

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% ( $\Delta = 13.2\%$ ,  $P$ -value = 0.04). At the 8 month visit, prevalence was 15.1% ( $\Delta = 3.8\%$ ,  $P$ -value = 0.99). At the 12 month visit, prevalence of CT/NG was 3.8%, a 15.1% decrease from baseline ( $P$ -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%) ( $\Delta = 3.5\%$ ,  $P$ -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%) ( $\Delta = 2.1\%$ ,  $P$ -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.

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#### 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.

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#### 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).