

**Improved Public Health Response to *Chlamydia trachomatis*:
Evidence from studies of the Baltimore Population, 1997 - 2009**

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Aims: There has been a marked increase in surveillance for untreated *Chlamydia trachomatis* (CT) in the past two decades. Measurement of the impact of CT control efforts are problematic since we typically monitor only our successes reflected in counts of infections that are diagnosed and presumably treated. Undiagnosed infections that persist in the population constitute our failures, and they typically are not monitored since they require mounting expensive surveys of probability samples of our populations with biospecimen collection to assess the prevalence of undiagnosed CT infections. In this talk, we report a full accounting of diagnosed and undiagnosed CT infections for Baltimore, Maryland USA in 1997-98 and 2006-2009.

Methods: Weighted survey estimates of undiagnosed CT infections are compared to Baltimore City Health Department (BCHD) counts of the number of infections diagnosed in the time periods 1997-98 and 2006-2009.

Results: In 1997-98, we conducted a survey of a probability sample of Baltimore adults with biospecimen collection for NAAT testing for undiagnosed infections among adults ages 18-35. We found the ratio of undiagnosed to diagnosed infections was 1.43 in 1997-98. We conducted parallel surveys (using a modified methodology) in 2006 - 2009. Across these years, we found that the mean ratio of undiagnosed to diagnosed infections had declined to 1.09.

Conclusions: Diagnoses of CT infections in Baltimore have increased in the past 12 years. The number of undiagnosed infections, however, remains large. We estimate that on average – across the time period 2006-2009 – slightly more infections went undiagnosed than were diagnosed and treated in any given year.

Keywords: Chlamydial infection, STI surveillance, population survey

References.

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