

For males, 12% and 12% of tests were positive that year. We estimated that screening uptake was 12% and 14% among females, and 4% and 8% among males aged 15–19 and 20–24 in 2018. There was also a gradient of CT rates by ON-MARG quintile, indicating that those with lower SES had higher rates of CT. We also observed a large cluster of CT infection in the vicinity of a local post-secondary institution.

Conclusion There is a need for gender-neutral screening guidelines and changes to the primary care practices to increase routine screening of CT among young males, along with targeted interventions based on the local epidemiology, to curb the epidemic of CT.

Disclosure No significant relationships.

P474 CASES OF LYMPHOGRANULOMA VENEREUM IN CHICAGO, IL, JULY 2016 – APRIL 2017

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Background Lymphogranuloma venereum (LGV) is caused by *Chlamydia trachomatis* (CT) serovars L1–L3. The most recent US outbreak of LGV was in 2016 in Michigan in men who have sex with men (MSM) living with HIV.

Methods To better understand LGV epidemiology in Chicago and increase provider awareness, in 2016, the Chicago Department of Public Health (CDPH) introduced a case-based reporting system for MSM with suspected LGV proctitis. Providers were asked to complete standard forms for adult MSM demonstrating symptoms of proctitis. Demographic/clinical and behavioral risk factors data were abstracted from 7/21/16 – 4/30/17. Rectal specimens found to be positive for CT on nucleic acid amplification testing were submitted for LGV laboratory confirmation.

Results A total of 50 suspect LGV cases were reported to CDPH; 47 specimens were submitted to for further molecular testing: 19 were confirmed to be LGV, 10 were non-LGV/CT positive, 2 had indeterminate results and 16 were CT-negative. All confirmed cases were from rectal swabs: 21% (4/19) were non-Hispanic Black, 42% (8/19) were non-Hispanic white, 32% (6/19) were Hispanic, and 5% (1/19) were non-Hispanic Asian. The median age was 35 years (range = 21–46 years). Of 19 confirmed cases, 84% (N=16) were HIV (+), and in two cases, HIV was diagnosed at the time of LGV infection. The median CD4 count was 613 cells/ml (range = 311–1170 cells/ml, IQR=238); HIV RNA was <40 copies/ml in 58% (11/19) of cases. Amongst the confirmed cases for which treatment information was available (N=17), all had been empirically treated with doxycycline for 21 days.

Conclusion LGV may be suspected in MSM presenting with proctitis symptoms. These data likely underestimate the true local prevalence of LGV in Chicago since reporting was restricted to symptomatic MSM. Improvements in chlamydia case-based surveillance in key populations are critical given the association with LGV and HIV.

Disclosure No significant relationships.

P475 CHLAMYDIA TRACHOMATIS AND NEISSERIA GONORRHOEA: PREVALENCE AND FACTORS ASSOCIATED AMONG WOMEN WITH HIV IN SÃO PAULO, BRAZIL

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Background Our goal was to estimate the prevalences of and risk factors for *Chlamydia trachomatis* (CT) and *Neisseria gonorrhoeae* (NG) among women with HIV.

Methods Cross-sectional study of women with HIV, who were receiving care from sixteen public health services in São Paulo (October/2013 to March/2014). Participants answered a questionnaire including demographic, behavioral, and clinical data. A urine sample was tested for CT and NG, using a polymerase chain reaction. The chi-square test and a logistic regression model were used to test the associations with CT or NG infections.

Results 836 women were included. The mean age was 40.5 ± 0.34 years, and the prevalences of CT and NG infections were 1.8% and 0.5%, respectively. The highest prevalences of CT infection were among who were 18–25 years old (15.9%), had black skin color (2.6%), had ≥2 sexual partners during the last year (7.3%), had a partner who had been imprisoned (3.3%), and not used condoms during the last 6 months (4%). According to clinical characteristics, the highest prevalences were among who had a spontaneous abortion (3.5%), prior STD (3.7%), had been diagnosed with HIV infection during the last year (4.8%), had a CD4+ <350 cells/mm³ (4.8%), had atypical squamous cells/glandular cells of undetermined significance in their last Pap smear (11.1%), and had positive NG test results (25%). CT infection was associated with CD4+ <350 cells/mm³ [adjusted odds ratio (ORadj): 24.5], age of 18–25 years (ORadj: 23.2), the non-use of condoms during the last 6 months (ORadj: 10.2), prior STI (ORadj: 9.4), and having ≥2 sexual partners during last year (ORadj: 6.1).

Conclusion Although we observed a low prevalence of CT infection among women with HIV, younger age was associated with a strong risk of infection. Therefore, it may be appropriate to include screening for CT as part of the routine care for this population.

Disclosure No significant relationships.

P476 PREVALENCE OF CHLAMYDIA AND GONORRHEA AMONG YOUTH IN LOS ANGELES AND NEW ORLEANS RECEIVING FREQUENT TESTING

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Background *Chlamydia trachomatis* (CT) and *Neisseria gonorrhoeae* (NG) disproportionately affect adolescents, however,

many adolescents receive infrequent sexually transmitted infection (STI) testing. Gay, bisexual, transgender, and homeless youth are at increased risk for STIs. Currently, the Centers for Disease Control and Prevention recommend only annual screening of CT/NG for all sexually active gay, bisexual, and other men who have sex with men (MSM).

Methods We recruited adolescents aged 12–24 years from homeless shelters, lesbian, gay, bisexual, transgender, and queer (LGBTQ) organizations, and community health centers in Los Angeles, California and New Orleans, Louisiana from May 2017–January 2019. All participants received point-of-care pharyngeal, rectal, and urethral/vaginal CT/NG testing using the Cepheid GeneXpert (Sunnyvale, CA). We measured the proportion of participants with CT/NG infections every 4 months for 12 months. We compared the proportion of STI positivity at each time point to the baseline visit using a McNemar's test.

Results Overall, 156 participants received testing (53 MSM/transgender women, 56 heterosexual men, 47 heterosexual women). Baseline prevalence of CT/NG among MSM and transgender women was 18.9%. At the 4 month visit, prevalence was 5.7% ($\Delta = 13.2\%$, $P\text{-value} = 0.04$). At the 8 month visit, prevalence was 15.1% ($\Delta = 3.8\%$, $P\text{-value} = 0.99$). At the 12 month visit, prevalence of CT/NG was 3.8%, a 15.1% decrease from baseline ($P\text{-value} = 0.02$). There was no significant difference in prevalence among heterosexual men between their baseline visit (5.4%) and their 12-month visit (8.9%) ($\Delta = 3.5\%$, $P\text{-value} = 0.82$). There was no significant difference in prevalence among heterosexual women between their baseline visit (10.6%) and their 12-month visit (8.5%) ($\Delta = 2.1\%$, $P\text{-value} = 0.99$).

Conclusion Providing regular testing among adolescent MSM and transgender women may be beneficial in reducing the prevalence of CT/NG infections. Reasons for failure to reduce prevalence among heterosexual men and women require further study.

Disclosure No significant relationships.

P477

PRENATAL SCREENING AND TREATMENT OF CHLAMYDIA TRACHOMATIS INFECTION TO PREVENT ADVERSE PREGNANCY OUTCOMES – A PILOT STUDY

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Background Chlamydia trachomatis (CT) infection is considered to be related to adverse pregnancy outcomes, but we are still not sure whether prenatal screening and treatment of CT infection can prevent these. We conducted a pilot study to investigate the feasibility and acceptability of prenatal CT screening and treatment in China, in order to collect preliminary data for a RCT.

Methods We recruited pregnant women at a gestational age between 12–14 weeks in a hospital in Guangzhou, China in April and May of 2018. All participants were screened for CT using Nucleic Acid Amplification Testing at the registry. Chlamydia-positive patients were provided one dose of azithromycin for treatment, and they were re-tested one-month after the treatment. We followed up every participant until delivery or end of pregnancy. We included nine adverse pregnancy outcomes

(preterm birth (PTB), smaller than gestational age (SGA), birth defect, infant death, etc.).

Results Of 453 women reached, 306 agreed for the screening and provided urine samples for testing. 302 (98.7%) of the collected samples were valid for testing, and 283 (92.5%) of questionnaires were obtained, but one was withdrew before delivery. Finally, we included 282 participants in this analysis whose mean age was 30.46 year (SD: 3.88). 14(5%) women were CT-positive at the registry. Eleven cases received treatment and three refused. All treated women was re-tested as negative after treatment. In treatment group (N=11), neither adverse pregnancy outcomes nor side effect of treatment was observed. In the non-treatment group (N=3), one still birth was found. Among 268CT-negative pregnant women, we observed 13 PTBs, 20 SGAs and 1 heart birth defect.

Conclusion It is feasible and acceptable to conduct CT screening study among pregnant women. Although the sample size is limited, the study provided useful information for planning a RCT aimed to evaluate the efficacy of the testing and treatment strategy.

Disclosure No significant relationships.

P478

IS CHLAMYDIA AND GONORRHOEA TESTING ASSOCIATED WITH PREGNANCY OUTCOMES? A RETROSPECTIVE DATA-LINKAGE COHORT STUDY

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Background Adverse reproductive health outcomes have been associated with *Chlamydia trachomatis* (CT) and Neisseria gonorrhoea (NG) infections. Risk of adverse outcomes have been measured by following progression to Pelvic Inflammatory Disease (PID), ectopic pregnancy and tubal factor infertility. We propose that these measures are complemented by assessing long-term pregnancy outcomes. We compare long-term pregnancy outcomes including use of Assisted Reproductive Technologies (ART) to examine the association with sexually transmitted infections.

Methods We used a retrospective data-linkage cohort study design to link women aged 15–35 years based in Queensland, Australia, with a record of testing for CT and NG or a full blood test in a public health facility between Jan 1, 2000 and Dec 31, 2005. Records were probabilistically and deterministically linked to the Queensland Perinatal Registry until Dec 31, 2013. Multiple regression models were used to estimate the odds of a woman ever being pregnant based on her history of testing and exposure to an infection.

Results Complete data from 132,951 women were analysed. Of those tested for an STI, 592 recorded multiple positive results, 3,243 single positives and 20,870 negative results. Those who had not tested for an STI comprised 108,246 women. The adjusted odds ratio for having a successful pregnancy was 0.66 (95% CI 0.64–0.68) for women who had ever been tested. The adjusted odds ratio for usage of ART was 1.24 (1.02–1.50). Women with CT had an adjusted odds ratio of 0.70 (0.65–0.76), whereas women with NG had an adjusted odds ratio of 0.78 (0.66–0.92).