

SP5-10 KNOWLEDGE OF HIV/AIDS AND REPRODUCTIVE HEALTH AND SELF-REPORTED SEXUAL BEHAVIOURS AMONG SENIOR HIGH SCHOOL STUDENTS IN PAPUA AND WEST PAPUA PROVINCES, INDONESIA

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Papua and West Papua Provinces have the highest prevalence of HIV/AIDS in Indonesia. In 2009, 94.4% HIV/AIDS cases in Papua Province were transmitted through heterosexual intercourse and HIV/AIDS cases among 15–19 years of age were in the fourth rank. A study in 2007 revealed 46.9% Junior High School students in the province had misconception on HIV/AIDS transmission and prevention. Previous studies also found high-risk sexual behaviours in some Papuan cultures, including multiple sex partners and early initiation of sexual activity. These features motivated the first author to carry out the 2009. Reducing the Risk of HIV/AIDS: Intervention Trial for Young Papuans Study. 16 Senior High Schools were randomly selected and agreed to participate to either receive the HIV/AIDS and reproductive health program or act as a control group. Students of Year 11 from the selected schools (N=1082) took a pre test and 2 months later, a post-assessment test. The aim of this study was to analyse the association between knowledge of 25 HIV/AIDS and reproductive health questions on the pre test and the self-reported sexual behaviours before the intervention. We also used qualitative method to explore perspectives and experiences on sexuality. Results showed more than 50% students had limited knowledge on HIV testing, safe sex and STDs prevention. Although female students had better knowledge test and demonstrated less sexual intercourse experiences (28.5% compared to 46.5% of males), they carried a more unfavourable condition related to the impact of premarital sex, including pregnancy and unsafe abortion.

SP5-11 HIGHLAND MALARIA OUTBREAK IN HOMEYO DISTRICT, PAPUA PROVINCE, INDONESIA: AN ENTOMOLOGICAL INVESTIGATION

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The first highland malaria outbreak and associated deaths was reported in May 2010 from several villages in Homeyo District, Papua Province. Homeyo is 1900 M above sea level with 15–25°C air temperature, an uncommon condition for mosquitoes to breed. The epidemiological and parasitological survey in June 2010 conducted by the Papua Health Department found Plasmodium Falciparum Rate (PFR) in Bamba, Sanepa, Pogapa and Degefiga villages were 44.23%, 6.73%, 20.27% and 7.40%, respectively. Based on verbal autopsy, the team found 36 death cases due to malaria suspect. The entomological survey was intended to identify the species and breeding habitat of suspected mosquito vectors, and the distribution of the highland malaria cases related to the village location and human behaviour. The survey was carried out from 30 August to 3 September 2010. We collected larva and adult stage mosquitoes, malaria case mapping with GPS, environmental observation, short interview and blood test. Although neither larva nor adult stage of *Anopheles* spp. was caught due to the heavy rain and limited time of survey, the opening of new land program were likely to play an important role in creating a new mosquito breeding site. Further, the indigenous Papuan live in traditional houses, without window and

light and only fireplace at night. The case's houses were located close to the breeding habitat and within a flight range of *Anopheles*. A more systematic and sustainable health education program is needed to raise public health awareness. The use of Long Lasting Insecticide Nets is the best choice for this area.

SP5-12 OUTBREAK OF CHOLERA, EAST-AKIM MUNICIPALITY, GHANA, NOVEMBER 2010

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Background Cholera is an acute infectious illness with profuse watery diarrhoea caused by toxigenic *Vibrio cholerae* serogroup O1 or O139. In Ghana, over 9000 cholera-cases with 250 deaths were recorded in 1999. On 29 October 2010, the East-Akim Municipality (EAM) received a report of suspected cholera outbreak. We investigated to characterise the outbreak, and implement control and preventive measures.

Methods We interviewed health workers, reviewed medical records, conducted environmental assessment and obtained water and stool samples for laboratory test. A descriptive study followed by unmatched case-control study was conducted. A suspected cholera-case was a person with acute watery diarrhoea, with or without vomiting in EAM from 1 October to 20 November 2010. We analysed data descriptively and risk factors were identified using χ^2 test at 95% confidence level.

Results Of 136 case-patients, 77 (56.6%) were males. Index-case occurred on October 13th, and case-patients peaked (18.4%) 2 November. Attack rate was 2/1000 population; no death. Ages ranged from 1 to 84 years; mean of 34±18. Age-group 20–29 (30.1%) was mostly affected with Tafo Sub-Municipality having most case-patients (19.9%). *V. cholerae* serotype ogawa was isolated from stool samples. We observed pollution of River-A with sand-washings by small-scale miners. Compared to controls, case-patients were more likely to have drunk from River-A. [OR 5.80, 95% CI 2.45 to 13.74].

Conclusion *V. cholerae* serotype ogawa caused the EAM cholera-outbreak affecting mostly young adult-males. Drinking water from contaminated River-A was the major risk-factor. Boiling or chlorination of water was initiated based on our recommendations and this controlled the outbreak.

SP5-13 SOCIOECONOMIC ASPECTS ASSOCIATED TO MALARIA IN PREGNANCY IN COLOMBIA

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Background Income, education, work and access to prevention measures have been identified as socioeconomic aspects related to malaria. For groups at risk such as pregnant women these aspects are little known, particularly outside Africa. The objective of this study was to determine socioeconomic aspects of pregnant women associated to malaria in a Latinamerican region.

Methods A case-control study was conducted from April 2005 to December 2006 in unstable transmission malaria region. Case was pregnant who had positive thick blood smear for *Plasmodium* during antenatal care or delivery. Data were collected by physician using a structured questionnaire that enquired about education,