Adolescent Chlamydia Rates Adjusted for Sexual Activity

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Background

Chlamydia is the most commonly reported infectious disease and is most prevalent in women aged 15-19 years

Historically, case reports of chlamydia have highlighted the disparate burden for Black and adolescent and young adult women in the United States

“Rates of reported cases of chlamydia were highest for Blacks aged 15–19 and 20–24 years in 2013…the rate among Black females aged 15–19 years was five times the rate among White females in the same age group (6,908 vs 1,383 per 100,000)”

-2013 STD Surveillance report

However….

- Fewer than half of female adolescents have ever had sex and are not at risk for chlamydia infection.
- Even fewer are currently sexually active, which is a better indicator for risk of STD.
- CDC recommends chlamydia screening for sexually active female adolescents.

Objective

To adjust the denominators of chlamydia rates to more accurately reflect the population of sexually active females.

- What happens to chlamydia rates for female adolescents when sexual behavior is adjusted for?
- Because we are focused on STIs in vulnerable and high risk populations, what happens to racial disparities when rates are adjusted?

Data Sources

- 2002, 2006-2010, and 2011-2013 National Survey of Family Growth (NSFG) data were used to estimate the proportion of sexually active 15 – 19 year old females in the U.S.
  - Sexual activity: Respondents were asked how many sex partners they had in the past year, with partner values greater than 0 coded as sexually active
- Chlamydia case data reported to the CDC for years 2002, 2006-2013
- Denominator values were calculated from U.S. Census population counts

Analysis

- Chlamydia rates were calculated using chlamydia case data and U.S. Census population counts for female adolescents.
- Rate ratios for Black and Hispanic adolescents relative to White adolescents were calculated for each time point.
The impact of adjustments in Chlamydia rates can be attributed to:

- Decrease in proportion of sexually active Blacks
- Increase in proportion of sexually active Hispanics
- Stable proportion of sexual activity in Whites

Adjustments for sexual behavior attenuate the chlamydia rate disparity between Blacks and Whites, and not adjusting for behavior underestimates the reduction in disparities over time.

Black adolescents remain disproportionately burdened by chlamydial infections, relative to other groups.
**Limitations and Implications**

- Data do not incorporate screening rates or changes in screening rates over time.
- NSFG not administered every year so there is not a perfect match between sexual behavior data and chlamydia case report data.
- Race rate ratios are just one measure of disparities.
- There are large differences in rates of chlamydia between the unadjusted and adjusted rates, so we recommend adjusting for sexual behavior whenever possible, especially when reporting adolescent data.
- We must continue to strive to reduce disparities and better reach our most vulnerable and high-risk groups.

**Save the Date!**

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