In 2015, there were 24,143 laboratory confirmed chlamydia cases reported in Massachusetts; incidence rate was 357.9 per 100,000.

- Delayed treatment in symptomatic pelvic inflammatory disease patients is associated with infertility and ectopic pregnancy.
- Timely treatment is a key element for prevention and control of chlamydia infections.

**Methods**

- All laboratory-confirmed chlamydia cases reported to the Massachusetts Department of Public Health in 2015 were categorized as metropolitan or non-metropolitan (micropolitan, small town, rural) by home address based on Rural-Urban Commuting Area (RUCA) codes developed from 2010 census data.
- We sampled all non-metropolitan cases (242 cases) and an equivalent number of metropolitan/unknown address cases (242 cases) were randomly selected.
- Clinician phone interviews were conducted January 2016 through May 2016.
- Cases were excluded if: prior infection in 2015, non-Massachusetts resident, homeless, incarcerated, clinician unavailable for interview, or treatment information unavailable.
- Adjusted odds (aOR) of treatment delay (defined as ≥ 4 days from specimen collection to antibiotic initiation) were calculated using multivariate logistic regression (backward elimination) in SAS 9.3 (SAS Institute, Inc, Cary, NC).

**Results**

- Nearly one-third of male chlamydia cases reported same-sex engagement.
- 40% of non-metropolitan male cases and ~18% of metropolitan male cases were MSM.
- 42% of chlamydia cases investigated had delayed treatment.
- In multivariable analyses, findings among both males and females indicated:
  - Persons who were tested because they were contacts of chlamydia cases had the lowest frequency of delayed treatment.
  - Test turnaround time was strongly associated with delays in chlamydia treatment among females and males.

**Conclusions**

- Among males, those who were MSM/MSMW were more likely to have treatment delays.

**Implications for Programs, Policy, and Research**

- Results of the study can enhance health services planning.
- Improved laboratory test turnaround time could reduce potential delays in treatment.

**Acknowledgments**

- This work was supported by the University of Massachusetts Medical School, University of Massachusetts Amherst, and Massachusetts Women’s Health Partnership. We thank our community partners and patients who participated in this study.

**Contact Information:** Jungwon Yoon, MD  jungwonyoon@umass.edu