

APHA abstract 2019

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Health Burden of Chlamydia Linked to Risk-Exposure Rather than Risk-Response among African Americans in a High Infant-Mortality Community

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Learning Outcomes:

Compare the risk factors that contribute to low birth weight for women in a community where infants of color die at a rate four times higher than white infants.

Abstract:

Background: Sexually transmitted infections (STIs) pose risks of poor birth outcomes (PBO) for pregnant women including preterm birth, low-birth-weight and infant infection. *Chlamydia trachomatis* is the leading cause of bacterial STIs worldwide, and prevalence of infection is increasing. Females between the ages of 15-24 who are African American have the highest rates of Chlamydia. This study examines if increased Chlamydia prevalence in the African American population impacts PBO risk compared to Caucasian woman.

Methods: A retrospective cohort study of birth-death vital records from 2008-2014 in Kalamazoo County, Michigan was conducted. The impact of Chlamydia infection on birth-weight was modeled using multiple linear regression, controlling for race (of Color vs. White). The full model was adjusted for demographic factors, substance abuse, and numerous health related variables.

Results: In 21,043 singleton births, the rate of Chlamydia infection was 10.45% (N=496/ 4746) for women of Color and 3.13% (N=509/16211) for White women.

Chlamydia infection contributed to PBO with an OR of 1.82, 95% CI 1.55, 2.11, compared to uninfected individuals. In the adjusted model, Chlamydia remained a significant factor in determining infant birth-weight, reducing weight by 50.99g, however this does not vary by race.

Conclusion: This study shows that despite the higher prevalence of Chlamydia infection in the African American community, infection poses a similar risk to both populations. Understanding both the degree that various risk factors contribute to PBOs and the existence of local STI disparities; provides direction for the local healthcare systems and community to intervene in an impactful manner.