

**Results** Among 425 PHIV aged 13–19 ( $n = 409$ ) and 20–24 ( $n = 16$ ) at start of the 10-year period, 51 (12%) were diagnosed with  $\geq 1$  STI. Incidence was 1.3/100 person-years. There were 117 diagnoses among 51 PHIV; 25 (49%) had an STI on 2 or more occasions. Incidence was significantly higher among females (2.1/100 person-years; 95% CI, 1.5–2.9) versus males (0.7/100,000 person-years; 95% CI, 0.4–1.1), and elevated among black PHIV persons (1.9/100 person-years; 95% CI, 1.3–2.6). The PHIV case rate (28,471/100,000 persons) was 12% higher than the general population rate (25,290/100,000).

**Conclusions** We documented substantial risk of STI among PHIV, which exceeds risk among other youth. True incidence may be higher than measured if PHIV had not initiated sexual activity as of our follow-up period. All sexually active youth should receive regular STI screening and education; because STI risk behaviours place partners at risk for HIV, PHIV should additionally get interventions around ARV adherence and HIV disclosure. PHIV in HIV care have unique opportunities for such prevention.

**P3.172** **PREVALENCE OF GENITAL INFECTIONS WITH CHLAMYDIA TRACHOMATIS (CT), NEISSERIA GONORRHOEA (NG) AND TRICHOMONAS VAGINALIS (TV) IN CLIENTS OF PUBLIC HIV COUNSELLING INSTITUTIONS IN NORTH RHINE-WESTPHALIA, GERMANY: THE STI-HIT STUDY**

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**Background** Chlamydia (CT), gonococci (NG) or trichomonas (TV) infections are not notifiable in Germany. Only few prevalence data exist for the general population. We measured CT, NG and TV prevalence in clients attending local public health authorities (LPHA) offering anonymous HIV tests to evaluate whether these tests should be routinely offered to this population.

**Methods** LPHA in North Rhine-Westphalia screened clients for genital infections with CT, NG and TV on basis of self-collected vaginal swabs (women) and self-collected urine samples (men), using Transcription-mediated amplification (CT and NG: APTIMA Combo 2<sup>®</sup>; TV: APTIMA<sup>®</sup> Trichomonas vaginalis-Assay). We collected information on sociodemographics, sexual and HIV testing behaviour, as well as clinical symptoms.

**Results** Between 17.11.2012–05.02.2013, 448 men, 357 women and 4 transgender were enrolled by 18 LPHA. Median age was 30 years. 74.7% were born in Germany. Participants reported a median of 2 sexual partners within last six months. A total of 67.7% had a prior HIV test. Most frequent reasons for HIV test were sexual contact to person with unknown HIV status (57.0%), new partner (28.9%), and sex work (8.7%). Overall, 18.6% had at least one prior STI. Thirty-one (3.8%) persons tested positive for CT, 5 (0.6%) for NG, and 2 (0.2%) for TV; of those 4 NG and 2 TV infections were in sex workers. Prevalence for CT was highest in women (4.5%) and sex workers (5.7%). A total of 18.2% of STI-negative and 23.5% of STI-positive clients had clinical symptoms ( $p = 0.43$ ).

**Conclusions** Persons attending LPHA for an HIV test do not seem to be a high risk group for STI. NG and TV prevalence is low in this population, except for sex workers. Routine CT testing should be offered to clients asking for an HIV test, independent of symptoms. Sex workers should also be screened for NG and TV.

**P3.173** **STI SCREENING AND DIAGNOSIS HISTORY AMONG WOMEN WHO HAVE SEX WITH WOMEN AND MEN**

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**Background** Research suggests that bisexually-identified women may be more likely to report an STI diagnosis within their lifetime than women who identify as heterosexual or homosexual. In the present study, the role of behaviour and identity were explored in relation to self-reported STI screening and diagnosis history.

**Methods** Behaviorally bisexual women (defined as genital contact with a male and female partner within the past 12 months) were recruited through websites, flyers, community events and participant referrals. Participants were asked to complete an on-line survey and an in-person interview. Participants self-reported details of sexual behaviours, sexual orientation/identity, STI screening and STI diagnosis history. They were also given the option to provide self-collected vaginal, oral, and anal samples for STI screening.

**Results** Participants ( $N = 80$ ) ranged in age from 18 to 51 ( $M = 26.74$ ,  $SD = 7.97$ ). Over three-quarters of the participants reported a history of STI screening. Over a quarter of the participants who reported screening reported a diagnosis of Chlamydia, HPV and/or bacterial vaginosis. Participants who identified as bisexual were more likely to report STI screening than their counterparts. The majority of participants provided a vaginal, oral, and/or anal sample for STI screening. None of the participants tested positive for Trichomoniasis or Gonorrhoea with approximately 7% of participants testing positive for Chlamydia.

**Conclusion** The majority of participants reported STI screening with a sizable minority of participants reporting a positive STI diagnosis. The high proportion of participants who provided a vaginal, oral and/or anal sample indicates a high acceptability rate. The relationship of identity to STI screening in a sample of WSWM highlights the complexity of interventions targeted towards populations defined solely by identity or behaviour.

**P3.174** **THE SEXUAL HEALTH OF MALE AND FEMALE SEX WORKERS ATTENDING GENITOURINARY MEDICINE CLINICS IN ENGLAND**

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**Background** Sex workers (SWs) are assumed to be at increased risk of sexually transmitted infections (STIs), but there are limited comparative data with other population groups. Previously, SW sexual health data were only available from special studies, but it is now gathered routinely as part of the Genitourinary Medicine Clinic Activity Dataset (GUMCAD), a national STI surveillance system.

**Methods** Twelve months of GUMCAD data were analysed descriptively with the prevalence of STIs among SWs and other genitourinary (GUM) clinic attendees investigated. The increased risk of STI in SWs was estimated using logistic regression.

**Results** In 2011, 3,192 SWs (2,704 females, 488 males) were recorded as making 10,481 visits to GUM clinics. These visits were reported from a minority of clinics (primarily large, specialist centres in London). SWs utilised a variety of services including sexual health screens, HIV tests and vaccination; however, a minority of SWs were not recorded as having STI/HIV tests. Disparities in sexual health were observed among SWs. Male SWs had worse sexual health outcomes than female SWs (e.g. period prevalence of gonorrhoea among those tested: 17.6% vs. 2.7%) and migrant female SWs had better outcomes than UK-born female SWs (e.g. period prevalence of chlamydia among those tested: 8.5% vs. 13.5%). SWs also had an increased risk of STI when compared with other attendees, with the greatest risks in male SWs (Chlamydia: ORadj:3.98, 95% CI: 3.05–5.18,  $p < 0.001$ ).

**Conclusions** Routinely-gathered GUMCAD data can be used to assess the sexual health of SWs in England. Disparities in sexual health and differences in service utilisation appear to exist between

different groups of SWs. Some STIs are more prevalent among SWs than the general public. However, these results should be interpreted with caution as the identifying SW code is new and inconsistencies in the way SWs are identified were observed.

**P3.175 PREVALENCE OF HIV, SYPHILIS, DRUGS USE AND SEXUAL RISK BEHAVIOURS AMONG PRISONERS IN GUATEMALA, 2012**

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**Background** In Guatemala, there is limited information on the situation of HIV in prisoners. Therefore performed the first representative Behavior Surveillance Survey (BSS) and Prevalence of HIV and syphilis conducted among inmate population in country.

**Methods** From September to December 2012, inmates were recruited in 6 prisons located in Guatemala City. A two-stage random cluster sampling and a face-to-face standardised questionnaire were applied. Those who met eligibility criteria and signed informed consent were selected as participants, being all of them tested for HIV and syphilis. The proportions, medians, interquartile range (IQR) and confidence intervals (CI: 95%) were obtained using STATA 11.1.

**Results** 605 inmates wererecruited, 87% male/13% female. The median age was 31 years (IQR 25–38). 50% had 1–5 years of imprisonment; the median was 2 years (IQR 0.8–4). Nearly 30% reported > 2 sexual partners in the last 12 months; only 23% used a condom at last intercourse. Consistent condom use in the past 30 days with regular partner, casual and business was 13%, 43%, 78% respectively. The 51% and 58% reported illicit drug use at some time- in life and in the last 30 days, 5% and 1% used injection drugs in the same periods respectively. The Index of adequate knowledge about HIV was 32%. The prevalence of HIV was 0.76% (CI 0.24–1.76) and syphilis 3.5% (CI: 2.23–5.20).

**Conclusions** A low HIV prevalence and syphilis among inmates in Guatemala were found. However, sexual risk behaviours and low HIV knowledge put them at risk of HIV infection. Drug use was higher than reported in other Central American BSS (< 1%). It is necessary that the state as guarantor of inmates ensures access to

prevention and control of STIs and HIV, emphasising the use of condoms in all sexual relations and the use of sterile injecting equipment for intravenous drug users.

**P3.176 PREVALENCE OF GENITAL INFECTIONS WITH CHLAMYDIA TRACHOMATIS (CT), NEISSERIA GONORRHOEA (NG) AND TRICHOMONAS VAGINALIS (TV) IN HARD-TO-REACH FEMALE SEX WORKERS IN NORTH RHINE-WESTPHALIA, GERMANY: THE STI-OUTREACH STUDY**

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**Background** In Germany, few data exist about the prevalence of STI in female sex workers (FSW). Especially hard-to-reach populations without regular contact to health services may be at high risk for STI. We measured the prevalence of CT, NG and TV among FSW at their workplace in order to evaluate whether these tests should be routinely offered in this population.

**Methods** Specialised outreach-workers of local public health authorities (LPHA) screened FSW in North Rhine-Westfalia for the respective STI on basis of self-collected vaginal swabs, using TMA (CT and NG: APTIMA Combo 2®; TV: APTIMA® Trichomonas vaginalis Assay). Sociodemographics, sexual behaviour, and medical care situation were surveyed with help of translators and cultural mediators.

**Results** Up to February 8, 227 FSW were enrolled by 9 LPHA. 10.6% of FSW were born in Germany, 27.8% in Bulgaria, 22.5% in Romania, 39.1% in other countries. 40.9% of non-Germans had no German language skills. German and non-German FSW differed significantly regarding mean age (35 years vs. 30 years, p < 0.01), mean duration of sex work (8.7 years vs. 3.6 years, p < 0.01), existing health insurance for Germany (91.7% vs. 18.6%, p < 0.01), and ever attending a LPHA (62.5% vs. 32.5%, p = 0.016).

Overall prevalences were 7.9% for CT, 12.8% for NG, and 16.3% for TV (table 1).

**Conclusion** For the first time, hard-to-reach FSW were screened for CT, NG, and TV in a low threshold multicenter approach in Germany. Lacking German language skills, no health insurance, rare contact to LPHA, and mostly foreign origin characterised a large proportion of the study population, but nearly all these factors were independent from being tested positively for STI. We found high prevalences of CT, NG, and TV demonstrating a high

**Abstract P3.176 Table 1** Sociodemographic and behavioural characteristics of female sex workers tested for Neisseria gonorrhoea, Chlamydia trachomatis and Trichomonas vaginalis within the STI-Outreach study (for comparisons: chi-square test or Fisher's exact test, where appropriate)

	Neisseria gonorrhoea			Chlamydia trachomatis			Trichomonas vaginalis			
	Positive (n = 18)	negative (n = 209)	p-value	Positive (n = 29)	negative (n = 198)	p-value	Positive (n = 37)	negative (n = 190)	p-value	
Age (years)	< 20	0	1.9	0.273	0	2.0	0.188	2.7	1.6	0.428
	20–29	77.8	54.1		72.4	53.5		64.9	54.2	
	30–39	11.1	29.2		24.1	28.3		24.3	28.4	
	> 40	11.1	14.8		3.5	16.2		8.1	15.8	
Country of birth	Germany	0	11.5	0.229	6.9	11.1	0.747	2.7	12.1	0.140
	Abroad	100	88.5		93.1	88.9		97.3	87.9	
German language skills (only foreigners)	Fluent/Basic	16.7	63.2	0.000	59.3	59.1	0.987	47.2	61.7	0.110
	None	83.3	36.8		40.7	40.9		52.8	38.3	
Ever attended LPHA?	Yes	16.7	37.3	0.122	24.1	37.4	0.165	37.8	35.3	0.765
	No/not sure	83.3	62.7		75.9	62.6		62.2	64.7	
Health insurance valid for Germany?	Yes	5.6	27.8	0.048	13.8	27.8	0.119	16.2	27.9	0.138
	No/not sure	94.4	72.2		86.2	72.8		83.8	72.1	