adversely affect home-based male partner HIV testing during pregnancy among 260 men, as HIV test uptake was 96% before (of 180), 95% after (of 80) syphilis test introduction, and remained 2-times greater than clinic-based HIV testing alone within the RCT (39%). Finally, men intended to seek clinic treatment if they received a positive test result during pregnancy and postpartum (94% and 95%, respectively).

Conclusion Men were likely to accept both syphilis and HIV tests when offered at home without adversely affecting HIV testing approaches. POC diagnostics can work well outside facilities and increase testing of male partners who rarely accompany women to antenatal clinics.

P3.107 RATES OF PRIMARY AND SECONDARY SYPHILIS BY STATE AND RACE/ETHNICITY AMONG MEN WHO HAVE SEX WITH MEN: UNITED STATES, 2014

1Jeremy A Grey, 2Hillard Weinstock, 3Sarah Kidd, 4Eli S Rosenberg, 5Thomas L Gift, 6Kyle T Bernstein, 7Emory University, Atlanta, USA; 8Centres for Disease Control and Prevention, Atlanta, USA

Introduction Men who have sex with men (MSM) accounted for 61.1% of reported primary and secondary (P and S) syphilis cases in the United States in 2014. Of P and S syphilis cases among MSM with known race/ethnicity, 94.7% were either White (40.3%), Black (32.2%), or Hispanic (22.2%). To examine rates of P and S syphilis among racial/ethnic categories of MSM, national and state-level estimates of the number of MSM of each race/ethnicity are needed.

Methods We calculated race/ethnicity-specific rates of P and S syphilis among adult MSM (age ≥18) in 49 states that reported sex of partners and race/ethnicity for syphilis cases in 2014. Case counts of P and S syphilis were from national case report data, which are submitted from states to CDC. For rate denominators, we amended our previously published method to produce stratified estimates and 95% confidence intervals (CI) for seven racial/ethnic groups: Hispanic MSM of any race and non-Hispanic MSM who were White; Black; American Indian; Asian; Pacific Islander; or multiple races.

Results The rate of reported P and S syphilis among MSM in the US was 255.4 (95% CI: 229.1–284.7) per 100,000 in 2014. The rates of P and S syphilis per 100,000 among the three racial/ethnic groups most represented among MSM cases were 170.0 (151.1–191.0) for White MSM, 286.4 (250.1–329.5) for Hispanic MSM, and 604.3 (525.0–700.8) for Black MSM, the highest of all racial/ethnic groups. Asian MSM had 170.0 (151.1–191.0) per 100,000.

Conclusion These are the first race/ethnicity-specific estimates of P and S syphilis rates among MSM for states with reported sexual behaviour of cases. Although more cases of P and S syphilis were reported among White MSM in 2014, the rate among Black MSM was higher than White or Hispanic MSM in most states and was over 3.5 times that of White MSM in the US.
HOW SHOULD WE MONITOR CHLAMYDIA CONTROL PROGRAMME EFFECTIVENESS? COMPARING PERFORMANCE INDICATORS USING EVIDENCE SYNTHESIS TO ESTIMATE LOCAL INCIDENCE AND PREVALENCE FROM SURVEILLANCE DATA

Joanna Lewis, Peter White. Imperial College London, London, UK

10.1136/sextrans-2017-053264.345

Introduction Understanding patterns of chlamydia incidence and prevalence is important for addressing inequalities, planning cost-effective control programmes and defining performance indicators. Population-based surveys are costly; the best data for England come from the Natsal surveys which are only available once per decade, and are nationally representative but not powered to compare localities. Estimates at finer spatial and temporal scales are required.

Methods We present a method for estimating local incidence and prevalence by modelling the infection, testing and treatment processes. Parameters describing natural history and treatment-seeking behaviour are informed by the literature or calibrated using national prevalence estimates. By combining them with local-level surveillance data on numbers of chlamydia tests and diagnoses in England, we estimate local screening rates, incidence and prevalence.

Results There is substantial local-level variation in infection burden. Highest infection rates are in the most-deprived areas – but deprivation is a poor predictor of prevalence, with large variation within each deprivation quintile. Importantly, positivity is not a reliable proxy for prevalence. Most localities that meet the current performance target of 2300 annual diagnoses per 100,000 population have higher incidence and prevalence than most that do not, and the target may be unrealistic for many localities.

Conclusion Our approach provides local estimates of chlamydia incidence and prevalence from surveillance data, which can be used to inform analysis of local variation and assess local control programmes. Many localities are unlikely to be able to meet the current annual diagnosis rate target, and successful prevention interventions like condom promotion make the target harder to reach. A better performance indicator could be the proportion of incident infections that are treated, as estimated by our model, since a higher value is always better for public health and other prevention activities make a higher value easier to achieve.

OPTIMISING STI SCREENING IN HIV-INFECTED MEN WHO HAVE SEX WITH MEN (MSM)

Jodie Dinne-Odum, Kristal Aaron, Brioe Daniels, Edward W Hook, Barbara Van Der Pol. University of Alabama at Birmingham, Birmingham, USA

10.1136/sextrans-2017-053264.346

Introduction Current CDC guidelines recommend screening “at least annually” for *Chlamydia trachomatis* (CT) and *Neisseria gonorrhoeae* (GC) at sites of exposure using nucleic acid amplification tests (NAAT) in HIV-infected MSM. National screening rates remain suboptimal in this high-risk population, particularly at extra-genital sites.

Methods We enrolled HIV-infected MSM from a routine care visit at the 1917 HIV clinic in Birmingham, Alabama. Inclusion criteria included age >18, receptive anal intercourse in the past 30 days and lack of antibiotic exposure. Participants provided four self-collected rectal swabs and a urine sample. A pharyngeal sample was provider-collected. Samples from the rectal and genital sites were run on four testing platforms with the composite infection standard (≥2 NAAT positive) defining a positive result. Pharyngeal samples were run on two platforms and the patient infection standard (2 NAAT positive) was used to define positivity.

Results A total of 175 unique HIV-infected MSM were enrolled between December 2014 and November 2016. Overall, 34 men (19.4%) had CT or GC infection detected. CT infection rates by site were: 13.1% rectal, 3.4% urogenital, 0% pharyngeal. GC infection rates by site were: 8.6% rectal, 3.4% urogenital and 2.3% pharyngeal. In addition, 5.7% of men had co-infection with CT and GC at the rectal site and 1.7% had simultaneous CT or GC infection at genital and rectal sites. Most infections (79.4%) would have been missed by genital screening alone.

Conclusion Sexually active, HIV-infected MSM in Birmingham, Alabama have high prevalence rates of CT and GC infection, particularly at the rectal site. This has public health implications since CT/GC co-infection may increase HIV transmission rates. Clinics that provide care for HIV-infected MSM should streamline extragenital testing; this may include the incorporation of patient-collected rectal swabs into routine care.