

Prevention and Control (ECDC), Stockholm, Sweden; <sup>3</sup>Public Health Service Amsterdam, Amsterdam, The Netherlands; <sup>4</sup>Julius Center for Health Sciences and Primary Care, University Medical Centre Utrecht, Utrecht, The Netherlands; <sup>5</sup>STI clinics: A van Daal (East), AP van Leeuwen (North-Holland Flevoland), F de Groot (North), AM Niekamp (Limburg), M Langevoort (Utrecht), AM van Camerijk (South-Holland North), J van de Sande (Zeeland-Brabant), V Wieërs (South-Holland South), Bilthoven, The Netherlands

**Background** Commercial sex workers (CSW) are particularly exposed to sexually transmitted infections (STI). To direct prevention measures, we estimated the prevalence of the three most common bacterial STI (chlamydia, gonorrhoea and syphilis) and examined factors associated with infection among CSW visiting an STI-clinic in the Netherlands.

**Methods** A CSW was defined as a person exchanging sex for money or other valuable goods in the past 6 months prior to the consultation. Using 2006–2011 national surveillance data on STI clinic visits, we estimated the prevalence of consultations with at least one STI (positive laboratory test for chlamydia, gonorrhoea and/or syphilis). We used univariable and multivariable logistic regression to identify factors associated with these STI, stratified by gender.

**Results** Between 2006 and 2011, the prevalence of bacterial STI was 9% among 23,825 female sex workers (FSW) and 18% among 2,353 male sex workers (MSW) consultations. Young CSW (15–24 years) had a higher prevalence (27% for MSW, 16% for FSW) than CSW aged >= 25 years (15% for MSW, 7% for FSW,  $p < 0.0001$ ). Prevalence of STI was higher among MSW having sex with men than among heterosexual MSW (OR = 1.9 95% CI: 1.4–2.5). MSW who already knew their HIV positive status and MSW who were diagnosed as HIV positive during the consultation had a higher prevalence than those who were tested negative for HIV (OR = 4.8 95% CI: 2.8–8.2 and OR = 3.4 95% CI: 2.3–4.9 respectively).

**Conclusions** Young male and female CSW, MSW having sex with men and known HIV-positive MSW had a higher prevalence of STI. Prevention activities need to target young sex workers to increase early diagnosis, prevention and treatment. MSW having sex with men and those known HIV positive may require more targeted interventions.

**P3.168 WITHDRAWN BY AUTHOR**

**P3.169\* EPIDEMIOLOGY OF SEXUALLY TRANSMITTED INFECTION AMONG OFFENDERS FOLLOWING RELEASE FROM THE JUSTICE SYSTEM**

doi:10.1136/sextrans-2013-051184.0626

**S. Wiehe**, A. W. Burgess, M. C. Aalsma, M. B. Rosenman, J. Fortenberry. *Indiana University, Indianapolis, IN, United States.*

**Methods** We performed a retrospective cohort study of individuals with any interaction with the justice system ( $N = 259,867$  individuals), including arrest, gaol, juvenile detention, juvenile prison, or adult prison, between 2000–2008 (gaol: 2003–2008). These individuals were linked to STI positive test result data ( $N = 82,990$  individuals) using a probabilistic identity matching algorithm based on name, date of birth, and social security number. We identified individuals with chlamydia (CT), gonorrhoea (GC), syphilis, or incident HIV within 365 days of release (or of arrest date). We calculated annual STI incidence by justice system category, year, and demographic characteristics, and compared these to population rates within the same geographic area.

**Results** In cross-sectional analyses, 19% of individuals with any interaction with adult prison, 14% with gaol, 14% with arrest, 34% with juvenile prison, and 25% with juvenile detention had a positive STI. Average annual incidence of any STI in the year after release was 10% for adult prison, 13% for gaol, 10% for arrest, 26% for juvenile prison, and 22% for juvenile detention. These differences in incidence

were driven by differing demographic compositions, with younger, minority and female populations demonstrating the highest rates of STI following release. Approximately 16% of all STIs (13% CT, 20% GC, 12% syphilis, 14% incident HIV) can be attributed to individuals within one year of release from the justice system.

**Conclusions** The time following any interaction with the justice system represents a high-impact opportunity to reduce STI burden at a population-level. Structural interventions targeting this vulnerable time period are indicated.

**P3.170 AN EPIDEMIOLOGIC STUDY OF MYCOPLASMA GENITALIUM AMONG MALE STD PATIENTS IN GUANGXI, CHINA**

doi:10.1136/sextrans-2013-051184.0627

**Y Yin**, B Zheng. *National Center for STD Control, Chinese Academy of Medical Sciences & Peking Union Medical College, Nanjing, China*

**Background** *Mycoplasma genitalium* (MG) is an emerging pathogen of NGU. In China, limited studies have indicated a prevalence of 10%–24% among men with NGU. The objective of this study was to determine the prevalence of urethra MG infection among male patients attending STD clinic in Guangxi, China.

**Methods** Male patients attending STD clinic in He Zhou, Guangxi province between July and September 2009, were invited to participate in a cross-sectional study of the prevalence and behavioural risk for MG infection. MG testing was performed in the National Center for STD control of China, using a previously published real time PCR that target the MgPa adhesion gene. Data were double entered into a database using EpiData software by two research assistants. SPSS for windows 13 was used for statistical analysis.

**Results** 423 male STD clinic patients agreed to participate in this research. 114 (28.1%) of urine specimens were MG positive by PCR testing. In the univariate logistic regression analyses, several individual factors were significantly associated with MG infection. Males infected with MG were more likely to be younger, be single, divorced or widowed, of migrant population, and to be living alone or with partners rather than spouses.

**Conclusion** This is the first study to investigate the prevalence rate and risk factors of MG infection among male patients attending STD clinic in southwest China. The high prevalence rate suggests that that increased attention should be paid to MG screening and treatment in this high risk population.

**P3.171\* SEXUALLY TRANSMITTED INFECTIONS (STI) AMONG YOUTH WITH PERINATAL HIV INFECTION**

doi:10.1136/sextrans-2013-051184.0628

**<sup>1</sup>P. Pathela**, **<sup>1</sup>S. Braunstein**, **<sup>1</sup>C. Shepard**, **<sup>1,2</sup>J. Schillinger**. *<sup>1</sup>New York City Department of Health & Mental Hygiene, Queens, NY, United States, <sup>2</sup>Centers for Disease Control and Prevention, Atlanta, GA, United States.*

**Background** With antiretroviral therapy (ARV), children who were perinatally infected with HIV (PHIV) are now reaching adolescence/young adulthood. A few studies have described their self-reported sexual behaviours, but none measured the incidence of STI (objective markers of risky behaviour) among PHIV youth.

**Methods** Separately maintained New York City (NYC) HIV and STI surveillance registries were matched using a deterministic algorithm; the matched dataset contained HIV/AIDS cases reported since 1981 (including retrospectively-identified cases), and STI reported from 2000–June 2010. We calculated incidence of having STI during 2000–2009 (chlamydia, gonorrhoea and early syphilis combined) among the cohort of PHIV individuals born between 1976 and 1987, diagnosed with HIV before age 13, and alive as of 12/31/1999. Additionally, the STI case rate among all PHIV between ages 13–24 during 2000–2009 was compared to that for the NYC population of the same ages.

**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**

doi:10.1136/sextrans-2013-051184.0629

**V Bremer**, <sup>1</sup>K Jansen, <sup>1</sup>G Steffen, <sup>1</sup>N Sarma, <sup>2</sup>A Lucht, <sup>2</sup>D Muenstermann, <sup>2</sup>C Tiemann. <sup>1</sup>Robert Koch-Institut, Berlin, Germany; <sup>2</sup>Labor Krone, Bad Salzuflen, Germany

**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**

doi:10.1136/sextrans-2013-051184.0630

**VR Schick**, <sup>1</sup>A Bell, <sup>1</sup>C Neal, <sup>1</sup>B Van Der Pol, <sup>1</sup>B Dodge, <sup>2</sup>J D Fortenberry. <sup>1</sup>Indiana University, Bloomington, IN, United States; <sup>2</sup>Indiana University, Indianapolis, IN, United States

**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**

doi:10.1136/sextrans-2013-051184.0631

**L Mc Grath Lone**, <sup>2</sup>K Marsh, <sup>2</sup>G Hughes, <sup>1</sup>H Ward. <sup>1</sup>Imperial College, London, UK; <sup>2</sup>Health Protection Agency, London, UK

**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