

39%) or a partner with an STD (27% vs. 8%,  $p < 0.0001$ ), and less likely to be diagnosed with chlamydia (55% vs. 61%,  $p = 0.007$ ). STD clinic patients reported having more partners (mean 16.3 vs. 11.7,  $p = 0.0008$ ) in the prior year, and more methamphetamine (18% vs. 11%,  $p < 0.0001$ ), Viagra (18% vs. 13%,  $p = 0.006$ ) and popper use (26% vs. 19%,  $p = 0.0004$ ). HIV-uninfected STD clinic patients were more often HIV-tested (84% vs. 78%,  $p = 0.001$ ) at the time of STI diagnosis. HIV-infected MSM diagnosed in the STD clinic were less likely to have a primary HIV care provider than other MSM (80% vs. 96%,  $p < 0.0001$ ).

**Conclusion** STD clinics serve an economically disadvantaged, high risk and disproportionately symptomatic subset of the larger population of MSM with bacterial STI.

**P3.145 SCREENING FOR ANAL DYSPLASIA IN HIV POSITIVE AND HIV NEGATIVE MEN WHO HAVE SEX WITH MEN USING ANAL CYTOLOGY AND P16/INK4 IMMUNOSTAINING; A CROSSECTIONAL STUDY**

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**Background** With legal acceptance of homosexuality in India, men who have sex with men (MSM) are increasingly being reported. Akin to cervical cancer in sexually active women, MSM are predisposed to anal cancers especially with co-infection of HIV. Further, screening of Papanicolaou stained anal smears in MSM can greatly reduce morbidity and mortality due to anal cancer; similar to cervical Pap screening in sexually active women. P16/ink4, a surrogate marker for oncogenic HPV coinfection, improves diagnostic accuracy for anal dysplasia. However, there are only two studies from Asia and none from India analysing anal dysplasia in MSM. This cross-sectional study endeavoured to assess the prevalence of anal dysplasia using Pap smears and p16 immunostaining amongst MSM in India.

**Methods** A total of 31 consecutive HIV positive and 34 HIV negative MSM ( $n = 65$ ) were subjected to anal cytological evaluation with Pap stain and p16 staining. Chi-square test and coefficient of correlation were used for comparison.

**Results** Twenty four (36.9%) and thirty one (47.6%) patients were transgender and bisexual respectively. Eighteen (27.7%) had abnormal anal cytology which was higher in HIV positive as compared to HIV negative group (35% versus 20%,  $p = 0.180$ ). Similarly, both low grade (25.8% vs 17.6%,  $p = 0.549$ ) and high grade lesions (8.3% vs 4.8%,  $p = 0.341$ ) were comparable in HIV positive and negative groups. A negative correlation of CD4

**Abstract P3.145 Table 1**

Anal cytology results (HIV)			
Anal cytology	Overall (n = 65)	HIV positive (n1 = 31)	HIV negative (n2 = 34)
Low grade dysplasia	14(21.5%)	8(25.8%)	6(17.6%)
High grade dysplasia	4(6.15%)	3(9.6%)	1(2.9%)
Total	18(27.7%)	11(35.5%)	7(20.6%) $p = 0.180$

**Abstract P3.145 Table 2**

Anal cytology results (Transgender)		
Cytology	Transgender (n3 = 24)	Non-transgender (n4 = 41)
Low grade dysplasia	8(33.3%)	6(14.6%)
High grade dysplasia	2(8.3%)	2(4.8%)
total	10(41.7%)	8(19.5%) $p = 0.08$

count at time of recruitment with degree of anal dysplasia was observed ( $r = -0.073$ ,  $p = 0.696$ ). A total of 13 (20%) smears were P16 positive with sensitivity, specificity, positive predictive value and negative predictive value of 72.3%, 100%, 100% and 92.3% respectively.

**Conclusion** Anal cytology should be used to screen for anal dysplasia in MSM irrespective of HIV status. Furthermore, addition of P16, with greater specificity for high grade lesions, will significantly improve diagnostic accuracy.

**P3.146 RISING STI PREVALENCE AMONG MSM CLIENTS IN CALABAR, NIGERIA: A CALL FOR ACTION**

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**Introduction** Evidence has shown that there are increasing rates of new HIV and other STI infections occurring among Men who have Sex with Men (MSM) in Nigeria, with the prevalence 3 times higher than the general population as reported by the 2011 National Integrated Bio Behavioral Surveillance Survey. The poor state of health care and support services hinders our effort to control the high rates of these new infections among MSM.

**Methods** The Initiative for Improved Male Health (IMH-Initiative) works to provide a safe space for young MSM living with HIV to access comprehensive palliative care and support, as well as referrals for other services through drama and dance competitions. An STI assessment was conducted in IMH-Initiative's Community Center in Calabar, for gay men and other MSM. An STI history was conducted for all clients who visited the community clinic specifically for HCT and STI counselling and referrals within a 5 month period, and their data were collated.

**Results** 61 MSM were diagnosed, and reported the following in the last 6 months. 49 where living with HIV. 46 had previous histories of untreated anal warts. 20 had previous histories of treated Gonorrhea by self medication and herbs. 21 had untreated boils and rashes around the genitals. 10 clients where living with HIV, and reported untreated penile and rectal gonorrhoea. All clients indicated that there were not comfortable discussing STI infections with staff of public hospitals.

**Conclusion** It is evident that a reasonable number of STI infections among MSM are not completely treated. This thereby increases the individual's risk of HIV infection, and cripples HIV prevention programming in Nigeria. HIV programmes targeting MSM must incorporate STI syndromic management, so as to increase access to non-stigmatised diagnosis and treatment of STIs. Also, access to STI drugs for clients cannot be overemphasised.

**P3.147 PREVALENCE OF HIV/STIS AND RISK BEHAVIOR IN MEN WHO HAVE A SEX WITH MEN, BELIZE, 2012**

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**Background** In Central America, the HIV epidemic is primarily concentrated in a few populations; including men who have a sex with men (MSM). The lack of reliable HIV prevalence estimates among MSM has impacted HIV programme planning targeting this population. In 2012, we conducted the first biological and behavioural survey among MSM in Belize.

**Methods** From January - July 2012, we used respondent-driven sampling to recruit MSM in four districts of Belize. Data was collected using a behavioural survey questionnaire administered through audio computer-assisted self-interview (ACASI). All participants were tested for HIV, syphilis and herpes simplex virus

type 2 (HSV-2). Additional genital specimens collected were tested for *Chlamydia trachomatis* (CT), *Neisseria gonorrhoeae* (NG), *Trichomonas vaginalis* (TV), and *Mycoplasma genitalium* (MG) using polymerase chain reaction (PCR). Proportions, medians and interquartile ranges (IQR) were calculated using STATA 9.0.

**Results** A total of 130 MSM were enrolled. Of these, 64.7% self-identified as gay/homosexual, 32.3% as bisexual, and 2.9% as transvestite/transgender. Median age was 26 years old (IQR 22–31.5). Overall, 37.6% reported sex with a woman in the last 12 months. Consistent condom use with occasional, client, and commercial male partners in last 12 months was reported by 64.4%, 75.0% and 50.0%, respectively. HIV prevalence among MSM was 13.8%, HSV-2 was 27.9%, followed by genital CT 6.9%, anal CT 4.3%, NG anal 2.9%, MG genital 2.8%, and syphilis and active syphilis < 1%.

**Conclusions** Our findings show high prevalence of HIV in MSM in Belize. Despite the low STI prevalence observed, we found high rates of risky sexual behaviour. Development of strategies for HIV and STI prevention in sexual health services, focusing on improved condom access and promotion are urgently needed.

**P3.148 HIGH BURDEN OF EXTRA-GENITAL NEISSERIA GONORRHOAE, CHLAMYDIA TRACHOMATIS AND MYCOPLASMA GENITALIUM INFECTIONS IN MEN WHO HAVE SEX, ESPECIALLY IN HIV-POSITIVE**

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**Background** Since June 2009 we have routinely tested MSM in the drop-in clinic for *Mycoplasma genitalium* (MG), *Chlamydia trachomatis* (CT) and *Neisseria gonorrhoeae* (NG) infections using nucleic acid amplification tests (NAAT) in both first void urine (FVU) and an anal swab from the same patient. In addition, a throat sample was tested for NG. The prevalence and sites of infection of these pathogens was determined in a retrospective study.

**Methods** We included 2408 MSM who have been registered for 4314 new visits from June 2009 to December 2012, of whom 188 (7.8%) patients representing 589 visits were HIV-positive. Two third were asymptomatic and asked for a self-taken anal swab, in addition to a throat sample taken by a nurse. One third was examined by a physician, who performed the sampling. A FVU was collected.

**Results** 372/4265 (8.7%) were positive for *N. gonorrhoeae* using a targeted NAAT (porA gene), 428/4314 (9.9%) were positive for *C. trachomatis* using COBAS® TaqMan® CT Test, v2.0 (Roche), and 223/4222 (5.3%) were positive for *M. genitalium* using an in-house real-time PCR.

The prevalence of any positive test in HIV-negative and HIV-positive patients was 19% and 34%, respectively.

Out of all positive samples in HIV-positive, FVU identified only 16% (13/82) CT, 19% (13/67) MG and 19% (13/67) NG. In HIV-negative, FVU identified 36% (122/335) CT, 34% (52/153) MG and 32% (94/293) NG.

**Conclusion** Our results supports that the MSM population carry a high burden of extra-genital STIs and that testing the ano-rectum and oro-pharynx, especially in HIV-positive, will identify a significantly higher percentage of infected patients than testing FVU alone. In addition to *N. gonorrhoeae* and *C. trachomatis*, anal *M. genitalium* may be a risk factor for HIV transmission.

**P3.149 HIGH-RISK DRUG PRACTISES ASSOCIATED WITH SHIGELLA FLEXNERI SEROTYPE 3A INFECTIONS AMONGST MEN WHO HAVE SEX WITH MEN (MSM) IN ENGLAND**

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**Background** Sexual transmission of *Shigella flexneri* serotype 3a infection amongst MSM has emerged as a health concern. Control has been challenging as risk factors associated with transmission have not been determined. Interviews were undertaken to explore and understand the lifestyle and sexual behaviour of MSM diagnosed with *S. flexneri* between October 2012 and February 2013 and inform intervention strategies.

**Methods** All males ≥ 18 years diagnosed with *S. flexneri* 3a were asked to participate in enhanced surveillance. Those who consented were invited to take part in semi-structured face-to-face interviews.

**Results** Of 35 men diagnosed with *S. flexneri*, 27 were interviewed, of whom 21 were sexually active MSM (4 heterosexuals and 2 MSM without recent sexual activity were excluded from the analysis). High numbers of sexual partners were reported (median = 40) in the previous year; most were casual encounters met through internet sites (13/21) or saunas (7/21). Mephedrone, ketamine, crystal methamphetamine and GBL had been used by 62% (13/21) during sexual encounters and appeared linked to disinhibiting behaviour. A third (9/21) had attended sex parties and 3 reported 'slamming' (injecting recreational drugs) at these events. All reported oral-anal contact, fisting was common (10/21), scat play less so (4/21). Over half (11/21) were HIV-positive and actively sought positive partners. Condom use was rare. Many had had gonorrhoea (13/21) and chlamydia (10/21). Syphilis, lymphogranuloma venereum and hepatitis C infections were also reported.

**Conclusions** Recreational drug use appears strongly associated with sexual risk taking and transmission of *S. flexneri*. The potential for further infectious disease outbreaks and HIV transmission is clear. MSM whether HIV positive or negative need to be aware of the adverse impact of certain recreational drugs on their sexual health. HIV and sexual health clinicians should discuss recreational drug use with their patients and refer them to appropriate treatment services where indicated.

**P3.150 ALTERNATIVE SEXUAL PRACTISES AND PREVALENT STI/HIV AMONG STD CARE-SEEKING MEN WHO HAVE SEX WITH MEN**

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**Background** STI/HIV prevention messages targeting men who have sex with men (MSM) include recommendations to avoid unprotected anal intercourse. Beyond anal intercourse, MSM may engage in a range of alternative sexual practises, yet associations between these practises and STI/HIV have not been carefully examined.

**Methods** We are currently conducting a cross-sectional study of MSM who present to an urban, public STD clinic in the midwestern United States. Using a tablet computer, all participants self-administer a confidential survey capturing sexual behaviour data. Results of STI/HIV testing are abstracted from medical records after the visit.

**Results** Results are preliminary because data collection will continue through May 2013. To date 132 men have enrolled. Participants' median age is 26 years. Most are white (70%) or black (30%), and 80% identify as gay. The median number of lifetime sex partners is 20. The majority (85%) report lifetime experience with