

both HIV/AIDS prevention and care. Bangladesh currently has 102 VCT centres. This study was aimed to identify the status of existing VCT services, analyse the policy documents and identify the needs perceived by the service recipients.

Methods 30 in depth interviews with key informants (eg, GoB, NAC, UNAIDS, WHO, INGOs) and 24 focus group discussion (FGDs) with 120 males and 97 females were conducted. The respondents include sex workers (M&F), MSMs, transgender, PLWHIV, migrant workers and youth.

Results Existing VCT services are rather peer driven than voluntary. Neither the policy documents nor the existing intervention takes into account the needs of street children, underaged sex workers, adolescents and youth, leading to unequal VCT service coverage. Stigma and discrimination is the main reason for not seeking services. National policy or existing VCT guidelines do not suggest any unique mechanism for demand creating campaign.

Conclusions Policy reformulation and separate SOP for VCT is needed immediately. Streamlining of VCT services under government ownership can be an initiative for enhancing the service delivery regime. Health providers with excellent counselling skills are required in large numbers.

SP4-19 USE OF LOGISTIC REGRESSION AND RECEIVER OPERATING CHARACTERISTIC CURVES TO DISCRIMINATE BETWEEN BLOOD DONORS AND NON-DONORS AMONG NORTH AMERICAN MEDICAL STUDENTS IN GRENADA, WEST INDIES

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Introduction The WHO estimates that 50 units of blood per 1000 inhabitants per year is necessary to meet the transfusion needs of a country. In Grenada 8.7 units are donated per 1000 inhabitants yearly.

Methods We surveyed 452 St. George's University second year medical school students (>95% North American) regarding blood donation attitudes and experiences before and after arrival in Grenada. This analysis of the 363 responses, determined if age, gender, knowledge of blood group, time since first arrival in Grenada and donating blood in the year preceding arrival would predict who donated (14%) since arrival. In SPSS, we used logistic regression to estimate probabilities of donating blood since arrival as a function of each covariate. From these probabilities we generated Receiver Operating Characteristic curves with the area under each curve estimating the covariate's ability to predict blood donation after arrival in Grenada.

Results 68% of the time [95% CI 60% to 76%] students who had donated blood the year before arrival were more likely to be donors after arrival than those who had not. This percentage was slightly higher (72%, 95% CI 63% to 80%) if, compared to the same group, these students had been in Grenada for a longer time and knew their blood group. Neither gender nor age showed predictive ability.

Conclusion Blood drive promotion should first target students who were not donors the year before arriving in Grenada as they are less likely to donate, without prompting, upon arrival.

SP4-20 INFLUENCE OF SOCIO-CULTURAL PRACTICES ON HIV INFECTION IN TWO NAIROBI SLUMS; A CROSS-SECTIONAL STUDY

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Background HIV/AIDS is the leading cause of death in Africa accounting for more than 20% of all deaths. Major concerns have

been expressed regarding the continued rise of HIV infections among specific cultural groupings.

Objective To describe the association between socio-cultural practices (circumcision and pubic hair removal) and HIV infection risk in informal urban settlements.

Methods Data were collected from the Nairobi Urban Health and Demographic Surveillance System between January 2007 and December 2008. A total of 4767 residents of Viwandani and Koro-gocho slums, between the ages of 15–54 years for males and 15–49 years for females were recruited. Data were collected using interviewer-administered questionnaires. HIV serostatus was assessed using Determine[®] HIV-1/HIV-2 (Abbott) and Uni-Gold Test kits.

Findings The highest HIV infection burden was observed among participants aged 25–34 years (40%). Among HIV+ men, 64% were circumcised compared to 88% among HIV– men. Majority of participants were circumcised before they were 12 years old and there were no differences among the HIV+ and the HIV–. A similar proportion of HIV+ (85%) and HIV– (83%) individuals had ever removed/shaved their pubic hair. After controlling for certain factors, circumcised men had a threefold reduced risk of developing HIV (OR 0.28; 95% CI 0.16 to 0.47; $p < 0.01$) whereas those that had ever removed their pubic hair had only a onefold reduced risk of developing HIV (OR 0.98; 95% CI 0.48% to 1.98%; $p > 0.05$).

Conclusion Our study found an association between circumcision and HIV, supporting findings from other studies.

SP4-21 CLINICAL VALIDATION OF ANEROID SPHYGMOMANOMETER

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Introduction The Mercury sphygmomanometer has been used for more than 100 years to measure blood pressure. There are increasing concerns regarding mercury toxicity and its effects on the human health and the environment. Non-mercurial Aneroid sphygmomanometers have flooded the market, although very few complying with standards. The aim of this study was to determine whether conversion to aneroid manometers would cause a systematic shift in measured blood pressure. This study is important in ensuring the quality and consistency of blood pressure measurements taken across hospital clinics.

Methods We examined 83 volunteers who were residents of Dehradun. Two blood pressure readings were taken by a trained observer for each volunteer using the aneroid and mercury sphygmomanometers randomly. The instruments were subjected to grading using the criteria from the British Hypertensive Society.

Results There was no statistically significant difference in the mean systolic (-3.62 ± 4.88) or diastolic (-2.36 ± 3.77) blood pressure measurements obtained by either sphygmomanometer. The values of the SBP and DBP from both the instruments showed a linear correlation with systolic blood pressure (SBP $r = 0.94^{***}$; DBP $r = 0.92^{***}$).

Conclusions The study has demonstrated that the aneroid device achieved a grade of B performance according to the criteria described by the British Hypertensive society, when used at clinical settings.

SP4-22 ADHERENCE TO NICOTINE REPLACEMENT THERAPY AMONG CHINESE SMOKERS WHO HAD NO INTENTION TO QUIT SMOKING

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Introduction Evidence had shown that nicotine replacement therapy (NRT) is effective to help smokers quit. Many studies reported a