

**P11.14 PHARYNGEAL AND ANOGENITAL CHLAMYDIA IN MEN WHO HAVE SEX WITH MEN: TEMPORAL TRENDS AND CHARACTERISTICS AMONG ATTENDEES AT A SYDNEY METROPOLITAN SEXUAL HEALTH CLINIC 2011–2014**

<sup>1</sup>SL Goddard\*, <sup>1</sup>P Rajagopal, <sup>1,2,3</sup>DJ Templeton. <sup>1</sup>RPA Sexual Health, Sydney Local Health District, Sydney, Australia; <sup>2</sup>The Kirby Institute, UNSW Australia, Sydney, Australia; <sup>3</sup>Central Clinical School, University of Sydney, Sydney, Australia

10.1136/sextrans-2015-052270.462

**Introduction** Australian STI testing guidelines recommend regular *Chlamydia trachomatis* (CT) testing at pharyngeal and anogenital sites among asymptomatic men who have sex with men (MSM). Our aim was to investigate temporal trends and characteristics of clinic-diagnosed pharyngeal and anogenital CT among MSM.

**Methods** Testing was performed using Aptima Combo 2 (Hologic, US). Data were extracted from the laboratory database and medical records. Statistical analyses were performed using STATA13 (Statcorp, College Station, TX).

**Results** During the study period 2919 MSM were tested on 6850 occasions, and 556 (8.2%) episodes of CT were diagnosed. Pharyngeal (PCT), urethral (UCT) and rectal (RCT) positivity rates were 1.2%, 2.3% and 6.2%, respectively. From 2011–2014, there was a significant increase in number of tests performed, (999–2834, p-trend <0.001), although the positivity rate over the study period remained stable at all 3 sites. There was a non-significant decline in the proportion of those diagnosed with CT who reported any anogenital symptom during the study period (OR 0.85, p-trend = 0.079). Local symptoms were present in 24.3% and 8.0% of those with UCT and RCT, respectively. Of 85 visits where PCT was detected, almost half (n = 39, 45.9%) had no concurrent anogenital infection. Of those, 2 were CT contacts and were treated at the initial visit. Men with PCT had a median of 15 sexual partners over the past year (range 1–1000) which was non-significantly higher than men diagnosed with either UCT (p = 0.077) or RCT (p = 0.094).

**Conclusion** CT positivity remained stable despite substantially increased testing. The temporal decline in symptomatic infections likely reflects a recent policy shift towards regular asymptomatic testing for MSM. Despite a relatively low prevalence of PCT, men with PCT had more sexual partners than men with anogenital CT and close to half the pharyngeal infections would have remained untreated without pharyngeal testing. There may be valuable public health benefits of regular PCT testing among MSM.

**Disclosure of interest statement** No disclosures of interest.

**P11.15 FACTORS ASSOCIATED WITH REPEAT SYMPTOMATIC GONORRHOEA INFECTIONS AMONG MEN WHO HAVE SEX WITH MEN, BANGKOK, THAILAND**

<sup>1</sup>S Pattanasin\*, <sup>1</sup>P Luechai, <sup>1</sup>A Sriporn, <sup>1</sup>J Tongtoyai, <sup>1</sup>W Sukwicha, <sup>1</sup>O Kongpechsatit, <sup>2</sup>P Sirivongrangson, <sup>1,3</sup>TH Holtz, <sup>1,3</sup>ME Curlin, <sup>1,3</sup>EF Dunne. <sup>1</sup>HIV/STD Research Program, Thailand Ministry of Public Health – US Centers for Disease Control and Prevention Collaboration, Nonthaburi, Thailand; <sup>2</sup>Department of Disease Control, Ministry of Public Health, Nonthaburi, Thailand; <sup>3</sup>Division of HIV/AIDS Prevention, US Centers for Disease Control and Prevention, Georgia, USA

10.1136/sextrans-2015-052270.463

**Theme C** (Preventing HIV and related infections: Epidemiology and Prevention in Australia and the Region).

**Background** Repeat *Neisseria gonorrhoeae* (NG) infections indicate ongoing HIV and STI risk among men who have sex with men (MSM). We examined repeat NG among MSM enrolled in the Bangkok MSM Cohort Study (BMCS).

**Methods** Sexually-active Thai MSM aged ≥18 years from Bangkok were enrolled in the BMCS during 2006–2008 (Period1) and 2009–2010 (Period2) and were followed every 4 months for 3–5 years. At baseline, participants were screened for rectal and urethral NG and *Chlamydia trachomatis* (CT) infections using a nucleic acid amplification test (NAAT). Symptomatic participants at follow-up (i.e. men with urethral or anal discharge, urethral pain and rectal pain) had urethral or rectal specimens tested for NG by NAAT, and were treated if positive. We evaluated baseline factors associated with number of symptomatic NG infections using Poisson regression with robust standard error.

**Results** Among 1,595 participants who had specimens at enrollment (median age 26 years, Interquartile range (IQR): 22–30 years), prevalence of rectal and urethral NG was 6.1% and 1.8%, respectively. Of the 1,439 participants with at least one follow-up visit, 119 had NG infection at any follow-up visit. Forty-four (37.0%) had repeat NG (range 2–7), and 21/44 (47.7%) had only 2 infections. The median time between the first 2 infections was 294 days (IQR: 169–461 days). Factors significantly associated with number of symptomatic NG infections were enrollment in Period1 (Adjusted Incidence Rate Ratio (AIRR), 2.5, 95% Confidence Interval (CI), 1.5–4.3), history of HIV testing without awareness of test result (AIRR 2.8, 95% CI 1.2–6.7), history of previous STI (AIRR 2.9, 95% CI 1.8–4.4), and prevalent CT infection (AIRR 2.2, 95% CI 1.4–3.6).

**Conclusion** Repeat NG infections among BMCS participants were found and associated with other STIs. After NG diagnosis and treatment, follow-up evaluation in 3 months for repeat NG infection is warranted.

**P11.16 DENOMINATORS MATTER: TRENDS IN NEISSERIA GONORRHOEA INCIDENCE AMONG GAY, BISEXUAL AND OTHER MEN WHO HAVE SEX WITH MEN (GBMSM) IN THE US – FINDINGS FROM THE STD SURVEILLANCE NETWORK (SSUN) 2010–2013**

<sup>1</sup>MR Stenger\*, <sup>2,3</sup>H Bauer, <sup>1</sup>E Torrone, <sup>3</sup>SSuN Study Group. <sup>1</sup>Division of STD Prevention, US Centers for Disease Control & Prevention; <sup>2</sup>STD Control Branch, California Department of Public Health, Richmond, CA; <sup>3</sup>SSuN Working Group Includes: Greta Anschuetz, MPH (STD Control Program, Philadelphia Department of Public Health, Philadelphia, PA); Margaret Eaglin, MPH (City of Chicago Department of Public Health, Chicago, IL); Heidi Bauer (STD Control Branch, California Department of Public Health, Richmond, CA); Lynn Sosa, MD (STD Control Program, Connecticut Department of Public Health, Hartford, CT); Preeti Pathela, PhD (Bureau of STD Control and Prevention, The New York City Department of Health and Mental Hygiene, Long Island City, NY); Mary Reed, MPH (Colorado Department of Public Health and Environment, Denver, CO); Christina Schumacher, PhD (Johns Hopkins School of Medicine, Baltimore, MD); Jane Schwabke, MD (University of Alabama at Birmingham, Birmingham, AL); Julie Simon, MSPH (Infectious Disease Assessment Unit, Washington State Department of Health, Olympia, WA); Jeff Stover, MPH (Health Informatics & Integrated Surveillance Systems, Virginia Department of Health - Division of Disease Prevention, Richmond, VA)

10.1136/sextrans-2015-052270.464

**Introduction** Inequalities in *Neisseria gonorrhoeae* burden by sexual minority status have been observed in the United States but are difficult to characterise. GBMSM status of gonorrhoea cases is not routinely collected for reported cases and GBMSM population estimates at the level of geography necessary to most usefully inform public health responses are not readily available.

Incidence trends and inequalities among GBMSM have not been described across multiple jurisdictions.

**Methods** A random sample of reported gonorrhoea cases was interviewed and weighted to estimate GBMSM status of all cases reported in 12 geographically disparate states and/or cities collaborating in SSuN. Census and Gallup opinion polling data were used to estimate size of GBMSM, heterosexual male and female populations by age group at the state, county and city level for 2010–2013. Incidence rates and rate-ratios were calculated comparing incidence trends among GBMSM, heterosexual males and females.

**Results** The estimated size of GBMSM population varied across SSuN jurisdictions from 2.8% of males in Alabama to 15.4% in San Francisco. The proportion of male gonorrhoea cases attributable to GBMSM also varied by jurisdiction (range: 13.6% to 92.4%). GBMSM incidence increased in SSuN sites from 1,169.7 cases per 100,000 in 2010 to 1,474.4 in 2013, increased modestly among heterosexual men and remained stable among females at 106 cases per 100,000. The rate-ratio of GBMSM to females and to heterosexual men during the study period ranged from 10.7 to 13.9. The highest incidence among GBMSM across all sites was observed for those aged 25–29 years with estimated annual incidence exceeding 3,400 cases per 100,000 across the study period.

**Conclusion** Gonorrhoea incidence among GBMSM is increasing in a sentinel network of US jurisdictions. Estimates of the size of this population and ascertainment of GBMSM status for reported cases are essential first steps for better understanding the changing epidemiology of gonorrhoea.

**Disclosure of interest statement** The STD Surveillance Network (SSuN) is funded by the US Centres for Disease Control and Prevention (CDC). No pharmaceutical grants were received in the development of this study.

**P11.17 INTENSIFICATION OF A SHIGELLOSIS EPIDEMIC ASSOCIATED WITH SEXUAL TRANSMISSION BETWEEN MEN: DIAGNOSES OF *SHIGELLA FLEXNERI* AND *S. SONNEI* IN ENGLAND, 2004 TO 2015**

<sup>1,2</sup>N Field, <sup>1</sup>T Childs, <sup>3</sup>C Jenkins, <sup>1</sup>I Simms, <sup>1</sup>VL Gilbart, <sup>3</sup>TJ Dallman, <sup>4</sup>P Mook, <sup>4</sup>PD Crook, <sup>1</sup>G Hughes\*. <sup>1</sup>HIV and STI Department, Public Health England Health Protection Services, Colindale; <sup>2</sup>Department of Infection and Population Health, University College London; <sup>3</sup>Gastrointestinal Bacteria Reference Unit, Public Health England Reference Microbiology Services, Colindale; <sup>4</sup>Public Health England Health Protection Field Epidemiology Services

10.1136/sextrans-2015-052270.465

**Introduction** Although Shigellosis is often associated with travel to high incidence regions, outbreaks of *Shigella flexneri* and *S. sonnei* associated with sexual transmission between men have been reported in the UK, Australia and elsewhere. We examined national trends in Shigella spp. diagnoses to explore the evidence for on-going sexual transmission of *S. flexneri* 3a and transmission of other Shigella serotypes or species between men in England.

**Methods** Local hospital laboratories submit presumptive strains of Shigella spp. to the Public Health England national reference laboratory for confirmation and typing. We report trends in diagnoses in men and women aged 16 to 60 years old, excluding cases with recent travel outside the UK.

**Results** Between January 2004 and February 2015, 53% (5,051/9,534) of Shigella spp. diagnoses made in England were not travel-associated, and diagnoses of *S. flexneri* 3a, *S. flexneri* 2a, and *S. sonnei* accounted for 78% of these cases. *S. flexneri* 3a

diagnoses in men increased steadily from 2004 (3 cases) and peaked in 2013 (154 cases). Diagnoses of *S. flexneri* 2a in men followed a similar pattern, although increases emerged later, rising from 9 cases in 2004 to 220 cases in 2014. In 2010, diagnoses of *S. sonnei* in men began to exceed those in women (147 compared to 133 cases), and have since risen steadily in men (267 cases in 2014). Diagnoses in women remained low/stable throughout the study period, and the male to female gender ratios increased substantially, peaking in 2014 at 59:1, 17:1 and 3:1 for *S. flexneri* 3a, *S. flexneri* 2a, and *S. sonnei*.

**Conclusion** Surveillance data suggest an intensification of the shigellosis epidemic associated with sex between men in England. The timing and heterogeneity in species and serotypes implies separate introductions into the population. These data raise the possibility of new shigellosis outbreaks occurring elsewhere.

**Disclosure of interest statement** No pharmaceutical grants were received in the development of this study.

**P11.18 RELATIONSHIP BETWEEN ANAL SEX BEHAVIOURS AND INCIDENT SYPHILIS INFECTION AMONG MSM AND TRANSGENDER WOMEN FROM TWO CLINICS IN LIMA PERU**

<sup>1,2</sup>VA Benites-Zapata\*, <sup>3</sup>KA Konda, <sup>1,2</sup>SR Leon, <sup>3</sup>J Chow, <sup>4</sup>B Brown, <sup>1,2</sup>CF Caceres, <sup>3</sup>JD Klausner. <sup>1</sup>Unit of Health, Sexuality and Human Development, Universidad Peruana Cayetano Heredia, Lima, Peru; <sup>2</sup>Sexual Health Laboratory, Universidad Peruana Cayetano Heredia, Lima, Peru; <sup>3</sup>Division of Infectious Diseases, UCLA David Geffen School of Medicine, Los Angeles, California, USA; <sup>4</sup>Department of Population Health & Disease Prevention, UC Irvine, Irvine, California, USA

10.1136/sextrans-2015-052270.466

**Background** Cross-sectional studies have shown an independent association between receptive anal sex and active syphilis among men who have sex with men (MSM) and transgender women (TW). This study sought to evaluate the relationship between role in anal sex and incident syphilis in a cohort of MSM/TW in Lima, Peru.

**Methods** We are conducting an observational cohort study of MSM/TW recruited from two STI clinics. In quarterly follow-up visits, participants provide behavioural data, and serologic testing is performed for HIV and syphilis. Participants' roles in anal sex reported at baseline were categorised as insertive, receptive or versatile. Participants with active syphilis (i.e. RPR titer  $\geq 1/16$  and TPPA  $\geq 1:80$ ) were treated according to CDC guidelines. We evaluated the relationship between anal sex role and incident syphilis with a multivariate logistic regression model using generalised estimating equations for longitudinal data.

**Results** At baseline, among the 401 participants, mean age was 31.6 years (SD 9.6); when asked about their role in anal sex, 32%, 46% and 22% reported being receptive, versatile and insertive, respectively. Prevalence of active syphilis was 22% at baseline; incidence was 18% and 23% at the third and sixth follow-up visits, respectively. In multivariate analysis, after controlling for age, education, employment, income, gender identity, number of sexual partners, alcohol/drug use, unprotected sex, and HIV, the odds for incident syphilis were higher among people who had defined their anal sex role as receptive (aOR = 2.48 (95% CI 1.23–5.02)) or versatile (aOR = 2.38 (95% CI 1.27–4.47)) as compared to the insertive role.

**Conclusions** MSM/TW who defined their role in anal sex as receptive or versatile showed a significantly higher syphilis incidence in this longitudinal analysis. Further research is needed to