

**Results** Preliminary analyses suggest that: (1) the estimated prevalence of **undiagnosed** infections is elevated among Black respondents living in census tracts with **high** levels of median income; (2) the estimated prevalence of **diagnosed** infections is elevated among Black respondents living in census tracts with **low** levels of median income; (3) the estimated prevalence of **undiagnosed** infections among non-Blacks is highest among non-Blacks living in Census tracts with more than 80% Black residents; (4) the estimated prevalence of **undiagnosed** infection among Black women has a curvilinear relationship with the percentage of residents in a Census tract who are Black. (Higher infection prevalences are found in Census tracts with lower and higher proportions of Black residents.)

**Conclusion** These results invite provocative conclusions. It appears, for example, that inadequate screening resources may be targeted on Black respondents residing in wealthier neighbourhoods resulting in an elevated prevalence of undiagnosed infection in this subpopulation. A rigorous examination of this and related preliminary results will be presented at the conference.

**P3.335 HIV AND SYPHILIS PREVALENCE AND BEHAVIOUR, PRACTISES AND ATTITUDES OF THE TRANS POPULATION IN PARAGUAY, 2011**

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**Background** The transgender population is highly affected by STI and HIV epidemic, with high stigma and social discrimination. In Paraguay there is a lack of information concerning HIV and syphilis prevalence in this population. Generally, data on this population is mixed with that of men who have sex with men (MSM). It is estimated there are 421 transgender citizens throughout the country.

**Methods** Cross sectional observational study at subnational level, that included a survey and linked confidential serological tests from August to September 2011. HIV and syphilis were screened with rapid tests. HIV was confirmed with Western Blot and syphilis with TPFA for those reactive. The study population was people of male sex at birth that self-identify as females, with or without modification of their body and clothing according to said identity. A mapping of transgender was carried out, and subsequently the study was offered to all mapped people in the geographical areas of Capital, Itapúa, Caaguazú, Paraná and Amambay.

**Results** 311 transgender participated in the study, 237 agreed to HIV testing and 247 to syphilis testing. HIV and syphilis prevalence was 27% (IC95% 21–32) and 12% (IC95% 8–16) respectively. HIV/syphilis co-infection occurred in 6% of cases. 89% were sexual workers. The associated risk factors for HIV infection were age, non-injectable drug use and sexual work time ( $p < 0.05$ ). Among those who tested positive for HIV, 60% were previously known HIV positive and 19% for those not submitted to the test. That data was found through the introduction of personal code in the information system.

**Conclusions** HIV prevalence is high, similar to other Latin American countries. The prevalence of syphilis and syphilis/HIV co-infection is high. The high prevalence of non-injectable drug use implies the need for changing prevention strategies.

**P3.336 SEROPREVALENCE OF HUMAN IMMUNODEFICIENCY VIRUS (HIV) INFECTION AMONGST TUBERCULOSIS (TB) PATIENTS ATTENDING TB/DOTS CENTRE IN NNEWI SOUTH EAST NIGERIA**

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**Background** The Nnamdi Azikiwe University Teaching Hospital (NAUTH) Nnewi is a centre for free laboratory and x-ray investigations, management of tuberculosis and HIV infection in the South Eastern Nigeria.

**Method** The authors conducted a retrospective study using the medical records of patients aimed at determining the prevalence of HIV infection in Tuberculosis (TB) patients attending Directly Observed Treatment Short-course (DOTS) services between April 2008 and December 2010. Pattern of TB/HIV co-infection rate over time was also analysed.

**Result** The study showed a high prevalence of HIV among TB patients (29.9%). Smear Positive (SPT) was the most frequent (60.6%) form of TB diagnosis. Extra Pulmonary Tuberculosis (EPT) and Smear Negative Tuberculosis (SNT) were frequently associated with HIV co-infection (60.9%) and (62.9%) respectively. HIV prevalence and TB was higher in females (15.6%) than males (14.1%) though not statistically significant.

**Conclusion** The co-infection rate was highest among individuals aged 27–34 years (10.9%) followed by 35–42 years (8.1%) and least among 60 years and above (0.6%). The increase in TB/HIV co-infection rate was monotonic over time with a strong trend among females aged 27–34 years (25.7%, 21.6% and 21.3%) for 2008, 2009 and 2010 respectively.

**P3.337 FACTORS ASSOCIATED WITH HIV PREVALENCE AND HIV TESTING IN SIERRA LEONE: FINDINGS FROM THE 2008 DEMOGRAPHIC HEALTH SURVEY**

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**Background** Based on data from the Demographic Health Survey (SLDHS) 2008, this study aims to identify factors associated with HIV prevalence and HIV testing in Sierra Leone.

**Methods** The SLDHS 2008 was conducted nationwide and included anonymous HIV testing via dried blood spot. All participants that were interviewed and tested for HIV are included in this analysis. Multiple logistic regression was used to identify factors associated with HIV infection and with ever having a voluntary HIV test.

**Results** 6,475 respondents were interviewed and tested for HIV; the response rate to testing was 86%. The HIV prevalence was 1.5%, and 10% had voluntarily tested for HIV. Of those found HIV infected 78% had never taken a voluntary HIV test, and 86% were sexually active in the last 12 months among whom 96% did not use a condom at last intercourse. Among women aged 15–49 years 40% had their HIV test during antenatal care (ANC). In regression analysis people separated, divorced or widowed, with urban residence and having first sexual intercourse at age 17–18 years, were more likely to be HIV positive. Undiagnosed infection was associated with not knowing that abstaining from sex can reduce HIV infection. Voluntary HIV testing was associated with urban residence, being married, female, education beyond primary level, using condoms at last sex, and knowledge of HIV.

**Conclusions** The HIV prevalence in Sierra Leone is relatively low compared to many African countries; however the high proportion of undiagnosed infection highlights the potential for rapid escalation of the epidemic in this country. Currently few people access voluntary testing beyond antenatal care and condom use is low. Interventions to address both these issues, and access to antiretroviral therapy, need to be sustained or expanded to ensure Sierra Leone's HIV epidemic remains stable.

**P3.338 EPIDEMIOLOGICAL AND CLINICAL ASPECTS OF HIV-TB CO-INFECTION IN THE REPUBLIC OF DJIBOUTI: EXPERIENCE OF PAUL FAURE HOSPITAL**

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**Background** This work was done to study the HIV-TB co-infection at Paul FAURE Republic of Djibouti where tuberculosis is highly endemic. Our objectives was to identify the average profile of individuals concerned by co-infection in PAUL FAURE Hospital and the differences between two period of time. First period: January 2003 to April 2007 and second period: May 2007 to May 2008.

**Methods** The status of HIV-TB co-infection was studied through the distribution of HIV-TB co-infected patients. These patients were followed at PAUL FAURE Hospital.

This distribution was examined under thirteen parameters that were clinical, sociological and epidemiological over two distinct periods of time. The essential criterion for inclusion in the study was to be HIV-TB co-infected. The study included 104 cases of the 1st period and 85 cases of 2nd period.

**Results** The average profile of HIV-TB co-infected patient who was monitored at PAUL FAURE Hospital over the 1st period was: a man, between 26–45 years of age, Djiboutian, married, with modest income, moderately educated, weakly informed about HIV-TB diseases, having a TPM+ as a clinical form of TB with 12.50% chance of dying while receiving treatment, with survival rate at 1 year under ART equaling 19.44%.

In the 2nd period, the average profile was: a woman, between 26–40 years of age, Ethiopian, divorced, with modest income, not educated, not informed about HIV-TB diseases, drug users (Khat), a resident of Arhiba or Q4, having a TPM+ as clinical form of TB, being cured or still under treatment, with survival rate at 1 year under ART equaling 97.14%.

**Conclusions** improving care and better monitoring of patients, as it was the case in second period, with systematic updating of sociological, clinical and epidemiological data can lead to a better management of the co-infection within the country.

### P3.339 HPV TYPE-SPECIFIC RISKS FOR HIGH-GRADE LESIONS: LONG-TERM FOLLOW-UP OF THE SWEDSCREEN STUDY

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**Background** The knowledge on HPV type-specific long-term absolute risks (AR) and population attributable proportions (PAR) for CIN2+ is limited. With the SwedeScreen population-based randomised controlled trial the effect of HPV testing in primary screening was evaluated.

**Methods** Overall 12,527 women (32–38 years) were randomised 1:1 to the intervention (cytology, HPV testing) and control arm (cytology, no action on HPV tests). Registry-based follow-up for cytological and histological test results was done (1997–2011). Type-specific ARs and PARs of CIN2+ were calculated. Poisson regression estimated the relative risk (RR) of new CIN2+. Multivariate analysis adjusted for co-infections. Women were censored at date of first CIN2+ or last registered cytology.

**Results** Over the entire follow-up, the joint PAR for 14 HR-HPV types was similar in the intervention and control arms (69.3% versus 68.1%). AR, RR and PAR were highest during the first screening round but risks were high throughout follow-up. HR-HPV+ women developed CIN2+: 1–3 years 13.6%, 3–6 years 6.4%, later 4.5%. RRs: 89.5, 37.9, 12.2 and 9.0 during the first, second, third screening rounds and for > 9 years of follow-up. Different HPV types tended to confer different risks over time: HPV18 increased, HPV16 and HPV31 stable, and others decreased. The HR types clustered in a highest, medium and a low AR groups (HPV16/18/31/33: 31–42%,

HPV35/45/52/56/58: 13.8–24.8%, HPV39/51/59/66/68: AR < 11%). HPV16 contributed to the greatest proportion of CIN2+ in the population (first round PAR 38.8%), followed by HPV52 (9.6%), HPV31 (7.0%) HPV18 (5.9%) and HPV45 (5.2%).

**Conclusion** HPV screening had minimal effect on the proportion of CIN2+ lesions caused by the HPV types screened for. HR-HPV-associated risks for CIN2+ continue to be strongly elevated over long-term (9–14 years) follow-up, particularly for HPV16, 18, 31 and particularly for CIN3+ lesions. The seven HR-HPV types 16/18/31/33/45/52/58 cause 73.9% of CIN2+ lesions. All 14 HR types cause 86.9%.

### P3.340 STUDY OF KNOWLEDGE AND ATTITUDES OF MARRIED WOMEN AGED 10 TO 49 REFERRED TO HEALTH CENTRES AFFILIATED TO ISFAHAN UNIVERSITY OF MEDICAL SCIENCES AND HEALTH PROVIDERS EMPLOYED AT THESE CENTRES ABOUT AIDS AND SOME FACTORS RELATED TO –2011

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**Background** Expanding of AIDS is such an important issue that one of the main goal of WHO is increasing of knowledge about HIV in general population. Thus in forth developing programme of IRAN, prevention programmes for HIV has been mentioned. Education is necessary for changing of high risk behaviours.

**Methods** This descriptive study was conducted in 1390. The samples were 9207 married women between 10–49 years old who were coming to health centres and selected by systematic method and 2465 health providers were working in these centres.

**Results** Most of them were housewife (93.4%) 55.5% of women had trained about HIV/AIDS but 86.6% of women don't have complete awareness about HIV/AIDS and just 13.4% of them have complete awareness. The first source for getting information was TV and then health care providers. there was a significant relation between the score of knowledge and their age, educational level and career ( $p < 0.001$ ). the least knowledge was about transmitted and nontransmitted ways. Post counselling was given to 22.4% tested women. The mean score for attitude was  $84.3 \pm 11.2$  and was observed statistical significant between the score of attitude and their age, educational level, addressing, HIV testing and career ( $p < 0.001$ ). for health care provider there wasn't a significant relation between the score of knowledge and their age and career. The mean score for attitude was  $91.1 \pm 7.5$  and there was observed statistical significant between the score of attitude and their educational level and career ( $p < 0.001$ ).

**Conclusion** Findings showed limited knowledge about HIV so we need to improve methods of training and use variety in our awareness programme such as peer groups. It is necessary to train health providers about VCT. In addition we must try for decreasing stigma, keeping the rights of patients and increasing social marketing for VCT, care and treatment of people live with HIV/AIDS

### P3.341 SEX AND THE LONDON OLYMPICS 2012 PART 1. IMPACT ON COMMUNITY SEXUAL HEALTH SERVICE PROVISION IN LONDON

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