

(11.4%) subjects with 4 being exposed to higher dust levels. There is a statistically significant relationship with duration of work, type of work and the level of dust exposure with the clinical features ($p < 0.001$).

Conclusion There is a decline in the lung function which is related to the duration of work and amount of dust exposure. It mainly shows a restrictive pattern of impairment.

P1-450 IMPROVEMENTS IN SOCIAL COHESION: DO THEY MATTER FOR PHYSICAL ACTIVITY

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Introduction Much research exists on the relationship between environmental factors and physical activity (PA). However, few studies have investigated the role of social cohesion in neighbourhoods. The aim of this study was to assess the extent to which social cohesion and changes over time in the levels of social cohesion were associated with PA.

Methods We used data from the survey WoonOnderzoek Nederland 2006 and 2009, using two samples of 57 092 Dutch adults. Using multi-level Hurdle Negative Binomial models, we assessed if the odds for being physically inactive and the mean hours of PA among people who are physically active were related to levels of social cohesion at neighbourhood level, and changes in social cohesion between 2006 and 2009. Next, we examined if these associations varied according to sex, age, and economic activity.

Results In areas with higher levels of social cohesion compared to areas with less social cohesion, more people were physically active. In addition, generally social cohesion was not associated with the amount of PA. Improvements in social cohesion between 2006 and 2009 were not associated with the odds of being inactive in the general population and with the amount of PA among the people being physically active.

Conclusion Social cohesion is related to physical (in) activity. However, improvements in social cohesion were not strongly related to physical (in) activity. This raises question on the causality of the relationships that are observed in cross-sectional analyses. Enhancing social cohesion in neighbourhoods may have limited influence on population levels of physical activity.

P1-451 INFANT MORTALITY IN SWITZERLAND

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Infant mortality rates in Switzerland had been among the lowest in Europe. This is not longer the case. Swiss rates are now in the medium range. This paper examines reasons why. Data from 1900 to 2009 is based on the birth database held at the Swiss Federal Statistical Office (FSO). Variables on weight, length, number of siblings, ages of mother and father are taken into account, as well as causes of death. Gestational age was only recently introduced into the data registration. In 1900 the infant mortality rate in Switzerland was 150 per 1000 live births, in 1990 6.8 and in 2009 4.3 per 1000. In the last 20 years, the infant mortality rate dropped by about a third. A strong decline is primarily observed among children aged 28 days up to 1 year. In children aged 1 to 27 days, the mortality rate has halved over the same period. A growing mortality rate, however, is seen in infants in the first 24 h after birth. Mostly

affected are extremely premature births, which are due to their immaturity at high risk. During the same time, numbers of twins, numbers of low birth weight infants and age of mothers had increased considerably. The slowing, if not stagnant decline in infant mortality in Switzerland in recent years is explained by an increase in high risk deliveries. Infants in Switzerland die, if anything, more and more in the first days of life, even in the first hours after birth.

P1-452 BREASTFEEDING PRACTICES IN INDIA: A SURVIVAL ANALYSIS

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Introduction The single most cost effective intervention to reduce infant mortality in developing countries would be by promoting exclusive breastfeeding. Breastfeeding should be initiated immediately after child birth and should be continued exclusively up to a maximum of 6 months. In India where a majority of the population has a low income and poor education, the need for breastfeeding represents the effective way of giving child a fair chance of survival and good health. The objective of the present study was to describe the association between exclusive breastfeeding and socio-economic demographic & cultural variables.

Methods The data for the study was taken from nationwide District Level Health Survey- 3 (DLHS-3) conducted in 2007–2008. The statistical tests used were Kaplan-Meier survival curves & Cox proportional hazard model.

Results The mean duration of exclusive breastfeeding in India was found 3.31 months (95% CI 3.08 to 3.15) while it was found almost 4.15 months (4.03 to 4.28) in low infant mortality states in southern India compared to 1.5 months (1.45 to 1.54) in high infant mortality states in northern India. The analysis showed that no maternal education ($p < 0.001$), being an unemployed mother ($p < 0.001$), and Muslims ($p < 0.001$) were important associations of early cessation of exclusive breastfeeding.

Conclusion The study showed that survival status of the child had a significant impact on the duration of exclusive breastfeeding. Also it was found that the time of initiation of breastfeeding after birth was an important determinant for total duration of exclusive breastfeeding.

P1-453 TRENDS OF VASCULAR SURGERY IN SCOTLAND 1991–2007

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Objective To understand trends of vascular interventions and changes in provision of vascular surgery.

Design A retrospective, descriptive, population-based study using hospital discharge data.

Setting Scotland 1991–2007.

Chief outcome measures Time trends in patient demographics and age and sex-specific population rates of these procedures.

Results In Scotland, between 1991 and 2007, a total of 153 117 vascular procedures of interest were performed. The proportion of men who underwent these procedures was higher than the proportion of women. The mean age of individuals who underwent amputation and lumbar sympathectomy decreased significantly over the period under review ($p < 0.001$). In contrast, the mean age of individuals who underwent diagnostic endovascular procedures and therapeutic endovascular procedures increased significantly ($p < 0.001$). However, the mean age of individuals who underwent

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