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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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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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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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.

Results The overall estimated HIV prevalence was 6.7% (95% confidence interval [CI]: 6.2%–7.2%) and the syphilis prevalence was 3.9% (95% CI: 3.5%–4.2%). In 2004, about 10.3% of the MSM were 18 and 19 year old; this proportion had significantly increased to 17.6% ($p < 0.01$) in 2011. Similarly, the proportion of MSM aged 35 years and above increased significantly from 2004 to 2011 (7.5% vs 12.8%, $p < 0.01$). The estimated HIV prevalence in 2004 was 10.6% (95% CI: 8.4%–12.7%), this reduced to 2.8% (95% CI: 2.1%–3.5%, $p < 0.01$). The prevalence of syphilis in 2004 was 11.4% (95% CI: 9.1%–13.6%), this reduced to 0.4% (95% CI: 0.1%–0.7%, $p = 35$ years, OR: 9.9, 95% CI: 6.7–14.6) and syphilis reactivity (OR: 3.1, 95% CI: 2.4–3.9).

Conclusions The HIV and syphilis prevalence declined over the eight year period. A higher proportion of younger (18/19 year old), and MSM older than 35 are accessing HIV testing services; thus we need to develop intervention programmes for them.

P3.120 RISK FACTORS, ANTIMICROBIAL SUSCEPTIBILITY PROFILES AND PUBLIC HEALTH IMPLICATIONS OF PATIENTS PRESENTING WITH PHARYNGEAL GONOCOCCAL INFECTION IN ENGLAND AND WALES

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Background Pharyngeal infection with *Neisseria gonorrhoeae* is usually asymptomatic and often under-diagnosed. It could therefore be an important source of ongoing transmission particularly among men who have sex with men (MSM). We investigated the prevalence and risk factors of pharyngeal infection among MSM diagnosed with gonorrhoea, and associated antimicrobial susceptibility profiles to cefixime and ceftriaxone.

Method Data from patients included in the national Gonococcal Resistance to Antimicrobials Surveillance Programme (GRASP) from 2007–2010 and self-identified as MSM were analysed. Risk factors for pharyngeal-only infection (POI) versus rectal and/or genital, infections, or a combination (RGI), were examined using multivariable logistic regression adjusting for age, clinic and year of attendance. Minimum inhibitory concentrations (MICs) of cefixime and ceftriaxone at different sites were compared using logistic regression.

Results Of the 2249 MSM in this analysis, 202 (8%) were diagnosed with a POI. They were significantly more likely to have multiple sexual partners (OR = 1.44, CI 1.0–2.1) and asymptomatic infection (OR = 13.4, CI 9.0–20.0); but less likely to report a history of gonorrhoea (OR = 0.61 CI 0.4–0.8); have a concurrent STI (OR = 0.50, CI 0.3–0.8) or be HIV-positive (OR = 0.47, CI 0.3–0.9), when compared to those with RGI. 168 (82%) of POI and 2047 (89%) of RGI cases had isolates retrieved for antimicrobial sensitivity testing. There was a two-fold increase in the geometric mean MIC of cefixime and ceftriaxone required to inhibit growth of *N. gonorrhoeae* resident in the pharynx compared to other sites (OR = 2.14; CI 1.2–3.8; OR = 2.21; CI 1.2–4.0; $p < 0.05$) although the proportion of isolates exhibiting decreased susceptibility to cefixime and ceftriaxone at MIC ≥ 0.125 mg/l did not vary significantly.

Conclusions Patients with POI have high rates of partner change and may be at increased risk of transmitting less sensitive gonococcal strains. Screening for pharyngeal infection should be intensified. Tests of cure should be performed routinely to ensure successful treatment.

P3.121 ARE WE SEEING A TRUE RISE IN NEISSERIA GONORRHOAE AND CHLAMYDIA TRACHOMATIS IN ENGLAND IN MEN WHO HAVE SEX WITH MEN?

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Background The Health Protection Agency (HPA) in England have reported the number of sexually transmitted infections (STIs) diagnosed in men who have sex with men (MSM) continues to rise. Of note, Genitourinary medicine (GUM) clinic data for 2011 showed gonorrhoea (GC) diagnoses in MSM had increased by 61% and chlamydia (CT) diagnoses by 48% compared to 2010 figures. A number of factors may have contributed, including increased MSM screening and wider use of highly sensitive nucleic acid amplification tests (NAATs), especially when testing rectal & pharyngeal sites in MSM. In our London clinic, extragenital testing with dual GC/CT NAATs has been routine since 2009 in MSM.

Aim We hypothesise there is no true rise in incidence in MSM and that recent changes are a reflection of increased testing and widespread use of NAATs.

Methods Retrospective annual comparison of all positive MSM GC & CT infections identified by Aptima Combo2 (AC2; Gen-Probe) between 2010 & 2012. The number of GC cultures and positivity rates were also compared.

Results

Abstract P3.121 Table 1 Comparison of total MSM GC and CT infections seen in 2010, 2011 and 2012.

	2010 (n = 5570)		2011 (n = 6292)		2012 (n = 6843)	
	CT	GC	CT	GC	CT	GC
Total number of CT and GC cases (infected at urethra, rectum and/or throat)	570	644	711	692	726	881
Positivity rate(% of MSM tested who were +ve for GC/CT)	12%	10%	11%	11%	11%	11%

When comparing the positivity rates of GC & CT in MSM seen for testing at our clinics there has not been a significant rise from 2010 to 2012. Actual numbers of MSM with infections are higher; however this seems to reflect an increase in testing episodes only.

Conclusion According to GUMCAD returns our clinic cohort accounts for 13% of GC and 8% CT cases seen in English MSM; thus we would expect any dramatic increase in incidence to be reflected in our data, at least for the London area. Using our somewhat crude analysis we suggest the true increases in GC and CT infections reported among MSM in 2011 are significantly more modest than the rise suggested by HPA data, and most likely reflects the uptake nationally of 3-site NAAT screening.

P3.122* HEPATITIS B INCIDENCE 2002–2012 AND FALLING LEVELS OF IMMUNITY IN MEN WHO HAVE SEX WITH MEN (MSM) AT SEXUAL HEALTH SERVICE, MELBOURNE

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Background Incidence of hepatitis B has not been well studied in men who have sex with men (MSM) recently despite increases in sexual risk practises and sexually transmitted infections (STI). We determined the level of immunity to hepatitis B and the incidence of hepatitis B infection among MSM attending a sexual health service during last 10 years.

Methods The study involved a cross sectional analysis of all MSM attending Melbourne Sexual Health Centre (MSHC) during 1st July 2002 – 30th June 2012 and a retrospective cohort study of MSM who had attended MSHC on multiple occasions and had hepatitis serology done more than once.