65). The predictive performance of the SA episodes prediction model was fair in the validation sample with H-L $P = 0.69$ and AUC = 0.76.

Conclusions

The SA episodes prediction model identified employees at risk of high SA in both samples, but needs further multi-site validation. The more numerous and diverse the settings in which this prediction model is tested and found accurate in identifying employees with high SA, the more confidently it can be used to select employees for targeted interventions.

Does unbalanced gender composition at the work place influence the association between psychosocial working conditions and sickness absence?

Kristina Holmgren

R Jonsson¹, U Lidwall^{2,3}, K Holmgren^{4,5}

¹Department of Sociology, University of Gothenburg, Sweden

²Department of Analysis and Forecasts, Statistical Analysis Unit, Swedish Social Insurance Agency

³Department of Clinical Neuroscience, Division of Insurance Medicine, Karolinska Institutet, Stockholm, Sweden

⁴Social Medicine, Department of Public Health and Community Medicine, The Sahlgrenska Academy at the University of Gothenburg, Göteborg, Sweden

⁵Department of Clinical Neuroscience and Rehabilitation, Institute of Neuroscience and Physiology, The Sahlgrenska Academy at the University of Gothenburg, Göteborg, Sweden

Contact: kristina.holmgren@neuro.gu.se

Background

Earlier research has shown that bad psychosocial working conditions contribute to sick-leave. Some theorists argue that skewed gender composition can be one of the factors contributing to bad psychosocial working conditions. We examined whether workplace gender composition had an effect on the association between job strain and sick-leave.

Method

Associations were assessed using a case-control design with data from the Health Assets Project based in the Västra Götaland region, Sweden. Data was collected in 2008 and the study population consisted of 2,702 from a randomized general population cohort and 2,893 from an employed sick-listed cohort ($n = 5,595$).

Results

Results indicated that there was an association between high strain jobs and sickness absence among both women (Adj. OR 2.04, CI95% 1.62–2.57) and men (2.24, 1.67–3.01). Furthermore, both women (2.87, 1.34–6.26) and men (2.53, 1.74–3.69) in male-dominated workplaces had the highest risk for sickness absence due to high strain jobs. Male-dominated workplaces were, in general adverse for both women and men.

Conclusions

The results indicated that a minority position strengthens job strain for women while it weakens the association for men. Using modern gender theories, we could argue that some of these results might be explained by the general use of masculinity as the social norm in the labor market. However, findings from this study need to be validated by further research.

Do changes in working conditions affect sickness absence rates?

Peppiina Saastamoinen

P Saastamoinen¹, M Laaksonen², E Lahelma¹, T Lallukka¹, O Pietiläinen¹, O Rahkonen¹

¹University of Helsinki, Hjelt Institute, Dept of Public Health, Helsinki

²Finnish Centre for Pensions, Helsinki, Finland

Contact: peppiina.saastamoinen@helsinki.fi

Adverse working conditions contribute to sickness absence (SA). However, little is known about the effects of changes over time in working conditions on SA. We examined whether negative and positive changes in physical and psychosocial working conditions, and work arrangements affect subsequent sickness absence among employees aged 40–60 at baseline.

The Helsinki Health Study baseline (2000–2002) and follow-up surveys (2007) among employees of the City of Helsinki, Finland, were linked to register data on medically certified sickness absence (women 2899, men 615). Changes in work arrangements (e.g. shift work), physical (e.g. repetitive movements) and psychosocial working conditions (e.g. job control) were calculated between baseline and follow-up surveys. The outcome was the number of sickness absence spells during three years after the follow-up survey. Covariates were age, sickness absence one year before baseline, body mass index, smoking and alcohol consumption. Poisson regression was used separately for women and men to yield rate ratios (RR).

Among women negative changes in all six measures of physical working conditions were associated with increase in SA whereas positive changes were associated with decrease in SA even when adjusted for all covariates. For example, those who reported awkward postures at baseline, but not at follow-up, had 0.57 (CI 0.49–0.66) times less likely SA during the follow-up than those reporting awkward postures at both occasions. Those without awkward postures at baseline but with such postures at follow-up, had 1.53 (CI 1.25–1.87) times more likely SA than those without awkward postures at either occasion. Change in job control followed a similar pattern as those in physical working conditions, but decrease in job demands or social support had no effects on SA. An increase in SA was observed after a change from regular daytime work to shift work (RR 1.33, 1.08–1.64). Work contract changing from temporary to permanent doubled the likelihood of SA (RR 2.06, 1.42–3.00). Work contract changing from permanent to temporary, led to a decrease in sickness absence. The results were mainly similar for men.

Negative change in working conditions increases sickness absence, while improving working conditions help prevent sickness absence.

Socio-economic determinants of pain-related sick leave

Katharina Viktoria Stein

KV Stein¹, TE Dorner²

¹Institute of Social Medicine, Center for Public Health, Medical University of Vienna, Vienna, Austria
Contact: katharina.v.stein@meduniwien.ac.at

Background

Pain induces most utilization of the health care system and is responsible for the majority of sick leaves. Socio-economic determinants play a major role when looking at the prevalence and intensity levels of pain as well as the everyday impairment caused by it. In designing public health programs socio-economic differences give valuable information on target groups. This study describes these differences for the Austrian population and discusses public health actions.

Methods

Secondary analysis of the Austrian Health Interview Survey (ATHIS) 2006/07 (8,142 currently employed people). Multivariate logistic regression analyses, adjusted for age and pain intensity were applied.

Results

The prevalence of major pain within the last 12 months was 31.3% in men and 36.9% in women ($p < 0.001$). 35.6% of men had taken sick leave in the year prior to the interview because of pain, as had 29.5% of women ($p < 0.001$). With pain intensity given, men and persons with a lower socio-economic status were more likely to go on sick leave because of significant pain. The adjusted odds ratios for men (ref. women) were 1.41 (95% CI 1.19–1.68), for primary education as highest education level 1.81 (95% CI 1.27–2.56) and for secondary education (ref. tertiary education) 1.40 (95% CI 1.05–1.88). The odds ratio for the lowest income tertile (ref.

highest tertile) was 1.50 (95% CI 1.17–1.91). The adjusted odds ratios for employees and civil servants were 2.71 (95% CI 1.96–3.73) and for blue-collar workers 2.74 (95% CI 2.02–3.72) compared to self-employed persons. Age and familial status showed no significant influence on the likelihood of a sick leave.

Conclusions

The differences in taking a sick leave depending on education, income and employment status give relevant information for more targeted preventive measures at and around the work place. Only part of the differences can be explained by the type and locale of work performed. Major pain may impair physical work more directly than office work. This implies gender and economic consequences. A higher socio-economic status may lead to better coping strategies, e.g. through better access to health information. This study underlines the importance of socio-economic analyses for public health research and informing public health policies.

Multiple somatic symptoms in low back pain patients and return to work after multidisciplinary or brief intervention

Anne-Mette Hedager Momsen

A Momsen¹, OK Jensen², CV Nielsen^{1,3}, C Jensen¹

¹MarselisborgCentret, Public Health and Quality Improvement, Central Denmark Region

²The Spine Center, Department of Internal Medicine, Region Hospital Silkeborg

³Department of Clinical Social Medicine and Rehabilitation, School of Public Health, Aarhus University, Denmark

Contact: anne-mette.momsen@stab.rm.dk

Multiple somatic symptoms (MSS) may be present in patients on sick leave due to low back pain (LBP) and may be associated with increased risk of not returning to work (RTW). Prognostic screening for MSS and stratified care could prove cost effective. In a randomized controlled trial we studied the effect of a brief intervention (BI) compared to multidisciplinary intervention (MDI) in LBP patients with or without radiculopathy. Factors associated with failure of RTW is an important public health issue, and the study explores if levels of MSS can be used as a predictor (of no RTW) and for selection of treatment.

Methods

The patients (N = 471) were randomized to either MDI or BI at Region Hospital Silkeborg, Denmark (2004–8). The patients' data were collected from questionnaires and clinical examination. Common mental disorder questionnaire was used to assess MSS (12 items). LBP rating scale (6 items) was used to measure a combined score of back and leg pain. Status of sick leave (SL) (>two weeks) and RTW were gathered from a national database (DREAM).

Results

MSS was scored from 0 to 48 and categorized in four groups: <6, 6–12, 13–24, >24. MSS was associated with younger age ($p = 0.02$), female sex ($p = 0.002$), LBP rating ($p < 0.001$), and feeling at risk of losing job due to SL ($p = 0.011$). At one year follow-up SL and RTW were significantly associated with baseline MSS. The rate of RTW was 40 (87%) of 46 patients with MSS <6 (mean LBP rating score 24.4 SD 11.6) and 17 (41%) of 41 patients with MSS >24 (mean LBP rating score 41.7 SD 12.0), and the difference was still significant after 2 years ($p = 0.009$). Patients with MSS >12 had a significantly lower rate of RTW (RR = 0.81; 95% CI = 0.70–0.93) compared to MSS ≤ 12 with no difference between BI (RR = 0.78; 95% CI = 0.64–0.95) and MDI (RR = 0.84; 95% CI = 0.69–1.03).

Conclusions

Regardless of intervention multiple somatic symptoms were significantly negatively associated with RTW in LBP patients with and without radiculopathy.

Sickness absence and work stress of doctors in hospital and private practice. A Study on National Sample of Norwegian Doctors

Judith Rosta

J Rosta¹, G Tellnes², OG Aasland^{1,3}

¹The Research Institute of the Norwegian Medical Association, Oslo, Norway

²Department of Community Medicine, Institute of Health and Society, University of Oslo, Norway

³Department of Health Management and Health Economics, Institute of Health and Society, University of Oslo, Norway

Contact: judith.rosta@legeforeningen.no

Background

Work stressors are important determinants in the multifactorial background of sickness absence. High work stress and low sickness absence in doctors are documented. The effect of work stress on sickness absence among doctors working in different work settings is unexplored. This paper examines the number of sickness absence days during the last 12 months and the impact of the psychosocial work stress, demographics and health related to sickness absence among doctors working in hospital and private practice (general practitioners, private practice specialists) in Norway.

Methods

Representative cross sectional data of 856 doctors participating in a nation-wide postal survey in 2010 were analysed. Main

measurements were sickness absence days during the last 12 months and the short version of Effort-Reward Imbalance questionnaire (ERI), where ERI ratio >1 indicating high levels of psychosocial work stress.

Results

Doctors in private practice compared with hospital doctors reported significantly less often high levels of stress caused by psychosocial work environment (11% vs. 24%) and significantly less often at least one day sickness absence during the last 12 months (16% vs. 41%). In logistic regression models, working in private practice, having ≥ 48 hours working week, perceiving self-rated health as very good/good and having high job satisfaction were independent significant predictors of no sickness absence/12 months (vs. ≥ 1 days; vs. 1–5 days; vs. > 14 days). The levels of work stress, gender and age had no influence on sickness absence in doctors.

Conclusion

Sickness absence in doctors was strongly associated with self-rated health and work setting. The less sickness absence days of doctors in private practice cannot be explained by differences in perceived work stress. Different attitudes towards sickness absence may to a certain extent explain these findings.

M.4. CHRONIC DISEASES AND ETHNICITY

Differences in the incidence of gestational diabetes between women of Turkish and German origin: An analysis of health insurance data from a statutory health insurance in Berlin, Germany (AOK), 2005–2007

Anna Reeske

A Reeske¹, H Zeeb¹, O Razum², J Spallek²

¹Department of Prevention and Evaluation, BIPS-Institute for Epidemiology and Prevention Research, Bremen, Germany

²Department Epidemiology and International Public Health, University of Bielefeld, Bielefeld, Germany

Contact: reeske@bips.uni-bremen.de

Background

Gestational diabetes is associated with a higher maternal and infant risk for complications and long-term health effects. This study examines differences in the incidence of gestational diabetes between women of Turkish and German origin in order to identify high risk groups/target groups for culturally sensitive diabetes information.

Methods

We analysed all pregnancy related health insurance data for women of Turkish origin of a statutory health insurance of Berlin, 2005–2007. We used a name algorithm to identify cases with Turkish migrant background. For statistical analysis, we calculated crude and stratified incidences of gestational diabetes and applied multiple logistic regression to determine the influence of mother's origin on the probability of developing gestational diabetes during pregnancy, adjusted for other important risk factors.

Results

The dataset comprised 3,338 pregnancies, after exclusion of miscarriages and multiple births. The incidence of gestational diabetes was significantly higher in women of Turkish origin (183 per 1,000 pregnancies) than in German women (138 per 1,000 pregnancies). The highest risk for the development of gestational diabetes was found in young, obese women of Turkish origin (OR=2.67; 95% confidence interval 1.97–3.60) compared to German women without obesity of the same age group.

Conclusions

Based on these analyses, obesity is an important factor in explaining a higher incidence of gestational diabetes in women of Turkish origin, especially among young Turkish women. These findings should stimulate discussion about the appropriateness of (culturally sensitive) information/education on diabetes in antenatal care. Further research should focus on the examination of differences in undetected and insufficiently treated gestational diabetes between Turkish and German women.

A cross-national comparative study of metabolic syndrome among non-diabetic Dutch and English ethnic groups

Charles Agyemang

C Agyemang¹, AE Kunst¹, R Bhopal², P Zaninotto³, J Nazroo⁴, N Unwin⁵, I van Valkengoed¹, WK Redekop⁶, K Stronks¹

¹Department of Public Health, Academic Medical Centre, University of Amsterdam, Amsterdam, The Netherlands

²Centre for Population Health Sciences, Public Health Sciences Section, University of Edinburgh, Edinburgh

³Department of Epidemiology and Public Health, UCL, London, United Kingdom

⁴Department of Sociology, University of Manchester, Manchester, United Kingdom

⁵Institute of Health and Society, Newcastle University, Medical School, Newcastle, United Kingdom

⁶Institute for Medical Technology Assessment, Erasmus Medical Centre, Rotterdam, The Netherlands

Contact: c.o.agyemang@amc.uva.nl

Background

Evidence suggests a higher prevalence of type 2 diabetes (T2D) in The Netherlands than in England, although generalised obesity prevalence is substantially lower in The Netherlands than in England. Metabolic syndrome (MS) is more strongly associated with the risk of progression to T2D than generalised obesity. Therefore examining MS may help to better understand the differences in T2D between the two countries. We assessed whether the Dutch and English differences in T2D prevalence reflect similar differences in MS in Whites, South-Asian-Indians and African-Caribbeans living in these two countries.

Methods

Secondary analyses of population-based studies of 3010 participants aged 35–60 years. Metabolic syndrome was defined according to the International Diabetes Federation criteria. Prevalence ratios were estimated using regression models.

Results

In general, the Dutch ethnic groups had higher prevalence of MS than their English counterparts. Adjusted prevalence ratios were 1.37 (95% CI, 1.03–1.82) and 1.52 (95% CI, 1.06–2.19) in White-Dutch men and women compared to White-English men and women; 2.20 (95% CI, 1.14–4.26) and 1.46 (95% CI, 0.96–2.24) in Dutch-African-Caribbean men and women compared to English-African-Caribbean men and women; and 0.97 (95% CI, 0.74–1.27) and 1.42 (95% CI, 1.00–2.03) in Dutch-Indian men and women compared to their English-Indian peers, respectively. Similar patterns were also observed for some MS components, e.g. raised fasting glucose in men and central obesity in women.

Conclusion

The comparatively high prevalence of MS among Dutch ethnic groups may contribute to their high prevalence of T2D. The high levels of some MS components e.g., raised fasting glucose in men and central obesity in women add to the high prevalence of MS in Dutch ethnic groups.

Breast cancer screening among Eastern European immigrant women worldwide: a call for action

Valentina Andreeva

VA Andreeva¹, P Pokhrel²

¹Institute for Prevention Research, Department of Preventive Medicine, University of Southern California, Los Angeles, CA, USA and Nutritional Epidemiology Research Unit, University of Paris XIII, Bobigny, France

²Institute for Prevention Research, Department of Preventive Medicine, University of Southern California, Los Angeles, CA, USA and Cancer Prevention and Control Program, University of Hawai'i Cancer Center, Honolulu, HI, USA

Contact: v.andreeva@uren.smbh.univ-paris13.fr

Background

Many countries host a large number of relatively recent Eastern European (EE) immigrants whose preventive behaviors concerning breast cancer (BC) are largely unknown.

Methods

We aimed to identify all observational, general population studies on BC screening with EE participants without any country, language, or age restrictions. Screening modalities of interest included breast self-examination, clinical breast examination, and mammography. In total, 26 studies, identified via MEDLINE, EMBASE, and a review of relevant bibliographies met the inclusion criteria. These studies came from 9 different countries (Australia, Canada, Denmark, Germany, Israel, The Netherlands, Spain, Switzerland, and the U.S.) and were published between 1996 and 2011.

Results

Results indicated that across host countries, EE immigrant women are distinguished by low health motivation, a heavy burden of chronic illness, relatively older age, and high educational attainment. Despite substantial methodologic heterogeneity, the findings consistently indicated that these women underutilize BC screening largely due to an external locus of control and a lack of BC knowledge. The reported prevalence of a monthly breast self-examination ranged from 9% to 48%; for yearly clinical breast examination—from 27% to 54%; and for biennial mammography—from 0% to 71%.

Conclusion

These women's inadequate engagement in prevention is troublesome as it points to susceptibility not only to cancer but also to other potentially fatal conditions for which personal action and responsibility are critical. The implementation of theory-based and culturally-tailored BC screening programs

with EE immigrants represents an urgent public health challenge. More research is needed to understand the evolution of various psychosocial factors related to BC screening in EE women so that effective interventions could be designed to target such factors.

Participation in cervix screening by migrant vs. indigenous women in The Netherlands

Gerrit T. Koopmans

GT Koopmans¹, W Deville², M Foets¹

¹Dept. of Health Policy and Management, Erasmus University, Rotterdam, The Netherlands

²NIVEL, Utrecht, The Netherlands

Contact: g.koopmans@bmg.eur.nl

Background

Cervix carcinoma is a serious life threatening disease among women. Early detection raises the chances of survival and therefore screening programs have been established. In The Netherlands the target group is set to women aged 30–60 year. Participation rates in screening differ across subgroups. Most striking is the difference between indigenous and migrant women. We therefore undertook a study in order to get a better understanding of possible reasons not to participate. We focus on factors that are expected to be distinctive for migrants and indigenous women, i.e. educational level, language mastery, health beliefs and social bonding.

Methods

Data were derived from the Second National Survey of General Practice carried out in 2001–2003. In this survey indigenous as well as respondents from the four largest migrant groups in The Netherlands are represented. From these data measures could be derived for the aforementioned factors. Logistic regression analyses were used to test whether these explained diversity in participation.

Results

From the original sample a selection was made of women aged 30 to 60 years. This resulted in 2485 indigenous women, 75 of Moroccan, 100 of Turkish, 84 of Antillean and 104 of Surinamese origin. The participation rates of these different subgroups were respectively: 83.6, 42.9, 57.0, 70.2 and 76.2%. Results of logistic regression analyses show that a higher educational level, better language mastery and having an intimate friend or family member are all significantly associated with a higher chance of participation. Belief in traditional healing practices is marginally associated with a lower chance of participation. Although these factors were associated with participation, they were not explaining differences between migrants and indigenous groups. Results of additional analyses are hinting to a differentiated role of having an intimate friend or family member. Especially among Moroccans this constellation seems to have a negative effect on participation. However, sample sizes for the migrants groups are too small to warrant final conclusions.

Conclusions

Factors that are related to migrant background are associated with screening participation, but cannot explain fully differences in participation rate.

Equity in survival from cancer among migrants compared to Danish-born?

Marie Norredam

M Norredam¹, M Olsbjerg², J Holm Petersen², M Hutchings³, A Krasnik¹

¹Danish Research Centre for Migration, Ethnicity and Health, Department of Public Health, University of Copenhagen, Denmark

²Department of Biostatistics, Department of Public Health, Faculty of Health Sciences, University of Copenhagen

³Department of Oncology, Copenhagen University Hospital Rigshospitalet
Contact: mano@sund.ku.dk

Background

Monitoring migrants' cancer survival is relevant because migrants living in Europe are likely to experience increasing incidence of cancer and because of possible inequalities in access to diagnosis and treatment. Our aim was to study survival inequalities in cancer patients with migrant background compared with Danish-born.

Methods

A registry-based, historical prospective cohort design. All non-Western migrants ($n = 56,273$), who between 1 January 1993 and 31 December 1999, were granted right to residency in Denmark, were included and matched 1:4 on age and sex with native Danes. Personal identification numbers were cross-linked to The Danish Cancer Registry in order to identify cancer patients. Subsequently, we cross-linked to the Central Population Register to identify all deaths. Sex-specific hazard ratios for all-cause mortality were estimated by ethnicity; adjusting for age, income and disease stage; using a Cox regression model.

Results

Women from Eastern Europe ($HR = 0.77$; 95%CI: 0.29; 2.09) and other non-Western countries ($HR = 0.30$; 95%CI: 0.04; 2.33) with colorectal cancer had a higher survival compared with Danish-born women; whereas the opposite was the case for Eastern European men ($HR = 1.58$; 95%CI: 0.75; 3.36). Women ($HR = 1.45$; 95%CI: 0.48; 4.42) from the Middle East and women ($HR = 1.19$; 95%CI: 0.68; 2.08) from East Europe with gynaecological cancers had a higher risk of dying. This was also true for women from the Middle East with breast cancer ($HR = 1.14$; 95%CI: 0.50; 2.63); but not so for other migrant women. Lastly, men and women from all migrant groups diagnosed with lung cancer had a lower risk of death compared with Danish-born lung cancer patients. However, results were all statistically insignificant.

Conclusion

Cancer survival did not vary significantly among migrants compared with Danish born implying that the Danish health care system provides equality in cancer care.

Height and risk of head and neck cancer: an individual patient data analysis within the International Head and Neck Cancer Epidemiology (INHANCE) consortium

Stefania Boccia

E Leoncini¹, D Arzani¹, Y-CA Lee², P Boffetta^{3,4}, H Morgenstern⁵, M Hashibe², W Ricciardi¹, S Boccia¹, on behalf of the INHANCE investigator team (<http://inhance.iarc.fr/>)

¹Institute of Hygiene, Università Cattolica del Sacro Cuore Rome, Italy

²University of Utah, Salt Lake City, Utah, USA

³International Prevention Research Institute (IPRI), Ecully, France

⁴The Tisch Cancer Institute Mount Sinai School of Medicine, New York, New York, USA

⁵University of Michigan School of Public Health, Washington Heights Ann Arbor, MI, USA

Contact: sboccia@rm.unicatt.it

Background

Results from several epidemiological studies have shown a positive association between height and cancer incidence. The only study conducted on mouth and pharynx, however, reported a non significant negative association. Our aim was to investigate for the first time the association between height and risk of head and neck cancer (HNC), taking into consideration the effect of potential confounders and effect modifiers.

Methods

We analyzed individual-level pooled data from 24 case-control studies participating in the International Head and Neck Cancer Epidemiology Consortium (INHANCE). Odds ratios (ORs) and 95% confidence intervals (CIs) were estimated separately for males and females, using unconditional logistic regression, for associations between height and HNC. Age, body-mass index, educational level, tobacco smoking, and alcohol consumption were included in all analytical models. The height effect was estimated separately for strata of geographic region, source of control subjects, cancer site, and selected covariates.

Results

17,663 cases and 28,193 controls were included. We found an inverse association between height and HNC (adjusted OR per 10 cm height = 0.91, 95% CI 0.86–0.95 for male; adjusted OR = 0.82, 95% CI 0.75–0.89 for female). The estimated OR did not vary appreciably by cigarette smoking status or other covariates, but in males it did vary by study design ($p = 0.032$ for heterogeneity). The OR was 0.88 (95% CI 0.83–0.92) for hospital-based case-control studies and 0.96 (95% CI 0.90–1.03) for population-based case-control studies among males.

Conclusions

Our finding that adult height is inversely associated with HNC is consistent with the only finding on mouth and pharynx from a large prospective cohort study among women in the UK (relative risk per 10 cm = 0.94; 95% CI 0.82–1.08). As height can be considered as a marker of childhood illness, poverty and energy intake, the inverse association with HNC strengthens the knowledge of HNC being more common among needy people. Despite possible residual confounding due to socioeconomic status or other variables (e.g. physical activity, Human papilloma Virus), this finding needs to be replicated and its biological implications further investigated.

N.4. DETERMINANTS OF INFECTION

Tuberculosis among migrant workers from Armenia, 2012

Nune Truzyan

N Truzyan, V Petrosyan, R Grigoryan

Collage of Health Sciences of American University of Armenia, Yerevan, Armenia

Contact: nushik2000@yahoo.com

Background

Armenia is facing a serious reemerging threat from tuberculosis (TB). This threat increased significantly as drug resistant (DR) TB rates increased. The situation is more complicated with the migration of Armenians to work in countries with higher TB prevalence. Fifteen percent of Armenian families have members who are migrant workers. This study was conducted to describe the burden of tuberculosis among migrant workers from Armenia, to understand TB infection patterns and migrant destinations,

and assess utilization of TB services inside Armenia and in the host country of work.

Methods

A cross-sectional census was conducted with all who had TB diagnosis (including DR-TB and TB-HIV/AIDS co-morbidity) and migrated to other countries for work during the last four years, at least for three months. Data was collected through medical records review from all 72 TB cabinets in Armenia and 95 face-to-face interviews with migrant workers with TB.

Results

The Russian Federation (RF) was the host country of work for 91% of migrant workers in Armenia, a third of which worked in the regions with the highest rates of TB prevalence in the RF. The percent of TB-HIV/AIDS co-morbidity among the participants was 4.7 times higher than the percent of TB-HIV/AIDS co-morbidity among all TB patients in Armenia. The time

period between first diagnosis and first treatment was about 5-times longer for those who were diagnosed in the host country of work than those who were diagnosed in Armenia. This difference represents the time of infectivity and the time for development of more advanced TB. Those participants who received treatment in the host country of work were 3.9-times more likely to have failed or defaulted treatment outcome than those who received the treatment in Armenia.

Conclusions

The study documented that migrant workers were at higher risk of TB, DR-TB, and TB-HIV/AIDS co-morbidity due to the place of migration and high rates of defaulting treatment outcome. The overriding recommendation of the study was to establish close collaboration between TB and HIV/AIDS programs in the host countries of work and Armenia assuring immediate start of the treatment after TB diagnosis in the host country of work.

Diabetes and risk of tuberculosis in Denmark

Zaza Kamper-Jørgensen

Z Kamper-Jørgensen^{1,2}, A Krasnik², IC Bygbjerg³, PH Andersen⁴, ME Jørgensen¹

¹Steno Diabetes Center, Gentofte, Denmark

²Danish Research Centre for Migration, Ethnicity and Health, Section for Health Services Research, Department of Public Health, University of Copenhagen, Copenhagen, Denmark

³Department of International Health, Immunology and Microbiology, University of Copenhagen, Copenhagen

⁴Denmark, Department of Epidemiology, Statens Serum Institut, Copenhagen, Denmark

Background

Tuberculosis is more frequent among diabetes patients, but it is unknown how this excess varies with duration of diabetes in a TB low-burden country. The aim of this study was to analyse disease data to examine this issue further. The registration of patients diagnosed with diabetes and tuberculosis in centralized registers in Denmark provides a unique basis for studies of DM-TB associations.

Methods

We linked the Danish National Diabetes Register and the Danish Tuberculosis Notification Registry and performed a cohort analysis of the entire Danish population by diabetes status and duration of diabetes, comparing tuberculosis incidence rates in diabetic patients with the non-diabetic population for the 15 year period 1995–2009, using Poisson regression with natural splines to describe the variation by duration. Analyses were run separately for Danes and migrants in Denmark.

Results

The incidence of TB was 4/100,000 among persons of Danish heritage, 40/100,000 among migrants in 2009. The total number of persons included in the Danish National Diabetes Register after 1995 was 286,534. The TB incidence rate ratio among diabetics relative to the non-diabetic population decreased from over 2 at diagnosis to 1.15 after 2 years of diabetes duration. No difference was observed between Danes and migrants.

Conclusions

The observed duration effects suggest that both increased surveillance for tuberculosis in the first years after diagnosis of diabetes, and reverse causation, where undiagnosed tuberculosis increases the likelihood of diabetes diagnosis, play a role. For longer durations, we found no evidence for any association between TB and diabetes. Future analyses will include detailed data on specific groups of migrants in Denmark.

Salmonella and Vegetables: the Italian management and multidisciplinary approach

Dario De Medici

D De Medici¹, M De Giusti², P Picotto³, F Capuano⁴, NM Losio⁵, E Delibato¹, S Di Pasquale¹, R Lena³, G Durante⁶, S Marcheggiani¹,

AM Dionisi¹, E Pavoni⁵, L Marinelli², A Cottarelli², L Mancini¹, I Luzzi¹, A Menditto¹, S Borrello³

¹Istituto Superiore di Sanità (National Institute of Health), Italy

²Hygiene Unit Department of Public Health and Infectious Diseases, "Sapienza" University of Rome

³Ministry of Health, Directorate General for Hygiene, Food Safety and Nutrition, Rome, Italy

⁴Istituto Zooprofilattico Sperimentale del Mezzogiorno-Portici, Napoli

⁵Istituto Zooprofilattico Sperimentale dell'Emilia Romagna e della Lombardia, Brescia

⁶Dipartimento di Prevenzione della ASL Salerno (SIAN ex ASL SA2)

Contact: dario.demedici@iss.it

Background

In 2004–2005 and 2008–09 the European Rapid Alert System for Food and Feed (RASFF) notified different alerts involving rocket salads produced in Campania, a south-central Italian region. Most of the alerts reported vegetable contamination by *Salmonella* Napoli, a serovar which in Italy accounts for 3% of human salmonellosis. In order to manage these repeated alerts the Italian Ministry of Health organized a multidisciplinary taskforce aiming at defining strategies to reduce or eliminate the risk of contamination of fresh vegetables.

Methods

In 2009–2011 a microbiological survey was performed on vegetables from 21 producers located in "Piana del Sele", Campania. Water irrigation samples and vegetables samples (rocket salads) were analyzed by Real Time PCR for detection of *Salmonella* spp. PCR positive samples were tested for *Salmonella* by means of the standard microbiological ISO method (ISO 6579:2002/Cor.1:2004). Molecular subtyping by PFGE was performed to evaluate the genetic relationship among *Salmonella* isolates. In addition vegetable samples from the Italian market were analyzed for the presence of *Salmonella* using the Real Time PCR and the positive results were confirmed by means of the ISO method.

Results

Fifty-eight out of 234 water samples were found positive for *Salmonella* spp and *S. Napoli* was isolated from 25% of positive samples. PFGE revealed a close genetic correlation of *S. Napoli* isolates. All vegetable samples analyzed were negative for *Salmonella*. Concerning leafy vegetables sampled from the market and analysed by means of Real Time PCR, seventeen samples out of 2002 were found positive for *Salmonella* with four samples confirmed by the ISO method.

Conclusion

This study demonstrates that a multidisciplinary approach is needed to guarantee an adequate control of raw materials and water for irrigation aiming at preventing/eliminating/reducing biological hazards. This is of particular relevance for ready to eat vegetables where initial contamination is very difficult to remove by means of common washing procedures. In addition the results of the study stress the need to apply very strict Good Agriculture Practices for vegetables intended to be eaten raw.

Shisha as a risk factor for the development of TB infection

Ruth Harrell

RH Harrell¹, M Dedicoat², EG Smith³

¹West Midlands Public Health Laboratory, Health Protection Agency

²Department of Infection and Tropical Medicine, Heart of England NHS Foundation Trust

³West Midlands Public Health Laboratory, Health Protection Agency

Contact: ruthharrell@nhs.net

Background

College students in a deprived ethnically-diverse area of Birmingham have been shown to have high rates of TB infection. Certain risk factors such as family history are not modifiable though may be used to target screening. Others, such as exposure to tobacco smoke (cigarettes or shisha), are modifiable. This study aimed to determine the prevalence and impact of risk factors associated with TB infection.

Methods

Due to a number of infectious cases of TB in the college, 800 students were offered screening, using interferon gamma release assay (IGRA). Information on family history, health and ethnicity (including country of birth), and a range of potential TB risk factors was collected via a self-reported questionnaire. Data including IGRA test result was analysed using Stata 11.

Results

Overall, 11.4% (74/650) of students screened had a positive test result. Those attending college to study English as a second language had significantly higher positivity rates of 28.8%, risk ratio 2.96, 95% CI (1.80–4.86), $p < 0.001$ compared to other students. For the remaining students (68% UK born), the following factors were found to be significant using multiple logistic regression;

- Family history (with odds ratio (OR) 4.23, 95% CI (1.66–10.80), $p = 0.003$)
- One or more visits to high prevalence country in the last 5 years (OR 3.28, 95%CI (1.42–7.56), $p = 0.005$)
- More than 2 people per bedroom living in the household (OR 4.63, 95%CI (1.94–11.06), $p = 0.001$)
- Tobacco use (OR 3.62, 95%CI (1.23–10.67), $p = 0.019$) 14.2% reported using tobacco (68.1% shisha only and 20.9% both cigarettes and shisha). Regression using shisha only gave similar results but reduced significance (OR 3.11, 95%CI (0.98–9.79), $p = 0.053$).

Conclusions

This analysis highlights risk factors which could be used to prioritise screening for TB infection in the school or college environment. The prevalence of shisha use in this community and its association with TB infection has been demonstrated; of particular concern due to the young age of students using shisha (17–18 years). Shisha use has wider public health implications, since users consider it to be less harmful than tobacco smoking despite evidence to the contrary.

Identifying good practice for syndromic surveillance in Europe—a comparative study based on site visits in eight countries

Alexandra Ziemann

A Ziemann¹, T Krafft¹, H Brand¹, M Sala Soler², A Fouillet², A Hulth³, L Müller⁴, K Molbak⁴, S Conti⁵, M Kanieff⁶, G Rago⁵, JB Perrin⁶, C Dupuy⁶, S Medina² on behalf of the Triple-S project consortium

¹Department of International Health, School of Public Health and Primary Care, Faculty of Health, Medicine and Life Sciences, Maastricht University, Maastricht, The Netherlands

²Institut de Veille Sanitaire, Saint Maurice, France

³Smittskyddsinstitutet, Stockholm, Sweden

⁴Statens Serum Institut, Copenhagen, Denmark

⁵Istituto Superiore di Sanità, Italy

⁶Agence nationale de sécurité sanitaire de l'alimentation, de l'environnement et du travail, Lyon, France

Contact: alexandra.ziemann@maastrichtuniversity.nl

Emerging diseases, heat waves or a volcanic ash plume pose new challenges to Europe that cannot be monitored with traditional laboratory-based surveillance only. Further, a cross-border strategy is required. Over the last decade, syndromic surveillance (SyS) based on clinical symptoms or proxies (e.g. web searches) were implemented as a cost-effective approach for timely information also on unexpected events. The European Commission co-funded project Triple-S aims at developing guidelines for implementing human and animal health SyS in Europe based on good practices in member states.

In 2011–12 we accomplished site visits in eight European countries (United Kingdom, France, Denmark, Sweden, Hungary, Italy, Netherlands, Belgium) and of the European project SIDARTHa. All or most active, expired, pilot or planned SyS systems at regional or national level were examined following a structured protocol. The protocol provided a comparative framework for assessing strengths and weaknesses of ten components of SyS from purpose/context over data collection/analysis to dissemination, costs and public health actions.

The major purposes of SyS next to early detection (e.g., bioterrorist attack) are to gain timely information on expected events (e.g. seasonal influenza) and the reassurance of a (no) health impact of events (e.g. fire in chemical plant). Systems cover mainly influenza-like/respiratory and gastrointestinal illnesses which are proxies applicable for non- and communicable, natural or man-made events. Eleven groups of SyS data sources are used with the majority being unscheduled care data (e.g. emergency departments) which is available across Europe. Seldom used data sources are nationally specific (e.g. telephone helplines, refugee camps). SyS using various data sources can cover different population groups and severity scales (from self-curable to acute care). Systems automating data processing are more cost-effective and less error-prone.

We did not identify a European gold-standard for SyS because of the diverse health systems but good practices for SyS processes. The Triple-S guidelines provide a framework to help implementing SyS at regional or national level and at the same time ensuring comparability in the interpretation of findings at European level.

All inclusive determinants: Assessing the interactions of multiple health determinants on future infectious disease transmission in Europe

Jonathan E. Suk

JE Suk, JC Semenza

Office of the Chief Scientist, European Centre for Disease Control

Contact: jonathan.suk@ecdc.europa.eu

Background

The financial turmoil of past years has challenged public health in Europe, placing strain on healthcare budgets precisely as social and economic inequalities have widened. Yet this is only one of several factors that will influence public health in the future. Both climate change and population ageing, for example, will also affect health vulnerabilities in Europe. To date, few studies have investigated how interactions of these determinants could affect disease risks in Europe.

Methodology

Datasets for disease incidence, climate change, population and demographic trends, public health infrastructures and economic growth across Europe were used as the inputs for a series of geospatially derived models projecting regional European health vulnerabilities. These models were complemented by a solicitation of European public health experts about emerging threats in their jurisdictions. Together, the models and expert solicitation were used to develop four case studies investigating different ways in which key systemic health determinants could affect disease transmission in Europe: dengue, cryptosporidium, lyme borreliosis and salmonella.

Results

Each case study reveals regional disparities in Europe in terms of vulnerability to infectious disease risk. The greatest vulnerabilities were found in regions where multiple systemic determinants are overlapped, such as combinations of low economic growth, population ageing, and pronounced climate change. The future risk from dengue is currently envisaged to be low and restricted to the Mediterranean basin. Cryptosporidium risks are particularly pronounced where heavy rainfalls are anticipated and where health and water infrastructures are weakest. Salmonella vulnerabilities are highest where populations are older and temperatures higher. Lyme borreliosis vulnerabilities are highest where temperatures are moderate and in both wealthy and less wealthy areas.

Conclusions

This integrated assessment of the interactions between key systemic health determinants such as economic, climatic and demographic change, reveal regions within Europe that are significantly more vulnerable for specific diseases than other regions. Public health planning under strained budgets requires integrated assessments of this nature.

Friday 9 November, 15.00–16.30

A.5. TOOLS FOR MEASURING HEALTH

Using standard tools to survey hard to reach groups through community and voluntary sector partnerships

Annie Harrison

A Harrison, C Robinson, M Woode-Owusu, A Verma
MUCH, Manchester Academic Health Sciences Centre, University of
Manchester, Manchester, United Kingdom
Contact: annie.harrison@manchester.ac.uk

Background

The EURO-URHS 2 project was developed to identify urban health indicators (UHI), collect relevant data, and demonstrate the utility of UHI's. Data were collected through a postal survey in 10 countries. However, research suggests that some groups may be under-represented in postal surveys. The aim of this study is to develop methodology to target Hard to Reach (HtR) urban populations and thereby increase representativeness.

Methods

Four main HtR target groups were identified through a review of literature: Black and Minority Ethnic communities (BME), Asylum-seekers and Refugees (ASR), Traveller communities, and Students. By focusing on developing partnerships with local organisations, and through the careful selection of volunteer interpreters, it was possible to use the standard survey tool to augment the main study.

Results

30 organisations were targeted, 20 were successfully contacted, 13 agreed to participate of which 9 successfully participated leading to a total of 15 survey visits. A total of 183 surveys were completed, 9.8% from ASR, 23.5% from BME, 3.3% from Travellers and 63.4% from Students.

Conclusion

This paper offers a methodology in which partnerships are created in order to find HtR groups and survey them using standard survey tools. This methodology will allow researchers the opportunity to test whether there are significant differences between HtR groups and the general population and may lead to services and treatments that better meet the needs of the whole population.

Using record-linkage to investigate the representativeness of Scottish Health Survey data

Lindsay Gray

L Gray¹, G McCartney², IR White³, L Given¹, SV Katikireddi¹,
AH Leyland¹

¹MRC/CSO Social and Public Health Sciences Unit, Glasgow, United Kingdom

²NHS Health Scotland, Glasgow, United Kingdom

³MRC Biostatistics Unit, Cambridge, United Kingdom

Contact: l.gray@sphsu.mrc.ac.uk

Background

Health survey data are commonly used to quantify population health, with the implicit assumption that they are suitably representative. Non-representativeness may bias prevalence/quantity estimates such as population alcohol consumption. Survey weights are usually applied to handle sampling frame deviations from representativeness in terms of limited demographic variables, but are unable to incorporate unknown risk factors such as alcohol consumption. We aimed to investigate whether weighted estimates of all-cause and alcohol-related mortality derived from the 2003 Scottish Health Surveys (SHeS) (67% response) correspond to those in the general population.

Methods

SHeS observations were individually linked to mortality data to the end of 2008 (91% consent), and survey-weighted directly age-standardised mortality rates were calculated for the 2608 men and 3330 women aged 20–69 years at interview. General population estimates and mortality data contemporaneous with the linked survey data were used to calculate corresponding mortality rates for Scotland.

Results

Among the SHeS study sample, there were 72 (2.3%) deaths in men and 65 (2.0%) in women. Among men, all-cause mortality was lower in the SHeS sample (432 per 100,000 person-years [95% CI: 364–500]) than in the Scottish population (683 [680–687]). Figures for women were also differed significantly (314 [257–372] for the SHeS and 417 [414–420] for the Scottish population). Alcohol-related mortality was lower in the SHeS sample (40 [17–63] in men and 12 [0–25] in women) relative to the Scottish population (59 [57–60] in men [non-significant] and 25 [25–26] in women [borderline significant]).

Conclusions

Lower all-cause mortality among 2003 SHeS respondents relative to the population of Scotland aged 20–69 years indicates respondent bias. Somewhat lower alcohol-related mortality suggests lower alcohol consumption among respondents leading to underestimated population consumption levels. Consideration should be given to the levels of resource allocated for increasing survey response and to over-sampling of typically low responding groups. Data linkage provides an opportunity to adjust survey weights to account for lack of representativeness in longer term outcomes as well as demographic variables.

Can blood pressure measurement be standardized between populations?

Hanna Tolonen

P Koponen¹, K Kuulasmaa², for the EHES Pilot Project

¹Population Health Research Unit, National Institute for Health and Welfare, Helsinki, Finland

²Chronic Disease Epidemiology and Prevention Unit, National Institute for Health and Welfare, Helsinki, Finland

Contact: hanna.tolonen@thl.fi

Background

Blood pressure is a known major risk factor for cardiovascular diseases and diabetes. A reduction of 3–5 mmHg can decrease risk of stroke by 15% and risk of coronary heart disease by 10%. Blood pressure measurement is sensitive to factors like resting time before measurements, used device type, and posture of the subject during the measurement. There is evidence that these factors can lead up to 20 mmHg bias in the blood pressure levels. The European Health Examination Survey (EHES) Pilot Project prepared a standardized measurement protocol for blood pressure measurement in population surveys. A pilot survey was conducted in 12 countries to test the protocol. Both European and national level training for the fieldwork staff was organized.

Methods

The success of the standardization was evaluated during site visits to the fieldwork in each country by members of the EHES Reference Centre. Retrospective quality assessment of the measurements, based on documented survey protocols and collected data, was conducted.

Results

EHES standardized measurement protocol for blood pressure was followed in all 12 pilot surveys and minor deviations observed during the site visits were corrected after the site visits. In all surveys, three blood pressure measurements were taken on sitting posture from right arm. In 10 out of 12 surveys, more than one cuff size was available and arm circumference was measured to identify correct cuff size. In three surveys measurements were done using simple mercury sphygmomanometers. Other used different types of oscillatory devices. Based on individual level blood pressure measurement data in two surveys, which used mercury sphygmomanometer, a terminal digit preference was detected. Also tendency for identical readings on subsequent measurements was detected from those same surveys. All used oscillatory devices had passed the validation tests.

Conclusions

EHES Pilot Project has shown that by standardized measurement the measurement process including factors like resting time before measurement, posture of the subject and selection of cuff can be standardized, but it requires several days of training. A bigger challenge is the large quantity of different devices and their accuracy.

Establishing a regular data collection on morbidity statistics at EU level

Monica Pace

M Pace¹, H Buchow¹, JM Schaefer¹

¹Eurostat, Luxembourg

Contact: monica.pace@ec.europa.eu

Background

Eurostat's overall aim is to develop diagnosis-specific morbidity statistics as a regular part of the European Statistics System (ESS). The planned data collection should give comparable and consistent information at European level on the occurrence of a selected set of diseases at population level.

Methods

Methodological work on morbidity statistics in the European Union (EU) started in the nineties. The methods at present are mainly based on an agreed shortlist with 67 diseases and a set of 'Principles and guidelines for diagnosis-specific morbidity statistics' that illustrate how to produce best national estimates from appropriate sources, both for prevalence and incidence. To this end, the EU Commission funded pilot studies in 15 Member States from 2005 to 2011. Ninety one estimates (29 for incidence and 62 for prevalence) had to be provided. Currently a Eurostat task force with experts from 10 different countries are evaluating the results of those pilots.

Results

An in-depth analysis of the collected information on sources and estimates has been done, with the aim of evaluating the quality of sources and estimates. A relevant part of the assessment covers the methodologies adopted in order to fulfil the requirements indicated in the guidelines for morbidity data collection. The analysis and assessment highlighted the differences in morbidity statistics at European level and put the basis for consolidating the decision on how to proceed. For several diseases one of the main difficulties to provide the requested indicators was the accessibility of data, but also the quality of the available sources.

Conclusion

There is still some way to go before reaching an agreed set of morbidity indicators at EU level. Important will be to come up with recommendations for adjusting the methodology and subsequently revising the set of diseases of the morbidity shortlist.

Variation in research ethics committees in the European Union

Elina Hemminki

E Hemminki¹, P Veerus², J Virtanen²

¹Health and Social Services, THL National Institute for Health and Welfare, Helsinki Finland

²Department of Public Health, University of Helsinki, Helsinki Finland

Contact: elina.hemminki@thl.fi

Background

Health research is regulated by various codes and laws. Much of that regulation is channelled via research ethics committees (REC). This study compared (health) RECs and their tasks in European Union (EU), as presented by the countries themselves.

Methods

From each of the 27 EU member states we searched for reports and web-pages in English, German, French, Italian, Russian, Finnish, Estonian, describing RECs and laws/ regulations of medical research. We used a list of items to be searched from the documents in each country. The raw data (wording as given in the documents) were compared in a table format. Using the raw data countries were classified into different categories by geographical area.

Results

Data were variably available from different countries. The main finding was the large variation between the countries, in all aspects. The laws/ regulations covering medical research ranged from specific drug laws to laws on research ethics in general. The scope of the laws/ regulations varied. The concept and tasks of RECs varied from covering narrowly only drug trials to human research as a whole. Most RECs had approval power, but some only advisory role. The number per country ranged from 1 to 264. Some RECs had area responsibility, others were institutionally based. The REC members were appointed by varying mechanisms; the accountability did not become clear from the documents. The timelines for REC statements varied from 15 to 90 days; sometimes it depended on the type of research. The detailed results by area will be presented in the conference.

Conclusions

There seems to be a large and unjustified variation in health research regulation in EU. More in-depth analysis is needed, as well as outside data collection, to suggest approaches to harmonize health research regulation.

Development of guidelines for Health Impact Assessment in Italy

Francesco Di Stanislao

MR Gualano¹, F Di Stanislao², R Siliquini¹, E Draghi², S Fulvi², F Bert¹

¹Department of Public Health, University of Torino, Italy

²Department of Biomedical Sciences, Section of Hygiene and Public Health, Polytechnic University of the Marche Region, Ancona, Italy

Contact: fabrizio.bert@unito.it

Issue/Problem

Health impact assessment (HIA) is a multidisciplinary method aimed at assessing the health effects of policies, plans and projects using quantitative, qualitative and participatory techniques. In many European Countries, like in Italy, there is a lack of implementation of HIA evaluation procedures and it would be necessary to develop instruments and protocols in order to improve the specific skills of professional involved in the evaluation process.

Description of the problem

The Italian National Agency for Regional Health Services (AGENAS) is carrying out a project of implementation of HIA methods, through the development of guidelines in some Southern Italian regions. Public health search engine and institutional websites were consulted to recollect international data existing in this field. Periodically focus groups are then organized with regional representatives in order to discuss the scientific literature and to identify the guidelines' contents: source of data, stakeholders, screening and scoping

phase checklist tools, priority areas, monitoring and reporting plans.

Results

Four regions (Calabria, Campania, Puglia, Sicilia) took part to the project. A total of 54 regional representatives participated to the monthly focus groups where, after brainstorming, 8 grids (1 for screening and 1 for scoping, for each region) were realized, for a total of 18 indicators identified for each list. Three tables with possible data sources, stakeholders to be engaged and population groups at higher risk to be affected by the proposal subject of HIA were elaborated.

B.5. RELATIONSHIPS AND HEALTH

Family functioning and parenting factors as mediators of the relationship between the ethnic minority status and child problem behaviour

Ilse Flink

Ilse JE Flink¹, Pauline W Jansen², Tinneke MJ Beirens³, Henning Tiemeier⁴, Marinus H van Ijzendoorn⁵, Vincent WV Jaddoe⁶, Albert Hofman⁷, Hein Raat²

¹Public Health, Erasmus MC-University Medical Center, Rotterdam, The Netherlands/Generation R study group, Erasmus MC-University Medical Center, Rotterdam, The Netherlands

²Child & Youth Psychiatry, Erasmus MC-University Medical Center, Rotterdam, The Netherlands

³Public Health, Erasmus MC-University Medical Center, Rotterdam, The Netherlands

⁴Child & Youth Psychiatry, Erasmus MC-University Medical Center, Rotterdam, The Netherlands/Epidemiology, Erasmus MC-University Medical Center, Rotterdam, The Netherlands

⁵School of Pedagogical and Educational Sciences, Leiden University, Leiden, The Netherlands

⁶Pediatrics, Erasmus MC-University Medical Center, Rotterdam, The Netherlands/Generation R study group, Erasmus MC-University Medical Center, Rotterdam, The Netherlands/Epidemiology, Erasmus MC-University Medical Center, Rotterdam, The Netherlands

⁷Epidemiology, Erasmus MC-University Medical Center, Rotterdam, The Netherlands

Contact: i.flink@erasmusmc.nl

Background

Studies have shown that, compared to native counterparts, preschoolers from ethnic minorities are at an increased risk of problem behaviour. Socio-economic factors only partly explain this increased risk. This study aimed to further unravel the differences in problem behaviour among ethnic minority and native preschoolers by examining the mediating role of family functioning and parenting factors.

Methods

We included 4,282 preschoolers participating in the Generation R Study, an ethnically-diverse cohort study with inclusion in early pregnancy. At child age 3 years, parents completed the Child Behavior Checklist (CBCL/1,5-5); information on demographics, socio-economic status and measures of family functioning (maternal psychopathology; general family functioning) and parenting (parenting stress; harsh parenting) were retrieved from questionnaires. CBCL Total Problems scores in each ethnic subgroup were compared with scores in the Dutch reference population. Mediation was evaluated using multivariate regression models.

Results

After adjustment for confounders, preschoolers from ethnic minorities were more likely to present problem behaviour than native Dutch children (e.g. CBCL Total Problems Turkish subgroup (OR 7.1 (95% CI 4.9–10.1)). When considering generational status, children of first generation immigrants were worse off than the second generation ($P < 0.01$). Adjustment for socio-economic factors mediated the association between the ethnic minority status and child problem behaviour by up to 56.2% ($P < 0.05$) though associations remained significant in most ethnic subgroups. A final adjustment for family functioning and parenting factors further attenuated the association by up to 54.8% ($P < 0.05$).

Lessons

After the development of regional guidelines, 8 simulations of HIA evaluation for each region will be performed in order to validate their usability not only in the particular regional context but also their application in other European Countries where guidelines for HIA are not available. It would be recommended that HIA is considered a priority in the public health agenda, as a fundamental instrument in helping decision-makers to make choices about alternatives to prevent disease/injury and to actively promote health.

Conclusions

This study showed that preschoolers from ethnic minorities and particularly children of first generation immigrants are at an increased risk of problem behaviour compared to native Dutch children. Although socio-economic factors were found to partly explain the association between the ethnic minority status and child problem behaviour, a similar part was explained by family functioning and parenting factors.

Organizational structure of the family and the attitudes of the portuguese teenagers towards sexuality

Manuela Ferreira

M Ferreira, A Marques, J Duarte

CI&DETS- Superior Health School, Polytechnic Institute of Viseu, Viseu, Portugal

Contact: mmcferreira@gmail.com

Background

The transmitted and received sex education among family from generation to generation is crucial to the development of attitudes and behaviors of teenagers in order to face their sexual and reproductive health. The family that provides love and care is the same that educates and influences the behavior of their members.

Objectives

To assess the relationship between sociodemographic variables, attitudes towards sexuality and the organizational culture of the family and its functionality.

Methods

This is a quantitative descriptive and explanatory cross-correlated study with a non-probability convenience sample of 809 students attending vocational schools in Portugal. The evaluation protocol includes sociodemographic questionnaire, the scale of attitudes towards sexuality (Nelas et al 2010) and the scale of motivation for having sex or not (Leal; Maroco, 2010), and the inventory of organizational culture of the family (Nave 2007).

Results

42.4% of the young people were female and 57.6% were male, aged between 14 and 23 years old. 84.5% are Portuguese, 12.1% are African. 61.6% live in a village and 14.6% live in the city. 83.2% live with their parents. 63% of the students say they've already begun their sexual activity, 65% of them were boys and 60.3% were girls. 30.8% of the teenagers classify their family organizational culture as strong and 28.3% as moderate. We found that the Interpersonal Relationships influence significantly the attitudes towards sexuality ($p = 0.000$). The same applies to the heuristic dimension ($p = 0.000$), the hierarchy dimension ($p = 0.000$) and social goals. Favorable attitudes appear in 15.3% of the students with poor family culture, 26.9% of the students with moderate family culture and 17.5% of the strong family culture ones. The unfavorable attitudes appear in 40.3% of the students with poor family culture. There are significant differences between attitudes towards sexuality and the organizational culture of the family ($p = 0.003$).

Conclusions

The results enhance the need to consider the organizational culture of the family in the study of the predicting factors of the students' attitudes towards sexuality. We consider sexuality to be an integrative concept which highlights the experiences of each young person within his family.

Lone mothers, the forgotten flock: a multilevel study of the effects of household type on their personal health and gender inequality in 32 countries

Margot Witvliet

MI Witvliet¹, OA Arah², K Stronks¹, AE Kunst¹

¹Department of Public Health, Academic Medical Center (AMC), University of Amsterdam, Amsterdam, Netherlands

²Department of Epidemiology, UCLA School of Public Health, Los Angeles California, UCLA

Contact: m.witvliet@amc.uva.nl

Background

Lone motherhood is seldom studied in non-affluent nations, and little is known about the influence of national contextual factors on the health of lone mothers. We examine the effects of household type on personal health in 32 mostly middle- and low-income countries across age groups, and investigate if the association of personal health and the Global Gender Gap Index (GGGI) is stronger amongst lone mothers as compared to other household types.

Methods

World Health Survey data were analyzed on women aged 18–50 (n=57,182). Main outcome was self-reported general health. Logistic regressions per country were completed. Multilevel logistic regression was used to assess the effects of household type on personal health, while accounting for individual- and country-level factors. Poor health and the association of gender inequality were examined to identify if this was largest amongst lone mothers. Age groups were also investigated.

Results

As compared to couple mothers, lone mothers consistently had the highest odds of reporting poor health prevalence (odds ratio (OR) of 1.15 (95% CI: = 1.09–1.22). Women without children had the lowest odds of poor health prevalence. Effects of the GGGI were small and remained similar across household type. Eastern Europe had small gender inequality, and reports of poor health were lower for lone mothers as compared to Muslim societies which had larger gender inequality. Differences across age groups were also apparent. For example, lone mothers reported lower odds of poor health prevalence in their younger years (>33) (OR=1.11 95%CI=1.02–1.21), and higher odds of poor health from mid-thirties onward (OR=1.18 95% CI=1.10–1.27).

Conclusions

Lone mothers tend to have a higher prevalence of poor health, especially in the later years of life (except in Eastern Europe). People without children seem to have lower rates of poor health. With the exception of Eastern Europe, the modifying effects of the GGGI were generally small; suggesting that other mechanisms, such as economics, might be more influential to personal health than gender inequality.

Health hazards of romantic relationships in the HUNT Study

Gunnhild Vie

GAA Vie¹, S Krokstad^{2,3}, R Johnsen¹, JH Bjoerngaard^{1,4}
under 35: Y

¹Department of Public Health and General Practice, Norwegian University of Science and Technology, Trondheim, Norway

²Department of Public Health and General Practice/ HUNT Research Center, Norwegian University of Science and Technology, Levanger, Norway

³Nord-Trøndelag Health Trust, Levanger Hospital, Levanger, Norway

⁴Forensic Department and Research Centre Brøset St. Olav's University Hospital Trondheim, Trondheim, Norway

Contact: gunnhild.vie@ntnu.no

Background

Spousal health statuses are associated, but it is not known to what extent this reflects factors already there when the couples initially came together or influence between spouses. We studied the risk of work disability-a measure of substantially reduced health-within couples, taking account of baseline health, lifestyle and socioeconomic factors.

Methods

A Norwegian cohort of 12,511 couples aged 20–67, who participated in the HUNT 2 Study (1995–97), was linked to national registries, identifying all new cases of disability pension (DP) until December 2007. Health was assessed with global self-rated health, chronic somatic conditions, somatic symptoms, mental health, physical handicap, and lifestyle. The clustering of spousal DP was assessed with discrete time multilevel logistic regression, estimating conditional intraclass correlation coefficient (ICC) and median odds ratio (MOR). The relative risk of receiving DP if ones' partner received DP was evaluated with cox regression models. The partner's DP was included as a time-varying covariate. Follow-up time was split to examine the effect dependent of time. Analyses were modeled adjusting for age only, adjusting for health, and for lifestyle and education along with health.

Results

About 17% of an individual's propensity to receive a disability pension could be attributed couple similarity. There was an increased risk of work disability following the spouse's disability retirement [HR (hazard ratio) 1.43 (95% confidence interval 1.20 to 1.71) for men, HR 1.49 (95% confidence interval 1.28 to 1.74) for women]. The association was attenuated, but remained after adjustment.

Conclusion

There was a substantial clustering of disability pensions within couples, supporting the argument that spousal similarities in health are not only due to pre-existing similarities, but could also be caused by mutual influences. From a clinical perspective, the family situation needs to be taken into account when addressing health promotion and work participation.

Transitions out of cohabitation and changes in psychiatric morbidity: register-based trajectories of psychotropic medication in Finland, 1995–2007

Niina Metsä-Simola

N Metsä-Simola, P Martikainen

Department of Social Research, University of Helsinki, Helsinki, Finland

Contact: niina.metsa-simola@helsinki.fi

Background

Nonmarital cohabitation is common in Western countries, and cohabiting unions are less stable than marriages. Yet, relatively little is known about the health consequences of nonmarital transitions. We study changes in psychiatric morbidity five years before and five years after the transition out of cohabitation; either into marriage or separation.

Methods

We used register-based data on 54 555 cohabiting Finns aged 25–64, of whom 18 944 married and 23 630 separated during 1995–2003. The sample included dates of union formation and separation, data on prescribed medication, and annual socio-demographic information. We divided time before and after the union transition into three-month intervals, and analyzed changes in the prevalence of psychotropic medication (ATC-codes N05 & N06, excluding N06D) using repeated measures logistic regression with generalized estimating equations.

Results

Psychiatric morbidity seemed to have little effect on which cohabitating unions turned into marriages. Among men marriage from cohabitation had little effect on medication prevalence. Among women a small positive effect occurred two years before marriage, but was countered during the five years after marriage. Instead, already 1–5 years before separation men had 2.05 and women 1.85-times higher odds for

psychotropic medication than those who continued to cohabit, and adjustment for socio-economic resources had little effect on these figures. Medication prevalence increased substantially 12 months before separation, the annual increases being 18% among men and 16% among women. During the 12 months following separation medication prevalence declined 11% and 6%, respectively. Little changes were observed thereafter, with the average prevalence being 7.7% among men and 10.5% among women.

Conclusions

Psychiatric morbidity seems to be more strongly related to union stability than to union type. Although psychiatric morbidity precedes separation, the process of separation also increases psychiatric morbidity, and the large number of nonmarital separations thus suggests an increasing effect on public health. Further, a need for psychological rather than economic support is indicated, as the excess morbidity is not seemingly due to socio-economic disadvantage.

Health of migrant and travel medicine: a new approach for Visiting Friends and Relatives

Laura Pecoraro

L. Pecoraro, T D'Arca, V Padovese, R Testa, C Mirisola
National Institute for Health, Migration and Poverty (INMP), Pistoia, Italy
Contact: pecorarolaura@gmail.com

Issue

Recent data show that almost 50 million people travel from industrialised nations to tropical or subtropical destinations; out of them, 25%-40% are Visiting Friends and Relatives (VFR). This term refers to immigrants who are ethnically and/or racially distinct from the majority population of their country of residence returning to their homeland to visit friends and relatives. VFRs have increased risk of travel-related

health problems due to several reasons. Traditional services are considered inadequate. Their health status may represent a threat and potentially may affect also the countries where they live in terms of public health problems and costs. Investing in improving their health, experiencing new approaches may represent a cost-effective public health intervention.

Description of the problem

VFRs are higher-risk travellers with specific health needs. A transcultural approach in primary health services addressed to migrants was experimented in order to facilitate their access to travel services. In 2010, a Travel Medicine Service was established at the National Institute for Health Migration and Poverty (NIHMP): pre and post-travel health services are offered; medical staff, together with transcultural mediators, provides specific counselling to VFRs. Adopting a multi-disciplinary approach is the best way to promote the health of VFRs and to collect specific data?

Results

A large number of VFRs has been informed about risks of travelling to their homelands; an insufficient number of VFRs is still unable to utilize travel medicine service for different reasons. The transcultural approach through a multidisciplinary staff and innovative intervention strategies seem to help in facilitating the access to healthcare service, to make them aware of then prevention culture and to collect data properly.

Lessons

VFRs, as key-stakeholders in the globalisation process, need effective pre-travel health advice, specific guidelines and ad hoc services. Despite progress made in promoting their health, much work is needed and similar approaches are welcome in order to provide access to this vulnerable group of migrants. VFRs have to be considered the common part between health of migrants and travel medicine.

C.5. WHO DRINKS AND WHY

The big alcohol debate-Brighton & Hove, UK 2011

Louise Sigfrid

P Ashby², R Hines¹, A Gianfrancesco¹, L Deighton¹, K Gilchrist¹, J Barlow³, K Lawson¹, T Scanlon¹

¹NHS Sussex

²Brighton&Hove Crime Reduction Initiative

³Brighton&Hove City Council, England

Contact: louise.sigfrid@gmail.com

Background

Brighton & Hove, with its vibrant night life is a popular tourism destination. The night-time economy brings money to the city, but also has negative effects. There was an increase of 1729 alcohol related hospital admissions in April-Dec. 11 vs.10 and death rates from chronic liver disease are 50% higher vs. nationally. Alcohol is also a contributor to health inequalities, domestic violence and crime. To address these issues a consultation was carried out to find out what residents think about the role of alcohol in the city.

Methods

A range of methods were used to engage with residents: 24-hour tweetathon; survey, focus groups and video interviews. Information was analysed using a thematic approach, NVivo9. The debate ran from Oct.-Dec. 11.

Results

More than 1,550 people responded to the debate and more than 110,000 could be engaged via twitter. The results show that a large proportion of people are concerned over the impact alcohol have on the city and its residents. Major themes that emerged were:

- A need to reduce availability of alcohol-fewer licensed shops, fewer licensed hours for shops, pubs & clubs. A ban on advertising & cheap promotions
- More education at younger age & clearer messages

- Tougher enforcement of night-time economy;
- More responsibility for businesses-pay towards costs, provide non-alcoholic alternatives
- A need for more alternatives for socialising-late night café's, more support for events not selling alcohol, sport, culture, youth clubs

Conclusion

Using novel methods, including twitter, for engagement succeeded in ensuring a high interest and response rate from residents and local media. The results show that residents are concerned over the adverse effect alcohol has on the city and want tougher legislation to reduce availability of alcohol. The debate highlighted potential opportunities for businesses to provide alternatives for socialising to attract a wider range of visitors. The results have informed: national minimum pricing strategies, discussions with local businesses to provide late night café's; awareness campaigns in schools & universities; license policies to reduce number of new premises and hours of sale; reviews into support for non-alcohol events and multi-activity community pubs.

Social capital and problem drinking in the former Soviet Union

Adrianna Murphy

A Murphy¹, B Roberts¹, A Kizilov², D Rotman³, C Haerfer⁴, M McKee¹

¹European Centre on Health of Societies in Transition (London School of Hygiene and Tropical Medicine, London, United Kingdom)

²School of Sociology (Kharkiv National University, Kharkiv, Ukraine)

³The Center for Sociological and Political Research (Belarusian State University, Minsk, Belarus)

⁴School of Social Science (University of Aberdeen, Aberdeen, United Kingdom)

Contact: adrianna.murphy@lshtm.ac.uk

Background

Alcohol is a major cause of premature mortality in countries of the former Soviet Union (fSU). Despite the unique social profile of the region, a recent systematic review found limited evidence on social factors associated with alcohol consumption in the fSU, and very few studies that were conducted in fSU countries outside of Russia. There were no studies that examined the role of 'social capital' in alcohol consumption, a concept which has been linked to health outcomes in other regions of the world.

Methods

We used data from the Health in Times of Transition Study 2010, which surveyed respondents aged 18 years and over from 18,000 households, across nine fSU countries (Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia and Ukraine). Logistic regression was used to analyse the association between four indicators of social capital-social isolation, support in a crisis, trust in society and group membership-and 'problem drinking' as measured by the CAGE questionnaire. Multilevel regression was used to analyse the association between community average social capital indicators and problem drinking.

Results

Social isolation (OR=1.6), trust in society (OR=0.8) and group membership (OR=1.4) were all significantly associated with problem drinking (adjusting for gender, age, marital status, education, occupation, household economic status, urbanicity and country). In the multilevel model, average community social isolation (OR=1.6) and average community group membership (OR=3.3) were significantly associated with individual problem drinking.

Conclusions

Our results provide evidence of the role of social capital in problem drinking in the fSU, and highlight the importance of community effects. The finding that group membership is associated with increased odds of problem drinking seems to contradict the positive association between social isolation and problem drinking, and runs counter to evidence from other regions that links group membership to improvements in health. This finding may relate to the nature of specific groups, such as trade unions, that may foster problem drinking. The influence of these groups on alcohol consumption in the fSU should be investigated further to help inform effective alcohol policies.

Prevalence and associated characteristics of unhealthy drinking in the Belgian elderly population

Sarah Hoeck

S Hoeck, G Van Hal

Research Group Medical Sociology and Health Policy, Department of Epidemiology and Social Medicine-Faculty of Medicine and Health Sciences, University of Antwerp, Belgium
Contact: sarah.hoeck@ua.ac.be

Background

The National Institute on Alcohol Abuse and Alcoholism (NIAAA) recommends that elderly people (≥ 65 years) drink no more than one drink a day. Although guidelines exist, most EU countries, including Belgium, do not use such guidelines and knowledge about alcohol consumption patterns among the elderly is scarce. The aims of this study were to explore alcohol consumption patterns and alcohol problems among the Belgian elderly and determine their association with sociodemographic characteristics and health status.

Methods

In this study based on a representative sample of 3954 Belgian elderly living at home (≥ 65 years) of the Belgian Health Interview Surveys 2001 and 2004, alcohol consumption patterns and alcohol problems were estimated according to

age, gender, living situation, frequency of social contacts, smoking, health status and socioeconomic status using logistic regression.

Results

50.4% of the sample were non or occasional drinkers, 29.1% moderate, 10.4% at-risk, 4.6% heavy and 5.5% problematic drinkers. 20.5% of the Belgian elderly drank in excess of the NIAAA guidelines and 4.7% had an alcohol problem according to the CAGE. As compared to moderate drinkers non or occasional drinkers were more likely to be female (OR 1.68 95% CI 1.37–2.05), had less social contacts (OR 1.89 95% CI 1.32–2.69), were worse off in terms of self-assessed health (1.46 95% CI 1.17–1.82), were more likely to be lower educated (OR 1.58 95% CI 1.16–2.16) and report lower incomes (OR 2.10 95% CI 1.25–3.55). Problematic drinkers (22+/week), compared to moderate drinkers, were less likely to be female (OR 0.20 95% CI 0.13–0.33), more likely to smoke (OR 1.84 95% CI 1.17–2.91), more likely to have chronic diseases (OR 1.85 95% CI 1.08–3.17), less likely to be lower educated (OR 0.27 95% CI 0.15–0.49) and more likely to be a tenant (OR 1.91 95% CI 1.24–2.93).

Conclusions

This study is the first to describe alcohol consumption patterns and alcohol problems among the Belgian elderly population and reveals a high proportion of at-risk drinkers. Belgian health policy makers should be aware of this high proportion and of the underdetection and misdiagnosis of alcohol problems in this age group.

Adult social position as a possible mediator in the relationship between IQ and alcohol-related mortality and morbidity

Sara Sjölund

S Sjölund, T Hemmingsson, P Allebeck

Dep. of Public Health Sciences, Karolinska Institutet, Stockholm, Sweden
Contact: sara.sjолund@ki.se

Background

Intelligence has been shown to be associated with several health outcomes. We have previously found an inverse, graded association between IQ and later alcohol related morbidity and mortality. The mechanisms are still yet to be clarified. In this study we aimed to investigate if social position as adult could be a mediator in this relationship.

Methods

A cohort study with a population of 21 809 Swedish individuals, both men and women, born 1948 and 1953 from the from the Utvärdering Genom Uppföljning (UGU) data base. IQ measured at the age of 13 was the exposure and alcohol-related disease and death (ICD-codes) was the outcome. Time for follow-up was 33–34 years. Social position was measured at age 32. Cox's proportional hazard model was used.

Results

We found an increased risk of 1,20 hazard ratios (95% CI=1,14–1,25) for every one point change in IQ-test results divided in stanines for alcohol-related admissions. A correlation between IQ- results and social position as adult, as well as between social position as adult and the outcomes, was seen. Adjusting for social position did indeed attenuate the association, although it was not eliminated completely. When assessing the possibility of mediation by following the steps by Baron and Kenny, we found a partial mediation of social position as adult.

Conclusion

We found that social position as adult could act as a partial mediator between IQ measured in childhood and later risk of alcohol-related disease and death. This could be relevant when making prevention strategies for alcohol-related problems.

The role of smoking bans on cigarettes and alcohol habits in Italy

Luca Pieroni

L. Pieroni², M. Chiavarini¹, L. Minelli¹, L. Salmasi²

¹Department of Medical and Surgery Specialities and Public Health, University of Perugia, Italy

²Department of Economics, Finance and Statistics, University of Perugia, Italy

Contact: lpieroni@unipg.it

Background

The introduction of smoking bans in EU was relatively recent, if compared to the US and the issue of whether they have been effective in reducing smoking is still under debate. Different studies on this topic produced mixed conclusions, finding no effects in some countries, Germany, England and Scotland, while other works highlighted positive effects, e.g., Italy. A related literature focused on the effects of such legislation on variables correlated with smoking. Our study aims also to evaluate the spillover effects of smoking ban on alcohol consumption, which is generally found as a complementary good to smoking.

Methods

We use a regression discontinuity (RD) approach to evaluate the effect of the smoking ban for Italy. We exploit the discontinuity introduced in smoking measures from the Clean Indoor Air Law, (CIAL) implemented in Italy as from the 10th January 2005, which prohibits smoking in all public places as well as in pubs and restaurants. We evaluate the impact of CIAL on different groups of the population, testing whether the law was able to reduce smoking and alcohol related habits especially for those individuals with higher mortality rates associated to these habits.

Results

We find that the CIAL had a significant impact and was able to reduce the amount of cigarettes smoked by 0.56 units (95% CI=0.424–0.696) and the percentage of smokers by 2.48% (95% CI=1.676–3.284). Alcohol consumption showed also negative patterns, especially considering the percentage of people drinking beer, which reduced by 0.86% (95% CI=0.476–1.236) and bitters or spirits, who decreased respectively by 0.72% (95% CI=0.321–1.125) and 0.27% (95% CI=0.067–0.457). The categories which have been affected the most by the reform are those of males, unemployed, low educated, and people living in the North of Italy.

Conclusions

The smoking ban had a relevant influence in reducing smoking and alcohol behaviors among Italians. The intervention was especially relevant for sub-categories of the population traditionally associated to higher mortality rates related with alcohol and smoking. This suggests the areas of interventions for policy-makers to obtain gains from anti-smoking policies.

Social marketing in 2011: the solution to the Dutch adolescent alcohol problem?

Sandra Kuiper

S. Kuiper¹, P. van Nierop¹, J.K. Vermunt², J.P. Mathijssen³

¹Health Promotion, Regional Public Health Service Brabant Zuidoost, Helmond, The Netherlands

²Methodology and Statistics, Faculty of Social Sciences, Tilburg University, Tilburg, The Netherlands

³Tranzo, Faculty of Social Sciences, Tilburg University, Tilburg, The Netherlands
Contact: s.kuiper@ggdbzo.nl

Background

Despite the known health risks of alcohol use its consumption is common. Interventions (IVs) directed to alcohol (ab)use have not been very effective, possibly because the IV messages did not appeal to adolescents. Adolescents differ in their drinking habits and have different attitudes towards alcohol. As a consequence IVs reach only a subgroup of adolescents, and not those with a different drinking habit or attitude.

Therefore, in developing IVs, differences within groups should receive focus. Audience segmentation classifies people into segments with similar attitudes and behaviours. Such approach enables a close match of IVs and communication strategies with the requirements of the segments. Purpose of the current study was to define segments of adolescents on alcohol attitude by audience segmentation.

Methods

A sample (n=2731), aged 16–24, drawn from the municipal register 'Brabant Zuid-Oost' completed a questionnaire. With a subset of this questionnaire factor analysis (FA) was performed to define attitudes towards alcohol. The model derived served as input for latent class analysis (LCA), with which different segments were defined.

Results

2592 adolescents responded to the questionnaire. 43% was male, mean age: 19.8 years, mean alcohol consumption on a weekend day: 8 glasses, and ≥ 11 alcohol episodes in past four weeks: 19%. FA provided five alcohol attitudes (alcohol aversion, drunkenness aversion, kind of sociability, norm, way of release). Five segments resulted from the LCA: 1. Enjoyers. Approached alcohol as kind of sociability. 2. Uncontrolled. Approached alcohol as kind of sociability, way of release and norm. 3. Impulsiveness. Had an aversion against drunkenness, but did see alcohol as norm. 4. Thoughtful. Had no strong attitude towards alcohol. 5. Deliberately refusers. Had an aversion against drunkenness and alcohol. Moreover, these five segments differed in their drinking behaviour and other substance use, leisure activities, etc.

Conclusions

This study shows five segments of adolescents with similar attitudes and behaviour towards alcohol. The next step will be to tailor prevention programs with the needs and requirements of the different segments.

D.5. Workshop: Explaining ill health in Central and Eastern Europe: findings a large multi-centre cohort study

Chairs: Martin Bobak and Andzej Pajak, United Kingdom

Organiser: Dept. of Epidemiology and Public Health, UCL

Background

The rates of mortality and ill health in Central and Eastern Europe (CEE) have been higher than in Western Europe, particularly in the 1970s and 1980s. After the rapid and sometimes troubled societal transition following the collapse of communism around 1990, the trends in mortality diverged between different countries. In some countries, mortality started improving, in other parts of the region mortality

remained high and was characterised by pronounced fluctuations. While trends in levels of national mortality rates and the prevalence of major risk factors are understood relatively well, much less is known about (1) the association of various risk factors with mortality at the individual-level and the extent to which they explain differences between countries, and (2) non-fatal health outcomes, particularly those associated with older age, such as disability, physical functions or cognition.

Objectives

The objective of the proposed workshop is to present findings of a large multi-centre cohort study based in four countries of

CEE (Russia, Poland, Lithuania and Czech Republic). The workshop will focus on the following topics: (1) prediction of mortality and explanation of differences in mortality between countries; (2) importance of physical functioning and its relationship with mortality; and (3) cognitive functions.

Methods

The Health, Alcohol and Psychosocial factors in Eastern Europe (HAPIEE) project examined random population samples of over 36,000 middle aged men and women and assessed a wide range of exposures and outcomes. The proposed workshop will include four presentations on important topics, no more than 15 minutes each, and will allow ample time for discussion.

Expected outcome

We expect that the workshop will attract audience from different parts of Europe and will provide a forum to (1) stimulate discussion, (2) provide a feedback for the presenters and, in particular, to (3) brainstorm new research ideas how to address the important public health issue of measuring, explaining and (eventually) preventing the high burden of ill health in CEE.

Social inequalities in mortality over the life course in three post-communist countries

Hynek Pikhart

H Pikhart¹, S Malyutina², R Kubinova³, A Pajak⁴, G Simonova², R Topor-Madry⁴, A Peasey¹, M Marmot¹, M Bobak¹

¹Department of Epidemiology and Public Health, University College London, London, United Kingdom

²Institute of Internal Medicine, Russian Academy of Medical Sciences, Novosibirsk, Russia

³Institute of Public Health, Jagiellonian University Medical College, Krakow, Poland

⁴National Institute of Public Health, Prague, Czech Republic

Background

Social inequalities in mortality in Central and Eastern Europe (CEE) have been reported repeatedly. Most of these studies focus on socioeconomic position in adulthood. More recently, the potential importance of lifecourse research has been realised, however, there is very little evidence about the role of social determinants over the lifecourse on health-related outcomes in CEE. We used a large prospective population-based study in Russia, Poland and the Czech Republic to address the role of social position in childhood, early adulthood and middle age on all-cause mortality in these 3 CEE countries.

Methods

The HAPIEE (Health, Alcohol and Psychosocial factors In Eastern Europe) study is a multi-country cohort study of random population samples in Novosibirsk (Russia), Krakow (Poland) and 7 Czech towns. At baseline (2002–2005), 28,947 men and women aged 45–69 years completed a questionnaire, attended an examination and provided a blood sample. The cohorts were followed up for mortality using local (Novosibirsk and Krakow) and national (Czech Republic) registers. Childhood disadvantage was assessed by score of household amenities at age of 10, participant's own education was classified into 5 point scale, and adult disadvantage was assessed by ownership of household items at the start of study. The Relative Index of Inequality (RII) in Cox regression was used to evaluate the role of social disadvantage in different periods of life.

Results

Age-sex-adjusted mortality hazard ratios (HR), comparing those most disadvantaged to those most advantaged, were 1.12 (95%CI 0.90–1.39) for childhood conditions, 2.33 (1.97–2.76) for education and 4.27 (3.40–5.37) for adult conditions. When adjusted for range of covariates and each other, the effect of childhood conditions entirely disappeared while HR was 1.39 (1.14–1.69) for education and 2.31 (1.79–2.99) for adult material conditions. Country specific estimates followed the same pattern with the strongest role of adult material conditions.

Conclusions

This is one of the first cohort studies in CEE attempting to evaluate the role of social conditions in different stages of life. Social conditions in adult life play the most important role in explaining mortality difference in the region.

Physical functioning and perceived control as determinants of mortality in a Polish cohort

Andrzej Pajak

A Pajak¹, A Doryńska¹, M Kozela¹, W Misiowiec¹, K Szafraniec¹, R Topór-Ładny¹, M Bobak²

¹Institute of Public Health, Jagiellonian University Medical College, Krakow, Poland

²Department of Epidemiology, University College of London, United Kingdom

Background

Classical risk factors, alcohol and socioeconomic factors appear to explain only a modest part of the marked differences in mortality between Central and European Countries (CEE). The mortality decline in Poland coincided with socioeconomic reforms, and changes in psychosocial risk factors are considered as a possible mediator. Paradoxically, with increasing life expectancy the prevalence of physical limitation might have increased in Poland.

Objectives

To assess the relation between perceived control (a psychosocial characteristic), physical functioning (PF), a measure of disability) and the risk of death from all causes.

Methods

Cohort study of random population sample of Krakow residents aged 45–69 years at baseline (2002–2005); 5186 men and 5478 women were examined. PF was assessed using 10 questions of the SF-36 scale. Low PF was defined as less than 75% of the maximum PF score. Perceived control was assessed using a modified 10 question battery. Low control was defined as score below 25th percentile. The cohort was followed up for all cause mortality using local mortality register (>90% of participants agreed to be followed up). During 5-year follow up, 461 men and 221 women died. Adjusted hazard ratios (HR) of death were estimated using the Cox proportional hazard models.

Results

After adjustment for age, education and marital status, low PF was associated with to more than double risk of death (HR = 2.21, 95% CI 1.80–2.72 in men and 2.18, 95% CI = 1.66–2.87 in women). Low control was also associated with increased risk of death from all causes in both men (HR 1.78, 95% CI 1.33–2.37) and women (HR 2.30, 95% CI 1.49–3.55). Further adjustment for CVD risk factors attenuated the relation between low control and mortality, although but it remained significant in men (HR 1.49, 95% CI 1.04–2.04) but not in women (HR 1.08, 95%CI 0.99–2.68). Adjusting for risk factors did not attenuate the effect of PF on mortality.

Conclusions

Both perceived control and PF are associated with all-cause mortality; the temporal trends probably reflect joint effects of a number of different exposures.

Lifecourse socioeconomic position and cognitive function in mid and later life in Central and Eastern Europe

Pia Horvat

P Horvat¹, S Malyutina², A Pajak³, R Kubinova⁴, A Tamosiunas⁵, H Pikhart¹, A Peasey¹, M Marmot¹, M Bobak¹

¹Department of Epidemiology and Public Health, University College London, London, United Kingdom

²Institute of Internal Medicine, Russian Academy of Medical Sciences, Novosibirsk, Russia

³Institute of Public Health, Jagiellonian University Medical College, Krakow, Poland

⁴National Institute of Public Health, Prague, Czech Republic

⁵Department of Population Studies, Kaunas University of Medicine, Kaunas, Lithuania

Background

The positive association between socio-economic position (SEP) across the life course and cognitive function in later life seen in Western populations highlights the public health importance of inequalities in old age. It is unclear whether similar associations exist in populations with different social histories with seemingly smaller income inequalities, and how childhood SEP relates to later life cognition in these societies. Associations between measures of SEP across the life course and cognition in mid and later life were investigated in four Central and Eastern European populations.

Methods

A cross-sectional analysis of random samples of 28,400 men and women aged 45–73 years from the Health, Alcohol and Psychosocial factors in Eastern Europe study recruited in Novosibirsk (Russia), Krakow (Poland), Kaunas (Lithuania) and six Czech towns. Structural equation models were used to estimate the associations between SEP measures across the life course and cognition. Self-reported childhood socioeconomic conditions (maternal education, ownership of household amenities), own education and current material circumstances were used to measure SEP across the life course. Cognition was modelled as a latent construct, composed of word recall, verbal fluency (animal naming) and letter search. The models were age-adjusted.

Results

SEP measures over the life course contributed similarly to cognition in all countries. Own education had the strongest effect on cognition (path coefficients ranged from 0.45 and 0.52 in Czech men and women to 0.24 and 0.22 (all $p < 0.001$) in Russian men and women), followed by current material circumstances. Maternal education had a significant but small direct effect on cognition. The influence of childhood SEP measures on cognition was largely indirect and mediated by education and current material circumstances. The effect of education on cognition was mostly direct, with a small indirect contribution through its influence on current material circumstances.

Conclusions

In these Eastern European populations differences in cognitive function in mid and later life reflect life course socio-economic trajectories. Efforts to reduce inequalities throughout the life course, and notably in childhood, may benefit cognitive health in later life.

Explaining mortality differentials between Russia, Poland and the Czech Republic: prospective data from cohort in Novosibirsk, Krakow and 7 Czech towns

Martin Bobak

M Bobak¹, S Malyutina², R Kubinova³, A Pajak⁴, G Simonova², R Topor-Madry⁴, A Peasey¹, H Pikhart¹, M Marmot¹

¹Department of Epidemiology and Public Health, University College London, London, United Kingdom

²Institute of Internal Medicine, Russian Academy of Medical Sciences, Novosibirsk, Russia

³Institute of Public Health, Jagiellonian University Medical College, Krakow, Poland

⁴National Institute of Public Health, Prague, Czech Republic

Background

There are marked differences in mortality among Central and Eastern European (CEE) countries. In 2009, all-age male mortality in Russia was 1.9 times higher than in the Czech Republic; for females, the ratio was 1.5. Attribution of these differentials to various risk factors has been estimated indirectly by statistical models; there are very few direct estimates.

Objectives

To estimate the contribution of classical risk factors, alcohol consumption (incl. binge drinking) and socioeconomic factors to explaining differences in mortality between 3 population-based cohorts in 3 CEE countries.

Methods

The HAPIEE study is a multi-country cohort study of random population samples in Novosibirsk (Russia), Krakow (Poland) and 7 Czech towns. At baseline (2002–2005), 28,945 men and women aged 45–69 years completed a questionnaire, attended an examination and provided a blood sample. The cohorts were followed up for mortality using local (Novosibirsk and Krakow) and national (Czech Republic) registers. Until end of 2009 (medium follow up 6.0 years) there were 1101 male and 490 female deaths from all causes among 11,426 men and 12,948 women with complete data in all variables used in these analyses.

Results

In men, age-adjusted mortality hazard ratios (HR), relative to Czech cohort, were 2.42 (95%CI 2.06–2.85) for Novosibirsk and 1.13 (0.95–1.35) for Krakow. HR for Novosibirsk vs. Czech cohort were 2.15 (1.82–2.54) after adjustment of classical risk factors (smoking, body mass index, blood pressure and total cholesterol); 2.17 (1.83–2.58) after adjustment for weekly alcohol intake, drinking frequency and binge drinking (>100g in men and >60 in women per occasion at least once a month); 2.09 (1.76–2.45) after adjusting for education, self-reported material deprivation and household assets; and 1.79 (1.48–2.17) after simultaneous adjustment for all of these. In women, the age-adjusted HR for Novosibirsk vs. Czech towns was 1.91 (1.50–2.43) and 1.88 (1.40–2.52) after simultaneous adjustment for risk factors, alcohol and socioeconomic factors.

Conclusions

This cohort study is one of the first attempts to explain mortality differences among CEE populations using empirical individual-level data. Classical risk factors, alcohol and socioeconomic factors jointly explained about 44% of the marked differences in male mortality; socioeconomic factors made the largest contribution. Differences in female mortality were not explained by these factors.

E.5. Workshop: Addressing Systemic Barriers to Roma Access to Health Care: Legal Strategies by Roma NGOs

Chairs: Alina Covaci, Hungary and Tamar Ezer, United States

Organizer: Open Society Foundations, Roma Health Program & Law, Health Initiative

Contact: acovaci@osieurope.org

Despite a range of international, regional, and national frameworks protecting their health and human rights, Roma communities continue to face systemic exclusion and abuse in health care. This panel discussion will explore the work of four Roma NGOs from Hungary, Macedonia, and Romania

carrying out pioneering legal advocacy to address systemic barriers to Roma access to health care. Panelists will share strategies directed at issues such as the lack of identity documents by Roma patients, administrative provisions that disadvantage Roma, and state failure to track how well services are reaching the Roma community.

The format of the workshop is a moderated roundtable with short introductory presentations followed by discussion with the audience. **Ms Sarita Jasarova from LIL (Macedonia)**

will share her organization's efforts to secure Roma people's access to identity documents to enable access to health insurance and health services. **HERA (Health Education and Research Association- Macedonia)** will discuss advocacy to amend Ministry of Health by-laws in order to provide incentives for private doctors to open a gynecological practice based in the largest Roma community in Skopje, Macedonia. **Ms Oana Mihalache from NGO Romani CRIS (Romani Center for Social Intervention and Studies- Romania)** will discuss the role of Roma health mediators in ensuring Roma

access to health services and advocacy for equal services for Roma patients. **ERRC (European Roma Rights Center-Hungary)** will discuss its work to promote access to health care for Roma by using strategic litigation to establish a positive duty by European governments to gather health data disaggregated by ethnicity, with a focus on infant mortality. Speakers will further highlight the importance of inter-sectoral collaboration in tackling systemic obstacles, such as access to personal documents and housing.

F.5. Workshop: Public health research and European public health associations: findings from PHIRE

Chair: Walter Devillé, The Netherlands

Organiser: EUPHA

PHIRE (Public Health Innovation and Research in Europe) is a project led by EUPHA and co-funded by the European Commission's Directorate for Health and Consumers. It has assessed the initiation of health research and the uptake of innovations by EU member states. It has also provided support for the structures of EUPHA, working with the national public health associations and the thematic Sections. Following introductory presentations, the Workshop Round Table will debate developing the public health research agenda at national and European levels.

Do European collaborative health projects lead to innovation at national level?

Margaretha Voss

M Voss¹, K Alexanderson¹, I Rajnicova², A Verma³

¹Division of Insurance Medicine, Department of Clinical Neuroscience, Karolinska Institutet, Sweden

²Institute of Public Health, Faculty of Medicine, Safarik University, Slovak Republic

³School of Translational Medicine, University of Manchester, United Kingdom

Seven thematic Sections of EUPHA have assessed the uptake by EU member states of eight projects funded by the first DG Health and Consumers Public Health Programme. The projects covered topics across health promotion, health services, and health information. All had successfully evolved beyond their original project framework. With a web-based questionnaire, data were gained from respondents, both within and outside Sections, in between nine and 19 countries. The data are analysed as country reports, contributing to country meetings on health research, and also representing overall uptake, project by project. There are opportunities for EUPHA Sections and researchers to coordinate research activities, and improve pan-European uptake of successful collaborative projects.

National reports on health research and innovation

Cláudia Conceição

C Conceição¹, O Grimaud², Z Katreniakova³, L Narkauskaitė⁴, M Sammut⁵, A Saliba⁵

¹School of Health Sciences, University of Minho, Braga, Portugal

²French School of Public Health (EHESP), France

³Institute of Public Health, Faculty of Medicine, Safarik University, Slovak Republic

⁴Lithuania Institute of Hygiene, Lithuania

⁵Ministry of Health, the Elderly and Community Care, Malta

PHIRE country coordinators created an instrument for recording structures and programmes for public health research in European countries through the EUPHA member national public health associations. Informants in 25 countries reported at least one call or programme on public health research announced in 2010 in 16 countries, while nine countries found no call or programmes opened. Seventy-five calls or programmes were included, with a median of two calls per country, and France and United Kingdom having the highest numbers reported. We developed a simple classification for the calls and programmes. There were 11 open calls and 64 thematic calls. Leading themes included non-communicable chronic disease control (18), environmental health (11), health services (14), and health promotion (8). In 2012, national public health associations held workshops between researchers, research commissioning organisations and ministries of health. The results allow comparisons of national performance in commissioning public health research and opportunities for development of the European public health research area.

The future for public health research in Europe

Mark McCarthy

M McCarthy¹, F Barnhoorn²

¹Department of Epidemiology & Public Health, University College London, United Kingdom

²European Public Health Association (EUPHA), Netherlands

Evidence from research can explain the causes of disease, how social trends and policies impact on health, how to create more effective and efficient health services, and determine priority interventions at individual and population levels. The European Commission's Research Directorate starts a new seven-year funding cycle for research in 2014, the Health Directorate is focusing on Active and Healthy Ageing, and the Structural Funds are also available to be used for research. Better public health practice, based on evidence, is important for all European citizens. How can European public health organisations lead in better collaboration, exchange and dissemination of innovation and research?

G.5. Workshop: "A little bird told me"-New ways of communicating public health

Chairs: Dineke Zeegers Paget, EUPHA and L Suzanne Suggs, Switzerland

Organiser: EUPHA

What do tweeting, texting, liking, friend-ing, blogging, filming and app-ing all have in common? They are all part of the new public health; an all inclusive public health.

In the era of new public health, personalised health, consumer driven and focused health, economic crises, as well as increased attention to improve critical health literacy, communication will play a critical role in all levels of public health. This workshop focuses on the need for new communication strategies in public health, and the important role of information and communication technologies (ICT) in public health policy, research, and practice.

The workshop starts by exploring why we need to communicate differently and why we need to communicate through new communication channels; highlighting the challenges of information exchange and effective communication in public health (introduction by L. Suzanne Suggs). Next the workshop will describe new ICT channels and evidence about what works in using them to communicate public health with and between policy makers, consumers, and practitioners.

Case studies from a variety of projects in Europe will illustrate the use of innovative communication strategies through ICT. Examples of blogging, micro-blogging, and film to communicate with various public health actors will be presented and discussed. The workshop concludes with an interactive discussion about communicating through ICT and new media channels.

Public Health Education and Social Network: and experiment with Twitter in a course at EHESP

Antoine Flahault

A Flahault, S Morin, W Harang, C Le Rat, P Benhaddou

EHESP French School of Public Health, Rennes, Sorbonne Paris Cité, France
Social networks are having a radical effect on our social relationships as well as our teaching and research practices. There is a strong anti-establishment movement among young scientists in all disciplines at international level. This Open Science movement sees itself as breaking new ground in the face of conventional scientific and educational practices. In January-February 2012, EHESP students were asked to contribute to epidemiology lectures using Twitter. This was a master's course held in our large lecture hall, with 192 students from the managerial side of health, care and welfare establishments. Faculty's PowerPoint was scattered with slides where students were asked for specific questions (eg: What will be the three main causes of mortality in Europe in 2030?), They had a few minutes to answer and then Faculty had a dedicated time slot for commenting on their tweets which were displayed in real time next to PowerPoint on the large screen in the hall. As nothing was filtered, a few jokes were made behind the Faculty back while he continued with the lecture. The Faculty had an iPad to follow all tweets in real time during his lecture without the need to look back to main screen. People outside the hall commented sometimes (but rarely) using a pseudonym as did most of students. This is normal and expected with Twitter. None of those tweets however were ever unsettling or spiteful. There was never any reason to consider moderating the flow of tweets by filtering them upstream, although it could have been done in case of. During the 6 lectures (12 hours), 732 tweets were posted, in response to 51 Faculty's questions, i.e. 14

replies per question and 61 replies per hour. How could one ever has enabled nearly 200 people gathered together in a lecture hall to take part to this extent? The students who tweeted made a positive contribution to lectures. For example, if you ask what are the three main types of health alert, it is certain that, as students are not in their professor's head, they will suggest answers that you would not have thought of yourself, and which are not wrong! You then have to re-write your lecture with them in real time.

Miniature Cities-a film comparing two European cities, Glasgow and Gothenburg

Bruce Whyte

M Bernhardt¹, A Lyon², B Rubinstein³, G Stigelius¹, BW Whyte⁴

¹City of Gothenburg, Sweden

²The International Futures Forum, Fife, Scotland

³Region Västra Götaland, Sweden

⁴The Glasgow Centre for Population Health, Glasgow, Scotland

Background

In 2009, the Glasgow Centre for Population Health and the International Futures Forum produced Miniature Glasgow, www.miniatureglasgow.com, a short film in which the city was imagined as a village of 100 people in order to highlight health, lifestyle and environment factors and inequalities. This work had in turn been inspired by the Miniature Earth (ME) project-<http://www.miniature-earth.com>

Objectives

Previous work did not provide comparison of one city with another. Through our Miniature Cities project we have developed the concept piloted in Miniature Glasgow to enable two cities to be compared across a range of public health themes-health, lifestyle, culture and the environment. One aim was to prove that we could create an effective comparison of two cities, as an example from which a broader project comparing many European cities could be developed. Secondly, we wished to prompt a debate. How do these cities differ? And why? How might your own city compare?

Approach

Over 2 years partners in Gothenburg and Glasgow have designed this project, agreeing on the content and themes for comparison. Data were accessed from surveys and administrative sources in both cities and screened for comparability and relevance. With a final list of indicators agreed, a film maker was commissioned to create the film. The film includes moving images and footage from both cities, a soundtrack, narration, statements from residents in each city and the indicators that form the basis of the comparisons.

Results

Our film was completed in March 2012 and dissemination has only just begun. However, we believe that the film demonstrates an effective, engaging way of comparing cities. Building up a shared understanding and vision among the partners and having a process grounded in co-creation has been critical.

Conclusions

This film demonstrates a new creative and engaging way of comparing health and related issues in different urban contexts. It is an example of the democratisation of information. The web and film format provide an innovative way of making fresh insights accessible to a new and wider audience. At this early stage in dissemination, this workshop aims to stimulate discussion about how the project might be further developed with other European cities.

H.5. Workshop: Developing Leadership-the key to all-inclusive Public Health practice

Chairs: Helmut Brand and Katarzyna Czabanowska, The Netherlands

Organiser: Leaders for European Public Health (a project funded by the European Commission Lifelong Learning Programme)

Public Health agencies are experiencing an identity crisis, both due to the restructuring of Public Health roles and responsibilities and wider restructuring of health systems. Adding to this is the fact that many European health systems are under increasing financial pressure to deliver more with diminishing resources. It means that today's Public Health practitioner has to be able to work constructively in a turbulent environment, with a wider range of stakeholders. To build all-inclusive Public Health practice they have to be able to build strong networks and teams at every level of the Public Health system, from politicians and policy makers to the mass media and the general public. The skills required are those of effective leadership. However little is known about public health leadership programs which would help develop public health workforce able to adapt to such challenges.

The aim of the workshop is to:

1. Create a debate about the nature of leadership in European Public Health,
2. Discuss the vital role of leadership as a part of Continuous Professional Development (CPD) in achieving all-inclusive Public Health practice, and;
3. Showcase a project, which has developed the first competence-based European Public Health Leadership programme, in conjunction with ASPHER and 4 European Universities.

The workshop will add value to the conference by: emphasizing the role of leadership in public health, discussing effective teaching and innovative approaches related to the design of public health leadership curriculum. There is a plethora of organisations that may be interested in public health leadership curricula in Europe. The workshop can be a valuable source of information to them in the process of constructing their public health leadership curriculums.

The debate will focus on the key issues:

- What constitutes effective leadership in Public Health?
- How pivotal is effective leadership in creating all-inclusive PH practice?
- How to develop effective leadership at all levels of Public Health Practice; and
- How do we develop effective leadership training for European public health professionals?

The workshop will consist of 4 short presentations based on three abstracts and show how the EU "Leaders for European Public Health" project has approached the development of a post-graduate level European Public Health Leadership Programme. The presentations will be followed by a round table discussion and interaction with the audience.

Identifying the leadership competencies for European Public Health professionals

Katarzyna Czabanowska

K Czabanowska¹, T Smith², SJ O'Connor³, L Sumskas⁴, R Otok⁵, H Brand¹

¹Department of International Health, Faculty of Health, Medicine and Life Sciences, Maastricht University, Maastricht, The Netherlands

²Sheffield Hallam University, Sheffield, United Kingdom

³Department of Acute Health Care, Faculty of Health and Social Sciences, University of Bedfordshire, United Kingdom

⁴Institute of Public Health, Kaunas University of Health sciences, Kaunas, Lithuania

⁵ASPHER, Brussels, Belgium

Background

In recent years there has been increased interest in competence-based education (CBE), especially in the area of

Continuing Professional Development (CPD). CBE has also been introduced in public health training. Many competency frameworks have been developed, however there is no specific framework addressing leadership competencies for European public health professionals.

Objective

The aim of this study was to develop a framework of public health leadership competencies for use in continuing professional development (CPD) for European public health professionals

Methods

The study was carried out in three phases: a literature review, consensus development panel and Delphi survey. The public health Leadership Competencies Framework was initially developed from a literature review focusing on literature in English from 2000 to 2011 which addressed public health leadership in Europe. PubMed, Cochrane Library, EMBASE, and Google Scholar were accessed together with grey literature from a variety of public health and leadership institutions. The European Journal of Public Health was singled out for closer review. A final number of 53 citations have been included. These identified 119 competencies for public health leadership which were then submitted to a panel of experts. Two consensus development panels were held to evaluate and make changes to the initial draft competency framework. Then two rounds of a Delphi survey were carried out in an effort to reach consensus on the domains and competencies included in the framework. Both surveys were presented through SurveyMonkey to members of the ASPHER Working Group on Innovation in Public Health Teaching and Education.

Results

A Public Health Leadership Competencies Framework was developed consisting of 53 competencies organised into the following domains: Systems Thinking, Political Leadership, Building and Leading Interdisciplinary Teams, Leadership and Communication, Leading Change, Emotional Intelligence and Leadership in Team-based Organizations, Leadership and Organizational Learning and Development.

Conclusions

8 thematic groups of competencies emerged covering various aspects of public health leadership including systemic, political, change, organizational learning and communication issues. The framework can serve as a useful tool in identifying gaps in knowledge and shaping adequate competence-based CPD curricula for public health professionals in Europe.

Principles of all-inclusive public health leadership-developing the Public Health Leadership curriculum

Tony Smith

T Smith¹, M Stankunas², K Czabanowska³, N Jong (de)⁴, SJ O'Connor⁵

¹Sheffield Hallam University, Sheffield, United Kingdom

²Griffiths University, Gold Coast, Australia

³Department of International Health, Faculty of Health, Medicine and Life Sciences, Maastricht University, Maastricht, The Netherlands

⁴Department of Health Services Research, Faculty of Health, Medicine and Life Sciences, Maastricht University, Maastricht, The Netherlands

⁵Department of Acute Health Care, Faculty of Health and Social Sciences, University of Bedfordshire, United Kingdom

Background

Public Health practitioners need to demonstrate impact on population health at all levels, from the development and implementation of policy, at European, national and regional levels, through the development of local initiatives, to significantly improving population health and prevent disease. For these reasons, the development of an adequately tailored public health leadership curriculum addressing the needs of European public health professionals is of vital importance.

Objectives

The aim was to develop a curriculum for a European Public Health Leadership course. The following course objectives were set to guide the curriculum development process:

- Examine the key debates around Leadership in Public Health in relationship to political, economic, social and, technological change and their implications for leaders within organisations.
- Introduce key theoretical frameworks that underpin leadership learning, and enable the critical use of this knowledge and understanding by applying theory to actual practice within the context of Public Health.
- Develop the ability to reflect on the Public Health leadership role and development needs of individuals.
- Stimulate self-assessment of leadership competencies.

Methods

A literature review was undertaken to identify different domains and contexts that public health organisations operate within. A thematic framework was developed, which provided the outline structure for development of the course curriculum. Sessions were based on these themes. It was important to ensure that the course was tailored for European public health leaders, each session was developed around specific problems that reflect the priorities and objectives of the EU public Health priorities; in particular chronic disease and aging.

Results

The curriculum consists of eight sessions which integrate public health and leadership content and are provided by different university centers on-line. Each session includes interactive lectures, problems/cases around chronic disease and aging. The course is supported by a series of interviews with top public health leaders. It has been piloted with both practicing public health professionals and students in four European countries.

Conclusion

The European Public Health leadership curriculum can fill an important gap in public health education. Plans are now underway to establish a European Public Health leadership programme, run collaboratively through ASPHER.

Educational approaches for maximising the accessibility of the European Public Health Leadership programme

Nynke de Jong

N de Jong¹, K Czabanowska¹, KD Könings², S Sauliune³, Ch Lohrmann⁴

¹Department of Health Services Research, Faculty of Health, Medicine and Life Sciences, Maastricht University, Maastricht, The Netherlands

²Department of Educational Development and Research, Faculty of Health, Medicine and Life Sciences, Maastricht University, Maastricht, The Netherlands

³Institute of Public Health, Kaunas University of Health Sciences, Kaunas, Lithuania

⁴Department of Nursing Science, Medical University of Graz, Graz, Austria

Background

In the earlier study on the supply and demand of public health lifelong learning courses carried by ASPHER, a need for leadership courses and more innovative training methods was expressed. Almost every higher education institution has now incorporated an online element into their courses however there is no information on how effective such approaches are in developing leadership skills in public health professionals in Europe.

Objective

We aim to present a multiple case study involving the evaluation of the public health leadership course carried out in Sheffield, Maastricht, Kaunas and Graz and attempt to answer a question: how and why innovative educational approaches such as blended learning can maximize the development of leadership skills and accessibility of European Public Health Leadership Programme based on EU project supported by Lifelong Learning program.

Methods

Qualitative and quantitative assessment measuring student experiences with the innovative blended learning environment using on-line focus groups and questionnaires was used and a pre-test-post-test design to measure leadership development during the course in four locations. The number of participants was as follows: Sheffield (N=12), Maastricht (N=12), Kaunas (N=10) and Graz (N=10)

Results

Although the key to differentiating leadership in Public Health, as opposed to other areas, is the context, the opinions in four centers about the course were similar. All participants appreciated the blended learning method as it gave them an opportunity to meet other people with completely different backgrounds and exchange experience in a collaborative way on line. They found e-lectures very convenient. They have learnt how to control their reactions to new challenges. The students appreciated the opportunity to work at a suitable pace and the afforded accessibility of the programme. The course helped them improve public health leadership skills. They favored such topics as: alternative discourses on leadership, political leadership and systems thinking.

Conclusions

The authors believe that the programme has a great potential showing that the use of ICT can support the learning process and enhance communication. The results can offer valuable information to other universities or Schools of Public Health which want to design curricula in the area of public health using Blended Learning and online technology to increase satisfaction and access to educational provision.

I.5. Workshop: Hospital care in Europe: towards a Europeanized framework?

Chair: Kai Michelsen, The Netherlands

Organiser: Department of International Health, Maastricht University

Objectives of the workshop Hospital policies and services have to be adapted to changing health needs, technological innovations, the reorganization of in- and outpatient services, and cost containment strategies. The economic and financial crisis puts additional pressure on reorganization. At the same time, there is considerably less room for financial investments needed for this.

While the hospital sector is mainly developed in a national context, it must be acknowledged that despite the EU's limited

healthcare mandate hospitals operate nowadays in a context where multiple links to EU policies exist:

- EU influences extend to hospitals' activities such as patient care and safety, professionals' training and research and their roles as employer and purchaser.
- EU policies to control and reduce the public debt put additional pressure on public hospital expenditures.
- An emerging European healthcare policy agenda promotes options for hospital reforms highlighting the need for better service integration, contribution to economic growth and social cohesion and backed by access to EU Structural Funds.

The workshop intends to provide insight into the relevant European policy context that is influencing decisions on hospital strategy-beyond the immediate national context. It analyzes the European dimension from four perspectives:

- An economic perspective illustrating the impact of the financial crisis on national reforms and impact on hospitals
- A cross-border perspective demonstrating how cooperation beyond national borders can be of benefit to hospitals and national healthcare systems but addressing key pre-requisites for effective cooperation
- A regulatory perspective showing how further EU fiscal integration and increasing healthcare initiatives at EU level are likely to offer or constrain policy decisions on hospitals
- A innovation perspective illustrating how the factors discussed earlier are tracked through EU debate and policy to stimulate new models of care

Taking up the question of an Europeanization of hospital policies and services, the aim of the workshop is to elucidate the pressures to act and scope for action-potentially shaped by EU level provisions-for national hospital policy. In addition, the possible implications for the principle of subsidiarity and the division of responsibilities between EU and Member States in terms of financing and organization of healthcare will be addressed.

Economic perspective: the financial crisis and its consequences for hospital policy throughout the Union

Pascal Garel

P. Garel

European Hospital and Healthcare Federation (HOPE)

Background

A major source of health expenditure, hospitals and healthcare services have been particularly affected by the crisis and have been at the core of many measures aimed at cutting costs. For some Member States this has been considered as an opportunity to improve effectiveness and increase efficiency.

Methods

For the last two years HOPE has been working with its members to monitor the impact of the crisis on European healthcare services. The first results of this work were presented in the publication “The Crisis, Hospitals and Healthcare”. An update is reported in the article “The current crisis, hospitals and healthcare” published in April 2012 in the HOPE yearbook Hospital Healthcare Europe 2012.

Results

Several countries implemented rather extensive reforms of the healthcare system. For some the reforms already under discussion were accelerated, for others this was just a response to the financial constraints. The crisis impacted hospital activity in different ways. Some countries slowed down healthcare spending and introduced short ceilings to hospital budget increase. Others reduced the operational costs of health services, reduced prices paid to providers for services covered by health insurance or cut expenses on pharmaceuticals, and sometimes also payments for goods, services and tangible assets. The wage cuts in the public sector of some countries had a significant impact on hospitals. Drop of salaries in some countries pushed abroad healthcare professionals while others experienced a renewed inflow of doctors and nurses. From users’ perspective, direct payments for treatments, visits, hospitalization and health technologies increased. Out of pocket payments in hospitals and patients’ contributions to some medical and paramedical services rose or were newly implemented.

Conclusions

Hospitals and healthcare services have been pushed to increase efficiency and productivity in order to be able to deliver same quality, care and safety with fewer resources. Some are able to

adapt to those challenges fostering excellence, introducing or improving group purchasing, rationalizing the healthcare supply, improving coordination between different levels of care and outpatient activity. Others are struggling.

Cross-border perspective: Patient, professional and service mobility in European hospitals

Matt Commers

M. Commers

Department of International Health, Maastricht University, The Netherlands

Background

Cross-border care in border regions includes patient, professional and service mobility. Patients move across borders to obtain care. Professionals enjoy appointments at hospitals on two sides of a national border and move back and forth. Services, too (mostly via telemedicine) are employed across borders in border regions.

This presentation focuses on the theoretical impact of economic austerity policies (‘belt-tightening’) upon strategic investment in cross-border care by hospitals in European border regions. One would imagine, for example, that periods of economic restriction might generally force hospitals to scale back on strategic investments in cross-border care. But is it true that this would be a rational approach in a time of economic austerity?

Methods

To answer our research question, we look at a broad sample of ways in which hospitals have collaborated in border regions in Europe. We build on the DG-SANCO sponsored project Euregio II, which looked at cross-border collaboration across Europe. We also reference the ECOMA project, an evaluation of the cross-border collaboration between the MUMC Maastricht and UKA Aachen hospitals.

Results

Economic austerity policies can both stimulate and inhibit investment in cross-border hospital collaboration. Investment in cross-border collaboration can help hospitals strengthen their financial viability in multiple ways. These involve the exploitation of efficiencies of scale and the prevention of cannibalization of patient volumes. Furthermore, an optimization of the match between services with needs and a critical mass for research and innovation can be reached. At the same time, such investment can undermine hospital finances through various pathways, including increased management complexity and higher administrative and legal expenses.

Conclusions

There are meaningful financial arguments (both short- and long-term) supporting strategic investments in cross-border hospital collaboration. Those working on cross-border issues on behalf of hospitals should conduct good financial pro forma modeling of initiatives. Researchers can collaborate with hospital executives and departmental chiefs in an action research to investigate the short- and long-term potential of proposed cross-border investments.

Regulatory perspective: EU policy influences on the governing of hospitals

Timo Clemens

T. Clemens, H. Brand

Department of International Health, Maastricht University, The Netherlands

Background

There is neither a coherent healthcare nor specific hospital policy existing at the European level. But hospitals have been affected by single EU legislative provisions (e.g. Working Time Directive, competition law, etc.). The emerging EU fiscal mandate covers the coordination of national macro-economic policies including welfare state issues, and a growing tendency to address questions of healthcare organization on EU level can

be observed (Council Conclusions, 3rd Action Programme). This raises the questions if EU provisions are getting in a more consistent way relevant for the hospital sector, and if so, which goals and policy instruments might be applied.

Methods

A review of scientific literature, grey literature, EU and national policy documents is combined with semi-structured expert interviews. For the review a search in databases like Medline and Web of Science is augmented with the screening of relevant EU and national institutions' websites. Experts are selected from the EU and national health policy field to match the different perspectives in the analysis.

Results

In the context of EU fiscal integration specific healthcare and hospital care targets have so far not been in the focus (in contrast to pensions and more generally the reform of public services). However, a stronger impetus for public household consolidation and austerity measures can at least indirectly influence healthcare reforms not just in the worse affected countries. The reform ideas mediated from EU fiscal policy rationales tend towards stronger liberalization and privatization. EU health policies strive for better coordination and collaboration on hospital organization and promote new areas like hospital investments and planning, integrated care arrangements and new models for hospital care.

Conclusions

EU policies seem to become more relevant for the hospital sector. However, in the current early phase of political discussions, the impact on and of instrument development and implementation is not clear. Nevertheless, hospitals should pay increasingly attention to the EU arena to attend the discussion from early on.

Innovation perspective: Future Models of hospital care

Barrie Dowdeswell

B Dowdeswell

European Centre for Health Assets and Architecture (ECHAA)

Background

Despite widely differing political, societal, and economic perspectives healthcare across Europe is biased towards a hospital-centred model. The hospital sector typically absorbs

35–70% of national expenditure on health. Health systems in recent years have faced the need to respond better to universal pressures (ageing populations, rise in chronic disease, patient demand driven by better information and by less healthy lifestyles, new technologies with capacities to transform services delivery). This adds up to a significant shift of emphasis away from the hospital towards a more community focused and integrated service model; nevertheless the hospital sector has remained remarkably resilient to reform.

Methods

Research into EU Cohesion Policy and participation in the Hungarian EU Presidency programme. The economic crisis has now created more immediate pressure for change. The EPC-Commission Report on Health Systems comments “the economic crisis will bring about a period of budgetary constraint associated with the need to reduce large government deficits”. The EU Council in establishing a High Level Reflection Process to review health systems across Europe is promoting the need for “new innovative models of care” with “the aim of moving away from hospital-centred systems”. The EU Cohesion Policy and Europe 2020 strategy documents reaffirm the need for reform and for Health to contribute to greater extent to economic growth and fiscal sustainability.

Results

Health systems need to reform and live within their means. There is good evidence for the conviction about changing focus that is shaping EU policy. Surprisingly, in the vanguard of change are the more progressive hospital-based Public Private Partnerships using their autonomy to expand into vertical and horizontal integrated models of care and eHealth driven change. There is also good evidence to demonstrate that pathway based principles of service delivery stimulate more responsive, adaptable and sustainable concepts of care. This co-relates closely with the call by the EU for health to improve social cohesion, health equity and fiscal stability; through innovation.

Conclusions

The challenge for the public hospital sector will be to move on from a largely public service sectoral ethos towards a more innovative, integrated and entrepreneurial orientation. This will not be easy at a time when there is a marked shortage of reinvestment resource.

K.5. HEALTH BEFORE AND AFTER BIRTH

High Prevalence of Vitamin D Deficiency in Pregnant Women: a National Cross-sectional Survey

Stefanie Vandevijvere

S Vandevijvere¹, S Amsalkhir², H Van Oyen¹, R Moreno-Reyes²

¹Department of Public Health and Surveillance Scientific Institute of Public Health Brussels

²Nuclear Medicine Hôpital Erasme Brussels

Contact: stefanie.vandevijvere@wiv-isp.be

Background

An increasing number of studies suggest that vitamin D deficiency during pregnancy is associated with multiple adverse health outcomes in mothers, neonates and children. There are no representative country data available on vitamin D status of pregnant women in Europe. The aim of this study was to estimate the prevalence of vitamin D deficiency among Belgian pregnant women and to assess the determinants of vitamin D status in the first and third trimester of pregnancy.

Methods

The women were selected via a multi-stage proportionate-to-size sampling design. Blood samples were collected and a questionnaire was completed face-to-face. 55 obstetric clinics were randomly selected and 1311 pregnant women participated in the study.

Results

The median serum 25-hydroxyvitamin D [25-(OH)D] concentration was significantly lower in the first trimester (20.4 ng/mL) than in third trimester (22.7 ng/mL). Of all women, 74.1% (95%CI = 71.8–76.5%) were vitamin D insufficient (25-(OH)D <30 ng/mL), 44.6% (95%CI = 41.9–47.3%) were vitamin D deficient (25-(OH)D <20 ng/mL), while 12.1% (95%CI = 10.3–13.8%) were severely vitamin D deficient (25-(OH)D <10 ng/mL). Of all women included, 62.0% reported taking vitamin D-containing multivitamins, of which only 24.2% started taking those before pregnancy. The risk of vitamin D deficiency (25-(OH)D <20 ng/mL) was significantly higher for smokers, less educated women and women who reported not going on holidays to sunny regions. The risk of severe vitamin D deficiency (25-(OH)D <10 ng/mL) decreased for women who reported alcohol consumption during pregnancy, decreased with more frequent use of sunscreen lotion and increased for women who reported preference for shadow.

Conclusions

In conclusion, vitamin D deficiency is highly prevalent among pregnant women in Belgium and this raises concerns about the health consequences for the mother and the offspring. A

targeted screening strategy to detect and treat women at high risk of severe vitamin D deficiency is needed in Belgium and in Europe.

Older first-time mothers and their birth outcomes: what has changed between 1991 and 2008 in Finland?

Reija Klemetti

R Klemetti, M Gissler, E Hemminki

National Institute for Health and Welfare (THL), Helsinki, Finland

Contact: reija.klemetti@thl.fi

Background

In 1991 we found that older first-time mothers had poorer birth outcomes and higher service use than other first-time mothers. Since then the mean age of first-time motherhood has notably increased and the organisation and content of obstetrics and perinatal care has changed. The purpose of this study was to find out whether the 1991 results still apply.

Methods

National data on 24 765 first-time mothers in 1991 and 23 511 in 2008 were extracted from the Finnish Medical Birth Register. In both study years, older mothers (35–39 and 40 years and over) were compared to younger mothers (20–34 years). Infant outcomes were adjusted for mother's background characteristics by logistic regression.

Results

In both years, older mothers were more often highly educated and urban, and they had more previous miscarriages and fertility treatments than younger first-time mothers. However, unlike in 1991, older mothers in 2008 were more often non-smokers, while the differences in socioeconomic position and previous miscarriages among older and younger mothers were more pronounced in 2008 than in 1991. In both years deliveries were more likely to be induced, instrumental, or done by caesarean section. In 2008, the differences among older and younger mothers in induced and instrumental deliveries were more pronounced and less pronounced in caesarean than in 1991. In both years infant outcomes were poorer among older mothers, but most differences by age were smaller in 2008. The exceptions were perinatal deaths among mothers aged 40 years or more, among whom perinatal deaths were more common compared to younger mothers in 2008 than in 1991.

Conclusions

Older maternal age at first birth is still a risk for maternal and perinatal health and increased health service use regardless of advances in obstetrics and perinatal care, but some dilution of extra risks for poor infant outcomes has occurred.

Factors Associated with Abortions in Russia: a Predictive Modeling Study

Vasily Vlassov

S Soshnikov¹, C Lee¹, VV Vlassov², S Vladimirov³, ME Gaidar⁴

¹Department of Mathematics, Central Michigan University, USA

²Department Public health and Preventive Medicine, I. Sechenov First Moscow State Medical University, Russia

³Independent Laboratory SQLab, Russia

⁴Harvard Kennedy School Mid-Career Master in Public Administration, Harvard University, USA

Contact: vlassov@cochrane.ru

Background

Abortion is an important social and health issue in Russia. Most countries, including Russia, have been attempting to reduce abortion. During two past decades, there has been some success of reducing the abortion rates in Russia. Questions remain that what factors in the society may be associated with abortion and why the reduction of the abortion rate is slow.

Methods

In this study, we attempt to apply predictive modeling techniques including regression, decision tree, neural network and partial least squares to investigate the factors that have significant association with the abortion rates in Russia. The target variable of interest is the abortion rate per 10,000

individuals based on the Russian Federation region annual statistic. A total of 130 variables are extracted from various Russian Federal databases. Data were collated, cleaned and adjusted. A total of ten years of data are included from 2000 to 2009. These variables represent a wide range of societal characteristics such as social, economic, health system, demographic, disease incidences, crimes, several categories of factors related to alcohol consumption.

Results

The best model obtained is a regression model using average squared error criterion. The final model consists of 14 significant variables with adjusted R² at 80.85%. These significant inputs can be classified into geographic factors, health related factors (e.g. pregnancy complication), health infrastructure, demographic factors, alcohol and crimes related factors, economic factors and education infrastructure.

Conclusion

The abortion prevalence in regions of Russia is strongly associated with socio-economic factors and health and health care variables. This provides the foundation for skepticism in relation to the investment in the advanced obstetric facilities and not to the social well being of the population.

Caesarean section in Vietnamese-born women in Victoria, Australia, 1984–2007: should we be concerned?

Rhonda Small

R Small, P Agius, M-A Davey

Mother and Child Health Research, La Trobe University, Melbourne, Australia

Contact: r.small@latrobe.edu.au

Background

Over 30% of women in Australia now give birth by caesarean section, but there is wide variation among maternal country of birth groups, from as low as 16% in some immigrant mothers to almost 40% in others. For more than twenty years, Vietnamese-born women have comprised the largest group of immigrant women giving birth in Australia and it is timely to review caesarean section rates in this group of mothers.

Aim

To compare obstetric outcomes-with a particular focus on caesarean section-for Vietnamese and Australian-born women over the past two decades, using routine data on singleton births from the Victorian Perinatal Data Collection (VPDC).

Method

The sample comprises Victorian women with singleton births between 1984 and 2007. Data were grouped into three-year bands and descriptive analyses were undertaken comparing maternal and obstetric factors for Vietnamese-born women with Australian-born women. Using the most recently available data (1999–2007), multivariate logistic regression models were also developed to explore the association between risk of caesarean section and maternal country of birth, adjusted for maternal and obstetric factors, public/private admission and time period (n=474,047). Logistic regression analyses exploring this association for 'standard primiparae' (at low risk for a caesarean birth) were also undertaken (n=69,823).

Results

Fewer women born in Vietnam gave birth by elective caesarean section than those born in Australia, and rates of emergency caesarean section differed little between the groups. However, after adjusting for obstetric and maternal factors, Vietnamese-born women were at greater risk of having an emergency caesarean birth compared with Australian-born women (AdjOR = 1.26; 95% CI: 1.19–1.33). Moreover, this association was also found among the 'standard primiparae' (AdjOR = 1.19; 95% CI: 1.03–1.36).

Conclusions

It would appear that factors other than clinical risk may be predisposing Vietnamese-born women to caesarean birth.

Potential contributing factors, such as communication difficulties and cultural issues (for women and care providers) will be discussed.

Risk factors for infant deaths among singleton babies born at term in England, 2005–07

Nirupa Dattani

N Dattani, AJ Macfarlane, P Datta-Nemdharry
City University London, United Kingdom
Contact: n.dattani.1@city.ac.uk

Introduction

Over 90 per cent of the live singleton births that occur in England are born at term 37–41 weeks. Although the infant mortality rate for this group of babies is only 1.8 per 1000 live births compared with the overall infant mortality rate 4.9 per 1,000 live births, they account for 40 per cent of infant deaths among live singleton births. Ethnic origin is not recorded at registration. Therefore all analyses to date based on national data have used the mother's country of birth. But with the introduction of a central system for allocating the National Health Service Number for Babies (NN4B) in 2002, it was possible to access information on ethnicity and gestational age for all births. Information on parity is collected on a separate hospital admission system. Therefore selected data items from both of these systems were linked to birth and infant death registration records in England to enable analysis of infant deaths by gestation, birthweight, ethnicity, parity, mother's age, marital status and area deprivation score.

Method

All records of singleton live births linked to NN4B and hospital records in England for 2005 to 2007, for babies born at term and for babies whose ethnic group ethnic group was recorded as White British, Pakistani, Bangladeshi, Indian, Black African and Black Caribbean were used. Odds ratios and p-values for the univariate and multivariate analysis were derived from logistic regression in SPSS.

Results

There were 2,798 infant deaths among 1,510,376 singleton live births in England from 2005 to 2007, giving a rate of 1.85 per 1,000 live births. Infant mortality for babies of Pakistani ethnicity was significantly higher at 5.14 per 1,000 live births compared to white British, Indian, Bangladeshi, black Caribbean and black African babies. The odds ratio remained significantly higher at 2.54 after controlling for mothers age, birthweight, sex, parity, marital status and area deprivation score.

Conclusion

Infant mortality for babies of Pakistani ethnicity remains high at term compared to all other ethnic groups in England, after controlling for socio-demographic factors and area deprivation score. These babies have high mortality rates due to congenital anomalies and these may be attributed to autosomal recessive inheritance.

What are the social, economic and general health costs and benefits of consanguinity? the Born in Bradford Birth Cohort Study

Raj Bhopal

R Bhopal¹, E Petherick², L Fairley², N Small³, J Wright²

¹Ethnicity and Health Research Group, Centre for Population Health Sciences, the University of Edinburgh, Edinburgh, United Kingdom

²Bradford Inst for Health Research, Bradford Teaching Hospitals NHS Foundation Trust, Bradford, United Kingdom

³The University of Bradford, Bradford, United Kingdom
Contact: raj.bhopal@ed.ac.uk

Background

More than 1 billion people are reportedly in consanguineous marriages, which have small but important risks of genetic defects in offspring. While counterbalancing benefits are claimed, the evidence is sparse and qualitative.

Objective

To examine, quantitatively, a range of putative associated social, economic; lifestyle and general health benefits (excluding genetic outcomes) in women and their offspring in consanguineous marriages.

Setting

City of Bradford, England-Born in Bradford (BiB) Study

Design/Methods

BiB is a prospective birth cohort study where 13,776 women were recruited at about 26–28 weeks gestation between 2007–2010 with follow up to birth, and beyond that through linkage to health records and actual follow up of subsets. At recruitment women completed a questionnaire including whether they were related to the father of the baby before marriage. Ethnic group was self-assigned based on the Census England 2001 question. We compared Pakistani and Other Non-British groups in, and not in, consanguineous marriages. For reference we used White British mothers not in consanguineous marriages.

Results

Consanguinity was common in the Pakistani group (59%, 37.4% with first cousins), less common in the Other ethnic groups (7%) and rare in the White British group. Mothers in consanguineous relationships were, objectively, comparatively socially and economically disadvantaged. Yet, in every respect their lives were no worse or better than women in non-consanguineous marriages. For example women in consanguineous relationships were less likely to be employed, or have higher education than their non-CR counterparts. They were no different in financial matters including paying bills, or in the marital relationship e.g. the security and warmth of their relationship. Women in CRs were less likely to divorce, smoke cigarettes, or drink alcohol.

Conclusion

Consanguineous relationships are associated with benefits that need to be offset against genetic risks to offspring. In evaluating consanguinity a broader scientific perspective than hitherto is essential.

L.5. Workshop: Diagnosis-specific sickness certification guidelines/recommendations: their background and implications

Chair: Kristina Alexanderson, Sweden

Organiser: EUPHA Section of Social Security and Health

Every day, physicians write medical certificates for thousands of patients regarding their sickness absence. Different studies have identified great variations in sickness absence certification patterns, also in patients with similar diagnoses and work capacity. Moreover, there is evidence from several studies that physicians find sickness certification a problematic task. To aid

physicians, insurance agencies, and case managers and to assure a patient's right to fair and more equal treatment, different sets of diagnosis-driven recommendations or "guidelines" have been developed and implemented in different countries.

The aims of this workshop is to provide an overview of such sickness certification recommendations or "guidelines", currently used in Europe and the United States, and to initiate a discussion about them, from a scientific point of view.

Five different sets of recommendations or “guidelines” will be presented, two from Europe (Sweden and the UK) and three from the United States, regarding their underlying principles, intended use, and evaluation. In addition, the basis for the development of new return-to-work guidelines for patients in cardiac rehabilitation programmes in The Netherlands will be presented.

Clinical practice guidelines have been defined as “systematically developed statements to assist practitioners’ and patients’ decisions about appropriate health care for specific clinical circumstances”. Such guidelines should be based on scientific evidence. However, due to the limited research on sickness absence, and especially regarding sickness absence due to specific diagnoses, the extent to which sickness certification recommendations are science-based is very limited. Nevertheless, every day physicians discuss the pros and cons of being absent from work with their patients and write sickness certificates indicating the ‘correct’ or optimal duration for sickness absence.

Some of the questions to be discussed in the workshop are: What are the incentives for introducing diagnoses-specific sickness certification recommendations or “guidelines”?

What are the pros and the cons of using such guidelines, from the perspective of patients, physicians, employers, insurance companies, and politicians?

How should studies best be designed to gain more knowledge about this?

Comparative overview of disability guidelines in the United States

George Delclos

GL Delclos^{1,2}

¹The Center for Research in Occupational Health, Pompeu Fabra University, Barcelona, Spain

²The University of Texas School of Public Health, Houston, Texas USA

In this presentation, we will provide a comparative overview of three comprehensive resources frequently used in the United States by clinicians and case managers to help guide the management of sickness absence: 1) the Official Disability Guidelines, published by the Work Loss Data Institute, 2) the Medical Disability (or ‘MD’) Guidelines, published by the Reed Group, and 3) the Occupational Medicine Practice Guidelines, published by the American College of Occupational and Environmental Medicine. Topics addressed by these guidelines include anticipated time to return to work, evidence-based treatment guidelines and work modifications. In addition to comparing these three guidelines, some practical examples of their use will be provided during the session.

Return-to-work guidance in the Dutch Multidisciplinary Guideline for Cardiac Rehabilitation 2011

Angelique de Rijk

A de Rijk

Department Social Medicine, Maastricht University, Maastricht, The Netherlands

Introduction

In 2011, the new Dutch Multidisciplinary Guideline for Cardiac Rehabilitation has been launched. The guideline includes recommendations regarding return to work for cardiac rehabilitation teams, general practitioners and occupational physicians.

Methods

Three systematic reviews were done on 1) the effectiveness of return-to-work interventions for cardiac patients; 2) risk factors in the workplace for cardiac patients and 3) factors that prolonged sickness absence in cardiac patients. The scientific evidence from these reviews was discussed with representatives of 11 scientific societies of professions involved in cardiac rehabilitation and the patient’s association during

11 meetings over a period of 18 months. Recommendations were formulated, checklists were developed and pilot-tested and schemes to improve communication.

Results

The following number of studies with sufficient quality was found: 14 studies on return-to-work interventions for cardiac patients; 32 studies on psychosocial risk factors were of sufficient quality; 24 on factors that prolonged sickness absence in cardiac patients. Positive effects of interventions were found for the more complex interventions. Four major psychosocial risk factors were found and 14 barriers to successful return to work. Key recommendations were: start of (part-time) return-to-work during cardiac rehabilitation; tailor-made support; communication between the cardiac rehabilitation team and occupational physician. To facilitate tailor-made support a checklist for screening on risk-factors in the workplace and barriers for return to work was developed and pilot-tested in one hospital. In addition to the checklist a matrix with risk-factors/barriers and possible interventions was developed to guide professionals in offering tailor-made support.

Conclusions

Return-to-work guidance should be part of cardiac rehabilitation in order not to delay return to work and offer the patient tailor-made support. Next step is implementation of the guideline.

‘Healthy Working UK’: A website for work and health in the UK

Debbie Cohen

D Cohen

Centre of Psychosocial and Disability Research, Cardiff University, Wales, United Kingdom

Background

Dame Carol Black’s report (2009) highlights the evidence that work is good for health and wellbeing as well as the therapeutic nature of work. Studies have highlighted that GPs and hospital doctors feel they lack both knowledge and confidence in managing work and health related issues in their consultations. In the UK this has led to the development of interventions and training, to shift health practitioners’ behaviour about the importance of addressing health and work issues with their patients. Central to these developments is the “Healthy Working UK” website. The website is endorsed by The Royal College of General Practitioners, The Faculty of Occupational Medicine, and The Society of Occupational Medicine.

Method

The website was developed in 2008 using experts, GPs and occupational health practitioners. Data was collected to understand GPs’ views on a ‘health and work’ website. In 2009, the site was evaluated across Wales. In 2010, the site was expanded to cover the whole of the UK. The site includes information and leaflets for patients and doctors including guidelines about return to work, access to e learning for both hospital doctors and GPs and links to face-to-face training events. The site includes ‘aids’ to support the completion of new ‘fit note’ and a newsletter.

Results

The website has slowly gained membership over the last three years. Between April 2011–December 2011 there had been 9615 visits to the site; 6445 individual visitors and an average 1000 visitors per month, viewing on average 3 pages. The ‘home page’, ‘learning resources’, and ‘websites and leaflets’ were the most viewed areas. Our results show that the site has enhanced GP learning with now 3500 GPs attending face-to-face training since June 2009. 394 GPs and 60 hospital doctors have downloaded the e-learning training from the site during this time period.

Discussion

The website is central to the on-going UK work stream to engage health practitioners, employers, and individuals with the work-and-health agenda and bring about a change in

behaviour across all three stakeholders. Evaluation of the face-to-face GP training, has demonstrated a significant shift in GP attitudes. The next steps include speciality specific face-to-face training for hospital doctors. The developing work will be discussed with examples of interventions provided.

Expertise and post-normal science in the development of the Swedish sickness certification decision-support tool

Lena Eriksson

L. Eriksson¹, M. Sager¹, C. Staland-Nyman², G. Hensing²

¹Department of Philosophy, Linguistics and Science of Theory 1

²Department of Public Health and Community Medicine2, University of Gothenburg, Gothenburg, Sweden

Background

In Sweden, large variations were identified in sick-leave duration also in episodes with the same diagnoses. A decision support was developed to ensure more uniform assessment of sick leave. The present qualitative study aimed at examining the process of construction and development of the new decision support.

Methods

Qualitative analyses of data from interviews and documents were performed. Participants (n = 15) in in-depth interviews were medical and insurance experts from the Social Insurance Agency involved in the development of the decision-support. Interviews with the medical experts focused on how well their specific medical field of expertise fitted the format suggested for the decision support and how a "standard patient" looked

like in their clinical everyday work. For both groups of interviewees, issues regarding assessment of work capacity were discussed. The documentary analysis was done reading investigations, memos, reports and minutes. Themes identified in the interviews were compared with the overall documentary analysis and constituted the basis for an epistemic analysis.

Results

The analyses showed that the decision-support was developed under a tight schedule and with strict templates for its format. The decision support was built around diagnostic categories and a majority of the experts that were used were specialized in medicine. A difficulty in the process was according to participants to produce standardised medical assessments of how a particular illness was expected to affect patients' work capacity rather than how the illness affected the patient. The evidential basis for such assessments was scant. Findings show that conditions that were not somatic or could not be 'measured objectively' proved extra problematic, since much of the assessment in these situations hinges on physicians' experience-based expertise combined with their understanding of the circumstances of individual patients.

Conclusion

The analysis indicates that 'work capacity' does not fall squarely within the remit of medical expertise, but is an example of 'post-normal science' that requires a broad range of experts from different fields both inside and outside of science coming together to pool their knowledge and build new expertise.

M.5. Workshop: Multimorbidity: a hidden epidemic that challenges European health services

Chairs: Marjan van den Akker, The Netherlands and Alexandra Prados, Spain

Organiser: Aragón Health Science Institute (Spain) and EUPHA Section on Chronic Diseases

Background and aims

The presence of multiple chronic diseases within one patient, defined as multimorbidity, is today the rule rather than the exception. Although it mainly affects the older people, with a prevalence reaching as high as 98%, its frequency is higher than expected in individuals of younger age as well. Recent investigations have stated that multimorbidity manifests differently in men and women and that it is negatively associated to individuals' socio-economic level.

Multimorbidity has negative consequences not only for patients' health (i.e. increased mortality, lower patient quality of life and unsafe health care) but also for the sustainability of health services due to a potentially inefficient use of healthcare resources.

The magnitude of this phenomenon and its increasing evolution force us to consider multimorbidity as a relevant public health problem. Yet health care is organized and designed primarily to assist patients with a single health problem. If the goal of health services is to reduce excess morbidity and mortality, there is an urgent need to move towards healthcare delivery models that prioritize patients' global health, rather than caring for individual chronic diseases.

It is therefore necessary to identify, evaluate and disseminate those best practices with a proven positive impact on the health of patients with multiple chronic diseases, to adapt clinical guidelines, and to involve physicians, managers and patients themselves in the pursuit of a solution.

Workshop layout

The workshop is composed of three presentations by European researches with international representativeness and sound expertise in the study of multimorbidity. The first one will delve into the etiology, the course and the impact of chronic disease associations, including those complex disease aggregations which are less intuitive or explicable. The second one will offer future prospects to adequately respond to the needs of patients with multimorbidity from the perspective of both health services and patients themselves. The third one will focus on a key and peremptory aspect as is the need to develop clinical practice guidelines that systematically address multimorbidity, taking the case of chronic heart failure as an example.

Added value

Attendees will acquire state-of-art knowledge on multimorbidity as well as a deeper understanding of the rationale for public health research and action agendas to incorporate multimorbidity as a high-priority area.

What is there behind multimorbidity? Following the track of diseases

Alexandra Prados

A. Prados, A. Calderón

Aragón Health Science Institute, Zaragoza, Spain

It is a well-known fact that one in four adults have two or more chronic conditions and that half of older adults have three or more chronic conditions. What is less obvious is how those diseases are aggregated and evolve within individuals and populations, as well as the underlying mechanisms that may explain these associations.

A few studies have shown that certain diseases co-occur at a significantly higher rate than is expected by chance alone,

leading to disease “constellations” formally named as multimorbidity patterns. Although it could be expected that diseases are concentrated in an individual if one disease is directly responsible for the others or if they all share common risk factors, additional mechanisms beyond those of a pathophysiological nature which are rather related to socio-economic, cultural, environmental and behavioral factors have also been described.

Studies focusing on the investigation of the etiology, as well as the course and the impact of specific combinations of chronic conditions are crucial for several reasons. First, even if the effect of multimorbidity on mortality, functional status, quality of life and health care has been soundly demonstrated, it remains largely unclear which specific disease combinations are responsible for specific effects. Second, knowledge about how diseases cluster and how such clusters evolve along an individual's life can lead to better treatment and prevention strategies in patients with multiple health problems. Third, research on the causal mechanisms of multimorbidity could shed light on the role of less intuitive factors such as iatrogenia in this phenomenon. And fourth, observations about possible synergistic effects among particular disease combinations on outcomes can derive in a large health gain by early recognition of consecutive diseases.

In this part of the workshop we aim to overview the available evidence in relation to the type, nature and clinical relevance of multimorbidity patterns with the purpose of promoting reflection on the impact of available knowledge on health policy, care provision, clinical decision making and health research.

Opportunities and core components in the care for people with multimorbidity

Marjan van den Akker

M van den Akker

School Caphri, Maastricht University, Maastricht, The Netherlands

Multimorbidity is recognized as a relevant and increasingly frequent health problem. It is an important societal problem with many consequences for the patients, but also for the costs of health care and the use of health services. In order to adequately treat patients with multimorbidity, a complex evaluation is required of the diseases and prescription decisions against complaints, diagnostics, laboratory findings, previous adverse effects, and patient preferences.

In medical practice, the evidence-base for adequate medical management of multimorbidity and polypharmacy (the simultaneous use of five or more medications) is underdeveloped. This is reflected in most of the current guidelines for medical practice, which are mainly disease-specific and pay little attention to disease-disease, drug-disease and drug-drug combinations with their potential harmful adverse effects. Obviously, multimorbidity is strongly related to polypharmacy. Polypharmacy increases the risk of side-effects and patient non-compliance.

For patients with multimorbidity and polypharmacy, usually several health care professionals are involved in delivering care. Two thirds of people with a chronic condition use at least two different health services (e.g. GP care, physical therapy, ambulatory care, hospital admission).

It takes complex approaches to handle these complex health situations. The GP setting would seem to be the right place to launch efforts seeking to strengthen coherence and

coordination of primary and secondary sector care to optimize the care for people with multimorbidity. This becomes even more important in the future when the GP is confronted with a considerably growing number of frail community dwelling elderly. A proactive policy to detect frailty in time and to provide tailor-made medical and nursing care in the community is necessary then.

In this part of the workshop we will pay attention to core components in the care for people with multimorbidity. Interventions should be made at different levels: at the patient level in specific treatment decisions (polypharmacy), involving the patient (shared decision making / patient centred care), but also at the level of the organization of care (e.g. pointing out case managers, and reorganizing chains of care).

Addressing multimorbidity in clinical practice guidelines: the case of chronic heart failure

Christiane Muth

C Muth

Department of General Practice, Goethe University, Frankfurt, Germany

Clinical practice guidelines (CPGs) play a pivotal role in supporting clinical decision making with the best available evidence and have shown to improve health care in chronic conditions, such as chronic heart failure (CHF). Nevertheless, previous research has shown that an uncritical application of the recommendations of different CPGs in caring for patients with multimorbidity is not feasible and may even have undesirable effects, such as drug-drug and drug-disease interactions. This is in particular problematic in CHF, since almost all (96%) of the patients suffer from at least one, and more than a third from five or more non-cardiac comorbidities.

To identify the relevant interactions (e.g. between CHF and its common comorbidities) it is of crucial importance to further develop current disease-specific CPGs: disease-disease interactions indicate populations under risk, such as a co-existing depression that worsens the prognosis of CHF. The diagnostic workup of a symptom such as dyspnea (either indicating the worsening of CHF or of a co-existing chronic obstructive pulmonary disease) results in conflictive therapeutic strategies. Decisions about a pharmaceutical treatment have to consider potential drug-disease and drug-drug interactions between CHF and comorbidities to avoid harm arising from, for example, a prescription of an anti-depressant in CHF patients and to make use of synergistic effects, such as ACE inhibitors in CHF patients with hypertension.

Although, CPGs aim to support clinical decision making in an individual patient, they are developed for patient groups representing public health relevant topics. To optimize health care in patients with multiple conditions, CPGs have to address multimorbidity adequately. The identification of the above mentioned interactions is a necessary precondition and a first step in this direction. In addition, patients' preferences and therapeutic goals have to be taken into account in clinical management. They are the key to prioritize the diagnostic and treatment measures in multimorbidity.

In this part of the workshop we aim to identify key issues of a methodological framework to systematically address multimorbidity in CPGs. We will present the results of a scoping exercise consisting of a CPG review on interactions and an interdisciplinary expert workshop, and further discuss them from the public health perspective.

O.5. ABUSE AND MENTAL DISORDERS

Unwanted sexual attention at work and psychotropic treatment

Ida E H Madsen

IEH Madsen¹, H Burr², R Rugulies^{1,3,4}

¹The National Research Centre for the Working Environment, Copenhagen, Denmark

²Federal Institute for Occupational Safety and Health, Berlin, Germany

³Department of Public Health, University of Copenhagen, Denmark

⁴Department of Psychology, University of Copenhagen, Denmark

Contact: ihm@nrcwe.dk

Background

Previous research has shown that work environment factors such as high quantitative demands and low social support predict common mental health problems such as depression and anxiety. Most research has, however, focused on elements of the job strain model, and knowledge about other work environment factors is limited. Interpersonal factors at work may be relevant for mental health problems, and studies have shown increased risk for employees exposed to bullying and work-related violence. To expand existing knowledge on associations between interpersonal work environment factors and mental health, we examine associations between unwanted sexual attention at work and the risk of treatment with psychotropic medication (antidepressants, anxiolytics, hypnotics) in a large cross occupational sample of Danish employees ($n = 12,319$).

Methods

We synthesized data from three existing work environment studies (the Copenhagen Psychosocial Questionnaire Study, the Danish Work Environment Cohort Study, and the PUMA-study) with self-reported data on exposure to unwanted sexual attention at work. This data was linked with psychotropics-purchases using a national registry containing purchases of prescription medications at Danish pharmacies since 1995. Excluding all respondents with prior use of psychotropics we examined the risk of purchasing: 1) antidepressants, 2) antidepressants and anxiolytics, 3) anxiolytics, 4) hypnotics. Data were analysed by Cox regression analysis, adjusting for confounding by gender, age, cohabitation, education, and income.

Results

Applying the full available follow up (5.6 years) there was no statistically significant effect of exposure to unwanted sexual attention on psychotropic treatment. There were, however, indications of decreasing effects over time. Advanced modelling revealed increased risks during the first year of follow up with hazard ratios of 1.89 for antidepressants, 4.19 for anxiolytics and 1.33 for hypnotics. Only the risk estimate for anxiolytics was statistically significant ($p < 0.05$).

Conclusion

These results indicate that employees experiencing unwanted sexual attention at work may be at increased risk of disorders treated with anxiolytics. This exposure appears associated with current, but not future, mental health.

Experiences of bullying at work among Finnish and migrant physicians

Anna-Mari Aalto

AM Aalto, T Heponiemi, M Elovainio, H Kuusio, L Hietapakka

Service Systems Research Unit, National Institute for Health and Welfare, Helsinki, Finland

Contact: anna-mari.aalto@thl.fi

Background

Bullying at workplace is a severe source of stress and has been shown to have serious consequences both on individual and organizational level. Various forms of bullying are relatively common in health care settings and members of ethnic

minorities may be more vulnerable for bullying than native employees. This study examines experiences and consequences of bullying among native and migrant physicians in Finland.

Methods

The study questionnaire was sent to 9247 randomly selected physicians of Finnish origin (response rate 54%) and to all migrant physicians (1297) with license to practice in Finland (response rate 42%). Bullying was defined as “continuous, reoccurring bullying, oppression or offensive behaviors” and experiences of it were asked from different sources: supervisors, co-workers, patients, and their relatives. The questionnaire also included questions on type and characteristic of employment and measures of psychosocial working conditions, health status and well-being.

Results

Experiences of bullying were more common among migrant (27%) than among Finnish physicians (13%). In particular migrant physicians were more likely to report bullying from patients (OR 4.83, $p < .001$), their relatives (OR 5.0, $p < .01$) and from supervisors (OR 2.1, $p < .001$), but not from co-workers. Perceived patient related stress increased the risk of bullying experiences ($p < .001$) while organizational justice ($p < .001$) and good quality of team climate ($p < .001$) were related to lower risk of bullying similarly among native and migrant physicians. These psychosocial working conditions did not explain the differences of Finnish and migrant physicians in bullying experiences. Experiences of bullying were related to depressive symptoms ($p < .001$), low job satisfaction ($p < .001$), and low job involvement ($p < .001$) even after adjusting for other work-related stressors and protective factors both among Finns and migrants.

Conclusions

Migrant physicians were more at risk of experiencing bullying, from patients and their relatives in particular. Organizational justice and good quality of team climate protected against experiences of bullying but not against their adverse consequences among those having experienced bullying.

Risk of suicide among immigrants in Europe: a systematic review

Jacob Spallek

J Spallek¹, J Lehnhardt¹, SS Nielsen², O Razum¹, M Norredam²

¹Department of Epidemiology & International Public Health, School of Public Health, Bielefeld University, Germany

²Department of Public Health, Faculty of Health Sciences, University of Copenhagen, Denmark

Contact: jacob.spallek@uni-bielefeld.de

Background

Being an immigrant is a risk factor for suicidal behavior, but some ethnic roots seem to be protective. In regard to an increasing global mobility and increasing rates in suicidal behavior in Europe, identification of vulnerable immigrant groups can help to create effective intervention strategies. The goal of this study was to assess the relative risk for suicide among immigrants in Europe.

Methods

Literature published between 1990 and 2012 was searched in common databases (pubmed, psychinfo) by keywords and MESH terms. 580 articles were found. Peer-reviewed quantitative studies published in Danish, Dutch, English or German focusing on completed suicide according to country of birth in EU and EFTA countries were included in the systematic overview. Twenty-two studies met the inclusion criteria. Comparisons of suicide mortality rates and incidence of suicide between immigrant groups and host country population were investigated.

Results

Studies on risk for suicidal behavior among immigrants showed heterogeneous results. Populations of African, Asian and Turkish origin were the most frequent immigrant groups being studied. The majority of studies were conducted in England, The Netherlands and Sweden. We found that asylum-seekers were under a particular risk for completing suicide. Among immigrant groups, immigrants from Turkey overall had a lower risk on completing suicide in comparison to the host populations, whereas young females in this group (RR=1.8; 95% CI: 1.4–2.3) as well as young immigrant women from India (15–24 years: SMR=2.28 $p < 0.05$; 25–34 years SMR=1.60 $p < 0.05$) tended to have an increased risk.

Discussion

The risks for committing suicide among immigrants vary across countries of origin and seem to be dependent on age and sex. This underscores the importance to carry out separate analyses for different immigrant and ethnic minority groups and include adjustment variables to give evidence for designing target group specific preventive interventions.

A Cost-Effectiveness Analysis of the Triple P Program in Uppsala Municipality, Sweden

Filipa Sampaio

F Sampaio, I Feldman, A Sarkadi

Research group in Social Paediatrics, Uppsala University, Sweden
Contact: pipasampaio@hotmail.com

Objectives

Cost-effectiveness analyses of interventions promoting children's mental health are limited. A question of interest is whether parenting programs, e.g. Triple P are cost-effective. This study aims to test whether health economic evaluations can be applied to Triple P in a Swedish municipality.

Methods

The Triple P project was implemented in Uppsala municipality during 2009–2010. A total of 758 parents were randomly assigned to intervention ($n = 487$) or control ($n = 271$) group. Parents responded to a questionnaire including depression, anxiety and stress measurements (DASS21) and children's externalizing behaviour (ECBI22). They reported service use, such as family contacts with professionals due to emotional/behavioural problems. Measurements were completed at project start and 12 month follow-up. Health effects for parents were defined as improved health-related quality of life and for children as the change in the number of clinical cases of conduct problems. Cost savings were estimated based on the reduction of public service use by parents. The program's costs seek to include all societal costs year 2010. Costs were calculated in two ways: one covering all costs including investments entailed and another including only running costs.

Results

Societal costs of the Triple P program in Uppsala municipality totalled 230 000 EUR. Running costs totalled 110 000 EUR. Cost savings (28 000 EUR) stemmed from decreased service use of intervention parents. Gains in quality-adjusted life years (QALYs) equivalent to 3.5 QALYs were based on decreased depression rates in the intervention group. Cost-effectiveness was 58 000 EUR/QALY or 24 000 EUR/QALY (running costs). Conduct problems decreased by 40% among children in the intervention group which leads to future cost savings and within two years the program is self-financed.

Conclusion

This study shows that a health economic evaluation of Triple P program is feasible. It demonstrates that the program results in positive health effects in children and parents at a reasonable price. Thus it could be considered a good investment. A simulation model is necessary to make even more long term prognostic calculations of potential health effects and cost-savings due to reduction of child mental health problems.

Patterns of post traumatic stress disorder among conflict-affected populations in Georgia

Nino Makhashvili

N Makhashvili¹, I Chikovan², N Rukhadze², M McKee³, V Patel³, B Roberts³

¹Global Initiative on Psychiatry, Tbilisi, Georgia; Ilia State University, Tbilisi, Georgia

²Curatio International Foundations, Tbilisi, Georgia

³London School of Hygiene and Tropical Medicine, United Kingdom
Contact: bayard.roberts@lshtm.ac.uk

Background

Georgia currently has over 250,000 internally displaced persons (IDPs), consisting of 'older IDPs' from conflicts over the regions of Abkhazia and South Ossetia in the 1990s and 'newer IDPs' as a result of the 2008 conflict with the Russia. Some former IDPs have also returned to their home villages ('returnees').

Aim

To examine the patterns of post traumatic stress disorder (PTSD) among conflict-affected adults in Georgia.

Methods

We conducted a cross-sectional household survey of 3600 older IDPs, newer IDPs, and returnees in October 2011. PTSD was measured using the Trauma Screening Questionnaire which has 10 items on emotional reactions experienced in the previous week producing a score range of 0–10, with scores of ≥ 6 indicating possible PTSD. Demographic, socio-economic, trauma exposure and coping characteristics were also measured. Descriptive and multivariate regression statistical analyses (all presented results $P < 0.05$).

Results

The prevalence of possible PTSD among newer IDPs was 23.70% for men [95%CI 19.43, 27.97] and 25.84% for women [95%CI 22.75, 28.92]; among older IDPs it was 20.80% for men [95%CI 16.67, 24.93] and 30.08% for women [95%CI 26.70, 33.47]; and among returnees it was 13.87% for men [95%CI 10.51, 17.22] and 20.03% for women [95%CI 17.13, 22.93]. PTSD was associated with worse general health and disability. 39% of those recorded with PTSD reported utilising health services in the previous year for their mental health needs. Risk-factors for PTSD included exposure to a range of traumatic events, cumulative exposure to traumatic events, gender (women), older age, lower education level, and worse economic status. Protective factors included returning to home areas, expressing feelings, getting support from family and friends, seeking professional care, and living in communities that were perceived to be more supportive.

Conclusions

The study provides the most comprehensive population data on PTSD in Georgia, and contributes to the limited evidence base globally on how mental health outcomes of conflict-affected civilian populations vary over time, including for returnees. It can help guide policies by evidencing a persisting PTSD burden in Georgia and the role of risk and protective factors, including coping mechanisms.

Childhood Maltreatment and Adolescent Health

Sandra Buttigieg

SC Buttigieg¹, M Mangion²

¹Health Services Management Department, Faculty of Health Sciences, University of Malta, Msida, Malta

²Department of Paediatrics, Mater Dei Hospital, Msida, Malta
Contact: sandra.buttigieg@um.edu.mt

Background

It is becoming increasingly evident that children often suffer from a combination of different categories of maltreatment, namely physical, sexual and emotional abuse, and neglect.

Objective

The aim of this study was to determine whether multi-type child maltreatment was associated with higher levels of health risk behaviours and mental ill health.

Methods

Four hundred and six, 15–16 year-old students from secondary schools in Malta participated in the study. The self-report “Child maltreatment physical and mental health questionnaire” by Nguyen, Dunne and Le, was used to assess the demographics, health risk behaviour, mental health and child maltreatment.

Results

Students experienced all four types of maltreatment. 27.4%, 16.6%, 11.1% and 6.5% experienced one, two, three and four categories of maltreatment respectively. As regards health risk behaviours, there were statistically significant positive relationships between multi-type maltreatment and school fights ($r=.27$, $p<0.01$); breaking school rules ($r=.19$, $p<0.01$); illicit drug use ($r<.14$, $p<0.05$); and alcohol use ($r=.10$, $p<0.05$). As regards mental health, depression was positively

associated with multi-type maltreatment ($r=.38$, $p=0.01$). Similarly, anxiety ($r=.23$, $p=0.01$) and low self esteem ($r=-.266$, $p=0.01$) were positively associated with multi-type maltreatment. Multi-type child maltreatment also showed graded worsening responses for anxiety, depression, general ill-health, self-esteem, breaking school rules, school fights and smoking.

Conclusion

This study showed that multi-type child maltreatment is prevalent and that it resulted in graded worsening responses for mental health outcomes and risky behaviour the higher the number of categories of exposure. These findings are relevant to policy makers in the preventive and therapeutic services in this area, as well as in raising their awareness that different types of child maltreatment often co-exist.

Saturday, 10 November, 13.45–15.15

A.8. FERENC BOJAN AWARD SESSION

People or Place? Neighborhood Social Capital and availability of facilities to be active and sports participation among Dutch adolescents

Richard Prins

RG Prins¹, SM Mohnen², FJ van Lenthe¹, J Brug³, A Oenema⁴

¹Department of Public Health, Erasmus MC, Rotterdam, The Netherlands

²National Institute for Public Health and the Environment, Centre for Prevention and Health Services Bilthoven, The Netherlands

³EMGO Institute for Health and Care Research and the Department of Epidemiology & Biostatistics, VU University Medical Center, Amsterdam, The Netherlands

⁴Department of Health Promotion, Maastricht University, Maastricht, The Netherlands

Contact: r.prins@erasmusmc.nl

Background

The aim of this study is to explore whether availability of sports facilities, parks, and neighbourhood social capital (NSC) and their interaction are associated with leisure time sports participation among Dutch adolescents.

Methods

Cross-sectional analysis of complete data from the last wave of the YouRAAction evaluation trial were conducted. Adolescents ($n=852$) completed a questionnaire asking for sports participation, perceived NSC and demographics. Ecometric methods were used to aggregate perceived NSC to zip code level. Availability of sports facilities and parks was assessed by means of geographic information systems within the zip-code area and within a 1600 meter buffer. Multilevel logistic regression analyses, with neighborhood and individual as levels, were conducted to examine associations between physical and social environmental factors and leisure time sports participation. Simple slopes analysis was conducted to decompose interaction effects.

Results

NSC was significantly positively associated with sports participation (OR: 3.51 (95%CI: 1.18;10.41)) after adjustment for potential confounders. Availability of sports facilities and availability of parks were not associated with sports participation. A significant interaction between NSC and density of parks within the neighbourhood area (OR: 1.22 (90%CI: 1.01;1.34)) was found. Decomposition of the interaction term showed that adolescents were most likely to engage in leisure time sports when both availability of parks and NSC were highest.

Conclusions

The results of this study indicate that leisure time sports participation is associated with levels of NSC, but not with availability of parks or sports facilities. In addition NSC and availability of parks in the zipcode area interacted in such a

way that leisure time sports participation is most likely among adolescents living in zipcode areas with higher levels of NSC, and higher availability of parks. Hence, availability of parks appears only to be important for leisure time sports participation when NSC is high.

Cognitive and Bio-Psychosocial Wellbeing in the Lothian Birth Cohort 1936

Andrea Zammit

IJ Deary, JM Starr, W Johnson

Centre for Cognitive Ageing and Cognitive Epidemiology, The University of Edinburgh, Edinburgh, United Kingdom

Contact: a.r.zammit@sms.ed.ac.uk

Background

By the year 2020, 25% of the population in Europe will be over 60 years of age. The importance of maintaining high levels of wellbeing into old age cannot be overestimated. Physical, cognitive and psychosocial function are all important domains in this regard. Finding different profiles of function in these domains and variables associated with them may be informative about what constitutes wellbeing in old age and may help in identifying factors associated with at-risk profiles that display poor patterns of wellbeing. In this study we investigated whether groups of individuals that displayed different profiles across domains of wellbeing were present in a group of community-dwelling 70-year-olds, and, if so, identified their characteristics.

Methods

The sample was the Lothian Birth Cohort 1936 (LBC1936), which included 1091 participants born in 1936 who had mostly taken part in the Scottish Mental Survey 1947 (SMS1947) at an average age of 11, making available a measure of cognitive ability in childhood. When LBC1936 recruitment took place between 2004 and 2007, the participants were relatively healthy and lived independently in the community in Edinburgh and the surrounding Lothian areas of Scotland. We used latent class analysis (LCA) to explore possible profiles of ageing using 9 variables indicating cognitive functioning, physical fitness, and psychosocial wellbeing in this cohort. Demographic, personality, and lifestyle variables were used to characterize the resulting profile groups.

Results

We accepted a 3-group solution, including High Wellbeing (65.3%), Low Cognition (20.3%), and Low Bio-Psychosocial groups (14.5%). A high childhood IQ, low scores on Neuroticism and not smoking were highly and significantly associated with membership in the High Wellbeing group.

Conclusions

Results from this study suggested that lifelong intelligence, personality traits, and basic health practices such as refraining from smoking are important associates of long-term wellbeing, culminating in old age. Awareness of the importance of these long-term factors to later-life wellbeing among policy-makers and health-care professionals may help them to address clinical issues of risk prevention, improved compliance and better patient-practitioner relationships.

Mental health problems and educational attainment of adolescents. A Dutch 10-year follow-up study (2001–2010)

Karin Veldman

K Veldman, U Bültmann, SA Reijneveld

Department of Health Sciences, Community & Occupational Medicine, University Medical Center Groningen, University of Groningen, The Netherlands

Contact: k.veldman@umcg.nl

Background

Successful educational attainment (e.g. achievement of at least a basic educational level) is associated with many later-life outcomes, including occupational achievement, financial security, and healthy behaviors. Mental health problems may adversely affect educational attainment and thus have lifelong effects. However, evidence on this association is inconclusive, and does not account for changes in mental health problems during adolescence. Therefore, this study aims to examine a) the effect of mental health problems on educational attainment of adolescents and b) the effect of changes over time in mental health problems on educational attainment of adolescents.

Method

Data from 1712 adolescents (initially aged 10–11 years) of Tracking Adolescents' Individual Lives Survey (TRAILS), a Dutch prospective cohort study, were used. Mental health problems (internalizing, externalizing and total problems) were measured with the Youth Self Report and the Child Behavior Checklist at T1 (mean age 11.09, standard deviation (SD) 0.55) and T3 (mean age 16.25, SD 0.69). Difference scores for mental health problems at T1 and T3 were calculated. Educational attainment was assessed at T4 (mean age 19.05, SD 0.58).

Results

In boys and girls, externalizing problems at T1 were associated with low educational attainment at T4 (odds ratio (OR) 2.10 95% confidence interval (CI) 1.46–3.01). Total problems at T1 was also associated with low educational attainment at T4 in boys and girls (OR 2.17 95% CI 1.57–2.99). Increasing externalizing problems between T1 and T3 were associated with low educational level at T4 among boys (OR 4.18 95% CI 1.08–16.18). Among girls, increasing internalizing and total problems between T1 and T3 were associated with low educational level at T4 (OR 2.83 95% CI 1.20–6.70, OR 4.49 95% CI 1.73–11.61, respectively).

Conclusions

Mental health problems affect educational attainment of adolescents. Early treatment of these problems may thus help to improve educational attainment, and to prevent socio-economic health differences in adulthood.

Adverse pregnancy outcomes: a psychopathological pathway?

Chantal Quispel

C Quispel^{1,2}, M Bangma², BM Kazemier³, EAP Steegers², WJG Hoogendijk¹, DNM Papatsonis⁴, KM Paarlberg³, MP Lambregtse-van den Berg⁵, GJ Bonsel^{2,6,7}

¹Department of Psychiatry, Erasmus Medical Centre Rotterdam, Rotterdam, The Netherlands

²Department of Obstetrics and Gynaecology, Division of Obstetrics & Prenatal Medicine, Erasmus MC, University Medical Centre Rotterdam, Rotterdam, The Netherlands

³Department of Obstetrics and Gynaecology, Gelre Teaching Hospital Apeldoorn, Apeldoorn, The Netherlands

⁴Department of Obstetrics & Gynecology, Amphia Hospital Breda, Breda, The Netherlands

⁵Department of Child and Adolescent Psychiatry, Erasmus Medical Centre Rotterdam, Rotterdam, The Netherlands

⁶Midwifery Academy Rotterdam (Verloskunde Academie Rotterdam), The Netherlands

⁷Department of Public Health, Erasmus Medical Centre Rotterdam, Rotterdam, The Netherlands

Contact: c.quispel@erasmusmc.nl

Background

Dutch urban areas show high rates of adverse pregnancy outcomes as compared to other European countries. Adverse pregnancy outcomes are associated with several general risk factors, like maternal age, and with specific risks, like antenatal depression. Antenatal depression is associated with these general risk factors as well. Yet, it is not known whether the pathway to adverse pregnancy outcomes is direct through risk determinants or indirect via antenatal depression. Therefore, we investigated whether antenatal depression is a mediator in the pathway to adverse pregnancy outcomes, rather than an independent risk factor.

Method

Follow-up study among three urban pregnant cohorts (n = 1013). Women were screened for risk factors and depression during early pregnancy with the validated GyPsy screen-and-advice instrument, including the Edinburgh Depression Scale (EDS). Adverse pregnancy outcomes included preterm birth, small for gestational age, maternal complications, and the need for induced or assisted labour. Outcomes were subtracted from medical records. With formal mediation analysis we tested the mediating role of antenatal depression in the pathways to adverse pregnancy outcomes.

Results

Our urban populations showed high rates of sociodemographical, obstetrical, and psychiatric risk determinants, high EDS scores and high rates of adverse outcomes. A univariate association existed between EDS score and the outcome preterm birth only (OR 1.04; 95% CI = 1.00–1.07). After adjusting for the determinants educational level and psychiatric history, this association no longer existed, while educational level remained associated with preterm birth (low educational level OR 1.06; 95% CI = 1.02–1.10, high educational level OR 0.97; 95% CI = 0.94–1.00).

Conclusion

The pathway to preterm birth was not mediated by antenatal depression scores in this urban population. The presumed association between antenatal depression and preterm birth may be spurious and a reflection of the presence of strong background risks. This highlights the need to measure and, to the extent possible, ameliorate background risks among pregnant women, since both depressive symptoms during pregnancy and adverse pregnancy outcomes share the same background risks, and will both profit.

The impact of fiscal decentralization on health outcomes: empirical evidence from Italy

Ferruccio Pelone

A Cocomazzi¹, F Pelone¹, DS Kringos², D Basso¹, A Lazzari¹, M Avolio¹, AG De Belvis¹, W Ricciardi¹

¹Department of Public Health, Population Medicine Unit, Catholic University of Sacred Heart, Rome, Italy

²Department of Social Medicine, Academic Medical Centre-University of Amsterdam, Amsterdam, The Netherlands

Contact: ferruccio.pelone@rm.unicatt.it

Introduction

European countries are increasingly devolving responsibilities for their health care system to local levels of government. However, there is insufficient evidence of the impact of such reforms on health system outcomes. This study aims to investigate the impact of Italy's Fiscal Decentralization reform (implemented in 2001) on the efficiency of the health care system in improving health outcomes.

Methods

We applied a longitudinal study design covering the period 2001–2007 using Italy's 20 Regional Health Services (RHSs) as unit of analysis. Technical efficiency (TE) was studied in the production of reduced neonatal mortality and increased life expectancy against the applied public health expenditures, while taking into account the smoking rate, educational level and income of the population. Data were derived from the "Italian Health for All" database. Our approach consisted of two steps: firstly, we estimated the relative TE at regional level by means of a three-stages Data Envelopment Analysis (DEA) model over the timeframe; secondly, we applied a Malmquist model to analyze how each RHS changed its relative efficiency level over time, and to disentangle these variations in productivity and technological effects. The analyses were performed using R, DEA excel solver, and STATA software.

Results

The results indicate that regions gradually needed less public health expenditures to reduce neonatal mortality and increase life expectancy after implementation of the fiscal decentralization reform in 2001. Improved efficiency was caused by technological improvements rather than productivity changes by the Regions. In fact, only Regions that were already relatively efficient at the time of introduction of reform, improved their productivity in the period 2001–2007.

Conclusions

This study showed the beneficial impact of decentralized health financing responsibilities in Italy on efficiency in achieving health outcomes. Italy's decentralization experiences can be useful as a good practice example for other European countries considering to decentralize (part of) their health care system's governance functions.

Air pollution and the association with violent and psychiatric mortality in west central Scotland, 2006–2008

Catherine Stewart

CH Stewart¹, E Wacławski², AH Leyland¹

¹Medical Research Council Social and Public Health Sciences Unit, Glasgow United Kingdom

²Division of Preventive Medicine, University of Alberta, Canada
Contact: cstewart@sphsu.mrc.ac.uk

Background

Exposure to air pollution has recently been associated with common mental health problems, suicide and deaths from violence. We investigate whether air pollution is a risk factor for death from psychiatric and violent causes before and after adjustment for area deprivation.

Methods

Nitrogen dioxide (NO₂) was used as an indicator of air pollution. NO₂ was recorded at monitoring sites in 164 datazones (mean population 879, range 497–2079) across seven local authorities in west central Scotland in 2007. We used geocoded mortality and population data for 2006–08 by cause of death, age and sex. The Scottish Index of Multiple Deprivation (SIMD) was used to assess deprivation. Age-standardised death rates were calculated for each SIMD decile. Multilevel Poisson regression modelled the effect of NO₂ on violent and psychiatric deaths, adjusted for age and sex, before and after adjustment for deprivation. Analyses were performed separately for under 65 years and 65 and over.

Results

During 2006–08 there were 456 violent and psychiatric deaths, 2007 population 144,079, in the 164 datazones. There was a significant decreasing trend ($p < 0.001$) in death rates as deprivation decreased with the standardised death rate almost three times as high in the most deprived decile (125 per 100,000) than the least deprived (44 per 100,000). Mean NO₂ was $34\frac{1}{4}\mu\text{g}/\text{m}^3$ and $26\frac{1}{4}\mu\text{g}/\text{m}^3$ in the most and least deprived deciles (mean across all deciles $31\frac{1}{4}\mu\text{g}/\text{m}^3$, range 6–68). The association between air pollution and mortality was only significant in the under 65s; relative risk for a $10\frac{1}{4}\mu\text{g}/\text{m}^3$ increase in NO₂ (RR) = 1.23 (95% CI = 1.07–1.42) for under 65s and 0.88 (95% CI = 0.75–1.03) for 65+. The increased risk of death remained borderline significant in under 65s following adjustment for deprivation; RR = 1.13 (95% CI = 1.00–1.27).

Conclusions

Higher levels of NO₂ in the most deprived areas highlight the risk that deprivation may confound the relationship between air pollution and mortality. However, the association between NO₂ and violent and psychiatric deaths in under 65s remained borderline significant even on adjustment for area deprivation. These findings are in line with emerging research.

B.8. HEALTHY AGEING

Policy health impact assessment of the EU Health Strategy (2008–2013). Fostering good health in an aging Europe-tackling tobacco consumption

Balázs Ádám

B Ádám, Á Molnár, R Ádány

Department of Preventive Medicine, Faculty of Public Health, Medical and Health Science Centre, University of Debrecen Debrecen, Hungary

Contact: adam.balazs@sph.unideb.hu

Background

The public health importance of smoking necessitates effective actions to tackle tobacco epidemic and minimize its health consequences. The white paper of the European Commission "Together for Health: A Strategic Approach for the EU 2008–2013" acknowledged the significance of tobacco smoking by incorporating the issue into its 1st objective "Fostering good health in an aging Europe". The aim of our study was to assess the health impact of the most effective tobacco control policy, taxation, on the EU level.

Methods

The assessment was based on the mapping of the whole impact scheme from which one priority causal pathway was selected for detailed quantitative evaluation. The analysis was carried out on each impact level using the top-down risk assessment tool developed in the Risk Assessment from

Policy to Impact Dimension EU project. Health outcome was quantified as the change in the number of death attributable to smoking.

Results

Tobacco taxation policy affects two health determinants directly and several others indirectly. It influences state income due to changing prices and substance use, the latter has been chosen for detailed assessment. In the model, the scenario of 10% price increase was used that results in 5% reduction in tobacco consumption among males and 3.4% reduction among females. Considering the four priority smoking-related diseases, lung cancer, chronic obstructive respiratory diseases, coronary heart diseases and stroke, 7668 lives among males and 4658 among females could be saved annually, most of them among the elderly, in the 27 member states of the EU.

Conclusions

The health consequences of tobacco smoking pose a high burden on the European population, especially in older age groups, since smoking-related diseases are typically chronic conditions that need long lag phase for development. Therefore, the importance of tackling the issue of smoking is especially evident in an aging population, as confirmed by our findings.

A multitude of predictors of diet quality in aging populations: a review of the evidence of public health relevance

Heinz Freisling

H Freisling, V Knaze, N Slimani

International Agency for Research on Cancer, Lyon, France
Contact: freislingh@iarc.fr

Background

Modifying the risk factors and adopting health-promoting behaviours, such as adopting and maintaining a healthier diet, are central to healthy aging. In order to provide nutrition policy makers with a solid knowledge base to implement appropriate public health strategies aiming to improve diets, the most important factors that influence dietary behaviour need to be identified and reasons for these associations need to be explored.

Methods

A systematic review of peer-reviewed studies up to March 2012 was carried out in Medline. In the last twelve years, at least 30 studies which met the inclusion criteria, from 9 countries were published that used predefined diet quality indexes to examine associations between diet quality and factors associated with diet in adults aged 60 years and above. For this review, we categorized the retrieved factors (>40) into 6 different domains: 1) socio-demographic, 2) health, 3) lifestyle, 4) psycho-social, 5) social-environmental and, 6) physical-environmental.

Results

From among the socio-demographic and health factors, being male, obese or having health problems, such as a poor oral health, were most consistently related to a poor diet in older adults. Lifestyle factors such as smoking and physical inactivity were also very consistently related to a poor diet. Six of the eight psycho-social factors examined, including having social support, nutritional knowledge or cooking skills, were positively associated with diet quality thus indicating the importance of these factors. The social environment domain also contained important factors relevant for diet quality such as education or living arrangement, the latter particularly in men. The physical environment, such as living in a rural area, having supermarkets near the home or fast-food exposure, was also predictive of diet quality.

Conclusions

A multitude of interrelated factors is associated with diet quality in older adults. This review may also reveal possible reasons for some of these observed associations, which in turn may facilitate (re-) developing public health strategies. Formulating age-tailored dietary guidance that takes impaired health into account is one example of a strategy that may possibly lead to improved diets in older people.

Resilience in the face of frailty

Gopalakrishnan Netuveli

G Netuveli¹, D Blane¹, M Bartley²

¹Department of Primary Care and Public Health, Imperial College London, United Kingdom

²Department of Epidemiology and public Health, UCL, United Kingdom
Contact: g.netuveli@imperial.ac.uk

Background

As the population ages, frailty becomes an important public health problem. Although, everyone agrees that it exists, there is no universal definition, resulting in a scarcity of information about its extent in the population and possible public health measures. While frailty might be considered inevitable in older ages, there is always a small proportion of the population who exhibits resilience to it. Identifying the factors that promote this resilience will be a first step to make frailty tractable. In this study, we posit that the social networks of the older people is a resilience promoting factor in frailty and that social networks are promoted by good neighbourhoods. We test these hypotheses in a sample of community dwelling individuals in the English Longitudinal Study of Ageing (ELSA).

Methods

We use the data from the four Waves of ELSA restricting the data to those aged 50 years or more. We used a 40-item count of 'health deficits' based on doctor diagnoses and activities of daily living to create a frailty index (FI) and defined frailty as FI = >0.2. We created a score for social network (range 0–1) based on self-reports on quality and quantity of relationships with family and friends. Neighbourhood scores (range 0–1) were created on the basis of how the participants judged their neighbourhood to be good and safe. Using a 19-item Likert scaled measure of quality of life (CASP-19), we defined resilience as those who were frail but reported quality of life quality of life above the median.

Results

Preliminary results showed that in the Wave 1 of ELSA 20% of participants was judged as frail, which increased to 34% of those 75+ years old. Only 9% of the frail were classified as resilient. Initial analyses showed that significant crude associations for resilience in frailty with social network (OR 6.5; 95%CI 2.7 to 15.4) and good neighbourhood (OR 9.0; 95%CI 3.4 to 24.1). The association of social network with resilience was moderated by effects of good neighbourhood.

Conclusions

Our initial analyses suggest that good social network can ameliorate adverse effects of frailty and good neighbourhood can foster resilience in frailty. Further analyses are being done and their results will be reported.

What effect does regional deprivation have on individual mortality? Avoiding compositional bias by using a natural experiment

Katharina Reiss

K Reiss¹, U Berger², V Winkler³, S Voigtländer¹, H Becher³, O Razum¹

¹Department of Epidemiology & International Public Health, Bielefeld School of Public Health, Bielefeld University, Germany

²Department for Medical Informatics, Biometry and Epidemiology (IBE), Ludwig-Maximilians-University Munich, Germany

³Unit Epidemiology and Biostatistics (EpiStat), Institute of Public Health, University Hospital Heidelberg, Germany
Contact: katharina.reiss@uni-bielefeld.de

Background

Due to a residence assignment law so-called ethnic German resettlers from Former Soviet Union countries have been quasi-randomly distributed across the 54 counties of Germany's most heavily populated federal state North-Rhine Westphalia (NRW). The aim of our study was to analyse the effect of regional deprivation on individual mortality by making use of this natural experiment.

Methods

We used data from the retrospective cohort study 'AMOR' on the mortality of resettlers in NRW (n = 34,393). At the end of the second follow-up (31-12-2005) 2,580 resettlers were deceased. Based on the postcode of the last known location we linked study participants to the 54 counties of NRW, which were aggregated to six deprivation clusters. For each cluster we calculated mortality rates and standardised mortality ratios (SMR).

Results

For male and female cohort members mortality rates and SMR were lowest in the cluster "Heterogeneous counties" (SMR males: 0.73, 95%CI = 0.61–0.88) as well as in the cluster "Prospering regions and suburban counties" (SMR females: 0.86, 95%CI = 0.70–1.05) whereas they were highest in the cluster "Poverty poles" (SMR males: 1.21, 95%CI = 1.04–1.41; SMR females: 1.17, 95%CI = 0.99–1.37).

Conclusions

Our findings indicate that in terms of mortality, regional deprivation does matter. Although they were quasi-randomly distributed throughout NRW, resettlers did show regional variation in mortality patterns. Mortality was highest in regions with the highest level of regional deprivation. These results confirm findings from observational studies for the general population.

The impact of free older persons' bus pass on active travel and regular walking in England

Sophie Coronini-Cronberg

S Coronini-Cronberg¹, C Millett², A Laverty², E Webb³

¹Department of Primary Care and Public Health, Imperial College, London, United Kingdom and Clinical Programme Group 7 ICPG7, Imperial College NHS Trust, London United Kingdom

²Department of Primary Care and Public Health, Imperial College, London, United Kingdom

³Department of Primary Care and Public Health, Imperial College, London, United Kingdom; and: ESRC International Centre for Lifecourse Studies in Society and Health, University College London, United Kingdom
Contact: S.Coronini@kingsfund.org.uk

Title

A cross-sectional assessment of the effect of the free older persons' bus pass on active travel and regular walking among adults ≥ 60 years in England using data from the National Travel Survey 2005–2008.

Background

The benefits of physical activity for all age groups is well-documented and there is increasing interest in the promotion of incidental physical activity, such as active transport, which includes walking, cycling and use of public transport. For older adults, even small increases in activity may have significant benefits: for example, the relative risk of disability is reduced by 7% for each additional hour of relatively gentle physical activity undertaken each week. Our study assessed the potential public health benefit of the National Bus Pass, introduced in 2006, which permits free local bus travel for older adults (≥ 60 years) in England.

Method

Data from the year prior to the pass being introduced (2005) to the most recently available (2008) were extracted from an annual cross-sectional survey, the National Transport Survey, resulting in a sample size of 16 911 older adults. Models assessed associations between bus pass holdership and our main outcome measures: use of active transport (walking, cycling and use of public transport), use of buses and walking three or more times a week. Since participants are sampled by household, all models were adjusted for clustering at the household level, as well as a range of confounders, including: age, sex, and socio-economic status (SES).

Results

Having a free bus pass is significantly associated with greater: active travel among both disadvantaged (AOR: 4.06; 95% CI 3.35 to 4.86); $P < .001$ and advantaged groups (AOR: 4.72; 95% CI 3.99 to 5.59); $P < .001$; bus use in both disadvantaged and advantaged groups (AOR: 7.03; 95% CI 5.53 to 8.94; $P < .001$ vs. AOR: 7.11; 95% CI 5.65 to 8.94; $P < .001$ respectively); likelihood of walking more frequently (AOR: 1.15; 95% CI 1.07 to 1.12; $P < .001$).

Conclusion

Public subsidies enabling free bus travel for older persons may confer significant population health benefits through increased incidental physical activity.

Perceived functional visual impairment and risk of falling in a non-institutionalized elderly population in Sweden

Jeanette Kallstrand Eriksson

J Kallstrand-Eriksson¹, A Baigi², N Buer³, C Hildingh¹

¹School of Social and Health Sciences, Halmstad University, Halmstad, Sweden

²General Practice and Public Health, Halland County Council, Halmstad, Sweden

³School of Health and Medical Sciences, Örebro University, Örebro, Sweden
Contact: jeanette.kallstrand_eriksson@hh.se

Background

Falls and fall injuries among the elderly population is an important public health issue today since ageing is an independent risk factor of falling and because of an increasing elderly population. Falls and fall injuries are associated with high healthcare costs but also considerable suffering for the individual. According to the Swedish National Health Institute the costs of deterioration in quality of life caused by accidental falls are calculated to be twice as high as the direct costs such as medical treatment, healthcare and rehabilitation. There are various predictive factors of falling and visual impairment is one of them. It is well known that visual impairment occurs increasingly as people age. Usually, only visual acuity is considered when measuring visual impairment, but nothing regarding a person's functional visual ability is taken into account.

Methods

Therefore, the aim of our study was to assess the perceived vision-targeted health status among non-institutionalized elderly living in the community using the 25-item National Eye Institute Visual Function Questionnaire (NEI VFQ-25) and to investigate whether there was any association between the vision-targeted health status and falls. There were 212 randomly selected elderly participants in the study.

Results

The results showed that general health was the only variable significantly associated with falls both among men ($p = 0.011$) and women ($p = 0.029$). However, among men, distance activities ($p = 0.033$), such as going down steps, or curbs in dim light, and peripheral vision ($p = 0.048$) such as difficulties in noticing objects off to the side while walking along, were significantly associated with falling. Near activities ($p = 0.005$), color vision ($p = 0.002$) and dependency ($p = 0.022$) as well as social functioning ($p = 0.014$) and role difficulties ($p = 0.000$) were also significantly associated with falling among men.

Conclusions

To meet the demands from an increasing elderly population, a more holistic approach of the visual function is needed when identifying elderly individuals at risk of falling.

C.8. BEHAVING AND HEALTH

Does sleep duration mediate the association between computer use and health symptoms?

Teija Nuutinen

T Nuutinen¹, E Roos¹, C Ray¹, R Välimaa², J Villberg², J Tynjälä²

¹Folkhälsan Research Center, Helsinki, Finland

²University of Jyväskylä, Department of Health Sciences, Jyväskylä, Finland
Contact: teija.nuutinen@helsinki.fi

Background

Excessive media use has been related to behavioral problems, somatic symptoms, and poor mental health. Associations exist also between excessive media use and shorter sleep duration. Sleep plays a crucial role for daily functioning, physical and mental health. Aim of this study was to examine whether

computer use was associated with psychological and somatic symptoms through sleep duration among 15-year-old adolescents in Finland.

Methods

Data is from an international WHO (World Health Organization) coordinated Health Behavior of School aged Children study (HBSC -study), collected in Finland in 2010 by self-completion questionnaires administered in the classroom. The sample, nationally representative, consisted of 2110 (48% boys) 15-year-old adolescents. The pupils' response rate was 96%. Use of computer on school days was assessed as chatting, browsing in the internet, emailing or doing homework (hours/day). Sleep duration was

assessed during school days (hours/night). Adolescents reported different psychological and somatic symptoms. A confirmatory factor analysis was conducted in order to group the symptoms into latent variables. Structural equation modeling, using AMOS 18, was done in order to explore the mediating effect of sleep duration on the association between media use and health symptoms.

Results

Computer use was associated with shorter sleep duration (boys; β -0.302, Standard Error SE 0.019), girls; β -0.265, SE 0.022) and more prevalent psychological (boys; β 0.146, SE 0.022, girls; β 0.168, SE 0.021) and somatic symptoms (boys; β 0.122, SE 0.017, girls; β 0.111, SE 0.019). Sleep duration partly mediated the association between computer use and psychological (boys, β 0.034, $p=0.007$, girls β 0.051, $p=0.005$) and somatic symptoms (boys; β 0.056, $p=0.002$, girls; β 0.054, $p=0.004$) but computer use was associated with symptoms although sleep duration was in the model. The model explained the variance of psychological symptoms 4.4% among boys and 9.3% among girls and the variance of somatic symptoms 6.4% among boys and 6.6% among girls.

Conclusions

The associations between computer use and symptoms were partly mediated through sleep duration, but computer use was also independently related to both psychological and somatic symptoms.

Health promotion in a local community setting

Else Nygaard

E Nygaard, K Rømer, L Bak, F Diderichsen

Copenhagen University, Dept Public Health Science, Social Medicine, Copenhagen, Denmark

Contact: elnyg@sund.ku.dk

Background

In a Danish municipality of 60.000 citizens, the local government had agreed upon a health promoting programme targeted at 4–5.000 citizens of two residential areas with a high degree of unemployment, large families, many immigrants, low in income and education. The aim of the programme was to implement sustainable healthy life-style and increased well-being and net-working among residents.

Aim of study

To formatively evaluate the implementation process with a special focus upon empowerment processes and sustainability.

Methods

Formative evaluation of empowerment processes based upon qualitative analyses of documents (policy, planning, implementation), of interviews with key informants (politicians, administrative managers, members of project group, community workers, instructors, residents), of dialogue meetings between evaluator and project manager, and of on-location-observations.

Results

Two “top-down” projects were successfully implemented: Healthy Food & Physical Activity, and Health Ambassadors recruited among residents. After a period of training the ambassadors worked with healthy life-style issues, organizing walks locally, informing about healthy food and drinks in child care institutions, assisting community workers etc. At the same time the concerns of the beneficiaries were addressed by the project manager, prioritized and developed into “bottom-up” projects, like bicycle courses, special admission for muslim females in the swimming bath, better lighting of footpaths at night, study groups of all sorts etc. Successful implementation has been dependent upon shared understanding and knowledge about health, and cooperation between employees from all sectors of the local government. Thus, increased knowledge about healthy life conditions and health promotion among local

government staff and community workers has constituted one part of the empowerment process, the other part being empowerment among residents.

Conclusions

Local authorities and residents have succeeded in implementing sustainable health promotion activities through a combination of top-down and bottom-up strategies. Empowerment processes related to health promotion have taken place among residents and among employees from most sectors of the local government.

Pathological gambling in a psychotherapeutic residential treatment for alcohol and/or cocaine addiction: outcome and therapeutic processes

Ina Maria Hinnenthal

IM Hinnenthal¹, M Cibi², S Vanini³, A Benvegnù⁴, N Nante⁵

¹Economia e gestione aziende sanitarie, Università Cattolica, Roma; Dipartimento Salute Mentale integrato, ASL 1, Imperia, Italy

²Dipartimento per le Dipendenze, Az. Ulss 13 del Veneto, Mirano, Italy

³CT Villa Soranzo, Tessera, Venezia, Italy

⁴Centro Don Milani, Venezia, Italy

⁵Economia e gestione aziende sanitarie, Università Cattolica, Roma; Dept. of Public Health, Health Services Research Laboratory, University of Siena, Siena, Italy

Contact: ina.hinnenthal@web.de

Issue

Patients with gambling problems and drug addiction present analogue clinical and neurobiological structures and similar important co-morbid factors. Regarding patients with addiction disorders in residential treatments often it is not known that the clinical results worsen if problematic gambling is not contemporarily treated.

Aims of work

Discover the prevalence of pathological gambling as co-diagnosis in a residential program for alcohol and/or cocaine dependency, explore the role of gambling in the clinical process and the dynamic of the illness, find strategies regarding focusing better during the therapeutic treatment.

Methods

191 patients from march 2010 to dicembre 2011 filled out the S.O.G.S. (South Oaks Gambling Screen, Italian version). Contemporarily there was activated a therapeutic group for gamblers and observed some phenomenological clinical issues in this specific subgroup.

Results

43 (22,5%) of the 191 tested patients had gambling problems. 15 (35%) showed a comorbidity with alcohol addiction, 15 (35%) showed a comorbidity with cocaine addiction and 13 (30%) suffered from both types of dependency. In 72% (31) of gamblers the services who sent the patients did not recognized and mentioned the associated problem. The 37,2% (16) of the patients with problematic gambling left the program in “early drop out”. Only 20% of the patients without comorbidity of gambling left the program in “early drop out”. The difference is significant ($p<0,05$). The group of gamblers showed the following characteristics: significant high level of patients in pre-contemplative phase, abstinence regarding “gambling” diminishes drop-out, presence of circuit between gambling and substance abuse, difficulty in awareness of craving and emotions, central importance of themes correlated to money.

Conclusions and lessons to learn

Recognize the comorbid diagnosis of pathological gambling is fundamental to favorite individual therapeutic addiction programs and to prevent early drop-out. Adding a specific group for relapse prevention regarding gambling in the residential program for patient with that problem helped to evidence dynamics until now often not recognized and to guaranty a better general functioning of the residential program.

A multi-country perspective on nurses' tasks below their skill level: reports from domestically trained nurses and foreign trained nurses from developing countries

Luk Bruyneel

L Bruyneel¹, B Li², L Aiken³, E Lesaffre², K Van den Heede⁴, W Sermeus⁵

¹Centre for Health Services and Nursing Research, University of Leuven, Belgium

²Department of Biostatistics, Erasmus Medical Centre, Erasmus University Rotterdam, The Netherlands

³Centre for Health Outcomes and Policy Research, University of Pennsylvania, US

⁴Belgian Health Care Knowledge Centre, Belgium

⁵Centre for Health Services and Nursing Research, University of Leuven, Belgium

Contact: luk.bruyneel@med.kuleuven.be

Background

Several studies have concluded that the use of nurses' time and energy is often not optimized. Given widespread migration of nurses from developing to developed countries, it is important for human resource planning to know whether nursing education in developing countries is associated with more exaggerated patterns of inefficiency.

Objectives

To describe nurses' reports on tasks below their skill level and to examine the association between nurses' migratory status (domestically trained nurse or foreign trained nurse from a developing country) and reports on these tasks.

Design

We used a cross-sectional quantitative research design to gather data from 33 731 nurses (62% response rate) in 486 hospitals in Belgium, England, Finland, Germany, Greece, Ireland, The Netherlands, Norway, Poland, Spain, Sweden and Switzerland.

Methods

Nurse-reported information on migratory status and tasks below their skill level performed during their last shift was used. Random effects models estimated the effect of nurses' migratory status on reports of these tasks.

Results

832 nurses were trained in a developing country (2.5% of total sample). Across countries, a high proportion of both domestically trained and foreign trained nurses from developing countries reported having performed tasks below their skill level during their last shift. There was a pronounced overall effect of being a foreign trained nurse from a developing country and an increase in reports of tasks below skill level performed during the last shift.

Conclusion

The findings suggest that there remains much room for improvement to optimize the use of nurses' time and energy. Special attention should be given to raising the professional level of practice of foreign trained nurses from developing countries. Further research is needed to understand the influence of professional practice standards, skill levels of foreign trained nurses from developing countries and values attached to these tasks resulting from previous work experiences in their home countries. This will allow us to better understand the conditions under which foreign trained

nurses from developing countries can optimally contribute to professional nursing practice in developed country contexts.

Psychosocial factors associated with embryo donation for scientific research in Northern Portugal

Catarina Samorinha

C Samorinha^{1,2}, H Machado³, S Sousa², B Figueiredo⁴, D Costa^{1,2}, S Silva^{1,2}

¹Department of Clinical Epidemiology, Predictive Medicine and Public Health, University of Porto Medical School, Porto

²Institute of Public Health-University of Porto (ISPUP), Porto

³Department of Sociology, University of Minho, Braga

⁴School of Psychology, University of Minho, Braga, Portugal

Contact: catarinasamorinha@gmail.com

Background

Innovative public health interventions use embryo research as part of a commitment towards personalized and regenerative medicine. Such research depends on citizens donating embryos. The decision tends to be emotionally and morally challenging. The objective of the present study was to estimate the prevalence of in vitro fertilization (IVF) couples donating embryos for scientific research according to psychosocial characteristics of women and men.

Methods

Within an ongoing hospital-based study, 184 heterosexual couples were interviewed at Hospital de São João (Porto, Portugal), between August 2011 and June 2012. After blood sample collection that aim to diagnose pregnancy, couples were invited to answer a structured questionnaire administered by trained interviewers and a self-administered questionnaire to gather data on sociodemographics, anxiety (State-Trait Anxiety Scale) and depressive symptoms (Edinburgh Postnatal Depression Scale), perceived social support (The Multidimensional Scale of Perceived Social Support) and quality of couple relationship (The Relationship Questionnaire).

Results

The majority of couples (84.2%) accepted to donate embryos for scientific research. Catholic were more often in favour of embryo donation for scientific research than non-catholic (men: 90.5% vs 75.0%, $p=0.049$; women: 90.0% vs 68.8%, $p=0.027$). Older women (>35 years) refused to donate their embryos for scientific research more often (92.4% vs 79.3%, $p=0.023$). Compared with men who refused, men who accepted embryo donation to research presented higher trait anxiety levels (median (Q25-Q75), 34 (30.00–38.00) vs median (Q25-Q75), 37.5 (32.50–43.75), $p=0.038$).

Conclusion

The proportion of IVF couples who accepted to donate embryos for scientific research in northern Portugal was higher than the tendency verified in similar studies carried out in other European countries, such as United Kingdom or Belgium. Men who agreed to donate embryos for scientific research presented higher levels of trait anxiety. Catholic were more willing to donate than non-catholic. It is worth considering this information in the creation of evidence-based guidelines for psychosocial intervention during counseling on the decisions around the fates of frozen embryos.

D.8. Pro/con workshop: The need for health data vs the protection of personal data

Chairs: Walter Ricciardi, EUPHA and Fabrizio Carinci, Italy

Organiser: EUPHA

Personal data “any information relating to an identified or identifiable natural person” is and should be protected under European data protection legislation. At the core of this is EU Directive 95/46/EC (Data Protection Directive), which serves as the basis for the national Data Protection Acts of all EU

Member States. Its objective is to secure the free flow of personal data within the internal market while ensuring a high level of data protection. Due to their sensitive nature, the processing of health and other sensitive data is in general prohibited (Article 8).

However, the use of such personal data is necessary for adequate and efficient public health monitoring and research.

Data protection legislation determines to what extent it is possible to use personal health data for different purposes, including public health. Modern ICT (information and communication technologies) allow for high quality health information systems enabling linkages between data sources, whilst ensuring sufficient safeguards for personal data protection rights.

In January 2012, EUPHA published a EUPHActs on this topic of using personal data to further public health research, whilst ensuring proper data protection. Following an introduction by Fabrizio Carinci on the topic, a panel of public health researchers and ethical, legal experts will be presented three case studies to reflect on.

Discussants:

- Marieke Verschuuren, president of the EUPHA section on public health monitoring and reporting;
- Els Maeckelberghe, president of the EUPHA section on ethics in public health

Case study 1: Organising transnational comparisons of health data 2 presenting

Arpana Verma

A Verma

University of Manchester, Manchester, United Kingdom

Transnational comparisons to help plan, evaluate and measure public health activities and interventions are becoming increasingly important as the world globalises and urbanises. To facilitate this, access to registration and individual level data is essential. However, differences across Europe regarding access to a comparable sample frame seriously hinder transnational benchmarking.

Case study 2: Danish case study

Arja R Aro

AR Aro

University of Southern Denmark Department of Health Promotion Research, Esbjerg, Denmark

In Denmark there is an agreed clearance practice for research gathering sensitive data via Data Protection Agency and also a

regional ethics clearance procedure for research gathering biomedical data. However, social science research e.g. on policy development, in which opinions and attitudes are inquired, has been explicitly left outside these procedures. Justification for this was based on claims that the clearance procedure with informed consent would limit access to data, which is important for societal policy making. The Danish practice is interesting in its justifications and it also creates a dilemma in at least two instances: a) first in international research requiring clearance from all countries; and b) when submitting manuscripts based on social science research to journals increasingly requiring documentation on successful ethical and data protection clearance. A practical example comes from a 7-country EC-funded research project REPOPA (=Research into Policy to enhance Physical Activity, www.repopa.eu).

Case study 3: The context of Personalized Healthcare

Angela Brand

A Brand

Maastricht University, Maastricht, The Netherlands

Rapid scientific advances and tools in genomics, proteomics, epigenomics, microbiomics and systems biology supported by new information and communication technologies (ICT) not only contribute to the understanding of disease mechanisms and the characterization of each person's unique clinical, genomic, and environmental information. These innovations also provide options for new promising applications in personal health management. Currently, computational models of individual persons (the virtual individual) are under development (<http://www.itfomthemovie.eu/>). The models will follow the person during the whole life-course through the healthcare systems enabling health professionals to simulate and optimize all kinds of health interventions, and thus improving safety, quality, effectiveness and efficiency of healthcare services. Furthermore, it will enable citizens to handle and to assess their own personal health related data in time and space whenever needed. The Data Protection Directive has to allow for these future developments.

E.8. Workshop: Closing health gaps in Europe: reducing health inequalities in Europe

Chair: Floris Barnhoorn, EUPHA

Organiser: EUPHA

Europe is facing societal and economic challenges which effect all sections of society and putting pressure on the sustainability of health systems within the EU. The challenges threaten the gains in healthcare that have been achieved. Health inequalities are not only the concern for national governments but also for regional and local administrations. The latter have significant opportunities to take effective action to reduce health inequalities through initiatives across sectors. This workshop is an opportunity to take stock of regional experiences in reducing health inequalities and actions which involve the health workforce.

Reducing health inequalities in the European regions: solutions and means.

There is a need to analyse what regions do in this complex yet critical domain, what works and what does not work. These issues have been taken up by the WHO's Regions for Health Network. The capacity of regions to tackle health inequities will depend on institutional arrangements, local health challenges, political commitment, skills and know-how of health professionals and the engagement of civil society and policy sectors, and factors impacting on national and local development.

Presenter: Erio Ziglio, WHO Euro

Addressing inequalities interventions in regions: best practices and recommendations Evidence from European regions reveals that regional interventions should include the economic and social needs of disadvantaged population and should not focus only on access to health care or health promotion. Interventions should be based on thorough needs assessments and involve all relevant disciplines. They should include specific means such as outreach visits and mediators to better reach the target populations. Results from a DG SANCO funded project AIR Addressing Inequalities Interventions in Regions.

Presenters: Rashid Salmi, France; Antonio Daponte Codina, Spain

Equity Action: the Joint Action on health Inequalities

Equity Action assists Member States to develop tools to better enable health inequalities to be addressed in cross-government policy making, to access the evidence, and to engage with key stakeholders especially regions. The Joint Action aims at: developing knowledge for action on health inequalities; sharing learning between Member States and other actors; supporting the development of effective actions.

Presenters: EuroHealthNet (tbc)

Round Table with representation from DG SANCO, WHO, Institute of Health Equity (UK)

F.8. Workshop: Taking stock: EU's mandate for health turning twenty

Chair: Helmut Brand, The Netherlands

Organiser: Maastricht University, Department of International Health, Maastricht, The Netherlands

The Maastricht Treaty introduced 1992 a public health mandate for the European Union (EU). The Treaty provisions have been the basis for subsequent actions in the field of public health and healthcare, like funding programs, legislation to protect health, policy initiatives addressing health problems, a distinct Directorate General (DG), and aligned agencies dedicated to health. Twenty years are regarded as an ideal moment to look back in history and take stock of what has been reached so far.

Next to that, Europe has witnessed complicated negotiations about the Lisbon Treaty and on further EU fiscal integration as well as rising Euroscepticism and right-populist parties with conservative stance towards the EU. All these developments imply that the "ever closer union" is not self-evident and that Europe's future narratives have to be discussed and defined.

In a qualitative interview study key experts were asked for their opinion regarding European public health actions in the last twenty years and their future perceptions for European health policy. This study and prevailing literature on European integration is the basis for the presentations within the workshop. In the beginning results on achievements and missed opportunities of European public health policies and policy making procedures of the last twenty years are presented. The study provides a valuation of past EU public health policy initiatives. The results of the first presentation will be classified in two diverging scenarios of European integration. This discussion will be organised in a pro and contra debate around the already reached and aspired level of European integration in public health. In the "pro" statement the scenario of the "United States of Europe" which is developing towards a fully integrated union in the future is taken as a starting point to interpret the developments in public health of the last twenty years. The "contra" statement discusses the progresses of public health under the premise of the EU as a "European Confederation of independent states" with an exclusive political mandate on economic and trade policies.

Subsequent to the presentations it is aimed to involve the audience in the discussion. The workshop aims to contribute to the development of a common understanding of the past activities of public health on EU level. Furthermore, it will provide a basis for discussion what and how to strive for with regard to public health at EU level in the future.

Twentieth anniversary of the Maastricht Treaty: Achievements and missed opportunities in public health

Nicole Rosenkötter

T. Clemens, K. Sørensen, H. Brand

Department of International Health, Maastricht University, Maastricht, The Netherlands

Background

Since twenty years the European Union (EU) has a health mandate, the EU committed itself to "health protection" by fostering Member State (MS) cooperation and lending additional support. Twenty years after this mandate was enshrined in the Maastricht Treaty we aim to look back to take stock of the achievements and missed opportunities of public health policy making on European level.

Method

We interviewed twenty experts in January and February 2012 by means of a semi-structured interview guide. Interviews

were analysed by an exploratory approach. Initially experts (policy makers, scientists, representatives of Non-Government Organisations) were selected using purposive sampling and subsequently snow-ball sampling was applied to identify further informants. The results were validated against the results of an online survey on the ranking of influential policy outputs at EU level.

Results

The establishment of infrastructures like a Directorate General (DG) on health, EU agencies and political instruments like the EU presidencies, the Health in all Policies approach, transparent government procedures, and best practice exchange were rated as achievements. Topic-wise the work on tobacco, infectious diseases, patient rights, food safety and the integration of public health issues in the Common Agriculture Policy reform was assessed positively. A discussion which appeared regularly was the two-sided aspect of before mentioned achievements. They describe on the one hand valuable improvements for public health, but on the other hand a more pronounced development could have been aspired and for that reason some achievements have negative connotations. Some experts rated the influence of the Single European Market on alcohol policy, the insufficient communication with the public health community on national and regional level as well as the insufficient acknowledgement of the EU level by MS, the modest budget, and the weak position of public health within the European Commission and the weak cooperation with other DGs as failure or missed opportunity.

Discussion

Despite a weak role in public health assigned by the Treaty, the results show that an increasing mandate of the EU in health matters. Nevertheless, strong leadership is a key factor for the work on European health issues and for the assurance of a future impact of European health policy making.

The "United States of Europe" scenario and the status quo of public health policy at EU level

Timo Clemens

N. Rosenkötter, K. Sørensen, H. Brand

Department of International Health, Maastricht University, Maastricht, The Netherlands

Background

The scenario of the 'United States of Europe' summarises the idea of fully integrated health policies in the European Union (EU). The results of the first presentation are aligned in this contribution under the premise of the 'United States of Europe' as the ultimate goal.

Methods

Findings from a qualitative interview study with key experts (N=20) on achievements, missed opportunities and future expectations in public health at EU level are compared to the degree they match with the scenario of a 'United States of Europe'.

Pro "European integration" statement

The interviewees mentioned that due to the strong emphasis on the subsidiary principle the EU public health mandate is weak and even weaker on health care issues. Developments in public health were often driven by crisis, in the area of health care internal market prescriptions and ECJ decisions were initiators. A strong strategy underlining the value of health in general and linked with binding regulations and EU infrastructures is identified as necessary by some experts in order to strengthen EU role in health and to support Member States (MS) in terms of research, pharmaceutical product

authorisation and standards in health care and for tackling health threats and risk factors for health. Needed innovations like e-health technologies make it obvious that common efforts instead of inefficient and incompatible individual solutions are required. With regard to the mobility of professionals and patients it is expected that common educational as well as quality standards are required and will be asked for by the population in the near future. It is doubted by some experts that a pure Free Trade Zone would assure the needs of safe products and health services. The establishment of the European Medicines Agency led to valuable improvements, but in terms of medical devices and health services a further integration of security measures and quality standards could improve the quality of the health sector in Europe further. In addition, it was emphasised that the introduction of regulations as preformed so far did not consider the whole picture of societal living since it was taken care of the needs of an internal market but the needs of societies of individual MS were not taken into account. In order to be in line with the European values of universality, equity, and solidarity social standards need to converge and need to be included in the development of the regulations.

The developments of public health at EU level in light of a “European Confederation of independent states”

Kristine Sørensen

T Clemens, N Rosenkötter, H Brand

Department of International Health, Maastricht University, Maastricht, The Netherlands

Background

The scenario of a “European Confederation of independent states” summarises herewith the idea of a pure economic and trade union. The results of the first presentation are aligned in this contribution under the scenario of a “European Confederation of independent states” as the ultimate goal.

Methods

Findings of a qualitative interview study with key experts (N=20) on achievements, missed opportunities and future

expectations in public health at European level are compared to the degree they match with a European model for a confederation of independent states.

Contra “European integration” statement

It was mentioned in the interviews that a model of the ‘United States of Europe’ could lead to a downward spiral for social standards. Harmonisation efforts will enforce the identification of an average level of standards which could negatively influence grown standards in individual Member States (MS). Furthermore, it was mentioned that common European procedures require investments in infrastructures or human resources which might not be affordable for every MS. It was argued that one should not underestimate the inefficient and long lasting procedures which might be necessary in order to create more harmonised European public health environment.

A lot of interviewees identified cooperation and knowledge exchange as relevant for the further development of public health in the European Union. But in order to identify good practices within the European Union diversity and competition were mentioned as a premise by some experts. They were in favour to define common standards in order to develop good individual public health and health care systems, but MS should have the freedom to establish different ways of realisation. By striving for harmonisation and common procedures across the EU it was argued that the self-regulating potential especially in science and health care is undermined. It was pointed out that since people are the central element in public health and health care integrated procedures as they are established for commodities can not be desired. The further integration of health care services could be seen as a neglectable need of specific population groups. The majority of people would favour to receive health care services as close as possible to their home. A further specification of services and closure of infrastructures like hospitals would be contradictory to this need.

G.8. Workshop: Education, security and the role of the medical software industry: three challenges for the tablet computer in public health

Chairs: Patricia Williams and Judy Evans, Malta

Organiser: Department of Information Policy & Governance, University of Malta

Tablet computers may be especially suited for a wide range of medical applications: whether as a reference tool for accessing the latest evidence-based medicine and clinical procedures or for patient education, using exemplary graphics and video so physicians can explain diseases and treatments to patients. Husain notes that the most transformative way tablet computers may be used is for viewing and updating patient records. The objective of the workshop is to test the *prima facie* results of current research which suggest that three of the greatest challenges faced by the successful up-take of the tablet as a trusted tool are education, security and costs. The workshop will open with a presentation that focuses on the medical education perspective. This will include a needs analysis and an introduction to a pilot project, which explores the use of tablet computers to support rural community specialist preceptors (teachers who teach family medicine residents) with the implementation of the University of Ottawa’s (UoA) revised Family Medicine (FM) Triple C Competency-based curriculum, resources (including medical and general

applications), and evaluation tools in an effort to support and enhance effective teaching and learning. The second presentation will focus on one of the key needs identified to date in the UoA study: security with a special emphasis on data protection and the patient record. This will introduce a project by the University of Malta (UoM) which is investigating a privacy-by-design approach to deployment of tablet computers across different technical platforms in clinical situations. The suitability of European data protection law as a benchmark standard for health records and its pertinence to portability of apps across national cultural boundaries will also be examined as part of the UoM study. The third presentation will focus on the perspective of the medical software industry on the growth of medical apps in the tablet computer market and the desirability or otherwise of policy interventions in this area, especially in those countries which are taking innovative approaches to patient record management. The added value of the work-shop is to a) permit audience engagement with discussions about a tool which is not yet widely adopted in a clinical environment in Europe and b) provide feedback to the research teams and stakeholders to be taken into account in the emerging design of pilot studies in Europe, North America and Australia.

From medical to mobile: new educational challenges posed by tablet computers in primary health care

Colla MacDonald

CJ MacDonald, D Archibald, R Hogue, J Mercer

Department of Family Medicine, University of Ottawa, Ottawa, Canada
Issue

The tablet computer is a very powerful device that has numerous potential uses in the medical field. The development community has already created a wide range of applications that can be used for everything from the most basic level of medical undergraduate education to specialist care delivery. The challenge with the tablet computer as a new technology is to find out where it fits most effectively into healthcare. In this paper, we will focus on how it might find a role in the area of care delivery in the educational setting. Included is a discussion on the tablet computer's place on the eLearning / mLearning spectrum, a description of challenges and issues when deploying the tablet computers to clinical settings, and finally a pilot study that will explore the effectiveness of using the tablet computer in a clinical teaching setting. This will include a needs analysis and an introduction to the pilot project, which explores the use of tablet computers to support rural community specialist preceptors (teachers who teach family medicine residents) with the implementation of the University of Ottawa's (UoA) revised Family Medicine (FM) Triple C Competency-based curriculum, resources (including medical and general applications), and evaluation tools in an effort to support and enhance effective teaching and learning. Problem areas/research questions: 1. How does the use of the iPad affect the implementation and adoption of a new curriculum among community specialist preceptors and their FM residents?

2. How does the use of the iPad affect the content, delivery, service, structure and outcomes of the FM curriculum with community specialist preceptors and their FM residents?

Lessons

With the rapid adoption of mobile technology by physicians and patients there will be many attempts to use the tablet computer to foster clinical teaching and communication. Smartphones are making their way into the clinical setting. Medical students, residents and practising physicians are quick to use their mobile devices to access the latest medical procedures, drug data base and calculators. Preliminary results of the pilot study at UoA suggest that while up-take of the tablet computer is very likely, speed and success of the up-take would very largely depend on three main criteria: 1) education of users and patients, 2) security and privacy of patient records and 3) costs inherent to rendering existing medical software applications accessible to mobile devices.

A Privacy-by-Design approach to medical apps for tablet computers

Joseph Cannataci

JA Cannataci¹, M Saliba², CJ Cannataci³

¹Department of Information Policy & Governance, University of Malta, Msida, Malta

²Information Systems Security Department, Malta Information Technology Agency, B'Bajda, Malta

³Department of Health, Mater Dei Hospital, Msida, Malta

Issue/Problem

Ease of use and intuitive features have been key to driving quantum growth in use of tablet computers. These very same features present a number of security issues when deploying medical apps in a clinical environment. The TABIBA (Tablet Applications Basic Interface for Better Access) project at the University of Malta has identified and sets out to investigate five main medical app design issues by developing a pilot app exploiting Android where the operating system itself is tested for security both in-house and externally by colleagues at the Security Research Centre in Australia. Thus the security features available in Android for fuller protection of medical data are identified, prioritized and tested. Risk management

regimes are devised, tested and rated. Qualitative research permits the measurement of physicians' awareness, perceptions and attitudes to use of tablet computers in a clinical environment and the development of design criteria accordingly. Legal research permits the creation of a design check-list which is used to ensure that medical apps are privacy compliant by either design or re-design. Medical apps developed for use on Apple iPad® in North America or Australia are ported onto an Android platform in a European environment and tested for security, privacy compliance and clinical or educational usefulness.

Description of the problem/research questions: 1. how should tablet devices be protected if they are used to access and modify patient records? 2. what additional risks are presented when devices use popular operating systems which have historically allowed other apps to access personal data on the device and export it to third parties unbeknown to the device owner? 3. when should physicians be allowed to use their own personal devices and when, if at all, should they only use secured institutional equipment? 4. can/should medical apps be engineered (or re-engineered) to meet the standards set in Rec (97)5 on the protection of Medical Data? 5. would the design of a standard framework instruction set facilitate the portability of medical apps across different IT platforms while retaining a secure environment?

Lessons

This is the first report of research which is in its initial phase but first indications suggest that design criteria should wherever possible embrace use of physician's own devices provided that an appropriately secured, privacy-friendly environment has been installed on the same devices.

Conformance and compliance with e-health standards

Vincent McCauley

V McCauley

Medical Software Industry Association, Blairns, New South Wales, Australia

The issue the sudden emergence of tablet computers presents a number of challenges for both the policy-maker and the medical software industry. Even before the wide-scale deployment of tablet computers was properly contemplated, the medical software industry in Australia recently advocated that while clinical safety usually relates to the information and procedures controlled by clinical staff in a medical setting, there is another large area of patient safety that relates to the implementation and workflows relating to health software use.

This paper attempts to apply to the tablet computer lessons learnt from the recent high-profile activity generated by the Australian Government's policy goal to introduce a personally controlled electronic health record (PCEHR). This policy has increasingly been subject to growing criticism based on privacy and security concerns. Even if one were to assume that this policy is really useful to clinicians too (a matter still very much in dispute and one of the many problem areas on which the whole scheme could founder) this would mean that tablet computers may conceivably become one of the media of choice on which the PCEHR may need to be accessed by both citizens and physicians.

Description of Problem/research questions: Should the policy-maker rely on organic growth and self-regulation within the industry when it comes to security standards for medical apps on tablet computers? What financial incentives if any should be made available in order to pursue health-care policy-goals through software development? What are the operational checks and balances that the policy-maker should create to ensure that national health care authorities introduce systems which adequately ensure patient safety and security? What levels of transparency, especially with regard to safety reports and audits, would assist the medical software industry in better assessing and delivering medical apps intended for deployment on tablet computers?

Lessons learnt

Previous work on trusted interoperability and patient safety issues suggests that many existing software products were not designed with new e-health systems in mind, and therefore lack sufficient controls in relation to unauthorised

bolt-ons. The efficacy and viability of a new secure medical apps eco-system for tablets can be established only after proper consultation with the medical software industry, maximum transparency, appropriate resourcing and rigorous testing.

H.8. Workshop: Overlapping circles: Can research, policy and politics converge?

Chairs: Dineke Zeegers Paget, EUPHA and Natasha Azzopardi Muscat, Malta

Organiser: EUPHA Section Public Health Practice and Policy

This workshop builds on the previous two roundtable sessions “Researchers are from Mars: Policy Makers are from Venus” and “Lost in Translation”. The objective of this workshop is to specifically examine the worlds of research, policy and practice from diverse viewpoints. The workshop will focus particularly on the role of the media in shaping the public health agenda.

Finally the workshop will have key guests (Maltese Members of Parliament; MEPs) who will listen to the presentations and give their comments and feedback.

The policy cycle: from formulation to implementation

Francis Agius

F Agius

Directorate of Health Information and Research, Guardamangia Malta
Currently a Professor in a Scottish University, Peter was Deputy Chief Medical Officer and also contested elections earlier in his career. He will share his insight into the different worlds of research, public health policy and politics from a personal experience and draw upon the critical success factors to keep the three circles overlapping.

Francis is a public health doctor and a Member of the Maltese Parliament. He also served as a Parliamentary Secretary responsible for Elderly Care. Francis draws on his experience as a public health practitioner and as a politician to give the public health audience some tips on what makes politicians listen, move and take action.

The way forward in the development of the Maltese Health sector is explained under three key aspects: access, quality and accessibility. The fundamental principle of thinking globally and acting locally is applied to a number of local scenarios, linking primary care aspects to secondary care. The promotion of quality is dealt with under the traditional structure, process and outcome basis but also with an additional qualitative analysis pertinent to an open and democratic society. Sustainability is not merely seen from a financial aspect but a clear sign of political willingness to embark on truly sustainable projects that render value for money and tackle the main burden of ill health as defined by Maltese epidemiology.

A journalist with an interest in public health will present on how researchers and public health practitioners need to learn how to communicate more with the media to convey their evidence based messages to the general public and politicians.

I.8. THE COSTS OF CARE

Quality & Safety in Europe by Research (QUASER): a comparative, multi-level study of the system and organisational interactions that shape quality improvement implementation in five European countries

Susan Burnett

S Burnett, H Poestges, K Charles, J Anderson, G Robert, N Fulop, and the QUASER team

Centre for Patient Safety and Service Quality, Division of Cancer and Surgery, Faculty of Medicine, Imperial College, London; and the QUASER team

Contact: s.burnett@imperial.ac.uk

Background

Studies on healthcare quality increasingly point to understanding organisational issues in health service delivery as central to explaining variations in care. Given that both the macro (national healthcare system) and meso (hospital) levels, separately and in interaction with each other, affect ‘quality’, our comparative study in five European countries seeks to explore the dynamics and interactions between these different levels as possible key determinants of sustained quality in healthcare.

Methods

Detailed descriptions of the national context (macro-system) in each of the 5 countries (The Netherlands, Norway, Portugal, Sweden and the United Kingdom) were prepared using the following headings: healthcare context, funding & access, regulatory framework for quality, accreditation and monitoring, information availability,

resources available for quality, and patient rights. Across 10 hospitals (2 in each country), a total of 213 semi-structured interviews with senior hospital leaders (meso-system) were then conducted and 323 hours of non-participant observation undertaken (including of 86 meetings relating to quality improvement). The interviews explored issues such as: historical context (the story so far in this hospital with regard to quality); national quality improvement initiatives; and the external environment and wider networks (regulators, payers).

Results

At the macro-system level our comparative analysis shows how broader contextual influences impact on healthcare quality at the meso-system level but also how, in turn, macro-systems themselves are influenced by developments in meso practices. Our comparative analysis reveals the respective roles of the macro- and meso-systems in terms of (a) the successful implementation and spread of quality improvement, and (b) sustained quality. Importantly, our findings are set within five different and richly described national contexts allowing generalisable lessons to be drawn that are relevant to many countries.

Conclusions

This in-depth multi-level (macro and meso-system) analysis of healthcare quality policies and practices in 5 European countries can provide strategic and practical guidance for both health care policy makers and hospital practitioners in Europe.

Costs of Total Hip and Knee Prostheses: A Multilevel Analysis

Jose Luis Navarro Espigares

C Herrera Espiñeira¹, JL Navarro Espigares², A Escobar³, JD Luna del Castillo⁴, A Godoy Montijano⁵, JJ Eugenio Díaz⁵, C Gómez Zubeldía⁵, L García⁶, I Reyes Sánchez⁷, M González de Tejada³

¹Nursing Department, University of Granada, Granada, Spain

²Management Control Department, Virgen de las Nieves University Hospital; International and Spanish Economy Department, University of Granada, Granada, Spain

³Research Unit, Basurto Hospital, Bilbao, Spain

⁴Biostatistics Department, University of Granada, Granada, Spain

⁵Orthopaedic and Traumatology Department, Virgen de las Nieves University Hospital, Granada, Spain

⁶Planning and Evaluation Service, Canary Islands Health Service, Spain

⁷Research Unit, Virgen de las Nieves University Hospital, Granada, Spain
Contact: jnavarro@ugr.es

Background

Since the early nineties, hip replacement has been increasingly recommended as a very safe procedure. The high prevalence of osteoarthritis in Western countries coupled with the high price of hip and knee interventions have generated great interest in comparing the costs associated with this condition before and after surgery. The aim of this study was to determine the influence of a number of variables associated with the cost of hip and knee operations. The variables considered were age, sex, body mass index, preoperative quality of life, Charlson Comorbidity Index, complications during hospital stay, hospital environment, and the patient's environment.

Methods

A prospective multicenter study was carried out with the participation of 17 hospitals from three Spanish regions. The post-intervention phase included monitoring for 12 months after hospital discharge. During this period, information on the use of health resources was collected. All costs were obtained from the analytical accounting of one of the participating hospitals. In accordance with the chronology of the process, the cost of hip and knee arthroplasty has been broken down into two different phases: the cost of hospital stay and post-intervention cost. The relationship between the considered variables and costs were analysed by means of regression and multilevel random-effects models where hospital variable was used to group cases.

Results

The cost of hospital stay [EUR 4,734.76 (Sd. 2,136.36)] turned out to be the crucial component in the total cost for this type of intervention [EUR 7,645.39 (Sd. 2,248.49)]. Neither sex, nor BMI, nor initial health status has a statistically significant effect on hospitalisation costs. Multilevel models show that baseline health status of patients obtained from the EQ-5D, SF-12, and WOMAC questionnaires are not significant in explaining hospitalisation costs or the costs in the follow-up stage.

Conclusions

There is much room for improvement in reducing the costs of total hip and knee replacement. Over forty percent of the observed variability in the costs of these procedures rather than being determined by the clinical conditions of patients is explained instead by the differing behaviour and characteristics of hospitals.

The economic value of influenza vaccination

Chiara Cadeddu

C de Waure, C Cadeddu, MA Veneziano, S Capizzi, ML Specchia, S Capri, W Ricciardi

Institute of Hygiene, Università Cattolica del Sacro Cuore, Rome, Italy
Contact: chiacadeddu@yahoo.it

Background

Influenza infection is an important Public Health issue representing a major cause of morbidity worldwide, affecting 5–20% of the population and resulting in high rates of hospitalizations and deaths, especially among individuals at increased risk, such as elderly, cancer patients or immunocompromised patients. Vaccination for these categories is an

effective strategy to prevent influenza and reduce epidemics impact, also from the economic point of view.

The aim of our study was to analyze the economic impact of influenza vaccination with a focus on elderly and high risk groups, independently from age.

Methods

From January 1990 to May 2011, we carried out on PubMed a search of cost-effectiveness and cost-utility analyses about influenza vaccination versus no intervention. We considered economic analyses eligible only if they addressed elderly and high risk groups. The Drummond's checklist was the tool used for the quality assessment of selected articles.

Results

We selected 16 cost-effectiveness analyses and 4 cost-benefit analyses, judged overall fairly good. Influenza vaccination appeared to be cost-effective and sometimes cost-saving among elderly, also in terms of deaths averted and years of life gained. Vaccination was shown to be cost-saving from the societal perspective and less costly than other preventive measures among children at risk, with a cost-benefit ratio of 6.4. Among high risk groups, vaccination resulted to be cost-effective in all studies but one with respect to patients younger than 65: for adult cancer patients, it was either cost-effective (Incremental Cost-Effectiveness Ratio of US\$224,00 per Quality Adjusted Life Years gained) or cost-saving, averting total costs by US\$ 2.107 and US\$ 6.338 from the health care and societal perspective, respectively.

Conclusions

The economic value of influenza vaccination seems to be very high, allowing to allocate resources efficiently and to guarantee a better health state by avoiding severe complications among elderly and high risk groups. Anyway, the standardization of evaluation methods would permit comparability and transferability of results among different studies. The saving of indirect costs should also be considered in addressing economic implications in Public Health.

Cost-effectiveness of including boys/men in routine Human Papillomavirus vaccination programmes: a review of the literature

Benedetto Simone

B Simone^{1,2}, P Carrillo-Santistev², P Lopalco²

¹Institute of Hygiene, Università Cattolica del Sacro Cuore, Rome, Italy

²European Centre for Disease Prevention and Control, Stockholm, Sweden
Contact: benedetto.simone@yahoo.it

Background

Efficacy and safety of Human Papillomavirus (HPV) vaccines are comparable in men and women, and anogenital warts in men have a higher impact on quality of life than previously warranted. However, HPV vaccination programmes are costly. If immunising boys/men could be, to some extent, beneficial to both sexes, more controversial is the matter of cost-effectiveness. We have therefore reviewed the economic models in literature assessing cost-effectiveness of including males in HPV vaccination programmes.

Methods

We searched Medline, Cochrane and clinicaltrials.org (updated: October 10th, 2011). No language restrictions were applied. The eligible literature reported models on cost-effectiveness of HPV vaccination conducted among males. Ad hoc subgroup analyses on potential high-risk categories, such as MSM, were not considered.

Results

Out of 47 studies retrieved, 11 were considered eligible. The studies were published from 2004 to 2011 and were mostly from North America (n=5) and Europe (n=4). Five studies focus on the bivalent vaccine (HPV-16,18) and six on the tetravalent vaccine (HPV-6,11,16,18). The studies were very heterogeneous because of different assumptions. Different baseline assumptions, as well as different choices for the modelling, have also generated ample discrepancies in the resulting cost-effectiveness estimates of vaccinating boys.

Nevertheless, most economic models do not support male vaccination.

Conclusions

Although including boys in the HPV vaccination programmes is likely to be beneficial to both sexes, immunising boys is unlikely to be cost-effective in the current conditions. Most economic analyses render a much higher cost-effectiveness ratio for campaigns aimed at improving vaccination coverage rates in females, compared to including boys. It has to be noted that the models published in literature stand on assumptions that are not fully evidence-based and need to be validated, such as: effective vaccine coverage rates among girls; duration of vaccine protection; definition and epidemiology of HPV-attributable conditions. Cost-effectiveness of including boys in HPV vaccination programmes can be re-assessed if vaccination costs are significantly reduced in the future.

Costing primary care services in 7 EU countries, Milan, 2011–2012

Eleonora Corsalini

G Fattore, A Compagni, E Corsalini

Research Center on Health and Social Care Management (CERGAS), Bocconi University, Milan, Italy

Contact: eleonora.corsalini@unibocconi.it

Background

Costing primary care services in different countries represents a challenging goal because of the dissimilarity in the conceptualization and organization of primary care itself in each country. This study proposes a methodology to cost specific primary care services in 7 EU countries, in the context of the 7th European Framework Programme-Project EUPrimecare. Specifically, clinical vignettes were used in order to assess how specific primary care services are provided in the partner countries (Italy, Spain, Finland, Estonia, Lithuania, Hungary, Germany). The time-driven activity-based costing (TDABC) methodology was then used to cost each primary care activity in each country.

Methods

Four clinical vignettes, describing common primary care situations, were submitted to the main healthcare professionals involved in primary care services in each country. More than 200 professionals have been involved. Vignettes were about primary care services in the areas of health prevention, health promotion, care of acute but common problems (both for adults and for children) and care of chronic conditions. Once analyzed, an estimation of the costs for each vignette has been provided on the basis of the time-driven activity-based costing methodology.

Results

The results are still preliminary. There are significant differences between EU countries both on the time spent in the provision of the same services and on their costs, partially depending on the specific organization of the system and the payment arrangements of healthcare professionals.

Conclusions

For the first time an attempt has been made to design a standardized method to compare the costs of primary care

services across EU countries. The vignette methodology appears an appropriate method for international comparative analyses because it is sensitive enough to capture the variations of different contexts. Moreover, the time-driven activity-based costing allows to minimize the differences between ways of provision and payment mechanisms focusing on the time spent in the activity by each professional.

Multi-level 2-year cost analyses of diabetes disease management programs in The Netherlands

Sigrid M. Mohnen

SM Mohnen, CA Baan, CCM Molema, JT de Jong-van Til, JN Struijs
National Institute of Public Health and the Environment (RIVM), Bilthoven, Netherlands

Contact: sigrid.mohnen@rivm.nl

Background

With the introduction of the bundled payment model in 2007, a large number of disease management programs (DMP) were initiated in The Netherlands. DMP have shown promising results in improving quality of care and cooperation between care giving actors in primary care. However, the financial effects of DMP for insurance agencies are still unclear. It is hypothesized that the costly investments of DMP prevent complications and high hospital and pharmacy costs in the long run. We investigate whether the introduction of DMP led to a decrease in the curative health care costs for diabetes patients over a period of 2 years.

Methods

We analyzed insurance claim payments of 24 different insurance agencies of The Netherlands using data of Vektis. Data of 52 care groups, covering about 50% of the diabetes type 2 population were used. In total, 61,497 diabetes type 2 patients, clustered in 3078 GPs, were analyzed in a longitudinal multi-level design. 53% of the patients (or their GPs) were enrolled in a DMP for two years whereas the patients of the control group stayed in 'care-as-usual' (CAU).

Results

Results show increasing curative health care costs of Euro 219 per patient from 2008 to 2009. While controlling for age (average age was 67,8 years), sex (0/1), comorbidity (1–15 chronic diseases), and costs at baseline (average yearly costs in 2008 were Euro 4123), the average costs per patient enrolled in DMP increased with Euro 142 compared to CAU. The increase in costs did not vary between health insurance agencies but slightly between GPs (ICC = 0.17%). Sensitivity analyses were conducted with a much smaller and therefore less useful 3-year data set. Substantive conclusions remained the same.

Conclusions

Results showed an increase in curative health care costs of diabetes patients caused by DMP over a period of 2 years. Since DMP are not only introduced in The Netherlands, this study is also important for other European countries. Further research should investigate a longer time-span to study long-term effects of DMP on curative health care costs.

K.8. MEDICINES

Clinical features of AH1N1 viral infection in symptomatic patients who received medical care during the 2009 influenza pandemic in central Mexico

Joel Monárrez-Espino

JP Castillo-Palencia^{1,2}, L Laflamme³, J Monárrez-Espino^{1,3}

¹Master in Public Health Program, San Luis Potosí Autonomous University, San Luis Potosí, Mexico

²Department of Epidemiological Surveillance, Ministry of Health, San Luis Potosí, Mexico

³Division of Global Health, Department of Public Health Sciences, Karolinska Institutet, Stockholm, Sweden
Contact: joel.monarrez-espino@ki.se

Background

In 2009 a new influenza A serotype was identified in Mexico that spread rapidly generating worldwide alarm. By June, the WHO declared the AH1N1 flu pandemic. San Luis Potosí (SLP), in central Mexico, was the third federal state with more cases reported. The poor knowledge of this virus caused uncertainty among medical personnel who were

unable to clinically differentiate this flu virus from other respiratory infections.

Aim

To identify clinical features of AH1N1 viral infection in persons with flu symptoms who received medical care during the 2009 influenza pandemic in SLP.

Methods

All individuals with flu symptomatology who received medical care in public and private health units of SLP from March 15 to October 30 were included in this study. Physicians purposely recorded many clinical variables. Pharyngeal exudate or bronchoalveolar lavage samples were taken to determine the presence of AH1N1 virus using real-time PCR testing. Statistical analyses included the estimation of infection, hospitalization and mortality rates. Clinical predictors were identified using logistic regression with presence or absence of AH1N1 as dependent variable, and the clinical data as independent variables. Odds ratios with 95% confidence intervals (CI) were computed. Analyses were stratified by age group based on the observed distribution of positive cases (0–14 and ≥ 15 years).

Results

From 6922 persons with flu symptoms 40.9% turned out to be positive for AH1N1. From those, 5.8% were hospitalized and 0.7% died. Most positive cases were aged 5–14 years. Age in years was positively associated with having the virus in those aged 0–14 years (95% CI 1.05–1.1), but negatively in persons aged ≥ 15 years (0.97–0.98). Fever was related in those aged ≥ 15 years (1.4–3.5), and headache (1.2–2.2) only in the 0–14 years group. Clear rhinorrhea and cough were positively related in both groups ($p < 0.05$). Arthralgia, dyspnea and vaccination history were related to lesser risk in persons aged ≥ 15 years, just as dyspnea, purulent rhinorrhea and leukocytosis were in the 0–14 years group.

Conclusion

This study identified various signs and symptoms for the clinical diagnosis of AH1N1 influenza and revealed that some of them can be age-specific.

You've got m@il: fluoxetine coming soon! Accessibility and quality of a prescription drug sold on the web

Silvia Mascaretti

U Gelatti¹, R Pedrazzani², C Marcantoni³, S Mascaretti³, C Repice², L Filippucci⁴, I Zerbinì⁵, M Dal Grande⁶, G Orizio⁷, D Ferretti⁵

¹“Quality and Technology Assessment, Governance and Communication Strategies in Health Systems” Study and Research Centre-University of Brescia

²Department of Mechanical and Industrial Engineering-University of Brescia

³Post-graduate School of Public Health-University of Brescia

⁴Food and Health Research Centre for Altroconsumo. Milan

⁵Institute of Hygiene, Epidemiology and Public Health-University of Brescia

⁶Acque Veronesi s.c.a.r.l. Verona

⁷Department of Medical Prevention-Local Health Authority of Brescia. Italy

Contact: smascaretti@gmail.com

Background

As highlighted by FDA and WHO pronouncements, the increasing phenomenon of online pharmacies leads to severe public health problems. This study aimed to evaluate the effective possibility of accessing a prescription-only drug in the absence of a prescription, the quality of drug itself, and to perform an integrated analysis of all the process phases.

Methods

Fluoxetine pills were ordered from several online pharmacies. The study included website analysis, received product quality assessment (packaging, chemical and microbiological analyses) and overall strategic geographical screening.

Results

Orders could be placed correctly on 61 of the 98 selected websites, and sales transaction was concluded successfully on 17 websites. 13 drug samples were eventually received. In one case it was necessary to fill in an anamnestic questionnaire before ordering drugs. All websites displayed aggressive marketing strategies. There was a wide variation in terms of

domain registration, company base and manufacturer's location (mostly India). All pills were delivered in sealed blister packs showing the lot number and manufacturer's details. A leaflet was enclosed in one case only. In three cases we received more pills than ordered, and in one case Viagra pills as a free gift. Pharmacopoeia microbiological requirements were satisfied. Chemical analysis revealed that the active principle was always present, although many samples did not meet the Pharmacopoeia “other impurities” or “total impurities” criteria. Heavy metals and solvents regulated by the Pharmacopoeia did not exceed the set limits. Also some of the non-regulated ones were assessed, in some cases with a positive result (styrene).

Conclusion

About 20% of the purchase attempts resulted in delivery of the drugs, even in the absence of a medical prescription. Traceability was poor and drug quality was generally worse compared to conventional pharmacy-purchased products. Based on all these broad-spectrum results, user safety appears not to be globally guaranteed. We're convinced of the pressing need for changes to public health regulations covering the online sale of drugs to effectively protect consumer safety and turn the online pharmacy phenomenon from a menace to a resource for health promotion.

Medicine use in adolescence and young adulthood-a 12-year follow-up study

Else Toft Würtz

ET Würtz, JT Mortensen, K Fonager

Department of Social Medicine, Aalborg Hospital, Aarhus University Hospital, Aalborg, Denmark

Contact: etw@rn.dk

Background

The medicine use has increased in Denmark in general and among adolescents. In spite of a high international variation, Danish adolescent resemble the other countries included in the Health Behaviour in School-aged Children studies and generally girls use more medicine than boys. These tendencies are often acknowledged from cross-sectional studies. The aim of the present study was to estimate if frequent use of pain killers in adolescence predicts medicine use in young adulthood and to track the 12-year change in medicine use from adolescence to young adulthood.

Methods

The teenagers' medicine uses were determined by a questionnaire distributed to 7th and 8th grade pupils from 15 Danish public schools in 1998. Information of individual bought prescription medicine in 2009 was received from the Register of Medicinal product Statistics (N = 794). Six selected medicine groups were defined by eight ATC codes (third level) in the musculoskeletal (M) and nervous (N) systems. Furthermore, follow-up questionnaires were assessed in 2010 (N = 441).

Results

At baseline, 764 pupils answered the questions about medicine use which were stratified into seldom, monthly and weekly. At follow-up anti-inflammatory and anti-rheumatic products, non-steroids (M01A) were significantly more used by girls, urban living, having a low sense of coherence (SOC) and increased by frequency of used pain killers in 1998. Adjusted for gender, urban living and SOC weekly used pain killers in 1998 remained significantly predicting M01A use in 2009, RR = 2.04 (95% CI = 1.12–3.71). Antidepressants (N06A) were significantly more used among girls, having a low SOC and in the high level (weekly) of used medicine in 1998. Adjusted for gender and SOC, the gender difference disappeared while the SOC, RR = 1.98 (95% CI = 1.06–3.71) and weekly used pain killers, RR = 3.06 (95% CI = 1.41–6.66) remained significant predictors for N06A-medicine use 11 years later. The 12-year follow-up study does not confirm an individually increased use of pain killers at this point in life.

Conclusions

Frequently used pain killers might predict a later use of non-steroid anti-inflammatory and anti-rheumatic products and antidepressants. Furthermore, a low SOC-7-score in the teens might predict a later use of antidepressants.

Insomnia Symptoms and Subsequent Cardiovascular Medication Among Finnish Employees: A Register-linked Follow-up Study in 2000–2007

Peija Haaramo

P Haaramo¹, O Rahkonen¹, C Hublin², T Laatikainen^{3,4}, E Lahelma¹, T Lallukka¹

¹Hjelt Institute, Department of Public Health, University of Helsinki, Helsinki

²Finnish Institute of Occupational Health, Helsinki

³Institute of Public Health and Clinical Nutrition, Faculty of Health Sciences, University of Eastern Finland, Joensuu

⁴Department of Chronic Disease Prevention, National Institute for Health and Welfare, Helsinki Finland

Contact: peija.haaramo@helsinki.fi

Background

Cardiovascular diseases are the leading causes of death worldwide. Epidemiological studies examining the impact of insomnia-the most prevalent sleep disorder-on cardiovascular morbidity are scarce. The aim of this study was to examine the association between insomnia symptoms and subsequent cardiovascular medication among employees.

Methods

The baseline questionnaire surveys on 40–60-year-old employees of the City of Helsinki were done in 2000–2002 (N = 5,464, response rate 67%, 80% women) and linked to the Social Insurance Institution of Finland's registers on reimbursements for prescribed medication with a five-year follow-up. Information on insomnia symptoms (difficulties in initiating and maintaining sleep, and non-restorative sleep) and covariates was derived from the baseline surveys. Medication was coded according to the Anatomical Therapeutic Chemical (ATC) classification by WHO. ATC-class C (drugs affecting the cardiovascular system) was used as the main outcome and C-subgroups (cardiac therapy, antihypertensives, and lipid lowering drugs) as additional outcomes. Cardiovascular medication five to seven years before the baseline was adjusted for. Logistic regression analysis was used to yield odds ratios (OR) with 95% confidence intervals (CI).

Results

The prevalence of frequent insomnia symptoms at baseline was 20% among women and 16% among men. The prevalence of any cardiovascular medication during the follow-up was 29% and 30%, respectively. Adjusted for age and previous cardiovascular medication, both frequent (women: OR 2.25, 95% CI = 1.74–2.92; men: OR 2.42, 95% CI = 1.52–3.86) and occasional (women: OR 2.05, 95% CI = 1.60–2.62; men: OR 2.03, 95% CI = 1.35–3.08) insomnia symptoms were associated with subsequent cardiovascular medication, compared with those with no symptoms. Further adjustments (obesity, heavy drinking, smoking, physical inactiveness, and sleep duration) slightly attenuated the associations, which nevertheless remained. Similar results were found for the medication subgroups.

Conclusions

We found an association between insomnia symptoms and subsequent cardiovascular medication. As cardiovascular morbidity is a major public health challenge, early detection and treatment of insomnia should be taken into account in its prevention.

Use of antidepressants and antipsychotics: 2000–2010 trends in Italy

Maria Rosaria Gualano

MR Gualano¹, F Bert¹, R Siliquini¹, L Manzoli²

¹Department of Public Health, University of Torino, Italy

²Section of Epidemiology and Public Health, University "G. d'Annunzio" of Chieti, Italy

Contacts: mariarosaria.gualano@unito.it

Background

Recently, WHO has estimated that neuropsychiatric disorders contribute to 13% of the global burden of disease and this percentage is projected to rise to 14.7% by 2020. Consequently, in Italy it is expected, an increase of antidepressant and antipsychotic medication treatments, as it was reported worldwide in the last decades. The aim of the present study is to describe the trends of consumption of antidepressants and antipsychotics in Italy from 2000 to 2010.

Methods

Based on the Italian Medicines Agency (AIFA) database, the data of the antidepressant and antipsychotic drugs in Italy during the 2000–2010 period have been recollected. Data have been expressed in daily defined dose (DDD) per 1,000 inhabitants. The formula $\ln(\text{rate}) = b \times \text{years}$ was applied for logarithmic transformation of the consumption rates to obtain time trends of drugs consumption, using the joinpoint regression program software. Time changes are expressed as expected annual percentage change (EAPC) with the respective 95% confidence intervals (CIs). The significance level of 0.05 was chosen.

Results

Regarding antidepressants, in Italy a drastic increase in their consumption is showed (from 8.18 to 35.72 DDD per 1,000, EAPC = 57% between 2000 and 2002 and EAPC = 7.38% from 2002 to 2010), without any joinpoint (time point when a significant trend change is detected). Conversely, the trend of the use of antipsychotics shows one joinpoint: in fact there is an increase until 2002 (EAPC = 8.57%), followed by a reduction of the consumption until 2010 (EAPC = -4.34%). All the results were statistically significant ($p \leq 0.05$), but it is important to consider that the consumption variation for antipsychotics was very small if compared to antidepressants.

Conclusions

Given the global increasing of the consumption of antidepressants and that good mental health is the basis for economic growth and social development in Europe, the role of public health in mental health promotion has become more and more fundamental. Moreover, considering that mental health problems are related to socioeconomic and environmental factors, it is important to monitor these trends, especially considering the possible current economic crisis effects on mental health.

Low Vitamin D and Benzophenone-3 Levels in People with Depression: Sun Exposure as New Treatment for Female Only?

Ivy Shiue

I Shiue

European Centre for Environment and Human Health, University of Exeter Centre of Cognitive Ageing and Cognitive Epidemiology, University of Edinburgh

Contact: ivy.shiue@pcmd.ac.uk

Background

Continuous identifying risk factors for depression or biomarkers associated with depressive symptoms is important for updating prevention strategies and can impact population health greatly. Previous studies with a very large study sample observed that people with higher serum 25-hydroxyvitamin D [25(OH)D] levels had decreased risk of depression (OR 0.92, 95%CI 0.87 to 0.97), although the causality of the association cannot be defined due to its cross-sectional design. This makes one wonder whether getting more sun exposure could an effective treatment for prevention of depression. In this context, it is aimed to investigate levels of vitamin D and Benzophenone-3 (BP-3), a commonly used sunscreen agent that absorbs and dissipates ultraviolet radiation, in people with or without depressive symptoms.

Methods

Data between 2003 and 2006 were extracted from United States National Health and Nutrition Examination Surveys. Serum 25(OH)D levels were measured by radioimmunoassay. Urine

BP-3 levels were detected using automated solid-phase extraction coupled to high-performance liquid chromatography-tandem mass spectrometry and adjusted urine creatinine by the formula: $\text{urine BP-3} \times 100 / \text{creatinine}$. Depressive symptoms were assessed with Patient Health Questionnaire (PHQ), a version of the Prime-MD diagnostic instrument. They are a self-reported assessment based on the nine DSM-IV signs and symptoms for depression and are scored from '0' (not at all) to '3' (nearly every day). People who scored more than 10 were classified as depressed.

Results

The mean vitamin D levels are 21.02 ± 8.66 ng/mL for male and 21.58 ± 10.19 ng/mL for female ($P=0.10$). The mean

concentrations of the benzophenone-3 (BP-3) are 132.36 ± 694.21 microg/L for male and 287.59 ± 979.39 microg/L for female ($P<0.001$). Female with depressive symptoms had lower levels of both vitamin D ($P<0.001$) and BP-3 ($P=0.013$) while not much difference was observed in male.

Conclusions

Female with depressive symptoms seemed to be less exposed to the sun, given the low levels of vitamin D and BP-3 observed. Future studies with either case-control or longitudinal cohort design are warranted before a firm conclusion can be drawn.

L.8. DISABILITY PENSION

Alcohol use in adolescence and risk of disability pension: a 39 year follow-up of a population-based conscription survey

Anna Sidorchuk

A Sidorchuk^{1,2}, T Hemmingsson³, A Romelsjö¹, P Allebeck¹

¹Division of Social Medicine, Department of Public Health Sciences, Karolinska Institutet, Stockholm, Sweden

²Division of Epidemiology, St. Petersburg State Medical Academy named after Il. Mechnikov, St. Petersburg, Russia

³Division of Occupational and Environmental Medicine, Department of Public Health Sciences, Karolinska Institutet, Stockholm, Sweden
Contact: anna.sidorchuk@ki.se

Background

The role of alcohol consumption for disability pension (DP) is controversial and systematic reviews have not established causality. Sweden is among the countries with the highest prevalence of DP and the largest public spending on DP benefits. In recent years psychiatric diagnoses alone have accounted for more than 40% of newly granted DP and a 3-fold increase has been reported in DP incidence among people aged below 30. Therefore, DP has emerged in Sweden as an important public health issue and the concern over a possible role of alcohol in disability retirement is now increasing.

Aim

We aimed to assess the role of adolescent alcohol use for future DP. We wanted to find out whether an increased risk mainly would affect DP occurring early or late in life as well as whether the level of alcohol consumption and patterns of drinking contribute differently in DP receiving.

Methods

The study is a 39-year follow-up of 49 321 Swedish men born in 1949–1951 and conscripted for compulsory military service in 1969–1970. As study exposures (i) “risk use” of alcohol composed of measures related to pattern of drinking, and (ii) the level of consumption based on self-reported volume and frequency of drinking had been used. Information on DP was obtained from social insurance databases through 2008.

Results

“Risk use” of alcohol was associated with both “early DP” and “late DP”, i.e. granted below and above the approximate age of 40 years, with crude hazard ratio (HR) of 2.89 (95% confidence intervals (CI)=2.47–3.38) and HR of 1.87 (95%CI=1.74–2.02), respectively. After adjustment for covariates, HR was reduced to 1.32 (95%CI=1.09–1.59) and 1.14 (95%CI=1.05–1.25), respectively. Similar patterns were seen for moderate (101–250 g 100% alcohol/ week) and high (>250 g) consumption, though the risk disappeared when fully adjusted.

Conclusions

Alcohol use in adolescence, particularly if measured as “risk use”, is associated with increased risk of future DP. The association is stronger for “early DP”, but remains significant even for DP granted up to the age of 59 emphasizing the public health and socio-economic burden of the outcome. Therefore,

pattern of drinking in adolescent should be considered an important marker for future reduced work capacity.

Diagnosis-specific disability pension predicts suicidal behaviour and mortality in young adults: a nationwide cohort study

Ulf Jonsson

U Jonsson¹, K Alexanderson¹, L Kjeldgård¹, H Westerlund^{1,2}, E Mittendorfer-Rutz¹

¹Division of Insurance Medicine, Department of Clinical Neuroscience, Karolinska Institutet, Stockholm, Sweden

²Stress Research Institute, Stockholm University, Stockholm, Sweden
Contact: ulf.jonsson@ki.se

Background

Increasing rates of disability pension (DP), particularly due to mental diagnoses, have been observed in young adults in Sweden and other OECD countries. Despite the size of this problem, there is a lack of research investigating health outcomes in young disability pensioners. The aim of this study was to investigate suicidal behaviour and mortality in young adults with diagnosis-specific DP compared to young adults not on DP.

Methods

A prospective cohort study was conducted. Swedish nationwide registers were used to identify all young adults who were 19–23 years old and lived in Sweden at 31st of December 2005 ($n=525,276$). The cohort was categorized into those who in 2005 were on DP due to mental diagnoses ($n=8,070$), on DP due to somatic diagnoses ($n=3,975$), or not on DP ($n=513,231$). Information on suicide attempt, suicide, and all-cause mortality between 2006–2010 were obtained from the National Patient Register and the Cause of Death Register. Cox proportional hazard regression models were used to calculate Hazard Ratios (HR) with 95% confidence intervals (CI). All HRs were adjusted for sex, country of birth, parental education, and previous own and parental suicidal behaviour.

Results

The adjusted HR for suicide attempt was 3.32 (CI 95%=2.98–3.69) for those with DP due to mental diagnoses and 1.78 (CI 95%=1.41–2.26) for those with DP due to somatic diagnoses. The adjusted risk of suicide attempt was increased for all the major categories of mental DP diagnoses (mental retardation, pervasive developmental disorder, hyperkinetic disorder, neurotic, stress-related and somatoform disorders, schizophrenia, personality disorders, unipolar depression, and bipolar disorder) with HRs ranging between 2 and 6. There was an increased risk of mortality both among those on DP due to mental diagnoses (HR=3.48; CI 95%=2.78–4.34) and somatic diagnoses (HR=10.97; CI 95%=8.99–13.38), but only those with DP due to mental diagnoses had an increased risk of completed suicide (HR=3.92; CI 95%=2.83–5.43).

Conclusions

Young adults granted DP are at increased risk of suicidal behaviour and early deaths. From a public health perspective, close monitoring of the health status of young adults on DP seems warranted.

Cognitive ability in early adulthood associated with disability pension in middle age—a life course approach

Alma Sörberg

A Sörberg, A Lundin, T Hemmingsson

Division of Occupational and Environmental Medicine, Department of Public Health Sciences, Karolinska Institutet, Stockholm, Sweden
Contact: alma.sorberg@ki.se

Background

Lower cognitive ability in early adulthood has previously been found to be associated with later disability pension (DP) up to age 44. However, most DPs are granted at older ages, and the trajectories of the association are not fully understood. We aimed to investigate the potential association between cognitive ability in early adulthood and DP between ages 40–59, and investigate the impact of individual and socioeconomic factors.

Methods

Information on cognitive ability and health status, personality aspects, and psychosocial factors at age 18–20 was obtained from the 1969–70 conscription cohort, comprising 49 321 Swedish men. Information on DP's 1991–2008 was reported in the Longitudinal Database of Income and Education. Information on socioeconomic and social factors in childhood and adulthood, education, unemployment and hospital care was obtained from national records. Univariable and multivariable regressions were performed.

Results

Cognitive ability was negatively associated with DP. The hazard ratio (HR) for every step decrease on the nine-point scale was 1.27 (95% confidence interval, CI, 1.25–1.29). Education, occupation, income and unemployment in adulthood explained half of the association. Earlier factors such as psychiatric diagnosis and personality aspects, measured at conscription, explained a smaller part. The association remained significant in the multivariable analysis (HR 1.11, 95% CI 1.09–1.13).

Conclusions

Lower cognitive ability in early adolescent was a determinant for disability pension in middle age. Several factors measured from young adulthood up to middle age contributed in explaining a large part of the association. This suggests that factors at various points in time are part of the trajectory.

Sickness absence due to musculoskeletal diagnoses and risk of disability pension: a nationwide Swedish cohort study

Catarina Jansson

C Jansson, K Alexanderson

Division of Insurance Medicine, Department of Clinical Neuroscience, Karolinska Institutet, Stockholm, Sweden
Contact: Catarina.Jansson@ki.se

Background

Musculoskeletal disorders constitute a major public health problem in the Western world and among the most common diagnosis groups regarding long-term sickness absence. Few studies have, however, examined risk of diagnosis-specific disability pension among persons sickness absent due to musculoskeletal diagnoses.

Methods

We performed a prospective nationwide population-based cohort study based on Swedish registers, including all 4 687 756 individuals living in Sweden December 31, 2005, aged 20–64 years, not on disability or old age pension. Those sickness absent in 2005 due to musculoskeletal diagnoses were

compared to those sickness absent due to non-musculoskeletal diagnoses and those with no sickness absence. Musculoskeletal diagnoses were categorized as: 1) arthropathies/systemic connective tissue disorders, 2) dorsopathies and 3) soft tissue disorders/osteopathies/chondropathies/other musculoskeletal disorders. All-cause and diagnosis-specific incident disability pension were followed 2006–2009. Incidence rate ratios (IRRs) and 95% confidence intervals (CIs) were estimated by Cox proportional hazards regression.

Results

In models adjusted for socio-demographic factors and morbidity, sickness absence due to all three categories of musculoskeletal diagnoses was associated with 12- to 18-fold increased risks of all-cause disability pension (adjusted model, category 2 diagnoses, IRR 18.57, 95% CI 18.18–18.97). Similar associations were observed among both women and men. Moreover, increased risks of disability pension due to cancer, mental, circulatory and musculoskeletal diagnoses were observed among persons sickness absent due to musculoskeletal diagnoses (disability pension due to musculoskeletal diagnoses, adjusted model, category 2 diagnoses, IRR 50.66, 95% CI 49.06–52.32).

Conclusions

This nationwide cohort study reveals strongly increased risks of all-cause and diagnosis-specific disability pension among both women and men sickness absent due to musculoskeletal diagnoses after adjustment for several potential confounders, including morbidity.

Relative weight and subsequent disability retirement among Finnish public sector employees

Eira Roos

E Roos, M Laaksonen, O Rahkonen, E Lahelma, T Lallukka

Hjelt Institute, Department of Public Health, University of Helsinki, Finland
Contact: eira.roos@finnet.fi

Background

Relative weight measured by body mass index (BMI) is associated with disability retirement. Less is known about the associations between BMI and different diagnoses leading to disability retirement. The aim was to examine 1) the association of relative weight with subsequent disability retirement due to any diagnosis and due to musculoskeletal diseases and mental disorders, and 2) whether diseases, physical and mental functioning and working conditions explain these associations.

Methods

The data were based on the Helsinki Health Study (HHS) questionnaire surveys. A baseline mail survey was conducted among 40, 45, 50, 55, and 60-year-old employees of the City of Helsinki, Finland, in 2000–2002 (n = 8960, response rate 67%). The Baseline data comprised self-reported height and weight to calculate BMI, and various covariates. These data were linked with national register data on disability retirement events, using unique personal identification numbers for those with informed consent for such linkage (74%, n = 6606). Mean follow-up time was 7.8 years. Cox regression analysis was used to examine the associations between BMI and disability retirement.

Results

Adjusting for age and gender, BMI was associated with all-cause disability retirement, the highest risk being for the severely obese (HR 3.45, 95% CI 2.53–4.69) and the obese (HR 1.94, 95% CI 1.52–2.46). BMI was also associated with retirement due to musculoskeletal diseases among the severely obese and the obese (HR 2.35, 95% CI 1.62–3.39). The association attenuated when adjusted for diseases and physical and mental functioning at baseline. Working conditions had negligible effects on the associations.

Conclusion

Maintenance of normal weight is likely to reduce the risk of disability retirement. Among obese employees, the focus should be on the improvement of physical functioning and

on effective treatment and rehabilitation of obesity and its comorbidities to counteract the disability retirement risk.

Inflammatory bowel disease and allocation of health-related benefits

Kirsten Fonager

K Fonager¹, JB Leth², TM Larsen³, BA Jacobsen⁴

¹Department of Social Medicine, Aalborg Hospital, Aarhus University, Denmark

²University College North Jutland, Aalborg, Denmark

³Department of Health Planning and Quality, North Jutland Region, Denmark

⁴Department of Medical Gastroenterology, Aalborg Hospital, Aarhus University, Denmark

Contact: k.fonager@rn.dk

Background

Inflammatory bowel diseases (IBD), including Crohn's disease (CD) and ulcerative colitis (UC), are chronic diseases that impact patients' lives at many different levels. The incidence is highest in young adults and the disease course unpredictable. The aim was to study whether patients with inflammatory bowel disease had a higher risk of leaving the regular work force.

Method

We included all patients in North Jutland, Denmark, diagnosed with CD or UC from 1993 to 2002. 31 patients had left the regular work force at the time of diagnosis and 11 died during follow up leaving 317 patients with CD and 558 patients with UC for the analyses. Data were linked to the DREAM database which holds information on public social

benefits. Risks of leaving the regular work force (allocated to permanent health related benefit) after five years were estimated in logistic regression models. The number of days having received social support/sickness benefit the five years following diagnosis was assessed by linear regression analysis. Sub-analysis was performed using a Poisson regression model to calculate the incidence rate ratios (IRRs) for disability pension among CD and UC patients compared with the background population.

Results

A total of 8.2% with CD and 4.3% with UC had left the regular work force within five years after diagnosis. CD women had a higher risk than UC women (OR 2.5 (95% CI=1.0–6.0)), whereas no difference was found for men (OR 1.0 (95% CI=0.4–2.8)). Receiving social benefits one year before diagnosis seemed to have impact on both the number of days receiving social support/sickness benefit and the risk of leaving the regular work force during the five year time period. Both CD and UC patients had a higher risk than the background population of receiving disability pension (CD: IRR 2.82 (95% CI=1.08–3.08); UC: IRR 1.82 (95% CI=1.57–5.14)).

Conclusions

The study showed that patients with inflammatory bowel disease, especially women with CD, had an increased risk of leaving the regular work force five year after diagnosis. The study indicates that factors unrelated to the disease might be important.

M.8. Workshop: Towards a workable model for the management of chronic conditions in Europe

Chairs: Iveta Rajnicova-Nagyova, Slovakia and Jacqueline Bowman-Busato, Belgium

Organiser: EUPHA Section on Chronic Diseases & European Platform for Patients Organisations, Science and Industry (Epposi)

Background

Chronic conditions management (CCM) and changes in current systems of healthcare delivery are increasingly considered as important issues at policy and organisational level, as well as at the level of community and the individual. Although there are numerous different chronic conditions, what these conditions have in common is that they are largely preventable; they need a long-term and complex response, coordinated by different healthcare professionals, with access to necessary pharmaceuticals, testing and medical devices, and extending into social care. As such, there is a serious need for a thoughtful, multi-stakeholder, holistic approach to the practical implementation of integrated care systems based on patient-centred, coordinated and continuous care models.

Objective and layout

The primary objective of the workshop is to address the existing obstacles and weaknesses in the management of chronic conditions in Europe and to provide the key policy recommendations to the practical implementation of existing care models which focus on the realities of those living with chronic conditions. After an introductory presentation on the existing CCM models, policies and strategies in Europe, four related topics will be presented. The first presentation highlights the main existing gaps and weakness in CCM, commonly identified in 10 European Union (EU) countries. The second presentation illustrates the EU perspective on CCM, in particular how the European Innovation Partnership on Active and Healthy Aging (the EIP) helps to support necessary changes in the present medical and financial healthcare delivery models. The third presentation gives a national perspective on the importance of patients and patient

organisations to overcome the hurdles of patient empowerment and implementation of patient-centred care models in Europe. The fourth presentation offers a concrete good practice example of the solution to the existing gaps in CCM in Europe-E-TEACCH, Electronic multimediamultilingual easy-to-use Training, Education, Assessment and Communication Center on Headache. An audience discussion with 5 panelists concludes the workshop.

Added value

The workshop intends to be a valuable contribution to the existing information and evidence on chronic conditions and diseases in Europe by revealing the outcomes of the multi-stakeholder approach to CCM in Europe, including European, national and practice policy perspectives.

Accessibility and quality of a prescription drug sold, policies and strategies

Bert Vrijhoef

B Vrijhoef^{1,2,3}

¹Tilburg University, The Netherlands

²Vilans, The Netherlands

³The Netherlands Organisation for Applied Research, The Netherlands

Background

A variety of changes for the management of chronic disease care have been advocated. Most effective interventions for improvements in chronic disease care include the combination of multi-pronged strategies. The Chronic Care Model (CCM) and the Expanded CCM are examples of such strategies. Both strategies foster systemic change with the CCM focusing on people who have a disease and the Expanded CCM also supporting people and communities to be healthy. A study was performed to: (1) identify what policies for improving the quality of chronic care are being implemented in The Netherlands, Denmark, the United States and Canada and (2) to assess to what extent these policies have resulted in

the implementation of elements of the (Expanded) CCM and with which impact on outcomes.

Methods

A qualitative review of the scientific literature and government documents and semi-structured interviews with three experts from each of the four countries were done. Data were analyzed against an analytic framework to provide an overview of the breadth of the data. Use was made of the framework for creating a regional health care system. This framework describes that improvement strategies regarding chronic care will need to systematically coordinate actions across multiple strategy areas: data-sharing for performance measurement, engaging consumers, improving health care delivery, and aligning benefits and finances.

Results

The identified policies could be meaningfully structured and displayed by the framework for creating a regional health care system. In all four countries the systemic collection of data in order to redesign is troublesome. Further, in all four countries multiple policy measures are introduced regarding consumers, providers and purchasers of chronic care with an emphasis on strategies aimed at providers and a single disease orientation. A shift towards consumer involvement was found. Policies regarding providers encompass Quality Improvement strategies, motivational strategies to foster change and to a lesser extent the building of clinical data systems. Strategies for insurers include the removal of disincentives, redundancies and inefficiencies in current health insurance or payment.

Conclusions

Chronic care policies are in accord with the CCM, are incremental of nature and show variation both within and between countries. The building of an evidence-base regarding their impact has only just started.

Commonalities on gaps and weaknesses in the current CCM in Europe and key policy recommendations to the practical implementation of existing care models

Andrea Pavlickova

A Pavlickova
Epossi, Belgium

Background

CCM is useful as a conceptual framework but should also be supplemented by guidelines on implementation. The lack of common European guidelines, references or data on the quality of CCM in Europe is the main obstacle to supporting changes in the present medical and financial care models. This research was performed to: (1) build a workable model for the holistic management of chronic conditions for EU citizens, taking into account the medial, socio-economic and technology dimensions; (2) identify the best practices and deficiencies in EU countries' capacities to manage chronic conditions; (3) provide policy recommendations to the implementation of existing care models in the regional, national and EU context.

Methods

The research started with the mapping of the EU-27 countries in terms of prevalence of a national plan or strategy for the CCM across 5 disease areas. Secondly, 10 EU countries were selected for the evaluation of CCM national plans and strategies. The theoretical framework (Expanded Chronic Care Model) was set following valuable multi-stakeholders inputs and the critical review of the scientific literature. The framework was the basis for drafting the evaluation checklist. The checklist is organized into four core domains (policy, patient empowerment, practice level, community linkages) which are further divided into comparable and measurable parameters and indicators.

Results

The application of the evaluation checklist to the CCM approaches of 10 EU countries has revealed both the many commonalities in good practices, and more importantly, the

current weaknesses in the management of chronic conditions in Europe. Despite the uniqueness and diversity of healthcare systems in Europe, the EU countries face common problems and issues of CCM across policy, practice, individual and community levels. A shift towards a holistic, patient-centered approach to CCM, productive relationships between well-educated and informed patients and well-capable and proactive healthcare teams is still rather a challenge in Europe. The identification of existing gaps and weaknesses in CCM is an important asset to address these challenges as the areas of potential actions and initiatives are clearly described.

Conclusions

The findings serve as the basis for the formulation of concrete, evidence-based recommendations that can be used by the EU and its member states in their national and regional policies, strategies or plans for the CCM.

How can the EIP to support necessary changes in the present medical and financial healthcare delivery models in Europe?

Maria Iglesia Gomez

M Iglesia Gomez

Head of Unit, Health and Innovation (Directorate General for Health and Consumers-DG SANCO, European Commission)

Abstract 3

Issue/Problem

The European population is ageing rapidly, but living longer does not necessarily mean living a healthier, more active and independent life. This poses a formidable socio-economic challenge but at the same time great opportunities for citizens and businesses. The key lies in promoting people-oriented, demand driven innovation in smart investments that have the potential to meet the needs of the changing demographic environment. The European Innovation Partnership (EIP) aims to increase the healthy lifespan of EU citizens by 2 years, by working in three areas: (1) improving the health and quality of life of European citizens, and particularly of older people, (2) supporting the long-term sustainability and efficiency of Europe's health and social systems, (3) fostering the growth and expansion of EU industry in this field.

Description

The EIP brings together a wide array of stakeholders from the public and private sectors, to work in a collaborative way on shared interests, activities and projects geared towards common goals. The Partnership's aim is to deliver the necessary commitment and investments from key stakeholders in three strategy priority areas: (1) prevention, screening and early diagnosis; (2) care and cure; (3) active ageing and independent living. The Partnerships intends to achieve its aims by aligning the existing EU, national and private financial tools to improve their effectiveness and efficiency.

Results

The added value of the EIP in relation to support changes in the current healthcare systems lies in its ability to offer a framework of cooperation for addressing barriers across the entire innovation value chain. Innovation in active and healthy aging faces numerous obstacles, particularly the lack of involvement of end users, lack of technical standards or fear and rigidity of care systems to change. With a strong commitment and the leadership of all relevant stakeholders, the EIP seeks to overcome barriers in the following way: (1) facilitating scaling up and multiplying; (2) joining up resources and expertise; (3) bridging gaps and speeding up innovation process.

Lessons

Collaborative, integrated and people-centered care provision is a way forward to sustainable and efficient care systems. The success of the EIP and its contribution to support the necessary changes in current healthcare systems depends on the active involvement of, and collaboration among a broad range of committed stakeholders.

The role of patients and patients' organisations in the facilitation of necessary changes in current healthcare delivery systems in Europe

Tomasz Szelagowski

T Szelagowski

Federation of Polish Patients, Poland

Issue/Problem

Confronted with an ageing population as well as the availability of ever better but more expensive treatments, chronic diseases have become a financial burden. During last ten years patients organisations have integrated their activity and built a strong network to raise patients' voice to overcome the hurdles of patient empowerment and implementation of patient-centred care models at regional, national and European levels.

Description

A comparative analysis of the setting policy themes and goals of the umbrella patient organisation (Federation of Polish Patients) versus the achievements at the national and European level is applied. In addition, the concrete and practical examples of the achieved objectives in four core domains (capacity-building of patient organisations, policy impact, patient's evidence, partnership) are clearly illustrated.

Results

Partnering for a workable patient-centered CCM model for the EU citizens, patients' organisations may become one of the most important elements of such a model. The patients' organisations understand who patients trust and where they seek help when they have been diagnosed with lifetime chronic conditions and diseases, often influencing the lives of the entire families and communities around patients. After the initial stages of disease care, where the technical knowledge and information about the process of care are provided, the healthcare professionals or innovative support tools will seldom be the sources that make a difference for patients and their relatives. The ability to share the knowledge in the lay language and to present a genuine interest of learning what is the situation of the individual, the group of patients or patients' families with openness and compassion, enables patients' organisations to act as an expert in the field of advocacy as well as the dissemination of the important messages about the access and quality of the healthcare services.

Lessons

A solid understanding may be built of what can be actually delivered as a valuable input from the patients' organisations as a public partner to support the implementation of new patient-centered and coordinated integrated care models in Europe.

E-Teacch: A good practice example of the CCM support solution for healthcare professionals and patients on how to address the existing educational and information gaps

Colette André

C André^{1,2}

¹Center of Public Health Research, Luxembourg

²Migraine Action, Switzerland

Background

Despite the existence of effective treatments and good health care that can greatly reduce the burden of chronic diseases, headache disorders are under-recognized, under-treated and commonly mismanaged conditions which impose a substantial health and economic burden for the European societies. Migraine alone is being the most costly of the purely neurological disorders. Long-term side effects, high comorbidity, disability, chronification and dependency are major problems. According to WHO, this abject health-care failure has its roots in education failure at every level and in resulting widespread lack of understanding. The objectives of the E-Teacch projects are to: (1) produce an educational platform for exchange of information, transfer of expertise and best disease-management practice for healthcare professionals and patients; (2) bring together research institution, headache experts, national organizations of all stakeholders to utilise and optimize the existing resources; (3) establish clear roles and responsibilities, set clear standards empowering stakeholders in their roles, enhancing usage of implemented guidelines, facilitating communication to improve quality of life and lower health care costs.

Methods

After reviewing and evaluating existing information as a guide on all level (doctor, patient, pharmacist) the ICT-based platform is developed and validated in a real environment with real patients, doctors and pharmacists, considering and analysing their needs, responsibilities, opinions, suggestions and feedback. All stakeholder users are actively involved in the content, design, development and the implementation phases to personalize the system accordingly to the specific requirements and necessities that stakeholders have at any moment.

Results

5 standalone, accredited, self-paced and stakeholder customized contents, interactive courses with flexible (need and nice to know) information, practical training, assessment and 'goodies' empowering the different stakeholders to contribute to the disease-management.

Conclusions

The collaborative production of an educational platform with major stakeholders and their official organisations is feasible, enriching and useful to improve disease-management of chronic diseases.

0.8. MENTAL HEALTH

An analysis of the mortality involving Parkinson's and Alzheimer's disease in France and Italy using the multiple cause-of-death approach

Aline Désesquelles

E Demuru¹, A Désesquelles², V Egidi¹, L Frova⁴, F Meslé², M Pace⁴, M Pappagallo⁴, MA Salvatore⁴

¹Department of statistics, Sapienza, Rome, Italy

²INED, Paris, France

³ISTAT, Rome, Italy

Contact: alined@ined.fr

Background

Because death at old age is often the final stage of a long process involving several conditions, the multiple

cause-of-death (MCOD) approach is relevant to study the mortality of ageing populations. We use this approach for two conditions emblematic of old age mortality, Parkinson's and Alzheimer's disease, and for two countries, France and Italy.

Methods

Data are for year 2008 and for deaths over the age of 65. They are based on the information reported on the death certificates. We first compute the ratio (Standardized Ratio of Multiple to Underlying Cause or SRMU) between mortality rates accounting for all causes and for the underlying cause (UC) only. We then examine in which combinations of causes the diseases under study are frequently involved. The indicator we use

(Cause-of-Death Association Indicator of CDAI) has been specifically developed for that purpose.

Results

When the UC only is accounted for, standardized mortality rates for the two diseases under study are higher in France. SRMU for Alzheimer's disease is 1.6 in Italy and 1.7 in France. SRMU for Parkinson's disease is higher (2.8 vs.1.9) indicating that this condition is more frequently reported as contributing cause than Alzheimer's disease, and it is more frequently the case in Italy than in France. After accounting for all mentions, mortality rates become higher in Italy.

The conditions that frequently contribute to the deaths due to Parkinson's and Alzheimer's disease, often reflect the circumstances surrounding the end of life of the people with these diseases that is characterized by bed confinement, loss of autonomy, and frailty. When the conditions under study are not identified as the UC, death is frequently attributed to cerebrovascular diseases and to external causes (mainly: accidental falls, fractures, and obstruction of the respiratory tract). Association is also high with diabetes mellitus and septicemia.

Conclusion

The MCOD approach helps highlighting the complex pathological profile that characterizes deaths in old age, and it provides a more comprehensive assessment of the burden of these diseases, which prevalence is rapidly increasing in ageing populations.

Anxiety and depression in women and men from early pregnancy to 3-months postpartum

Barbara Figueiredo

B Figueiredo, A Conde

School of Psychology, University of Minho (Braga, Portugal)

Contact: bbf@psi.uminho.pt

Background

From early pregnancy to the postpartum period, several changes occur simultaneously at biological, psychological and social levels. Adjustment to these changes may place both women and men at-risk for psychological difficulties. Literature has been picturing a particularly difficult transition for first time parents. But for second-time parents adjustment and resultant strain may come from the process of incorporating a new member into a preexisting system and having to take care of two children at the same time. This study aimed to investigate both anxiety and depression symptoms from early pregnancy to 3-months postpartum, comparing women and men and first and second-time parents.

Methods

A sample of 260 Portuguese couples (N = 520), first or second-time parents, recruited in an Obstetrics Out-patients Unit, filled in the State-Anxiety Inventory (STAI-S) and the Edinburgh Post-Natal Depression Scale (EPDS) at the 1st, 2nd and 3rd pregnancy trimesters, childbirth, and 3-months postpartum.

Results

Rates for high-anxiety (STAI-S ≥ 45) in women (13.1%; 12.2%; 18.2%; 18.6%; 4.7%) and men (10.1%; 8.0%; 7.8%; 8.5%; 4.4%) and for depression (EPDS ≥ 10) in women (20.0%, 19.6%, 17.4%, 17.6%; 11.1%) and men (11.3%; 6.6%; 5.5%; 7.5%; 7.2%) were high. A decrease in anxiety and depression symptoms from early pregnancy to 3-months postpartum was found in both women and men, as well as in first and second-time parents. Men presented less anxiety and depression symptoms than women, but the same pattern of symptoms over time. Second-time parents showed more anxiety and depression symptoms than

first-time parents and a different pattern of symptoms over time: an increase in anxiety and depression symptoms from the 3rd trimester to childbirth was observed in first-time parents versus a decrease in second-time parents.

Conclusions

Rates for high anxiety and depression are high during pregnancy and the postpartum, but symptoms diminish from pregnancy to the postpartum period in all parents. Patterns of anxiety and depression symptoms from early pregnancy to 3- months postpartum are similar in women and men, but somewhat different in first and second time parents. Second-time parents should also be considered while studying and intervening during pregnancy and the postpartum.

The effects of physical and mental health on living arrangements of middle-aged and older Canadians-a longitudinal analysis

Camille L Angus

CL Angus¹, Y Asada¹, SA Kirkland^{1,2}

¹Department of Community Health & Epidemiology, Dalhousie University, Halifax NS

²Department of Medicine, Dalhousie University, Halifax NS Canada

Contact: camille.angus@dal.ca

Background

As in many countries, Canada's population is aging, and life spans expanding. Supporting quality of life during these extended years is a growing policy concern. Living arrangements of middle-aged and older people are widely recognized as important to their overall quality of life. In addition, they are important determinants of the need for and use of informal and formal care. To date the literature generally focuses on the oldest old, is mostly limited to cross-sectional assessment, and rarely addresses the impacts of overall health on living arrangements. This research investigates, in a sample of middle-aged and older community-dwelling (at baseline) Canadian adults, how change in health influences future ability to age in place.

Methods

This study uses data from three waves (Baseline, Year 5 and Year 10) of the Canadian Multicentre Osteoporosis Study (CaMos), a population-based prospective cohort study conducted at 9 sites across Canada beginning in 1995. The CaMos sample used in this study includes individuals aged 45+ at baseline who completed at least two consecutive waves of data collection. We examine the longitudinal effects of clinically-significant change in physical and mental health (PCS and MCS summary scores from the SF-36) on future living arrangements (living in standard versus aging-specific dwellings), after adjustment for sociodemographics, cohabitants, social networks, chronic disease, acute health events, and health behaviours, using generalized estimating equations (GEE) logistic regression models.

Results

A total of 6,896 participants (4,999 women and 1,897 men) comprise the longitudinal cohort. Clinically-significant decline in PCS score increases likelihood of not aging in place over stable or improved scores by 41%. MCS scores did not show a significant effect on aging in place. High age and low income substantially increase likelihood of not aging in place, whereas living with a partner, engaging in medium or high levels of weekly physical activity, and having children increase the likelihood of successful aging in place.

Conclusions

The findings of this population-based longitudinal study will help inform social and health policy development to support 'aging in place' in Canada and elsewhere.

Prevalence of depressive symptoms among portuguese elementary teachers

Carlos Pereira

C Pereira, C Almeida, O Amaral, N Veiga, J Pereira, J Duarte
CI&DETS, Polytechnic Institute of Viseu, Portugal
Contact details: neliioveiga@hotmail.com

Background

Depression is frequently associated with job conditions. The portuguese educational system has been changing in the last years, namely in curricula, new demands, increased paperwork, unemployment among teachers and student's misbehavior. The aim of this study was to determine the prevalence of depressive symptoms and identify the risk factors in a sample of portuguese elementary teachers.

Methods

We conducted a cross-sectional study involving all teachers from sixteen randomly selected public schools of the district of Viseu, Portugal. Data was collected using a self-administered questionnaire. The final sample was composed of 864 elementary teachers (638 female, 73.8%), mean age = 43.7 ± 7.6 years. Depressive symptoms were assessed by the Portuguese validated version of the Beck Depression Inventory, and the cut-off point for depression was 16 points. Prevalence was expressed in proportions with 95% confidence intervals (CI), and compared by the chi-square test.

Results

The prevalence of depressive symptoms was 26.0% (95%CI = 20.9–31.3). According to the classification of severity of depressive symptomatology, the prevalence of “minimum”, “slight”, “moderate” and “severe” was 74.2% (95%CI = 68.7–79.1); 18.9% (95%CI = 14.7–23.9); 5.2% (95%CI = 3.0–8.5) and 1.7% (95%CI = 0.6–4.2), respectively. Depressive symptoms were associated with gender (female OR = 1.9, 95%CI = 1.0–3.8); coffee consumption (OR = 0.6, 95%CI = 0.3–0.9); alcohol consumption (OR = 0.6, 95%CI = 0.4–0.9) and insomnia (OR = 3.2, 95%CI = 1.7–5.9). We verified that depressive symptoms are also associated with sleep disorders such as difficulty initiating sleep (OR = 2.4, 95%CI = 1.2–4.9); difficulty maintaining sleep (OR = 2.1, 95%CI = 1.1–3.9) and non-restorative sleep (OR = 3.4, 95%CI = 1.9–6.1). No statistically significant association was found between depressive symptoms and age, marital status, smoking habits, sports practice, overweight/obesity, crowding index, absenteeism and service time.

Conclusions

Teachers present a high prevalence of depressive symptoms, higher than referred for other occupational classes. Depressive symptoms are associated with socio-demographic conditions and sleep disorders.

Use of general practice (GP) services by persons with serious mental disorders

Oystein Hetlevik

Ø Hetlevik, S Gjesdal
University of Bergen, Department of Public Health and Primary Health Care
Contact: oystein.hetlevik@isf.uib.no

Background

Reforms in psychiatric health services have given GPs increased responsibility for patients with serious mental disorders. In Norway most GPs are self-employed and there is probably variation in their practices. We assessed the rate of GP consultations and multidisciplinary meetings (MDMs) for patients with schizophrenia or affective psychoses, and association with the GPs' work with mental health problems in general.

Methods

Cross-sectional, register based study, including 8,750 patients with schizophrenia and 12,538 with affective psychosis and their 3,220 GPs. Based on invoices to the National Health

Insurance, all consultations and MDMs with these patients in 2009 were identified. GPs were grouped in quartiles based on the proportion of all consultation marked with a mental health diagnosis. This variable, indicating the GP's activity within the mental health field, was used as an explanatory variable in logistic regressions with two different outcomes: a) having >10 consultations with patients with a serious mental disorder and b) at least one MDM. Analyses were performed separately for patients with schizophrenia and affective psychosis, and adjusted for patient-, GP- and list characteristics.

Results

At average, consultation rates for patients with schizophrenia was 5 and for affective psychoses 6 per year. Respectively, 13% and 17% had >10 consultation. The GPs participated in MDMs concerning 26% and 16% of the two patient groups. At average 10.4% of all consultations with GPs were marked with a main mental health diagnosis (SD 4.2). Having a GP with >12.5% mental health diagnoses (highest quartile), increased the odds for >10 annual consultations, compared to those with <7.6% (lowest quartile): OR 2.0 (95% CI 1.6–2.5) for patients with schizophrenia and OR 2.0 (1.7–2.3) for those with affective psychoses. The respective OR for having a GP participating in a MDM was 1.3 (95% CI 1.1–1.5) and 1.3 (95% CI 1.2–1.6). In all models, there were significant trends across the quartiles ($p < 0.001$).

Conclusion

At average, Norwegian GPs have frequent contacts with patients with serious mental disorders and even more frequent when GPs have a high share of consultations with mental health problems in general. GPs participation in MDMs might be improved.

Consultations for mental health problems in Norwegian general practice

Sturla Gjesdal

S Gjesdal, Ø Hetlevik
University of Bergen, Department of Public Health and Primary Health Care
Contact: oystein.hetlevik@isf.uib.no

Background

During the last decades primary health care has received increased responsibility for patients with mental health problems (MHP). In Norway new mental health services is developed in the municipalities. However, the GPs are rather seldom involved, and little is known about the GPs' work within this field.

Methods

Cross-sectional register based study from 2009 with data from the fees for service scheme. Invoices from consultation include information about age and gender of patients and a diagnosis for each consultation according to the International Classification of Primary Health Care (ICPC). Consultations with a main diagnosis from the ICPC P-chapter were included. Data from a sample of 3,389 GPs were analysed to assess variation in GP consultation rates and list characteristics obtained from a national GP database. Descriptive statistics were used.

Results

In total 1,190,114 consultations with a MHP diagnosis were reported, 0.25 per patients on the list. Among children only 3% of consultations concerned a MHP. The most used diagnoses were hyperkinetic disorder (25%) and behavioural problems (10%). In the age group 15–24, 8% of the list populations had ≥ 1 consultations for a MHP, corresponding to 11% of all consultations. Depression (26%), hyperkinetic disorder (8%) and anxiety (8%) were most frequently used. Among adults 25–67 years, 11% of the population had ≥ 1 consultation with a MPH and half of those had >5 consultations. MHP diagnoses were used in 13% of all consultations. Depression (31%) and anxiety (11%) were

most common. Addiction, schizophrenia and affective psychosis constituted 3–4% each. Among the elderly 4% of consultations were classified as a MHP, and depression (27%) and cognitive problems (18%) were the most used diagnoses. One fourth of GPs had >12.5% and one fourth <7.5% of their consultations with a MHP diagnosis. No trends were present according to GPs age, gender or the list size comparing GPs with different proportions of MPH consultations. However,

GPs working in larger municipalities had a higher proportion of such diagnoses.

Conclusion

A substantial part of GP consultations concern MHP, covering many different diagnoses and all age groups. However, children with mental health problems are seldom encountered.



MARK YOUR AGENDAS!!!

6th European Public Health Conference, 13-16 November 2013
Brussels, Belgium

Health in Europe: are we there yet?

Learning from the past, building the future

Our next conference will be organized at the SQUARE meeting Centre in Brussels, Belgium.

The major topics of this conference include:

- Health in Europe – learning from the past, building the future
- Population changes and the impact on health
- The limits to the evidence-base for public health
- How to make it happen? On the development of people and institutions in public health

Please take note of the following dates:

Opening abstract submission:	1 February 2013
Deadline abstract submission:	1 May 2013 (midnight CET)
Opening early registration:	1 July 2013
Deadline early registration:	15 September 2013

Regularly updated information can be found at:

http://eupha.org/site/upcoming_conference.php?conference_page=341