

open revascularisation remained fairly constant. For men aged <60 years, the age-specific rate of amputations increased significantly ($p=0.003$) from 21.1 to 61.1 per 100 000 over the study period (RR=1.33, 95% CI 1.09 to 1.61). Therapeutic endovascular procedure rates increased significantly ($p<0.001$) for men aged 60 to 74 years (RR=1.65; 95% CI 1.42 to 1.92) and 75 years or older (RR=2.6; 95% CI 1.96 to 3.47). Equally, a significant increase ($p<0.001$) in the population rates of therapeutic endovascular procedures for women of all age groups occurred over the period examined.

Conclusions A substantial change in the practice of vascular surgery has occurred in Scotland in the last 2 decades perhaps in response to new technologies and new clinical guidelines. This change should inspire further research to determine the outcomes of these vascular procedures

P1-454 EXPLANATIONS FOR SOCIAL INEQUALITIES IN PRETERM DELIVERY IN THE LIFEWAYS COHORT

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Introduction Social inequalities in pregnancy outcomes have been extensively described, but studies that explain these inequalities comprehensively are lacking. This analysis evaluated the contribution of material, psychosocial, behavioural, nutritional, and obstetrical factors in explaining social inequalities in preterm delivery.

Methods The data were based on a prospective cohort of 1109 Irish pregnant women. Preterm delivery was obtained from clinical hospital records. Socio-economic status was measured using educational level. The association between educational level and preterm delivery was examined using Cox model.

Results Educational level was found to be a significant predictive factor of preterm delivery; women with low educational level were more likely to have a preterm delivery (HR=2.14, 95% CI 1.04 to 4.38) after adjustment for age and parity. Rented and crowded home, smoking, alcohol consumption, and intake of saturated fatty acids displayed educational differences and were predictive of preterm delivery. Material factors (rented and crowded home) reduced the HR of preterm delivery for low educated women by 33%. The independent contribution of behavioural factors (smoking and alcohol consumption) from material factors was 5%, and the independent contribution of saturated fatty acids from material to behavioural factors was 4%. All these factors together reduced the HR of preterm delivery for low educated women by 42% (HR=1.66, 95% CI 0.76 to 3.63).

Conclusion This study is one of the first to attempt to explain social inequalities in preterm delivery comprehensively, and underlines the importance of material, behavioural and nutritional factors. More research is needed to better understand and prevent social inequalities in preterm delivery.

P1-455 TOOTH LOSS ASSOCIATED WITH RACIAL/ETHNIC DISPARITIES: A STUDY PRO-HEALTH

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Tooth loss is the accumulation of oral health hazards such as lack of access to dental care, inappropriate health behavioural, low socio-economic status. Studies have also shown more tooth loss among racial/ethnic minorities. Racial discrimination has been associated with racial/ethnic disparities in health, affecting the individual and

population health. The study aims to evaluate the association between race-ethnicity and tooth loss and the role of socioeconomic status, health behaviours, health services access and self-reported discrimination. Baseline cross-sectional data were obtained from the Pro-Saúde Cohort Study (Rio de Janeiro-Brazil) in 4030 civil servants, and analysed with ordered logistic regression. The outcome was self-reported tooth loss measured in four ordered categories. In the unadjusted model, browns, blacks and other ethnic groups increased the chances of having more missing teeth if compared to white, respectively the OR was 2.46 ($p<0.01$), 3.21 ($p<0.01$) and 2.99 ($p=0.01$). In the full model, adjusted for behavioural, socioeconomic, dental care and demographic variables, the OR was, respectively 1.27 ($p<0.05$), 1.43 ($p<0.05$) and 3.92 ($p<0.05$) for browns, blacks and other ethnic groups respectively. There was no significant association between tooth loss and self-reported discrimination.

P1-456 A CASE-CONTROL STUDY TO DETECT GENETIC AND ACQUIRED RISK FACTORS FOR PAEDIATRIC INFLAMMATORY BOWEL DISEASE

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Introduction Paediatric inflammatory bowel disease (PIBD) is considered to be a multifactorial disease with both genetic and acquired factors involved in its aetiology. The acquired factors include lifestyles and environmental factors of both patients in paediatric period and their mothers in perinatal period. Parental smoking, not breastfeeding (human milk substitute), mental stress, lack of sleeping time, low body activity, appendectomy, preterm delivery, and some genetic variants concerning pathways of immune responses such as CARD15/NOD2, DLG5, TLR4, OCTN1/2, MYO9B, IL23R, ATG16L, have reported to be possible risk factors for PIBD. However, to date, there has been no study analysing these factors simultaneously and clarifying their confoundings. The present study tries to elucidate genetic and acquired risk factors for PIBD and their confounding.

Methods PIBD cases and controls were recruited from affiliated hospitals of the Japan workshop for paediatric inflammatory bowel disease. Saliva sample of patients for genotyping and self-administered questionnaire for their mothers were obtained with written informed-consent.

Result and conclusion This paper will report interim results of the study starting from 2011. The present study is expected to develop early and individualised measures to prevent PIBD, intervention for lifestyles and environmental factors of expectant mothers possessing genetic risk factors for baby's future PIBD manifestation. Further, the results may contribute to clarify new pathogenesis of PIBD manifestation and more useful disease classification.

P2-457 WITHDRAWN

P1-458 TRENDS IN GEOGRAPHIC AND SOCIOECONOMIC DISPARITIES IN MUNICIPAL LIFE EXPECTANCY IN JAPAN: 1985–2005

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Introduction There is growing social concern about the expanding socioeconomic and health disparities that have occurred in Japan in

the past 3 decades. We investigated if Japanese geographic and socioeconomic disparities in life expectancy at birth (LE) have widened in this period.

Methods We used data on the LE of municipalities calculated every 5 years between 1985 and 2005. The municipality is the smallest administrative unit, for which LE data are available. Sample sizes varied from 1963 to 3354 across years due to nationwide municipality mergers undertaken after 2000. We also gathered information on the unemployment rates and other socio-demographic characteristics of municipalities. We used the relative index of inequality (RII) of LE (which corresponds closely to the relative LE gap between the top vs bottom municipalities in terms of LE or socioeconomic status, accounting for the variations in population size across all municipalities).

Results Among men, in 1985, the LE gap was 4.2% when municipalities were ranked by LE and 1.6% when ranked by the unemployment rate (as ordered from the lowest to the highest). Among women, these gaps were 2.6% and 0.4%, respectively. These values changed only slightly over time, showing a tendency for a slight increase among men after 2000 and a decrease in women after 1995.

Conclusion In Japan, during the period 1985–2005 geographic and socioeconomic disparities in municipal LE were larger in men than women. However, the LE disparity has been relatively small and stable despite the increase in income inequality since the 1980s.

P1-459 A WITHIN-HOST NETWORK OF HUMAN COINFECTION

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Coinfection by multiple parasites affects human health, parasite dynamics and the efficacy of infectious disease prevention and treatment. The capacity for different parasites (viruses, bacteria, fungi, protozoa, helminths) to interact is poorly understood. Inter-specific interactions between coinfecting parasites could occur in many ways, either directly or indirectly with the host's immune system or bodily resources. We aimed to summarise connected resources, parasites and immune system components in coinfecting humans using a network approach. The published literature contains thousands of records of coinfections in humans, associated immune responses, as well as parasite resource requirements. We used over 250 publications on human coinfection from 2009 to build an evidence-based *parasite-immune system-resource* network. We recorded the identity of coinfecting parasites, immune system components, host resources and the reported relationships between them. The network represents the potential for parasites to interact based on observation and theory found in recent coinfection literature. Results show the great taxonomic variety of coinfecting parasites, with particular involvement of viruses. Some parasites were reported in more coinfections, most notably HIV, suggesting that recent disease invasion and induced immunodeficiency may facilitate many parasite interactions. The network can also be used to generate numerous hypotheses for modelling work and suggestions for future observational and experimental research. The use of networks and other research tools to understand parasite interactions within coinfecting hosts will help predict the potential for and consequences of disease invasions, as well as improve infectious disease interventions.

P1-460 MOTHER MIGRATION AND IMMUNISATION STATUS OF CHILDREN ACROSS DIVERSE SETTINGS IN INDIA

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Introduction The geographical, cultural and socio-economic diversity of India implies that coverage of immunisation programmes and

uptake varies between rural and urban areas, among different geographical regions and states. It has been seen that mother's migration is an important determinant of child immunisation uptake. This study examines the individual and community level explanatory factors associated with child immunisation differentials between migrant and non-migrant mothers groups in two states that is, Uttar Pradesh (UP) and Kerala of India. These two Indian states one in South (Kerala, where immunisation coverage is about 80%) and another in North (UP- immunisation coverage is below 50%) have different socio-economic, demographic and cultural characteristics.

Methods The data from the National Family Health Survey (NFHS-3) has been used in this study. The study is limited to children born during the 59 months before the interview. Multiple logistic regression analyses have been carried out to assess the relative contribution of independent variables on immunisation status.

Results The results indicate that Individual and community level variables are strongly associated with the likelihood of receiving full immunisation among migrant groups. The likelihood of full immunisation was higher for children of urban non-migrant mothers compared to children of rural-urban migrant mothers in UP while in Kerala, the vice-versa is true.

Conclusion Even after the enormous efforts by the government to popularise childhood immunisation, the lack of awareness among the parents, especially the mothers, remained a dominant reason for not vaccinating the child.

P1-461 STEPS IN ASSESSING THE HEALTH OF A COMMUNITY: THE HEALTHY COMMUNITY COUNCIL 2011 ASSESSMENT PROCESS

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The Harrisonburg-Rockingham Healthy Community Council (HCC) is a community-based organization located in the Shenandoah Valley of Virginia that was established in 1995 with the mission "to enhance the quality of life for the community through collaborative efforts of individuals, agencies, and institutions." To accomplish this mission, HCC members have conducted community needs assessments on quality of life in 1996, 2001, and 2006. Data from each assessment has been utilised to determine community need. Previous assessments have led to over \$11 million in funding for community initiatives. The HCC has just implemented the process for conducting the 2011 community needs assessment. Emphasis will be on the comparison of previous assessment data from 2001 to 2006 to evaluate longitudinal trends. The objective of this presentation is to provide a detailed step-by-step process for a comprehensive community needs assessment. Steps to conducting the 2006 and 2011 assessment include (1) forming a community needs coalition, (2) selecting community-specific indicators, (3) developing a community needs assessment instrument, (4) obtaining a random sample of assessment participants, (5) collecting, managing, and analysing assessment data, (6) utilising resources (budget, in-kind contributions, etc) throughout the assessment process, (7) interpreting assessment data, (8) ascertaining local, state, national and international data for comparison purposes, (9) tying outcomes to assessment data, and (10) finalising a written report. The steps can be utilised by any agency or organization to develop a community-specific assessment to identify needs and establish priorities. Specific techniques including common pit falls to conducting community assessments will be addressed.