Session A

Measuring children's health – Setting the scene.

Abstract

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Introduction to Session A Measuring Children's Health – Setting the Scene

Michael Rigby *Nordic School of Public Health and Keele University, UK*

Children are essential yet vulnerable citizens, dependent on family and society for their health and wellbeing. At the same time children are the future of society, as health patterns and behaviours established in childhood will determine not only their individual well-being but that of society. While for understandable reasons Healthy Ageing is a current focus of most health system development, it is under-appreciated that healthy ageing starts in childhood.

Thus measuring children's health is essential to the provision of appropriate services, and to the countervailing of health threats and compromises. This needs to be undertaken in a balanced way, measuring success and good outcomes as much as health threats and adverse outcomes. Yet that process is particularly challenging. Children are significantly under-represented in most sets of official health statistics, and indeed the demography of children using the United Nations Convention on the Rights of the Child definition of those up to 18 years is often difficult to find due to the classic insistence on five-year age bands in official statistics.

Up to well into childhood, children do not answer surveys or fill in questionnaires, while the adults who may represent them may well not give balanced pictures. With the process of growing up and the development of individualisation, the child may have a hidden pattern of activity, whether testing boundaries or more established behaviour. Questions of agency (parents, schools, health advisers), of environment (physical, cultural, and social), and of autonomy (choice and breaking of bounds) cloud the picture, especially when causality and outcome interact with the individual and their physiology.

Measurement of health – and equally importantly of its determinants – thus becomes a complex and almost subversive task. Children have to be considered by stage of development and by degree of autonomy, as well as by health topic and health threat, with location, climate and culture as additional overlays.

The presentation will draw on the work and results of a number of European projects, and other sources, to illustrate this challenge. These projects will include Child Health Indicators of Life and Development (CHILD), Behavioural Determinants of Overweight and Obesity, Public Health Actions for a Safer Europe (PHASE), Child Safety Action Plans and Report Cards, and Research Inventory for Child Health in Europe (RICHE). The challenge of producing results for small areas as well as at national level will be addressed, as well as the benefits of achieving this.

The presentation will conclude with reference to both resources and challenges.

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Session B

Quantitative and qualitative approaches to measuring.

Abstract

Session B. Quantitative and qualitative approaches. (Anneli Ivarsson, Umeå)

Hein Raat, Rotterdam: *Child Cohorts in Europe (CHICOS)*

Serpil Ugur Baysal, Izmir: *Traffic injuries in children and adolescents in Lithuania: Mortality trends by road users*

Lubomir Kukla, Piler, P., Kandrnal, V., Andryskova, L., Klanova, J. Brno: *Design of the ELSPAC longitudinal cohort study*

Junia Joffer, Umeå: *Adolescents' reasoning when answering a single question on self-rated health - a think-aloud study*

Helén Isaksson, Jönköping*: Caries Prevalence in Swedish 20-Year-Olds in Relation to Caries Experience at 3, 6 and 15 Years of Age.*

Diego Mena Martinez, Montreal: *Measuring the effects of community social paediatrics in children and families: mistakes to avoid and lessons learned from the Montreal mode*l

The contribution of child cohort studies to Child Public Health

Hein Raat, MD, PhD, MBA; Professor of Child Public Health, Dept. of Public Health, Erasmus MC – University Medical Center Rotterdam, The Netherlands. h.raat@erasmusmc.nl

This presentation focusses on the contributions of child cohort studies to Child Public Health interventions and policies. Benefits, drawbacks and new developments will be discussed. We will use the results of the EU funded CHICOS project that run form 2009-2013 and that evaluated current child cohorts and child cohort research strategies in Europe (http://www.chicosproject.eu/the-project/).

The website www.birthcohorts.net describes the details of 39 varied pregnancy and birth cohorts. These cohorts start in pregnancy, or at birth, and allow to evaluate the impact of circumstances in pregnancy on health and development in later life.

Child cohort studies enable to describe inequities in health and development. They can also help to elaborate mediating pathways between adverse circumstances and adverse outcomes. Collaboration between cohorts in various regions and countries, can help to validate results. As an example, an overview will be given of the results of the Generation R cohort (http://www.generationr.nl/researchers.html) with regard to socio-economic and ethnic differences during pregnancy, at birth and in early childhood. By collaboration between child cohorts, it is also possible to evaluate the impact of the magnitude of inequalities in wealth in a country on the socio-economic gradient in childhood health. The latter is one of the purposes of the INRICH collaboration (http://www.centrelearoback.ca/inrich/).

In the CHICOS project, a three-round Delphi study was conducted with participation of circa 100 varied experts to determine which health outcomes and determinants should be prioritized. Five specific topics of interest from this study are: (1) Overweight and obesity in (preschool) children; Socio-economic differences in health; Poverty and differences in health; What health determinants are most important for child health; Which interventions are most effective to promote child health and well-being.

We will discuss strengths (e.g. longitudinal design, often high statistical power), and limitations (e.g. causality cannot be inferred; qualitative and other studies may be needed for additional study questions) of child cohort studies. Also, the meaning of new developments will be discussed, such as genetic analyses ('GWAS' studies) en the study of gene-environment interaction.

Traffic injuries in children and adolescents in Lithuania: Mortality trends by road users

Serpil Ugur Baysal, Division of Social Pediatrics, Department of Pediatrics, Dokuz Eylül University Faculty of Medicine, Izmir, Turkey

Birute Strukcinskiene[1], Serpil Ugur Baysal[2], Adem Aydin[2]

[1]Klaipeda University Faculty of Health Sciences, Klaipeda, Lithuania, and [2]Division of Social Pediatrics, Department of Pediatrics, Dokuz Eylül University Faculty of Medicine, Izmir, Turkey

This study analyses traffic mortality trends by road users from 1998 to 2012 in children and adolescents aged 0 to 19 years in Lithuania. National mortality data of pedestrians, cyclists, motorcyclists, and car occupants were used to compare trend lines. The study revealed that 56% of the deceased in road traffic crashes were car occupants, 24% - pedestrians. The incidence of boys killed from traffic injury was 2.5 times higher than that of girls. Traffic injury mortality and pedestrian mortality rates declined significantly in whole groups. There was also a significant decline in cyclists' mortality for the total group and for the female subgroup. Motorcyclists' and car occupants' mortality rates trends showed no significant changes. Our study confirmed that traffic injury mortality rates are decreasing in children and adolescents in Lithuania. A long-term decline is more likely to be affected by sustainable and permanent road safety promotion efforts. Reduced risk exposure may have been influenced as well by economic recession. More attention to road safety promotion in the age group 0 to 19 years should be given to the car occupants and motorcyclists.

References:

1) WHO. Global status report on road safety 2013: Supporting a decade of action. Geneva. http://www.who.int/violence_injury_prevention/road_safety_status/2013/report/en/index.html

2) European Association for Injury Prevention and Safety Promotion. EuroSafe Alert 2014;9 issue 1.

Design of the elspac longitudinal cohort study

Lubomir Kukla, Recetox, Faculty of Science, Masaryk University, Brno, Czech Republic

Kukla, L. Piler, P., Kandrnal, V., Andryskova, L., Klanova, J.

European Longitudinal Study of Pregnancy and Childhood (ELSPAC) was a prospective, observational, longitudinal, cohort study initiated in early 90´s in six European countries by the WHO European Office in Copenhagen.

In the Czech Republic the study followed more than 7500 children and their parents from the time of pregnancy until the children´s adulthood.

The main objective of the study was to describe an effect of selected biological, environmental, social, psychological and psychosocial factors on survival, health and development of fetus, infant and child.

Data was collected by using self-completion questionnaires filled in by the mother, her partner, and from the age of 11 by the study child itself. The data sets were linked to information obtained from health and school records and coded into SPSS database. A description analysis is available at the study information portal: www.elspac.cz.

Adolescents' reasoning when answering a single question on self-rated health - a think-aloud study

Junia Joffer Department of Public Health and Clinical Medicine, Epidemiology, Umeå University

Background: Survey questions about self-rated health have shown to be important health indicators. There is no unanimous wording of the question or its´ response options. Despite this, different versions all seem to be good predictors of health status. Peoples´ interpretation of the question are mainly studied in adult populations, implying a need for further studies among adolescents. Hence, the aim of this study was to explore how adolescents interpret and reason when answering a question on self-rated health.

Methods: A qualitative research design with think-aloud interviews was used, including 58 adolescents in 7th and 12th grade in Sweden. The think-aloud technique is commonly used to validate survey questions. This study explored the question 'How do you feel most of the time?' ('Hur mår du för det mesta?'), a version of the self-rated health question developed to explore adolescents' health.

Results: In the response process, some adolescents had an intuitive/uncomplicated way of thinking about how they feel, whereas others had a complex/reasoned way of thinking. By defining the concepts ´feel´ and ´most of the time´, by describing aspects influencing how they feel (i.e. both specific and holistic views covering social, mental and physical aspects), and by summarizing aspects (e.g. by summarizing good and bad aspects in life or the amount of time feeling good/bad) an answer was formed. Finally, reflections upon truthfulness in surveys were made, indicating a stronger likelihood of honesty in the case of anonymous surveys.

Caries Prevalence in Swedish 20-Year-Olds in Relation to Caries Experience at 3, 6 and 15 Years of Age.

Helén Isaksson Department of Paediatric Dentistry, The Institute for Postgraduate Dental Education, Box 1030, 551 11 Jönköping

Background/Aim: There are few studies of caries development and caries-related factors from early age to young adulthood. The aim of the present study is to analyse caries prevalence in 20-year-olds in relation to their previous caries experience. Method: Oral health from 3 to 20 years of age was followed longitudinally in a cohort of 499 individuals. The clinical and radiographic incidence of caries and restorations in 494 20-year-olds was related to caries data at 3, 6 and 15 years of age. Results: Twenty-six per cent of the 20-year-olds were caries free. The mean number of initial and manifest lesions and restorations (Di+m FS) was 5.8. Initial lesions comprised 40 per cent of the Di+m FS. Of the occlusal surfaces of molars and premolars, 12 and 4 per cent respectively had manifest caries or restorations. Compared with individuals who had been caries free during childhood (primary dentition) and adolescence, those with a history of caries activity while growing up had statistically significantly more approximal lesions at the age of 20 (Dm FSa 0.6 vs. Dm FSa 4.6 respectively). Those with manifest caries during childhood but caries free at 15 years had a low caries prevalence at 20 years of age (Dm FSa 1.3). Few new lesions developed after age 15. However, 50 per cent of initial lesions at this age had progressed to manifest lesions at age 20. Conclusion: There is a relationship between caries prevalence at age 20 and early caries experience.

Measuring the effects of community social paediatrics in children and families: mistakes to avoid and lessons learned from the Montreal model

Diego Mena Martinez, Fondation du Dr Julien, Montreal

The Montreal model of community social paediatrics is defined as an integrated social medicine model focused on the needs and resilience of the child, the family and the community. It aims to reduce toxic stress in the youngest patients by applying an innovate interdisciplinary approach (medicine, social work and law) in the community. The model evaluated since 2011 by a group of research on social science presents many difficulties in gauging a holistic and individualized medicine model for children. The standardized indicators and a classical methodology were to blame on the misunderstanding of an eco-bio-developmental model for children's health. This discussion will illustrate the mistakes to avoid and lessons learned from the research on the effects of interventions on community social paediatrics in Quebec. It will also open a dialogue in order to foster new types of integrated research for vulnerable children with a main goal: empowering disadvantaged communities through health.

Session C

Measuring Health Related Quality of Life.

Abstract

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Introduction to Session C Measuring Health-Related Quality of Life (HRQL)

Luis Rajmil, Barcelona

The Health-Related Quality of Life (HRQL) measure in children and adolescents has acquired increasing importance and interest in recent years. The number of pediatric HRQL measures increases rapidly making it difficult for researchers and clinicians to select the most appropriate instrument. A reasonably coherent theoretical framework and notion of HRQL seems to underlies instruments available, although an apparent diversity exist in the conceptualization on pediatric HRQL. This fact draw attention on the lack of empirical evidence for some of the fundamental assumptions on this subject. Some of the challenges on HRQL instrument development include the minimum age at which its administration is feasible, the use of proxy-respondents as an alternative and/or complementary source of data, how to manage and interpret the results, which is the best design and format of the instrument to be age-appropriate, and some specific cultural aspects. A literature review of the published instruments identified more than 100 instruments, both generic and disease-specific. The basic characteristics of the instruments will be described, i.e. the reliability and validity, a description of classic and modern psychometric approaches, and also a brief revision of the most widely used instruments. Recent advances in this area will be commented, such as the project Patient Reported Outcome Measurement Information System (PROMIS) from the US and the European project KIDS-CAT. The limitations of the HRQL measure will be commented. Finally the use of HRQL measure with the main purpose of evaluating social inequalities in children's health will be discussed.

Session C Measuring Health Related Quality of Life (Luis Rajmil, Barcelona)

Solveig Petersen, Umeå: The use of MAU methods in children

Boudien Flapper, Groningen: Measurement of health - A pediatric approach to chronic disease: a Public Health perspective

Lisa Wellander, Uppsala: *Economic Burden of Child Mental ill-health in Sweden*

Fiffi Boman, Lund: *Comparing parent and teacher assessments of mental health in elementary school children.*

Eva Eurenius , Umeå: *Screening For Mental Health Problems Among 3-Year-Olds*

Mariette Derwig, Malmö*: Being fat' from a child's point of view*

Multi Attribute Utility Instruments in Child Health Care

Solveig Petersen, Epidemiology and Global Health, Umeå University; Child and Adolescent Mental Health, Umeå University

It has become increasingly important to evaluate health care and preventive medicine in terms of the subjectively experienced value of health outcomes, in relation to the resources used to generate this outcome. Therefore, measures capturing individuals' health-related experiences have gained increased interest over the years. The most common value-based health outcome measure nowadays is quality-adjusted life-years (QALYs), a single outcome that combines health-related quality of life (based on people's health preferences) and longevity. The presentation will focus on instruments used to generate such value-based health outcomes, the so called Multi Attribute Utility (MAU) Instruments. There will be particularly emphasis on MAU instruments available for assessment among children.

Measurement of health - A pediatric approach to chronic disease: a Public Health perspective

Boudien Flapper University medical centre Groningen, the Netherlands

Boudien C. Flapper1, Gianni Bocca1, Pieter J.J. Sauer1

From the Department of 1Pediatrics, Beatrix Children's Hospital, University of Groningen, University Medical Centre Groningen, Groningen, the Netherlands

Disease is one of the most common health issues across the globe. Approximately 36 million people die each year from non-communicable (not contagious) disease including cardiovascular disease cancer, diabetes, and chronic lung disease. Cardio-vascular disease in adults is shown to be related to pediatric stress and chronic disease. We should measure health related quality of life (HRQOL) in these pediatric disorders and develop interventions that improve HRQOL and functional health in children. By doing, so we will invest both in child and adult health.

Valid and reliable methods to measure and evaluate children's health and wellbeing are available. By acting upon the restrictions in HRQOL, we can offer therapies and use interventions that improve HRQL.

In this presentation we will show health - measured HRQOL - in several pediatric chronic conditions in our social pediatric practice of the UMC-Groningen in the North of the Netherlands: in pediatric asthma (n=198), infant obesity (n= 75) and developmental disorders (attention and motor n=23 and language and motor n=65).

We acted upon issues in physical, social and independence HRQOL-domains that constitute some of the main determinants of health. We developed interventions that address the biomedical (health triangle) and lifestyle health field. Using a combination of pediatric, personal health, coping and lifestyle actions, children and parents learned to use social and personal resources to adapt and self manage.

We will show effects of these interventions on health measured as HRQOL.

Economic Burden of Child Mental ill-health in Sweden

Lisa Wellander, Uppsala University

Children's mental ill-health is a growing problem in Sweden. Preventive interventions such as evidence-based school programs could decrease the cost of illness that child mental ill-health cost society, with the municipalities paying for the majority of the children's services. However, little is known about how much municipalities actually spend on these children and if children could receive preventative treatment at a lower cost.

The aim of the current study was to estimate the municipality costs of children's mental ill-health and find evidence-based preventive interventions which counteract the cost of mental ill-health.

Data are collected from two sources: the first is from a literature review on preventative interventions that have been shown to reduce or eliminate children's mental-ill health, while comparing those costs with municipality costs of children with similar mental-ill health problems.

A cost-consequence analysis was then conducted in order to show the cost differential between children who received preventative interventions and those children who suffer from mental ill-health.

The findings have political and societal implications, in that municipalities can reallocate their funds towards using preventative measures of children's mental ill-health, and thus help improve children's mental ill-health, while saving money for the municipalities.

Comparing parent and teacher assessments of mental health in elementary school children.

Fiffi Boman Department of Social medicine and Global Health, Lunds University

BACKGROUND: The Strengths and Difficulties Questionnaire (SDQ) is a common instrument for screening children's mental health. There are versions for parents, teachers, and for self-reporting by youth ages 11 to 16. This study compared the precision and validity of parental vs. teacher ratings of the SDQ in a Swedish setting and analysed whether they were affected by socio-demographic factors.

METHODS: A cross-sectional study design was used in which teachers and parents assessed 512 first and second grade primary school students, using the SDQ. Confirmatory factor analysis, sensitivity/specificity analysis were performed, and Cronbach's alphas of parental and teacher ratings were calculated. Logistic regression analysis estimated the impact of socioeconomic factors on the ratings.

RESULTS: Parents rated 10.9% and teachers 8.8% of the children as high risk individuals. The overlap in terms of positive predictive value was low (32.1%), and the five-factor solution was only confirmed for teacher ratings. However, Cronbach's alpha was similar. Maternal educational level and parental ethnicity only affected the parents' ratings.

CONCLUSIONS: Construct validity was confirmed for teacher SDQ ratings alone. High Cronbach's alphas for both types of ratings imply that parental assessments capture another dimension of a child's mental health that seems to be sensitive to socioeconomic factors.

Screening for mental health problems among 3-year-olds

Eva Eurenius The Salut Programme Research Group, Epidemiology and Global Health, Dep. of Public Health and Clinical Medicine, Umeå University, Sweden

Early identification of children at risk for mental health problems is crucial for improving developmental outcomes by early interventions. The Ages & Stages Questionnaires: Social-Emotional (ASQ:SE) are developed for early detection of such problems.

The Salut Child-Health Programme in Västerbotten, northern Sweden is a health-promoting intervention starting with parents-to-be and following the child up to 18 years of age, through strengthening the activities within Child Health Care (CHC), and other sectors of societal support. One component is that the parent-completed ASQ:SE 3-year version is introduced within ordinary CHC.

We have performed a pilot study showing good adherence to ASQ:SE by CHC nurses and parents, thus, the instrument has the potential for implementation and sustainability. The study involved nurses at 11 CHC centers and 175 3-year-olds and their parent(s). Parents perceived ASQ:SE as meaningful and easy to fill out. The nurses found ASQ:SE to facilitate dialogue with parent(s), and useful as basis for follow- up of children with problems.

The Strategic Development Office and the CHC Unit are now collaborating to implement the ASQ:SE surveillance county-wide. Training of CHC nurses is ongoing with support from the CHC psychologists. Fully implemented all 3-year olds and their parents will be involved, corresponding to about 3000 children annually. The questionnaire also includes data on family living conditions and child health.

County-wide implementation of the 3-year questionnaire (including ASQ:SE) within the Salut Programme infrastructure will provide a unique resource for research, by placing children's mental health within a family and life course perspective.

Titel: 'Being fat' from a child's point of view

Mariette Derwig, Child Health Care Development, Region Skåne, Malmö

Since the fast growing prevalence, child overweight has been studied from many different angles. The dominant notion is that child overweight is largely caused by poor diets, inactive lifestyle and genetic factors. Little research has been done from the perspective of the 'experts', the overweight children, themselves. Children also have the potential ability to negotiate their own meanings of being fat and construct their own strategies to deal with it.

We used purposive sampling and studied 8 children with overweight aged 8-12 years (mean BMI: 27, mean age: 10 (±2) years). All children had been accepted at a 12 months outpatient treatment program. We used an exploratory and descriptive study design and data were analysed according to qualitative data analysis to identify emergent themes.

Children's experiences and perceptions of body size and how they manage it in their daily lives were explored using semi-structured in-depth interviews, drawings and a photographic visual exercise.

The overweight children in this study experienced being fat as a social problem and not as a medical or health problem. They felt stigmatised by their encountered discrimination but also because of the shame of being fat and fear of additional discrimination and unacceptability. They internalised the health message that overweight is due to eating too much and therefore predominantly blamed themselves for being fat. Making friends and being part of a group were extremely important themes in their daily lives and helped them preserve a positive identity, cope with the stigma and even control their body size.

Session D

Measuring Child abuse and neglect.

Abstract

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Introduction to Session D Measuring Child Abuse and Neglect.

Staffan Janson, Karlstad and Örebro Universities

Measuring Child Abuse and Neglect includes a number of problems related to definitions, the use of different methodologies, available registers, and other sources and to a certain degree to how abuse is understood in different cultures and settings. Neglect is specifically difficult to define properly as it rather is an omission of caretaking than overt committed acts, as in most other forms of abuse.

International comparisons of the incidences of abuse pose specific problems unless studies have been performed with the same validated methodology and the same is valid for national time series.

Finally the specific methodological problems of long-term consequences will be discussed.

Session D. Measuring Child Abuse and Neglect. (Staffan Janson, Karlstad)

Tony Waterstone, Gonca Yilmaz, CHILD15: *Changing practice in child abuse and neglect - can CHILD2015 make a difference?*

Stavroula Papadakou, Athens: *Investigation of long term developments in the field of physical punishment of children in Greece*

Elspeth Webb, Cardiff: *Using a "Women's Aid" Support Needs Assessment (SNA) to investigate the mental health of children in domestic abuse refuges*

Jonina Einarsdottir, Geir Gunnlaugsson, Reykjavik: *Quality of Upbringing and Experience of Emotional Abuse in Iceland*

Child Abuse and Neglect and CHILD 2015: action at local level

Gonca Yilmaz[1], Tony Waterston[2]

1:Social Pediatrician, Turkey, 2:CHILD2015 co-moderator, UK

CHILD2015 is an internet forum which has more than 3000 members in 110 countries worldwide is mainly administered by the International Society for Social Pediatrics and Child Health (ISSOP).CHILD2015 addresses the information and learning needs of those responsible for the care of children in developing countries. Its remit especially includes children's rights to health, child abuse and neglect management and its identification. There has been considerable discussion related to management of child abuse and child rights. in preparation for this presentation we have sought opinions from CHILD2015 members on local actions which have been taken in relation to different kinds of child abuse, in recognition that health professionals in many countries find difficulty in developing responses to abuse owing to the lack of social services, legal support and cultural acceptance of support.

Responses will be presented under the headings -

1. training of health workers in recognition of abuse

2. developing of local supports

3. influencing culture towards child rights

After the presentation of findings a webinar will be held which will include CHILD2015 members and will discuss possible local actions under the above headings.

Investigation of long term developments in the field of physical punishment of children in Greece

Stavroula Papadakou Asclepieio Voulas General District Hospital, Paediatric Departments, Athens, Greece

Introduction: Physical punishment is used by parents, either as a practice of discipline or as a method of upbringing, as a means to change the behaviour of their children.

Purpose: To investigate the use of corporal punishment by parents and the possible change in the use of this practice after its criminalization in Greece by Law of 2006. Results were compared against the findings of a corresponding survey conducted in our clinic in 2001, which has been officially announced for the Award of Social Paediatrics.

Material and methods: The methodology was similar to that of our previous work: a questionnaire survey was addressed to parents who brought their children regularly in our clinic.

Results: 27.36 % (against 83 % in 2001) of the parents responded that they exercise physical punishment to their children and 88.46 % (against 41.37 % in 2001) of them accepted that they do so when they lose their temper. A supportive person at home is associated with a proportional reduction in the use of corporal punishment. The majority of parents agree with the criminalization of physical punishment, and 52.63% seek paediatric counselling for training their children.

Conclusions: Criminalization of corporal punishment seems to discourage 56% of parents to use it. Moreover, the challenge of guiding parents in educating their children remains. It is considered that the active role of pediatricians in educating parents can eliminate corporal punishment of children - which can be a precursor to physical abuse.

Using a "Women's Aid" Support Needs Assessment (SNA) to investigate the mental health of children in domestic abuse refuges

Elspeth Webb, Cardiff University, Wales, UK

Hannah Walsh: Foundation Trainee, Welsh Deanery
Siti Kamarul Zaman, Josh McMullan, Abbey Lister, Naomi Stageman: Medical Students, Cardiff University School of Medicine
Rebekah Burns: Manager, Safeas, Cardiff Women's Aid.
Rachel Brooks, Senior Lecturer, Institute of Education, School of Medicine, Cardiff University
Elspeth Webb, Reader in Child Health, IMEM, School of Medicine, Cardiff University

Introduction: Children in refuges have increased risk of mental health problems, but there has been little research into the nature and severity of these, or whether different groups of children face different risks.

Objectives:
1. Evaluate the usefulness of a refuge-based risk SNA
2. Provide a preliminary description of the mental health of this population
3. Provide recommendations to enhance the SNA to provide better identification of at risk children.

Methods: A cross sectional study. Mapping of SNA questions to standard diagnostic criteria or accepted clinical descriptions in the literature for PTSD, minimization, internalizing and externalizing behaviours including a specific focus on aggressive/abusive behaviours. Setting: 5 refuges in a UK city. Subjects: children resident in a given year, but PTSD study only incorporating those in the first 6 months.

Results: The SNA was useful, incorporating many questions of relevance. Of 79 children 45% had symptoms in all three PTSD symptom-clusters. Boys scored higher in externalising responses, girls in internalising responses. Abusive children were more likely to be male, older, and to have been maltreated. Of 199 children, 20% adopted minimisation as a coping strategy, with no gender difference.

Conclusions: A large proportion of children affected by domestic abuse have symptoms of post-traumatic stress; 20% show minimisation as a coping strategy. There is a difference between how boys and girls respond. The risk assessment protocol needs refinement to better match accepted symptom clusters. The SPA needs to be repeated after a period in refuge. Refuge workers need training to ensure consistency.

Quality of upbringing and experience of emotional abuse in Iceland

Jónína Einarsdóttir Faculty of Social and Human Sciences, University of Iceland, Reykjavík, Iceland

Geir Gunnlaugsson, Directorate of Health and Reykjavík University, Reykjavík, Iceland

Introduction: Experience of emotional abuse in childhood has negative impact on short- and long-term health and well-being.

Aim: Examine the experience of Icelandic adults of emotional abuse in childhood, and its impact on felt quality of upbringing.

Methods: From the national population register, 966 (64%) out of 1500 randomly selected Icelandic adults (18 years and older) evaluated the quality of their upbringing in a telephone interview, and responded to questions on eight specific forms of emotional abuse

Results: 807 (84%) considered their upbringing as good, 139 (14%) reasonable, and 17 (2%) bad. 663 (69%) had experienced at least one or more forms of emotional abuse, males more frequently than females (OR 1.5, 95% CI 1.2-2.0). Participants younger than 30 years of age were 2.9 times more likely to have such experience compared to older participants (95% CI 1.9-4.3). Younger participants experienced more than older ones threats, exclusion, that important things were taken away, or behaviour exposed that should be kept as a secret. Those with experience of four or more forms of emotional abuse were 6.2 times more likely to judge their upbringing as reasonable or bad, compared to those with less experience (95% CI 4.0-9.2).

Conclusions: Prevalence of self-reported emotional abuse in childhood is higher among young people compared to older participants. This may reflect change in societal, as well as parental, attitude towards corporal punishment as a disciplinary measure. Parents need to be informed about how upbringing practices may have long-lasting impact on children, including their childhood memories.

Session E

Monitoring children's health.

Abstract

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Introduction to Session E Monitoring children's health

Geir Gunnlaugsson, Directorate of Health and Reykjavík University, Reykjavík, Iceland

It is in a socio-economic context that a child is born, a context that shapes the health of the young, and adult health. During the life-course the life and health of individuals are constantly under the influence of factors that influence, either positively or negatively. Globally the infant mortality rate and the under-five mortality rate are taken as sensitive indicators of child health and the performance of health systems. These indicators are frequently used to monitor human development of countries and continents, e.g., in the Human Development Report, and global progress to achieve Millennium Development Goal 4.

Information on the health of children is daily registered by staff in different health care settings. If systemically collected, and of sufficient quality, retrieval and analysis of such data gives an opportunity to monitor children's health in a cost-effective way. The use of Electronic Health Records (EHR) in child health services has a promising potential to facilitate such monitoring. If appropriately constructed, EHR can be the basis for retrieval of information for key indicators to monitor children's health, both within and between countries.

In the lecture, diverse sources used to monitor children's health in Iceland are presented. These will be discussed with particular attention given to the potential of EHR designed for preventive child health services from birth to 15 years of age.

Session E. Monitoring children's health (Geir Gunnlaugsson, Reykjavik)

Åsa Lefèvre, Lund: Parental groups - a challenge in a changing society

Tim Jelleyman, Auckland: *New Zealand context for child health data, related policy developments and the gap to action at the community level*

Tessa Severijns, N. Bevers, A.G.M. Jonkman, B.C.T. Flapper, Groningen: *Risk factors associated with an underlying somatic cause in children with developmental and/or behavioral disability*

Thomas Wallby, Uppsala: *National quality system for child health preventive services*

Kine Johansen, Kristina Persson, Steven Lucas, Uppsala: *Towards an evidenced-based assessment of motor development in child health surveillance*

G. Asiki, R. Newton, L. Marions, A. Kamali, L. Smedman**,** Stockholm*: Estimating under-five mortality rates in rural Uganda (2002-2012) using direct and indirect methods*

Parental groups - a challenge in a changing society

Åsa Lefèvre Institutionen för hälsovetenskaper, Avdelning för omvårdnad, Lunds Universitet

Pia Lundqvist, Eva Drevenhorn, Inger Hallström

Early parental support promotes physical and mental health later in life. In Sweden ninety-nine per cent of all parents visit child healthcare centres (CHCs) and almost all parents are invited to parental groups organized by the child health service (CHS) during their child's first year, but only 40% choose to attend. The overall aim of this study was to elucidate the group-based early parental support provided by the Swedish CHS from the perspective of CHC nurses and parents. A total of 156 CHC nurses from 31 of 33 municipalities and 143 parents from 71 different parental groups at 27 CHCs in one Swedish county completed two different online questionnaires about their experiences of the parental groups provided by the CHS.

Result: Most parents found the parental groups to be meaningful and felt strengthened in their parental role and 60% of the parents had met someone who they socialized with outside the meetings. Parents wanted more focus on child related community information, relationships and parenting in general. CHC nurses started several parental groups annually and yet they found the group leadership challenging and difficult.

Conclusion: Parental groups seem to be a good way to break isolation and build new networks among new parents. Nurses group leadership skills appear to be important to the outcome of parental groups and CHC nurses feeling insecure might benefit from education and training in group leadership.

Child health data in New Zealand

Tim Jelleyman, Waitemata District Health Board and School of Population Health, Auckland, New Zealand

Aim: to describe the New Zealand context for child health data, related policy developments and the gap to action at the community level.

The New Zealand child health sector is replete with data. Statistics and indicators drawn from these repositories inform multiple initiatives addressing identified gaps in child health. These include Government policies such as The White Paper for Vulnerable Children [1] and the Better Public Service Targets [2] designed to improve early childhood education and immunisation rates, and to reduce rheumatic fever and child abuse. These policies, targets and strategies focus on many health-service factors. However, one aspect regarded as critical for success, appears to have been overlooked. Few initiatives engage communities to design initiatives or monitor their progress. This undermines the potential for health gains that might be realised through shifting communities from passive recipients to active participants. User-friendly data that can engage and empower communities to advocate for issues that promote their children's health are scant. We propose a process designed to engage communities to explore and interrogate data relevant to their context thereby becoming central agents stimulating and monitoring child health progress in New Zealand.

[1]. NZ Government. The White Paper for Vulnerable Children. Secondary The White Paper for Vulnerable Children [Website] 2012. http://www.childrensactionplan.govt.nz.

[2]. State Services Commission (NZ Govt). Better Public Services. 2012. http://www.ssc.govt.nz/bps-supporting-vulnerable-children.

Risk factors associated with an underlying somatic cause in children with developmental and/or behavioral disability

Tessa Severijns, Medicine 6th grade student

N. Bevers, A.G.M. Jonkman, B.C.T. Flapper

INTRODUCTION Health in childhood can be improved by early detection and treatment of developmental disabilities to prevent further harm. In the Netherlands, early detection is achieved by use of the Van Wiechen surveillance measure in Primary-Health-Care. Besides, parents may apply to the Integrative preschool team (Integrale Vroeghulp)', a Dutch initiative to diagnose developmental and behavioral disability in a multidisciplinary team of psychologists, behavioral therapists and social workers. To prevent a delay in referral for pediatric diagnosis, there is need for an instrument to decide whether further investigation is indicated.

The aim of this study was to develop an instrument to identify those children that should undergo pediatric examination in order to prove or exclude a medical underlying disease.

METHODS We included around 200 individuals, aged 0-7 years. All were seen by the team and a pediatrician, who decided upon genetic, metabolic and neurological investigations.

Statistics Logistic regression was used to identify risk factors associated with an underlying somatic cause of developmental and/or behavioral problems. The ROC curve and its AUC were used to identify the optimum cut off point of continuous variables.

RESULTS Odds Ratio's and its significance will be shown for each potential risk factor.

CONCLUSION We will discuss which (combination of) risk factors in young children with developmental and/or behavioral problems are significant in order to predict a pediatric underlying cause. Furthermore, we will show the regression coefficient for each significant risk factor and the optimum cut off value for the continuous variables.

A National Quality Registry for Child Preventive Health Care Services in Sweden

Thomas Wallby, Dept. of Women's and Children's Health, Uppsala University, Sweden

Aim

To develop a national quality registry with key indicators as a tool to improve the quality and equity of child preventive health care services delivered in Sweden.

Method

A project was initiated in 2005 with the goal of identifying key indicators of good quality in Swedish preventive child health care services. Indicators were discussed at a national conference and established by representatives of the professions in Swedish child preventive health care services. A working group was formed to develop and further describe the selected indicators. Central funds were sought from SALAR (Swedish Association of Local Authorities and Regions) in 2012. A central steering committee with broad professional and regional ties was formed to create a functioning registry for the proposed indicators.

Results

Since 2012 the registry board has worked to clarify, describe and expedite central administrative, legal and technical issues surrounding the creation of the registry. The initial indicators include number of children enrolled at child health care centers, coverage of the child population, first-born child of the family, indicators on the burden of care, parenting groups, home visits, postpartum depression screening, breastfeeding, parental smoking habits and weight and height at key ages. The first set of data on all children from birth to 5 yrs in 2013 from the Uppsala and Örebro county councils was reported to the registry in the beginning of 2014 to serve as test data for the creation of dynamic output reports. The absolute majority of all data will be transferred to the registry automatically from computerized medical record systems. In Sweden approximately 100 000 infants are born every year. When fully developed the register consequently will contain data from 500 000 children, 0-5 years of age, every year.

Conclusion

Several years of experience from two local quality databases for Child Health, in Uppsala and Örebro county councils, suggest that the routine collection of individual-level data from regular child health care activity can generate data of good quality that can be used for both continuous monitoring of quality and for research purposes. The registry will provide local data for quality improvement and decision support for staff, health service business managers and decision makers.

Towards an evidenced-based assessment of motor development in child health surveillance

Kine Johansen, Uppsala universitet, Inst för kvinnors och barns hälsa

Kine Johansen, Reg PT PhD candidate, Kristina Persson, Reg PT associate professor, Steven Lucas, MD PhD

Background
Increasing evidence of the importance of early motor skills and the impact of early intervention points to the need for an evidence-based assessment of motor development in child health surveillance.
This study examines interobserver reliability for the Structured Observation of Motor Performance in Infants (SOMP-I) in the hands of child health nurses.
Method
SOMP-I assess both the level of motor development (LMD) and quality of motor performance (QMP) in infants. Fifty-five children (girls: 30) were assessed according to SOMP-I at 2 (n= 13), 4 (n= 14), 6 (n= 16) or 10 (n= 12) months of age at the child health centers (CHC). Assessments were performed in a clinical setting: one nurse performed the assessment while the other nurse and the physiotherapist (PT) observed. Ten nurses from three CHCs participated.
Results
Interobserver reliability was high for LMD (intraclass correlation coefficient (ICC) 0.97-0.98), but was lower for QMP (ICC 0.02-0.44). The PT identified more children as having slight QMP deficits than the nurses. No child was assessed as having pronounced QMP deficits.
Conclusions
CHC nurses are able to assess LMD according to SOMP-I, but have more difficulty assessing QMP. This may reflect more familiarity with developmental milestones than observing motor integration. Further research is needed to determine how assessment of QMP performs among more experienced nurses and in a high risk infant population.

Estimating under-five mortality rates in rural Uganda (2002-2012) using direct and indirect methods

Gershim Asiki, Karolinska Institute, Department of Women's and children's health

G. Asiki, R. Newton, L. Marions, A. Kamali, L. Smedman

Introduction: Measuring child mortality in developing countries is challenging, yet it is an important indicator of population health. There are two ways to estimate mortality: direct and indirect methods. The direct method relies on complete vital registration, which is often incomplete in developing countries. The indirect method uses retrospective summary birth histories (SBH) from census/surveys; these are prone to errors associated with recall and are dependent on certain assumptions. Here, we focus on the differences between direct and indirect under-five mortality (U5MR) estimates using different data sources from the same population over the same period.
Methods: The data included 10 years (2002-2012) of vital registration by trained lay recorders, and annual census (2002-2012), collected as part of an on-going general population cohort in rural Uganda. Direct estimates were calculated using the synthetic cohort method from prospective vital data. Indirect estimates were calculated using the Trussell version of the Brass indirect method on SBH.

Results: Overall, U5MR per 1000 live births was 129 using the direct method. After excluding child mortality rates for maternal age groups below 24 years and those above 39 years, the indirect method U5MR was 77-90, significantly lower than the direct estimate (p<0.01).

Conclusion: In this population, with relatively good vital registration, indirect methods may underestimate the true U5MR. Vital registration needs to be improved in rural populations in order to get more reliable estimates.

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Session F

Measuring marginalization and equity.

Abstract

Introduction to Session F Measuring Marginalization and Equity

Nick Spencer, University of Warwick

My presentation will focus on the following broad aspects of measurement of this key aspect of child public health:

- What is marginalization?
- What is equity?
- Why measure them?
- What should we measure?
- Challenges of measurement
- Conclusions

The presentation takes a child rights approach and gives a range of examples of the importance of marginalization to child health and approaches to measurement.

Session F. Measuring Marginalization and Equity (Nick Spencer, Warwick)

Louise Seguin, Montreal: *Trajectories of Poverty since Birth and Chronic Health Conditions at 10 Years Old*

Marie Köhler, Malmö: *Different conditions – different health- The Malmö Commission*

Ayesja Kadir, London: *Integrating Child perspectives into the Child Public Health Perspective: incorporating children's and community views for better health research and interventions*

Trajectories of Poverty since Birth and Chronic Health Conditions at 10 Years Old

Louise Seguin, School of Public Health, Université de Montréal

Our objectives were to disentangle the health effects of varied exposures to child poverty in relation with Chronic Health Conditions (CHC) including CV risk factors and to examine he role of chronic adversities and of stress.

Method: We analysed data from 2120 children from the Quebec Longitudinal Study of Child Development. Household income and children CHCs during the previous year were reported annually by mothers. Low income was based on Statistics Canada thresholds. An index of cumulative adversities was defined. The stress marker was the Cortisol Awakening Response. Blood samples at 10 years provided CV risk factors. Trajectories of household income from birth up to 10 years old were defined with latent class analyses. Logistic regression analysis results are adjusted for confusing variables.

Results: Four poverty trajectories were identified: Stable non-poor (68.4%), decreasing (11.3%) and increasing probability of poverty (8.6%), and chronically poor (11.7%). Children in a decreasing trajectory of poverty have a higher likelihood of physical CHCs (AOR=1.6; 95%CI: 1.0, 2.3) whereas children in a chronically poor trajectory had a higher likelihood of psychosocial CHCs (AOR= 2.1; 95% CI= 1.2-3.7). Children under Welfare demonstrated signs of chronic stress and negative CV risk factors.

Conclusions: Children psychosocial and physical CHCs are associated with different timing/durations of exposure to poverty. Adversities and child stress associated with poverty conditions may mediate the link between poverty and CHCs. These findings have implications for public health interventions in early childhood.

Commission for a Socially Sustainable Malmö

Marie Köhler, Head, Child Health Care Development, Region Skåne, Malmö

The last decades health inequalities have increased also in Sweden and in the third biggest city, Malmö, people in certain areas live seven years shorter than in other areas. Inspired by the WHO report Closing the Gap in a Generation (2008) by the global Commission on Social Determinants of Health, Malmö City launched a local commission in 2010. Focusing on childhood conditions, democracy and influence in society and social and economic conditions and gathering and analysing data about health and health inequalities among the population, fourteen commissioners worked for two years. The goal was to present strategies to reduce health inequalities and improve living conditions for all citizens of Malmö, especially for the most vulnerable and disadvantaged. A lot of workshops, seminars and meetings took place and over 30 reports were published by the commission. The report "Different living conditions – different health" focused on health in the youngest children, and recommended extensive investment in childhood conditions such as action against child poverty, housing programs, prevention against child maltreatment and neglect and health promotive actions. Another recommendation was to regularly measure and evaluate child health and child health inequalities and to increase child participation and influence. The final report, including two overall recommendations, 24 goals and 72 actions, was presented in March 2013. The two recommendations were

1. To establish a social investment policy that can reduce inequities in living conditions and make societal systems more equitable.

2. To change processes by creating knowledge alliances and democratised management.

Integrating Child perspectives into the Child Public Health Perspective: incorporating children's and community views for better health research and interventions

Ayesha Kadir, King's College Hospital, London, UK

Background: There is increasing attention globally on the social determinants of child health (SDCH). The majority of evidence is quantitative and examines the health aspects of SDCH. Public health data examining the social aspects of health are less common, and few studies include the perspectives of children and communities.

Methods: A community-based qualitative study of SDCH was undertaken in the rural Western Cape, South Africa, using participatory methods. Poorer households were purposively sampled. Data was collected from children's drawings, semi-structured in-depth interviews, documentary review, transect drives, and focus group discussions with children, adults and health workers. Data were analysed using framework analysis.

Findings: The main health problems identified were depression, tuberculosis, asthma, seasonal infections and HIV. The major social predictors of child health were neglect and lack of agency. Children associated neglect with hunger and depression, while adults associated it with all child health outcomes. The inclusion of children's views led to the main findings. The sensitive and difficult to capture issues identified by children created a platform for further exploration amongst adult participants.

Conclusion: The views and priorities of communities, particularly those of children, give deep insight into the social causes of and required responses to child health outcomes. Child and community perspectives enhance the validity of public health research by identifying issues that are missed by traditional social epidemiologic methods. Public health research and interventions to improve child health should be developed and implemented in partnership with communities, incorporate participatory qualitative methods, and include the voices of children.

Session G

How to evaluate interventions.

Abstract

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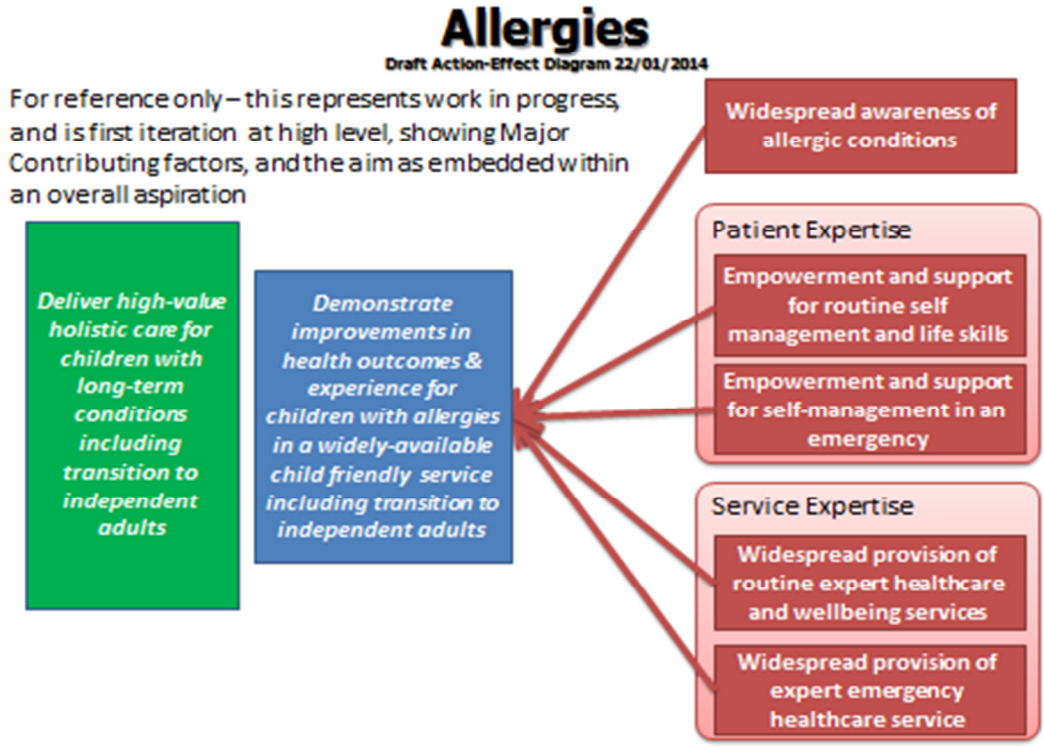
Introduction to Session G Evaluation of Child Public Health Interventions

Mitch Blair, Imperial College, London

Child public health interventions are often complex and multi-dimensional and attribution can be challenging. This presentation will review how causation can be conceptualised in this field, revisiting and critiquing the famous "Bradford-Hill postulates" and how this can be applied to evaluating such interventions. A description will be given of how Action Effect Diagrams (AEDs) can be constructed using multi-stakeholder perspectives. This framework has been used recently in a number of projects focusing on improving health service provision for children and young people with allergy and sickle cell disease in the UK. An example is given below of such a diagram. This approach has been useful in agreeing and highlighting outcomes of interest and suggesting potential interventions which contribute to these.



Session G How to evaluate interventions? (Mitch Blair, London)

Anneli Ivarsson, The Salut Research Group, Umeå: *The Salut Programme: A Child-Health-Intervention Programme In Sweden*

Filipa Sampaio, Uppsala: Cost-effectiveness of 4 parenting programs and a book

Anna Westerlund, The Salut Research Group, Umeå: *Parental Support Strengthened By The International Child Development Program - The Implementation Process*

Anna Sarkadi, Uppsala: *A Novel Approach Using Outcome Distribution Curves Was Used To Estimate The Population-Level Impact Of A Public Health Intervention*

The salut programme: a child-health-intervention programme in sweden

Anneli Ivarsson The Salut Research Group, Epidemiology and Global Health, Department of Public Health and Clinical Medicine, Umeå University, Sweden

Mental health problems and overweight/obesity have emerged as alarming health problems in many countries, also in Sweden. Therefore, in 2005 the Salut Programme was launched in Västerbotten combining epidemiological surveillance and health-promotion, starting with parents-to-be and continuing up to 18 years of age. The programme constitutes a key element in the health authority's vision to have the healthiest population in the world by 2020.

The Programme is organised into seven age-specific modules; Module I for the unborn child (i.e. the pregnancy), Module II for 0-1½ year olds, etc. up to Module VII for 17-19 year olds. Antenatal care, child health care, dental services, day-care centres and schools are involved. Priority is given to: i) secure and favourable conditions during childhood and adolescence; ii) increased physical activity; and iii) healthy eating habits. Rather than introducing new interventions, the Programme strengthens ongoing activities to become more systematic.

Module-specific interventions are developed within four geographical pilot areas with 350 births annually and a total of 8000 children, before countywide dissemination. Fully implemented the Salut Programme will target all expectant mothers and their partner, and all children, corresponding to ? 3000 births annually and 57 000 children. Lifestyle and health are prospectively monitored using questionnaires and routine health check-ups.

The Salut Programme's main purpose is to improve the health of all children in Västerbotten, however, also to increase knowledge on children's health, life habits and living conditions. The Programme is stepwise becoming a quite unique infrastructure for research on children and their lives.

Cost-effectiveness of 4 parenting programs

Filipa Sampaio Dept. of Women's and Children's Health, Uppsala University, Sweden

Aim: To determine which of 4 parenting programs and a book is cost-effective compared to a waitlist control, from a payer´s perspective, at a 4-month post-test.

Methods: Parents of 802 children screened for conduct problems, aged 3-12 years, who started a program or started reading the book, and 159 in the waitlist control (n=961). The interventions are the parenting programs Komet, Connect, the Incredible Years, Cope and a self-guided book on parenting strategies, and a waitlist control. Child conduct problems are measures by the Eyberg child behaviour inventory (ECBI). The outcome measures are the incremental cost per one point reduction in the ECBI intensity scale, and incremental cost per one averted clinical case of conduct problems.

Results: Average cost per child ranged between 120 SEK for the book - 12 035 SEK for the Incredible Years. The book and Komet, respectively, were cost-effective in the reduction of ECBI mean intensity scores with an ICER of 13 SEK and 772 SEK per one point reduction in the ECBI intensity scale. Cope was cost-effective targeting the number of clinical cases averted, with an ICER below zero per one clinical case averted.

Conclusion: The book and Komet were cost-effective in improving child behavior on a group level, whereas Cope was cost-effective in reducing clinical cases. The results can be interpreted from a public health perspective where different programs may serve different purposes. Selection of the appropriate program should be determined by the aim of the intervention, budget constraints and decision makers´ willingness to pay.

Parental support strengthened by the international child development program - the implementation process

Anna Westerlund The Salut Research Group, Epidemiology and Global Health, Department of Public Health and Clinical Medicine, Umeå University, Sweden

Strengthened parental support has been identified as key for improved mental health in children. Therefore the International Child Development Programme (ICDP) is being integrated into the Child Health Care within the Västerbotten County (Sweden). This is facilitated by the Salut Programme; a health-promoting intervention starting with parents-to-be and following the child up to 18 years of age.

For years, researchers have tried to provide insight into change dynamics that can guide organizations to successfully implement innovations, but still knowledge is scarce. The aim of this sub-study was to increase knowledge on how change can be facilitated during the initial phase of ICDP implementation.

A holistic, action-oriented, iterative research approach was used. Data was collected through interviews, observations and questionnaires. The views of employees, managers and process facilitators regarding the implementation process were analyzed in terms of if, how and by whom, factors perceived as likely to affect the process.

Our results provide a holistic model, covering factors of importance when implementing ICDP, including areas where adequate attention was lacking. The most evident discrepancies between perceived level of importance and manifestations were found regarding; "comprehensive plan of action", "hands-on support", "anchoring on relevant organizational levels", "networking" and "systematic follow-up". Factors described as manifested were; "motivation" and some features of the "innovation".

In conclusion, several factors key to successful implementation was not sufficiently in place, and measures for improvement have been taken. Importantly, some of the lessons learnt can be used also in other settings when implementing ICDP or other interventions.

A novel approach using outcome distribution curves was used to estimate the population-level impact of a public health intervention

Anna Sarkadi Uppsala University

Anna Sarkadi, Filipa Sampaio, Michael P Kelly, and Inna Feldman

Background: Generating population health improvement in ways that produce more equitable health outcomes is difficult. Interpreting the results of interventions to achieve these goals is equally challenging. Using analytical methods developed for clinical trials carries the danger of controlling out very factors which are of intrinsic interest and of focussing on individual and not population level change.

Objective: To provide an analytical framework within which public health interventions can be evaluated, present its mathematical proof and demonstrate its use employing real trial data.

Study Design: This paper describes a method to assess population level effects by describing change employing the distribution curve. The area between the two overlapping distribution curves at baseline and follow-up represents the impact of the intervention, i.e. the proportion of the target population that benefited from the intervention.

Results: Using trial data from a parenting programme empirical proof of the idea is demonstrated on a measure of behavioural problems in 355 pre-schoolers using the Gaussian distribution curve. The intervention group had a 12% [9%-17%] health gain, while the control group had 3% [1%-7%]. In addition, for the subgroup of parents with lower education, the intervention produced a 15% [6%-25%] improvement, whereas for the group of parents with higher education the net health gain was 6% [4%-16%].

Conclusion: It is possible to calculate the impact of public health interventions by using the distribution curve of a variable, which requires knowing the distribution function. The method can be used to assess the differential impact of population interventions and their potential to improve health inequities.

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Session H

Measuring substantial gaps in population, topics, methods.

Abstract

Introduction to Session H Substantial gaps in child population health

Sharon Goldfeld, University of Melbourne

The WHO Commission on the Social Determinants of Health (2008) challenges us to take action to close the equity gap within a generation by "*measuring and understanding the problem and assessing the impact of action."* To address the equity gap in child health there are four key contextual drivers to consider: (1) social determinants, or the "conditions in which people are born, grow, live, work, and age," (2) inequities in health and developmental outcomes emerge early in childhood and track forward to adulthood in terms of higher rates of mortality and physical, social, and cognitive morbidity across the social gradient, constituting a significant but **preventable** public health problem, (3) the ecological perspective suggests that child development occurs within a complex system of relationships affected by multiple levels of the surrounding environment including their families, schools, and communities and (4) the millennial childhood morbidities highlight the emerging importance of environmental "diseases" e.g. obesity, mental health and the impact of disadvantage. Addressing inequities in this complex environment requires indicators and data that contextualise child development, report inequalities across subpopulations and include all the domains of child health and development.

Focussing on early childhood, this presentation will suggest ways to potentially better utilise the data we have, scope concerning gaps and suggest potential solutions through existing opportunities. These will align with our contextual drivers and be considered important in the early childhood global context. Data that can be utilised to both galvanise *and* evaluation actions will ensure that policy investment is beneficial and does no harm over the short and long term.

Session H. Measuring substantial gaps in population, topics, methods (Sharon Goldfeld, Melbourne)

Pär Bokström, Uppsala: *Feasibility and accuracy of the In My Shoes computer assisted interview to elicit pre-schoolers' accounts of their routine health visit*

Marie Lindkvist, The Salut Research Group, Umeå: *Overweight In 1½ Year-Olds And Their Parents*

Michael Wells, Uppsala: *(In)equalities in Parenting Support for Fathers of Young Children in Sweden: Looking at Child Health Centers and Parent Support Programs*

Boel Andersson Gäre, Jönköping: *Bridging the gaps between policy knowledge, action and outcomes – a universal challenge.*

Feasibility and accuracy of the In My Shoes computer assisted interview to elicit pre-schoolers' accounts of their routine health visit

Pär Bokström Uppsala University

Interviewing preschool children to elicit their accounts of specific events presents particular challenges, and reliable tools are needed. In My Shoes (IMS) is a computer-assisted interview tool developed to help children talk about their experiences.

The objective of the study was to test the feasibility and accuracy of IMS in eliciting Swedish preschool children's accounts of a specific event, using a routine health visits as a case example.

21 children aged 4-5 years were interviewed 2-4 weeks after their annual visit to the child health centre. Feasibility was assessed through children's willingness to participate in and complete the IMS interview, the tool's ability to elicit accounts about children's subjective experiences, and parental responses about how the child had reacted to the interview. All children gave accounts about their subjective experiences, such as available toys or rewards they received, or their emotional state during the examination. Most children (89%) related to the correct event during the interview. Among children who related to the correct event 94% correctly named at least one procedure that had occurred and 100% correctly named at least one person who was there. The study concluded that IMS was a feasible way to elicit children's accounts and the descriptions generated were largely accurate. Further studies are needed to establish the reliability and validity of IMS on other aspects of specific events.

Overweight in 1½ year-olds and their parents

Marie Lindkvist, Umeå

For the Salut Research Group at Epidemiology and Global Health, Dept. of Public Health and Clinical Medicine, Umeå University, Sweden.

Overweight and obesity is accelerating throughout the world; a threat to population health and longevity. Healthy life habits and a healthy BMI need to be established early in life. Still, few studies have focused on pre-school children.

The Salut Child-Health-Intervention Programme in Västerbotten (Sweden) combines epidemiological surveillance and health-promotion, starting with parents-to-be and continuing through childhood. In this sub-study we aimed to determine BMI of 1½-year-olds and their parents.

Parents' of 1½-year-olds completed a questionnaire on child and parental health (including weight and height), as well as living conditions. We used thresholds for children's BMI recommended for surveillance by the Royal College of Paediatrics and Child Health (RCPCH) in 2012, based on the UK 1990 reference.

Among 1½-year-olds BMI was above the 85th percentile for 33%, and above the 95th percentile for 14%. Thus, these Swedish children of today had a considerably higher BMI than UK children in 1990 already at this early age. The probability of a child having a BMI above the 95th percentile was significantly increased if either the mother or father was overweight (BMI?25 kg/m2). Furthermore, we found a positive synergy effect between the mother and father being overweight and the child having a BMI above the 85th centile.

In conclusion, overweight is common already at 1½ year of age in this population. The risk increases if one parent is overweight, and even more if both parents are overweight. Health promotion activities early in life need to be strengthened.

(In)equalities in Parenting Support for Fathers of Young Children in Sweden: Looking at Child Health Centers and Parent Support Programs

Michael Wells, Uppsala University

Swedish family policies dictate gender equality between parents. Both the child health centers and parent support programs aim to support both parents at managing their child's health and mental health, respectively. However, parental perspective research indicates that fathers are treated as secondary to mothers from the time men become fathers through the time their children enter public schooling. While some literature has reviewed equality from the parents' perspective, little research has viewed gender equality issues from other perspectives. The current analysis will discuss the state of gender equality at the child health centers and in a parent support program (Triple P). Overall, the staff, the environment, as well as how programs are marketed and the topics discussed do not treat fathers equally. However, some locations have made adjusted changes, and fathers are more involved, both in their child's health and in involving themselves in their child's life. These findings have policy implications; namely, that equality will not occur until personnel change their ideas about fatherhood, restructure their marketing strategies, and reconstruct their environments to suit both mothers' and fathers' needs.

Bridging the gaps between policy, knowledge, action and outcome - a universal challenge.

Boel Andersson Gäre, Jönköping Academy, School of Health Sciences, Jönköping University, Sweden

In preventive as well as in clinical work great variation in outcome is often seen. Sometimes this is due to lack of knowledge or skills, but even with agreed on guidelines and protocols variation still excists. Contextual factors such as; how work is organized and understood, cultural differences between workplaces, leadership engagement, incentive structures, lack of or availability of feed-back data play a substantial role in the creation of this unwanted variation in quality. Data and performance measures may be used for control and accountability rather than for local feed-back and improvement. Quality improvement methods, adapted for use in healthcare, have been shown to be effective in closing some of those unwanted performance gaps. Theoretical models and concrete examples of application in childhood preventive work in Sweden will be presented and discussed.

Session I

Considering Child Rights in measuring.

Abstract

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Introduction to Session I Considering Child Rights in measuring

Henry Ascher, Section of Social Medicine, Dept. of Public Health and Community Medicine, Sahlgrenska Academy at University of Gothenburg and Angered Hospital

The rational behind measuring children is usually to do good, either for the individual child or for the public health. There are, however, many stakeholders and interests around a child and occasionally, in spite of good intentions, the best interest of the child is overlooked or even violated. Examples where children's rights are at risk, as well as the consequences of that, will be discussed.

Two basic fundaments of the Convention of the Rights of the Child are the equal value of each child and the right to be heard and exert influence in accordance with age and maturity. Much emphasis in the convention, but less discussed, is also made on the importance of the dignity of each child. What does that imply for the health care system?

Examples of how children's rights can be strengthened will be illustrated as well as some difficulties.

Session I. Considering Child Rights in measuring (Henry Ascher, Gothenburg)

Emilia Goland, Stockholm: *Why should we listen to children?*

Stella Tsitoura, Athens: *Psychosocial care and well being of children in hospitals offered by Child Life Specialists (CLS) compared to Child Rights-based approach*

Jonina Einarsdottir, Reykjavik: *Summer Stays of Icelandic Urban Children in Rural Areas during the 20th Century*

Henry Ascher, Anders Hjern, Gothenburg/Stockholm: *Ethics, human rights and science in the assessment of age in unaccompanied minors*

Zsuzsanna Kovacs, Budapest, Luis Martin-Alvarez, Madrid, Peter Altorjai, Budapest, Manuel Katz, Ber-sheva: *Rights of children in primary paediatric care*

Why should we listen to children?

Emilia Goland, Children's Ombudsman, Stockholm

Children and young people are experts on what it is like to be young today, and on matters concerning their own lives. According to the UN Convention on the Rights of the Child (CRC) children have the right to be heard. And there is a lot to learn - if we only listen.

The Ombudsman for Children in Sweden is a government agency charged with representing children and young people in accordance with the CRC. We maintain a regular dialogue with children and young people in order to obtain knowledge of their living conditions and their opinions on current issues.

We use a method called Young Speakers. Developed by the ChangeFactory in Norway and adapted to a Swedish context, the method gives children and young people the opportunity to express their views on issues of relevance to them. We listen and obtain important information and ideas, and together with the children and young people we bring forth their opinions to policy makers.

Only by listening to children and young people can we fully understand what is in their best interest and act to fulfill their rights in accordance with the CRC.

Psychosocial care and well being of children in hospitals offered by Child Life Specialists (CLS) compared to Child Rights-based approach.

Stella Tsitoura, Athens ISSOP

Child Life Specialists (CLS) are pediatric health care professionals who work with children and families in hospitals and other settings (mainly in USA) to help them cope with the challenges of hospitalization, illness and disability. They focus on the psychosocial wellbeing of children, while doctors, nurses and other professionals typically focus on the physical care of children. Using play, psychological preparation and age-appropriate communication, as primary tools, they facilitate coping and adjustment. They also establish therapeutic relationships with children and families to support their involvement in each child's care with continuity across the care continuum.

As an alternative to this care offered by CLS (not existing in most countries of the world) it will be presented Child Rights-based approach to psychosocial care of children in hospitals.

This care is in accordance with the principles of the UN Convention on the Rights of the Child (CRC) and represents ISSOP's ideology. If the child health professionals are to respond to the ever evolving needs of children, we must acknowledge their unique and profound obligation to uphold and implement the principles of CRC to the delivery of health services. To fulfil this obligation all health professionals must be informed by a robust knowledge of human rights and develop the competencies to translate these principles into practice in the clinical settings. This is essential to enable health professionals to not only promote all aspects of health in clinical practice but also to prevent their complicity in child's rights abuse.

Summer Stays of Icelandic Urban Children in Rural Areas during the 20th Century

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Introduction: Independent child migration refers to children who migrate without the company of a parent or legal adult guardian. Such migration has in recent years been highlighted in low-income countries where such migration is frequently classified as child trafficking.

Aim: Describe and analyse the Icelandic custom in the 20th century to send urban kids to rural areas during the summer months.

Methods: Analysis of published accounts, and qualitative interviews with adults on their experience as children of summer stays out of home.

Results: During most of the 20th century, many urban Icelandic children were sent to rural areas during the summer months to learn to work, take care of animals, and enjoy nature. Children from 4 years to teenage stayed as long as 3-5 months in rural areas with kinship members, or unrelated families. Such summer stays were seen as favourable for the children, their families, as well as the nation at large. All urban children were assumed to gain from rural experience, but it was seen as particularly beneficial for delinquent youth and children living under difficult conditions. Adults interviewed have varied memories on their summer stays. Most recall hard work for little or no pay, but also closeness to nature. Some consider the experience as one of their finest memories in childhood, others among their worst.

Conclusion: The custom examined is by definition an example of independent child migration. For those with the experience, the memories are extremely varied, and its long-term effect merits further research.

Ethics, human rights and science in the assessment of age in unaccompanied minors

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Introduction
In last decades, Western countries have developed restrictive policies to limit the influx of migrants, hereby also involving health system. Legislations limiting the right to health care for asylum-seekers and undocumented migrants have put health care professionals in a situation where they are expected to handle different patients differently on basis of their different judicial status. Moreover, guidelines about age assessment of unaccompanied minors often seem to be based rather on a wish of limiting the number of newly arriving minors than on a solid scientific foundation. These developments are contradictory to the professional medical ethics and human rights, including the right to health, and thus contribute to conflicts of interests.

Objectives
We will describe how medical ethics and human rights can be used as tools in response to situations creating conflicts and pressure on medical professionals and where political pressure risks violating ethics, human rights and human values.

Methodology
We will present two case studies: one elaborating on experiences from Sweden on how human rights, including the right to health, and medical ethics were used to change access to health care for undocumented migrants and age assessment procedures for unaccompanied minors. The second case study will illustrate how unaccompanied minors in Belgium experience age assessment testing, based on 52 interviews with minors.

Result
We will present experiences from situations that risk creating pressure on health professionals and on minors themselves, whereby demands from authorities may come into conflict with basic ethical foundations. We will also demonstrate that medical ethics and human rights, including the right to health, may be useful tools for orientation in these conflicting situations, to resist challenges where medicine risks being used as cover to exercise political power as well as in the work to change policies.

Rights of children in primary paediatric care

Zsuzsanna Kovacs, Budapest

Kovacs Zs. (Hungary), Martin-Alvarez L. (Spain), Altorjai P. (Hungary), Katz M. (Israel)

Introduction &aims: Primary paediatric care (PPC) provision is different among and within countries and accompanies the structure of society, socioeconomic backgrounds and health policies (1). Several surveys were carried out on the implementation of children's rights (CR) in paediatric hospital units and PPC (2, 3, 4). As to promote UNCRC (5) in PPC, an ISSOP-ECPCP joint project was developed aiming at surveying the knowledge and implementation of UNCRC at PPC level in selected European region countries.

Methods: ECPCP represents PPC societies from 17 countries /10 member countries participated in the survey. A questionnaire was launched addressing UNCRC general principles in PPC ("survey monkey" system, 2013) and 2245 responses received. The data were statistically analysed using SPSS tool.

Results: UNCRC knowledge and involvement of PPC paediatricians varies among and within countries. In order to emphasise the importance of education and training on CR of primary care professionals further studies are needed at national, regional and international level.

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Posters

Abstract

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Posters

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A Qualitative Study on Parental Participation and their Perceptions of the Triple P Curriculum

Michael Wells, Uppsala University

Child mental health is a concern in Sweden, especially in relation to child behaviour problems. Triple P is a parenting program that is effective at reducing behavioral issues in children, but the motivation for why parents participate has rarely been explored; therefore this study seeks to understand from a parental perspective the reasons why they participate and what they learn from participating.

Ten parents from a larger effectiveness study were randomly asked to participate in this qualitative study using semi-structured interviews. Seven mothers and three fathers participated in the interviews, which were then transcribed and analysed using Malterud's method of Systematic Text Condensation.

Parents in Sweden chose to participate in Triple P for several reasons: they wanted to learn more about the intervention, they had specific problems that they sought help for, and they felt encouraged to participate due to advertisements and recommendations from friends. With respect to the Triple P curriculum, the participants especially enjoyed the directed discussion technique, the positive reinforcement sections, and the instructions on how to communicate effectively with their child. Parents in this Swedish sample generally liked and selectively used the strategies they learned from participating in Triple P. However, they stated that they did not appreciate certain terms that Triple P uses; noting that some terms belittle their parenting efforts.

The results of this study helped to highlight enablers and barriers towards parental participation in managing children's behavioral problems.

Child Health Care nurses' perceptions and clinical practices in language screening of bilingual children at age 2.5-3

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Aim: To investigate Child Health nurses´ perceptions and clinical practices in language screening of bilingual children at ages 2.5 and 3.

Method: A total of 863 nurses in Sweden who screened bilingual children to get an assessment of their language at least once a month responded to a questionnaire. Response rate for the target population was 89%. Associations between six potential predictors and the nurses´ tendency to simplify when screening bilingual children were analysed using Cox regression.

Results: The nurses reported a greater lack of confidence and more difficulties in interpretation of screening outcomes for bilingual children compared with monolingual children (p<0.001). Half of the nurses generally simplified the screening procedure for bilingual children in order to help them "pass", and two-thirds of the nurses were more likely to postpone giving bilingual children referrals to a speech language pathologist. However, these clinical practices were very much dependent on nurses´ perceptions of the children´s skills in Swedish (p<0.001). Over four out of five nurses (82%) believed that bilingual children display a slower rate of typical language development than their monolingual peers, which strongly influenced their reasoning to simplifying the screening procedures (RR=2.00, 95% CI 1.44-2.77).

Conclusion: Bilingual 2.5-3-year-olds do not receive the same equity in screening for language disorders as monolingual children. There is a need to improve nurses´ competence and develop an appropriate language screening for bilingual children to enable equity also in screening procedures.

Comparison of two Methods interpreting Blood Pressure Values obtained in School Health Care

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Background:
Hypertension correlates with overweight/obesity. Measuring blood pressure is helpful in detecting hypertension early. Two algorithms exist of interpreting blood pressure values in adolescents, a rather complex method from America (1), being used in the Zurich School Health Service since several years, and a fairly simple Dutch method (2) introduced only in 2012.

Method:
For the school year 2012/2013 the blood pressure values of 1747 second class secondary school attendants were evaluated according to the two algorithms mentioned above, and the exactitude of detecting hypertension was compared.

Results:
Both methods show a higher rate of hypertension in overweight and especially obese than in normal weight adolescents of same age. With respect to the results obtained from the American algorithm, the Dutch algorithm resulted in 25 (1.4%) false negative, and 30 (1.7%) false positive hypertension cases.

Conclusion:
The Dutch algorithm has important advantages: it is much less time-consuming and much less error-prone than the American one, and gives similar results. Can we afford to lose 1.4% of adolescents with hypertension?

Literature:
(1) National High Blood Pressure Education Program Working Group on High Blood Pressure in Children and Adolescents (2004): 4th Report on the diagnosis, Evaluation, and Treatment of High Blood Pressure in Children and Adolescents, PEDIATRICS 114 (2), p.555-575.

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The use of baby walkers in infants and its relation with injuries and walking problems

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AIM:
The objectives of the study were to determine; 1) the frequency of baby walker use, 2) the frequency of walker-related injuries and walking problems between users and non-users and 3) the effect of baby walkers on the start of independent walking and motor development.

METHODS:
This was a descriptive, cross-sectional study conducted at Well-Child Unit, Department of Social Pediatrics of Istanbul and Marmara University. Families of infants aged 12 months to 36 months who consecutively attended Units between February-March 2014, were enrolled in the study. A detailed questionnaire was completed and all data were collected from parents by face-to-face interviews.

RESULTS:
Of the 194 parents interviewed, 57.5% reported using baby walkers. There was no significant difference between users and non-users in the terms of milestone ages for unsupported sitting and walking (p=0.996 and p=0.177).

Walker related injuries was present in %16.2 of infants. No serious injury was reported but the rate of injuries was significantly higher among the users than non-users (p=0.041).

The rate of toe-walking was %17.1 in baby-walker users. This rate was %4.9 in non-users. The walking problems were significantly higher in the user group then non-user group (p=0.010).

CONCLUSION:
Baby walker use is common during infancy and may cause some problems in child care. More studies investigating the effect of baby walker use on social motor development are needed.

The effect of BCG vaccination technique to BCG reactions and scaring

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AIM:
In this study, we aimed to evaluate the effect of BCG vaccination technique to post BCG reactions and scarring.

METHODS:
This was a descriptive, observational study conducted at the Istanbul University, Istanbul School of Medicine, Department of Social Pediatrics, Well-Child Unit. Eighty four children attending the Unit between December 2011 and May 2012 were enrolled in the study. The vaccination technique was monitored by direct observation of post-vaccination wheal and route of administration. One investigator evaluated the BCG reaction by measuring immediately the longest diameter of wheal after injection. The technique was classified as Technique 1(intradermal) if the diameter is 5-6 mm, Technique 2 if the diameter is less than 5 mm. The BCG scar formation was examined and noted as present or not present at every visit of the well-child follow-up.

RESULTS:
At 3 months of age, 80 infants were assessed for macule formation. Only % 60 of infants had macule and there was no statistical difference regarding to gender, birth way and gestational age. But macule reaction was earlier in Technique 1 (intradermal) group (p < 0.001). During the follow-up period we observed exaggerated local reaction in 22 patients(%27.2) . There was no statistical difference regarding to gender, birth way, gestational age. But we observed less exaggerated local reactions in intradermal group (p <0.039). 0f the 81 infants assessed for scar formation only one patient with Down syndrome had no scar at 12 months of age.

CONCLUSION:
The vaccination technique had no impact on scar formation but exaggerated local reactions were less common with intradermal vaccination.

Exclusive breastfeeding for 4 versus 6 months and growth in early childhood

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Introduction: Studies are inconsistent about whether duration of exclusive breastfeeding is protective of overweight and obesity later in life. Existing evidence on this relationship is based on observational studies with a risk of bias from confounding variables.

Aim: Investigate the growth and the prevalence of overweight in early childhood among infants exclusively breastfed for 6 months (EBF) compared with those receiving complementary foods from 4 months of age in addition to breast milk (CF).

Methods: A total of 119 mother-infant pairs were randomised either in the CF or in the EBF group. Weight, length and head circumference of the infants were measured at birth, 6 weeks, and 3-6 months of age. In the follow-up, the children's weight, length and head circumference were measured at 8, 10, 12 and 18 months and weight and height at 29-38 months.

Results: There were no differences between groups in the anthropometric outcome measures of weight-for-age ($p = 0.78$), length-for-age ($p = 0.59$), head-circumference- for-age ($p = 0.82$) and BMI-for-age ($p = 0.61$), using repeated measurements ANOVA. Furthermore, no difference was seen in the prevalence between groups in risk of being overweight or in those who were overweight at 18 months and 29-38 months of age.

Conclusions: Exclusive breastfeeding for the first 4 or 6 months of life does not seem to affect the risk of being overweight or the prevalence of those who were overweight in early childhood.

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Parental acceptance of the benefits and risks associated with meningococcal acyw135 vaccines

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OBJECTIVE:
A new meningococcal serogroup ACYW135 (Menectra) vaccine has been licensed in the Turkey. This study aimed to assess parental attitudes to introduction of ACYW!135 vaccines and identify facilitators and barriers to vaccine implementation.

METHODS:
Cross-sectional survey including face-to-face interviews with parents from a kindergarten in Istanbul in 2013.

RESULTS:
250 interviews were conducted with individuals aged 25-56 years, including 250 parents. Participation rate was 96.4%(95% CI 7.7-8.4) of parents wanted their child to receive the vaccine ACYW135 (Menectra), with 4.6% (9.7-) unsure.

Main parental concerns included potential side effects (81.3% (6.7-26.0) and adequate vaccine testing (13.3% (2.4-14.2)). Potential for an extra injection at an immunization visit resulted in 5.4% (2.2-8.1) of parents.) less likely to have their child immunized.

Potential redness/swelling at the injection site or mild/moderate fever resulted in only 3.5% (2.3-8.1) and 10.8% (8.5-13.2) of parents, respectively, less likely to have their child immunized.

Children being up to date with vaccinations and recommendation from pediatrician were the strongest independent predictors of parents agreeing their children should be immunized with ACYW135 vaccine (OR=4.25; p=0.004 and respectively).

CONCLUSIONS:
There is strong parental support for introduction of ACYW135 (Menectra) vaccines, with parental willingness to have children immunized, impacted more by number of injections than potential for adverse events such as local reactions or fever.

Predictive factors for the development of learning problems

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Introduction: Learning problems are one of the most discussed issues in recent years, since all the more children are diagnosed with learning problems, which affect their overall functionality.

Purpose: To record the epidemiological characteristics of children with learning problems; to explore the related factors and highlight the complexity of the problem.

Subjects and methods: We studied 450 children (mean age 8.5 years + 2 years) with learning problems by employing specially designed questionnaires and personal interviews with parents along with clinical consideration. The results were analyzed by employing the method of logarithmic regression (multiple logistic regression).

Results: All children who were found to have learning problems had at least one relative of the first degree with learning problems themselves. The boys excelled in relation to girls and so did children living in urban areas compared to those living in rural areas. The learning problems are associated with sleep disorders (100%), attention deficit disorders and hyperactivity (OR 2,28, 95% Cl :1,8-4, 08) as well as emotional and social problems (anxiety, isolation, depression [OR 5 , 3, 95% Cl :3,05-6, 79], adjustment disorders [OR 5,22, 95% Cl :3,39-7, 05], reduced ability to enter complex social relationships [OR 6,54, 95 % Cl :4,68-8, 48]).

Conclusions: Knowing the factors that are considered to be predispositions to the development of learning problems could be a guide for early recognition. The aim is to achieve the earliest intervention and to offer effective treatment in order to avoid potential future impacts of learning problems in all areas of children's life, such as school failure and emotional disorders.

Children with enuresis and parents' relationship quality

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Background. Chronic diseases in children demand an adjustment from both children, their siblings and their parents. Nocturnal enuresis in children creates a great strain for the whole family.

Aim. The aim of this study was to compare relationship quality in parents to children with enuresis with normative data (Ghaderi, Kadesjö, Kadesjö & Enerbring, 2014) and to examine how parental relationship is related to parental stress and parental conflict.

Participants and measures. Sixty parents (38 mothers and 22 fathers) with 5-12-years old children with enuresis participated in the study. Parents' relationship quality was measured with Dyadic Adjustment Scale with four items (DAS-4), parental conflict was measured with the Parent Problem Checklist (PPC) and parental stress was measured with the subscale Incompetence from the Swedish Parenthood Stress Questionnaire (SPSQ).

Results. The data is still under analysis, but the preliminary results showed that parent's relationship quality was related to parental stress, Pearson r = - 0.388, p = .006 and mothers reported a higher levels of parental conflict than fathers. During May we are planning to accomplish the comparisons with the normative data.

A case of breast abscess

Tijen Eren, MD, IBCLC, PhD in Social Pediatrics

The inflammation of the breast tissue, known as mastitis, is common in postpartum women. Taking milk cultures to predict potential cases may not be trustworthy since 50% of cultures from healthy women can contain bacteria. Breast abscess may occur as a result of recurrent mastitis attacks. Surgical drainage and the unpleasant symptoms attributed to the condition may discourage the mothers from breastfeeding. Consultation and close follow-up after appropriate treatment is essential for the continuation of the breastfeeding. In this case report, a 32 year old primiparous woman who developed galactocele secondary to multiple mastitis attacks is discussed. Despite the size of the abscess, the depth of the incision and long antibiotic therapy, she continued breastfeeding owing to close follow-up of the baby and intense lactation consultancy. The nature of lactation consultancy should be adjusted to the new mother's physical, psychological and medical demands. In spite of high breastfeeding drop-out rates after breast abscess, our patient was able to exclusively breastfeed her baby until the sixth month for a total of 12 months.

Educational children's books used in health promotion for children aged 0-5: A systematic review

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Context: Children's books have proven to positively influence language development, as well as parent-child relationship from an early age. However, the role of children's books in health promotion, particularly for pre-school children has not yet been thoroughly investigated. **Objectives:** To gather evidence for children's books used as health promoting tool in 0-5 year-olds, and to evaluate their effectiveness.

Data sources: PubMed, CINAHL, PsycINFO, Social Sciences Citation Index, and Arts & Humanities Citation Index were searched through March 19, 2013. Relevant articles were retrieved and edited according to PRISMA guidelines.

Study selection: Any intervention study, published in English or Swedish, utilising children's books for health promotion purposes was included.

Data extraction: Major outcomes were presented as qualitative differences in health knowledge, attitude towards health-related topics, and subsequent change in behaviour. The Cochrane risk of bias tool was used for validity assessment.

Results: 14 articles reporting on 16 trials met the eligibility criteria for this review. Health topics addressed included conditions during childhood and adolescence, eating habits and foods, and physical activity. Children's books elicited changes in knowledge, attitude and behaviour, especially when compared to no intervention and to random children's books. Overall, allocation concealment and blinding was poorly reported.

For each trial included in this systematic review, the risk of bias was assessed on seven different criteria.

Conclusion: This systematic review is a proof of concept that children's books are used and evaluated for health promoting purposes of young children. This study illustrates their potentially positive role in this context. To more firmly establish the impact of children's books on knowledge, attitude and behaviour, future studies are preferably conducted as randomized controlled intervention studies, with adequate long-term follow-up.

Estimating under-five mortality rates in rural Uganda (2002-2012) using direct and indirect methods

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Introduction: Measuring child mortality in developing countries is challenging, yet it is an important indicator of population health. There are two ways to estimate mortality: direct and indirect methods. The direct method relies on complete vital registration, which is often incomplete in developing countries. The indirect method uses retrospective summary birth histories (SBH) from census/surveys; these are prone to errors associated with recall and are dependent on certain assumptions. Here, we focus on the differences between direct and indirect under-five mortality (U5MR) estimates using different data sources from the same population over the same period.

Methods: The data included 10 years (2002-2012) of vital registration by trained lay recorders, and annual census (2002-2012), collected as part of an on-going general population cohort in rural Uganda. Direct estimates were calculated using the synthetic cohort method from prospective vital data. Indirect estimates were calculated using the Trussell version of the Brass indirect method on SBH.

Results: Overall, U5MR per 1000 live births was 129 using the direct method. After excluding child mortality rates for maternal age groups below 24 years and those above 39 years, the indirect method U5MR was 77-90, significantly lower than the direct estimate (p<0.01).

Conclusion: In this population, with relatively good vital registration, indirect methods may underestimate the true U5MR. Vital registration needs to be improved in rural populations in order to get more reliable estimates.

A National Quality Registry for Child Preventive Health Care Services in Sweden

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Aim

To develop a national quality registry with key indicators as a tool to improve the quality and equity of child preventive health care services delivered in Sweden.

Method

A project was initiated in 2005 with the goal of identifying key indicators of good quality in Swedish preventive child health care services. Indicators were discussed at a national conference and established by representatives of the professions in Swedish child preventive health care services. A working group was formed to develop and further describe the selected indicators. Central funds were sought from SALAR (Swedish Association of Local Authorities and Regions) in 2012. A central steering committee with broad professional and regional ties was formed to create a functioning registry for the proposed indicators.

Results

Since 2012 the registry board has worked to clarify, describe and expedite central administrative, legal and technical issues surrounding the creation of the registry. The initial indicators include number of children enrolled at child health care centers, coverage of the child population, first-born child of the family, indicators on the burden of care, parenting groups, home visits, postpartum depression screening, breastfeeding, parental smoking habits and weight and height at key ages. The first set of data on all children from birth to 5 yrs in 2013 from the Uppsala and Örebro county councils was reported to the registry in the beginning of 2014 to serve as test data for the creation of dynamic output reports**.** The absolute majority of all data will be transferred to the registry automatically from computerized medical record systems. In Sweden approximately 100 000 infants are born every year. When fully developed the register consequently will contain data from 500 000 children, 0-5 years of age, every year.

Conclusion

Several years of experience from two local quality databases for Child Health, in Uppsala and Örebro county councils, suggest that the routine collection of individual-level data from regular child health care activity can generate data of good quality that can be used for both continuous monitoring of quality and for research purposes. The registry will provide local data for quality improvement and decision support for staff, health service business managers and decision makers.