

**P4.053 DRUG RESISTANCE AMONG WOMEN ATTENDING ANTENATAL CLINIC**

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**Background** WHO HIV drug resistance (HIVDR) threshold survey suggests that transmission of drug-resistance strains is likely to be limited. However, as access to ART is expanded, increased emergence of HIVDR is feared as a potential consequence. We have performed a surveillance survey of transmitted HIVDR among recently infected persons in the geographic setting of Accra, Ghana.

**Methods** As part of a cross-sectional survey, 2 large voluntary counselling and testing centres in Accra enrolled 50 newly HIV-diagnosed, antiretroviral drug-naïve adults aged 18 to 25 years. Virus from plasma samples with > 1,000 HIV RNA copies/mL (Roche Amplicor v1.5) were sequenced in the pol gene. Transmitted drug resistance-associated mutations (TDRM) were identified according to the WHO 2009 Surveillance DRM list, using Stanford CPR tool (v 5.0 beta). Phylogenetic relationships of the newly characterised viruses were estimated by comparison with HIV-1

**Results** Subtypes were predominantly D (39/70, 55.7%), A (29/70, 41.4%), and C (2/70; 2, 9%). Seven nucleotide sequences harboured a major TDRM (3 NNRTI, 3 NRTI, and 1 PI-associated mutation); HIVDR point prevalence was 10.0% (95% CI 4.1% to 19.5%). The identified TDRM were D67G (1.3%), L210W (2.6%); G190A (1.3%); G190S (1.3%); K101E (1.3%), and N88D (1.3%) for PI.

**Conclusions** In Accra the capital city of Ghana, we found a rate of transmitted HIVDR, which, according to the WHO threshold survey method, falls into the moderate (5 to 15%) category. This is a considerable increase compared to the rate of < 5% estimated in the 2006–7 survey among women attending an antenatal clinic in mamobi. As ART programmes expand throughout Africa, incident infections should be monitored for the presence of transmitted drug resistance in order to guide ART policies.

**P4.054 HIV/AIDS EPIDEMIOLOGICAL CORRELATES OF SEXUAL BEHAVIOUR IN URBAN MIGRANTS TAMILNADU, INDIA**

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**Background** Migrant population groups potentate the effect of ever-growing HIV/AIDS epidemic. Hotel migrant workers being one such group are at risk because of their age, economic independence, low level of education, group living and residence in a place away from their family.

**Methods** Study was conducted one of high HIV prevalence state of India during 2009. Criteria used in selecting study areas include number of hotels, volume of hotel migrant workers and prevalence rate of HIV. By simple random method, 609 respondents are selected from 20 PSUs who made more than two moves during last three years. Odds ratio with 95% confidence interval are computed to assess risk association.

**Results** Sexual activity was widespread among hotel migrant workers, irrespective of their marital status. Mean age at first sexual experience was 23.49 years. One-third had sexual contact with FSWs in past 12 months and fifty percent had sexual relationship with Non-FSWs. Unmarried migrants started their sexual actions with FSWs/Non-FSWs at less than 19 years. Condom usage was high with FSWs (68.3percent) than with Non-FSWs (20.0percent). It indicates migrants' perception of chance of getting HIV/AIDS varies according to their partners. Overall, 30percent of migrants suffered by any one sexual health/STIs related symptoms. Regression results shows that degree of mobility have an extreme positive relation with incidence of self-reported symptoms of STIs among clients of FSWs/Non-FSWs. The workers who have two moves are 4.5 times more likely to report symptoms of STIs. Exposure to

pornography related matters is much strong predictor of STIs symptoms. Degree of mobility has extreme positive relation with incidence of STIs among clients of FSWs/Non-FSWs and risk of getting HIV will be more.

**Conclusion** It is recommended that HIV prevention interventions might benefit these populations if providing with the help of local para-medical professionals in their working place itself.

**P4.055 ASSOCIATION OF ALCOHOL USE AND UNSAFE ANAL SEX AMONG MEN HAVING SEX WITH MEN IN MANIPUR AND NAGALAND, NORTHEAST INDIA**

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**Background** In 2008, the HIV prevalence among men having sex with men (MSM) in Manipur state, India was 17.21%. Project ORCHID is an Indian HIV prevention project funded by Avahan India, which supports local partner NGOs to deliver a range of harm reduction interventions targeting injecting drug users, men having sex with men and female sex workers. It reaches up to 1450 MSM in two districts of Manipur and Nagaland. To measure HIV risk behaviour among this group, a census survey was carried out in 2010.

**Methods** Male sex workers (n = 1446) enrolled in the targeted intervention programme were interviewed through questionnaires. Peer educators and community volunteers met MSMs individually and administered the questionnaires. Variables were analysed using multivariate linear regression.

**Results** 1407 MSM returned valid responses regarding their sexual behaviour, out of whom 62.2% (n = 899) reported unsafe anal sex in the previous week. Out of the 1446 interviewed 61% (n = 858) reported alcohol consumption at the most recent sexual encounter with another MSM.

Variables including age, identity, literacy, marital status, number of partners, and alcohol consumption were tested for association with unsafe anal sex by bivariate analysis, and only number of partners, identity and consumption of alcohol at last sex were found significant and were included in the regression model. Age, although not significant, was also included.

Linear regression analysis (n = 1407) showed that identity, having more partners, and consumption of alcohol at the time of the most recent sex act were all significantly associated with higher rates of unsafe sex.

**Conclusion** HIV prevention programmes among MSM in India need to address issues of alcohol use and design appropriate interventions to reduce vulnerabilities of MSM in this regard. Interventions should also consider the particular risks and needs of those with sexual identities associated with more ano-receptive sex and high volume of partners.

**P4.056 THE UNIQUE HIV RISK PROFILE OF FEMALE INJECTING DRUG USERS IN MANIPUR, NORTHEAST INDIA**

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**Background** Injecting drug users (IDUs) are at high HIV risk, but particularly women who inject drugs. In 2009, the HIV prevalence among IDUs in Churachandpur district, Manipur was 39.9%, the highest in India. Project ORCHID and its partner SHALOM provide harm reduction services to over 700 IDUs in Churachandpur district, including 170 females. This study identifies differences between male and female IDUs registered with SHALOM.