

workers (18%) more often than FSW (0%, $p < 0.01$) and MSM (3%, $p < 0.01$).

Conclusion MSW are at a high risk for contracting and transmitting STI from and to their clients, but also from and to non-commercial (female) contacts and within their own MSW network. This makes them a potential bridging population for STI transmission. While the MSW population is largely hidden, we prove that it is feasible to reach them with care.

P3.114 ARE MALE SEX WORKERS IN TEL-AVIV, ISRAEL AT HIGHER RISK TO GETTING STI AND HIV THAN MEN WHO HAVE SEX WITH MEN

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Z Mor, ^{2,3}M Dan. ¹Ministry of Health, Ramla, Israel; ²Wolfson Medical Center, Holon, Israel; ³Tel Aviv University, Tel Aviv, Israel

Background The number of men who have sex with men (MSM) newly diagnosed with HIV in Israel has quadrupled since 2000. Male sex workers (MSW) are often associated with risk behaviours and STI/HIV infections; thus, they may play a role as core group transmitters. This study aimed to explore knowledge, attitudes and sexual-practises of MSW in Tel-Aviv in comparison with MSM, classified by their risk-behaviours, and to outline attributes related to STI/HIV-prevalence.

Methods MSW were recruited for this cross-sectional study from designated street venues and gay-dating internet-site. MSM were recruited from gay-related venues and divided into high-risk MSM (HRMSM) if they performed unprotected anal intercourse in the last six-months with a HIV-discordant/unknown partner, and to low-risk MSM (LRMSM). Each participant completed a questionnaire and was tested for STI/HIV.

Results Of 87 MSW and 635 MSM approached, 53 (60.9%) and 235 (37.0%) participated, respectively. Street-MSW ($N = 32$) had more female sex partners and were more drug-dependant than internet-MSW ($N = 21$). No differences were found in their knowledge regarding STI/HIV transmission, practises and STI/HIV burden.

Compared to HRMSM, MSW had different demographic attributes and demonstrated more realistic perception regarding the risk to getting STI/HIV, while no differences were found in their knowledge and sexual practises. STI and HIV burden among MSW, HRMSM ($N = 119$) and LRMSM ($N = 116$) were 28.3%, 23.5%, 10.3%, and 5.6%, 9.2%, 0%, $p = 0.009$ and 0.001, respectively.

Multivariate models evaluating attributes associated with HIV/STI-diagnosis did not find sex-work to be significant if the variable used was MSW vs. HRMSM, regardless of the adjustments performed. However, when MSW vs. LRMSM was used in the model, sex-work was associated with STI/HIV-diagnosis.

Conclusions Street-MSW and internet-MSW shared comparable sexual practises and no difference was found in their STI/HIV burden. Likewise, MSW and HRMSM had comparable sexual practises and no difference in STI/HIV prevalence.

P3.115 HIV AND STI PREVALENCE AMONG COMMERCIAL SEX WORKERS

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A T Sosela. *Sinza Youth Peer Educators, Dar-es-salaam, Tanzania*

Background Although there is increasing evidence of the risks associated with HIV infection and transmission among CSW in Tanzania. nothing is known about other sexually transmitted infections (STIs) in this population.

Methods As a strategy to address high HIV prevalence rate among the CSWs, SIYOPE established a programme in Dar-es-salaam in 2009 to 2011. The project involved HIV prevention interventions in

a coordinated manner integrating both clinical services and intensified community outreach programme targeting the CSWs. Some of the key steps undertaken by the project in developing an integrated health services for CSWs include community Mobilization & CSWs, care and Support. Since its inception the project a total of 307 CSW were recruited between April and October Out of them, 96% have been screened for HIV, 94% have been screened for STI, 55% have been screened for TB and 56 are accessing FP services. Further 75 CSWs have tested positive, 30 are on ARVs and the project has formed 2 support groups for women living with HIV, In addition the project continues to address local-level policy issues that hinder access to services among the CSWs as well as stigma and discrimination through campaigns and engagement of community police.

Results Most of the CSW were aged 14–25years and a large proportion (95%) reported having multiple male partners with Whom they often had unprotected sex. 31% reported STIs in the past 12 months, while 26 reported STI symptoms at the time of the outreach activity. Weighted prevalence of STIs ranged from 0.5–1.9% for syphilis, 4.2–8.9% for gonorrhoea, 0–34.5% for Chlamydia.

Conclusion There is a large unmet need for CSW in Tanzania. This calls for an urgent need for targeted screening and vaccination to prevent The untoward HIV and STIs among CSW in Tanzania.

P3.116 RISK FACTORS FOR MYCOPLASMA GENITALIUM AMONG FEMALE SEX WORKERS IN NAIROBI, KENYA

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¹A Alakija, ¹J Ting, ²N Mugo, ²J Kwatampora, ¹F S Behets, ³C Hill, ²M Chitwa, ⁴S Patel, ¹M Gokhale, ²J Kimani, ^{1,5}J S Smith. ¹Department of Epidemiology, Gillings School of Global Public Health, University of North Carolina at Chapel Hill, Chapel Hill, NC, United States; ²Kenyatta National Hospital/University of Nairobi, Nairobi, Kenya; ³Gen-Probe Incorporated, San Diego, NC, United States; ⁴Department of Obstetrics, Gynecology and Reproductive Sciences, University of California, San Francisco, CA, United States; ⁵Lineberger Comprehensive Cancer Center, Chapel Hill, NC, United States

Background Prevalence of *Mycoplasma genitalium* is higher in vulnerable populations of women in low-resource settings; predictors for infection, however, are not well understood. This study aimed to determine the prevalence of *Mycoplasma genitalium* and its associated risk factors among female sex workers in Nairobi, Kenya.

Methods A total of 350 FSW aged 18–50 years old participated in this cross-sectional study from 2009 to 2011. A questionnaire was administered at baseline to obtain information on sociodemographics and sexual behaviours. Physician-collected cervical samples were tested for *M. genitalium* mRNA and other sexually transmitted infections using transcription-mediated amplification-based APTIMA assays (Hologic/Gen-Probe Inc.). Cervical cytology was conducted using physician-collected specimens and classified according to the Bethesda criteria.

Results The median age in the study was 28 (range: 18–48). Prevalence of *M. genitalium* was 12.7%. In the multivariate model, younger age was associated with a higher risk of *M. genitalium*, whereby women greater than 30 years old were less likely to have infection (OR [95% confidence interval] = 0.3 [0.1.0.9] versus women less than 30 years old). Women who reported using condoms at least “most of the time” were more likely to be infected with *M. genitalium* than women who reported using condoms “half the time or less.” Relative to those with normal cytology, women with cytology results of either high-grade squamous intraepithelial lesions or squamous cell carcinoma had a higher prevalence of *M. genitalium* (23.1% vs. 16.2%), although effect estimates were relatively imprecise.

Conclusions Younger women within a vulnerable population appear to be at greater risk of *M. genitalium* infection. The reverse association between condom use and *M. genitalium* may be due to

social desirability bias. Further investigation of the association between *M. genitalium* infection and high-grade cervical cytology is warranted.

P3.117 INTRAVAGINAL PRACTICES AND HIV ACQUISITION AMONG WOMEN AT HIGH RISK FOR INFECTION IN TANZANIA AND UGANDA

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^{1,2}S C Francis, ^{1,2}T T Ao, ^{1,2}D Watson-Jones, ¹K Baisley, ³J van de Wijert, ^{1,4}J Vandepitte, ⁴J Bukonya, ^{1,4}H Grosskurth, ¹R J Hayes. ¹London School of Hygiene & Tropical Medicine, London, UK; ²Mwanza Intervention Trials Unit, National Institute for Medical Research, Mwanza, Tanzania; ³University of Liverpool, Liverpool, UK; ⁴MRC/UVRI Uganda Research Unit on AIDS, Uganda Virus Research Institute (UVRI), Entebbe, Uganda

Background Intravaginal practises (IVP) are highly prevalent in sub-Saharan Africa and may facilitate HIV transmission. In two microbicide feasibility cohorts in North-West Tanzania and Kampala, Uganda, we describe baseline prevalence of IVP and investigate associations between IVP and HIV acquisition prospectively.

Methods We enrolled HIV-negative women who worked in bars, guesthouses and similar facilities in Tanzania and sex workers and bar workers in Uganda, and followed them quarterly for 12 and 18 months, respectively. At each visit, participants were tested for HIV and interviewed about IVP in the past 3 months. We assessed the association between IVP at each follow-up visit and HIV acquisition using Poisson regression in a combined analysis of both cohorts, controlling for potential confounders.

Results 1611 participants were enrolled (966 Tanzanians; 645 Ugandans). At enrolment, 92% of Tanzanians and 93% of Ugandans reported ever cleansing inside the vagina (Table 1); the majority who cleansed used soap/soapy water at least once (75% of Tanzanians and 58% of Ugandans). Nearly half (49%) of Ugandans, but only 13% of Tanzanians, reported ever inserting a substance inside the vagina. The most common substances inserted were herbs, petroleum-based jelly, detergents, aerated drinks, honey, and salt.

1472 participants contributed 71 seroconversions/1,780 pyrs. HIV incidence was 3.99/100 pyrs. Incidence was lower among women who reported cleansing in the past 3 months (aRR:0.44, 95% CI: 0.21–0.93). HIV incidence was similar in women cleansing with soap and those not cleansing/cleansing with water only.

Abstract P3.117 Table 1 Reported IVP at enrolment among women at increased risk for HIV in Tanzania and Uganda

Type of IVP used in the last 3 months	Tanzania (N = 966)	Uganda (N = 645)
Intravaginal Cleansing	891 (91.9%)	601 (93.2%)
Of those who cleansed, substances ever used		
Water only	352 (39.5%)	250 (41.6%)
Water and Soap	664 (74.5%)	351 (58.2%)
Other	1 (0.1%)	2 (0.3%)
Intravaginal Insertion	122 (12.6%)	504 (49.0%)
Of those who inserted, substances ever used		
Herbs or other traditional substance	55 (45.1%)	139 (44.1%)
Washing powder or detergent	27 (22.1%)	63 (20.0%)
Petroleum-based jelly or lotion (e.g Vaseline)	40 (32.8%)	99 (31.4%)
Lemon	15 (12.3%)	7 (2.2%)
Aerated drinks (e.g. Coca Cola)	0 (0.0%)	113 (35.9%)
Honey	4 (3.3%)	64 (20.3%)
Salt	1 (0.8%)	61 (19.4%)
Other	19 (15.6%)	1 (0.3%)

Inserting detergent (aRR:3.05, 95% CI: 1.30–7.18) or petroleum-based jelly (aRR:2.52, 95% CI: 1.08–5.89) were associated with HIV incidence.

Conclusions Intravaginal cleansing was highly prevalent in both cohorts; however, insertion was more common among Ugandans. Cleansing was not a predictor of HIV in this study, and may be protective; however, some substances used for insertion may be harmful. These rarer and more harmful types of IVP warrant further investigation.

P3.118 HIGH RATES OF CHLAMYDIA AND GONORRHEA INFECTION IN ANAL AND PHARYNGEAL SITES IN MEN WHO HAVE SEX WITH MEN (MSM) AND TRANSGENDER WOMEN (TW) IN LIMA, PERU

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¹S R Leon, ²E R Segura, ²J D Klausner, ²K A Konda, ¹J A Flores, ¹A Silva-Santisteban, ²J T Galea, ²T J Coates, ¹C F Caceres. ¹Universidad Peruana Cayetano Heredia, Lima, Peru; ²University of California, Los Angeles, Los Angeles, CA, United States

Background The prevalence of Chlamydia trachomatis and Neisseria gonorrhoeae infections men who have sex with men (MSM) and transgender women (TW) in low and middle income countries is poorly understood. As part of a large intervention trial to reduce HIV and sexually transmitted infection (STI) incidence among MSM/TW in Lima, Peru, we analysed the baseline pre-intervention prevalences of anal and pharyngeal chlamydial and gonococcal infections as well as risky sexual behaviours.

Methods We conducted a cross sectional analysis of 718 MSM/TW enrolled in the Comunidades Positivas and Enhanced Partner Therapy Trial in 2008. Chlamydia trachomatis and Neisseria gonorrhoeae were tested using APTIMA® Combo2 in pharyngeal swabs and self-collected anal swabs. Based on very low rates found in a pilot study, urethral testing was not undertaken. Behavioral surveys were also conducted using Computer-assisted self interviews.

Results In anorectum and oropharynx, the prevalence of Chlamydia trachomatis infection was 19% (95% CI: 16.1%–22.0%) and 4.8% (95% CI: 3.3%–6.6%) respectively, while the prevalence of Neisseria gonorrhoeae infection was 9.6% (95% CI: 7.5%–11.9%) and 6.5% (95% CI: 4.8%–8.5%), respectively for the same sites. 67% of participants reported receptive anal sex, and 62% reported any unprotected intercourse.

Conclusion We found a high prevalence of rectal and pharyngeal bacterial STIs along with high frequency of unprotected anal intercourse among MSM/TW in urban Lima. Studies to demonstrate the clinical and public health benefits of routine screening and treatment of anal and pharyngeal STIs in MSM/TW should be considered.

P3.119 SEROLOGICAL TRENDS OF HIV AND SYPHILIS AMONG MEN WHO HAVE SEX WITH MEN (2004 TO 2011) IN MUMBAI, INDIA

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¹M S Setia, ²R Thorat, ²V Anand, ²A Row-Kavi. ¹Consultant Dermatologist & Epidemiologist, Mumbai, India; ²The Humsafar Trust, Mumbai, India

Background Men who have sex with men (MSM) have been the focus of intensive HIV public health programmes in India since 2000. We present certain demographic, and HIV and syphilis trends among MSM over an eight year period (2004 to 2011) in Mumbai, India.

Methods A total of 11,205 MSM (>= 18 years) were analysed. We calculated the proportion of HIV and syphilis positivity in them. We used chi square for trend to compare the proportions and logistic regression models to estimate the association between demographics and time, and HIV positivity.