

**P1-396 HEPATITIS B VIRUS (HBV) INFECTION IN RELATION TO CONSISTENT CONDOM USE: A POPULATION-BASED STUDY IN PERU**

doi:10.1136/jech.2011.142976f.87

<sup>1</sup>A Bernabe-Ortiz,\* <sup>1</sup>C Carcamo, <sup>2</sup>J Scott, <sup>2</sup>J Hughes, <sup>1</sup>P Garcia, <sup>2</sup>K Holmes.  
<sup>1</sup>Universidad Peruana Cayetano Heredia, Lima, Peru; <sup>2</sup>University of Washington, Seattle, Washington, USA

**Introduction** Data on hepatitis B virus (HBV) are limited in developing countries. The study goal was to evaluate the prevalence and factors associated with HBV infection in Peru, highlighting its relationship with consistent condom use.

**Methods** Data from two different surveys performed in 28 mid-sized Peruvian cities were used. Participants aged 18–29 years were selected using a multistage cluster sampling. Information was collected through a validated two-part questionnaire. The first part (face-to-face) concerned demographic data, while the second part (self-administered using handheld computers) concerned sexual behaviour. Hepatitis B core antibody (anti-HBc) was tested in 7000 blood samples. Prevalences and associations were adjusted for sample strata, primary sampling units and population weights.

**Results** Anti-HBc prevalence was 5.0% (95% CI 4.1% to 5.9%), with the highest prevalence among jungle cities: 16.3% (95% CI 13.8% to 19.1%). Anti-HBc positivity was associated with geographic region (highlands OR=2.05; 95% CI 1.28 to 3.27, and jungle OR=4.86; 95% CI 3.05 to 7.74; compared to coastal region); and age at sexual debut (OR=0.90; 95% CI 0.85 to 0.97). Consistent condom use was associated with lower prevalence (OR=0.34; 95% CI 0.15 to 0.79) after adjusting for sex, geographic region, education level, lifetime number of sex partners, and age at sexual debut.

**Conclusion** Residence in highlands or jungle cities is associated with higher anti-HBc prevalences, whereas increasing age at sexual debut was associated with lower prevalences. Consistent condom use was associated with decreased risk of anti-HBc. These findings emphasise the need of vaccination especially in jungle population, and imply that condom use promotion might be a strategy to prevent HBV infection.

**P1-397 CHANGES IN UTILISATION OF HEALTH SERVICES AFTER REMOVAL OF USER FEES: OBSERVATIONS IN RURAL NEPAL**

doi:10.1136/jech.2011.142976f.88

<sup>1,2</sup>A Bhurtyal,\* <sup>3</sup>A K Poudyal, <sup>4</sup>M K Maskey, <sup>3</sup>D Adhikari, <sup>1</sup>D R Sharma, <sup>5</sup>K Bhurtyal.  
<sup>1</sup>People's Health Initiative, Kathmandu, Nepal; <sup>2</sup>World Health Organization, Country Office Nepal, Kathmandu, Nepal; <sup>3</sup>Department of Community Medicine and Family Health, Institute of Medicine, Tribhuvan University, Kathmandu, Nepal; <sup>4</sup>Nepal Public Health Foundation, Kathmandu, Nepal; <sup>5</sup>Independent medical doctor, New York, USA

**Introduction** Nepalese society is divided across hierarchical strata of gender, ethnicity and economic class, with women, ascribed “lower caste” and poor people placed at the bottom of society. Since 2007, the ministry of health and population removed user fees in primary health services in an attempt to increase use of the services, particularly among underserved population.

**Methods** Records of 1850 health services users were selected randomly from peripheral facilities—district hospital, primary healthcare centre, and 4 (of 8) health posts—of Jumla—a rural mountain district. Proportions of health services use by privileged and underprivileged ethnicities, men and women, and rich and poor people; before and after user fee removal, were calculated. Semi-structured interviews were conducted among health services users, management staff, and representatives of donors and NGOs working in the district.

**Results** After fee removal, use of health services by women, underprivileged ethnicities, and poor people increased by 2.4%, 6.8% and 9.2% respectively. However, users and providers had conflicting opinions over the delivery of free health services. There was no evidence to establish the role of health system related confounders, however, it was suspected that ongoing process of state democratisation may have influenced the observed changes.

**Conclusion** Removal of user fees and subsequent increase in health services use by marginalised people as compared to their privileged counterparts is encouraging. However, some impediments still remain, which can be overcome by improving the delivery system with a focus on smoothening user-provider interactions.

**P1-398 VALIDATION OF A QUESTIONNAIRE TO ASSESS PHYSICAL ACTIVITY IN CHILDREN**

doi:10.1136/jech.2011.142976f.89

<sup>1</sup>R Bielemann, <sup>2</sup>F Reichert, <sup>3</sup>V Paniz, <sup>1</sup>D Gigante.\* <sup>1</sup>Post-Graduate Program in Epidemiology, Federal University of Pelotas, Pelotas, Rio Grande do Sul, Brazil; <sup>2</sup>Post-Graduate Program in Physical Education, Federal University of Pelotas, Pelotas, Rio Grande do Sul, Brazil; <sup>3</sup>Post-Graduate Program in Population Health, University of Vale do Rio do Sinos, São Leopoldo, Rio Grande do Sul, Brazil

**Background** Subjective instruments for physical activity assessment in children have particularities, and to assess the reliability of these instruments is crucial. The aim of this study was to determine the validity of the Netherlands Physical Activity Questionnaire (NPAQ).

**Methods** Population under study was Brazilian children aged 4 to 11 years old. Data collection took place by application of the NPAQ through face-to-face interviews with mothers' children and utilisation of GT1M Actigraph accelerometers by five consecutive days as the reference method. Validity analyses were performed by correlation coefficient, sensibility and specificity, as well ROC curve.

**Results** Two hundred and thirty nine children participated of the study. The prevalence of physical activity was 73.2%. The mean and median of the NPAQ score were 25.5 and 26, respectively. Based on the area under the ROC curve, the median value presented the best indicators of sensibility (59.4%) and specificity (60.9%), and the area under curve was 0.63. The predictive capacity of the NPAQ to identify active children was high regardless the cut-off point chosen. This capacity was even higher from the score of 30 points on. The correlation coefficients between the last question of the instrument and the accelerometer variables were better than those from the rest of the NPAQ.

**Conclusions** Based on sensibility and specificity values, the NPAQ did not show satisfactory validity. More results of the predictive capacity of the last question will be better explored. Physical activity level of children estimated from questionnaires must be interpreted with cautions.

**P1-399 DATING VIOLENCE: PREVALENCE OF PHYSICAL VIOLENCE AND DIRECTIONALITY PATTERN IN TEN BRAZILIAN CITIES**

doi:10.1136/jech.2011.142976f.90

<sup>1</sup>M L Lima, <sup>2</sup>S Assis, <sup>3</sup>K Njaine, <sup>4</sup>A Kelly, <sup>5</sup>M Bigras.\* <sup>1</sup>Centro de Pesquisas Aggeu Magalhães, Recife, Pernambuco, Nordeste, Brazil; <sup>2</sup>Escola Nacional de Saúde Pública-FIOCRUZ, Rio de Janeiro, Sudeste, Brazil; <sup>3</sup>Escola Nacional de Saúde Pública-FIOCRUZ, Brazil; <sup>4</sup>Universidade Federal de Pernambuco, Recife, Pernambuco, Nordeste, Brazil; <sup>5</sup>Université du Québec à Montréal, Montréal, Québec, Sul, USA

The study investigates the prevalence and directionality pattern (only male, only female, or both are perpetrators) of physical