



1<sup>st</sup> V4 Conference on Public Health  
5<sup>th</sup> International SAVEZ Conference

Book of Abstracts

# Adding Years to Life and Life to Years in V4 Countries

9 – 10 May 2013  
Kosice  
Slovak Republic



# Adding Years to Life and Life to Years in V4 Countries

## Book of Abstracts

1<sup>st</sup> V4 Conference on Public Health & 5<sup>th</sup> International SAVEZ Conference  
9 – 10 May 2013, Kosice, Slovak Republic

### Reviewers

Members of International Scientific Committee: Iveta Rajnicova-Nagyova (chair), SK; Maria Avdicova, SK; Tibor Baska, SK; Lydia Cislakova, SK; Lucia Dimunova, SK; Martin Dlouhy, CR; Mariusz Duplaga, PL; Anna Egnerova, SK; Gabriel Gulis, DK; Daniela Kallayova, SK; Beata Karakiewicz, PL; Zuzana Katreniakova, SK; Jana Kollarova, SK; Zuzana Kristufkova, SK; Marek Majdan, SK; Piotr Romaniuk, PL; Darina Sedlakova, SK; Jozsef Solymosy, HU;

Editors: Zuzana Katreniakova, Iveta Rajnicova-Nagyova

Technical support: Cecilia Bukatova

Publisher: Equilibria, s.r.o., Kosice, SR. May 2013.

Abstracts did not undergo language proofreading.

Book of Abstracts: © Slovak Public Health Association, Kosice, SR

Abstracts: © Authors of abstracts

Cover design: © Claudia Jutkova

## Programme overview

### 9 May 2013 (Thursday)

- 08:30-10:00** **How to write a scientific paper** (*Skills building preconference workshop*)
- 09:30-10:00** **Press conference**
- 10:00-10:30** Coffee break
- 10:30-11:00** **Opening ceremony**
- 11:00-12:30** **Plenary session**
- 12:30-13:30** Lunch
- 13:30-14:00** **Child and adolescent public health** (*Moderated poster session 1*)
- Chronic disease, quality of care and health related quality of life** (*Moderated poster session 2*)
- 14:00-15:30** **Building a workable chronic conditions management model: European perspective** (*Workshop 1*)
- Public health epidemiology I** (*Session 1*)
- 15:30-16:00** Coffee break
- 16:00-17:30** **Health impact assessment in Central Europe: methods and approaches** (*Workshop 2*)
- Chronic diseases, social participation and quality of life** (*Session 2*)

### 10 May 2013 (Friday)

- 09:00-10:30** **The role of patients' organisations in facilitating necessary changes in current health systems**  
(*Workshop 3*)
- Health-related risk factors** (*Session 3*)
- 10:30-11:00** Coffee break
- 11:00-12:30** **Quality of life in patients with a chronic disease: the outcomes of the LORIDIS project** (*Workshop 4*)
- Public mental health** (*Session 4*)
- 12:30-13:30** Lunch
- 13:30-14:00** **Public health epidemiology II** (*Moderated poster session 3*)
- Environmental and occupational health** (*Moderated poster session 4*)
- 14:00-15:30** **New challenges for health systems in V4 countries** (*Session 5*)
- 15:30-16:00** **Closing ceremony**

## **Partners and sponsors**

### **Main organizers**

- Slovak Public Health Association, Slovakia
- Faculty of Medicine, Safarik University in Kosice, Slovakia  
Institute of Public Health, Section on Social Medicine & GS KISH, Research Programme Chronic Diseases
- WHO Country Office in Slovakia

### **Collaborating partners**

- European Public Health Association (EUPHA), the Netherlands
- Society of Social Medicine and Health Care Management of the Czech Medical Society of J. E. Purkyne
- National Institute for Health Development, Hungary
- Polish Association of Public Health, Poland
- Medical University of Silesia, Poland
- Jagiellonian University Medical College, Poland

### **Sponsors and financial support**

- International Visegrad Fund
- Slovak Research and Development Agency
- ASFEU - CEMIO
- EUPHA, the Netherlands
- EPPOSI, Belgium
- DG SANCO, Belgium
- EHMK 2013, Slovakia
- Portal publishing, Slovakia
- IM.A.C, Slovakia
- GlaxoSmithKline

**Skills building preconference  
workshop:  
9 May 2013 (Thursday), 08:30-10:00**

**How to write a scientific paper**

Martina Krokavcova-Chylova

*M Krokavcova-Chylova<sup>1,3\*</sup>, M Behanova<sup>2,3</sup>, P Mikula<sup>2,3</sup>, I Nagyova<sup>2,3</sup>*

<sup>1</sup>*1<sup>st</sup> Department of Psychiatry, Faculty of Medicine, Safarik University and University Hospital, Kosice, Slovak Republic*

<sup>2</sup>*Institute of Public Health - Department of Social Medicine, Faculty of Medicine, Safarik University, Kosice, Slovak Republic*

<sup>3</sup>*Graduate School Kosice Institute for Society and Health, Faculty of Medicine, Safarik University, Kosice, Slovak Republic*

*\*Contact details: martina.chylova@upjs.sk*

This workshop is intended on practicing skills in writing and publishing scientific paper in international SSCI journals. Participants will work on task such as how to choose an appropriate journal for publishing, how the structure of paper should be done, how to achieve results to be a part of the international scientific community in our field of research. Then, the participants will exercise and in the role of editors evaluate chosen examples of badly and well written articles, and compare their findings with their own articles if they had any. At the end, we will discuss how to cope with the rejection of paper by editor, how to improve the paper, and how to communicate on scientific level with journals via letters and emails.

**Plenary session:  
9 May 2013 (Thursday), 11:00-12:30**

**Public Health in Europe: present and future  
challenges**

Walter Ricciardi

*W Ricciardi*

*Catholic University of the Sacred Heart, Rome, Italy & European Public Health Association, The Netherlands  
Contact details: wricciardi@rm.unicatt.it*

The notion of public health started some 400 years ago with disease control i.e. to prevent the further spread of diseases. Since then, public health has evolved and now includes health promotion as well as health protection. Public health professionals are now aware of the imbalance between the global magnitude of factors that affect human health and the inadequate structures in place to address them. Global integration is moving at a rapid pace, fuelled by faster communication and greater movement of people and ideas, yet the world continues to use nineteenth century structures based on individual nation states.

These changes require new solutions, with effective international co-operative action, with devolved decision making that ensures implementation. Effective policies will require concerted international action and public health professionals can make a difference to this process, as researchers identifying the health effects of these factors, as advocates for action, and as agents for communicating to the public the nature and scale of threats to health.

If the “new” public health defines health as an investment factor for a good community life focusing on the behaviour of individuals and the conditions of life that influence behaviour, the questions where we stand now and how we are going to achieve this “new” public health need answering.

Those who pay have to decide on how they derive most value from the correct allocation of resources.

The public health profession needs to lead the change but also recognize that it could be very radical as we will have to face a gigantic challenge: the rise of the metabolic syndrome and diabetes and the new cost effective

interventions. As in the past, good research is the basis of successful public health interventions. However, there is a significant gap between research on the one side and policy and practice on the other. Public health should be included and form an integral part in all policy decisions.

EUPHA is representing today a considerable number of European public health researchers, experts and professionals. These people's expertise is vital for formulating new public health policies, implementing public health programmes, and reforming public health practice.

Furthermore EUPHA has taken its responsibility for increasing its collaborations with institutions, such as the World Health Organization (WHO) and the European Union and is also strengthening its collaboration with other organizations in the field of public health such as the Association of Schools of Public Health in the European Region (ASPHER), the European Public Health Alliance (EPHA), the International Union for Health Promotion and Education (IUHPE) and the European Healthcare Management Association (EHMA).

To take up the challenges of these difficult times we must be united and coherent in our action, but it is a target that we can successfully achieve.

### **The role of the European Public Health Association – collaboration, networking and support**

**Dineke Zeegers Paget**

*D Zeegers Paget*

*European Public Health Association, the Netherlands*

*Contact details: D.Zeegers@nivel.nl*

The European Public Health Association – EUPHA – was created in 1992 as an umbrella organization for national public health associations. Since 2009, EUPHA is specifically focusing on 3 strategic objectives:

1. Capacity building, which includes human resource development; organizational development; and institutional and legal development of our members;
2. Knowledge building, which includes the synthesis, dissemination and use of scientific knowledge and experience; and
3. Policy building at European and national level. This

includes supporting our national members and interacting with European institutions and partners.

Since 2009, the role of EUPHA is slowly increasing and further developing. In this conference, EUPHA will present the successful and not-so-successful tools it is using to build capacity and knowledge in the field of public health. Input from the audience is highly appreciated.

### **Urban Public Health Policy in Practice: the case of Amsterdam, the Netherlands**

**Arnoud Verhoeff**

*A Verhoeff*

*GGD Amsterdam, the Netherlands*

*Contact details: AVerhoeff@ggd.amsterdam.nl*

In the Netherlands, by national law each council is required to formulate its public health policy every four years. This presentation will focus on how the local health policy plan for Amsterdam is formulated, how priorities are set and how the policy plan is implemented. The case of Amsterdam is presented as good practice.

### **Moderated poster session 1: 9 May 2013 (Thursday), 13:30-14:00 Child and adolescent public health**

#### **Relative risk of daily dietary consumption in selected food staff among Roma and Non-Roma children**

**Kvetoslava Rimarova**

*K Rimarova<sup>1</sup>\*, V Lovayova<sup>2</sup>, M Stebnicky<sup>1</sup>*

<sup>1</sup>*Institute of Public Health, Faculty of Medicine, Safarik University, Kosice, Slovak Republic*

<sup>2</sup>*Department of Medical and Clinical Microbiology, Faculty of Medicine, Safarik University, Kosice, Slovak Republic*

*\*Contact details: kvetoslava.rimarova@upjs.sk*

#### **Background**

Research data show that the prevalence of obesity is greater among adult Roma, but among children were found trends for stunting. The aim of our study was to compare and evaluate

daily dietary practices in two selected children subgroups. We did suppose that our findings will help in preventing further increases in the prevalence of obesity or stunting growth among Roma as well as Non-Roma children.

#### **Methods**

Cross-sectional study including food intake questionnaires and SES in the family of randomly selected children was performed. In 2 samples we analyzed data from 150 Roma children and 150 Non-Roma children who were living in the vicinity of Roma semi-segregated area. The age of children was 9-13 years. Food questionnaires included daily intake of selected food items f.e. milk and dairy products, meat, eggs, sweets, fruit, vegetables, fast food, sweet drinks etc. Data were processed and analyzed in SPSS, RR relative risk, 95% CI and statistical significance were calculated to compare ethnic differences in food intake.

#### **Results**

General SES analysis confirmed differently formatted families in Roma and Non-Roma groups. In Roma families were more prevalent smoking, families with more than 4 children, low physical activity and worse background housing conditions.

Outputs of dietary statistical analysis confirmed statistical difference between Roma and Non-Roma boys and girls in following food items: milk and dairy products ( $p < 0.001$ ), fruit ( $p < 0.001$ ) and vegetable ( $p < 0.001$ ). Lower statistical significance was found in the items: legumes ( $p < 0.05$ ) and smoked food ( $p < 0.05$ ). In some food items statistical difference were not confirmed, but trends are showing unhealthy nutritional trends among Roma - lower fish and eggs intake, higher sweets and fast food intake.

#### **Conclusions**

Our findings also show the importance of daily nutritional intake and general overall dietary quality and adequacy in school-age Roma children.

Clinicians and public health interventionists should encourage active lifestyles to balance the energy intake of Roma children. Preventive measures are on call including education of mothers in the area of healthy lifestyle. Political actions and stress on priorities of Roma decade inclusion are a base to achieve proper results in the area of improved health.

## **Promote healthy eating habits through awareness campaigns in Poland**

Białek-Dratwa Agnieszka

*A Białek-Dratwa<sup>1\*</sup>, A Kukielczak, N Czech, M Gętek*

*<sup>1</sup>Department of Health Policy, Medical University of Silesia, Katowice, Poland*

*\*Contact details: abialek@sum.edu.pl*

#### **Background**

In Poland, there are many social campaigns on food and nutrition. These campaigns are aimed at training in to healthy eating habits in society. The aim of this study was to assess the knowledge of young people about social campaigns relating to food and nutrition on the example of the campaign: "I know what I choose," Program food labeling and GDA recommended daily amount" and "Cool kids do not eat garbage."

#### **Methods**

The survey consisted of elementary school students, junior high, and high school students. In the final analysis of the survey enrolled 463 people. Research tool was a questionnaire.

#### **Results**

63.9% of respondents indicated knowledge of the logo used in the campaign, "I know what I choose." Respondents were asked as evidenced by the campaign logo "I know what I choose" on the food product. The correct answer was: the composition of the product is consistent with international dietary guidelines - 35.6% of respondents answer correct. Respondents were asked to the list of foods, which has information of GDA. 72.0% of students, 42.1% of middle school students, high school students 41.9% and 29.4% of primary school children were able to identify the product with GDA. Campaign "Cool kids do not eat junk," focused on education about the harmful effects on health, eating fast food and crisps and sweets - 60.9% of respondents correctly indicated the campaign theme.

#### **Conclusions**

Among the respondents, a detailed knowledge of each campaign was not satisfactory. Campaigns "Cool kids do not eat junk," "I know what I choose," were among the most well-known in the group of pupils in primary school and students. GDA campaign was the most known in the group of

students, but the ability to properly use the GDA label was small.

## Comparison of drinking regime between primary and secondary school students

Katarina Nachtmanova

*K Nachtmanova\*, E Jonisova*

*Department of Public Health, Faculty of Health Care and Social Work, Trnava University, Trnava*

*\*Contact details: nachtmanova.k@gmail.com*

### Background

Sufficient drinking regime and quality of received beverages plays an important role for the basic functions of human body. Inadequate fluid intake by students can affect their cognitive function; impair concentration, alertness and short-term memory. Studies also point to increased irritability, headaches and migraines run in person after low drinking regime. Therefore, we decided to evaluate and compare the drinking habits mode of students in selected primary and secondary schools.

### Methods

To find out the status of drinking regime student's habits and knowledge about drinking regime we used questionnaire contained 28 questions. The questionnaire was completed in October and November 11, together by 130 students (93% return). In elementary school in Senec 66 students completed the questionnaire (mean 14 years), 53% were girls. At high school in Prievidza 64 students completed questionnaire (average 17 years), 48% were girls.

### Results

We found out, that significantly more primary school students (58%) than secondary school students (30%) receive a sufficient amount of liquid, due to its weight ( $P < 0.05$ ). Statistically more secondary school students (69%) prefers drinking water compared to primary school students (23%) ( $p < 0.05$ ). Primary school students prefer lemonade (59%) before mineral water (26%), fruit juices (9%) and energy drinks (6%). Contrast teenagers preferred mineral water (37%), followed by energy drinks (28%), lemonades (27%) and fruit juice (8%). These differences were statistically confirmed ( $p < 0.05$ ). The same percentage of primary school students (74%) and secondary school

students (75%), consume alcohol at least occasionally ( $p = 0.92$ ).

### Conclusions

We found out, that among students of primary and secondary schools are differences in habits in drinking regime. It is important to raise awareness (especially for younger students) on the importance of quality drinks and not just about the quantity. Also, to promote drinking water in public water supply systems in schools as the best source of fluids. It is necessary to engage more schools in to projects to support pupils drinking regime.

## Prevalence of gambling among Novi Sad adolescents and their perception of gambling addiction

Dragana Zaric

*D Zaric\*, E Ac-Nikolic, O Niciforovic-Surkovic*

*Primary Health Care Center Novi Sad, Novi Sad, Slovenia*

*\*Contact details: zaricgaga@yahoo.com*

### Background

Poor socioeconomic circumstances are accompanied with high risk activities, such as gambling. The aim of this study was to assess gambling prevalence among adolescents and their perception gambling, in order to plan preventive strategies.

### Methods

This cross-sectional study was conducted in April/May 2011 in 7 elementary and 7 secondary schools in the City of Novi Sad among 532 students aged 14-18 years by anonymously fulfilling especially designed questionnaire.

### Results

There were 57.7% boys and 42.3% girls, average aged 15.52 years ( $SD=1.45$ ). The majority (83.3%) are aware of having casino near their school (up to 500 m), mostly boys ( $p=0.017$ ). About one third of adolescents (29.5%) claimed that gamble, predominantly boys ( $p=0.000$ ), mostly sport betting and roulette playing. Every fourth adolescent is regularly visiting casino. Adolescents consider gambling as losing money. Less than 5% showed some signs of pathological gambling (school drop-out, lying about time spent in casino, lack in ambition, borrowing money for gambling).

## Conclusions

Considering the fact that only 4.5% students claimed to have education about gambling in previous school year, gave us justification to implement workshops for adolescents in order to introduce them with dangers of gambling and to educate them for self evaluation of gambling addiction.

## Cardiovascular risk factors prevalence in college students in Trnava

Veronika Stastna

V Stastna\*, M Psota, M Svaro, L Bosak

Faculty of Health Care and Social Work, Trnava University in Trnava, Slovak Republic

\*Contact details: v.stastna@gmail.com

## Background

Cardiovascular diseases (CVD) are the main cause of death in the Slovak Republic. Risk factors (RFs) of CVD are often present in young people. It is therefore important to monitor lifestyle RFs among this population group. The aim of this cross-sectional study was to determine the prevalence of selected modifiable CVD RFs in a group of college students of the Trnava University in 2011 and so to contribute to similar studies also dealing with the description of the health status of college students.

## Methods

During a public event „Dni zdravia Trnavskej univerzity“, we examined 207 college students (5% of 4226 internal students of the university). The sample consists of 25% of males and 75% of females from four of the five faculties of Trnava University. The data collection was conducted using a questionnaire and through anthropometric and biochemical measurements (BMI, waist circumference, blood pressure, total cholesterol and triacylglycerides). Statistical significance was set at the level  $p < 0,05$  and assessed using Chisquar and Fischer test, t test and Wilcoxon test.

## Results

The smoking prevalence was similar in males and females (36%, 37% respectively),  $p > 0,05$ . A lower level of regular physical activity was recorded in females (50%) than in males (66%),  $p > 0,05$ . In males there were recorded higher values of BMI ( $p < 0,001$ ), SBP ( $p < 0,001$ ) and DBP ( $p < 0,05$ ) as compared to females. In females, we recorded higher values of TC ( $p < 0,001$ ) as compared to males.

However, all average values of biochemical and anthropometric measurement (except SBP in males) were in normal ranges for both groups.

## Conclusions

The prevalence of observed modifiable CVD risk factors was relatively low; however, at least 1 to 3 RFs are present in 63% of students. It is important to monitor the development of CVD RFs in college students.

## The effect of personality traits and psychosocial training on burnout syndrome among healthcare students

Zuzana Skodova

Z Skodova<sup>1</sup> \*, P Lajciakova

<sup>1</sup>Department of Non-medical Study Programmes, Jessenius Faculty of Medicine, Comenius University, Slovak Republic

\*Contact details: zuzanaskodova@yahoo.com

## Background

The aim is to explore the role of personality factors influencing students who experience burnout syndrome; as well as the effect of psychosocial training on the level of burnout and personality predictors among university students of health care professions.

## Methods

A quasi-experimental pre-test/post-test design was used for evaluating the effect of psychosocial training. Altogether 111 university students divided into experimental and control group were included in the study (average age 20.7, SD= 2.8; 86.1% females). The SBI (School Burnout Inventory), the SOC (Sense of Coherence questionnaire), and Rosenberg's Self-esteem scale were employed. Linear regression and the analysis of variance were applied for the statistical analysis of data.

## Results

The results show that socio-psychological training had a positive impact on the level of burnout, as well as on the personality factors related to burnout. After completing the training, the level of burnout in the experimental group significantly decreased (95 % confidence interval: 0.93, 9.25), while in the control group no significant change was observed. On the other hand, sense of coherence in the research group had increased (95 % confidence interval: - 9.11, 2.64). No significant changes were found with regard

to self esteem levels in either research or control group.

### **Conclusions**

Psychosocial training proved to be an effective supportive method for positively influencing burnout among students of the health care professions. Since coping strategies used during the study tend to be associated with the strategies applied later in work; this method can be considered as an effective supportive tool in the prevention of burnout in the helping professions.

## **Education of educators in a field of health literacy**

**Dagmar Tuckova**

*D Tuckova\*, L Balarinova, K Ivanova*

*Department of Social Medicine and Health Care Policy, Faculty of Medicine and Dentistry, Palacky Univesity, Olomouc, Czech Republic*

*\*Contact details: tuckova.dagmar@seznam.cz*

### **Background**

Health literacy is an indispensable value for both individual and society. It is an ability to make right decisions relating to health and ability of people to learn to take responsibility for their health (Holčík, 2011). The presented article deals with the project plan of Regional association Czech Red Cross Olomouc, which is focused on health literacy education of pedagogical staff in kindergarten, primary school and high school. The realization of educational programs is within the meaning of § 4.e of Act No. 126/1992 Coll. one of the main activity of National Red Cross Society.

The project called ZdravGram reacts directly on need of individual responsibility for health. The main aim of the project is to educate pedagogical staff of school and school facility (including kindergarten staff).

### **Methods and Results**

Statistical evaluation used and main results will be presented.

### **Conclusions**

Thanks to the project, it creates one course called Health Literacy which contains of 4 educational (training) modules: [1] medical first aid and prevention, [2] medical system, [3] international humanitarian law, [4] communication in life-threatening. The project plan of Regional association Czech

Red Cross will be realized in Olomouc region. The outcomes, which will be in a form of certified course with four modules and methodology of health literacy in the form of Ebook, will be implemented immediately into the school system and they contribute to the improvement of health literacy of teachers. The project plan ZdravGram was filed in November 2012 and its possible realization will have been planned for June 2013 to December 2014.

## **Moderated poster session 2: 9 May 2013 (Thursday), 13:30-14:00 Chronic disease, quality of care and health related quality of life**

### **Quality health - quantity life**

**Katarzyna Brukało**

*K Brukało*

*Department of Health Policy, Faculty of Public Health, Medical University of Silesia, Katowice, Poland  
Contact details: kbrukalo@sum.edu.pl*

### **Background**

Increasing in life expectancy in the most developed countries constitute one of the most remarkable change for the European community and politicians. Challenge for these days is: increasing life expectancy in good health. In this context, the classical mortality indicators are no longer sufficient to monitor the health status of European populations. Healthy Life Year indicators (HLY), composed by Eurostat, is one of the summary measures of population health, composite measures of health that combine mortality and morbidity data to represent overall population health on a single indicator. The aim of this theme is to analyze the usefulness of HLY indicators calculated from public health fields, in relation to other health status indicators (e.g. life expectancy, quality adjusted life years) and compared HLY with life expectancy and retiring age in V4 countries.

### **Methods**

Review of all known studies to date from Czech Republic, Slovakia, Hungary and Poland that have used Sullivan's method of calculating disability free life expectancy. And

data (HLY, LE, Retiring Age) from Eurostat or another statistic's institutions.

### Results

HLY indicators are still increasing in all of V4 countries. The highest indicator is for Czech Republic, the lowest for Slovakia. Moreover, the disparity between HLY and retiring age is reducing, but is still too much, this is important not only for healthy policy, but for all social sciences.

### Conclusions

HLY shifts the focus from quantity of years of life to its quality and full-productive healthy population. Thus comparing information not only on health status but also data in other fields besides medicine or social sciences such as finance, economy, politics and development is important.

## Chronic diseases and coping with everyday life

Laidmäe Virve-Ines

*L Virve-Ines*

*Institute of Social Work, Tallinn University, Estonia*

*Contact details: ines@tlu.ee*

### Background

The developmental tendencies in the society – steep growth of the number of elderly and the increase of the number of the chronically ill – indicate that treating chronically ill people will become a serious challenge for the society in the near future. The purpose of the study is to analyse the health situation, quality of life, coping with the disease and the everyday life of the chronically ill.

### Methods

The study is based on the materials from the population survey Estonia 2008, in the framework of which, 1,558 respondents aged 18–69 were questioned, and the survey Chronic Rheumatic Patients 2006. 808 respondents in hospitals and clinics returned a filled-in questionnaire.

### Results

It becomes apparent that in case of 37% of the people who have a chronic disease, the illness has affected their coping and working ability *very much*. In the population at large, the proportion of this answer was much smaller – 17%.

We asked the respondents how often they had lately suffered from headache, (over)exhaustion, sleeping disorders, depression, etc. It appears that 60% of chronic rheumatic patients suffer from frequent sleeping problems and

(over)exhaustion. Many also complain of headaches (45%) and heart problems (40%). The proportion of all these problems is considerably smaller in the general population.

Data confirm that due to material reasons, chronically ill patients have difficulties when it comes to their everyday needs, for example eating the way they want to. But it is even worse that many people for whom certain medication is vital are unable to take it.

### Conclusions

In addition it is stressed that disabled people have many problems whose solving requires legal counselling, assistance from the state and monetary help. It can be concluded that the Estonian state has still a lot to do in order for all its residents to be able to cope with their lives.

## Social status vs oncology disease

Gabriela Stefkova

*G Stefkova<sup>1</sup> \*, M Palo, Z Dankulincova*

*<sup>1</sup>Department of Nursing Care, Faculty of Medicine, Safarik University, Kosice, Slovak Republic*

*\*Contact details: stefkova@hotmail.com*

### Background

Difficult work in disease prevention, treatment itself and especially in convalescent phases are complicated by attitude in life oriented in the presence and in the cancer patients with minimal focus on the future. Head and neck tumors are usually quite readily available for examination, but nevertheless there are still diagnosed in advanced stages of the disease.

### Methods

A group of 159 patients treated in Department of Radiation Oncology at University Hospital J.A. Reimana in Prešov. Data analysis was performed using SPSS version 18.0.

### Results

Despite the availability of health care an impact of education and social status of the length of waiting to be examined by ENT specialist on an onset of the first symptoms of the disease are demonstrable. The social status of the patient is statistically significant with a longer time interval between the appearance of symptoms and examination of ENT specialist ( $p < 0,001$ ). In patients with the head and neck tumors the treatment has a strong effect on stop smoking. Reducing the number of cigarettes smoked in patients before

and after surgery was significant at the significance level of  $p < 0,001$ .

### **Conclusions**

Social support is a protective barrier for cancer patients and includes not only the support of family and friends, health care Professional, but also the entire team of Public health. The triangle of health care focused on availability - quality - costs which are reflected by an unsustainable economic system, if one aspect is disturbed, it is often reflected in the treatment of cancer patients from the lower social classes.

## **Quality of life of Czech Nurses**

**Silvie Harokova**

*S Harokova<sup>1</sup>\*, E Gurkova, J Dzuka*

*<sup>1</sup>Department of Nursing and Midwifery, Faculty of Medicine, University of Ostrava, Czech Republic*

*\*Contact details: silvie.harokova@tiscali.cz*

### **Background**

The aim of the present study was to determine the relationship between the components of job satisfaction and subjective well-being (SWB) of nurses in the Czech Republic. We identified which components of job satisfaction among nurses are significant predictors of subjective well-being.

### **Methods**

The research sample consisted of 499 nurses from six hospitals in the Czech Republic. Job satisfaction was measured by McCloskey/Mueller Satisfaction Scale. Quality of life was operationalized through life satisfaction and emotional well-being. To measure satisfaction in various areas of life was used Personal Well-being Index, evaluating the cognitive components of SWB. To measure emotional well-being was used The Scale of Emotional Habitual Subjective Well-being, evaluating the emotional component of SWB.

### **Results**

It was confirmed slight positive, although generally significant association between job satisfaction of nurses and their subjective well-being. Life satisfaction was predicted by three domains of job satisfaction (external rewards, relationships with co-workers and the balance between family/work), explaining 12 % of its variability. Positive emotions were predicted by interactions in the workplace,

and planning/schedule of work. These subscales explained 10 % of the variability in frequency of experiencing positive emotions. Negative emotions were predicted by interactions in the workplace, planning/schedule of work and reflections on leaving the workplace. These areas explained 11 % of its variability.

### **Conclusions**

Our results indicate that subjective well-being of nurses is not significantly affected by their job satisfaction. Satisfaction with external rewards and professional opportunities has significantly contributed to life satisfaction emotional well-being of nurses.

## **EPOCA study: The next step in child-oriented approach in paediatric rheumatology practice**

**Pavol Mrazik**

*P Mrazik\*, V Vargova*

*<sup>1st</sup> Department of Paediatrics and Adolescent Medicine, Faculty of Medicine, Safarik University and Children's Faculty Hospital in Kosice, Slovak Republic*

*\*Contact details: pavol.mrazik@student.upjs.sk*

### **Background**

Parent/patient-reported outcomes (PROs) in juvenile idiopathic arthritis (JIA) are still a relatively new point of view in daily practice. Conventional measures remained essentially research tools and are not routinely administered in most paediatric rheumatology centres. Relatively recently developed multidimensional questionnaire for the assessment of children with JIA in standard clinical care incorporates the traditional and some untraditional PROs. Its international use is one of the primary objectives of ongoing EPOCA (EPidemiology, treatment and Outcome of Childhood Arthritis) study of the Paediatric Rheumatology International Trials Organisation (PRINTO) network.

### **Methods**

Translation and cross-cultural adaptation of the Juvenile Arthritis Multidimensional Assessment Report (JAMAR) in the language of each participating country are the chief roles of the National coordinating centres, one centre in each country, of PRINTO network in Phase I. National coordinating centres are allowed to involve other centres in each country in Phase II – Validation.

## Results

In the Slovak National coordination center in Košice, we successfully completed translation and cross-cultural adaptation in 2012 as well as 6 months-long data collection for validation of JAMAR. In 2013 data collection continues in other center in Bratislava. EPOCA study analyses will be presented and compared by country, by continent and by geographic area after completed data collection in all participating countries.

## Conclusions

One of the problems with the use of current measures, such as The Childhood Health Assessment Questionnaire (CHAQ), is that they address only one aspect of child's health. JAMAR includes 15 parent/patient-centered measures or items. It is quick, simple and understandable. EPOCA study aims to incorporate JAMAR into standard clinical care internationally.

## Relation between the quality of life of patients with cardiovascular disease and provided nursing care by nursing model

Jana Rakova

*J Rakova*

*Department of Nursing Care, Faculty of Medicine, Safarik University, Kosice, Slovak Republic  
Contact details: janka.rakova@gmail.com*

## Background

The concept of quality of life is studied in various disciplines and increased interest in this issue is also visible in nursing. We have decided to apply nursing model for patients with cardiovascular diseases (CVS). These diseases have many negative consequences in patients. Statistics show that CVS are the most frequent cause of death in Slovakia what has also extreme socio-economic impact on society as a whole. Our aim was to investigate differences in the quality of life of patients with CVS due to the use of two different approaches in practice - Roy adaptation model (RAM) and the standard nursing care.

## Methods

In 2010, we conducted controlled nursing experiment, on sample of 100 patients with CVS disease hospitalized in the Rail Hospital in Kosice. The experimental group consisted

of 50 patients who received nursing care according to RAM; control group consisted of 50 patients who received standard nursing care. Standardized questionnaire WHOQOL-BREF was used for data collection about the quality of life of patients both during their hospital admission and before discharge from hospital. Mann Whitney test was used for the statistical comparison.

## Results

Results show that when evaluating quality of life in the domain of physical health and psychological, patients of the experimental group achieved higher average scores at the end of the hospitalization. However the groups did not show statistically significant differences in the physical health domain at the end of the hospitalization. Nursing care benefit according to RAM was shown by confirmed statistically significant difference in the average score in psychological domain among compared groups at the end of hospitalization.

## Conclusions

Our findings support the hypothesis of the potential impact of nursing care by nursing model on the quality of life of patients with CVS. Implications for further research and nursing practice will be discussed.

## Community mental health services - current status in the East Slovakian region

Milana Kovanicova

*M Kovanicova*

*1<sup>st</sup> Psychiatric Department, Faculty of Medicine, Safarik University, Kosice, Slovak Republic  
Contact details: milana.kovanicova@upjs.sk*

## Background

There is no doubt that outpatient care substantially improves therapeutic compliance in the group of psychiatric psychotic patients.

## Methods

At the same time it is clear, that building the network of specific services exceeds possibilities of the current health system.

## Results

Nevertheless, according to our rather long experience, cooperation of social institutions, local administration and

non-governmental organizations brings promising results.

#### **Conclusions**

We discuss the current state of community psychiatry in East Slovakia, as well as comment on its deficits.

#### **Possibilities of community care for obsessive-compulsive patients**

Eva Palova

*E Palova\*, Z Vasilkova, M Kovanicova*

*1<sup>st</sup> Psychiatric Department, Faculty of Medicine, Safarik University, Kosice, Slovak Republic*

*\*Contact details: palovae@hotmail.com*

#### **Background**

OCD brings a lot of problems in the psychiatric treatment and has great impact on the everyday life of patients and their families in several areas.

#### **Methods**

We present the model of continual psychiatric care for patients suffering from obsessive-compulsive disorder (OCD).

#### **Results**

We present the model of continual psychiatric care for patients suffering from obsessive-compulsive disorder (OCD).

#### **Conclusions**

By 2010 we opened the OCD therapeutic community aiming to foster utilization of cognitive-behavioral techniques in the complex treatment plan of the patient. We describe activities of OCD community and illustrate its influence using short case studies.

## **Workshop 1: 9 May 2013 (Thursday), 14:00-15:30**

### **Building a workable chronic conditions management model: a European perspective**

#### **An optimal European chronic care framework and its implications for V4 countries**

Andrea Pavlickova

*A Pavlickova*

*EPPOSI, Belgium*

*Contact details: Andrea.pavlickova@epposi.org*

Despite the uniqueness and diversity of healthcare systems in Europe, the EU countries face common problems and issues of chronic conditions management (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 and 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. As such the presentation aspires to: (1) present Epposi optimal chronic care framework and its implications for V4 countries in terms of gaps and weaknesses; (2) provide key policy recommendations on practical implementation of optimal chronic care model.

**The role of patients and patients' organisations in the facilitation of necessary changes in current healthcare delivery systems in Europe**

**Tomasz Szlagowski**

*T Szlagowski*

*Federation of Polish Patients*

*Contact details: t.szlagowski@federacjapp.pl*

Partnering for workable Chronic Conditions Management (CCM) in Europe, patients organizations may become one of the most important elements of such model. They understand who patients trust and where they seek help when disease is not that thing that strikes and goes but stays for a lifetime; after the initial stages where technical knowledge is crucial, what makes a difference will seldom be the medical staff or technology; it may be similar people in similar situations or simply soft peoples skills. The ability to share the knowledge in the lay language, presenting genuine interest of learning what is the situation of the individual or the group of patients with openness and compassion enables patients' organizations to act as an expert in the field of advocacy as well as dissemination of the important messages about the access to the healthcare services.

In the short presentation we will reveal the major policy themes, current goals and some of the achievements of the umbrella type organization – (Federation of Polish Patients) with additional correspondence between national and European level of activities.

The issues raised in this abstract will illustrate achievable objectives with practical examples in four areas: building capacity of patients organizations, policy impact, patients evidence and also partnership issues. This way we may build solid understanding of what can be actually delivered as a valuable input from the public partner to create new CCM model in Europe.

**European Innovation Partnership on Active and Healthy Aging (EIP-AHA) within the context of necessary changes in the present medical and financial healthcare delivery models in Europe**

**Karolina Lagiewka**

*K Lagiewka*

*Innovation for Health and Consumers Unit, Directorate*

*General for Health and Consumers - DG SANCO, European Commission, Belgium*

*Contact details: Karolina.LAGIEWKA@ec.europa.eu*

Karolina Lagiewka will present briefly the EIP on Active and Healthy Ageing in terms of its general objectives and targets, concrete activities, as well as its most recent developments and milestones as well as indicative impact and progress. In the context of the conference, the speaker will concentrate specifically on the EIP second pillar on care and cure and the specific action on tutoring and replicating the integrated care models including remote monitoring at the regional level. Concrete examples of effective and successful integrated care models, based on stakeholders' commitments submitted for the EIP and works of the Action Group on this specific action, will be presented. The emphasis will be on proving that the EIP can support in putting forward innovative solutions and ideas for more efficient and sustainable care models whilst responding to the needs of ageing societies. It will be discussed how the EIP actions can and should contribute to the EIP objectives within this specific action, namely on delivery of more effective care to older people, by reducing unnecessary hospitalisation and enhancing coordination and collaboration within health structures and across health and social care units, and improving health and quality of life of EU older citizens. The speaker will also explain the role of the EIP as an effective model of innovative collaboration among a wide array of stakeholders.

**Session 1:**  
**9 May 2013 (Thursday), 14:00-15:30**  
**Public health epidemiology I**

**Mortality, causes of death and health status in V4 Countries**

**Branislav Sprocha**

**B Sprocha**

Contact details: [branislav.sprocha@gmail.com](mailto:branislav.sprocha@gmail.com)

**Background**

The aim of this paper is to describe the results of detailed analysis of mortality, causes of death and health status in V4 Countries with emphasis on the Slovakia in comparison with other populations in Europe.

**Methods**

Contribution of causes of death and age to the difference in life expectancy at birth standardized death rates by selected causes of death, avoidable mortality, combination life tables and the prevalence of health status indicators (self-perceived health, chronic morbidity, limited of daily activities)

**Results**

In comparison with the EU states Slovakia, Poland and Hungary belongs to the group of post-communist countries with the lowest life expectancy at birth for both sexes. Only the Czech Republic was able to get closer to the EU average. The main reason of negative situation in mortality lies in high intensity of cardiovascular disease in middle (for men) and higher age (mostly for women). In V4 Countries men live shorter lives, but the additional years of woman's life are primarily spent in a state of illness or disability.

**Conclusions**

The main trends in mortality, health care and health status in V4 Countries after 1989 were positive but there is no doubt that in comparison with other population from West and North Europe there is considerable room for further improvement.

**Patterns of smoking in Poland according results of the NATPOL 2011 survey**

**Piotr Popowski**

*P Popowski<sup>1\*</sup>, T Zdrojewski, P Zagożdżon, L Wengler, MZ-Baran*

*<sup>1</sup>Public Health and Social Medicine Department, Medical University of Gdansk, Poland*

*\*Contact details: [pr.popowski@gmail.com](mailto:pr.popowski@gmail.com)*

**Background**

Smoking is an independent major risk factor for cardiovascular diseases and the major modifiable risk factor in the general population. The aim of this cross-sectional study was to assess the association between smoking, demographic characteristics and major cardiovascular risk factors in Poland based on NATPOL 2011 survey.

**Methods**

Data in NATPOL III were collected from 2 352 participants using representative method in 2011. The questionnaire including detailed medical history, awareness of risk factors, anthropometrical and blood pressure measurements, glycaemia, lipidogram and other blood tests were performed in respondents. Multiple logistic regressions were used in multivariable data analysis.

**Results**

The prevalence of smoking was 26.6 %, 30,6% among men and 22,7% among women. In univariate analysis odds ratio (OR) for smoking in relation to history of cardiovascular event was 0.65; 95% confidence interval (95% CI) 0,41-1,02. The older the individual the less likely she/he was a smoker (OR 0.99 95% CI 0,987-0,999). The presence of diabetes and awareness of hypercholesterolemia were also significant predictors for nonsmoking in univariate analysis: OR 0.61; 95% CI 0,4 – 0,95 and OR 0.76 95% CI 0,61 -0,94 respectively. In multiple analysis the independent predictors for smoking were male sex (OR 1.5; 95% CI 1,22-1,83) and being divorced (OR 2.12; 95% CI 1,48 -3,03). The independent predictors of nonsmoking were: secondary and tertiary education comparing to primary education (OR 0.74; 95% CI 0,6-0,92 and OR 0.36; 95% CI 0,27-0,48 respectively), being single compared to married (OR 0.76; 95% CI 0,58-0,99) and high BMI (OR 0.95; 95% CI 0,93-0,97).

## Conclusions

There are differences in social patterns of smoking that are stronger than differences in clinical characteristics of smokers and nonsmokers in Poland. The observations we made indicate the role of education and awareness as factors protecting people from smoking.

## Area-level and individual-level socioeconomic factors are associated with self-rated health in adult urban citizens:

### Evidence from Slovak and Dutch cities

Martina Behanova

*M Behanova*<sup>1,3\*</sup>, *SA Reijneveld*<sup>4</sup>, *Z Katreniakova*<sup>2,3</sup>, *I Nagyova*<sup>1,3</sup>, *H Dijkshoorn*<sup>5</sup>, *EJ van Ameijden*<sup>5</sup>, *JP van Dijk*<sup>4</sup>

<sup>1</sup>Graduate School Kosice Institute for Society and Health, Safarik University, Kosice, Slovak Republic

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

<sup>3</sup>Slovak Public Health Association, Kosice, Slovak Republic

<sup>4</sup>Department of Community & Occupational Health, University Medical Center Groningen, University of Groningen, the Netherlands

<sup>5</sup>Municipal Health Service, Utrecht, The Netherlands

\*Contact details: [martina.behanova@upjs.sk](mailto:martina.behanova@upjs.sk)

## Background

Studies on urban neighbourhood differences have shown that living in disadvantaged areas is associated with poor health. This may be due to the socioeconomic (SE) characteristics of both the residents and of the areas where they live. Evidence on area-level effects on health outcomes from Central European countries is scarce. We examined the association of area-level and individual-level SE factors with the prevalence of poor self-rated health (SRH) among urban citizens in Slovakia and the Netherlands.

## Methods

Data on SRH, educational level, annual household income and financial strain was collected within the EU-FP7 EURO-URHIS2 project in Slovakia (Bratislava, Kosice) and in the Netherlands (Amsterdam, Utrecht). Neighbourhood-level SE indicators concerned unemployment rates and rates

of residents with primary, or university education. A random sample of 6400 residents, stratified by city, age and gender category received identical self-administered postal questionnaires.

## Results

The overall response rate in Slovakia was 44.2 % (n=1,296; mean age 59.7±16.3 years, 48.3% men) and in the Netherlands 46.9% (n=1,484; mean age 58.4±19.7 years, 47.1% men). Multilevel logistic regression showed that poor SRH was associated with area deprivation in both countries. Regarding age by country, poorer SRH occurred more frequently in the more deprived areas for the younger age group (≤64) in the Netherlands but for the older age group (≥65) in Slovakia. Slovak citizens reported poor SRH significantly more often than Dutch residents. Individual SES was significantly associated with poor SRH in both age groups and both countries for all area-level SE measures.

## Conclusions

Our findings indicate that individual-level SE factors are associated with SRH more strongly than area-level SE factors. These findings might be used by local policy makers in both countries, particularly in preparation of policies with focus on social determinants of health in deprived urban settings.

## Environmental determinants of childhood asthma underdiagnosis

Irena Smolka

*I Smolka*

*Ślaski Uniwersytet Medyczny w Katowicach, Poland*  
Contact details: [irenasmolka@o2.pl](mailto:irenasmolka@o2.pl)

## Background

Childhood asthma - called the epidemic of the twentieth century and the cause of the highest mortality in children, has been the subject of hundreds of studies and thousands of literature case studies. However, both research topics and reports of the literature of the subject focus on the epidemiology of asthma, prevalence of the disease, risk factors, and many other related issues like quality of life of children with asthma and of the family of those suffering from this disease, the costs of its treatment or improvements in dealing with asthma in schools after introduction of prevention programs.

Numerous studies concern underdiagnosis and undertreatment of asthma and undeniably confirm the existence of this detrimental phenomenon. Many of the works estimate the costs of underdiagnosis, yet there are only a few studies concerning the risk factors for underdiagnosis of childhood asthma, as well as research into their results, not only in Poland but also all over the world.

### Methods

A two-stage epidemiological study was conducted in the town of Pszczyna and the commune of Żywiec, whose aim was to investigate the effect of environmental risk factors of childhood asthma underdiagnosis.

The study was conducted on a population of 6655 children aged 6 to 12 years. The research tool used in the first phase of the study - screening was the ISAAC questionnaire. The questionnaire provided data from 4,723 people, from whom a group of children diagnosed with bronchial asthma by a physician (Control Group) was selected. The second selected group consisted of children with critical asthma symptoms but without this disease being diagnosed. The second stage of the study covered the children with critical asthma symptoms but without medical diagnosis. These children underwent a spirometry test after an exercise stress test.

Based on these tests and physical examination, a clinical physician made a final assessment on the presence or absence of asthma. In questionable cases skin tests were applied. This is how the clinical group was selected. Children with physician-diagnosed asthma and children who had been diagnosed with asthma by a physician before participating in the study also filled out a questionnaire containing questions about the living conditions of the families, the economic status, family relations as well as the pattern of using medical care. The results were compared with the results obtained in the control group.

### Results

The analysis the results of the study of the impact of environmental risk factors on childhood asthma underdiagnosis revealed that the ones that have impact on the phenomenon of the lack of a diagnosis of asthma in children, despite the presence in them of this disease are: age of the child under 12 years, distance from the health center of more than 5 km, and the time devoted to the child - less than 1 hour a day. The study also provided up-to-date data on the prevalence of asthma diagnosed by a doctor,

estimating it at 7.9% of children, including 4.3% in children in towns and 3.5% in children in rural areas.

## Hantavirus infections may be underestimated due to non-specific symptoms

Lukas Murajda

*L Murajda<sup>1\*</sup>, N Muerter<sup>2</sup>, E Aichinger<sup>1</sup>, B Villforth<sup>1</sup>, Ch Wagner-Wiening<sup>1</sup>, G Pfaff<sup>1</sup>*

<sup>1</sup>*Baden-Wuerttemberg State Health Office, Stuttgart, Germany,*

<sup>2</sup>*European Programme for Intervention Epidemiology Training (EPIET), European Centre for Disease Prevention and Control, Stockholm, Sweden*

*\*Contact details: murajda@gmail.com*

### Background and aim

Hantavirus infection (HI), a zoonosis endemic in European countries, is a cause of nephropathia epidemica. Laboratory-confirmed HI is notifiable in Germany. Case reports include a limited description of symptoms. In 2012 a large outbreak of 1683 cases of Puumala-infection (incidence 15.6/100,000) occurred in the German federal state of Baden-Wuerttemberg (BW). During the outbreak, a district public health office asked the State Health Office to analyse data from an ongoing exploratory survey describing the full spectrum of symptoms in patients with HI to better understand the burden of HI.

### Methods

In a district in BW with high incidence of HI (59.1/100,000), attending physicians of all patients with laboratory-confirmed HI were asked to fill in a questionnaire on selected symptoms and clinical parameters of the patients. Study period: June-December 2012.

### Results

Out of 38 notified cases, questionnaires for 37 patients were returned. Their mean age was 48 years (24-83 years), 25 were men (68%), which is close to statewide distributions for age (mean 43, range 6-88) and gender (69% male). Patients had on average nine (4-16) symptoms, most frequently including fatigue (95%), back pain (84%), loss of appetite (84%), fever (81%), headache (81%) and muscle and joint pain (81%). Reduced glomerular filtration rate, increased creatinine or increased urea was reported for twenty-nine patients (78%). Twenty-six patients (70%)

were hospitalised, of which 4 (15%) had a pre-existing chronic disease.

### **Conclusions**

Signs of impaired renal function, as expected for HI, were reported for most, but not for 22% of patients. This group of patients with non-specific symptoms was probably timely and correctly diagnosed due to increased awareness among physicians in the region. A high hospitalisation rate, especially in previously healthy persons, classifies HI as a public health problem. The burden of HI might be underestimated in endemic areas without routine testing and mandatory notification.

## **Workshop 2:**

**9 May 2013 (Thursday), 16:00-17:30**

### **Health impact assessment in Central Europe: methods and approaches**

#### **Integrating Health Impact Assessment (HIA) with the Policy Process: A Global Perspective**

**Monica O'Mullane**

*M O'Mullane*

*Faculty of health and social work, Trnava University, Slovak Republic*

*Contact details: mmomullane@gmail.com*

This presentation will provide some of the findings from a global investigation of the relationship between HIA and the public policy process. This investigation has concluded with its being published as a book, by Oxford University Press (2013). This is the first book that examines HIA solely with regard to its relationship with the policy process, from a global perspective. Drawing from experiences of HIA practice and research globally, this volume seeks to examine how the integration of HIA with the policy process can occur. Integrating HIA with the Policy Process includes a range of global experiences, presenting the creative and unique ways of integrating HIA with the policy process, as more often than not, HIA is not mandatorily required by governments.

## **Policy Risk Assessment**

**Gabriel Gulis**

*G Gulis*

*Unit for health promotion research, University of Southern Denmark, Esbjerg, Denmark*

*Contact details: ggulis@health.sdu.dk*

Irrespective of how carefully it is structured and implemented, a policy can modify the so called determinants of health (environment, social, behavioral) and provoke the emergence or reemergence of risk factors that can have potential health consequences on the population. With a general aim to support risk appraisal part of HIA within "Risk assessment from policy to impact dimension - RAPID" project funded by DG SANCO of EC we aimed to develop a methodology for policy risk assessment. The project was built up on a set of national case studies in 10 participating countries which provided background for development of the methodological guidance. The full chain description includes evaluation of determinants of health influenced by a policy, enlists the relevant risk factors and attempts to link them to different potential health effects. This presentation is going to discuss main challenges identified in process of full chain description (complexity), raise issues around horizontal prioritization among different determinants and risk factors, and discuss quantification possibilities.

## Session 2: 9 May 2013 (Thursday), 16:00-17:30 Chronic diseases, social participation and quality of life

### Workability among people with musculoskeletal disorders (MSDs) in Poland, Slovakia and the Czech Republic Stephen Bevan

*S Bevan*

*The Work Foundation, Lancaster University, UK  
Contact details: sbevan@theworkfoundation.com*

#### Background

As part of a 35-country study (Fit for Work Europe), evidence of the barriers to labour market participation faced by people in Poland, Slovakia and the Czech Republic with chronic musculoskeletal disorders were examined. The clinical, social and economic impact of a number of interventions to promote quality of life, job retention and return to work were assessed and evaluated.

#### Methods

Literature review, analysis of secondary data, expert interviews, patient surveys.

#### Results

MSDs account for a significant proportion of sickness absence in all three countries. Up to 80% of the costs of MSDs in the working age population are indirect and are attributable to lost productivity, social costs and informal care among families. Family doctors do not prioritise work as a clinical outcome and therefore do not prescribe treatments or therapies which facilitate return to work. Healthcare, social care and employment practice are uncoordinated and conspire to ensure that a high proportion (up to 40%) of people with chronic MSDs leave the labour market prematurely in these countries. Up to 30% of those with MSDs have co-morbid mental health illness which inhibits return to work still further.

#### Conclusions

Chronic MSDs should not be a barrier to workability yet, in all three countries, it remains unlikely that clinical, social

insurance and workplace interventions are being coordinated effectively to optimise employment rates among people of working age. This means that the full economic, productivity and social inclusion benefits to all three societies are not being realised.

### Social participation and health related quality of life in patients with multiple sclerosis

Pavol Mikula

*P Mikula<sup>1-2\*</sup>, I Nagyova<sup>1-3</sup>, M Krokavcova<sup>1,2</sup>, M Vitkova<sup>1,2</sup>, J Rosenberger<sup>3</sup>, J Szilasiova<sup>4</sup>, Z Gdovinova<sup>4</sup>, J. Groothoff<sup>5</sup>, JP van Dijk<sup>5</sup>*

*<sup>1</sup>Graduate School Kosice Institute for Society and Health, Safarik University, Kosice, Slovak Republic*

*<sup>2</sup>Institute of Public Health - Department of Social Medicine, Faculty of Medicine, Safarik University, Kosice, Slovak Republic*

*<sup>3</sup>Slovak Public Health Association, Kosice, Slovak Republic*

*<sup>4</sup>Department of Neurology Graduate, Safarik University, Kosice, Slovak Republic*

*<sup>5</sup>Department of Community & Occupational Health, University Medical Center Groningen, University of Groningen, the Netherlands*

*\*Contact details: pavol.mikula@upjs.sk*

#### Background

Multiple Sclerosis (MS) as most common neurological disabling disease in young adults, can manifest in wide variety of symptoms affecting Health related quality of life (HRQoL). Besides physical impairment, these patients also experience problems in their social interactions as their condition has potential to prevent them from social participation as well. The aim of this study was to examine the association between social participation and physical and mental component of quality of life (PCS, MCS) in patients with MS.

#### Methods

Eighty five MS patients filled in the SF-36 questionnaire and Participation scale questionnaire (P-scale). Data on age, gender, education and disease duration were obtained during interview. Disability was assessed using the Expanded Disability Status Scale (EDSS). The associations between variables were analysed with linear regression using both components of the SF-36 in IBM SPSS 20.

## Results

EDSS and Participation were significantly associated with PCS (EDSS  $\beta = -0.44$ ,  $p < 0.05$ ; Participation  $\beta = -0.30$ ,  $p < 0.05$ ) but not with MCS. In MCS, only disease duration ( $\beta = -0.33$ ,  $p < 0.05$ ) was significantly associated with this variable. Age, gender and education did not show significant association neither with PCS or MCS.

## Conclusions

According to this study participation of MS patients is associated with their PCS and they consider their HRQoL better when they still manage to integrate into community compared with those whose social activity is low. If this association is result of minimal obstacles in PCS or social participation has positive effect on PCS is question for future research, but social activities should be encouraged in patients with MS nonetheless as potential factor for improving of HRQoL.

## The evaluation of quality of life of patients with oncological disease

Radka Buzgova

*R Buzgova<sup>1\*</sup>, L Sikorova, E Hajnova-Fukasova, D Felt<sup>4</sup>*

*<sup>1</sup>Department of Nursing and Midwifery Faculty of Medicine University of Ostrava, Czech Republic*

*\*Contact details: radka.buzgova@osu.cz*

## Background

The aim of the study was to find out the subjective evaluation of QoL of patients with oncological disease in palliative care and to compare it in relation to the settings of provided care.

## Methods

The sample was made up of 125 patients with oncological disease for whom the provision of palliative care is adequate, taking into account the progress of the disease. The data were collected in three different settings: an oncological clinic, a hospice and home care. The inclusion criteria were oncological disease and the Karnofsky score  $< 50$ . For the evaluation of QoL the EORTC QOL-C30 questionnaire was used. It consists of 28 items that are clustered into the following domains: function scale, symptomatic scale and two items which evaluate a patient's overall health status and overall QoL. The patients completed the questionnaire repeatedly after three weeks.

## Results

The average age was 67.4 years and the age range 42-94 years. The sample consisted of 57% men and 43% women. In the overall evaluation of QoL the respondents were most satisfied with mental (62.8) and cognitive (60.0) functions. The average score of overall QoL was 42.8, thus making less than 50%. The symptomatic scale showed that patients suffered most from fatigue (63.9), pain (52.5) and loss of appetite (44.5). The patients in home care pointed out surprisingly a worse level of symptoms in comparison with the patients in a hospice and at the oncological department, apart from constipation and financial distress. Also the overall QoL was evaluated worse by the patients in home care (38.4) in comparison with the patients at the oncological department (41.3) and in a hospice (66.9). Repeated measurement revealed a decreased level of QoL in all domains ( $p < 0.05$ ).

## Conclusions

The knowledge based on evaluating QoL may help to improve the quality of the care provided and make it more effective.

## The quality of life of family members who take care of oncological patients

Lucie Sikorova

*L Sikorova<sup>1\*</sup>, R Buzgova, E Hajnova*

*<sup>1</sup>Department of Nursing and Midwifery Faculty of Medicine University of Ostrava, Czech Republic*

*\*Contact details: lucie.sikorova@osu.cz*

## Background

The aim of the research was to find out the quality of life of family members who take care of their family member with oncological disease.

## Methods

The sample was made up of 52 family members of an oncological patient. The Quality of Life in Life Threatening Illness (QQLTI-F) questionnaire, in Czech version, was used for data collection. The patients were given the questionnaire to complete at the beginning of their hospitalization and on the following hospitalization. The items of the questionnaire are clustered into seven domains: the domain of the setting, a patient's health status, a carer's health status, a carer's meaning of life, quality of care

provided, family relations and the finance. Respondents could choose on the 0-10 scale. The results are processed using the method of descriptive statistics. A higher total score indicates higher quality of life.

### Results

The overall quality of life of carers was higher during the first hospitalization (mean=4.0) in comparison with the following hospitalization (mean = 3.6). The carer's life conditions, the perception of mental and physical state, family relations and finance deteriorated in the period between the first and second hospitalization. The domain of quality of care provided was evaluated best, which achieved also the biggest improvement as compared with the first hospitalization (mean= 8.8; mean = 9.15). The quality of life related to a carer's mental and physical state deteriorated most.

### Conclusions

Nursing care should not focus only on oncological patients, owing to the deterioration of a carer's quality of life, their emotional, social and psychological support should be paid particular attention.

## Reliability of a quality of life questionnaire in cardiological patients - repeatability and consistency of responses

Anna Kukielczak

### A Kukielczak

*Katedra i Zakład Epidemiologii, Lekarski Uniwersytet Medyczny w Katowicach, Poland*  
Contact details: [ann.kuk@wp.pl](mailto:ann.kuk@wp.pl)

### Background

The study of quality of life in disease requires the use of validated questionnaires. Their reliability largely depends on the repeatability and consistency of responses to standard questions. In adult cardiological patients the recommended tool is The MacNew Health-Related Quality of Life Instrument (MacNew). The lack of data on its reliability in Polish patients provided the background for the study. Its objective was to assess the repeatability of responses to MacNew, using a test-retest approach.

### Methods

The study group included 120 cardiological out-patients aged  $68.3 \pm 10.8$  years (71 female and 49 male). Each

patient was asked to complete the questionnaire on two occasions, at an interval of 1-2 weeks. Reproducibility of responses obtained on both occasions was assessed by calculating test-retest % agreement and using Cohen Kappa statistic (good agreement was defined if Kappa values exceeded 0.6).

### Results

The results of analyses (% agreement, weighted Cohen Kappa statistics and their 95% CI) are shown in table below. For examined questions the level of agreement was good or very good. Question and its MacNew code Level of test-retest agreement [%] Weighted Cohen Kappa statistic and its 95% CI Inferiority or worthlessness (Q2) 640.77 (0.71-0.83) Life satisfaction (Q7) 860.88 (0.82-0.93) Lack of opportunities for social life (Q12) 650.82 (0.77-0.87) Reduction in physical activity (Q17) 660.80 (0.71-0.85) Dependence on other people (Q23) 860.93 (0.90-0.96)

### Conclusions

The findings suggest that the Polish version of MacNew has satisfactory repeatability for the examined questions regarding quality of life. However the complete evaluation requires analysis of more questions.

## ICF core set for assessment of the dependency level in social security

Libuse Celedova

### L Celedova<sup>1</sup>\*, R Cevela

<sup>1</sup> Ministry of Labour and Social Affairs, Prague, Czech Republic

\*Contact details: [libuse.celedova@mps.v.cz](mailto:libuse.celedova@mps.v.cz)

### Background

The new medical assessment criteria for delimiting dependency level in social security.

### Methods

Since 1st January 2012, the long-term unfavourable state of health is newly defined as the state of health which, according to medical science knowledge, persists or is to persist for longer than one year, and which limits the ability required for managing the basic needs. The assessment of the degree of dependence includes an evaluation of the functional impact of the long-term unfavourable state of health on the ability to manage the 10 basic needs.

## Results

The new medical assessment criteria are based on the Activities of Daily Living (ADL) and are also a reduced form of the International Classification of Functioning, Disability and Health (ICF). The ten basic needs were selected for the core set: mobility, orientation, communication, self-feeding, putting on clothes and footwear, washing oneself, toileting, looking after one's health, personal activities, and household.

## Conclusions

Medical Assessment Service doctors broadly evaluate Body Structures and Body Functions (domains b+s of ICF). And additionally the basic needs: the domain Activity and Participation (ICF/d). Categories from the domain Environmental Factors (ICF/e) were being evaluated from 1st January 2011, during a social investigation ran by social workers. The new assessment pivoted on the 10 basic needs, taken as the core set from the ICF for dependency level in social security, has already been established as a useful functional evaluation.

## Workshop 3:

**10 May 2013 (Friday), 09:00-10:30**

### **The role of patients' organizations in facilitating necessary changes in current health systems**

#### **The role of patient's organizations in facilitating necessary changes in current health systems**

Iveta Nagyova

*I Nagyova<sup>1,2</sup>*

<sup>1</sup>*Institute of Public Health – Department of Social Medicine, Faculty of Medicine, Safarik University, Kosice, Slovakia*

<sup>2</sup>*Graduate School - Kosice Institute for Society and Health, Safarik University, Kosice, Slovakia*

Contact details: [iveta.rajnicova@upjs.sk](mailto:iveta.rajnicova@upjs.sk)

The vision of patient organizations is high quality, patient-centred, equitable healthcare for all patients throughout the

European Union. The mission is to be the collective patients' voice at EU level and national levels, manifesting the solidarity, power and unity of the EU patients' movement, and to provide a strong and united patients' voice to put patients at the centre of EU health policy and programmes. Patient organizations help to empower patients through educational seminars, policy initiatives and projects. The umbrella organizations coordinate best practice exchanges between patient organizations and help to strengthen their organizational and advocacy capacity.

The European Patients Forum (EPF) defined five core strategic objectives in the 2007-2012 Strategic Planning. These are as follows:

- Goal 1: EQUAL ACCESS FOR PATIENTS: To promote equal access to best quality information and healthcare for EU patients, their carers and their families
- Goal 2: PATIENT'S INVOLVEMENT: To ensure meaningful patient involvement in EU health-related policy-making, programmes and projects
- Goal 3: PATIENT'S PERSPECTIVE: To ensure a patients' perspective, including issues around human rights and quality of life, is heard in developments at EU level on health economics and health efficacy
- Goal 4: SUSTAINABLE PATIENT ORGANISATIONS: To encourage inclusive, effective and sustainable representative patient organizations
- Goal 5: PATIENT UNITY: To nurture and promote solidarity and unity across the EU patients' movement (Amended from EPF 2013: <http://www.eu-patient.eu/About-EPF/What-is-EPF>)

The aim of this workshop is to create a platform for presentation of Slovak patient organizations and for defining achievable objectives in the above mentioned areas. Furthermore, the platform should contribute to the integration of activities of patient organisations and to building strong networks to raise patients' voice to overcome the challenges of patient empowerment and implementation of patient-centred care models on both national and European level.

## Session 3: 10 May 2013 (Friday), 09:00-10:30

### Health-related risk factors

#### Attitudes and experiences with drugs among primary school children aged 8-15 years in the academic year 2009/10

Veronika Rehorcikova

V Rehorcikova<sup>1\*</sup>, E Nemcovska<sup>1</sup>, Z Sklenarova<sup>1</sup>, A Kallay<sup>2</sup>, D Kallayova<sup>1</sup>, A Brazinova<sup>1</sup>

<sup>1</sup>Department of Public Health, Faculty of Health Care and Social Work, Trnava University, Slovak Republic

<sup>2</sup>Department of Social Work, Faculty of Health Care and Social Work, Trnava University, Slovak Republic

\*Contact details: rehorcikova@gmail.com

#### Background

Substance use in children is not only the current problem in the world, but also in Slovakia. The main aim of this study is to determine attitudes and experiences with drugs among primary school children aged 8-15 years.

#### Methods

The sample consisted of children aged 8-15 years in the selected primary schools. Data collection was carried out by questionnaires distributed in the amount of 1280. Presented data are partial results of the project "Cross sectional study of attitudes, habits and awareness about drugs among primary school children aged 8-15 years in Slovakia in the academic year 2009/10". We used Chi-Square test and multiple logistic regressions for the data analysis.

#### Results

At least once smoked cigarettes 28% respondents and 49% of them smoked cigarettes more than once in the last month. At least once drank alcohol 46% respondents and greater number of boys than girls drank more than 1 drink of alcohol in the last week ( $p < 0.05$ ). The boys and girls have experienced beer and wine as quite easily available. Greater number of girls than boys have never heard about cocaine, heroine, ecstasy, LSD, crack ( $p < 0.05$ ). The age of respondents, parental support had a significant influence on smoking ( $p < 0.05$ ). The age of respondents had a positive

influence on alcohol drinking ( $p < 0.05$ ). The age of respondents, maternal smoking, friend's alcohol drinking, parental support had a significant influence on the attraction to the drug ( $p < 0.05$ ).

#### Conclusions

The results of our study indicate that there is a need to focus an attention on drug prevention. Because of the experiences with the quite easily availability of beer and wine in our study group, there should be also more controls during the sale of alcohol and not to sell to the younger than 18 years old.

#### Selected health determinants and health-risk behavior in citizens of Trnava and Žilina region

Alzbeta Benedikovicova

A Benedikovicova<sup>1\*</sup>, I Rovny<sup>2</sup>, M Kvakova<sup>1</sup>, A Simkova<sup>1</sup>

<sup>1</sup>Department of Public Health, Faculty of Health Care and Social Work, Trnava University, Trnava, Slovak Republic

<sup>2</sup>Public Health, Authority of the SR, Bratislava, Slovak Republic

\*Contact details: alzbeta.benedikovicova@gmail.com

#### Background

Generally the health determinants include lifestyle, genetic factors, environmental factors and health care. Knowledge of health determinants distribution within the population is the key for monitoring of health status. The aim of this study was to compare differences in age, sex and health determinants in two regions of Slovakia.

#### Methods

Random selected respondents from Trnava region and Žilina region participated in this cross-sectional study.

Questionnaire from European Health Interview Survey was adopted for data collection in this study conducted in 2007. Statistical analysis were used to evaluate the differences in BMI, lifestyle (physical activity, walking, eating fruits and vegetables, stress), exposure to noise and dust in the environment, exposure to physical and chemical agents in the workplace, health risk behaviors (smoking, alcohol abuse, using drugs) between two selected populations.

#### Results

The total number of respondents was 170 where 50 % was from Trnava region and 50 % from Žilina region. In Trnava region 53 % of men and 47 % of female participated in the

study compare to Žilina region with 44 % of men and 56 % female. Mean of age was 42 years (min. 17, max. 86) in Trnava region and 44 years (min. 17, max. 78 years) in Žilina region. Mean of BMI was  $25.57 \pm 4.45$  (min 17.30, max. 37.47) in the Trnava region and  $25.88 \pm 5.14$  (min 18.59, max. 50.24) in Žilina region. 17 % of respondents from Trnava region and 14 % of respondents from Žilina region were highly exposed to environmental noise. In contrary 36 % of respondents from Trnava and 54 % of respondents from Žilina were not exposed to environmental noise. In Trnava region 71 % of respondents experienced stress at work compare to 80 % of respondents in Žilina region.

### Conclusions

Monitoring of distribution of health determinants and health-risk behaviors in different populations are base for creation of effective health programs aimed to eliminate the risk factors and improve the health within these populations.

## Effect of smoking on lipid parameters

Zdenka Hertelyova

Z Hertelyova<sup>1</sup>\*, L Vasko<sup>2</sup>, J Vaskova<sup>3</sup>

<sup>1</sup>Department of Medical and Clinical Biochemistry and LABMED, Faculty of Medicine, Safarik University, Kosice, Slovak Republic

\*Contact details: zdenocka@gmail.com

### Background

Cigarette smoking is believed to cause cardiovascular and atherogenic effects resulting in changes of lipid metabolism. Studies on smokers for more than 10 years showed lower high-density lipoprotein cholesterol. Thus smoking appears to have at least two effects on lipids that may promote coronary heart disease and atherosclerosis: increased plasma fatty acids and decreased high-density lipoprotein cholesterol (HDL). In our study we followed differences in lipid parameters between smokers and non-smokers.

### Methods

The study was carried out on 75 volunteers (18-26 years old), 25 males and 50 females. Total cholesterol (TC), TAG (triglycerides), HDL levels were determined by enzymatic analyser methods COBAS MIRA from blood samples. LDL, VLDL, non HDL and ratio LDL/HDL were calculated. A two-sample t-test was used to determine the statistical

significance of the means between different groups using  $P < 0.05$  as the level of significance. Pearson correlation coefficient was used to show the differences in selected lipid parameters in smokers versus non-smokers and men versus women.

### Results

There were 19 smokers (9 men and 10 women) and 56 non-smokers (16 men, 40 women). All smokers smoke less than 10 cigarettes per day. Significant differences ( $P < 0.001$ ) were in parameters, as HDL (in all respondents and in women) and TC (only women). Significant differences ( $P < 0.01$ ) were in following parameters: TC, TAG, VLDL and LDL/HDL in all respondents, TC, non HDL, LDL in men and non HDL in women. Significant differences ( $P < 0.001$ ) were in parameters LDL/HDL in men and LDL, TAG and VLDL in women. Smokers had lower HDL and higher LDL, non HDL and ratio LDL/HDL.

### Conclusions

The smoking of cigarettes has an harmful effect on lipid parameters, which cause serious diseases. Study was supported by 10/GSD2011, VEGA 1/1236/12 and Erasmus 2012/2013 Prague, Czech Republic.

## Self-reported risk factors of musculoskeletal disorders among Czech dentists

Lenka Hodacova

L Hodacova\*, Z Sustova, M Kapitan, J Smejkalova

Department of Social Medicine, Charles University in Prague, Faculty of Medicine in Hradec Kralove, Czech Republic

\*Contact details: hodacoval@lfhk.cuni.cz

### Background

Musculoskeletal diseases represent one of the greatest problems among dental professionals. The aim of our study was to find self-reported risk factors connected with the musculoskeletal problems among Czech dentists.

### Methods

A cross-sectional study was conducted in 581 Czech dentists during the period from November 2010 to September 2011. The questionnaire was designed to evaluate dentists' physical health related to musculoskeletal disorders during the previous 12 months, their self-reported general health and their individual working environment and work habits.

The intensity of health problems was assessed. Statistical analysis was undertaken using NCSS 2007.

### **Results**

The entire majority of dentists (96.9 %) reported the occurrence of at least one of the listed health problems and 66.3 % of the sample reported difficulties of medium or major intensity. A statistically significant correlation with the occurrence of musculoskeletal complaints of medium and major intensity was demonstrated in our group for the following factors: sex, age, running a private practice, a history of past injury or musculoskeletal diseases, working time over 40 hours per week, subjective assessment of their general health and the perception of work as psychologically demanding. They also more often used exercises as a therapy, took self-medication, sought out the help of a specialist and rated that they had to decrease the workload both in last year and in last month.

### **Conclusions**

Muskuloskeletal disorders in general particularly back and neck pain appear to be widespread health problems among Czech dentists. It is necessary to continue to identify the causes of the disorders and subsequently focus on appropriate preventive interventions.

Supported by the programme PRVOUK P37/09.

## **Occupational factors associated with burnout among nurses**

Lucia Dimunova

*L Dimunova<sup>1</sup> \*, Iveta Nagyova<sup>2,3</sup>, Zuzana Katreniakova<sup>2,3</sup>*

<sup>1</sup> Department of Nursing Care, Faculty of Medicine, Safarik University, Kosice, Slovak Republic

<sup>2</sup> Graduate School Kosice Institute for Society and Health, Safarik University, Kosice, Slovak Republic

<sup>3</sup> Institute of Public Health - Department of Social Medicine, Faculty of Medicine, Safarik University, Kosice, Slovak Republic

\*Contact details: lucia.dimunova@upjs.sk

### **Background**

Burnout as experience of long-term physical, emotional and mental exhaustion affects mostly people working in helping professions. Nurses in the exercise of their profession are faced with complex situations bringing about high workload and considerable psychological distress. The aim of this

study was to quantify the frequency of burnout among Slovak nurses, to shed more light on the associations between the demographic characteristic, the workload and burnout syndrome in nurses.

### **Methods**

A survey was conducted in twelve hospitals in Slovakia in 2009-2010. A total of 770 nurses participated in the study. Data were collected the Maslach Burnout Inventory to measure burnout and the questionnaire comprising questions on sociodemographic variables, workplace characteristics and workload.

### **Results**

The investigated sample showed a higher degree of burnout syndrome under EE dimension in 56.8% of respondents and in the DP dimensions in 29.4% of nurses. Nurses with the length of work experience between 1-3 years and more than 5 years had a significantly higher level of occurrence of burnout syndrome. Three-shift work, work at inpatient departments, length of work experience and educational level are factors related to increased occurrence of burnout syndrome in the investigated sample.

### **Conclusions**

Research results suggest that the profession of nurses should be supported by management aimed at preventing work-related stress and highlights the importance of application of intervention programs to prevent burnout syndrome in clinical practice.

## **Workload of nurses in meeting the patients' needs**

Jana Susinkova

*J Susinkova*

*Department of Nursing Care, Faculty of Medicine, Safarik University, Kosice, Slovak Republic*

*Contact details: jana.susinkova@upjs.sk*

### **Background**

To assess the potential burden of nurses in the process of satisfying biological, psychological, social and spiritual needs.

### **Methods**

The questionnaire of our own design was used to monitor subjectively perceived burden and workload in nurses. Rate of nursing workload and feelings of physical and mental

exhaustion were assessed on a Likert's scale. 120 questionnaires were admitted to the surgical departments and departments providing palliative care. T-test was used to assess differences between groups and Pearson's correlations were used to assess the relationship between exhaustion and load.

#### **Results**

The study group consisted of 120 nurses, 45.83% from the surgical units and 54.17% from palliative care. Mean age of nurses was  $35.28 \pm 8.87$  years and an average length of practice  $14.24 \pm 9.76$  years. A mild to moderate degree of physical and emotional exhaustion was recorded regardless of the type of department of nurses. Nurses experienced the highest burden by satisfying psychological and spiritual needs. Significantly higher burden was identified in surgical nurses in meeting biological and spiritual needs. Statistically significant ( $p \leq 0.05$ ) correlations were confirmed between the workload resulting from the satisfaction of human needs and the level of physical and emotional exhaustion.

#### **Conclusions**

Conclusions psychological support, counselling and education programs aimed at coping with stress, emotional exhaustion and prevent communication with the patient, his family and team work appear to be of great importance for nurses.

## **Workshop 4:**

**10 May 2013 (Friday), 11:00-12:30**

### **Quality of life in patients with a chronic disease: the outcomes of the LORIDIS project**

#### **The LORIDIS project: background, aims and main outcomes**

**Iveta Nagyova**

*I Nagyova<sup>1,2</sup>*

*<sup>1</sup>Institute of Public Health – Department of Social Medicine, Faculty of Medicine, Safarik University, Kosice, Slovakia*

*<sup>2</sup>Graduate School - Kosice Institute for Society and Health, Safarik University, Kosice, Slovakia*

*Contact details: iveta.rajnicova@upjs.sk*

#### **Background**

One of the greatest challenges that health systems face globally is the increasing burden of chronic diseases. Despite the clinical differences across these chronic conditions, each illness confronts patients and their relatives with the same spectrum of needs: to alter their behaviour; to deal with the social and emotional impacts of symptoms, disabilities, to take medicines; and to interact with medical care over time. In order to provide better support for patients, health professionals, policy makers and institutions are increasingly recognizing the need to respond to those with complex health needs and are initiating new models of service delivery designed to achieve better coordination of services across the continuum of care. The aim of the LORIDISS project is to gain deeper insight into causal mechanisms operant within the process of chronic disease management.

#### **Methods**

Cross sectional and longitudinal data from over 5000 patients across 8 chronic diseases are collated. Multiple data sources are used to measure the degree of functional decline, patient-level processes, intra-individual and extra-individual resources and the health outcomes. For the analyses advanced statistical procedures were applied; namely

exploratory and confirmatory factor analysis, multilevel analysis and structural equation modeling (LISREL analysis).

### Results

Self-reinforcing feedback loops have been identified and related to lack of specific types of intra-individual and extra-individual resources. Special attention was paid to the factors closely related to patient's self-management such as noncompliance, socio-economic inequalities, ethnicity, ageing, social participation and coping.

### Conclusions

Chronic illness requires complex models of care, involving collaboration among professions and institutions that have traditionally been separate. Yet, healthcare still builds largely on an acute, episodic model of care that is ill equipped to meet the long-term and fluctuating needs of those with chronic illness. The outcomes of the LORIDISS project provide empirical evidence that can facilitate decision-making concerning improved models of healthcare delivery in the chronically ill.

## Similarity of quality of life across five chronic diseases in Slovakia

Sophie Baird

S Baird<sup>1</sup>, I Nagyova<sup>2,3</sup>

<sup>1</sup> Ecole des Hautes Etudes en Santé Publique, Rennes, France

<sup>2</sup> Institute of Public Health – Department of Social Medicine, Faculty of Medicine, Safarik University, Kosice, Slovakia

<sup>3</sup> Graduate School - Kosice Institute for Society and Health, Safarik University, Kosice, Slovakia

Contact details: [sophie.baird@hotmail.co.uk](mailto:sophie.baird@hotmail.co.uk)

### Background

Chronic disease in Slovakia puts a huge burden on both the individual and society through increased health care utilisation and loss of productivity. It is well-known that chronic disease negatively impacts quality of life (QoL) but the comparative impact across diseases is under-studied. This has implications for chronic disease care. The objective of this study, therefore, is to compare QoL among five chronic diseases in Slovakia.

### Methods

Data was collated from five existing databases of

rheumatoid arthritis (n=296), end-stage renal disease (n=220), Parkinson's disease (n=175), multiple sclerosis (n=165), and coronary heart disease (n=710). QoL was measured using the SF-36 which has proven to be a valid and reliable tool across diseases. QoL profiles were developed to visualise similarities across diseases while Kruskal-Wallis tests and General Linear Modelling (GLM) were used to statistically compare the diseases, controlling for socio-demographic factors.

### Results

Mental quality of life (MCS) is much more similar across the five diseases than physical quality of life (PCS). Although emotional role limitation is the only dimension of the SF-36 that is similar across all diseases (p=0.074), similarities occur in every dimension and component summary of quality of life. Scores that are similar across three or more diseases include mental component summary, general health, physical role limitation, mental health, social functioning and vitality.

### Conclusions

The results of this study show that QoL, particularly mental QoL, is similar across chronic diseases. This supports the idea that patients with different conditions may benefit from similar care. It is therefore hoped that this study might begin the discussion of introducing mixed self-management programs to chronic disease care in Slovakia.

## Parents' mental well-being is associated with treatment modality of adolescents with end-stage renal disease and socio-economic status of the family

Martina Mergescikova

M Mergescikova<sup>1,2\*</sup>, I Nagyova<sup>1,2</sup>, G Kolvek<sup>1,3</sup>, D Klein<sup>1</sup>, J Rosenberger<sup>1</sup>, L Podracka<sup>1,3</sup>, SA Reijneveld<sup>4</sup>, JP van Dijk<sup>4</sup>

<sup>1</sup> Graduate School Kosice Institute for Society and Health, Faculty of Medicine, Safarik University, Kosice, Slovak

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

<sup>3</sup> Paediatric 1<sup>st</sup> Department of Paediatrics and Adolescent Medicine, Faculty of Medicine, Safarik University, Kosice, Slovak Republic

<sup>4</sup> Department of Community & Occupational Health,

University Medical Center Groningen, University of Groningen, the Netherlands

\*Contact details: [martina.mergescikova@gmail.com](mailto:martina.mergescikova@gmail.com)

### Background

Chronic kidney disease may be an increasing public health problem, as individuals in all stages of the disease, and especially those in the end stage, face a variety of conditions that may result in negatively affecting their quality of life. In addition, diminished health-related quality of life (HRQoL) may also be experienced by parents of adolescent patients due to the burden emerging from their child's disease. This may vary by treatment modality. Our aim was to evaluate the associations between treatment modality (TM) of adolescents with end stage renal disease (ESRD) and parent's mental well-being, and whether this association is affected by socio-economic status of the family (SES).

### Methods

Parents (41.1±6.3 years; 79.3% mothers) of all adolescent patients (n=29) in Slovakia treated by dialysis or after kidney transplantation (age between 11-19 years (16.0±2.63 years; 27.6% girls), completed measures of stress (PSI, GHQ-12), anxiety and depression (HADS), and affluence (FAS). In addition, sociodemographic variables (age, gender, household income and education) were collected. Data were analysed using linear regression analyses with the bootstrap procedure.

### Results

Parents of adolescent patients with ESRD experienced normal levels of stress (PSI Total Stress 229.69±55.95) and relatively good psychological well-being (GHQ-12 Total 11.24 ±4.06). Parental mental well-being was lower in case of adolescents' dialysis (B, 95%-confidence interval): depression -2.52 (-4.91;-1.18), anxiety -4.07 (-6.54;-1.65), psychological distress -3.45(-6.48;-0.39), anxiety/depression -2.24(-4.55;-0.14), and distress from social dysfunction -1.53 (-2.53;-0.53). In case of controlling for parents' highest education, parent's anxiety remained higher -3.72 (-6.53;-1.29).

### Conclusions

Parental mental-wellbeing is worse if adolescents are treated by dialysis than if they have received a kidney transplant. This seems to be moderated by SES. In psychosocial interventions, special support should therefore be targeted at parents with lower SES.

## Mastery early after kidney transplantation predicts future mental health-related quality of life: a prospective study

Lucia Prihodova

L Prihodova<sup>1,2</sup> \*, I Nagyova<sup>1,2</sup>, J Rosenberger<sup>1</sup>, M Majernikova<sup>1</sup>, R Roland<sup>1</sup>, JW Groothoff<sup>3</sup>, JP van Dijk<sup>3</sup>

<sup>1</sup>Graduate School Kosice Institute for Society and Health, Faculty of Medicine, Safarik University, Kosice, Slovak Republic

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

<sup>3</sup>Department of Community & Occupational Health, University Medical Center Groningen, University of Groningen, the Netherlands

\*Contact details: [luciaprihodova@gmail.com](mailto:luciaprihodova@gmail.com)

### Background

The first year after kidney transplantation (KT) is associated with dramatic changes and adverse symptoms of immunosuppressants. We explored the predictive value of socioeconomic factors, kidney function (KF) and mastery measured in the first year post-KT on future mental health-related quality of life (HRQoL) in KT recipients.

### Methods

230 KT recipients (55.7% male, 48±11.7 years) provided sociodemographic and KF data and completed the ESRD Symptom Checklist & the Pearlin Mastery Scale at 3-12 months post-KT (T1). At T1 and at follow-up 2-8 years post-KT(T2), patients completed the HRQoL questionnaire (SF-36). GLM analysis was performed.

### Results

Higher mental HRQoL(T2) was predicted by female gender, higher KF, less side-effects and higher mastery. When controlled for mental HRQoL(T1) female gender, higher KF, less side-effects, higher mastery and higher mental HRQoL(T1) predicted higher mental HRQoL(T2). The models explained 36.1% and 52.9% of variance.

### Conclusions

The results suggest that better master early post KT contribute to higher future mental HRQoL. Therefore intervention programmes should consider management of side effects and increase of coping skills early post-KT may contribute to higher future HRQoL in KT recipients.

## Differences in health-related quality of life between Roma and non-Roma coronary heart disease patients: the role of hostility

Barbora Silarova

*B Silarova<sup>1,2\*</sup>, I Nagyova<sup>1,2</sup>, JP van Dijk<sup>3</sup>, J Rosenberger<sup>1</sup>, SA Reijneveld<sup>3</sup>*

<sup>1</sup>Graduate School Kosice Institute for Society and Health, Faculty of Medicine, Safarik University, Kosice, Slovak Republic

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

<sup>3</sup>Department of Community & Occupational Health, University Medical Center Groningen, University of Groningen, the Netherlands

\*Contact details: [silarova.barbora@gmail.com](mailto:silarova.barbora@gmail.com)

### Background

Roma ethnicity may be associated with lower health-related quality of life (HRQoL) in coronary heart disease (CHD) given the higher levels of hostility in Roma, but evidence is scarce. Thus, the aim of this study was to assess differences in HRQoL between Roma and non-Roma CHD patients, and whether differences in hostility contribute to this association.

### Methods

We examined 570 CHD patients (mean age 57.8, 28.1% female) scheduled for coronary angiography, 88 (15.4%) of whom were Roma. Hostility was measured using the 27-item Cook-Medley Scale and HRQoL using the Short-Form Health Survey 36, from which the Mental and Physical Component Summary (MCS, PCS) were calculated. The relationship between ethnicity, hostility and HRQoL was examined using regression analyses.

### Results

Roma ethnicity was associated with poorer MCS (B=-3.44; [95% confidence interval (CI) 95% -6.76;-0.13] and poorer PCS (B=-4.16; [95%CI=-7.55;-0.78]) when controlled for age, gender and socioeconomic status. Adding hostility to the model weakened the strength of the association between Roma ethnicity and MCS (B=-1.87; [95%CI=-5.08; 1.35]) but not between Roma ethnicity and PCS (B=-4.07; [95%CI=-7.50;-0.64]).

### Conclusions

Roma ethnicity is associated with poorer MCS and PCS. Hostility may mediate the association between Roma ethnicity and MCS. The poorer HRQoL of Roma CHD patients require attention in both care and research, with special attention on the role of hostility.

## Session 4:

10 May 2013 (Friday), 11:00-12:30

### Public mental health

#### Is economy crisis influencing our mental health?

Alexandra Brazinova

*A Brazinova\*, D Mastelova*

Faculty of Health Care and Social Work, Trnava University, Trnava, Slovak Republic

\*Contact details: [alexandra.brazinova@gmail.com](mailto:alexandra.brazinova@gmail.com)

### Background and aim

In mental health of an individual or a population, multiple levels of causation are considered. We have researched factors influencing mental health of population at macrolevels, choosing the groups of affective and neurotic disorders as these are to a large extent triggered and influenced by „external“ factors.

### Methods

We have conducted ecological study to research treated prevalence of affective and neurotic disorders (diagnostic groups F30-39 and F40-48, ICD-10) in regions of Slovak Republic in the years 2001-2010. We have used Joinpoint regression to assess statistical significance of treated disease prevalence increase over time. Further, through multiple linear regression we have assessed relations of demographic (age, gender, divorce rate) and socioeconomic (crude monthly average salary, unemployment rate, regional proportion of population with university education) factors to the regional and national trends of treated prevalence of both studied diagnostic groups.

### Results

Both affective and neurotic disorders treated in ambulance setting in the studied period 2001-2010 have an increasing

trend, with a high peak and steep increase in/after 2008. According the Joinpoint regression, the rate of affective disorders increased in the studied period by 6,7\*% [95 % CI: (3.6;10.0) ]. The rate of neurotic disorders increased in the studied period by 5,6\*% [95 % CI: (12.8;18.6). Unemployment rate was the strongest significantly associated factor with the prevalence of treated neurotic as well as affective disorders.

### **Conclusions**

At macrolevel, we can see increasing unemployment rate influencing trends of treated prevalence of affective and neurotic disorders. We can guess this reflects the fact many of these disorders occur and progress when a person is in a situation of uncertainty of personal and family income. The peak in and after 2008 we explain by accumulation of external uncertainties due to the world financial crisis and this leading to increased stresses on the individual, leading to higher number of diagnosed and treated mental disorders on the population level.

## **Mental disorders and invalidism - disability in Slovakia**

**Dagmar Breznoscakova**

*D Breznoscakova\*, E Vavrova*

*1<sup>st</sup> Dept. of Psychiatry Medical School, Safarik University and University Hospital, Kosice, Slovak Republic*

*\*Contact details: dagmar.breznoscakova@upjs.sk*

### **Background**

The number of people receiving disability pension, is growing. Comparison of disability in Slovakia from 2005 to 2011, we expect the increase in the number of disability pensions granted to either 70% or above 70%.

### **Methods**

Of data sources, branches of social insurance, we compared the changes in the number of diseases and also in the years in terms of approved applications for disability pension (ID), which we have specifically investigated the status of mental disorders among them. Interested in our incidence of disease is the number of recognized disabilities with 70% or over 70%. We used a simple accumulation of data available.

### **Results**

In 2010, 40 231 controls conducted medical examinations of which still recognized disability and partial disability rate of

decline in earning capacity in excess of 40% - 70%: 20 777 still recognized disability and disability with the rate of decline in earning capacity over 70%: 14 977 still recognized disability with a change to a lower level of disability. The first among illnesses that cause disability and a decreased rate of earning capacity of 40% together with men and women were disease muscle, skeletal system and connective tissue. The second were mental and behavioral disorders, third cardiovascular diseases and cancers in fourth place.

### **Conclusions**

The newly-disability pensions are significantly contributes chapter on mental and behavioral disorders. The invalidity pensions in the range of 41% -70% are second in disability pensions in the range of 71% and more are in third place. Correct diagnosis allows correct classification into individual sections and items of the Act, and thus to determine the corresponding rate decrease earning capacity of the patient. Addressing the social consequences of illness affects not only social security but has a significant social impact, since the problems are not and can not be solely for medical consultants, social insurance. Disability pensions are a thing of the whole society, as can the social and economic impact of this issue deal with the complexity and perhaps more open and clearer communication between medical examiners and doctors - specialists could help the company better navigate this dilemma.

## **Mental health in chronically ill geriatric patients: a case of depression symptoms in patients with diabetes in Slovakia**

**Marek Majdan**

*M Majdan\*, L Krajcovicova*

*Department of Public Health, Faculty of Health Care and Social Work, Trnava University, Trnava, Slovak Republic*

*\*Contact details: mmajdan@truni.sk*

### **Background**

About 80% of older adults have a chronic illness and mental health disorders such as depression are common in such patients. An estimated one third of all chronically ill patients suffer depressive symptoms. The aim of this study was to assess the prevalence of depressive symptoms in geriatric patients with diabetes in Slovakia and analyze its predictors.

### **Methods**

497 patients older than 65 years with confirmed diabetes were recruited in two outpatient dialectologist offices in Trnava, Slovakia. The PHQ-9 questionnaire was used to assess depressive symptoms and patients were categorized in 4 symptom severity groups. Additional questionnaire was used to assess severity of illness, social and demographical factors and these factors were related to severity of depressive symptoms in our analysis.

### **Results**

Out of the whole group of patients, 5% had moderately severe or severe (MSS), 14% moderate, 38% mild and 44% none or minimal depressive symptoms. 63% of patients were female and the mean age was 73 years. Patients in the MSS group were significantly the oldest, most often diagnosed more than 16 years before interview (38%), had the highest number of diabetes-related comorbidities, and tended to have low income and lower degree of education compared to groups with milder symptoms. High degree of self-perceived seriousness of illness (OR 4.5; 1.5-14.1) and female gender (OR 1.7; 1.1-2.8) were confirmed as independent predictors of depressive symptoms of rising severity in multinomial logistic regression.

### **Conclusions**

More than half of patients in our study suffered mild to severe depressive symptoms. Disease related as well as demographic and social factors were shown to be associated with such symptoms. Our findings should be considered by public health and clinical authorities and could serve as evidence for targeted action.

## **Mental health care in V4 countries**

**Martin Dlouhy**

*M Dlouhy*

*University of Economics in Prague, Czech Republic  
Contact details: dlouhy@vse.cz*

### **Background**

The aim of this study is to describe and compare the state mental health care in V4 countries: the Czech Republic, Hungary, Poland, and Slovakia. The countries have gone through social and economic transition in the last twenty years. The countries share their common totalitarian history that caused health, social, economic, and moral deterioration

The burden of totalitarian history still influences many areas of social and economic life, which also has to be taken into account in mental health policy.

### **Methods**

In 2011-2012, national experts were asked carrying out the PEST and SWOT analyses to summarize the information on national mental health system.

### **Results**

National experts report insufficient cooperation between health providers serving to people with mental health problems. An intersectional cooperation is even worse: the social and health care systems work almost independently without clearly defined relations. The frequent problem is a prevalence of biological model instead of social and psychological approach, although the technologies and know-how of modern mental health are known. A poor consensus among the psychiatric profession about the direction of the mental health reforms is a serious obstacle for further development. A poor motivation among the professionals due to low salaries compared with other medical specialties also has to be taken into account. A common problem is also insufficient financing of mental health services. This leads to absence of financial resources for mental health system development. There were poor investments in mental health services in the past, which led to the situation with a need of renovation of inpatient facilities, and need of improvement of the living conditions in the existing institutions. On the other hand, the national mental health systems need resources for strengthening weak community mental health services. National mental health systems typically face lack of specialists in child psychiatry and geriatric psychiatry. This is also connected with lack of appropriate residential institutions for these populations.

### **Conclusions**

We can observe that the know-how about modern mental health care and about direction of needed reforms is available in documents, policies and programmes. However, this does not mean real implementation. The countries face many problems and obstacles in reforming their mental health services. The political, social, and economic transition in the 1990s initiated the process of new mental health policy formulation, adoption of mental health legislation stressing human rights of patients, and a strong call for a pragmatic balance of community and hospital

services. However, not all of this has been fully and successfully realised.

## **Possibilities of neuropsychological diagnostic and rehabilitation of cognitive dysfunctions in psychiatry**

**Martina Chylova**

*M Chylova\**, *M Kovanicova*

*1<sup>st</sup> Department of Psychiatry, Faculty of Medicine, Safarik University and University Hospital, Kosice, Slovak Republic*  
*\*Contact details: martina.chylova@upjs.sk*

### **Background**

This review attempts the importance of neuropsychology in the management of treatment of psychiatric patients, pointing out how the work of neuropsychologist can help to enhance cognitive functioning especially in schizophrenia and depressive disorders patients.

### **Methods**

Mental disorders conclude not only behavioral and emotional changes, but also cognitive ones. Whether present depression, schizophrenia and abuse of psychoactive drugs lead to cognitive dysfunction, or impaired brain plasticity due to neurotransmitters dysbalance leads to mental disorders, have not been known yet. Cognitive dysfunction among psychiatric patients was found primarily in areas such as perception, memory, attention, speech and executive functions.

### **Results**

Neuropsychological diagnostic involves observing the patient, anamnestic interview and neuropsychological tests. Following the evaluation of level of the deficit, a specific remedy is needed for more effective inclusion of patients in the normal life functioning. The tasks tailored to the patient are applied in the framework of cognitive trainings, the latest ones include computer programs such as NEURO-P, CogniPlus-2 or CogniFit programs under the leadership of psychologist.

### **Conclusions**

Neuropsychology in psychiatry is useful for diagnostic and therapeutic support of patients and their families in order to remove psychosocial consequences of cognitive dysfunctions.

## **Problems of public guardians in the care of incompetent persons**

**Lubica Jurickova**

*L Jurickova\**, *K Ivanova*, *J Filka*

*Palacky University, Olomouc, Czech Republic*

*\*Contact details: lubica.jurickova@seznam.cz*

### **Background**

In the Czech Republic, there is an increasing number of persons with mental disorder who were deprived of in capacity to legal acts by court decisions (incompetent persons). These persons are a specific population group because for them the guardians are decision makers. The paper presents the results of the research that was conducted in the selected regions of the Czech Republic in 2011. The main purpose of the research was to determine the information about incompetent persons and their public guardians, i.e. municipalities.

### **Methods**

The research was carried out in 13 local authorities in 11 municipalities. The sample comprised 36 local authority workers of which 25 were appointed as public guardians and 11 were in charge of supervising guardianship. The data collection technique was a semi-structured interview. The data were processed using content analysis.

### **Results**

The research identified the current issues in the public guardian activity: (a) a valid law of guardianship is too general; (b) lack of a methodology for the public guardian activity; (c) low public awareness about the guardianship institute, and (e), the lack of cooperation among physicians in health care for incompetent persons.

### **Conclusions**

To ensure a high quality of care provided to incompetent persons, the following measures are necessary: (a) at the state level, adequate changes to legislation concerning the guardianship system; (b) at the regional level, methodological support of public guardianship; and (c) at the municipal level, systematic training provided to public guardians. At all of the above levels, the awareness of both professionals and the general public of adult guardianship should be raised.

## Moderated poster session 3: 10 May 2013 (Friday), 13:30-14:00 Public health epidemiology II

### Traumatic brain injury mortality in Slovakia (2010-2011)

Veronika Gonsorova

V Gonsorova

*Department of Public Health, Faculty of Health Care and Social Work, Trnava University, Trnava, Slovak Republic  
Contact details: veronika.gonsorova@truni.sk*

#### Background

Traumatic brain injury is a major public health problem worldwide. The objective of this study was to investigate TBI-related death rates in Slovakia and to identify risk factors and external causes for TBI mortality in Slovakia in 2010 and 2011.

#### Methods

Death certificate data from the Statistical Office of Slovak Republic was used. All TBI deaths were analyzed according to ICD-10.

#### Results

The TBI-related death rates in Slovakia for the years 2010 and 2011 was 12.4 and 11.9/100 000 per year, respectively. The rate of TBI deaths was six times higher among males (20.8 per 100,000 populations) than among females (3.33) in 2010 and almost five times higher among males (18.8 per 100,000 populations) than among females (4.01) in 2011. The highest TBI mortality due to TBI was in Banska Bystrica Area (15.6 per 100,000 populations) in 2010 and in Zilina Area in 2011 (16.7 per 100,000 populations). Fall-related TBIs were the leading causes of TBI-related death in both years (2010- 37.3%; 2011- 39.3%). Motor vehicle accidents, shooting and being struck by objects are the other major etiologies of TBI in Slovakia. Suicide caused 7.5% and 8.2% of all TBI deaths in 2010 and 2011. Risk of dying increased with increased age.

#### Conclusions

TBI data collection and analysis should improve in Slovakia. The information about risk factors and external

causes for TBI mortality in Slovakia can enable to design effective prevention strategies.

### Epidemiological situation of occurrence of measles in Slovakia and Europe

Zuzana Kalinova

Z Kalinova\*, M Halanova, L Cislakova

*Institute of Public Health, Faculty of Medicine, Safarik University, Kosice, Slovak Republic*

*\*Contact details: zuzana.kalinova@upjs.sk*

#### Background

Measles is one of the viral infections with the highest contagiousity in humans. Frequently run in epidemics, mainly in unvaccinated persons. Only vaccination is effective preventive measure. For elimination of measles are require two doses of vaccine at the level of a minimum of 95% of the population. Aim of our work was analyse the incidence of measles in the Slovak Republic and Europe.

#### Methods

On analysis of the incidence were used data reported to EPIS and the European Surveillance System (TESS).

#### Results

In Slovakia, the situation in occurrence of measles is long-term favorable thanks to the effective specific prophylaxis. The regular vaccination of children against measles was introduced in Slovakia in 1969. The last autochthone disease to measles occurred in Slovakia in August 1998. In the following years were registered only rare diseases imported from abroad. There have been no reported cases of measles in the years 2005, 2006, 2007, 2008, 2009 and 2010. In 2011, Slovakia has been reported two illnesses. In both cases this was imported infections. But measles as health problem remains in many countries of Europe. In 2010, numerous outbreaks have been reported, particularly in countries where coverage of vaccination is on low level. Most cases occurred in Bulgaria, France, Italy and Germany. In 2011, outbreaks have continued in 29 European countries. Altogether there were 30 567 reported illnesses. In 2012 has occurred epidemic of measles in Ukraine with a 5,127 reported cases of the disease. The occurrence of epidemic continued in the UK, France and Romania. Out of the 29 European countries were measles free only three countries - Cyprus, Hungary and Iceland.

## Conclusions

The incidence of measles in Europe clearly indicates the presence of vaccination holes in the population. Due to increasing migration is not excluded import measles to Slovakia. Therefore, attention should be paid to effective surveillance of measles and maintaining the high levels of vaccination coverage (over 95%) against this disease.

## Prevalence of Chlamydia trachomatis in minority population

Monika Halanova

M Halanova\*, Z Kalinova, L Cislakova

Institute of Public Health, Faculty of Medicine, Safarik University, Kosice, Slovak Republic

\*Contact details: monika.halanova@upjs.sk

## Background

In Europe the leading sexually transmitted infection is urogenital chlamydiosis, which reported incidence dramatically increased over that last 20 years. The general risk factors for chlamydial infection include young age (<24 years), new sexual partner, and sexual risk behaviour (multiple sexual partners, non-use of condoms). In Slovakia one of the groups of population, in which is a large number of people with these risk factors is a Roma community. Therefore the aim of our work was to study the occurrence of the Chlamydia trachomatis infection in population living in Roma settlements.

## Methods

A total of 208 Roma (66 men, 142 women) were examined for the presence of bacterium C. trachomatis during the cross-sectional population-based HepaMeta study conducted in 2011 in Eastern Slovakia, which was primarily focused on the detection of the viral hepatitis B and C and metabolic syndrome in the population living in separated and segregated Roma settlements.

The occurrence of C. trachomatis was detected by direct proof of the pathogen by polymerase chain reaction (PCR) using commercial kit AmpliSens® Chlamydia trachomatis-EPh PCR kit (Federal Budget Institution of Science, Moscow, Russia).

## Results

Of the total number of 208 respondents included in the study the positivity for C. trachomatis infection was detected in 15

cases, which represented 7,2%. From this were 12 women (8,5%) and 3 men (4,6%). The highest positivity was detected in group of 15 - 25 old years - 11,9%.

## Conclusions

Population-based studies in Europe and USA suggested that the prevalence of Chlamydia trachomatis infection in men and women between 15–24 years of age is 2%–6%. Results obtained in our study agree with those obtained in other countries which indicated that C. trachomatis infection occurred more frequently in young, sexually active women, particularly in adolescents, but the percentage of positivity is in Roma population significantly higher.

## Seroprevalence of Lyme disease in exposed people in Slovakia

Zakutna Lubica

L Zakutna<sup>1</sup>\*, E Dorko<sup>1</sup>, E Mattova, K Bhide

<sup>1</sup>Institute of Public Health, Faculty of Medicine Kosice, Safarik University, Slovak Republic

\*Contact details: lubica.zakutna@gmail.com

## Background

Lyme disease (LB) is the most common tick-borne disease in the northern hemisphere. The seroprevalence of LB in Slovakia has already been reported in blood donors, but not in people with occupational and recreational exposure to this disease. The aim of this study was to determine the seroprevalence (antibodies IgG) against Borrelia burgdorferi sensu lato in high-risk groups in Kosice region.

## Methods

In the years 2011 and 2012 were collected blood samples from 277 participants mostly from Košice region (258), and Prešov region (19). The participants completed also the questionnaire about demographic, occupational and clinical information. There were examined 193 people with occupational exposure in agricultural area: mostly employees of agricultural farms and forests. Also 36 members of State Border and Customs Police and 46 people with no direct occupational exposure but with often stay in the countryside. We used commercial kits of Enzyme-linked immunosorbent assay to measure anti B.burgdorferi IgG antibodies.

## Results

We have detected 25 % share of IgG class of *Borrelia burgdorferi*. More seropositive results were found in persons with occupationally exposed to tick-bites (29 %) than in the group with recreational exposure (21 %) and at least by employees of the Border Police (11%). The highest occurrence of antibodies was detected in the group of persons over 50 years of age, lower in 30 – 50 years and the lowest in the group of younger than 30. Differences were related also to the gender – in women was 19 % and in men was 29 % positivity. In our investigations the highest seroprevalence was recorded in Gelnica, Michalovce, Sobrance and then in Košice district.

## Conclusions

High seropositivity in particular group of population indicates the frequent attack of infected ticks in our territory. The study was completed within the project VVGS - 17/GSD/2011 and VEGA 1 /0198/13.

## Epidemiology of alcohol dependence syndrome (F10.2) in Slovakia in 2001-2010

Dagmara Mastelova

*D Mastelova\*, A Brazinova*

*Department of Public Health, Faculty of Health Care and Social Work, Trnava University, Trnava, Slovak Republic*  
*\*Contact details: dagmar.mastelova@gmail.com*

## Background

Alcohol dependence is a mental disorder disturbing severely the affected person and disturbing their family life, work and all social existence. Factors leading to alcohol abuse and dependence are multiple and act on individual, as well as macro levels. In our study we have studied the trend of treated alcohol dependence syndrome in the Slovak Republic and its regions and tried to determine the relationship between the treated prevalence of alcohol dependence syndrome and observed regional socioeconomic and demographic factors for the period 2001-2010 in Slovakia.

## Methods

In the ecological study we studied the period 2001-2010. Data were from the National Health Information Center (treated prevalence) and the Statistical Office of the Slovak Republic (demographic and socioeconomic characteristics).

In data processing, we used standardization, linear regression models and the AIC criterion. The statistically significant results were those where  $p < 0.05$ .

## Results

Treated alcohol dependence syndrome in Slovakia for the studied period has an increasing trend. According to the Joinpoint regression the treated prevalence increased by 10.4% [95% CI (2.8, 18.7)]. According to the AIC criterion, we found that the average nominal gross salary and the proportion of male gender has the strongest impact on the increasing trend of the disease.

## Conclusions

In our study we confirmed an association between socioeconomic and environmental factors and the treated alcohol dependence syndrome. Being a male and having a lower income is the strongest risk factor of alcohol dependence. The data available for the Slovak republic do not reflect the reality accurately as they represents only the number of people treated for the observed diseases as outpatient. True population data must come out of a population survey that would allow for international comparison and proper assessment of the situation. That would lead to development and implementation of effective prevention and intervention measures.

## Study of noise pollution perception and its impact on health of Kosice inhabitants

Lucia Kuzmova

*L Kuzmova<sup>1</sup>\*, M Kuzma<sup>2</sup>, T Kimakova<sup>1</sup>*

*<sup>1</sup>Institute of Public Health, Faculty of Medicine, Safarik University, Kosice, Slovak Republic*

*<sup>2</sup>Institute of Computer Technology, Faculty of Sciences, Safarik University, Kosice, Slovak Republic*

*\*Contact details: lucka.kuzmova@gmail.com*

## Background

Determine the impact of noise pollution on health of Kosice city inhabitants.

## Methods

The study was realized in 2012. The 751 citizens in Košice city were asked to fill in questionnaire about their perception of noise pollution in their environment, they were asked to describe their lifestyle, health and street they live on.

We applied mathematical statistic methods to obtain interpretable results. We monitored 479 streets in Košice city to obtain noise pollution data samples using certified and calibrated sound level meter. We evaluated noise pollution levels according to Announcement of Ministry of Health of The Slovak Republic MZ SR 549/2007 Z. z.

### Results

We concluded that together with higher sound pressure level also annoyance from noise pollution is getting higher. We obtained significant relationship between color of eyes and sensitivity to noise pollution (RR = 0,542/0,310 =1,75), i.e.: blue-eyed people are 1.75 times more sensitive to noise pollution as people with dark color of eyes. Our study also proofed increasing sound pressure level with increasing floor number in the apartment building with 12 floors. We observed among streets up to 47 dBA sound pressure level (SPL) 16% weak immune system responses, among streets up to 57 dBA SPL 17% weak immune system responses and among streets up to 67 dBA 24% weak immune system responses. We were also able to observe increased number of pre-hypertension in relationship with noise pollution among streets up to 57 dBA and 67dBA.

### Conclusions

We could present a new way of determining acceptable equivalent levels of sound pressure for time intervals (morning, noon, afternoon, evening, night) in protected environment. They should be based on acceptable fraction of people annoyed by the noise pollution (here citizens in Košice).

This study was supported by Grant: VVGS - 16/GSD/2011

## Association of mental health problems with weight status in adult urban population in Slovakia

Marketa Lachytova

*M Lachytova<sup>1,2\*</sup>, Z Katreniakova<sup>1-3</sup>, M Behanova<sup>1-3</sup>, I Nagyova<sup>1-3</sup>*

*<sup>1</sup>Institute of Public Health - Department of Social Medicine, Faculty of Medicine, Safarik University, Kosice, Slovak Republic*

*<sup>1</sup>Graduate School Kosice Institute for Society and Health, Safarik University, Kosice, Slovak Republic*

*<sup>3</sup>Slovak Public Health Association, Kosice, Slovak Republic*

*\*Contact details: lachytova.m@gmail.com*

### Background

Obesity is a major risk factor for non-communicable diseases and its rates throughout the world have risen rapidly in recent decades. Some studies indicate that it is associated with mental well-being, but its impact on psychological morbidity remains uncertain. The aim of this study was to examine the prevalence of mental health problems (MHP) and their associations with weight status in adult urban population in Slovakia.

### Methods

Data were collected within the EU-FP7 EURO-URHIS2 project in two largest cities in Slovakia (Bratislava, Kosice). The overall response rate was 44.2% (n=1,296; mean age 59.7±16.3 years, 48.3% men). MHP was measured by the General Health Questionnaire (GHQ-12) using a score  $\geq 2$  as cut-off point. Self-reported weight and height data were grouped in two weight status categories according to gender-specific body mass index standards: 1 - (severally) underweight or normal, 2 - overweight, (very) severally overweight. Logistic regression was used to explore the associations.

### Results

The prevalence of MHP in our sample was 39.7%. But overweight or (very) severally overweight respondents did not experience more MHP than respondents with normal weight or (severally) underweight.

The prevalence of MHP was significantly higher ( $p < 0.05$ ) in females (43.3%) than in males (36.5%). Furthermore, MHP occurred more often in females than in males (OR 1.38,

95% CI 1.09-1.75,  $p < 0.01$ ) after adjusting for age and weight status.

### **Conclusion**

Our results indicate that the prevalence of MHP in general urban population is quite high in Slovakia. Studies from other countries have demonstrated high co-morbidity rates between MHP and obesity and also shown MHP to be a major risk factor for the development of some non-communicable diseases. Further analyses are needed to establish a direction and a causality of the relationship between MHP, obesity and other health problems.

## **Moderated poster session 4: 10 May 2013 (Friday), 13:30-14:00**

### **Environmental and occupational health**

#### **The importance of environmental burdens in the epidemiology of orofecal infections**

**Adriana Dudlova**

*A Dudlova*

*Institute of Public Health, Faculty of Medicine, Safarik University, Kosice, Slovak Republic  
Contact details: adka22@gmail.com*

### **Background**

Orofecal pathogens including pathogenic viruses, bacteria and parasites share a common mechanism of transmission, the fecal-oral route of transmission. Environmental burden caused by human feces is associated with serious health risks. The transmission of orofecal disease deserves special attention. Wastewater, sewage sludge which poses a risk of contamination of environment. The aim of this work is to summarize the knowledge about the possible risks of environmental burdens and their impact on the epidemiology of orofecal infections.

### **Methods**

At present, bacterial examination of wastewater samples using culture techniques, microscopy for parasitological examination and sedimentation concentration methods. It is possible to use molecular methods (f.ex. PCR).

### **Results**

Pathogens found in wastewater include enteroviruses (Coxsackie virus, Echovirus, Poliovirus), adenoviruses, noroviruses, astroviruses, rotaviruses, hepatitis A and E viruses, bacteria of the family Enterobacteriaceae, parasites protozoa (*Giardia intestinalis*, *Microsporidium* spp., *Cryptosporidium* spp.) and helminths (*Ascaris* spp. *Trichuris* spp.). Untreated sewage contains a number of pathogenic microorganisms. To ensure prevention of pollution of water resources, soil and minimize the risk to human health, it is necessary to build an effective wastewater treatment. Treated waste water is at low risk of environmental contamination. Sewage sludge, which are the product of the wastewater treatment process are high risk in terms of developmental stages of the parasite. It is necessary to further processing, depositing or composting. Environmental contamination occurs during floods, technical failures sewage systems, effluent from septic penetration. In many communities is missing sanitation and are not connected to wastewater treatment plants. Problem is also the area between Presov and Kosice.

### **Conclusions**

Due to the risks involved with orofecal infection occurrence is essential monitoring and examination of environmental samples in high-risk areas.

#### **Possibility of prevention and treatment the heavy metal poisoning by application of humic acids**

**Klara Krempaska**

*K Krempaska<sup>1</sup>\*, J Vaskova, AR Pizarro, L Vasko*

*<sup>1</sup>Dpt. of Medical and Clinical Biochemistry, Faculty of Medicine, Safarik University, Kosice, Slovak Republic*

*\*Contact details: klara.krempaska@student.upjs.sk*

### **Background**

As a result of man's industrial activity is the environmental contamination by various toxic substances. An ecological problem in the areas of intensive mining activity and processing ores are mainly heavy metals and also the other toxic elements. The most toxic are considered Cd, Pb, Hg and As.

## Methods

The principle of their is basically in two effects - by blocking the action of enzymes that provide all metabolic pathways in the body and at the same time act as strong oxidizing agents. The result of their effects is reduced resistance of the organism, resulting in increased morbidity. High exposure of the body to heavy metals causes a higher incidence of various diseases, including cancer. Humic acid may thus play an important role in solving problem in infested areas. They reduce the transition of heavy metals in chain soil to plants - animal and from meal to humans. Therefore, supplementation of humic acids appears to be useful tool in the treatment of heavy metal poisoning, especially in areas with vulnerable environment.

## Results

In the factory for production the car batteries the blood serum levels of lead from 172 workers were examined.

In 28 workers (16.3%) the limit of 500 µg/l(average 637 µg/l) was exceeded. Treatment involved 12 men volunteers whose average blood-lead level was 551 µg/l. These were taken orally 1000 mg of humic acids divided into 2 equal doses per day. After 10 weeks of consumption the decrease in 51.36% to the average 268 µg/l of lead blood serum levels was investigated.

## Conclusions

The results showed that humic acids can be used not only in prevention by heavy metals poisoning, but also in their treatment. The effectiveness of oral therapy appears to be at least as effective as the intravenous chelating substances intake.

Study was supported by VEGA 1/1236/12.

## Diagnostic utility of FENO in occupational lung diseases

Michaela Machajova

*M Machajova\*, P Gergelova*

*Department of Public Health, Faculty of Health Care and Social Work, Trnava University, Trnava, Slovak Republic*

*\*Contact details: michaela.machajova@truni.sk*

## Background

The incidence of chronic inflammatory diseases, bronchial asthma, COPD and interstitial lung diseases due to occupational exposure is worldwide increasing.

Bronchoalveolar lavage, bronchoscopy, spirometry and tests of bronchial hyperresponsiveness represent "Gold standards" in the diagnosis of lung diseases. These methods still represent the reference techniques, despite their invasiveness which causes their limited use in monitoring programs of exposure and repeated examinations in workers. Lack of early indicators of respiratory pathophysiology is the main barrier in the effective screening in workers at risk. Measurement of fractional nitric oxide in exhaled breath (FENO) becomes alternative to these examinations. FENO measurement offers a promising opportunity for its application in the work environment and would facilitate the daily work of specialists in occupational medicine. Numerous studies have provided evidence regarding the applications of NO measurements in practice, together with performance details and the strengths and the weaknesses of the test. In general, workers with positive results of specific tests for professional agents show higher FENO values compared with those who had negative results. FENO values also significantly correlated with the presence or absence of eosinophilia, as found in induced sputum, biopsies and bronchoalveolar lavage, and thus may have role as a surrogate marker for eosinophilic inflammation. Studies confirming these facts have been conducted in workers exposed to isocyanate, ozone, latex, aluminum, detergents, chlorine, organic solvents, in agricultural workers, ect. There are still several limitations for using this method in daily practice so it is necessary to increase the use of FENO measurement in studies conducted in workplaces and also in prospective longitudinal studies. Availability of commercial analyzers for FENO determination should provide a simple examination of airway inflammation both in terms of health care as well as a wide range of professional exposures in the workplace.

## Sharp injuries in the hospital settings in the United Arab Emirates

Michal Grivna

*M Grivna\*, S Shah, N Muatasem, F Ali, S Suwaidi, D Ameri*

*Institute of Public Health, College of Medicine & Health Sciences, United Arab Emirates University*

*\*Contact details: m.grivna@uaeu.ac.ae*

### Background

Sharp injuries predispose health care workers (HCWs) to serious infectious diseases. Data is lacking regarding sharp injuries among doctors and nurses working in trauma and surgical units in the United Arab Emirates (UAE).

### Methods

A cross sectional study was conducted in two major teaching hospitals Tawam and Al Ain hospitals in Al Ain, Abu Dhabi Emirate. Data on sharp injuries were collected using a pilot-tested self-administered questionnaire. The questionnaire was administered to HCWs working in the Emergency, Intensive care unit, General Surgery, Orthopedics and Obstetrics and Gynecology departments.

### Results

Of the study sample of 550 doctors and nurses approached, 306 (55.6%) responded. The prevalence of sharp injuries was 12% among the participants. A higher proportion of doctors (23%) compared to nurses (7%) had sharp injuries. There was significant correlation between those who worked  $\geq 12$  hours per shift and having sharp injury ( $p < 0.003$ ). Injuries were mostly caused by two devices; syringe needles and suture needles (40% each). About 65% of the injured believed that stress and long shift hours contributed to their injury. More nurses (87%) than doctors (50%) reported their injuries. Only 68.4 % of doctors and 86.4 % of nurses received annual sharp safety training.

### Conclusions

A high proportion of health care workers in major hospital had sharp injuries. Doctors were less likely to receive sharp safety training compared to nurses. There is need for safety training targeting health care workers in surgical and trauma units.

## Prevalence of musculoskeletal disorders among the Czech dental practitioners

Zdena Sustova

*Z Sustova\*, M Kapitan, L Hodacova*

*Department of Dentistry, Charles University in Prague, Faculty of Medicine in Hradec Kralove, Czech Republic*

*\*Contact details: sustovaz@lfhk.cuni.cz*

### Background

Musculoskeletal disorders (MSDs) present a medical, economical and social problem in developed countries. Their prevalence is connected with occupation and they are the most common healthy problem of the dentists.

The aim of this poster is to present the results of questionnaire survey concerning MSDs conducted among the dentists in the Czech Republic.

### Methods

Dental practitioners filled in the questionnaires during educational events from November 2010 to September 2011. The questionnaire consisted of three parts. The first part included general information about the respondents, the second part concerned the characteristics of workplace and work habits and the last part involved the prevalence of MSDs. Collected data were statistically analysed.

### Results

A total of 581 (72.6%) out of 800 questionnaires were returned for analysis. Our sample consisted of 71.9% (n = 418) of women and 28.1% (n = 163) of men. A total of 96.9% (n = 557) of respondents stated at least one kind of MSD regardless its intensity in the last 12 months. 30.6% (n = 176) of respondents identified their pain as mild. Middle or strong pain was declared by 66.3% (n = 381) of all respondents. The most often MSDs were pain in cervical spine, back and shoulders.

### Conclusions

The prevalence of MSDs is quite high among the dentists in the Czech Republic, mainly in women. Nevertheless, the majority of dentists feel that their general health status is very good or good. The risk of MSDs should not be underestimated and a strong attention should be directed to prevention of MSDs.

Supported by the programme PRVOUK P28/LF1/6 and P37/09.

## **Crisis management of Czech Red Cross**

Lucie Balarinova

*L Balarinova<sup>1\*</sup>, D Tuckova<sup>2</sup>, K Ivanova<sup>2</sup>*

*<sup>1</sup>Faculty of Health Sciences, Palacky University, Olomouc*

*<sup>2</sup>Department of Social Medicine and Health Care Policy,  
Faculty of Medicine and Dentistry, Palacky University,  
Olomouc, Czech Republic*

*\*Contact details: lucie.balarinova@upol.cz*

### **Background**

National Red Cross Society is the part of International movement of Red Cross and the Red Crescent. Czech Red Cross (hereinafter CRC) plays an important role in human health care. The scope of Czech Red Cross activities is wide (first, aid, blood donation, social work, international humanitarian law etc.)

This presentation deals with the CRC duty to help during disasters which is declared besides other documents in Statutes of CRC, agreement with General Directorate of Fire Rescue Service of the Czech Republic, Act No. 126/1992 Coll., Act No. 239/2000 Coll. and others.

We consider crisis management for a current topic as evidenced by floods in recent years (floods in the Czech Republic 2009 and 2010, earthquake in Haiti 2010, earthquake in Japan 2011). Crisis management CRC does not dispose of relevant dates about its current crisis alert.

### **Methods**

semi-structured interview

### **Results**

Will be presented.

### **Conclusions**

In the presentation the theoretical outcomes for research in the field of crisis management CRC will be presented, and next the outcomes gained from pre-research which was realized, and a conception for planned national research.

## **Risk perception & environmental risk management in public health protection context**

Vladimir Bencko

*V Bencko\*, JM Quinn, J Zvarova*

*Institute of Hygiene and Epidemiology, 1st Faculty of  
Medicine, Charles University in Prague, Czech Republic*

*\*Contact details: vladimir.bencko@lf1.cuni.cz*

### **Background**

When evaluating perception of environmental risks, psychosocial and psychosomatic factors may be of fundamental importance. This is the case in particular where our knowledge of the true health consequences of exposure to given factor is incomplete or its action is within the range of values where we do not anticipate the measurable biological effect. A serious consequence found in the syndrome of mass hysteria is the fact that due to differently motivated disinformation, part of the population can suffer from some psychosomatic symptoms. Those imply objective suffering and deterioration quality of life for those affected.

### **Methods and results**

The prevention of such conditions can either be systematic: early educational or popularisation campaigns, specific health education orientated to the development of constructions, and integration of the local civic activities in the program.

The purpose of this should not be a cheap belittling of the risk but reasonable explaining of its acceptable rate, and also the likely advantage to benefit from the realization of the structures. Any later efforts to inform the public about the true state of affairs are normally accepted with distrust and disbelief.

### **Conclusion**

It is therefore recommended to carry out a relevant, competent epidemiological pilot study on potential incidence of some health problems (incidence of tumours, congenital malformations, etc.) still before starting the structures, to compare - using a set of reliable data, when the building had already been approved for use - the incident phenomenon with the previous conditions. Such a study, of course, is no alibi. In cases of positive findings the study could serve as basis for rational measures to minimize the health risk due to the operation of the particular facility.

## Economical and functional situation of public health system in Visegrad countries

Tomasz Holecki

*T Holecki*<sup>1\*</sup>, *Piotr Romaniuk*<sup>2</sup>

<sup>1</sup>*Institute of Health Economy and Health Management, Public Health Department, Medical University of Silesia, Katowice, Poland*

<sup>2</sup>*Department of Health Policy, Faculty of Public Health, Medical University of Silesia, Katowice, Poland*

\*Contact details: [tholecki@sum.edu.pl](mailto:tholecki@sum.edu.pl)

### Background

V4 countries often face identical public health problems. One of the reasons for this is that all these countries were members of the communist block, with a health care qualified as a non-profitable sector of the national economy, and the medical staff belonged to the paid professional groups.

In November 2011 medical doctors' trade unions from Hungary (MOSZ), Czech Republic (LOK – SCL) Slovakia (LOZ) and Poland (OZZL) signed the agreement on cooperation and mutual support. One of the results of this agreement was a common protest action, as well as coordination of legal actions and efforts to influence the activities of state administration authorities.

In face of similar problems of V4 countries, the purpose of this study is to analyse the structural situation, including the employment and financial patterns in public health care systems of the V4 group countries, in comparison to other European Union Member States.

### Methods

Analysis of documents, statistic materials and sectoral reports

### Results

A multilevel comparative presentation of economical, financial and infrastructural situation of the health care sector in V4 countries.

### Conclusions

Retrospective determination of trends for individual levels of the analysis in context of the other UE Member States.

## Session 5:

10 May 2013 (Friday), 14:00-15:30

## New challenges for health systems in V4 countries

### Health systems in post-communist countries – a progress or stagnancy?

Piotr Romaniuk

*P Romaniuk*<sup>1</sup> \*, *T Holecki*<sup>2</sup>

<sup>1</sup>*Department of Health Policy, Faculty of Public Health, Medical University of Silesia, Katowice, Poland*

<sup>2</sup>*Institute of Health Economy and Health Management, Public Health Department, Medical University of Silesia, Katowice, Poland*

\*Contact details: [promaniuk@sum.edu.pl](mailto:promaniuk@sum.edu.pl)

### Background

After the fall of communism, all post-communist countries has started the process of social and economic transition. Some of them have been successful in transforming health systems, while the other still face disruptions negatively influencing their stability. This study is aimed at analysing, to what extent the post-communist EU Member States differ in terms of health system efficiency.

### Methods

The 2000-2010 period dynamics of change in financing health care, combined with data on life expectancy, cardiovascular diseases and cancer death rates have been used to construct the health system efficiency factor, with a specific value attributed to each country analysed.

### Results

All the countries managed to reduce cardiovascular diseases related death rates. All the countries achieved a progress in terms of the life expectancy at birth. In case of the cancer related death rates, three out of 10 countries have faced an increased level in 2010 compared to 2000. If to combine this data with the dynamics of financing, Estonia will be attributed with the highest level of efficiency factor, equal to 4,2, ahead of Czech Republic (3,03), Slovenia (2,7), and Hungary (2,6). The worse values of health system efficiency

has been observed in Lithuania (1,23), Romania (1,22) and Bulgaria (0,97).

### **Conclusions**

1. The health status of populations in post-communist countries is improving. Nonetheless, significant differences between individual countries have been observed. Only 4 out of 10 countries managed to achieve health system efficiency higher than the average result for the reference group of before 2004 EU Member States.

2. The level and increase of financing seems to be a factor of minor importance for improving performance of the health system. Additional study is needed to set the complete catalogue of determinants influencing health system efficiency, as well as the weight of individual determinants.

## **Exclusion from health system care in Poland**

**Krzysztof Kaczmarek**

*Krzysztof Kaczmarek*

*Department of Health Policy, School of Public Health,  
Medical University of Silesia in Katowice, Poland  
Contact details: [kkaczmarej@sum.edu.pl](mailto:kkaczmarej@sum.edu.pl)*

### **Background**

Among the EU members Poland belongs to the group of countries with a higher degree of risk of social exclusion. According to Eurostat, the number of people at risk of social exclusion amounted to 10,409 thousand people (27.8% of the population). It should be emphasized that since the accession to the EU, the percentage of population at risk of social exclusion decreased significantly. In 2005 its value exceeded 45%.

The aim of this study was to analyze the organizational and legal solutions within the Polish health care system, which are designed to ensure access to health care services for persons belonging to vulnerable groups at risk of exclusion.

### **Methods**

The study was based on a systematic review of the legislation governing the functioning of the health system aims to identify the records relating to marginalized groups. Said survey also expanded strategic documents concerning social policy and health and reports of public institutions and NGOs.

### **Results**

The issue of exclusion from the health care system at the strategic level has been recognized in 2004, which is reflected in the provisions contained in the National Strategy for Social Inclusion. The issue has also been developed in the National Health Programme. One of its priorities is to reduce existing health inequalities in the society mainly through the implementation of PHC services.

Review of legal regulations indicates a relatively good legal protection benefits for all social groups. The problem, however, is the practical implementation of the provisions of laws, which causes restrictions on access to services for the homeless.

Number of studies indicates a significant impact of household incomes on decisions to purchase health care services.

### **Conclusions**

1. Legal regulations provide broad access to health services for all groups
2. Policy of healthcare providers and financial situation of households significantly limits access to health care.

## **Creating a new image of hospitals in Poland**

**Anna Korczynska**

*Anna Korczynska*

*Department of Epidemiology, Medical University of Silesia in Katowice, Poland  
Contact details: [korczynska.ania@gmail.com](mailto:korczynska.ania@gmail.com)*

### **Background**

So far, in-patient sector in Poland wasn't functioning very well. Reported losses of millions of zlotys, each year in hospitals were not optimistic. One of the reasons for this situation was functioning of hospitals type SPZOZ (autonomous public health care units), unique model in Poland. The introduction of the 2011 Law on Therapeutic Activity will be the beginning of many changes in 2013, promising a radical change in the whole health sector. An example would be a required transformation of hospitals into companies, if the current legal status does not guarantee the proper functioning (leads to debt). It should be noted that the level of public spending on healthcare in Poland are not very high, and in the next few years aren't expected to increase much.

### **Methods**

Analysis of financial results (reports) of hospitals in Poland.

### **Results**

Despite major financial restrictions, which were imposed by a new law, many hospitals are still debt, and in recent years we see increase in matured payables in this sector. This situation looks different in different regions, but the two largest (in terms of population) and the richest voivodeships (provinces) in the country, experiencing finance deterioration of hospitals. Another factor contributing to the changes is to increase the interest of foreign investors in the Polish market of medical services

### **Conclusions**

Financial changes by Law on Therapeutic Activity, other economic factors and activate foreign investors, announces in the near future almost total commercialization and perhaps privatization in Polish hospitals.

## **Euclidean distances in personal management of nurses**

Jiri Vevoda

*J Vevoda\*, S Jezorska*

*Palacky University in Olomouc, Czech Republic*

*\*Contact details: jiri.vevoda@upol.cz*

### **Background**

A lack of financial funds in the system of health care can have the influence on the hospital personal management. The human resource managers will face to the new questions how to motivate general nurses and ensure their job satisfaction and retention of quality employees. The main aim of our research was to determine the order and the distance of working environment factors in personal values were. The next was to determine the order and the distance of the personal values were factors of perceived saturation and their mutual comparison.

### **Methods**

On the principles of Herzberg's two-factor motivation theory the questionnaire sheet was created. In 2011, 2200 general nurses of the hospitals in the Czech Republic were asked for an interview, 1992 of them agreed with the interview.

### **Results**

According to Euclidian distances, the highest value of the

general nurses is factor: salary/wage, care about the patients and certainty of job. Salary, certainty of job and working climate on a workplace belong between the most divergent factors (listed by importance).

### **Conclusions**

The investigation identified the factors of working environment which are possible to use for effective motivation, job satisfaction and retention of general nurses. After that there will not be need for any additional financial funding.

## **Informatics as a tool for quality improvement in public health**

Viera Rusnakova

*V Rusnakova\*, M Rusnak*

*Department of Public Health, Faculty of Health Care and Social Work, Trnava University, Trnava, Slovak Republic*

*\*Contact details: viera.rusnakova@truni.sk*

### **Background**

Meaningful use of communication and information technologies (ICT) has the potential to enhance practice in public health (PH), epidemiology and disease surveillance in global health settings.

The aim of the presentation is to summarize the development in public health informatics and to comment on the impact of existing tools on effectiveness and quality in public health research and practice as well as to articulate best practices in advancing ICT utilization in PH and epidemiology.

### **Methods**

Both authors publish results from systematically followed literature sources in the horizon of 5 years in this paper

### **Results**

Differences in levels of utilization of ICT were documented among PH institutions of various countries. Within emerging technologies there are systems of Real-Time Data collection, Electronic Health Records and Health Information Exchange. Health Data utilization is linked with Legal, Policy, Ethical, Regulatory, and Practical Issues, which are mostly underdeveloped. Meaningful use of health information is determined significantly by quality of primary information. However optimal information management is not only about technologies, but requires a

qualified PH workforce and the support of multidisciplinary PH informatics research.

Examples of surveillance systems show the need for strict implementation of agreed guidelines. Such documents and best practices for global use come mostly from the World Health Organization and the CDC in the United States. International Health Regulations support global surveillance systems, which should span the full spectrum of public health emergencies (i.e. infectious, chronic, injury, and environmental) specifically addressing events with a potential of effects beyond countries borders.

### **Conclusions**

Public health informatics is a discipline, which comprises up-to-date ICT with approaches of modern epidemiology, syndromic surveillance and public health policies. PH authorities are thus supported in addressing health problems in a holistic and synergistic manner for both, infectious and non-communicable diseases, focusing on countries disease priorities in coherent way.

## **Active ageing - policy versus expectations of elderly people**

**Malwina Respondek**

*M Respondek<sup>1\*</sup>, H Pudlo<sup>2</sup>*

*<sup>1</sup>Medical University of Silesia, PhD student*

*<sup>2</sup>Medical University of Silesia, Katowice, Poland*

*\*Contact details: malwina.respondek@gmail.com*

### **Background**

The issue of elder and old people is a problem which has recently paid more and more attention. The problems of elderly people have also been realized by European Union and many other government and non-government institutions. The year 2012 was called European Year for Active Ageing and Solidarity between Generations. The aim of study is to raise the awareness of the public opinion that elder people make some contribution into the society. It want to encourage policymakers and relevant stakeholders at all levels to take action with the aim of creating better opportunities for active ageing and healthy ageing.

### **Methods**

The article is a review of the world and national literature. We have been acquainted with the publications and websites of government institutions that the problem of the elderly

people. In addition to this in the period between November 2012 and January 2013 the survey has been distributed among the elderly.

### **Results**

A great number of initiatives for the elderly has been recently undertaken. They relate to many policy areas like employment, social participation, independent living, health care and communications. Unfortunately promises and plans are not always implemented fairly as it is reflected in the dissatisfaction of seniors.

### **Conclusions**

Active ageing means becoming old in good health and as a full member of the society feeling more fulfilled in our jobs, more independent in our daily lives and more involved as citizens. No matter how old we are, we can still play our part in the society and enjoy better quality of life. The challenge is to take as much benefits as possible from our potential even at more advanced age.

## List of authors

Baird S., 26  
Balarinova L., 39  
Behanova M., 15  
Bencko V., 39  
Benedikovicova A., 22  
Bevan S., 18  
Białek-Dratwa A., 5  
Brazinova A., 28  
Breznoscakova D., 29  
Brukało K., 8  
Buzgova R., 19  
Celedova L., 20  
Dimunova L., 24  
Dlouhy M., 30  
Dudlova A., 36  
Gonsorova V., 32  
Grivna M., 38  
Gulis G., 17  
Halanova M., 33  
Harokova S., 10  
Hertelyova Z., 23  
Hodacova L., 23  
Holecki T., 40  
Jurickova L., 31  
Kaczmarek K., 41  
Kalinova Z., 32, 33  
Korczyńska A., 41  
Kovanicova M., 11  
Krempaska K., 36  
Krokavcova-Chylova M., 3, 31  
Kukielczak K., 20  
Kuzmova L., 34  
Lagiewka K., 13  
Lachytova M., 35  
Laidmäe V., 9  
Machajova M., 37  
Majdan M., 29  
Mastelova D., 34  
Mergescikova M., 26  
Mikula P., 3, 18  
Mrazik P., 10  
Murajda L., 16  
Nagyova I., 21, 25  
Nachtmanova K., 6  
O'Mullane M., 17  
Palova E., 12  
Pavlickova A., 12  
Popowski P., 14  
Prihodova L., 27  
Rakova J., 11  
Rehorcikova V., 22  
Respondek M., 43  
Ricciardi W., 3  
Rimarova K., 4  
Romaniuk P., 40  
Rusnakova V., 42  
Sikorova L., 19  
Silarova B., 28  
Skodova Z., 7  
Smolka I., 15  
Sprocha B., 14  
Stastna V., 7  
Stefkova G., 9  
Susinkova J., 24  
Sustova Z., 38  
Szelagowski T., 13  
Tuckova D., 8  
Verhoeff A., 4  
Vevoda J., 42  
Zakutna L., 33  
Zaric D., 6  
Zeegers Paget D., 4





**SAVEZ**  
SLOVENSKÁ ASOCIÁCIA  
VEREJNEHO ZDRAVIA

**SAVEZ**  
Trieda SNP 1, 040 11 Kosice  
Slovak Republic  
E-mail: [savez@savez.sk](mailto:savez@savez.sk)  
Website: [www.savez.sk](http://www.savez.sk)