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.

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**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 know 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, Russia 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 bids 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.

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**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 number of weekly influenza cases increased by 3% (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.

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**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** 25.6% of the sample showed good knowledge and 86.6% showed positive attitude towards practicing physical activities, about 54.6% of the sample are practicing physical activity regularly (prevalence rate among Dubai adult population), it was appear 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.

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**P2-420 IMMUNOGENICITY OF PANDEMIC INFLUENZA A (H1N1) MONOVALENT VACCINE AMONG IMMUNOSUPRESSED HEMATOPOIETY PATIENTS**

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**Introduction** Influenza A (H1N1) monovalent vaccine was first used in the 2009–10 influenza pandemic to protect high-risk populations from severe illness and death. While the efficacy of the vaccine has been shown to be high in healthy adults, its effect in immunocompromised patients is not well understood.

**Methods** A prospective cohort study was conducted at two hospitals in Fukuoka City, Japan, from June to August 2009. Patients with hematological malignancies or solid tumors who were receiving chemotherapy or immunosuppressive therapy were enrolled. The primary endpoint was the seroconversion rate at 4 weeks after vaccination.

**Results** A total of 53 patients were enrolled, and 50 were evaluable. The seroconversion rate was 98% (49/50), and the geometric mean titer (GMT) was 190 at 4 weeks after vaccination. The GMT was higher in patients with hematological malignancies than in those with solid tumors. No serious adverse events were reported.

**Conclusion** The influenza A (H1N1) monovalent vaccine was highly immunogenic in immunosuppressed hematopoietic patients, with a seroconversion rate of 98% and a GMT of 190 at 4 weeks after vaccination. These findings support the use of this vaccine in high-risk populations.