

comprising 18.0% (135/750) cervical lesions only, 11.7% (88/750) STI's only and 28.8% (216/750) both STI's and endocervical lesions. No abnormalities were detected in 19.9% of women (149/750), while results from 21.6% (162/750) were missing. STI prevalence was 40.5% (304/750); comprising HPV 20.0% (150/750), candidiasis 16.1% (121/750), BV 7.9% (59/750), trichomonas vaginalis in 5.5% (41/750). Prevalence of endocervical abnormalities was 46.8% (351/750); comprising Atypical Squamous Cells of Unknown Significance (ASCUS) 10.1% (76/750); Cervical Carcinoma (CACX) 0.5% (4/750) and High (HGSIL) and Low (LGSIL) Grade Squamous Intra-epithelial Lesions of 12.1% (91/750) and 24.0% (180/750), respectively. The incidence HPV in this cohort was 24.8 per 100 women years (95% CI: 15.7 to 37.2), incidence of ASCUS 7.8, HGSIL 11.1, LSIL 25.9, and CACX 0 per 100 women years, respectively. HPV was present in 19.2% of LSIL, 0.4% of HGSIL, 0.1% of patients with ASCUS and CACX.

**Conclusion** HPV infections and LGSIL were the dominant genital tract abnormalities in TB-HIV co-infected patients accessing ART.

### P3.234 PREVALENCE AND ESTIMATED HIV-1 INCIDENCE AT TWO VOLUNTARY COUNSELING AND TESTING CENTERS IN NORTHEAST OF BRAZIL

doi:10.1136/sextrans-2013-051184.0691

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**Background** Estimates of incidence and prevalence are important tools for the investigation of regional trends of the HIV epidemic. Currently, the use of immunoassays for epidemiology investigation is referred by RITA (Recent Infection Testing Algorithm). This study aimed to determine the prevalence HIV-1 incidence in two Voluntary and Counseling Testing (VCT) Centers, in the Metropolitan Region of Recife - Northeast of Brazil, in the period from 2008 to 2009

**Methods** Demographics and behavioural data were obtained from 245 individuals diagnosed as HIV-positive among 19,451 volunteers screened from January 2008 to December 2009. The BED - CEIA was used for the determination of recent infection and estimate HIV-1 incidence.

**Results** HIV-1 prevalence was 1.3% (95% CI: 1:14 to 1:46) and the corresponding HIV-1 estimated incidence was 0.71%/year (95% CI: 0.53–0.89). The males obtained a higher prevalence (2.6%, 95% CI: 2:13 to 3:07) and incidence (1.29%/year, 95% CI: 0.79–1.79) than females, whose prevalence was 0.8% (95% CI: 0.62–0.98) and the incidence rate was 0.52%/year (95% CI: 0.34–0.70). A high rate of recent infection was observed in both genders (male: 25% female: 29.9%).

**Conclusions** Our study shows a high rate of recent infection for HIV-1 in genders, as well as a high prevalence and incidence among males, indicating that prevention strategies in this population should be intensified.

### P3.235 GLOBAL ECOLOGICAL STUDY OF HIV AND HSV-2 PREVALENCE

doi:10.1136/sextrans-2013-051184.0692

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**Background** HIV and herpes simplex virus type-2 (HSV-2) are infections transmitted predominantly through sexual intercourse. We explored the ecological association between the prevalence of HIV and HSV-2 among human populations through a global review.

**Methods** We conducted a global systematic literature review of HIV and HSV-2 prevalence following the PRISMA guidelines. Sources of data used were Medline (PubMed) and Embase databases, and several country-level reports. No language, country, or year limitations were imposed. We included any publication with a serological measurement of HIV and HSV-2 prevalence in the same study population.

**Results** A total of 2,927 records were screened. Based on preliminary descriptive analysis, we found that HIV prevalence increased steadily with HSV-2 prevalence in all populations where the dominant mode of transmission was sexual. HSV-2 prevalence was consistently larger than HIV prevalence. Overall, among high-risk populations, both infections prevalence was high. Among general population groups, HIV prevalence varied across settings, but was correlated with HSV-2 prevalence, which also varied widely. Though HIV and HSV-2 prevalence levels were correlated across populations, there were settings with very low HIV prevalence regardless of HSV-2 prevalence. For children and injecting drug users where the dominant mode of HIV transmission was not sexual, there was no apparent ecological association between the two infections.

**Conclusions** Our findings support a strong ecological association between HIV and HSV-2 prevalence in all populations where the dominant mode of HIV transmission is sexual. Sexual networks conducive of HSV-2 transmission appear to be also conducive of HIV transmission. Further analytical work is needed to quantify the ecological association between the two infections, to determine whether HSV-2 could be predictive of HIV epidemic potential, and to assess whether there is a threshold of HSV-2 prevalence necessary for a sexual network to be sustainable for HIV transmission besides HSV-2 transmission.

### P3.236 ANALYSIS OF RISK FACTORS INCIDENCE OF SEXUALLY TRANSMITTED INFECTIONS IN THE WOMEN INDIRECT SEX WORKERS IN MATARAM CITY, INDONESIA, 2012

doi:10.1136/sextrans-2013-051184.0693

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**Background** Sexually transmitted infections are a public health problem in all countries, including Indonesia. The estimated number of people exposed to a sexually transmitted infection that can be treated approximately more than 30 million cases annually. In Mataram City 2011, found as many as 896 new cases of sexually transmitted infections. Women indirect sex workers have an important role in the spread of sexually transmitted infections and HIV-AIDS cases increased.

**Research Methods** Design study was a cross sectional with a total sample of 66 women indirect sex workers. Risk factor of STIs is age of first sex, ever having sex, the number of customers per day, use of condoms, clean hands after sex, change underwear after sex, alcohol consumption habits and the habit of consuming drugs. Potential risk factors were explored using a structured questionnaire of the month from May to June 2012. Data were analysed using, bivariable and multivariable statistics.

**Results** From the bivariable analysis, risk factors for STIs were ever having sex (OR 2.33, CI 1.15–4.65), not using condoms (OR 3.13, CI: 1.36 to 7.20) and the number of customers per day (OR 2.60, CI: 1.13 to 6.01). Multivariable analysis showed that the risk factors that influence the incidence of sexually transmitted infections are not using condoms (adjusted OR 6.55, CI 1.83 to 23.43) and the number of customers per day (adjusted OR 5.01, CI 1.41 to 18.29)