Key Summary of Published Article

# Chlamydia and Gonorrhea: Shifting Age-Based Positivity Among Young Females, 2010-2017

## Background

- Sexually transmitted infections of *Chlamydia trachomatis* (CT) and *Neisseria gonorrhoeae* (NG) are usually asymptomatic and, thus, underdiagnosed. Failure to treat these infections can lead to serious complications that affect fertility and pregnancy.[1]
- Current recommendations for CT and NG infection screening in the United States are based on age and other risk factors for infection.[2,3]
- Sexual practices have changed in the last decade in the United States, with younger females reporting less sexual activity and women having their first birth at older ages.[4,5] These evolving sexual practices may change risk of exposure to CT and NG.
- **Objective:** Using data from a national reference laboratory, investigators examined changes in CT and NG positivity rates over an 8-year period (2010-2017) among females in different age groups in the United States.

## Methods

- This retrospective study analyzed deidentified results for 17,794,680 specimens submitted to Quest Diagnostics for CT/NG co-testing. Specimens were from females aged 12 to 30 years and submitted from 2010 to 2017.
- CT and NG positivity rates were assessed over time and examined by age groups: 12 to 17, 18 to 24, and 25 to 30 years of age.
- Trends over time were analyzed.

## Results

- From 2010 to 2017, annual positivity rates increased for both CT and NG in the overall study population (both $P<0.0001$ for trend).
  - CT positivity rates increased by 18% (4.9% to 5.8%).
  - NG positivity rates increased by 33% (0.7% to 0.9%).
- For both CT and NG, positivity decreased in the youngest age group and increased in the 2 older age groups from 2010 to 2017 (all $P<0.0001$).
  - CT
    - 12 to 17 years: decreased 17% (8.9% to 7.4%)
    - 18 to 24 years: increased 21% (6.1% to 7.4%)
    - 25 to 30 years: increased 50% (2.2% to 3.3%)
  - NG
    - 12 to 17 years: decreased 14% (1.3% to 1.2%)
    - 18 to 24 years: increased 27% (0.8% to 1.0%)
    - 25 to 30 years: increased 117% (0.3% to 0.6%)

## Conclusions

- These data from a national US reference laboratory indicate that, from 2010 to 2017, annual CT/NG positivity rates increased among females 12 to 30 years of age.
- However, positivity shifted towards older ages, declining among females 12 to 17 years of age and increasing among women 18 to 30 years of age.
- These trends in CT/NG positivity may inform prevention and control strategies.

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