DISCUSSION PAPERS

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(EDS.)

Abstract Book for the 18th Nordic Meeting in Social Medicine and Public Health

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Valopaino Oy
Helsinki 2007

Welcome to the 18th Nordic Meeting in Social Medicine and Public Health!

The Nordic Societies on Public Health and Social Medicine have organised Nordic scientific meetings every second year since the 1960s. In Finland, this conference was last time held in 1997 in Helsinki and before that in 1993 in Kuopio. Now it is the Finnish turn again. In recent years, it has been challenging to compete with all other international public health meetings. Therefore, the Nordic societies have made a strategic decision to change the scope and arrangements: This meeting will be organised as a separate conference in conjunction of the European Public Health Association (EUPHA) meeting in case the conference is organised in some of the five Nordic countries.

The primary aim of this meeting is to present the Nordic Welfare State and its achievements and challenges. In all Nordic countries, a public health insurance and mainly publicly financed health care services have improved citizens' health and well-being. Despite the fact that health and social welfare policies aim at equity, health differences between population groups are relatively large. Health differences among children and adolescent are small, but increasing by age. Inequity and health differences have been reported also by gender, ethnicity, socio-economic status and region, to mention some.

The plenary sessions in the meeting will present the general features of the Nordic Welfare Model, such as universalism and egalitarianism related to social benefits and health services. Besides Nordic comparative studies on welfare state, the conference will focus on those fields in health and social policy, where Nordic countries have chosen different ways to organise the services. Children and elderly will be used as case examples as vulnerable groups requiring special protection.

Besides two keynote sessions, there will be eight parallel sessions in three slots and a poster session. And please, do not forget the interesting seminar with the title 'Young and blue in the Welfare state - what is wrong?' The time table will be busy, but there will be good opportunities for informal exchange of ideas and for meeting old and making new friends during the breaks and the Conference dinner on Wednesday evening.

This conference would never have become true without contributions of several people. I would like to thank all members of the local organising committee, Nordic contact persons in the national organizations (Danish Society of Public Health, Icelandic Public Health Association, Norwegian Society of Public Health and Swedish Association of Social Medicine) and the Nordic scientific committee for their help and enthusiasm. I would also like to thank EUPHA for co-organising the Conference and the Academy of Finland for its support.

I wish you all a very pleasant conference!

Mika Gissler
on the behalf of the local organising committee

Content

Programme

WEDNESDAY 10 OCTOBER 2007

13.00 Opening of the Nordic meeting (Helsinki Hall)
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The Nordic Experience: Welfare States and Public Heath
– Olle Lundberg, Center of Health Equity Studies, Sweden
Case Children
– Anne-Marie Nybo Andersen, National Institute for Public Health, Denmark
Case Elderly
– Marja Vaarama, University of Lapland, Finland

14.45 Coffee

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2. Mauri Marttunen: Development of mental health of young people in Finland. Time trends and interpretation
3. Arja Rimpelä: Development of health, health behaviours and living conditions of young people in Finland. Time trends and interpretation
4. Anton Lager: Development of mental health of young people in Sweden. Time trends and interpretation with emphasis on labour market conditions

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2. J. I. Virtanen, E. Lahelma, L. Köhler, L.T. Berntsson: Parents' satisfaction with their children's health services in the Nordic countries
3. Ingelise Andersen, Niels Kr. Rasmussen, P. O. Östergren, Frida Eek, Mathias Grahn, Finn Diderichsen: Does job strain mediate the effect of socio-economic group on smoking behaviour? The impact of different health policies in Denmark and Sweden.
4. Hanna B. Rasmussen, JJ Jensen: The Danish structural reform: Health agreements between the region and municipality
5. Riikka Lämsä: As a patient in hospital

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2. Tarja Javanainen-Levonen, Marita Poskiparta, Pauli Rintala: Opportunities for physical activity promotion in Finnish child health clinics as perceived by public health nurses
3. Laura Kestilä, Ossi Rahkonen, Tuija Martelin, Seppo Koskinen: The contribution of childhood circumstances, current living conditions and health behaviour to educational health differences in early adulthood
4. Margareta Lindén-Boström, Carina Persson, Lisbet Omberg: Determinants of mental health among teens in Örebro County Sweden 2005
5. LT Berndtsson, Köhler L, Vuille JC: Health, economy and social capital in Nordic children and their families. A comparison between 1984 and 1996.

16.15 Break

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5. Else-Karin Grøholt: Health and wellbeing of young people in Norway – time trends and interpretations
6. Finn Diderichsen: Development of health and living conditions of young people in Denmark. Time trend and interpretation with emphasis on labour market arrangements for young people
7. Geir Gunnlaugsson: Development of health of young people in Iceland. Time trend and interpretation
8. Sven Bremberg: Conclusion

2B Social inequalities (Room 22+23)

1. Mika Gissler, Ossi Rahkonen, Laust H Mortensen, Elina Hemminki for NorCHASE (Nordic Collaborative project on health and social inequality in early life): Gender differences in child and adolescent mortality in the Nordic countries 1980–2000
2. Elizabeth Webb, Diana Kuh, Anne Peasey, Andrzej Pajak, Sofia Malyutina, Ruzena Kubinova, Roman Topor-Madry, Diana Denisova, Nada Capkova, Michael Marmot, Martin Bobak: Childhood socioeconomic circumstances and adult height and leg length in Central and Eastern Europe
3. Akseli Aittomäki, Eero Lahelma, Ossi Rahkonen, Päivi Leino-Arjas, Pekka Martikainen: Physical workload as an explanation for class inequalities in ill-health and functioning
4. Meri Larivaara: Social networks and self-described health among the poor in Finland
5. Erling Solheim: Social class as a social mechanism to explain the gender gap in sickness absence among Norwegian employees
6. Oleg Shumilov, Elena Kasatkina, Andi Weydahl, Alexey Chramov, Alexey Enykeev: Heliogeophysical and socioeconomic factor influence on suicide occurrence and mortality caused by cardiovascular diseases behind the Polar Circle

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1. Sakari Suominen, Sara Valanto, Päivi Ovaskainen: Sense of coherence (SOC) as a predictor of register based ischaemic heart disease and stroke
2. Liisa Mäkivaara, Tiina Ahti, Tiina Luukkaala, Matti Hakama, Jari Laurikka: Arterial disease and varicose veins
3. Tiina Ahti, Liisa Mäkivaara, Tiina Luukkaala, Matti Hakama, Jari Laurikka: Tampere Varicose Vein Study: Family history and the prevalence and the incidence of varicose veins
4. Sturla Gjesdal, Espen Bratberg, Johan Gunnar Mæland: Musculoskeletal disorders and social insurance in Norway: the gender-gap revisited
5. Kari Tikkinen, Teuvo Tammela, Aila Tiitinen, Aila Rissanen, Anssi Auvinen: Relation of obesity with urinary storage symptoms
6. Jan Saarela, Fjalar Finnäs: Geographic ancestry and cause-specific mortality in a national population

18.15 End of first day

20.00 Dinner at Hotel Arthur

THURSDAY 11 OCTOBER 2007

08.30 Plenary session 2: New trends in Public Health (Helsinki Hall)
The New Public Health, Governance and Health Citizenship
– Ilpo Helén, University of Helsinki, Finland
The Norwegian Welfare Reform from a Public Health Perspective
– Dag Bruusgaard, University of Oslo, Norway

09.45 Coffee

10.15 Parallel sessions 3

3A Reproductive and perinatal health (Room 24)

1. Camilla Schmidt Morgen, Christina Bjørk, Per Kragh Andersen, Laust Hvas Mortensen, Anne-Marie Nybo Andersen: Five socioeconomic measures and preterm birth. A study within in the Danish National Birth Cohort
2. Bharathi Devi, Myneni: Periodontitis – A risk factor for low birth weight and preterm pregnancy
3. Mika Gissler, Maili Malin: The maternal care and perinatal outcomes among women of migrant origin in Finland
4. Maili Malin, Mika Gissler: Induced abortions among women of migrant origin in Finland

3B Health promotion and community health (Helsinki Hall)

1. Ulla Vaeggemose, Merete Bech, Lars Ehlers, Lotte Jensen, Mette Kjoelby Groth, Joergen Aagaard: Health promotion in social-psychiatry in Denmark
2. A. G. Ásgeirsdóttir, Þ. B. Sveinsdóttir, D. G Guðmundsdóttir, Á Matthíasdóttir, F. Falvey and G. Masanotti: The Healthy Together Project – Training needs analysis
3. A. Danesjö-Gustavsson, T. Falk, L Omberg: Coordinated community work as a strategy for improving health in Örebro County, Sweden 2003-2006
4. Eva Järliden, Linnea Hedkvist, Lisbeth Omberg: Basic conditions for Public Health strategies at the municipality level in Örebro County
5. Lulu Hjarnoe: Integration of Pakistani Immigrants in two Nordic welfare states: Denmark and Norway.

3C Health behaviour and health surveys (Room 22+23)

1. E. Rusu, G. Radulian, M. Vladica, A. Dragomir: Successful lifestyle intervention for metabolic syndrome patients
2. Ileana Prejbeanu, Cornelia Rada, Monica Tarcea: Sexual behaviour in urban areas of Romania
3. M. B. von Bonsdorff, T. Rantanen, R. Leinonen, U. M. Kujala, T. Törmäkangas, M. Mänty, E. Heikkinen: Effect of physical activity and disability on all-cause hospital and long-term care in the last year of life
4. Fredrica Nyqvist, Fjalar Finnäs, Jan Saarela: How sensitive is self-rated health to dichotomization? Further evidence on the Health 2000 Survey in Finland

3D Occupational health (Room 21)

1. Angela Poroli: Evaluation of a project for workplace health in municipality administration
2. Åsa Bringsén, H Ingemar Andersson, Göran Ejlertsson: Workplace health promotion programs can change employees' health for the worse?
3. Anne Kari Skøien, Kjersti Wilhelmsen, Sturla Gjesdal: Occupational disability caused by dizziness and vertigo, a register-based prospective study
4. Anne Maarit Koponen: Psychosocial work environment and emotional exhaustion of primary health care personnel – Does a service provision model play a role?
5. Christian Ståhl, Kerstin Ekberg: Multidisciplinary teams as an arena for the decision of work ability

11.30– Lunch after which the EUPHA meeting starts
12.30

ABSTRACTS FOR ORAL PRESENTATIONS

Young and Blue in the Welfare state – what is wrong?

Helsinki Hall. Chair: Sven Bremberg

1A PART 1

Parallel sessions 1: Wednesday Oct 10th, 2007 15.00–16:15

- Sven Bremberg: Introduction to the theme
- Mauri Marttunen: Development of mental health of young people in Finland. Time trends and interpretation
- Arja Rimpelä: Development of health, health behaviours and living conditions of young people in Finland. Time trends and interpretation
- Anton Lager: Development of mental health of young people in Sweden. Time trends and interpretation with emphasis on labour market conditions

2 A PART 2

Parallel sessions 2: Wednesday Oct 10th, 2007 16:30–18:15

- Else-Karin Grøholt: Health and wellbeing of young people in Norway - time trends and interpretations
- Finn Diderichsen: Development of health and living conditions of young people in Denmark. Time trend and interpretation with emphasis on labour market arrangements for young people
- Geir Gunnlaugsson: Development of health of of young people in Iceland. Time trend and interpretation
- Sven Bremberg: Conclusion

Parallel sessions 1: Wednesday Oct 10th, 2007 15.00–16:15

1B Health policy and health services research

Room 22+23. Chair: Finn Kamper-Jørgensen

Are diabetic patients discriminated? Use of coronary revascularisations in relation to need among diabetic and non-diabetic people in Finland 1995–2002

Vehko Tuulikki, Arffman Martti, Manderbacka Kristiina, Turunen Heli¸ Keskimäki Ilmo
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Objective: To evaluate disparities in access to revascularisations among diabetic and non-diabetic CHD patients in Finland.

Data and methods: Data on Finns aged 40–79 with diabetes and CHD in 1995-2002 were constructed linking data from the national health care and insurance, and causes of death registers using personal identification numbers. The data were used to compare the trends in age-adjusted CHD incidence, prevalence, mortality and coronary revascularisation rates in diabetic and non-diabetic men and women. To evaluate access to care, the time to the first revascularisation were analysed using Cox's regression among incident CHD patients with and without prior history of diabetes.

Results: According to our data the number of incident CHD cases was 9/1000 among diabetic and 4/1000 among non-diabetic men. For CHD mortality, the disparity was 7 versus 2/1000. For women the corresponding figures were 7 and 2/1000 for incidence and 4 and 1/1000 for mortality. In 1995–2002, the relative differences in CHD incidence and mortality remained stable. In the period, while coronary revascularisation rates increased more or less equally among diabetic and non-diabetic patients (20% for men and 35–55% for women), the higher rates among diabetic patients also remained relatively stable (RR: 1.8–2.1 in men and 3.9–4.7 in women). Preliminary results of time to operation analyses suggest that the first revascularisations were performed later among diabetic than non-diabetic patients. One year after CHD diagnosis about 28% of non-diabetic patients but only 23% of diabetic patients had undergone revascularisation. There was no difference in access to CABG but non-diabetic patients underwent more often PTCA.

Conclusions: Overall rates of coronary revascularisations in Finland among diabetic and non-diabetic people compares with the relative differences in need approximated with CHD morbidity and mortality. However, newly diagnosed CHD patients without diabetes seem to undergo the revascularisation sooner after the diagnosis than diabetic patients.

Parents' satisfaction with their children's health services in the Nordic countries

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1 University of Helsinki, Finland,
2 Nordic School of Public Health, Gothenburg, Sweden
3 University of Gothenburg, Sweden.

Aims: The aim was to analyze parents' satisfaction with their children's health services in the Nordic countries in the 1990s.

Methods: The target group was parents' of children aged 2–17 years from Denmark, Finland, Iceland, Norway and Sweden. A cross-sectional population survey using random samples comprising 3,000 children in each country were conducted in 1996. Parents' (n = 15.000) satisfaction with their children's health services e.g. GP, dental, district nurse was studied. The parents were asked in the questionnaire survey how satisfied they were with accessibility of care, personal treatment, quality and continuity of care with regard to their children's contacts to health services during the last 12 months. The response rate was 70%. Differences were tested by chi-square test.

Results: In general, the parents were very satisfied with their children's contacts to health services in the Nordic countries. The parents were most satisfied with the personal treatment of their child, the percentages varying between 94% and 96%. With regard to accessibility and quality of care, a high number of parents (84% to 93%) were moderately or highly satisfied with the health services. The lowest figures were found for continuity of care aspect; 25% of parents in Norway and 26% of them in Finland were dissatisfied with these. The differences between the countries were statistically significant ($p < 0.001$). No major differences were found between the different health services. However, the Finnish parents were most dissatisfied with continuity of children's health care (25% to 33%).

Conclusion: Parents were in general very satisfied with their children's health services in the Nordic countries in the 1990s. More emphases should be laid to continuity of care in the future.

Does job strain mediate the effect of socio-economic group on smoking behaviour? The impact of different health policies in Denmark and Sweden

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4 Department of Social Medicine, Malmö University Hospital, Malmö, Sweden

Aim: The aim of this study is to compare the impact of socio-economic groups (SEGs) on the risk of being daily smoker or quitter, and to investigate whether the potentially mediating effect

of psychosocial working conditions is similar in representative samples of the Danish and the Swedish adult population in the Öresund region.
Methods: The study populations consist of 10,049 employees, aged 18–64 years, 51% women, randomly selected from the general populations in the Öresund region, year 1999–2000. OR for daily smoking and "non-quitters" were computed for two age groups and two SEGs in gender specific models, stratified by country. The association between SEG, current smoking/quitting and influence at work, job demand and job strain, respectively, was tested by means of logistic regression.

Results: The prevalence of smokers was higher among Danes and smoking cessation more successful among Swedes. In the younger population the estimates among Danes were steeper among men compared to women. Among younger Swedes the estimates were steeper among women compared to men. Patterns were more similar across gender and country in the population aged 45–64 years. The prevalence of low influence, high demand and job-strain was higher were more socially skewed among the Swedes, but did not mediate the effect of SEG on smoking behavior.

Conclusion: Denmark and Sweden are both in stage four of the smoking epidemic. The lower smoking prevalence and the higher quit-rates among Swedes compared to Danes are probably due to smoking policies that all have been implemented earlier and more actively in Sweden than Denmark. Both countries had social differences in smoking that in absolute terms were rather similar, but in relative terms were higher in Sweden. The mediating effect of psychosocial working conditions was lacking, hence the determinants of smoking behaviors must be found somewhere else in the social and cultural context.

The Danish structural reform: Health agreements between the region and municipality

Rasmussen Hanna B., Jensen JJ
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As of January 2007 the new administrational structural reform became effective in Denmark. The changes made have an influence on the organization of public health work. One of the major changes was a decrease in the number of the municipalities from 271 to 98. The reason for changing was the wish to give the municipalities more responsibility, decentralize some of the tasks, and give citizens better service. As a result of the structural reform the municipalities took over additional tasks in the area of health promotion, primary prevention and rehabilitation. One of the new responsibilities is to establish "health agreements" (Sundhedsaftaler) between the municipalities and regions on cooperation and coordination within the health area. The agreements have to be accepted by The National Board of Health, and according to the legislation they have to include six compulsory themes:

- hospital discharging process for weak, elderly patients;
- hospital admittance process;
- rehabilitation;
- aids and appliances for handicapped persons and people discharged from hospital;
- prevention and public health promotion, including patient oriented (secondary) prevention;
- caring for people with mental disorder.

Apart from the compulsory themes, the municipalities and regions can mutually agree on other themes, which do not need to be confirmed by The National Board of Health. In my presentation I will present the idea of health agreements, and perspectives and challenges related to public health. I will concentrate on two examples of health agreements from Tønder and Esbjerg municipalities and compare them, with focus on similarities and differences and in which way the characteristics of the municipality influence health agreements.

As a patient in hospital

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A hospital institution is obliged to change by the changing society (Wiili-Peltola 2006). What these changes mean for a patient in the hospital? The present scientific debate describes the patient as a consumer (e.g. White 2000), a lay expert (e.g. Charles & Wheelan 1999) or a participant for his/her own treatment (e.g. Williams & Calnan 1996). What kind of role does a hospitalized patient receive? In this study the hospital is considered from the patient's view. The study will analyze what kind of events, practices, expectations etc. the patient confronts while hospitalized. What kind of strengths and weaknesses appears in modern hospital from the patient's view? The study is health sociological and ethnographic. It will conceptualize a position and an implication for the contemporary hospital patient. The findings of the study can be used in developing hospital patient's role and participation in tomorrow's hospital. The data will be collected by participant observation in two hospital wards. The data collection will last eight months and the data will include 1) field notes 2) written documents (e.g. patients' files, feedback forms) 3) discussions like interviews with the patients and the staff. The collection of data is at a midway point. The analysis method is qualitative content analysis.

There are some examples of preliminary findings of patients' reality in hospital ward:

Space: Patients usually do not have an experience of privacy either in their own sickroom because of the interventions by the staff can interrupt it at any time.

Time: The patient's time is polarized to a formal time (e.g. medical turn, nursing treatments) and a time of waiting.

Social relationships between the patients are divided as time: a negative solidarity is typical for the formal time and an acquaintance with roommates for the time of waiting.

Knowledge: Hospital is full of knowledge but patients have often a feeling of a lack of knowledge.

Most aspects of hospital care are well practiced, but there are still elements (e.g. a flagrant breakdown of privacy protection during a medical turn), which need to be addressed. The reasons for breakdowns often come from the hospital environment or sometimes from conflicts between different actor groups in hospital.

Parallel sessions 1: Wednesday Oct 10th, 2007 15.00–16:15

1C Children and adolescent

Room 24. Chair: Sakari Karvonen

Ecological determinancy of health status of children in Ust-Kamenogorsk lead-zinc biogeochemical province

Khussainova Sh.N., Savinkov A.F., Lim L.V., Kozhanov V.V., Egorychev V.E., Karsybekova L.M., Sharipova M.N., Kulniyazova G.M., Salpynova A.L.
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Purpose of research was to study mortality and sickness rate of children 0–5 years in conditions of ecologically unfavorable city in a district of Semipalatinsk nuclear testing ground.

Materials and methods. Epidemiological approach in estimation of mortality and sickness rate of children from 0 till 5 years old living in Ust-Kamenogorsk city – industrial region of a lead-zinc industry, and in Almaty (a megacity without big manufactures).

Results. Comparison of pollution levels of the studied cities has shown, that impurity of ground with lead in Ust-Kamenogorsk in 5-30 times exceeds one in Almaty. Appreciable differences was determined in water pollution by lead. In both cities pipe water was least polluted. Snow water in Ust-Kamenogorsk was 2-3 times more polluted, than in Almaty. The soil pollution with zinc in Ust-Kamenogorsk was higher, than in Almaty in 2.9-5.6 times and exceeded its background in 2.5–10.2 times. In children of Ust-Kamenogorsk the average contents of lead in urine has appeared higher, than in Almaty in 1,7 time, of zinc – in 1,6 times, in hairs – in 2 times, nails – in 3 times. Factorial determinancy of higher levels of children's mortality in Ust-Kamenogorsk was caused by high probability of children's mortality at employed women ($p < 0.01$),women-workers and students ($p < 0.05$). A high share of mothers had sexual infections ($p < 0.01$), toxicosis during pregnancy ($p < 0.01$), low weight of a newborn – up to 1,5 kg ($p < 0.001$), low Apgar scale rate (up to 3 points) ($p < 0.001$). Differences of congenital anomalies of development in Ust Kamenogorsk and Almaty were revealed. Among factors that promoted children's death, were revealed the next: socio-economical, medico-organizational, biological. In ecologically unfavorable city practically each second child (47%) already has a generated chronic pathology (3 group of health). Mostly digestive, respiratory and nervous systems were affected. Results of our research confirm an appointment, that ecological load has an affective influence on children's health status.

Opportunities for physical activity promotion in Finnish child health clinics as perceived by public health nurses

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2 University of Jyväskylä, Department of Health Sciences.
3 University of Jyväskylä, Department of Sport Sciences. Finland.

Primary health care for Finnish children under the school age is organized in Child Health Clinics [CHC], including 16–20 scheduled check-ups with a public health nurse [PHN]. The aim of this qualitative research was firstly to describe the facilitators and restrictors for physical activity promotion as perceived by PHNs in these settings. Secondly, the aim was to describe the developmental ideas concerning physical activity promotion. Five regional focus groups were conducted with twenty-four informants selected by purposive sampling. Verbatim transcripts

were analyzed by qualitative content analysis, supplemented by quantitative analysis. The personal characteristics and abilities of PHNs, the nature of daily work in CHC, and collaboration within health care and in the community were listed as determinants of physical activity promotion. PHNs stressed the importance of population responsibility as a facilitator for physical activity promotion within health care in every focus group. Particularly rural PHNs highlighted their possibility to get to know the child and the family individually, which facilitates client-centred working methods. The limited knowledge on physical activity, including adapted physical activity and service-delivery in physical activity restricts physical activity promotion in PHNs´ viewpoint. Furthermore, PHNs were skeptical about the effects of counseling as well as considering time and material constraints as restricting factors. For developmental issues, PHNs stressed that they need to be better informed about service-delivery in physical activity for children and families. Evidently, even experienced PHNs – such as in this study – with some education in physical activity during their professional training, do not feel capable of promoting physical activity of the child and the family according to the guidelines and recommendations for health care. Therefore, this research proposes recommendations concerning the training of PHNs, working methods in CHC, resources for collaboration, and sharing information on service-delivery in physical activity with health care.

The contribution of childhood circumstances, current living conditions and health behaviour to educational health differences in early adulthood

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2 University of Helsinki, Department of Public Health, Helsinki, Finland

Background: The life-course approach has emphasised the contribution of living conditions in childhood and youth to adult health inequalities. However, this contribution is still poorly known in early adulthood. Even less is known about how environmental and behavioural factors in adulthood mediate, accentuate or protect from the effects of earlier adverse experiences. The aim of this study is a) to explore the educational differences in self-rated health in early adulthood, b) to assess how childhood social circumstances, current living conditions and health behaviour explain of the educational health differences, and c) to assess to which extent health-related behavioural factors and current living conditions mediate the effect of childhood circumstances on health differences in young adulthood.

Participants and setting: A representative two-stage cluster sample (N = 1894, participation rate 79%) of young adults aged 18–29 in 2000 in Finland.

Design and measurements: A nation-wide cross-sectional study with retrospective inquiries. The outcome measure was poor self-rated health.

Main findings: There were wide educational differences in self-rated health already in early adulthood: the lower the education the more likely it was to report poor health. Childhood social circumstances explained part of the health differences between educational groups in young adulthood. However, their effect was largely mediated by employment paths and adopted health behaviours. Health behaviours were strongly associated with educational health differences in early adulthood.

Conclusions: Understanding the reasons and pathways to health inequalities, and improving the living conditions of families with children, could prevent the unfortunate trajectories by which poor health and health differences are developed. More research is needed on the causes of the causes of health differences.

Determinants of mental health among teens in Örebro County Sweden 2005

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Background: Mental health is an important part of public health. It is especially disturbing that the mental health problems among youths, in particular among girls, have increased. Nearly 8 700 students in Örebro County answered questions about school and family conditions, lifestyle and self-reported mental and physical health in the spring 2005. When presenting the first results it was obvious that poor mental health was more common among girls and especially among the older girls. The authors were commissioned by the political board of health and medical care in Örebro County Council to investigate this more carefully using the presented data.

Methods: The study is based on a self-reported survey questionnaire to all 10 321 students in school year seven, nine and eleven in public funded comprehensive schools in Örebro County, April 2005. The association between poor mental health, family conditions, school conditions, life style and background factors was investigated using logistic regression models. Girls and boys were analysed separately.

Results: The statistically significant independent variables among girls where (reference groups presented): trust in parental support in case of problems, possibility to influence what goes on in school, existence of friends in school, not being bullied, to enjoy school, not alone in the leisure time, between one and ten hours of computer time, no alcohol consumption, regular meal hours and school year. The statistically significant variables among boys were slightly different. One more variable was significant: both parents working (reference group) and three variables that was significant for girls was not significant among boys (possibility to influence what goes on in school, between one and ten hours of computer time and regular meal hours).

Conclusions: Two of the most important areas concerning mental health among youths are to work with the support to families and health promoting schools.

Health, economy and social capital in Nordic children and their families. A comparison between 1984 and 1996

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Background: Recent studies from different countries show that psychosocial health problems in children have increased in the industrialised countries. The aim of the study was to analyse the development in the health of children that occurred in the five Nordic countries between 1984

and 1996 and relate it to the changes in economic growth and social capital in these countries during the same period. There is need to explain which factors are associated with the increase of children's health problems to design successful strategies of prevention.

Methods: Two cross-sectional studies covered a representative sample of children, aged 2–17 years in each country, a total of 10,219 in 1984 and 10,317 in 1996. The data were collected by mailed questionnaires. Statistical associations between a health indicator (the absence of psychosomatic complaints), economic indicators (social class, housing, and disposable income) and social capital indicators (parents' and children's organised group activities, parents playing with their children, and the absence of bullying) within samples and between corresponding values in different samples across subgroups (defined by country and area of residence) were evaluated using multiple linear regression.

Results: In both surveys, there was a statistically highly significant association between the health indicator and the social capital indicators ($p < 0.001$), whereas the economy indicators were not related to either of the other two types of measure. Change in health was associated positively with change in social capital ($p < 0.025$) and negatively with change in economy ($p < 0.005$).

Conclusions: The study provides strong support for the concept of social capital as an important determinant of children's health. In affluent countries it is not enough to consider the material conditions of life without taking into account also social aspects. During the period since the second survey in 1996, many observations suggest a progressive loss in this respect with an increasingly harsh social climate, such as increased violence and more bullying. Health policy strategies should aim at making participation in collaborative activities attractive to children and their families. These programmes may produce positive effects even in areas and periods with economic constraints.

Parallel sessions 2: Wednesday Oct 10th, 2007 16:30–18:15

2B Social inequalities

Room 22+23. Chair: Bjørgulf Claussen

Gender differences in child and adolescent mortality in the Nordic countries 1980–2000

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Background: Unlike perinatal and infant mortality, there are only few studies on mortality of older children. The purpose of this study is to examine gender differences in child and adolescent mortality by country, age and socio-economic position in the Nordic countries.

Material and methods: Data on all live born children were received from national population-covering birth registries from 1980 to 2000 (Denmark: n = 1 184 926, Finland: n = 841 470, Norway: n = 1 090 127, Sweden n =1 961 911). Mortality data until the age of 20 years were received from the national cause-of-death registers. Socio-economic position was defined by mother's and father's longest education (in years), and this data were received from national educational registers.

Results: The overall mortality was higher in Denmark and Norway than in Finland and Sweden both among boys and girls. Compared to girls, Denmark had the highest excess mortality for boys (32% higher), followed by Norway (28%), Sweden (27%), and Finland (24%). The boys' excess mortality varied by age and country. The mortality risk decreased by mothers' education among boys. For girls this was found systematically only in Finland and Norway. For paternal education, the differences were smaller. Eleven percent of boys' deaths and 10 percent of girls' deaths were due to external causes, mainly unintentional injury deaths or intentional deaths. The share of external death causes increased by age, and decreased by education, and the gender difference was larger, if the mother or father had a short education.

Conclusion: Boys have excess mortality and a steeper socio-economic gradient than girls, partly explained by deaths from external causes. A more detailed analysis is needed to study, if the share of avoidable deaths is higher among children whose parents have shorter education.

Childhood socioeconomic circumstances and adult height and leg length in Central and Eastern Europe

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Background: Adult height and leg length have been shown to be positively associated with childhood socioeconomic circumstances in several studies in western populations. This study will determine whether similar associations are observable in settings with different social histories, and will assess whether adult leg length is more strongly associated than adult height.

Methods: Random samples of men and women aged 45–69 years were taken from population registers in Novosibirsk (Russia), Krakow (Poland) and six towns of the Czech Republic, recruiting nearly 29,000 people. Participants completed a questionnaire which included questions regarding their mother's and father's education (not available in the Czech Republic) and ownership of several household items when they were 10 years old. Participants' standing and sitting heights were measured and from these an estimate of leg length was derived. Associations between indicators of childhood socio-economic circumstances and anthropometric measures were analysed using linear regression.

Results: Russians were shorter and reported fewer household assets at age 10 than Czechs and Poles. Parental education and household assets were strongly associated with each other and both were independently associated with height, leg length and trunk length. Height was associated with childhood circumstances more strongly than leg length. The associations of childhood circumstances with the leg/trunk ratio were weak and inconsistent.

Conclusion: In these urban populations in Eastern Europe, adult height is associated with childhood conditions at least as strongly as leg length.

Physical workload as an explanation for class inequalities in ill-health and functioning

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Background: Although workplace as a determinant of class differences in illness has lately attracted much attention, majority of studies have been on psychosocial factors in the work conditions. Physically demanding task exposures have been shown to cause musculoskeletal disorders, and as such work tasks are more common in the lower classes, we can expect physically demanding

work to contribute to class inequalities in morbidity. There are a few previous studies indicating contribution from physical work conditions to class inequalities in ill-health.

Objectives: The objective of the study was to examine the potential contribution of physical workload to ill-health and functioning.

Methods: The data were derived from Helsinki Health Study baseline mail questionnaire and partly from occupational health examinations. The participants of the study were 40–60 years old employees of the City of Helsinki. Examined health outcomes included self-rated health, self-reported musculoskeletal disorders and Short Form-36 physical component summary for physical functioning. Physical work load was measured by self-reports of which physically demanding tasks the respondents were performing in their work. Logistic regression models were used to analyse associations.

Results: Model estimates for all ill-health outcomes as a function of social class attenuated when the models were adjusted for physical work load. Latest changes, of the order of 60-80% reductions in model estimates, were found for musculoskeletal disorders in women. Considerable attenuations were also found for poor physical functioning in both genders, musculoskeletal disorders in men and self-rated health in women, the changes in model estimates ranging between 30-90%. Attenuation was small for self-rated health in men.

Conclusions: Physical workload is likely to contribute markedly to class inequalities in ill-health. The contribution is likely to be large for morbidity from musculoskeletal disorders, but notable contributions to inequalities in overall morbidity and functioning are likely as well.

Social networks and self-described health among the poor in Finland

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Disparities in health have grown in Finland over the last decades between different socioeconomic groups for the benefit of those with highest socioeconomic status. Approximately 11% of the population lived at the risk of poverty in 2004. Social networks have been suggested to explain part of the health differences in population. This study will explore experiences of poverty in Finland focusing on social ties and self-described health and wellbeing.

The data consist of texts collected in 2006 by a writing competition "Everyday Experiences of Poverty". Altogether 850 texts were received, 335 by e-mail and 515 by ordinary mail. The data are geographically representative and authors belong to various population groups defined by previous studies to be at the risk of poverty. For the purposes of this study, I have analysed 85 randomly selected autobiographical texts received by e-mail. The quality of private social networks, civic engagement, and experiences in public services were coded thematically by computer-based programme Atlas.ti. The results were then compared with self-described health and wellbeing.

The data suggest that positively experienced social networks are connected with self-described good health and wellbeing. Experiences in public services seemed to have less relevance than private social networks or civic engagement for the authors' wellbeing. Some authors described how poverty had alienated them from their previous social networks, while others had been able to maintain their previous networks or to establish new social ties despite poverty.

In population studies self-rated health has been a reliable indicator of morbidity and mortality and social networks seem to correlate with self-rated health. The data used for this study provide a unique dataset for studying experiences of poverty. A more detailed analysis will provide ideas for quantitative studies that examine connections between poverty, social networks, and health.

Social class as a social mechanism to explain the gender gap in sickness absence among Norwegian employees

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At the national aggregate level a gender gap in sickness absence has been documented in all modern industrialised countries with high female labour force participation. Social class is a mechanism that has received little attention within sickness absence research. The aim of this study was to study to what extent social class can explain variation in sickness absence, including the gender gap between male and female employees. Social class was theorised as rational action theory and operationalised according to John Goldthorpe's class schema. Cross sectional Norwegian Labour Force Survey data from 1996–2005 (N = 59,548) were used as data and sickness absence was defined as absence from work due to own illness during the entire reference week. The study suggests there are substantial class differences in sickness absence in the expected direction. Furthermore, there were both gender by class and gender by age interactions. Presented as predicted probabilities for different ideal types of employees the results showed a pattern suggesting not only large class differences, sickness absence also varied significantly within and between genders by age and class, including a reversed gender gap in sickness absence among elderly employees. Women positioned in the service classes had predicted probabilities more similar to men than working class women, particularly for those aged 25–40. Further tabular presentations of predicted probabilities among women aged 35 by class and family type showed that even lone mothers in the service class had less predicted probabilities than women positioned in the upper routine non-manual class or the working classes who have a partner. When taking into account the different distribution of male and female employees across the different classes, with women being less presented in the service classes, these results suggest that the social class positions of individuals is an important mechanism to explain sickness absence variation by gender.

Keywords: Sickness absence, gender, class, life course, Norway

Heliogeophysical and socioeconomic factor influence on suicide occurrence and mortality caused by cardiovascular diseases behind the Polar Circle

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On the data of multi-annual (1948–1997) medical statistics of Kirovsk district (Murmansk region, Russia) it was shown that in seasonal distribution of suicide occurrence there are three maxima: March–May ($P < 0.001$), July ($P < 0.001$) and October ($P < 0.05$). These maxima coincide with maxima in distribution of the more intensive ($Ap > 150$ nT) geomagnetic storms. Socioeconomic

factors (for example, "shock therapy" in 1990–1991) do not show essential impact on suicide variability.

In distribution of mortality occurrence caused by cardiovascular diseases the influence of geomagnetic activity is not essential although one can select the same maxima (March-April, July, October), however al lower level. At the same time the socioeconomic factors are dominant ones on the contrary to suicide occurrence behavior. Note that in the distribution it was discovered a clear winter maximum of unknown nature.

Parallel sessions 2: Wednesday Oct 10th, 2007 16:30–18:15

2C Morbidity and chronic diseases

Room 24. Chair: Sakari Suominen

Sense of coherence (SOC) as a predictor of register based ischaemic heart disease and stroke

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In several prospective studies weak SOC has been shown to predict poor health but only few of these studies have had access to register based health data. This study is based on the 'Perceived Health and Life Control' panel mail survey with data collections in 1989 and 1993 with initially 3 421 respondents representing the working aged population (15-64 years) in Finland (the city of Turku intentionally four-fold over-represented). The questionnaire data was with appropriate authority consent linked with register data from 1987 to 1998 on mortality, disability pensioning, medication in the special reimbursement category, sickness absence and inpatient care according to the hospital discharge register, and anonymised (N=2 368). All new periods of inpatient hospital care from the Hospital Discharge Register with primary diagnoses (ICD 9 or ICD 10) related to ischaemic heart disease and stroke (hemorrhagic stroke excluded) as well as deaths due to these diagnoses comprised the cases (N = 57). However, observations with hospital care periods related to these diagnoses prior to the initial mail survey were censored. Also, deaths from other causes than those now studied were censored. Explanatory variables were sex, age, initial level of occupational training, smoking status in 1993 (not available from 1989) and initial SOC as a continuous variable. The statistical analysis (N = 1 565) was performed with generalized linear models using SAS software. In the multivariate model age was naturally statistically highly significantly ($p < 0.0001$) associated with an increased risk of ischaemic heart disease and stroke. Smoking was almost significantly ($p = 0.06$; hazard ratio [HR] 1.78; 95%CI 0.98–3.21) and weak SOC significantly ($p = 0.02$; HR 1.26; 95%CI 1.03–1.54) associated with an increased risk. Weak SOC is independently associated with an increased incidence of ischaemic heart disease and stroke demanding hospital care and the influence does not seem to be mediated only by smoking.

Arterial disease and varicose veins

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We studied the association between cardiovascular diseases (arterial disease or hypertension) and varicose veins. A five-year follow-up study was conducted in Finland in three middle-aged cohorts (40, 50 and 60 year olds) in a general population of 6874 residents in Tampere. A validated questionnaire was used. In the follow-up study 71% (4903) replied. The incidences of arterial disease (angina pectoris, myocardial infarction, peripheral occlusive arterial disease and cerebrovascular disease) and hypertension were studied in those with and in those without varicose veins at entry. Respectively, the incidence of varicose veins was studied in those with and in those without cardiovascular disease at entry. Subjects with varicose veins had more new

incident cases of arterial disease than others, incidence odds ratio (IOR) 2.0 [1.5–2.7]. New varicose veins occurred more often in subjects with arterial disease than in those without, IOR 1.4 [0.8–2.7], and the effect was statistically significant in women, IOR 2.2 [1.1–4.5]. The incidence did not show increased risk of hypertension in those with varicose veins compared to others, IOR 1.0 [0.8–1.3], and the risk of varicose veins was not increased in subjects with hypertension compared to those without, IOR 1.1 [0.7–1.8]. We found out the association between arterial disease and varicose veins and it was strongest when varicose veins were assumed as exposure and arterial disease as outcome. It is not likely that varicose veins cause arterial disease but there may be common causes or common pathophysiology in the background. There was not association between varicose veins and hypertension.

Tampere varicose vein study: Family history and the prevalence and the incidence of varicose veins

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Varicose veins of the lower extremities are common in Western populations. Heredity is regarded to be one of the most established and strongest etiological factors. The aim of this study was to assess if in the previous studies, which were cross-sectional and reported prevalence of varicose veins, the estimates of high risk were subjected to differential recall bias. We compared prevalence odds ratios with longitudinal incidence odds ratios. All 40-, 50- and 60- year-old residents (n = 6 874) in Tampere, Finland, with 171 307 inhabitants at the time of the survey entry were included. These 3 284 men and 3 590 women were identified in the population registry and followed up for five years by using a validated questionnaire. The response rate was 75% among men and 86% among women in the first questionnaire and 62% and 79% in the second. Varicose veins in the subject and in the next of kin were determined by self-assessment based on the definition in the questionnaire. Multivariate logistic regression analysis was performed to control the effects of confounding factors, i.e. sex, age and body mass index. Positive family history was more common both in men (prevalence odds ratio, OR(P) 6.6 (95% confidence interval (CI): 4.7, 9.3) and women (OR(P) 4.9 (95% CI: 4.0, 6.0)) with varicose veins compared to those without. On the other hand, positive family history was linked much less with the incidence of varicose veins both in women (incidence odds ratio, OR(I) 1.8 (95% CI: 1.1, 2.8) and in men OR(I) 1.4 (95% CI: 0.7, 2.6). In conclusion, there is likely to be a hereditary component of varicose veins but based on the incidence results it is substantially less than usually proposed in the literature mainly consisting of cross-sectional studies with prevalence estimates.

Musculoskeletal disorders and social insurance in Norway: the gender-gap revisited

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Musculoskeletal pain is very prevalent in the industrialised countries. Certified sickness absence is as a measure of the morbidity and functional consequences related musculoskeletal disorders. The aims of this population-based, prospective cohort study were to assess the role of different

musculoskeletal diagnoses in long-term sickness absence (LTSA) among Norwegian women and men, and predictors of the transition into disability pension (DP) status.

Diagnostic and socio-demographic information was obtained from a national database of social insurance. 37 942 women and 26 307 men with a spell of LTSA > 8 weeks in 1997, certified with a musculoskeletal diagnosis, were included in a five-year follow-up. The outcome measure was granting of permanent DP. Cox' proportional hazard analysis was carried out with medical and socio-demographic information as the independent variables stratified for gender.

The cumulative incidence of LTSA was 4.1/100/year among employed women and 2.6/100/year among men. 34% of the men and 29% of the women were diagnosed with back problems, injuries 22% and 10%, problems in upper extremities 18% and 19%, and neck problems 9% and 13%. 8407 women (22.2%) and 4601 men (17.5%) obtained DP during follow-up. Age, low education, low income and part-time work significantly increased the risk of DP. After adjustment for these factors a 7% (95% CI 2%–11%) higher DP risk among the women remained (P = 0,009). When the diagnostic distribution was introduced in the analysis, there was no over all gender difference. After adjustments DP risk in the diagnostic subgroups differed significantly: upper limb RR 1.5, back RR 2.0, fibromyalgia RR 3.3 and rheumatic arthritis RR 4.2, with "injuries" as the reference category.

The conclusion is that both socio-economical and diagnostic factors contribute to the large gender difference in musculoskeletal morbidity in the Norwegian working population.

Relation of obesity with urinary storage symptoms

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We evaluated the association of overweight/obesity with urinary storage symptoms. Questionnaires were mailed to 6,000 Finns aged 18–79 randomly selected from Population Register. Subjects were classified based on body mass index (BMI) as normal-weight (< 25, referent), overweight (25–30) and obese (≥ 30). Urinary storage symptoms were assessed using DAN-PSS and AUA-SI questionnaires. Stress urinary incontinence (SUI), urinary urgency and urinary urgency incontinence (UUI) were defined as abnormal if reported often or always (scale: never-seldom-often-always). Frequency was defined as > 8 voids/day, nocturia as > 1 void/night. Confounders were assessed: age, physician-diagnosed comorbidity (40), prescribed medication (30), socio-demographics, smoking, coffee and alcohol use, parity, postpartum period and menstrual status (including hysterectomy and hormone therapy). We calculated age-adjusted odds ratios for each symptom (Bivariate). Finally, multivariate analyses with confounders were performed (Multivariate). All factors (age-adjusted) associated with particular symptom were entered as potential confounders. Backward techniques were used to build the final model with likelihood ratio tests used to determine significance. 3,727 (62.4%) participated and 130 were excluded due to pregnancy, puerperium or urinary tract infection. Obesity was associated with nocturia among both sexes and with SUI and UUI among women (Table). Furthermore, overweight women reported more nocturia (adjusted for confounders). Obesity was associated with increased nocturia in both sexes and incontinence in women but was not associated with urgency or frequency in either sex.

TABLE. Odds ratios for urinary storage symptoms by obesity (BMI = 30)*.

Symptoms		Men		Women	
		OR	95%CI	OR	95%CI
Frequency	Bivariate	0.9	0.5–1.8	1.0	0.6–1.6
	Multivariate	0.9	0.4–1.7	0.8	0.5–1.4
Nocturia	Bivariate	2.3	1.4–3.9	3.2	2.0–4.9
	Multivariate	2.1	1.2–3.5	2.3	1.4–3.7
SUI†	Bivariate			2.6	1.7–4.0
	Multivariate			2.0	1.3–3.2
Urgency	Bivariate	1.3	0.7–2.2	1.6	1.0–2.5
	Multivariate	1.1	0.6–2.0	1.3	0.8–2.1
UUI†	Bivariate			4.8	2.1–11
	Multivariate			2.9	1.2–7.2

* BMI<25 as referent.
† Number of men with SUI or UUI was insufficient for analyses.

Geographic ancestry and cause-specific mortality in a national population

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This paper is concerned with how geographic ancestry, as proxied by persons' population group and birth region, interrelates with cause-specific mortality in Finland. The focus is at people aged 35–48 years. Many previous studies have argued that mortality variation across population groups and regions in Finland reflect some aspects of culture and thus differentials in lifestyles, but no exhaustive explanation has been provided. Specific features of internal migration in Finland still make it possible to proxy geographic ancestry. To illuminate the potential role of genetic predisposal, we therefore here analyse the Finnish-Swedish mortality gradient and regional variations in mortality in the similar setting. The longitudinal population register data used make it possible to account for variables that represent individuals' social background and own social status at young adult age. Results of Cox proportional hazard models reveal that these measures for ecological and behavioural circumstances generally have substantial effects on mortality of different causes. Their impact on the variation in death rates across population groups and birth regions is fairly modest, however. The geographic mortality pattern is also found to be more pronounced for causes of death that can be assumed fairly unrelated to persons' lifestyles. In our opinion, these results support the view that variation in genetic predisposal may underlie the mortality differentials. The findings should consequently be seen in light of the international literature, which argues that geographic ancestry can be a useful device for making inferences about an individual's ancestry and predicting whether she carries specific genetic risk factors that influence health. Thus we think that researchers and health policy practitioners should be more aware of the potential role of genetic predisposal, and particularly that certain subgroups of the population may have an unfavourable predisposition with regard to both genetic factors and environmental circumstances.

Parallel sessions 3: Thursday Oct 11th, 2007 10:15–11:30

3A Reproductive and perinatal health

Room 24. Chair: Riitta Luoto

Five socioeconomic measures and preterm birth. A study within in the Danish National Birth Cohort

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Background: Socioeconomic inequality in preterm has been shown in previous studies but it remains unclear whether the socioeconomic inequality in preterm birth depends on the socioeconomic measure used or if the associations differ according to the degree of prematurity.

Methods: The relative risks of preterm birth associated with five different socioeconomic characteristics of the mother and the father were analysed in a dataset of 75,890 singleton pregnancies from The Danish National Birth Cohort using Cox regression. The women were giving birth between 1996 and 2002.

Results: Mothers with less than 10 years of education had an elevated risk of preterm birth compared to mothers with more than 12 years of education and the association differed with parity. The adjusted relative risk for nulliparous and parous women were 1.22 (95% CI: 1.04–1.42) and 1.56 (95% CI: 1.31–1.87) respectively. There was a slightly elevated relative risk of preterm birth on 1.13 (95% CI: 1.02–1.26) if the paternal educational level was below 10 years and a slightly reduced risk if the women were living in a low-income household (test for trend, p = 0.02). There was no association between parental labour market attachment and the risk of preterm birth, except for disability retired women, who had an relative elevated risk of preterm birth of 2.24 (95% CI: 1.20–3.35) compared to employed women. The maternal educational gradient seemed steeper for extremely preterm births but the maternal educational and household income gradients were not statistically significant different according to the degree of prematurity.

Conclusions: This study shows that maternal educational level was the clearest predictor of preterm birth among five socioeconomic measures. The results showed a tendency for a reduced risk of preterm for women from low-income households. These gradients did not differ according to the degree of prematurity.

Keywords: Social class, premature birth, maternal educational status.

Periodontitis- A risk factor for low birth weight and pre-term pregnancy

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Periodontal disease is an inflammation of the tooth supporting tissues. Several studies showed relation between periodontal disease and pre-term /low birth weight (PT/LBW) pregnancy. Periodontitis during pregnancy may cause transient bacteremias and reaches placental membranes resulting pre-term labor. PT/LBW is an important public health issue and can lead to several long term health problems. These babies have forty-fold higher death rate during neonatal period. The incidence of PT/LBW is reported to be ~ 5% in Finland, France and Denmark and is 12.5% in USA and Germany.

In this paper, different non-surgical periodontal treatment modalities are thoroughly discussed for each trimester during pregnancy for treating/stabilizing the periodontal disease.

The maternal care and perinatal outcomes among women of migrant origin in Finland

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Background: The care given during pregnancy and labour is important. People of migrant background may have significant barriers to obtaining accessible and good quality care. The aim of this study is to compare the use of, access to and outcomes of maternity health care services among women of migrant origin in Finland.

Methods: The study is based on 1999-2001 Finnish Medical Birth Register data on singletons (N = 157 925 births of women with Finnish origin and 6 532 with migrant background) linked with the information of Statistics Finland on woman's country of birth, citizenship and self-reported mother tongue.

Results: Interventions performed, asked or needed, varied between migrant groups, as well as hospitalization before birth and interventions during childbirth. The mean of prenatal care visits was lower for migrants (mean 15.6 visits) than for women of Finnish origin (mean 17.0 visits), but there were no differences in the proportion of women with inadequate prenatal care. The Caesarean section rate was the highest for women from Latin America and Caribbean, Africa (excluding Somalia and North Africa) and South-east Asia: 25–27% compared to 16% among women with Finnish origin. Migrants had higher rates for preterm birth (< 37 gestational weeks) and low-birth weight (< 2500 grams) than Finns (4.8% and 3.2%, respectively). The highest rates were found for women from Middle-East and North Africa (prematurity: 8.1%, $P < 0.01$), and for South Asia and East European women (low-birth weight: 8.5% and 5.9%, respectively, both $P < 0.001$). Compared to the Finnish rate (5.1/1000 newborns), perinatal mortality rate was increased for women Somalia (12.2/1000, $P < 0.01$) and for women from elsewhere in Africa excluding North Africa (29.6/1000, $P < 0.001$).

Conclusion: Despite good general coverage of maternal care among migrant background women, there were clear variations in the type of care procedures given to them. African origin women

had most health problems during pregnancy and childbirth and the worst perinatal outcomes indicating the urgent need of targeted preventive and special care. Women of Chinese, Vietnamese, Latin American, African and Somali origin formed their own type of maternal care receivers or users in the Finnish context.

Induced abortions among women of migrant origin in Finland

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Introduction: During the immigration process different sexual and family cultures meet, which makes it important to study the use of induced abortion (IA) among different migrant groups in order to promote their sexual health. Previous studies show that women of migrant origin have more births and hospital care related to reproduction than native Finns, but there is no information how much they have induced abortions. The aim of this study was to analyse induced abortion rates (AR) among women of migrant origin living in Finland. Comparisons were made between their nationalities and native Finnish women.

Methods: Our study is based on the data from the Finnish National Abortion Registry from 1994 to 2002 (N = 94 692 induced abortions of women with Finnish origin and 5 443 with migrant background), with information on women's nationality, country of birth and mother tongue linked to population register data from Statistics Finland.

Results: The total age-adjusted AR among women of non-Western origin was lower than among Finnish women, but Baltic (15.9/1000 women aged 15–49 years), Chinese (14.1/1000), Russian (12.8/100), Thai & Filipino (11.3/1000), and African women (11.1/1000) had higher age-adjusted abortion rates than Finns (8.7/1000). During the study period, the ARs increased among women of African and Somali origin, but decreased for women of Baltic, Chinese and Southeast Asian origin. The highest ARs were found among women of African origin under the age of 25.

Conclusion: Migrant women from post-socialist Europe living in Finland continue to use IA as a family planning method. Young women from the Baltic, China and Africa are in need of special sexual health care actions in order to prevent unwanted pregnancies. Overall, more culturally and generationally sensitive and targeted actions are needed in Finnish sexual health care.

Parallel sessions 3: Thursday Oct 11th, 2007 10:15–11:30

3B Health promotion and community health

Helsinki Hall. Chair: Arja R. Aro

Health promotion in social-psychiatry in Denmark

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Background: A new social-psychiatric modality, "Network families", is being launched in Denmark for a group of severe mentally disordered patients. The idea is: "Contact to the normal", resulting in patients being offered stay/breaks at selected private families. The treatment is supplementary to the existing psychiatric treatment. Results from previous pilot schemes show positive effects on quality of life and reduced need for health services. However, proper anthropological, clinical and health economic research of high quality have not yet been accomplished.

Objective: To conduct consecutive research for investigating the effect, anthropological as well as clinical, and cost effectiveness of the "Network families" whether the influence of the "Network families" differentiate between the participating local psychiatric units.

Method: The research will be conducted in the Danish health technology assessment (HTA) model including the patient aspect. The method will be a prospective cohort study since a randomized study is not possible in the given setting. For each patient enrolled two control patients will be matched. The project will cover effect as well as process investigations. There will be collected anthropological, clinical and register data, the data will be qualitative as well as quantitative. The research is planned to take three years.

Result: The project will generate evidence and understanding regarding effect and cost utility of high quality and enlighten how the "Network families" can be integrated in the entire psychiatric treatment.

Discussion: This health services research project is an example of a health technology assessment of a complex cross-sectorial intervention based in the civil society.

The Healthy Together Project - Training Needs Analysis

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Background: The Healthy Together project addresses workplace health promotion (WHP) issues for small and medium size enterprises (SMEs) in rural areas in Iceland, Ireland and Italy. The project is funded by the Leonardo da Vinci educational fund and its duration is from October 2006 to October 2008.

Aims: The aims of the Healthy Together project are to 1) identify the training needs of target groups of professionals who run or wish to run WHP programmes; 2) create an e-learning course targeting health professionals, safety and occupational health professionals, and managers, which will teach the skills needed to promote workplace health and safety in SMEs in rural communities; and 3) pre-test the learning material of the e-learning course and revise the material accordingly, as well as pilot test the training material by running the e-learning course.

Methods: A training need analysis has been performed in January-March 2007, using both qualitative and quantitative methods. The qualitative method of the data collection consisted of focus groups held in Iceland (N = 12), Italy (N = 12), and Ireland (N = 10). The quantitative method of the data collection was a questionnaire web-survey. A total of 319 responses were received.

Results: The results indicate the importance of placing more emphasis and effort on WHP training in the partner countries, cooperation between various stakeholders, developing guidelines, check-lists and other tools for WHP, developing training material especially targeted at stress and mental health at work, as well as the importance of bottom-up and top-down approaches.

Conclusion: Overall, the results of the training needs analysis indicate a significant need for new resources in the area of WHP and prevention and that the key to a successful WHP programme in SMEs is the active involvement of all stakeholders in local communities.

Coordinated community work as a strategy for improving health in Örebro County, Sweden 2003–2006

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Background: In the 1990's health coordinators were employed in every municipality of Örebro County. The Department of Community Medicine and Public Health was responsible for development of skills, coordination and evaluation. It appeared that health coordinators often were not prioritized in the municipalities due to poor economy. Therefore a new assignment was needed. The aim was to develop a strategy for health promotion and public health on the community level.

Description: A long-term strategy, to consider the overall aim of Swedish public health policy included the most important determinants of Swedish health. The strategy should describe how to coordinate public health work on the regional and local level.

Approach: Agreements about public health were signed by Örebro County Council, primary care, four different geographical areas and the sports association of the county. The agreements settles the role of evaluators, points out children and youth as a target-group, sets resources in each geographical area as coordinators of public health on the local level and advocate cross-sectional work.

Conclusions: The agreements had strengthened the competence in public health and public health was legitimated in the local community work. Despite long-term agreements some saw the agreements more as ad hoc rather than solution for the future. As a result of the agreements a public health strategy has developed in some parts of Örebro County. In Örebro and in Nora

municipality determinants as living conditions and living environments are focused. Some objectives are prioritized: participation and influence in society, economic and social security, favourable conditions during childhood and adolescence.

Basic conditions for Public Health strategies at the municipality level in Örebro County

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Background: Between 2003-2007, there is an agreement between Örebro County Council and each of the 12 municipalities in the county. It concerns local activities and co-operation for good and equal health. An economic allowance to administrate and steer the local work is added to each commitment.

Description: The local strategies consider the overall aim of Swedish public health policy and aims for the municipalities as well. Focus is on important determinants as living conditions and living environments. The most important objectives have been *Participation and influence in society, Economic and social security* and *Favourable conditions during childhood and adolescence.*

Approach: Basic conditions strategies at the municipality level are:
- Political support for long-term commitments and co-operation.
- A cross-sector approach.
- The aims of public health are a natural part of the budget- and steering process.
- Tools based on science and well proved experience to follow and analyse results of commitments.

Conclusions: The agreement has been an important support for strategic building and long-term developing of the local public health work. Co-operation between the County Council and the municipalities has been strengthened and there is an increased acknowledgement about each others responsibility and competence. Research and study circles have resulted in tools to annually follow and analyse results.

For forth coming agreements it is important to furthermore develop the co-operation between the politicians of county council and the municipalities. There is also a need to define tools and methods that increase the opportunity for the aim of public health to be the aim of welfare and sustainable development.

Integration of Pakistani Immigrants in two Nordic welfare states: Denmark and Norway

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The study focuses on achieving a better understanding of the process of integration of Pakistani immigrants in Nordic welfare states. The Pakistanis in Norway and Denmark come from identical social and cultural backgrounds in Pakistan. They have now been exposed to Danish or Norwegian policies of integration for about 35 years. Potential differences and similarities

in the pattern of integration between the two communities are therefore assumed to be due to differences or similarities in the country specific policies in Denmark and Norway, as e.g. within the school system. The aim of the study is to detect potential integration barriers that maintain the Pakistani immigrants in a marginalised position, compared to the majority population of Denmark and Norway.

The empirical basis of this comparative study of the Pakistani communities in Denmark and Norway is quantitative data from public registers, literature research, and qualitative interview data with Pakistani students in both countries. Educational achievement is used as indicator of integration and a special focus is set on students in upper secondary and higher education. Structural, social, economic and cultural factors as well as teaching methods and language skills are compared and analysed as possible explaining factors for the degree of integration.

Preliminary results reveal a high drop-out school rate - especially from vocational training - in both Pakistani communities when compared to the "native" Danish and Norwegian students. The relatively poor educational performance is explained partly by inadequate language proficiency, too theoretical teaching methods and self-directed student work but also discrimination by employers with regard to apprenticeships. These results clearly indicate a need for political action unless the Pakistani communities are to remain in a marginalised position.

Parallel sessions 3: Thursday Oct 11th, 2007 10:15–11:30

3C Health behaviour and health surveys

Room 22+23. Chair: Eva Roos

Successful lifestyle intervention for metabolic syndrome patients

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Aims: This study was designed to measure the impact of an educational program involving a diet therapy and physical exercises on metabolic syndrome patients.

Methods: A number of 69 patients, 37 males and 32 females, with an average 62.14 ± 7 years with metabolic syndrome (diagnosed using ATP III criteria) were included into educational program. All patients completed at baseline, 1 month and 2 months a food frequency questionnaire and they was educate to keep a diary food weekly for 2 months. Body weight, blood pressure, lipid profile, proinflamatory state and prothrombotic state were measured at all visits. Each recording was analyse in an individual meeting and they received professional advice.

Results: An average weight loss of 4.3 ± 1.6 kg of the initial weight was recorded parallel with decreased in calories consumption ($p < 0.05$). Triglycerides decreased from 267 ± 62 mg/dl to 143 ± 71 mg/dl ($p < 0.05$), total cholesterol dropped from 244 ± 34 mg/dl to 207 ± 68 mg/dl ($p < 0.05$), and HDL-cholesterol increased from 35 ± 4 mg/dl to 37 ± 15 mg/dl ($p < 0.05$), after 2 months. Systolic BP dropped from 145 ± 30 to 130 ± 20 mm Hg ($p < 0.05$). Diastolic BP decreased from 95 ± 15 mm Hg to 85 ± 15 mmHg ($p < 0.05$). Fibrinogen, plasminogen activator inhibitor, C-reactive protein decreased but we did not find significant statistically differences.

This reduction is explained decreasing amount of glucoses and fats; quantity of proteins was similar. Decrease consumption of dairy integral produces, saturated fats, refined carbohydrates, sugar, alcohol simultaneous with increase in consumption from dairy produces low fat, fruits and vegetables was associated with improve in body weight and lipid profile.

Conclusions: The present study establishes the positive impact of an educational program in management of patients with metabolic syndrome.

Sexual behaviour in urban areas of Romania

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Background: World Health Organisation – Reproductive Health Research Department and United Nations Population Fund consider performing scientific research studies in the field of sexual-reproductive health is an emergency, especially in the following directions: sexual behaviour, men's attitude concerning sexuality and procreation, fertility, risk behaviours regarding sexually transmitted diseases and undesirable pregnancies, women and men need of contraception, and reasons of non-asking for reproductive health services. In this context, within the framework of a Romanian Academy Grant, we managed a national study to put into evidence the present

characteristics of the sexual-reproductive health in Romania. This paper is just a part of the study.

Methods: We applied two questionnaires (with 90 items for men and women plus other 15 items for women) on 1902 subjects aged 15–85, equally distributed by sex, living in Romania's capital Bucharest and other seven big cities – capitals of the traditional historical-geographical regions of the country.

Results: Most frequently, first sexual intercourse happens at the ages of 15–17 (25.4% of our respondents) and 18–20 (39.2%). Boys start sexual life under the age of 18 more frequently than girls (60% vs. 27.9%), the difference being statistically significant ($p < 0.001$). Most subjects starting their sexual life under the age of 18 come from Bucharest (19%) and from Constantza – port at the Black Sea and resort (17.5%). Women prefer stability in their sexual relations: 48.2% of them have had just one sexual partner during their lives (comparing to 14.6% of men) and 19% declare 3-8 sexual partners (comparing to 41.2% of men). About 6% of men do not remember the number of their partners (versus 0.3% of women).

Conclusions: Human sexual behaviour has been a constant concern for specialists in sociology psychology, medicine and anthropology. Our results suggest it is influenced by a diversity of educational, cultural, psychological, biological and physiological factors.

Effect of physical activity and disability on all-cause hospital and long-term care in the last year of life

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Introduction: We present results on the effect of midlife onwards physical activity and old age disability on all-cause hospital and long-term care (LTC) in the last year of life of a decedent population.

Methods: We identified 846 persons from the national Finnish Population Register who had died in 1989–2004 at the ages of 66–98 and had participated at least one year before their death in face-to-face interview as part of the Evergreen study. All-cause hospital and LTC data from 1988 to 2004 came from the National Research and Development Centre for Welfare and Health (STAKES) register.

Results: Of the 846 deaths 25% occurred at the ages of 66–79, 54% at 80–88, and 21% at the ages of 89–98. Persons who died at the age of 66–79 were less likely to be in LTC and more likely to have been in hospital care in the last year of life than those who died at an older age ($p < 0.001$). Women who had consistently engaged in sports or physical exercise from midlife onwards had a lower risk for spending the last year of life in a hospital or LTC institution (odds ratio [OR] 0.52, 95% confidence interval [CI] 0.32–0.87) than those who had been sedentary from midlife onwards. The risk was statistically significant after adjusting for age at death, marital status, education, income, and most important chronic diseases. Disability in instrumental activities of daily living (IADL) increased the risk for spending the last year of life in hospital or LTC.

The risk for care increased for men and women with difficulty in one new IADL task (OR 1.25, 95% CI 1.11–1.41 and OR 1.18, 95% CI 1.10–1.26), respectively. The risks remained statistically significant after adjusting for above mentioned confounders.

Discussion: Hospital care decreased and LTC increased substantially in the last year of life with higher age at death. Disability is a major risk for care in the last year of life. Midlife physical activity might be a way of reducing end-of-life care for women.

Self-rated health and sociodemographic determinants: how important is dichotomisation and age?

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Background: Response to questions about self-rated health (SRH) has typically been categorised by past studies to 3, 4 or 5 ordered ranks, with a numerical score attached to each rank. In empirical research utilising this question, a standard approach has been to dichotomise the response alternatives. In a five-grade SRH scale the rather arbitrary cut-off point is usually drawn between "average" and "fairly good" health. Some studies have suggested that regardless of cut-off points SRH is predicted by the same factors, which implies that SRH forms a health continuum from poor, average to good health. However, age ranges included in these analyses have often been very broad or limited to a specific age group. The focus of this paper therefore lies on investigating how sensitive the effects of some central sociodemographic determinants of SRH are to dichotomisation when age-specific analyses are undertaken.

Methods: The data was derived from a nationally representative survey, the Health 2000 Survey, conducted in Finland in year 2000–2001 (N = 4503, aged 35–64 years). Statistical analyses were performed using logistic regression techniques. We used a five-grade SRH scale with four possible cut-off points (SRH-1, SRH-2, SRH-3, SRH-4). We focused on SRH-2, "average", "fairly good" or "good" health, and SRH-3, "fairly good" or "good" health. The regression models were fitted with sociodemographic variables, including marital status, educational level and level of urbanisation, and done separately for gender and the age groups 35–44 years, 45–54 years, and 55–64 years. The results are presented as odds ratios.

Results: The preliminary results showed a small variation in the distribution of marital status and level of urbanisation across the age groups. The youngest age group had a higher educational level than the older age groups. The impact of the sociodemographic determinants on SRH-2 and SRH-3 differed somewhat across the age groups.

Conclusion: It seems that the deductions for how SRH is determined may be at least equally sensitive to age-specific effects as it is to the choice of cut-off points for SRH dichotomisation.

Parallel session 3: Thursday Oct 11th, 2007 10:15–11:30

3D Occupational health

Room 21. Chair: Gunnar Tellnes

Evaluation of a project for workplace health in municipality administration

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In later years employers awareness of the importance of workplace health programs, supporting employee health and well-being, has become more common. Health promotion work covers everything that aims to support human well-being. The aim of the descriptive study was to describe how the cleaners value their health, quality of life, periods of sick leave, periods of sick presence and general work-situation after participating in a workplace health project designed for the group offering a variety of activities during work time. Another aim was to compare the result with data from a previous study which was carried through before the present project was started. Data was collected by a questionnaire, used in a previous implemented study. The result was based on 60 answers from the questionnaire. The response rate was 88%. The result then was compared with the result from the previous study, which was carried through before the present project was started. From the result follows that the cleaners' self-rated health was significantly better after having participated in the workplace health project. There were less sick leaves, the quality of life was considered as better and the work situation was more positively assessed 2006 compared with data from the study 2003. However, many cleaners also had the opinion that the most the variables under the heading work place situation were more positively assessed. However, many cleaners also had the opinion that the workload had increased and experienced more time pressure leading to difficulties in being able to utilize the work health programs offered on working hours.

Key words: health, health related activities, health promotion, empowerment, well-being

Workplace health promotion programs can change employees' health for the worse?

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Background: Research has shown that health in working populations are related to the individual, the workplace and the social context outside work. Together with current pressure on employers to help the employees practice healthy behavior, employers might be influenced to invest in workplace health promotion (WHP) programs outside traditional working hours.

Aim: The aim was to explore opinions about WHP programs outside traditional working hours among health care staff working in two hospital wards in the south of Sweden.

Method: A focus group study with 77 nurses and assistant nurses participating in 18 focus groups, which were conducted during 2002–2003. A PhD student (ÅB) was present to facilitate the process.

The interviews were tape recorded and sections where the participants expressed their opinions about WHP programs were transcribed and analyzed using axial coding.

Results: Two patterns of employees' opinions have been revealed. Some of the respondents were positive and considered WHP programs after traditional working hours being an indication of employers' thoughtfulness. These respondents considered WHP being a natural and obvious part of a health promoting workplace. The other pattern was instead characterized by a more negative description. This category was represented by participants' feelings of autonomy intrusion in relation to WHP outside traditional working hours. These employees referred to a health promoting workplace with a distinct boundary between work and leisure in general.

Conclusion: WHP programs outside traditional working hours can be related to both positive and negative feelings among participating health care staff. Negative feelings form the base for psychological and biological processes that might have a negative impact on health. It is therefore important to reflect on how we pursue WHP, for participants to have positive experiences with opportunities for sustained or improved health.

Occupational disability caused by dizziness and vertigo, a register-based prospective study

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Introduction: Dizziness is a common health problem, and vertigo related to the vestibular system is thought to account for one third of these cases. Despite the magnitude of the problem, no studies have focused on the vocational consequences, and prospective studies are scarce. Using the International Classification of Primary Health Care (ICPC), GPs have two alternative diagnoses, H82 (vertiginous syndrome) and N17 (vertigo/dizziness), when issuing sickness certificates to these patients. We assessed the incidence of dizziness/vertigo in long-term sickness absence and identified socio-demographic and diagnostic predictors for transition into disability pension (DP).

Materials and methods: Data were obtained from a unique research database set up by Statistics Norway. The study cohort was all individuals in Norway with a spell of sickness absence >8 weeks caused by H82 and N17, terminating in 1997. The sample was followed from the start of sickness absence until the end of 2002. Endpoint was the date of granting a DP. Cox' regression analysis for the risk of DP with medical and socio-demographic information as the independent variables was performed, stratified for gender.

Results: 694 women and 326 men were included. Among both men and women, 41% were certified with H82 and 59% with N17. Dizziness/vertigo thus made up only 0.7% of long-term sickness absence among men and 0.9% among women. 24% of the men and 23% of the women obtained a DP. Age was the strongest predictor of DP. Persons with low education had nearly doubled risk of DP compared to university graduates. Women with H82 had a significantly higher risk for DP than persons with N17 and the difference increased after adjustment for socio-demographic variables. There was no gender effect when all other variables were controlled for.

Psychosocial work environment and emotional exhaustion of primary health care personnel – Does a service provision model play a role?

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Background: The effectiveness of different service providers is discussed, yet little is known about how organisational forms and psychosocial work environment are linked to the employee well-being. The aim of this study was to compare changes in psychosocial work environment and emotional exhaustion of primary health care (PHC) personnel (including care for the elderly) in one independent not-for-profit (INPO) and in three municipal service production organisations (MO1, MO2, MO3), and to investigate the effect of these changes on personnel's emotional exhaustion.

Methods: A total of 369 employees in PHC participated in this panel mail survey in 2000 and 2002. The data were analysed by descriptive statistics and a multivariate linear regression model.

Results: Emotional exhaustion was at a lower level in the INPO in 2002 compared to the MO3 but not compared to the other two municipal organisations. The difference between the INPO and the MO3 disappeared after the effect of baseline level and changes in psychosocial work characteristics were controlled for.

Conclusions: Differences in emotional exhaustion could not be attributed to the production model but rather, in line with Hobfoll's Conservation of Research theory, to high baseline level of work demands, low baseline level of work control, poor baseline level of work climate and deterioration in these work characteristics. Hence, the advantage of a particular service provision model might be mediated by these factors.

Multidisciplinary teams as an arena for the decision of work ability

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Introduction: The Swedish system for sick leave compensation and rehabilitation is based on medical assessment of work ability, which is communicated to the social insurance officer who decides on whether the sick leave is granted or not. Various efforts have been launched in order to improve the communication between these professionals. This study is focused on multiprofessional teams, involving doctors, occupational therapists, physiotherapists, medical social workers and representatives from the social insurance office, who meet to plan rehabilitation of persons on sick leaves exceeding one month. The aim of the teams is to enhance collaboration routines between primary care and the social insurance office in order to improve rehabilitation, and to reduce the costs of sick leaves.

Objectives: The aim of the study was to investigate the staff's experiences of working in teams, with focus on collaboration, professional development and experienced efficiency. A second aim was to analyse the implementation of the work form into regular practice, and to what extent it

has reached a consensual agreement among the staff. Methods used were focus groups with teams and interviews with heads of primary care centres.

Results: Most of the staff is positive to working in teams. However, there are difficulties in the communication between the professions, resulting in situations where different perspectives on sickness, rehabilitation and work ability hamper an effective collaboration. Especially, there are communication problems between doctors and representatives from the social insurance offices. Also, internal and external dialogue on work methods has often been neglected.

Conclusions: Communication problems in the teams and between primary care and the social insurance lead to a lack of consensus on the interpretation of the concept of work ability. To increase the collaboration, tools to measure work ability needs to be developed and roles of the professions have to be made clear.

ABSTRACTS FOR POSTER PRESENTATIONS

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1. Life-course approach in assessment of dental health and biological development of pre-adolescents

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Objectives: To assess cross-nationally the association between dental caries, biological resources (body height and weight) and cognitive-affective measures through the life course approach.

Methods: Self-administered paired-matching questionnaire survey for pre-adolescents (10 to 12-year-olds) and their mothers, in Helsinki, Finland and Istanbul, Turkey along with pre-adolescent dental health examinations and records, respectively. The response rate for Turkish pre-adolescents and mothers was 97% and 95%. The corresponding rates for the Finnish were 65% and 53%, respectively.

Results: Turkish pre-adolescents were more dentally diseased (DMFT > 0) (84%) than their Finnish counterparts (33%). Finnish pre-adolescents had higher mean values of dietary self-efficacy and self-esteem than the Turkish ($P < 0.05$). Similarly, mean body height and weight of Finnish pre-adolescents (150.7 ± 9.9 cm, 41.9 ± 9.19 kg) were higher than those of Turkish youths (142.9 ± 9.6 cm, 37.7 ± 8.8 kg), ($P < 0.05$). Finnish pre-adolescents` body height was positively correlated with dietary self-efficacy ($r_{p=}$ 0.158, $P < 0.05$) and self-esteem ($r_{p=}$ 0.187, $P < 0.01$). Similarly their body weight was positively associated with dietary self-efficacy ($r_{p=}$ 0.168, $P < 0.05$). Body height and weight of Turkish pre-adolescents were negatively correlated with the number of children in the family ($r_{p=}$ - 0.178, $r_{p=}$ - 0. 243, $P < 0.01$). Among Turkish pre-adolescents, those with an increased number of siblings were more likely to have lower body height and higher caries ($P = 0.001$). The same was not evident for Finnish pre-adolescents ($P > 0.05$). However, Finnish pre-adolescents who were from two-parent families were more likely to be dentally healthy and to have high levels of dietary self-efficacy ($P < 0.05$).

Conclusions: Early life socio-economic disadvantages and psychological pathways during childhood may influence growth and dental health in pre-adolescence. Integration of dental health into interventions to promote healthy development of pre-adolescent through the life course approach is warranted.

2. Significance of standards for increase of availability – Medical aid at qualitatively new level

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Republic Kazakhstan with its big territorial extent and small population density, geographical remoteness of settlements from large medical institutions, in particular agricultural population, causes features of public health services of our country. Frequently the reasons of insufficient health services are absence of the prepared medical personnel, shortage of the diagnostic and medical equipment

Carried out researches show that up to 30% of the equipment has become outdated, and in some cases there is no necessary equipment. The shortage of experts, in particular on villages, reaches up to 10–30%. Idle standing expensive equipment because of shortage trained medical personnel.

The position of scientific physicians of Kazakhstan to take in a context with opinion the CART consists in maintenance of availability of the population, especially rural, and from the remote areas to modern medical technologies, in which basis methods of diagnostics and the treatment, recommended the CART.

The decision of the given problem sees through development and introduction of standards of medical aid, in particular standards of equipment and medical-diagnostic process. For today standards of diagnostics and treatment capture 70% of the most widespread chronic diseases at a level of the primary medical and social help. In the long term scope by standards at a level high-tech medical aid of socially vulnerable population of the country is expected. Thus, maintenance with qualitative and in time medical aid of the population of republic is one of the important priorities of a state policy of Kazakhstan.

Data of the report «the Condition and problems of quality assurance of laboratory service of Republic Kazakhstan», is prepared by working group for representation to Minister of Health of Republic Kazakhstan, Astana-2006.

3. Road traffic injuries in Turkey

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Background and Objectives: Road traffic injuries are a major but neglected public health challenge that requires concerted efforts for effective and sustainable prevention. Worldwide, an estimated 1.2 million people are killed in road crashes each year and as many as 50 million are injured. Road traffic injuries are currently ranked ninth globally among the leading causes of disability adjusted life years lost, and the ranking is projected to rise to third by 2020. This problem is more crucial in developing countries due to rapid motorization and other factors. More than 80% of road-deaths and injuries occur in low and middle-income countries. This issue is an important problem in Turkey also that needs urgent interventions. The aim of the study is to evaluate traffic injuries and affecting factors in Turkey by making comparisons between years and other countries.

Material and Method: In this study, data from Statistical Institute and Ministry of Interior was emloyed and presented as descriptive statistics to show the road safety situation in Turkey. The figures are related to accidents, fatalities, injuries and accident causes as well as comparisons between years and countries.

Results: In Turkey, highways used for approximately 95% of freight and passenger transportation that has grown beyond the railway. In 2005, total number of road accidents was 830263. Of this number, 0.5% was fatal. The number of accidents has been growing at an average 14% per year, more than twice the growth rate of vehicle-kilometers (6%). Driver faults (97.4%) (speeding and low seat belt usage) and bad infrastructure were the major accident causes.

Conclusion: Turkey's accident rates are found 3-6 times above that of EU. Property damages are estimated as 2% of the GDP. There is a multidisciplinary approach supported with strong public will is needed.

4. Postpartum contraception: Medical guidelines, women's point of view

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Purpose: Postpartum contraception is subjected to specific medical guidelines related to the suckling mode. The practitioner must conciliate prescription rules with women's expectations. The purpose of this work was to estimate the medical practice in the maternity centre at a local hospital and the actual practice of women at home, in immediate postpartum and during the year that follows the childbirth.

Method: 104 new mothers from the maternity centre, in September 2004, took the survey. During their stay after birth, they filled a questionnaire on contraception. Various data have been collected from their obstetrical file. The analysis allowed the synthesis of medical guidelines on postpartum contraception. One year later, patients answered a telephone survey about their contraceptive practice.

Results: In our survey, two-third of the new mothers (61.5%) chose breast feeding. 70% of them received progestins as contraceptives. Three out of four women (78%) followed this prescription after they left the hospital. Two-third (62.5%) of the women who had chosen artificial suckling received a prescription of estroprogestin. The majority of them (96%) used it after their return home. A high number of women (87.5%) estimated that these contraceptions were efficient, but more than a third of them thought they were uneasy to use (38.9%). Half of the women (52.8%) forgot their contraception during postpartum and the majority of them (86%) changed it within a year. A quarter (23.1%) of the contraception follow-up during this time was made by a general practitioner.

Conclusion: The practice in the maternity centre generally follows medical guidelines. However, it seems important to adapt postpartum contraception to the real practice of women. The general practitioner plays a major role in this management, especially during well-baby visits.

Key-words: contraception, post-partum, medical guidelines, sucking

5. Water consumption by healthy subject in Etna Territory

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Background: Bottled mineral water consumption is, today, greater than tap water consumption. Is bottled mineral water better than tap water? Data reported in literature reveals that quality is not only an unquestionable privilege of the bottled mineral water. Although it is known that the organoleptic characteristics of the tap water are influenced by the products deriving from disinfection processes rendering it few palatable, also bottling in PET (polyethylene, terephthalate) containers can affect bottled mineral water's characteristics like the increase of microbial count

and antimony leaching, used like catalyst in the manufacture of PET. Moreover, drinking waters and bottled mineral waters are regulated respectively from D.Lgs 31/2001 and DM 542/1992. This involves a greater flexibility for some pollutants in bottled mineral waters, while for tap water a limit of concentration for many substances is established like: benzene, benzo (a) pyrene, nickel and ammonium.

Methods: The aim of our study is put in comparison various natural bottled mineral waters with tap waters come from the Mount Etna zone. We have taken in consideration some indicator parameters of water quality (pH, fixed residue, conductivity, nitrates, sulphates, calcium, magnesium, iron and boron) and other come from the disinfection treatments (chlorides, trihalomethanes).

Results: Results put in evidence that the investigated tap waters have a low average nitrate concentration and are rich of useful oligoelements like calcium, iron and magnesium. Trihalomethanes concentration is always below of law limit value probably because low concentration of organic substances like humic and fulvic acid in the Mount Etna waters.

Conclusions: Bottled mineral water is indicated in presence of particular health problems (nephrolitiasis, hypertension, infants' problems….), but for healthy subject in our territory the advantages obtained by consumption of natural bottled mineral water are not greater than tap water use. Certainly tap water gives a balanced contribution of essential elements.

6. Inequalities between lone and couple mothers in different welfare states – Italy, Sweden and Britain

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Introduction: This study focuses on welfare state arrangements and social policy, living conditions and health among lone and couple mothers in Britain, Italy and Sweden. Using a framework to study the pathways from social context to health outcomes and policy entry points we analyse the distinctive features of lone motherhood in each country, and how these features may be traced back to, and related to, existing traditions, politics and policies.

Data and methods: National household interview surveys with cross-sectional data for mothers 16-59 years of age from Italy (1999/2000, N: 21,133 couple and 1,911 lone mothers), Sweden (1999/2000/2001, N: 2,302 couple and 453 lone mothers) and Britain (2000/2001, N: 2,034 couple and 652 lone mothers) were used. Direct age-standardized rates with confidence intervals of not good health were calculated using the WHO European Standard Population. Relevant policies were analysed.

Results: The prevalence and age and socio-economic composition of lone mothers vary between the countries. Lone mothers report worse health than couple mothers and there is a socioeconomic gradient in health in all countries. Lone mothers were less likely to be employed than couple mothers except in Italy. In Britain and Sweden ill health was concentrated among mothers who were not employed and who were poor. In contrast, in Italy there was only a small difference in ill-health between employed and not employed mothers.

Discussion: Welfare state structures, traditions and policies form different contexts for lone mothers in all three countries. In Britain, policy initiatives have to some degree lowered poverty and raised employment rates among lone mothers. The increase in Italian lone motherhood is quite recent and may be an aspect of emancipation.

7. Physical activity and sickness absence

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Background: Physical activity has many beneficial effects on health. Sickness absence results in personal, societal and financial consequences. The aim of this study was to examine whether physical activity during leisure-time or commuting is associated with future sickness absence spells of different lengths and how much of these associations are explained by socioeconomic position.

Methods: The baseline data were collected by questionnaire surveys in 2000, 2001 and 2002 among 40, 45, 50, 55 and 60 years old employees of the City of Helsinki. The questionnaire data were prospectively linked to the employer's sickness absence records until the end of 2005, with a mean follow-up time of 3.9 years. The study included 5,431 female and 1,450 male employees. Associations of physical activity with short-term (less than 14 days) and long-term (over 14 days) sickness absence were examined using Poisson regression.

Results: Low physical activity (< 11.5 MET* hours a week) was associated with short-term and long-term sickness absence spells. The association of low physical activity with long-term sickness absence spells was stronger among men (RR=1.71, 95% CI 1.12–2.61) than among women (1.19, 95% CI 1.02–1.41). Among women the lowest three physical activity quartiles had more short-term sickness absence spells than the highest physical activity quartile (> 37.5 MET* hours a week). Among men low physical activity was also associated with short-term sickness absence spells. Adjusting socioeconomic position only slightly attenuated the associations.

Conclusions*:* Low physical activity increased the risk of sickness absence independently of socioeconomic position. Physical activity is likely to increase functioning and thereby better work ability. Physical activity should be encouraged at work places and in the occupational health care.

* Metabolic equivalent task

8. Acupressure for burnout – a Qualitative Study

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Mental disorders are increasing in all areas and in all social groups. Stress disorders are increasing, mostly among young people. Stress causes physical and mental illness. Employees in the service sector, education and authorities are vulnerable groups. After a long term on sick-leave, individuals get sickness pensions and disappear from working life. There are parallels between now and 1900.

Even then, there was a physical and mental exhaustion with symptoms comparable to burnout. Researchers claim, there are no evidence-based treatments for burnout. Nowadays, complementary methods are being used. The aim of the study is creating an enlarged understanding of life experience, living conditions and experience of acupressure among burnout persons. It is a qualitative study, inspired by phenomenology. Data acquisition has been made through semi structured interviews. The result shows strongly influenced living conditions. Time on sick-list, treatment from employers, health care system and regional social insurance offices vary. Family life and social life are disrupted. Support from family, friends and authorities is essential for rehabilitation. Shame, guilt and being worthless are common feelings. The informants, with different experiences of acupressure, declare that acupressure has helped them to recover. Further studies of acupressure effects are being required.

Keywords: Acupressure, burnout, coping, patient's experience, qualitative method

9. A description how to prioritize tobacco prevention in two Swedish communities, 2004

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Background: The purpose of the study was to describe how communities prioritize tobacco prevention and what efforts could make it a higher priority. Two communities in the south of Sweden were strategically selected; one community that seemed to have a structure for public health planning, tobacco prevention and a tobacco control program document and the other with no programs or structure for public health planning. Politicians, administration managers and community civil servants were interviewed in Kumla and in Ängelholm.

Results: The results showed that an organization with a health planner and a public health council gave tobacco prevention a higher priority. Both Kumla and Ängelholm believed efforts against alcohol and narcotics are the most important priorities as they see these behaviors as more dangerous and more immediate than use of tobacco. Both communities also believed that there is a need for change in attitude toward tobacco in the entire society in order to decrease tobacco use.

Based on this study, it is important that many departments and outside partners participate in public health work including tobacco prevention. A single tobacco control program document was a way to place the tobacco question on the political agenda. In Ängelholm, tobacco prevention had a low priority in the community. However, in certain departments it was partly prioritized. In Kumla, tobacco prevention had priority when the tobacco control program document was developed. However, even though the program had been developed and politically decided, it seemed as tobacco prevention in practice was not highly prioritized.

10. The Greenlandic Public Health Programme – Inuuneritta

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Introduction: Health is about the well-being and strength of man and about having a good life free of diseases. In 2006, the Public Health programme for Greenland was ratified by the Greenlandic Parliament. The programme is called Inuuneritta, which means: "Let us have a good life". The programme includes main goals and strategies for the development of public health. The implementation period is 2006–2012. The idea behind the programme is to create the settings and present ideas for improving public health. However, it is the people – professionals and citizens – who will put the concrete initiatives into action. The Public Health programme has its focus on prevention, and health promotion. In this scenario, the concept of prevention aims to prevent specific diseases or bad habits from arising or growing worse. Health promotion involves a general strengthening of the ability of the individual, the family and local regions to master the many challenges of everyday life, including disease and risk factors.

Aims: The aims of the programme are to:
- select and define goals for public health in the period 2006-2012;
- promote strategies and select concrete initiatives for improving public health;
- increase the focus on health promotion and prevention;
- increase the inhabitants sense of responsibility for their own health;
- collect information on the inhabitants understanding of the factors relevant to their own health levels.

Areas: The following areas are included in the programme: alcohol & pot, violence, rape & sexual abuse, suicide, diet & exercise, smoking, sex life, and dental health. The target groups are children, youth, and elderly. However, the goal is to strengthen the general health of whole community.

Projects: Several projects were started during 2006, and work is ongoing with previously started projects. The work done by Paarisa includes the preparation of informative materials, courses for "stop-smoking" instructors, campaigns, anonymous counselling, the preparation of national strategies relating for example to violence, and collaboration with other institutions such as dentists on dental health care, the local electronic media enterprise about the production of public health programmes, and the Greenlandic Nurse School on a project entitled "Early intervention in relation to pregnant families". Moreover, Paarisa participates in different working groups and boards, supports healthy arrangements, and signs partnership agreements with companies and others on health promotion and/or disease prevention projects.

11. Seize the day-set tomorrow free –Young women´s opinion of a good life

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Background: Research results and investigations about young women's health are mostly focused on absence of health taking sickness as a starting point.
Aim: The purpose of the study is to describe young women's opinion of a good life and to describe the factors that promote a good life for young women. The study has a descriptive design with a phenomenological approach.

Method: Qualitative interviews were conducted with sixteen women. The selection was made in a tiny village and districts in a bigger town. An interview schedule, with three themes was used.

Results: The result shows that a good life for young women is a life in balance. Balanced circumstances are change/development and control. The good life includes positive feelings and moods as joy, contentment and to feel capable. It also includes contented needs and active proceedings. The needs are safety, confirmation, close relations, freedom, support from the society and material supplies. Active proceedings are care about themselves and others, development and strategically goals. Young women between 18-24 years wish to have change and control in their lives. It is the balance between change and control that is the essence of the good life.

12. Factors influencing male domestic violence

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Background. Violence is a worldwide problem. Domestic violence, in particular, is a devastating public health issue. It continues to be frighteningly common and to be accepted as "normal" within too many societies. Domestic violence against women has extensive repercusions, between two and four million women being every year abused by an intimate partner. According to the most commonly used definitions, domestic violence against women may comprise physical, emotional, sexual and economic abuse occurring in an adult relationship. Looking at violence against women from a public health perspective offers a way of capturing the many dimensions of the phenomenon in order to develop multisectorial responses.

Methods. Within the framework of a national study regarding the sexual-reproductive health in Romania, 2,361 men living all over the country were asked to answer questions concerning the domestic violence. Only 1,613 (68.3%) filled in the questionnaire.

Results. A number of 870 subjects (53.9%) reported violence incidents in their families, of high gravity in 348 cases (40%). The statistical analysis of the results (chi square test) shows some factors significantly influencing men violence against their partners ($p < 0.01$): domestic violence in their birth families (including violence between parents and/or violence against children), low educational level, reduced financial possibilities, age (63.1% of the men aged 45-49 reported violence against their partners, comparing to 44% in the 25–29 age group), number of children

(69.1% in families with more than three children vs. 38.8% in families without children), residence area (urban or rural, regions with different social-economical development status).

Conclusions. Progress in reducing domestic violence will require a fundamental change in attitudes of men towards women. Attitudes can and must change. The status of women can and must be improved. Men and women can and must be convinced that partner violence is not an acceptable part of human relationships.

13. 50 years old and more patients' attitudes towards and experiences of generic substitution of prescription medicines

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Objective: Assess 50 years old and more patients' attitudes towards and experiences of generic substitution of prescription medicines. A special focus on information on patient attitude to generic drugs provided by their general practitioners (GPs).

Methods: Prospective study of patients in 15 general practices and in 2 retirements home was surveyed using a self-questionnaire.

Results: 440 patients were included. 91% of the patients stated that they knew of the difference between brand-name drugs and generics but only 57% knew it exactly in fact. 67% had received generics by their GPs; 45% reported to have received information from their physician. The study found that patients who report to have received information from their physician about generic substitution were more likely to have switch. Patient in retirement home more frequently refused substitution. Elderly patients (75 and more) were wrong with generics definition compared with others patients, and observed more adverse effects after switching (20% versus 9% – $p = 0{,}027$); patients made more mistake using generics than brand-name drugs (15.5% versus 7% – $p < 0.005$); two thirds of the patients (72%) were satisfied with switching, and 57% reported to want more information and 85% of them that it comes from their GPs.

Conclusion: Most of the patients are satisfied with generics. GPs are in an ideal position to inform their patients adequately about the equivalence of brand-name and generic drugs. Patient education is the best way to use generics in the future. More efforts must be devoted to providing adequate information to patients and GPs.

14. The opinions of Finnish physicians on social security

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Aims: We know fairly little about the physicians' opinions towards social security, even though Finnish physicians are mostly public sector employees. In the article this will be first described using two general questions about how doctors consider the present level of social security. The physicians' opinions are compared to those of citizen-level groups. After this it is examined

where the doctors are ready to cut expenditures. Opinions are also analysed against background variables. Opinions towards social security reflect the interests and ideologies that individuals have but also physician specific background variables are needed. The interest variables are gender, age and employment sector. The ideology variable is political orientation. The physician specific variables are the specialisation situation, satisfaction to salary, satisfaction to work and interest towards the Medical Association's health policy.

Methods: The 2000 working age physicians' random postal survey sample was picked from the register of the Finnish Medical Association (n = 1092, response 54.6%) at the beginning of the year 2007. The data was analysed using means and multinomial logistic regression analysis. *Results:* Compared to all other citizen-level groups the physicians think that the level of social security is too high. Physicians want to target cuts somewhere else than social or health services. Female physicians support higher social security. Young doctors and specialists think more often that social security is too high. Left-wing political orientation is the clearest predictor of opinions.

Conclusions: Even though political orientation is the clearest predictor, also the respondent's own interest position colours their opinions on social security. All in all, physician specific indicators are not very good predictors.

15. Health behavior among media personnel with or without irregular shift work

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This survey evaluated associations of working hours and health behavior among media personnel of the Finnish Broadcasting Company. The sample consisted of 1300 employees who received a postal questionnaire. The overall response rate was 58%, of which 54% males. The mean age of respondents was 44 years (SD 10). The determinants of health behavior were: alcohol consumption, smoking, and physical activity, which were compared between the groups. Twenty one per cent of the respondents with irregular shift work and 19% of those with regular working hours reported to consume more than six drinks a week (NS). Nearly one-third of the respondents in irregular shift work and regular day work groups were found as daily smokers (32% vs. 30%, NS). Younger females with irregular working hours were more often daily or occasional smokers than those with corresponding age but with regular working hours (69% vs. 48%, $p < 0.05$). Regular physical activity, 2–3 times a week, was reported more often by the respondents with irregular working hours (59%) compared to those with regular working hours (54%) (NS). The difference in physical activity was significant ($p < 0.05$) among young female respondents (68% in irregular and 55% in regular working hours, respectively). Smokers in irregular work group were more often binge drinkers than smokers in the day time work group. However, the difference was not significant when sex and age were adjusted. The present results suggest that work shifts do not associate with health behavior among media personnel. However, smoking seems to be independently related to the accumulation of multiple unhealthy behaviors.

16. Modeling foundations of the processes of resources maintenance of medical care

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Issue of the day is closely related to activity enhancement of medical staff. This requires development of rules at estimation of the levels and structure of end use and misallocation of funds. System modeling is necessary for solving these problems; its analysis, search for reasonable rules, methods of control and management, continuous monitoring, statistical medical and economical analysis of the results of controlling influences.

As a whole, availability of classifiers and structural models of medical care types create conditions for calculation of complete life maintenance. Mechanisms of resource maintenance may be marked out into basic blocks as follows: mechanism of personnel administration, mechanism of medication supply, mechanism of medical equipment supply and post maintenance, mechanism of clinical nutrition, mechanism of information control and others.

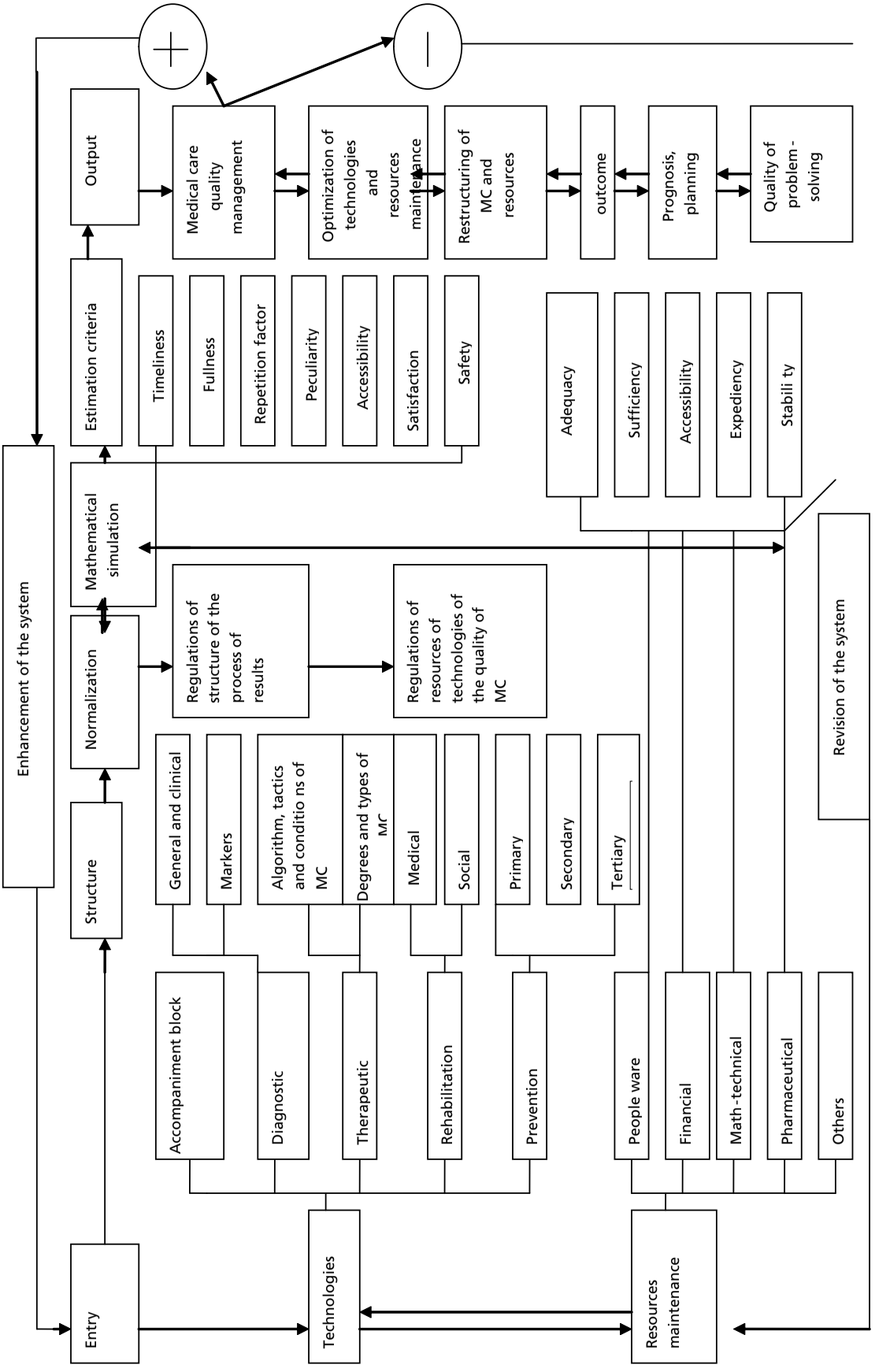
In this connection, we propose a new conceptual and methodological vision of process performance of medical activity.

On the basis of new concept and single methodological base of research formed and realized on the principles of program and target planning and management; key regulations of formation, performance and estimation of medical care quality to the population of the Republic of Kazakhstan have been put pursuant to the international regulations and requirements (pic. «Systems approach towards formation of medical care quality»). At this, instead of traditional scheme «structure-process-result» we propose a new logical platform «resources → processes → quality».

We have clearly determined an algorithm of effective arrangements led to the formula as follows: definition of critically vital issue of public health protection → introduction of innovative technologies → program and target approach towards creative decisions → specific and practical results.

Thus, scientific and meaningful system of formation of the quality of medical care turns up a model of principle towards achievement of the most positive results of activity of health organizations of any level and type.

New methodological foundations of formation of medical care quality towards different groups of population are presented. Functional diagram of integrated consideration of a problem on achievement of high effectiveness and efficiency in the sphere of protection of public health and development of public health protection of the Republic of Kazakhstan has been worked out.


Enhancement of the system
Entry
Structure
Normalization
Mathematical simulation
Estimation criteria
Output
Technologies
Resources maintenance
Revision of the system
Regulations of structure of the process of results
Regulations of resources of technologies of the quality of MC
Timeliness
Fullness
Repetition factor
Peculiarity
Accessibility
Satisfaction
Safety
Adequacy
Sufficiency
Accessibility
Expediency
Stabili ty
Medical care quality management
Optimization of technologies and resources maintenance
Restructuring of MC and resources
outcome
Prognosis, planning
Quality of problem - solving
General and clinical
Markers
Algorithm, tactics and conditio ns of MC
Degrees and types of MC
Medical
Social
Primary
Secondary
Tertiary
Accompaniment block
Diagnostic
Therapeutic
Rehabilitation
Prevention
People ware
Financial
Math - technical
Pharmaceutical
Others

17. The overestimated prevalence of overactive bladder

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In earlier studies, one in six adults had overactive bladder which may impair quality of life. However, earlier studies have either not been population-based or have suffered from methodological limitations. We aimed to assess the prevalence of overactive bladder symptoms, based on a representative study population and using consistent definitions and exclusions.

The aim of the study was to assess the age-standardized prevalence of overactive bladder defined as urinary urgency, with or without urgency incontinence, usually with urinary frequency and nocturia in the absence of urinary tract infection or other obvious pathology. In 2003–2004, a questionnaire was mailed to 6,000 randomly selected Finns aged 18–79 years who were identified from the Finnish Population Register Centre. Information on voiding symptoms was collected using the validated Danish Prostatic Symptom Score, with additional frequency and nocturia questions. Corrected prevalence was calculated with adjustment for selection bias due to non-response. The questionnaire also elicited co-morbidity and socio-demographic information.

Of the 6,000 subjects, 62.4% participated. The prevalence of overactive bladder was 6.5% (95% confidence interval [CI], 5.5%–7.6%) for men and 9.3% (95% CI, 7.9%–10.6%) for women. Exclusion of men with benign prostatic hyperplasia reduced prevalence among men by approximately one percentage point (to 5.6% [95% CI, 4.5%–6.6%]). Among subjects with overactive bladder, urgency incontinence, frequency, and nocturia were reported by 11%, 23%, and 56% of men and 27%, 38%, and 40% of women, respectively. However, only 31% of men and 35% of women with frequency, and 31% of subjects of both sexes with nocturia reported overactive bladder.

Our results indicate a prevalence of overactive bladder as low as 8% suggesting that, in previous studies, occurrence has been substantially overestimated due to vague criteria and selected study populations.

18. Multilevel study of social inequality in drinking onset among Danish adolescent

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Objectives: Social inequality in health behaviour is well documented, but whether social inequality in drinking onset exists is still unclear. Therefore, the objective of this study was to investigate the association between socio-economic position and drinking onset and the mechanisms explaining this association.

Methods: Information on socio-economic position and drinking onset was obtained from 12.502 adolescents participating in 'The Danish Youth Cohort' in the spring of 2005. The adolescents were sampled in clusters of classes and we used multilevel models to analyse data.

Results: We found social inequality in drinking onset among these Danish adolescents. Social inequality varied among boys and girls, as girls of the less wealthy families had the highest risk of drinking onset (OR = 1.36; 95 % confidence interval (CI): 1.06–1.74), and boys of the less wealthy families had the lowest risk of drinking onset (OR = 0.72; 95 % confidence interval (CI): 0.57–0.91). The mechanisms linking socio-economic position and drinking onset were both differential exposure of the risk factors for drinking onset and differential susceptibility to the effect of the risk factors for drinking onset.

Conclusions: We conclude that social inequality in drinking onset is present among Danish adolescents, and that it varies between boys and girls. This implies that future intervention strategies aimed at reducing social inequality in drinking onset should differentiate between sexes.

Key words: Social inequality, health behavior, drinking onset, and adolescents

19. Modelling holistic health and prevention ethics in mental care

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Understanding of the aetiology of postpartum mood disorders requires the integration of both psychosocial and biological risk factors. The purpose of the previous study was to examine the time after a child is born from the salutogenic perspective. The study evaluated the mood of the mothers using the Edinburgh Postnatal Depression Scale (EPDS) during pregnancy and after childbirth. The relationships of the couples were studied using parts of Spaniers's Dyadic Adjustment Scale and part of Bienvenu's Marital Communication Inventory. If the relationship was considered bad, the risk of developing depression during pregnancy was 4.7 times higher (RR = 4.7, 95%, CI 2.8–8), and after childbirth 5.5 times higher (RR = 5.5, 95%, CI 3.1–9.6). The qualitative section of the study identifies the resources for recovery used by the subjects. A focused interview was carried out with 29 mothers 3–10 months after childbirth. Many of those who had exceeded the cut-off point felt they had suffered from passing melancholy or they had problems in their marital relationship. The objective is to study stress and recovery in a patient date consisting of subjects who feel they live in a difficult relationship. Themes of research: Recovery from depression, connection between breast infection and postpartum depression, connection between postpartum depression and violence, relations between recovery and molecular phenomena. Prevention ethics section will be applied in the background during the entire research project. This application supports a wider project in modelling holistic health.

20. Student conference: an application of explorative and collaborative learning

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In the preclinical phase the first course of the curriculum in the Medical Faculty of Oulu is called "Doctor and Public Health". In this course a great challenge is to integrate teaching between the disciplines: public health science, psychiatry, general practice and dentistry. For this purpose we have used explorative and collaborative learning where writing is an important method. The process of learning is the following: 1) Teachers choose the main themes of the conference, topics for individual essays and for each small group (6 students). 2) Students receive the topics three months before the conference with instructions on how to make the essay and how to write the abstract together. Teachers act as supervisors. 3) Students prepare an oral presentation or a poster and present it in a student conference. The main task of this teamwork is to activate students to think as a researcher, to make presentations together and to activate them to express their opinions in groups and in a conference. This model of teaching has been developed during the last ten years and it has succeeded well. The process of this application of explorative and collaborative learning with 160 first year medical students and their 15 teachers is described in the poster.

21. Using time use data to estimate age-specific transmission parameters for airborne-spread infectious diseases

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Social contact patterns are a critical explanatory factor of the spread of airborne infectious agents. Both indirect (via observed epidemiological data) and direct (via diaries that record at risk events) approaches to the measurement of contacts by age have been proposed in the literature. In this paper, we discuss the possibilities offered by time use surveys for the estimation of contact patterns and the ability of models based on time use data to explain observed seroprevalence profiles. Time use studies provide diary-structured data about the activities undertaken by sampled individuals and/or the locations where the activities took place. Focusing on the notion of mixing by activity/location and time slot, we develop a methodology to estimate time of exposure matrices and mixing matrices based on time use data. The methodology is applied to time use data for Italy and the United States: the estimated time of exposure reveals a strong element of assortativeness by age. In addition there are peaks of exposure between people who were born one generation apart (i.e. parents and their sons). Age-specific transmission parameters for varicella are estimated using the maximum likelihood technique from age-specific time of exposure and seroprevalence data. Models based on the estimated age-specific transmission parameters can capture the observed patterns of infection of endemically circulating varicella in a satisfactory way. The findings are relevant for designing control strategies for airborne spread infectious diseases. In particular, the availability of time use data for a large number of countries makes the methods suitable for implementation in several different contexts.

Presenting authors

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