

the AIDS epidemic, KS incidence in Bulawayo was similar to that in Kyadondo in both genders; however, in men it became higher in Harare than Kyadondo during the AIDS epidemic, thus seeming to follow the geographical distribution of HIV prevalence. In women, the geographical pattern of KS appeared independent of HIV prevalence. In the populations studied, despite HIV prevalence being higher in females than males, KS incidence was higher in males than females.

Conclusion HIV prevalence could have different impacts on KS incidence, possibly explained by other risk factor exposures. Furthermore, a higher risk of KS emergence in men or increased risk factor exposure in men could explain the gender differences.

SP3-68 A SYSTEMATIC REVIEW OF INTERVENTIONS TO PREVENT OR REDUCE SUBSTANCE USE AND SEXUAL RISK BEHAVIOUR IN YOUNG PEOPLE

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Background Interventions aimed at preventing risky behaviour in adolescence and young adulthood have largely focused on single risk behaviours and a limited number of underlying predictors. Interventions that take a broader approach to reducing risk behaviour may more effectively and efficiently reduce *multiple* risk behaviours.

Methods We performed a systematic review to identify experimental studies of interventions to reduce risk behaviour in adolescents or young adults and that reported on any substance (alcohol, tobacco and illicit drug) use *and* sexual risk behaviour outcomes.

Results From 1129 articles, 18 experimental studies met our inclusion criteria, which were heterogeneous in nature and design. Study results were mixed, with programmes generally impacting on some outcome measures, but not others. The most promising interventions addressed multiple domains (individual and peer, family, school and community) of risk and protective factors for risk behaviour. There was some evidence that intervening in the early- to mid childhood school years has a high impact on later risk behaviour.

Conclusions We found few studies that demonstrated a consistent, significant and sustained impact on risk behaviours. However, there is some evidence that programmes can have a long-term impact on multiple risk behaviours, with the most promising interventions addressing multiple domains of risk and protective factors. Complex interventions therefore need to be developed in the context of effective cross-sector engagement and collaboration. Furthermore, the current focus on investing in pre-school “early years” programmes should be extended to include the early- to mid-childhood school years.

SP3-69 GENDER, ETHNIC AND FOOD INTAKE DIFFERENCES IN THE OCCURRENCE OF OVERWEIGHT IN INDIAN, NEPALESE AND SRILANKAN MEDICAL STUDENTS

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Introduction In developed and developing countries young people are at increased risk of obesity. Obesity is associated with chronic disease including Type II Diabetes, cardiovascular diseases and cancer. Body mass index (BMI) is commonly used to measure obesity. The aim of this study was to describe the prevalence of overweight among medical students in Nepal according to sex, ethnicity and diet (vegetarian/non-vegetarian).

Methods Approval for the study was obtained from the institutional research ethical committee. Participants were recruited from Manipal College of Medical Sciences, Pokhara, Nepal. BMI (kg/m²) was calculated using the height and weight. Data were analysed using Microsoft Excel (Windows 2003) and SPSS 16.

Results Of the 311 participants 179 (57.6%) were Nepalese, 97 (31.2%) Indian and 35 (11.2%) Srilankan. 72% were males and 28% females. 80.1% were non-vegetarians and 19.9% were vegetarians. Overall 28.7% of subjects were overweight; 33% of Nepalese participants, 17.5% of Indian participants and 20% of Srilankans participants. 34.4% of men and 6.9% of women were overweight. 26.9% of non-vegetarian and 25.8% of vegetarian participants were overweight.

Conclusion In medical students in Nepal, gender, ethnicity and diet were associated with being overweight. Obesity prevention should focus on physical activity and diet.

SP3-70 A NEW MODEL FOR ENVIRONMENTAL HEALTH DECISION MAKING AT A LOCAL LEVEL

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Most environmental health issues are multi causal with complex non-linear relationships between the environment and health. New tools and methods are needed to assist policy and decision making that cut across traditional policy making structures and support collaboration by different agencies at different administrative and spatial scales. This project is aimed at developing a new environmental health decision making model to support integrated policy and action in environmental health, especially at a local level. We are piloting the model using both a setting based approach (Housing domain) and a health outcome approach (Chronic Obstructive Pulmonary disorder). The proposed decision making model is based on four stages: problem framing, environmental health intelligence, model building and appraisal. The problem framing stage involves conceptualising the problem using an ecological framework. The second stage involves developing environmental health indicators. The third stage involves converting the conceptual model into a simulation model using a system of differential equations and systems dynamics modelling. Appraisal represents the final stage in assessment, and provides the point at which results are synthesised and interpreted by the stakeholders. Results of the model will be presented at the conference. The aim of the decision making model is to enable stakeholders to understand the dynamics of environmental health issues and simulate and compare and evaluate different policy decisions and their financial and health impacts. This project will improve on current methods and tools to assess policy relevant problems that have implications for working across the environment and human health interface.

SP3-71 QUALITY ASSESSMENT OF DIRECTLY OBSERVED TREATMENT OF TUBERCULOSIS IN DHAKA CITY

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Introduction Quality of directly observed treatment (DOT) is key factors for successful TB control programme. This study was

conducted to assess the quality of directly observed treatment of tuberculosis in Dhaka city to enhance Stop TB strategy supported by National Tuberculosis Programme (NTP), Bangladesh.

Methods Data were collected from 11 DOT centers located in 11 out of 90 wards in Dhaka city using a two-stage systematic sampling technique. All the facilities providing DOT services were the primary sampling unit for this study. A total of 62 pulmonary tuberculosis cases selected were interviewed at home.

Results Mean ages of the patients were 31 ± 12 years, 61.3% were male and 84% literate. About 95% patients gave 3 sputum samples whereas only 62% followed correct procedure for giving sputum for diagnosis. 73% of the patients swallowed drug at home. About 74% respondents swallowed drug under direct observation. Treatment follow-up schedule was followed by 88% smear positive and 93% smear negative patients. Patients had highly positive attitude towards DOT though 58% of the patients showed average knowledge level regarding tuberculosis. Overall 78% patients showed adherence to DOT. Level of education showed significant association ($p < 0.05$) with patients' "opinion about necessity of direct observation" and "following of sputum giving procedure correctly for diagnosis."

Conclusion Although patients level of knowledge was average but showed highly positive attitude and good adherence towards DOT. Strict monitoring, frequent sensitisation and assistance regarding diagnosis and treatment follow-up may increase the adherence as well as quality of DOT.

SP3-72 FRUIT AND VEGETABLES INTAKE AND PLASMA HOMOCYSTEINE LEVELS AMONG RESIDENTS OF MUNICIPALITY OF SÃO PAULO

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Introduction The elevated concentration of plasma homocysteine (pHcy) was recently identified as risk factor for cardiovascular disease. Many studies have linked consumption of fruits and vegetables (F&V) with decreased of pHcy.

Objectives To investigate the pHcy concentrations according to consumption of F&V.

Methods A cross-sectional analysis was conducted in a sample of 291 individuals of both sexes, aged 12 y or over, that are from a population-based study performed in 2008–2010 in municipality of São Paulo. The consumption of fruits and vegetables were measured by two 24-h dietary recalls applied in non-consecutive days. Biochemical analysis of pHcy was conducted by the fluorescence polarisation immunoassay method. The cut-off point of pHcy used was $< 8 \mu\text{mol/l}$ for individuals younger than 15 y, $< 12 \mu\text{mol/l}$ for individuals with 15–65 y and $< 16 \mu\text{mol/l}$ for those over 65 y. The median consumption of F&V was described according to the pHcy levels (normal or high) in both sexes and analysed using the Kruskal–Wallis test.

Results The median of F&V was 97.9 g/day, with females exhibiting the higher consumption (134 g/day). Considering the WHO recommendation (> 400 g/day), only 5.8% of individuals had adequate intake. There were no differences in the medians of intake of fruit and vegetables in females according to pHcy levels (normal: 112.88 g/day; high: 155.25 g/day). Unlike, we found lower consumption of F&V in males with hyperhomocysteinemia (normal: 96.80 g/day; high: 23.30 g/day; $p = 0.01$).

Conclusion F&V intake is low in this population, especially in men with hyperhomocysteinemia. Therefore, it is necessary to encourage the F&V intake in this population.

SP3-73 INCREASE OF RAILWAY SUICIDES IN GERMANY AFTER THE RAILWAY SUICIDE DEATH OF ROBERT ENKE, A FAMOUS GERMAN FOOTBALL PLAYER

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Introduction Robert Enke, an internationally respected German football goal keeper committed railway suicide on the 10 November 2009. Concerns were raised about the potential of this event to spark copycat suicides afterwards. Therefore, we analysed the impact on the frequency of subsequent railway suicides.

Methods The daily incidence of railway suicides was derived from the Event Database Safety (EDS), the national database of person accidents on the German railway net. We compared the daily numbers of suicides from 11 November to 31 December in 2006–2009 and the number of suicides 28 days before and after the event by estimating incidence ratios with 95% CIs using Poisson regression.

Results The mean daily number of suicide acts in the critical time window in 2006 to 2008 was about 2 but almost 4 in 2009. The incidence ratio was 1.81 (95% CI 1.48 to 2.21), thus showing a daily increase after Enke's suicide by 81% compared to the previous years. Comparison of the number of suicides 28 days before and after the incidence revealed similar results. No modifications of these associations were observed by daytime, by location of the suicide and death.

Conclusion The present study indicates that a celebrity suicide may bring about copycat behaviour in an unforeseen amount, even if the reporting in the media seems to be rather sensitive and other preventive measures are taken.

SP3-74 EXPEDITED APPROACH TO DISSEMINATING EVIDENCE TO POLICY MAKERS IN ORDER TO IMPROVE ABORIGINAL CHILD HEALTH AND WELL-BEING IN CANADA

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Objectives To facilitate timely uptake of research evidence by policy makers and support the implementation of evidence-informed policies and practices to improve Aboriginal child health and well-being.

Methods This work was initiated in response to national government interest in improving Aboriginal child health and well-being. The approach began with a synthesis review which critically and culturally appraised published papers to identify promising practices. Next, a summary of the synthesis and other relevant reports was written for stakeholders and five recommendations were developed. The research team and other researchers in the area validated these documents. Key stakeholders, including policy makers, community leaders, and content experts, were surveyed to assess general support for the recommendations, identify other key contacts, and identify facilitators and barriers to dissemination. With support from stakeholders and the lead organisation's board of directors, the recommendations were finalised as a brief "Call To