

P2-481 ACHIEVEMENTS OF THE ACTIVITIES TO CREATE HEALTHY LIFESTYLES BY HEALTHCARE PROFESSIONALS AND ADOLESCENT PEER LEADERS (PART 1)

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Objectives As part of the grass-root technical cooperation program of the Japan International Cooperation Agency, we are working on the activities to create healthy lifestyles by healthcare professionals and adolescent peer leaders jointly with the Health Service Bureau of Veracruz State in the United Mexican States. This research aims to grasp people's knowledge and awareness about health in that state and to examine how the peer leader activities influenced the people of that state. The first report focuses on the differences in awareness of health between people living in an area introduced this activity and those in areas without it.

Method We conducted the survey in May to June 2010 with people of Veracruz sampled at random from the resident registers (aged 12–69) through the interview survey for hearing with question sheets to be recorded. We surveyed people's participation in the peer leader activities, their knowledge and awareness about health acquired through the activities, the changes in their life they recognised, and other matters.

Results 881 sheets were distributed, and 799 were collected with a collection rate of 90.7%. Valid responses were 788 with a response rate of 89.4%. In an area introduced the activity, 97% were always aware of health ($p < 0.001$), 95% were willing to participate in health promotion campaigns ($p < 0.001$), and 55% were interested in obesity ($p < 0.001$).

Consideration The possibility that peer leader activities may have favourable effects on people's health awareness in that state has been shown.

P2-482 EVALUATING A SCHOOL BASED RCT TO REDUCE GENDER-BASED VIOLENCE AMONG HIGH SCHOOL STUDENTS IN KWAZULU-NATAL, SOUTH AFRICA (SA)

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Gender-based violence is a public health problem in South Africa associated with increased risk of HIV infection. KwaZulu-Natal is the epicentre of the HIV epidemic in South Africa with youth of 15–24 years at high risk of infection. A school based RCT aimed to develop, implement and evaluate an intervention to reduce gender-based violence, defined as verbal (belittling), physical (hitting) and sexual (forced sex) abuse, among grade 9 students. Schools (16) were randomly selected in two Districts and trained facilitators implemented a 16 module classroom-based intervention based on prior elicitation research, in 8 experimental schools. Students completed a self-reporting questionnaire at T1 and 8 months later at T2. Of 764 students, 46.7% male, both sexes reported perpetrating violence and being abused verbally, physically and sexually. Although there was a reduction in verbal abuse (belittling boy/girlfriend) and physical abuse (hitting boy/girlfriend) after the intervention programme, a reduction in hitting was reported only by female students (β coefficient 0.16, $p = 0.025$, 95% CI = 0.047 to 0.688). The study found that students who had attended the school-based intervention programme were three times less likely than the control group to report being forced to have sex ($p = 0.046$, OR 2.95, 95% CI

1.02 to 8.53). These findings of a reduction in gender-based violence among students exposed to the intervention indicates that such a programme is useful for universal prevention efforts, but also highlights the importance of more focused attention on male students. In addition to school-based programmes there is a need for support at community level to reinforce school-based initiatives.

P2-483 DENGUE IN BRAZIL: CURRENT SITUATION AND CHANGE IN EPIDEMIOLOGICAL PATTERN

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Introduction *Ae. aegypti*, the commonest cause of Dengue fever in the world, was re-introduced to Brazil in the latter half of the 1970s. Favourable environmental conditions facilitated unchecked territorial expansion of this vector. This study describes the changing epidemiology of Dengue in Brazil 25 years after it re-emerged, exploring the main determinants of disease and outlining the implications for control.

Methods This study analysed serial case reports registered in Brazil since 1986, describing the changing incidence and spatial distribution of Dengue.

Results Epidemic waves followed the emergence of each serotype (DENV 1–3), characterised by an increasing incidence (from 64.6 per 100 000 in 1987 to 475.3 per 100 000 in 2010) and severity of disease resulting in high case-fatality (14 896 cases and 1212 deaths). In 2007, an important and sudden change in the age of individuals affected by dengue haemorrhagic fever was observed, with an increasing number of children affected.

Conclusion A change in the age distribution of incident cases must be due to the sequence of circulating serotypes of dengue virus in the population conferring different levels of herd immunity in different age groups. Dengue is a serious public health problem in Brazil. Difficulties controlling the vector in all countries highlights the need for the international scientific community to renew efforts to generate knowledge, allowing improvement and progress in the development of new tools and strategies for dengue prevention.

P2-484 DIAGNOSIS OF SMEAR NEGATIVE PULMONARY TUBERCULOSIS IN LOW AND MIDDLE INCOME COUNTRIES

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Introduction Diagnosis in of pulmonary tuberculosis (PTB) in resource-limited settings relies heavily on detection of bacilli on sputum smears however HIV positive patients often have smear-negative disease. A new WHO diagnostic algorithm was developed to improve PTB diagnosis in HIV-prevalent resource-limited settings (integrated, expedited pathway with 2 rather than 3 smears in each set and no diagnostic antibiotic trial). We evaluated performance under operational conditions in a Ugandan district hospital.

Methods A prospective observational cohort study design was used. The existing "UgWHO03" and new "WHO07" diagnostic algorithms were evaluated over the first and second phases of the study respectively. New HIV patients were screened for PTB by a history of two or more weeks of cough. Diagnosis by algorithm was compared to gold standard mycobacterial culture.