SP6-38 TOBACCO SMOKE AND THE RISK OF PERTHES' DISEASE IN SOUTH WEST INDIA: A CASE-CONTROL STUDY

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Introduction Legg-Calvé-Perthes' disease is an idiopathic avascular necrosis of the femoral head that arises in childhood. There have been many theories on its aetiology, which include the role of genetic factors, environmental factors, poverty, repetitive trauma and abnormalities of thrombosis and fibrinolysis. Recent theories on the aetiology of Perthes' disease have focused on passive smoking as a risk factor. Previous studies in southwest India have determined that the prevalence of Perthes' disease is very high. The prevalence of tobacco use in the area is not higher than in other regions of the country. Based on these observations, the association between passive smoking and Perthes' disease was re-examined.
Methods Cases were children aged <12 years at diagnosis of Perthes' disease. Children presenting to the hospital for other orthopaedic complaints formed the controls. The 128 eligible cases were frequency matched on age and sex with controls, with 3 controls per case. Conditional logistic regression was employed to evaluate the association between the exposures and risk of Perthes' disease.
Results Risk factors for Perthes' disease were having a family member who smokes indoors (adjusted OR 2.07) and indoor use of a wood stove (adjusted OR 2.56).
Conclusion This study adds further evidence for the association between tobacco smoke and Perthes' disease. For the first time the association between wood smoke and Perthes' has been demonstrated.

SP6-39 OVERCOMING BARRIERS OF POOR PERINATAL CARE SERVICES IN URBAN SLUMS: POSSIBLE ROLE OF SOCIAL MOBILISATION NETWORKS

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Background Making perinatal care accessible to women in marginalised periurban areas poses a public health problem. Many barriers to utilisation of perinatal care can be overcome by social mobilisation and capacity building at the community level.
Objectives To determine the existing perinatal practices in two urban slums and to identify barriers to utilisation of health services by mothers.
Study design This is a cross-sectional descriptive study.
Setting and Participants The high-risk periurban areas of Nabi Nagar and Mehfooznagar, Aligarh has a population of 87 000 living in 10 480 households. Mothers delivering babies in September 2010 were identified. A total of 202 mothers were interviewed at home. Current perinatal practices and reasons f health services were the topics of enquiry. Statistical Analysis done by SPSS 18.
Results Analysis revealed that 80.4% of mothers had received antenatal care. However, this did not translate into safe delivery practices. Reasons for preferring home deliveries were mostly tradition (41.9%) or related to economics (30.7%). A total of 56% of the deliveries were conducted in the squatting position and in 25% of the cases, umbilical cord was cut using the edge of a broken cup. Inappropriate early neonatal feeding practices were common. Prelacteal feeds were given to nearly 50% of the babies and feeding was delayed beyond 24 h in 8% of the cases.
Conclusion Barriers to utilisation of available services leads to hazardous perinatal practices in urban slums.

SP6-40 DEATH AND HOSPITALISATION HAVE DIFFERENT SEASONALITY

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Introduction Seasonality of disease has been long recognised in epidemiology. More recently, researchers have established standard ways of measuring seasonality. In temperate countries there has been a particular interest in excess winter mortality (EWM), and, to a lesser degree, excess winter hospitalisations (EWH). Understanding the aetiology of seasonality is important for identifying interventions and potential future climate change effects.
Method We measured EWM and EWH in 60–95 year olds between 2000 and 2008, by ICD-10 chapter, and the contribution of each chapter to all-cause winter excess. We then compared indices and percentage contributions for mortality to those for hospitalisation.
Results Indices do not lie in the same direction for all ICD-10 chapters. Excesses lay within the same range only for respiratory deaths and hospitalisations. Circulatory illness showed an excess for both hospitalisation and death, but the excess was higher for mortality than for morbidity. However, neoplasms, digestive diseases, and genitourinary diseases all showed a winter mortality excess but a non-winter hospitalisation index. Other chapters also lacked a relationship between indices for hospitalisation and death. Similarly, there was a difference in contribution to winter excess by chapter.
Conclusion The comparison of EWM and EWH indicates that caution may be needed in extrapolating causal results from one to the other. As their disease and excess distribution is different, factors which contribute to EWH may play a different role in EWM, and vice versa. Research that can identify the reasons for these differences would improve our understanding of the mechanisms causing disease seasonality.

SP6-41 DESCRIPTIVE EPIDEMIOLOGY OF MORTALITY AMONG THE NEW ZEALAND EXPEDITIONARY FORCES IN WORLD WAR I

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Introduction The military personnel in the New Zealand (NZ) Expeditionary Forces (NZEF) during World War I experienced high mortality (18 000+ deaths). There is little research on these deaths so we aimed to provide a more detailed historical and epidemiological account of this mortality burden.
Methods Various NZEF datasets and sources were used to examine mortality patterns and the robustness of the available data with historical accounts. Extensive coding work was required to allow epidemiological analyses.
Results The majority of NZEF deaths (80.9%) were a direct result of being killed in battle or being wounded. Deaths from disease also represented a substantial NZEF loss of life (at 17.9% of all deaths). The majority of these disease deaths were from pandemic influenza but other outbreaks occurred (eg, dysentery, measles). Māori (indigenous New Zealanders) and Pacific peoples in the NZEF experienced significantly higher mortality rates from disease compared to European/Other NZEF. Healthcare workers experienced significantly lower mortality from all causes, including disease, compared to other military units. This difference is possibly the result of less frontline presence and perhaps prior immunity from occupationally-related exposure to infectious agents.
Conclusions This study found substantial variation in mortality rates, by time, place and person. Both military factors and a