

2020". Refractive errors, is one of the priority areas for vision 2020 as they are so common and because corrective spectacles provide a remedy that is cheap, effective and associated with huge functional improvement.

**Aims and Objectives** To estimate the prevalence of refractive errors and colour blindness among 5–15 years school going children in Shimla.

**Materials and Methods** Cross sectional study carried out in the urban and rural schools of Shimla. In a total of 2000 school children aged 5–15 years visual acuity was tested using ETDRS chart for refractive error and Ichihara colour plates for colour vision. Trained school teachers assessed visual acuity and colour vision. Students found having visual impairment by trained school teachers were further examined by refractionist.

**Results** Among the 2000 study subjects 956 (48%) were males and 1044 (52%) were females. The mean age of the study participants was 12.59 years+2.25. 4.2% were found to be having refractive error. Myopia was found to be the most prevalent type of RE followed by hypermetropia and finally astigmatism. There was no association between RE with gender. The prevalence of colour blindness was 0.3%.

**Conclusion** Because visual impairment can have a significant impact on a child's life in terms of education and development, it is important that effective strategies be developed to eliminate this easily treated cause of visual impairment.

**P2-414 THE ALL IRELAND TRAVELLER BIRTH COHORT STUDY (2008–2011): EXPERIENCE FROM A NOMADIC COHORT OF FIVE HUNDRED FAMILIES**

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**Introduction** Irish Travellers are a nomadic minority group in Ireland with a strong cultural identity, who experience profound socio-economic and health inequalities. The All Ireland Traveller Health Study is a multi-study project, one component of which is a birth cohort follow-up study. The aim of this study is to describe the methodology and findings to date.

**Methodology** This is a 3-year longitudinal linkage cohort study of all Irish Traveller mothers who gave birth on island of Ireland between 14 October 2008 and 13 October 2009 followed up for 1 year thereafter to assess infant mortality and health outcomes. Public Health Nurses and Traveller community health workers in Traveller Health Projects facilitated cohort ascertainment. Participating mothers carried a Parent-Held Child Record and consented to linkage to perinatal data in maternity hospitals. Infant Traveller deaths were also searched for in the General Register Office.

**Results** Of 987 Traveller births identified, 506 consented (51.2%) to participation. We retrieved 491 linkage records (97%) from the 25 maternity hospitals and 348 (68.8%) of the Parent-Held Child Record in 37 districts. 35% of participants in the cohort still travel with 19.7% lost from follow-up as a result of nomadic practice. Preliminary follow-up data suggest infant mortality was higher in the refusal group and predominantly from congenital conditions in the perinatal period.

**Conclusion** The recruitment strategy was culturally appropriate and, despite challenges to engagement, longitudinal follow-up to date has been largely successful. The experience is relevant to other indigenous minority healthcare initiatives worldwide.

**P2-415 SMOKING-SPECIFIC COMMUNICATION AND CHILDREN'S SMOKING BEHAVIOUR: AN EXTENSION OF THE THEORY OF PLANNED BEHAVIOUR**

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**Introduction** Smoking starts and progresses rapidly during adolescence. Therefore, it is important to prevent youths from smoking. Previous research is mostly conducted on adolescent samples. This innovative study will focus on smoking of children aged 9–11 years old. The aim is to test whether parental smoking-specific communication and parental smoking add to smoking-specific cognitions derived from the Theory of Planned Behaviour (TPB) in predicting smoking onset.

**Method** A total of 1478 pairs of mothers and children participated. Structural equation models in Mplus were used to examine whether parental smoking-specific communication are important in shaping children's smoking cognitions, which affects smoking onset.

**Results** Pro-smoking attitude, higher frequency of communication and high parental smoking were associated with smoking onset. No significant association was found for self-efficacy, perceived norm of mother, (best) friends on smoking onset. We also found that a frequency of communication, quality of communication and parental smoking were related to smoking cognitions.

**Conclusion** At this age, smoking-specific communication and smoking behaviour of parents are associated with smoking cognitions. From the cognitions, only attitude is related to smoking onset. The extension of TPB is comparable with earlier research on adolescents. A difference between adolescent and child research is that cognitions have no association with smoking onset. A possible explanation can be that smoking-specific cognitions are not developed at this age because children are not engaged in smoking yet. Results can be used to develop effective family-based smoking prevention programs.

**P2-416 ESTIMATING THE PREVALENCE OF HEPATITIS B INFECTION AMONG PEOPLE WHO INJECT DRUGS: RESULTS FROM A GLOBAL SYSTEMATIC REVIEW**

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**Introduction** Hepatitis B virus (HBV) infection, although not as prevalent among people who inject drugs (PWID) as hepatitis C, remains a significant public health concern. We present the first detailed global review of HBV prevalence among PWID.

**Methods** As part of the WHO-funded Global Burden of Disease study, we undertook a systematic review of electronic databases (Medline, Embase, PsycINFO) and relevant conference abstracts to identify studies reporting HBV prevalence among PWID. Experts in the field were invited through a "viral email" to submit unpublished reports, to ensure inclusion of as many studies as possible. Studies were graded according to methodological characteristics and data quality, before national, regional and global prevalence estimates of specific HBV markers were calculated.

**Results** Two hundred and eighty-nine studies reporting HBV prevalence estimates from more than 50 countries were identified. Most

studies were conducted between 1990 and 2010, predominantly in middle- and high-income countries, although there has been an increase in the number of studies from low-income countries recently. HBV markers measured and definitions of HBV infection varied between studies; 146 studies reported specifically on prevalence of antibodies to HBV core antigen, and 90 reported prevalence of HBV surface antigen. Few papers reported age- or gender-specific prevalence estimates.

**Conclusions** This is the first comprehensive review of the global prevalence of HBV in this high-risk population. Data quality and research methods, particularly HBV markers assessed, varied markedly. Better quality and more complete data are required to accurately assess the scale and significance of this public health problem.

#### P2-417 NICOTINE DEPENDENCE AMONG DAILY CIGARETTE SMOKERS IN 14 COUNTRIES

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**Introduction** Tobacco use is the leading preventable cause of death globally, causing more than five million deaths a year. There have been studies on nicotine dependence in developed countries. However, it is little known about nicotine dependence at population level in high burden and high populated countries. Nicotine dependence is important for tobacco control strategies. In this paper, we will present nicotine dependence among daily cigarette smokers in Russian Federation, Ukraine, Poland, Turkey, Brazil, China, Thailand, Vietnam, Philippines, India, Bangladesh, Uruguay, Mexico, and Egypt.

**Methods** Daily cigarette and bidi smokers are analysed from 2009 to 2010 Global Adult Tobacco Surveys (GATS) in 14 countries: China, India, Bangladesh, Brazil, Russian Federation, Vietnam, Philippines, Thailand, Mexico, Egypt, Turkey, Poland, Ukraine, and Uruguay. Nicotine dependence is measured by heaviness of smoking index calculated from the time since the first smoke and the number of cigarettes (and bidis that are analysed separately) smoked per day. A statistical package, SUDAAN, was used in the analyses to take the complex survey into account.

**Results** Heaviness of Smoking Index (HSI) for daily cigarette smokers ranges from the lowest in Bangladesh (1.32) to the highest in Poland (2.53). For males, the highest HSIs are in the Russian Federation (2.75), Ukraine (2.69), and Poland (2.66). For females, the highest HSIs are in Poland (2.34) and India (2.12). Daily cigarette smokers who think about quitting have a lower HSI score than those who do not want to quit.

**Conclusion** Nicotine dependence among daily cigarette smokers varies by geographic region.

#### P2-418 WEATHER VARIABILITY AND THE INCIDENCE OF INFLUENZA: BAYESIAN TIME SERIES ANALYSIS

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**Introduction** Influenza is one of the most common infectious diseases in the world. Few studies have examined the quantitative relationship between weather conditions and influenza. This paper examined the potential impact of weather variability on the incidence of influenza in Brisbane, Australia.

**Methods** Data on daily weather variables (minimum temperature and rainfall), notified influenza cases and population size in Brisbane

were supplied by the Australian Bureau of Meteorology, Queensland Health, and Australian Bureau of Statistics for the period of 1 January 2002–31 December 2008, respectively. Bayesian time series Poisson regression model was performed to examine the potential impact of weather variability on the incidence of influenza.

**Results** The weekly mean of number of influenza cases, minimum temperature and rainfall were 12.59, 15.41°C and 16.52 mm between January 2002 and December 2008, respectively. Bayesian time series Poisson regression model shows that the average number of weekly influenza cases increased by 8% (95% credible interval (CrI): 9 to 10%) and 6% (95% CrI: 2 to 10%), for a 1°C decrease in average weekly minimum temperature at a lag of one week and a 10 mm increase in average weekly rainfall at a lag of one week, respectively. An interactive effect between temperature and rainfall on influenza was also found.

**Conclusions** The results of this study suggest that temperature and rainfall are among the main determinants of influenza transmission.

#### P2-419 PHYSICAL ACTIVITY AMONG DUBAI POPULATION PREVALENCE AND SOME ASSOCIATED FACTORS

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**Objectives** Study the prevalence of physical activities among Dubai population and the effect of some associated factors, assess the knowledge, practice and attitudes.

**Methodology** A cross sectional survey has been carried out upon random sample of adult Dubai population age range (18–65) years, the sample was identified from schools, universities, primary healthcare centers visitors, governmental offices, commercial Malls and house hold families, sample size was estimated by using Epi Info software, it was 2226 individuals of different age, sex, income, social class. socio-demographic data, Knowledge, attitudes, practice, and reasons of avoidances.

**Results** 23.6% of the sample showed good knowledge and 86.6% showed positive attitude towards practicing physical activities, about 34.6% of the sample are practicing physical activity regularly (prevalence rate among Dubai adult population), it was appear that practicing of physical activity is significantly higher among emirates in comparison with expatriates, highly educated individuals (university and above), and high income people (10 000 ED and above), the study showed that the main reason behind non practicing physical activity were lack of time 47.3%, tiredness and exhaustion 20.1%. UN availability of suitable places 17.3%, the multiple logistic regression analysis showed that there are four factors significantly affect on practicing of physical activities in Dubai, they are, Nationality OR was 1.49 among Emirates compared to expatriates, Educational level, OR was 2.00 among higher education compared with low education (primary school), Awareness and knowledge factor OR 3.49 and income factor showed higher practicing of physical activity among individuals with high income (10 000 and above) compared to low income individuals <10 000 ED.

**Recommendations** Establishing national public health program to approach physical activity problem and developing effective strategies to deal with the causes.

#### P2-420 IMMUNOGENICITY OF PANDEMIC INFLUENZA A (H1N1) MONOVALENT VACCINE AMONG IMMUNOSUPPRESSED HEMATOONCOLOGY PATIENTS

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