higher risk for reinfecions were young people (<20 years 17%), specific ethnic minorities (Netherlands Antillean 16%, Turkish 17%, sub-Saharan African 18%), persons living in Rotterdam (11 vs 8% Amsterdam 4% Limburg), and in high-risk areas (14%).

Conclusions The uptake of retesting was successful counting two third with automatically sent testkits 6 months after screening. Reinfecation rates were high, especially among known risk-groups. Questionnaire results show that follow-up of (partner) treatment after Chlamydia infections could be improved.

01-S01.04 SUBOPTIMAL REPEAT TESTING OF WOMEN WITH POSITIVE CHLAMYDIA TESTS IN THE USA, 2008–2010
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Background Women treated for chlamydia have a high prevalence of infection several months later, likely caused by reinfection from an untreated or new infected sex partner. To prevent potential adverse outcomes of chlamydia, US guidelines recommend repeat testing 3 months after treatment, regardless of partner treatment. If retesting at 3 months is not possible, women should be retested at their next clinical encounter within 12 months. A chlamydia test-of-cure is also recommended for all infected pregnant women 3–4 weeks after treatment. We assessed adherence to retesting guidelines using data from a US laboratory corporation that has a large share of the US market.

Methods Among tests performed from June 2008 to May 2010, we estimated the percentage of women who were retested n=8 weeks later by test result, age and pregnancy status. We also estimated the positivity rate among repeat chlamydia tests and the mean time between an initial test and the first repeat test. We assumed that for each woman in the database all chlamydia tests during the study period were performed by this laboratory corporation.

Results Among 2.90 million chlamydia tests performed in 1.77 million women, 4.0% (114,963) were positive. Among the 1.77 million women with tests, 1.34 million (75.7%) had only a single test and 0.43 million (24.5%) had at least one repeat test. If an initial test was positive, 48.6% were retested compared to 23.8% if the initial test was negative (p<0.01); a repeat test was more likely to be positive in women with an initial positive test (13.3%) than a negative one (5.3%) (p<0.01). The mean time interval between the initial and repeat test was shorter if the initial test was positive (117 days) than negative (149 days). Women aged 15–24 years with a positive test had a lower retesting rate than those aged 25–34 years (46.8% vs 53.3%). The percentage of women with a positive test who were retested differed significantly by pregnancy status (60.0% pregnant vs 44.2% nonpregnant), and pregnant women had a repeat test within 93 days compared to 125 days in nonpregnant women. These data can be useful to monitor the effectiveness of interventions to improve follow-up testing of women with chlamydia.

01-S01.06 ESTIMATION OF THE BURDEN OF DISEASE AND COSTS OF GENITAL CHLAMYDIA TRACHOMATIS INFECTION IN CANADA
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Background Chlamydia trachomatis (CT) is the most common notifiable infectious disease in Canada. Rates of infection have been increasing since the mid-1990s, suggesting that alternate control strategies may be required. Given that the current cost of Chlamydia infections in Canada is unknown, we sought to estimate the burden of CT in the Canadian population, to provide a foundation on which health economic analyses of competing Chlamydia control strategies can be constructed.

Methods We used an age- and sex-structured mathematical model parameterised to reproduce trends in CT prevalence in the Canadian population aged 10 to 59 years. Model parameters were derived from epidemiologic studies and by model calibration. We incorporated data on changing test patterns of asymptomatically infected individuals over time. Costs were identified, measured, and valued using a modified societal perspective and were converted to 2009 Canadian dollars. The main outcome measures were the current net cost and burden of illness attributable to CT infection.

Results The model reproduced trends in CT prevalence observed for the time period between 1991 and 2008. Under base case model assumptions, there appeared to be a trend of increasing detection of