Objective To determine current seroepidemiology of CT infection in children in a US inner city population.

Design/methods Anonymousized serum samples were obtained from children in 2 hospitals in Brooklyn, NY from 2012–2015. CT IgG was determined using EIA (Ani Labsystems). The following age strata were used: 11–12, 13–14, 15–16, 17–18, 19–20 y.

Results 512 sera were included in the final analysis. Mean age 17 y. There were 192 (37.5%) males and 320 (62.5%) females. CT antibody was first detected at 16 y and 18 y for females and males, respectively. The prevalence per age-cohort were: Females: 11–14 y-0, 15–16 y-3.64%, 17–18 y-15.9%, 19–20 y-14.75%; Males: 11–16 y-0, 17–18 y-8.51%, 18–20 y-9.33%.

Conclusions The prevalence of antibody was higher in girls than their male counterparts, mirroring national trends based on NAATs. Antibody was first detected in females at 16 y and males at 17 y, reflecting sexual debut. Prior data from this cohort found antibody in% infants <1 y, which disappeared between 1 and 16 y. The delay in male antibody detection may be due to later exposure and/or anatomical and physiological factors between the sexes. These data are critical in informing potential CT vaccine strategies. Future studies using a larger sample size and gender-specific prevalence.

### P03.04

**THE IMPACT OF UNIVERSAL CHLAMYDIA TRACHOMATIS (CT) SCREENING DURING PREGNANCY ON SEROEPIDEMIOLOGY OF CHLAMYDIAL INFECTION IN AMERICAN CHILDREN, 1991–2013**

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Introduction CT remains the most prevalent sexually transmitted infection in developed and developing countries. Prenatal screening and treatment of pregnant women has resulted in a dramatic decrease of perinatal CT infection (conjunctivitis, pneumonia) in the US. Before the implementation of screening, ~50% of infants born to mothers with CT infection developed chlamydial conjunctivitis and/or pneumonia. However, there have been no studies of the incidence of perinatal CT infection, including seroepidemiologic studies, following the implementation of screening and treatment as recommended by the CDC in 1993.

Methods Anonymized banked serum and prospectively collected samples from children in Brooklyn, NY, were tested for CT IgG using the MIF assay. Serum samples were divided into 2 groups: 1: collected from 1991–1995, 2: from 2001–2013. Pts with C. pneumoniae (CP) infection (culture and/or antibody) were excluded.

Results 491 serum samples were identified (age range 0–20), 71 samples were excluded due to evidence of CP infection. 34% of subjects <10 y in group 1 (pre-universal screening) had IgG against CT, while there were no positives in group 2 (post-universal screening), p < 0.0001. Children >10 y had a prevalence of 32% in group 1 and 3.48% in group 2, p < 0.0001.

Conclusion Children <10 yr in group 1 (pre-screening) had relatively high rates of seropositivity, which were likely due to perinatal infection. This antibody was not due to CP, as sera from children with CP infection were excluded. The significantly lower rates in group 2 (post-screening) confirm that prenatal screening and treatment of pregnant women has been effective for prevention of CT infection in infants. Persistence of antibody after perinatal infection may have implications for CT vaccine use in countries where prenatal screening and treatment has not been implemented.