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 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, 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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Introduction Influenza is a potentially serious infection among hematooncology patients. The Immune system in these patients has been suppressed, and the antibody response to vaccines is supposed very poor. We conducted this study for the purpose of evaluating the immunogenicity and reactogenicity of the pandemic vaccine among immunocompromised hematooncology patients.
Materials and Methods During the 2009–2010 influenza season, 50 hematooncology patients (20 men, 30 women; mean age: 58.5±13.8 years) received two doses of monovalent inactivated unadjuvanted vaccine. The immunogenicity of the vaccine was evaluated according to conventionally used international criteria (EMEA, 1997; FDA, 2007).
Results The geometric mean of HI titre 4 weeks after vaccination increased from a pre-vac level of 5.0 to 12.0 for the first injection, and to 21.0 for the second injection. Both the sero-conversion and protection rates were 27% for the first injection, and 46% for the second injection. Within 1 year dosages of the rituximab (anti-CD20 monoclonal antibodies) decreased sero-response rates significantly, showing that rituximab had invalidated the vaccine's efficacy. No unique adverse events were detected.
Conclusions Although the immune system in hematooncology patients has been suppressed, a two-shot influenza vaccination series showed a booster effect and achieved the EMEA criteria. Dosages of rituximab invalidated the vaccine's efficacy within one year. Therefore, optimal timing for influenza vaccination is needed for patients receiving chemotherapy.

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P2-421 WOMEN, VIOLENCE AND TOBACCO: ARE WE MISSING AN IMPORTANT LINK?

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Introduction The tobacco industry now aggressively targets women in order to increase its consumer base, since fewer women than men use tobacco all over the world. In response to the call by the WHO for more research aimed at understanding tobacco use among women, this study examined associations between history of domestic violence and current tobacco use among women of reproductive age.
Methods Data from the 2008 Nigeria Demographic Health Survey (NDHS), a nationally representative cross sectional survey of 33 385 women aged 15–49 was analysed. Logistic regression analysis was used to assess associations between domestic violence and tobacco use.
Results Only 0.9% of women were current users of tobacco in any form. Of these, 0.5% used snuff, 0.2% used cigarettes, 0.1% used chewing tobacco while 0.1% smoked pipes. The odds of tobacco use increased with experiences of severe physical violence [OR=2.9; 95% CI 2.2 to 3.9] and sexual violence [OR=2.9; 95% CI 2.0 to 4.1] but not with emotional violence. Those women who had also been hurt physically by a former partner had higher odds of current tobacco use [OR=5.2; 95% CI 2.1 to 12.8]. Interestingly women who used tobacco had more often also physically hurt their husbands even when the husbands were not hurting them [OR=2.2; 95% CI 1.3 to 3.8].
Conclusion Experiencing violence affects the psychological health status and may explain susceptibility to tobacco use in women. In the spirit of World No Tobacco Day 2010 tobacco control strategies must recognise the psychosocial environment of tobacco users and also address domestic violence for sustained impact.

P2-422 EPIDEMIOLOGY BY ZIP CODE FOR CANCER STUDY IN TEHRAN CITY

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Geographical Information System is a computerised system for managing and analysing the geographic information. It has the capability to gather, save, analyse and show the geographic information. Considering utilising of zip codes has segregation of information in residential usage, the experts of the ministry of health and medical support this method (utilising zip codes) as the best way to reach to their aims. Digitising 18 sheets of the plans of Tehran considering various methods of clarification of existent information including 700 thousand informational records, were analysed and tested by different softwares like ArcGIS, Arcview, Edvisi, Ilwis and AutoCAD. These methods contain, rechecking the information by operators and clarification of information on the postal and geographical plans by mentioned softwares. As the addresses in the files of The Office of Codifying were edited in three parts (sector, penultimate pass way, last pass way) The program firstly verifies all three fields with data bank of cancer to attribute 5 digits codes to patient's address, and then if two fields in one record are verified with data bank, 5 digits of zip code is attributed to the patient's address and finally all records which have received codes are eliminated thus these records are moved out of the comparing circle. The plans show that the most aggregated zone of cancer epidemy is Bazar and south west is the second most aggregated zone. This method can be use in several cases such as EOC GIS (Emergency Operation Center), Sustainable development, health GIS, Crime GIS, Educational management, Economical cases and any other macro managements system.

P2-423 CROSS-SECTIONAL BIOMONITORING OF POST-WAR METALS IN ADULT POPULATION IN EAST CROATIA

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Aim To determine metal and metalloid exposure in the people of east Croatia exposed to heavy and moderate fighting during the 1991–1995 war in Croatia.
Methods The concentrations of 18 elements, that is, aluminium (Al), arsenic (As), barium (Ba), cadmium (Cd), chromium (Cr), copper (Cu), iron (Fe), manganese (Mn), molybdenum (Mo), niobium (Nb), nickel (Ni), lead (Pb), titanium (Ti), uranium (U), vanadium (V), tungsten (W), zinc (Zn) and zirconium (Zr), reported to be associated with military operations, were determined in hair, serum and urine samples using inductively-coupled plasma mass spectroscopy (ICP-MS). A total of 391 participants from east Croatian areas of heavy and moderate fighting were included in this biomonitoring cross-sectional study.
Results Higher concentrations of the selected elements associated with fire arms (Al, As, Ba, Cd, Cr, Cu, Mn, Mo, Ni, Pb, U, V, W, Zn i Zr) were determined in one or more samples of study participants from east Croatia as compared with literature data available.
Conclusion Study results revealed high concentrations of the selected elements in biological samples of the study population from east Croatia, pointing to the need of comprehensive risk assessment and extensive monitoring of metal and metalloid exposure in the populations living in former conflict zones, emphasising the role of biomonitoring through ecologic and preventive activities.