

## Methods

1. Retrospective study of 3 cohorts of WRA starting ART at 4 health centres in Addis Ababa between 2009 and 2011 to examine pregnancy rates over time;
2. Interviews with HIV+ pregnant women regarding reasons for their pregnancy.

**Results** Among 167 women who started ART in 2008/9, 4.2% had become pregnant. Of 165 who started ART in 2009/10, 9.1% had become pregnant. Of 161 enrolled on ART in 2010/11, 13.7% had become pregnant. In the first cohort, the pregnancy rate dropped from 4.2% to 4.1% after one year and 3.8% after two years on ART. In the second cohort, the rate dropped from 9.1% to 7.5% after one year on ART. The third cohort was too recent to assess pregnancy rates after one year.

Among 297 WRA enrolled in HIV care, 24% had become pregnant after knowing they were HIV+. Of these, 74% were on ART; 61% were planned pregnancies.

**Conclusions** Women recently enrolled on ART had higher pregnancy rates than women on ART after one year, possibly reflecting the monthly FP counselling once on ART. The data further show substantial unmet need for FP, as 39% reported an unintended pregnancy.

#### P4.047 DISCLOSURE OF HIV STATUS IN HIV INFECTED CHILDREN IN KENYA

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**Background** Greater access to ART has resulted in more HIV-infected children surviving into adolescence and adulthood. Adolescence is associated with a sense of independence and sexual debut, therefore knowledge of HIV status may improve ART adherence and help in preventing HIV transmission. This study aimed to determine the incidence rate of and factors associated with disclosure in HIV-infected children at the Coptic Hope Center, Nairobi, Kenya.

**Methods** This was a retrospective cohort of HIV-infected children aged 8–14 years unaware of their HIV status at enrollment. Disclosure was defined as knowledge of HIV status as reported by caregiver and confirmed by child, as assessed at every clinic visit. Cox proportional hazards regression models were used to determine incidence rate and factors associated with paediatric disclosure of HIV status during 1-year follow-up.

**Results** At enrollment, 112 of 136 (82%) HIV-infected children were unaware of their HIV-status. Among these, 77 (69%) were 8–10 years of age [median 10.2 years, Interquartile range (IQR), 8.9–11.6]. Disclosure occurred in 46 (41%) of the children. One-year incidence of disclosure per 100 person-years was 67.7 [95% Confidence Interval (CI): 50.7–90.4]. Disclosure was more likely to happen to children aged 11–14 years as compared to those aged 8–10 years. Disclosure in children aged 11–14 years was higher in the first 6 months, but in children aged 8–10 years, disclosure was higher in the last 6 months of follow-up. In multivariate analysis, older age [adjusted hazard ratio (aHR), 1.53,  $P < 0.001$ ] and WHO stage 3/4 (aHR, 0.48,  $P = 0.04$ ) were associated with disclosure. Attendance of disclosure sessions was suggestive of increase in disclosure probability (aHR, 3.15,  $P = 0.11$ ).

**Conclusions** While paediatric disclosure was low, disclosure sessions may play a role in facilitating disclosure. These results reinforce the continued need for development and evaluation of paediatric disclosure interventions to increase disclosure incidence.

#### P4.048 GENDER EFFECT OF HIV ON NEUROPSYCHOLOGICAL FUNCTIONING

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Gender effect of HIV on Neuropsychological functioning

**Introduction** It has been established that HIV enters the central nervous system (CNS) early after infection and eventually results in both structural and functional brain changes in about 30–50% of cases (Shaw *et al.* 1985). Even in their milder forms these changes may have significant effects on day-to-day functioning (Antinori *et al.* 2007).

**Objective** This study examines neuropsychological differences, especially gender difference, between HIV seropositive (HIV+) patients being followed in a University of Zambia clinic and demographically comparable seronegative (HIV-) controls recruited in the same setting.

**Materials and Methods** 38 HIV+ subjects on antiviral treatment and 42 HIV- participants with similar age education and gender. They were all administered a standardised neurocognitive test battery that has been found sensitive to HIV Associated Neurocognitive Disorder (HAND) in the USA and internationally (e.g., in China, India, Romania and Cameroon).

**Results** The test battery was found to be applicable to a Zambian population. A clear HIV effect was seen with a medium to high overall effect size (Cohen's  $d = 0.74$ ). However, it was only the female seropositive group who showed this effect of HIV.

**Conclusion** HIV can result in neuropsychological deficits in Zambia, where the clade C of the virus dominates. It is suggested that the HIV infected women are more at risk for developing cognitive deficits than men, possibly because of gender related social, financial and healthcare disadvantages.

#### P4.049 LOPINAVIR/RITONAVIR IN COMBINATION WITH TENOFOVIR/EMTRICITABINE AS POST EXPOSURE PROPHYLAXIS (PEP) TO HIV - AN EFFECTIVE AND WELL TOLERATED REGIMEN

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**Introduction** PEP to HIV is a course of antiretroviral drugs administered within 72 hrs after events with high risk of exposure to HIV aiming to reduce the odds of established infection. We evaluated the putative HIV exposed individuals referred to the Medical university of Vienna general hospital and indicated for PEP in years 2008–2012.

**Methodology and Results** We have analysed the data from 450 individuals. Our data demonstrates that:

- 44.1% are females,
- indication type: unprotected homosexual contact [28.5%, from which 45% of source patients (SPs) were HIV positive], needlestick injuries (22.8%, 37.5% HIV positive SPs), unprotected heterosexual contact (21.4%, 20% HIV positive SPs), occupational exposure (12.8%, 100% HIV positive SPs), rape (11.4%) and needle exchange by IDUs (2.8%) where HIV status of SPs were unknown,
- PEP regimens were combination of lopinavir/ritonavir with tenofovir/emtricitabine (79.4%), darunavir/ritonavir with tenofovir/emtricitabine (10.1%) or lopinavir/ritonavir with lamivudine/zidovudine (10.5%),
- 58.8% of individuals tolerated the PEP without any adverse events, 35.3% had minor adverse events (nausea, fatigue, diarrhoea, abdominal discomfort or slight elevation of pancreatic enzymes) and in 5.8% PEP was modified or discontinued (severe adverse events: strong diarrhoea, abdominal pain and vomiting or significant elevation of liver function parameters),

- 77.1% of patients missed at least one of their follow-up visits planned at 1, 3 and 6 months after PEP start, and
- no case of seroconversion was observed.

**Conclusion** Approximately equal numbers of sexes seek counselling service for PEP. Most prevalent types of exposure include high risk sexual contact and needlestick injuries. Lopinavir/ritonavir with tenofovir/emtricitabine combination seems to be a well tolerated and effective therapy.

**P4.050** "YOU CAN IGNORE US BUT WE WON'T GO AWAY": A QUALITATIVE STUDY TO EXPLORE SEXUAL EXPERIENCES AND VULNERABILITY TO HIV INFECTION AMONG LESBIAN, BISEXUAL, TRANSGENDER AND INTERSEX WOMEN IN BULAWAYO, ZIMBABWE

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**Background** The vulnerability of lesbian, bisexual, transgender and intersex (LBTI) women to HIV infection is a complicated public health issue that remains poorly documented. The Zimbabwe National AIDS Strategic Plan 2011–2015 does not acknowledge LBTI women as a vulnerable population for HIV infection. This study sought to explore sexual experiences and HIV risk behaviour among LBTI women and to determine challenges and experiences of accessing HIV services.

**Methods** Three focus group discussions were conducted with LBTI women aged 18 years and above,  $n = 29$ . Purposive sampling was used to recruit study participants through announcements at relevant meetings and safe spaces in Bulawayo. Focus group discussions were digitally recorded and transcribed verbatim. Using ATLAS.ti software, a set of a priori concept-driven codes were applied to the transcripts. The analysis concentrated on HIV risk perception, sexual behaviour and access to health services, experiences of violence, stigma and discrimination.

**Results** Participant's perception of HIV risk was very low despite their engagement in sexual activities that involve sharing of body fluids. Narratives revealed that the majority of LBTI women never practised safe-sex, lacked awareness of the existence of LBTI specific protective measures against HIV and rarely sought HIV counselling and testing services. LBTI women reported experiencing a repertoire of social exclusion and violence in their lives including forced sexual experiences. Barriers to HIV care and support, included HIV-related stigma, hetero-normative assumptions in HIV and STI related health services and unprofessional, discriminatory and incompetent treatment by health professionals.

**Conclusions** HIV risk among LBTI women is elevated by lack of access to HIV prevention services and barriers to HIV care and support. This study highlights a trajectory of structural exclusion of LBTI women which accentuates their vulnerability to HIV infection. HIV/AIDS policy in Zimbabwe should address HIV prevention, care and support for LBTI women.

**P4.051** VULNERABILITY TO HIV AND PREVENTION NEEDS OF FEMALE POST-SECONDARY STUDENTS ENGAGED IN TRANSACTIONAL SEX IN KUMASI, GHANA - A QUALITATIVE STUDY

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**Background** This was a qualitative study on the vulnerability to HIV of female post-secondary students engaging in transactional sex (TS) - defined as engaging in sex for the purpose of obtaining material goods, financial support, or grades, not including commercial sex work - in Kumasi, Ghana. While little is known about TS among students in Ghana, sub-Saharan African women with post-secondary education often have a higher HIV prevalence than those with secondary school education only. The objective of this study is to better understand motivations to engage in TS, the types of transactional sex, their partners, and their HIV/AIDS prevention needs.

**Methods** Data was collected at three post-secondary institutions in Kumasi using in-depth interviews with female post-graduate students (aged 18 to 25), and focus group discussions with female and male students (aged 18 to 25). Key informant interviews were conducted among faculty, residence hall matrons, and local hotel staff. Participants for in-depth and key informant interviews were recruited through snowball sampling.

**Results** Transactional sex appears to be quite common in post-secondary settings, and the men involved are older and financially stable. The drivers of TS include familial poverty, financial need, peer pressure, desire for luxury or fame and desire for good grades.

**Participants** reported inconsistent condom use with partners and identified unwanted pregnancy, mental turmoil from abortion, HIV, and other sexually transmitted infections as risks associated with TS. Risky behaviours identified included unprotected sex, multiple sexual partners, and age-disparate relationships. Participants were unfamiliar with institutional policies on reporting TS and expressed lack of confidence in the system. Students also reported little confidence in the reproductive and health services available to them.

**Conclusion** Transactional sex involves high risk behaviours for HIV infection. Further research is needed to explore the extent of TS and HIV prevalence and risk among post-secondary students

**P4.052** LOW LEVEL OF AWARENESS LEADING TO STIGMA TOWARDS PERSONS WITH HIV/AIDS

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**Aim** HIV thrives among mobile populations. Truck drivers particularly the long distance truck drivers are more vulnerable to HIV infection, because they travel a lot, remain cut off from the mainstream society, often engage in activities such as having unsafe sex with commercial sex workers and fellow crew members, in order to reduce their loneliness.

**Methods** In this study Interviews of 75 truck drivers at Badami Bagh Truck Stand, Lahore, Pakistan, were carried out on non-random basis, using convenient sampling technique through a structured questionnaire The objective was to assess link between level of knowledge about HIV/AIDS and the attitude towards persons with AIDS.

**Results** 50% of the truck drivers were found unaware about the role of needles as a means of spreading HIV/AIDS. 30–40% thought that needles had nothing to do with the transmission of AIDS. Forty to fifty percent of respondents had the misconception that AIDS can be contracted by casual contact and by being in the same room with a person with AIDS. Two third of the truck drivers were of the view that monogamy and condom use is an effective method for AIDS prevention. An association between low knowledge of AIDS and high negative attitude towards persons with AIDS was found to exist, which was statistically significant.

**Conclusion** Long distance truck drivers in Pakistan have serious gaps in their knowledge about HIV/AIDS, especially its modes of transmission, signs/symptoms and prevention. Stigma towards persons with AIDS also exists due to Low level of knowledge about HIV/AIDS