Chlamydia Infection Update — Alaska, 2018

Background
Chlamydia trachomatis infection (CT) is the most common reportable infectious disease in the United States. During 2010–2018, Alaska has had the highest CT infection rate in the nation. While often asymptomatic, untreated CT infection can cause miscarriage, pre-term labor, low birth weight; conjunctivitis and pneumonia in neonates; pelvic inflammatory disease (PID), ectopic pregnancy, chronic pelvic pain, and infertility in women; and epididymitis and Reiter’s syndrome in men. Moreover, CT can facilitate the transmission and acquisition of human immunodeficiency virus (HIV).

Methods
Case data were obtained from the Section of Epidemiology (SOE) Patient Reporting Investigation Surveillance Manager (PRISM) database, selecting cases with onset during January through December 2018. Population data were obtained from the Alaska Department of Labor and Workforce Development.

Results
In 2018, 6,173 CT cases were reported to SOE, yielding an annual incidence rate of 838 cases per 100,000 persons, which represents a 4% increase from 2017 (Figure 1). Of the 2,377 specimens that were positive for CT at the State Public Health Laboratory and the Alaska Native Medical Center Laboratories in 2018, 362 (15%) were also positive for Neisseria gonorrhoea (GC).

Figure 1. Chlamydia Infection Rate per 100,000 Population, by Year — Alaska and the US, 2010–2018*

<table>
<thead>
<tr>
<th>Year</th>
<th>Rate (per 100,000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>838</td>
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<tr>
<td>2014</td>
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<td>2015</td>
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<td>2016</td>
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<td>2017</td>
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<td>2018</td>
<td>838</td>
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*The 2018 U.S. preliminary case rate is not yet available.

Of the 6,173 CT cases reported in 2018,
- 4,695 (76%) were in persons aged ≤29 years, with the highest rate occurring in persons aged 20–24 years at 4,414 cases per 100,000 persons;
- 3,975 (64%) were in females, of whom, 40 (1%) were diagnosed with PID; and
- rates by race were highest in American Indian/Alaska Native people (AI/AN), Black persons, and Native Hawaiian/Pacific Islanders (NHPH), respectively (Figure 2).

Figure 2. Chlamydia Infection Rate per 100,000 Persons, by Race and Ethnicity — Alaska, 2017 and 2018*

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>2017 Rates</th>
<th>2018 Rates</th>
</tr>
</thead>
<tbody>
<tr>
<td>AI/AN</td>
<td>2694</td>
<td>2640</td>
</tr>
<tr>
<td>NHPH</td>
<td>1600</td>
<td>1839</td>
</tr>
<tr>
<td>Black</td>
<td>1804</td>
<td>1332</td>
</tr>
<tr>
<td>Asian</td>
<td>332</td>
<td>271</td>
</tr>
<tr>
<td>White</td>
<td>346</td>
<td>305</td>
</tr>
</tbody>
</table>

*Note: 430 (7%) cases in 2017 and 659 (11%) cases in 2018 were of unknown race and are not included in this figure. Also, year-to-year fluctuations in rates tend to be more pronounced in demographic groups with smaller populations, such as the NHPH and Asian populations.

In 2018, the Southwest and Northern regions had the highest CT rates (2,266 and 2,260 cases per 100,000 persons, respectively). Compared to 2017 data, the greatest increase in CT rate occurred in the Interior region (12% increase, from 809 to 907 cases per 100,000 persons; Figure 3).

Figure 3. Chlamydia Infection Rates, by Region — Alaska, 2017 and 2018

Discussion
Chlamydia incidence rates continue to climb in Alaska, with Alaska women, adolescents and young adults, and racial minority groups being disproportionately impacted. Controlling the transmission of CT infection in Alaska is possible through raising public awareness about how to prevent STDs (e.g., abstinence, mutual monogamy, reducing the number of sex partners, and using latex condoms correctly every time a person has sex with someone who might be infected); assure timely screening, testing, and treatment and notifying partners of their exposure risk and offering testing and treatment, including expedited partner therapy (EPT).

Recommendations for Providers
1. Elicit a thorough sexual history from patients to include same-sex and oral/oral activities (more information is available at: http://dhss.alaska.gov/dhp/Epi/hivيست/Pages/history.aspx).
2. Test all persons at risk for CT for other STDs, including gonorrhea, HIV, syphilis and HCV. Make sure to test genital, anal, and oral sites, as appropriate.
3. Annually screen all sexually active females aged <25 years, and women aged ≥25 years with new or multiple partners.
4. Screen pregnant women for STDs at the first prenatal visit; repeat testing in the third trimester for those at high risk.
5. Retest pregnant women with CT infection 3–4 weeks after completion of therapy, and repeat screening during the 3rd trimester.
6. Promptly treat CT-infected patients and their sex partner(s) with azithromycin 1 g PO in a single dose, OR doxycycline 100 mg PO twice daily for 7 days.
7. Provide appropriate dual therapy for those co-infected with GC.
8. Persons treated for CT should abstain from sex for 7 days after treatment and after all sexual partners have been treated.
9. Consider the use of EPT for sexual partners who are unable to present for clinical evaluation.
10. Develop a partner management plan with CT-infected patients that includes the timely notification of sex partners.

References

(Copied by: Tracy Smith, Alaska Section of Epidemiology)