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## Chlamydial Infection — Alaska, 2011

### Background

Alaska had the highest *Chlamydia trachomatis* (CT) infection rates in the United States in 2010 and 2011 (preliminary ranking), and has consistently had the first or second highest rate in the nation since 2000.<sup>1,2</sup> Untreated CT infection can cause pre-term labor, pelvic inflammatory disease (PID), ectopic pregnancy, and infertility in women; epididymitis and Reiter's syndrome in men; and conjunctivitis and pneumonia in neonates. Additionally, CT can facilitate the transmission and acquisition of human immunodeficiency virus (HIV).

High rates of chlamydia, combined with the recent *Neisseria gonorrhoeae* (GC) outbreak, led the Section of Epidemiology (SOE) to recommend that providers implement expedited partner therapy (EPT) to help control these diseases and inform the public to seek testing if they suspect infection.<sup>3,4</sup>

On May 17, 2012, a study was released that linked a 5-day regimen of azithromycin to sudden death. The study cohort consisted of patients 30 to 74 years of age who took antibiotics for infections of the ear, nose, or throat, and for bronchitis. CDC does not recommend modification of the standard CT treatment protocol based on this study.<sup>5,6</sup>

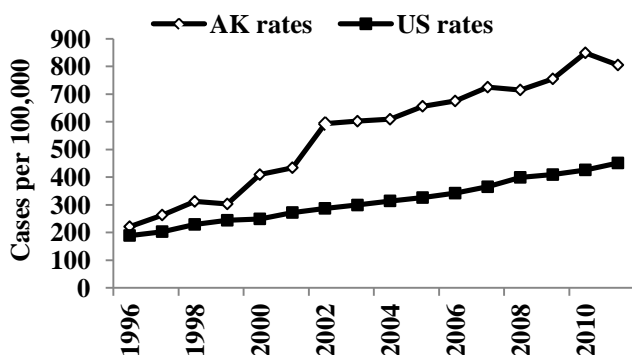
### Methods

Case data were obtained from the SOE reportable conditions database for infections with onset from January through December 2011; population data were obtained from the Alaska Department of Labor and Workforce Development.

### Results

In 2011, SOE received reports of 5,813 cases of CT infection; Alaska's CT case rate was 805 cases per 100,000 persons. The 2011 rate decreased 5% compared to 2010; however, the rate was still almost twice the 2011 US rate of 451 per 100,000 persons (Figure).

**Figure. Chlamydia Infection Case Rates per 100,000 Persons — Alaska and the US, 1996–2011\***



\*The 2011 US case rate is preliminary.

Of the 5,813 cases reported in 2011, 4,895 (84%) were aged <30 years; 3,852 (66%) were among females; 2,795 (48%) were among American Indian/Alaska Native (AI/AN) persons; 2,051 (35%) were among whites; 314 (5.4%) were among persons coinfecting with GC; and 25 (<1%) were associated with PID. Infection rates were highest among AI/AN females and males (3,444 and 1,222 cases per 100,000 persons, respectively), and black females and males (1,661 and 1,420 cases per 100,000 persons, respectively).

Infection rates declined in all regions of the state except the Gulf Coast region. Rates remained highest in the Northern and Southwestern regions (2,055 and 1,754 cases per 100,000 persons, respectively).

### Discussion

Alaska's CT infection rates are consistently among the highest in the United States. However, in 2011, Alaska's CT infection rate decreased by 5%. This is Alaska's largest annual decrease ever recorded. Chlamydia continues to disproportionately affect Alaska's racial/ethnic minority populations, women, young adults and those living in Northern and Southwest regions. Case numbers in the Gulf Coast region are small, making rates unstable from year to year.

Factors that likely contributed to the 2011 decrease in CT infection include the following: (1) increased awareness among providers of STDs due to the GC epidemic and perhaps increased empiric treatment with azithromycin for confirmed and suspected cases of GC; (2) increased use of EPT in many regions of the state; and (3) more informed patients seeking services. CT testing volume at the Alaska State Public Health Laboratory did not differ considerably between 2010 and 2011; therefore, it is unlikely that a decrease in testing contributed much to the lower infection rate in 2011.

### Recommendations

- Health care providers should promptly treat CT infected patients and their sex partners with the following:
  - Azithromycin 1 g PO in a single dose, **OR** Doxycycline 100 mg PO twice daily for 7 days; **AND**
  - Unless GC is ruled out, Ceftriaxone 250 mg IM in a single dose, **OR** Cefixime 400 mg PO in a single dose.<sup>7</sup>
- Test all persons who are infected with CT for other sexually transmitted diseases, including HIV.
- Strongly encourage patients with CT infection to participate in partner service activities, including confidential and timely notification of all sex partners.
- Consider using EPT to treat sex partners of patients diagnosed with CT and GC infection.<sup>4</sup>
- Perform annual CT screening on all sexually active females aged ≤25 years and women aged >25 years who have CT risk factors (e.g., those with new or multiple sex partners).
- Counsel patients at risk for STDs to use condoms correctly and consistently, and to limit the number of sexual partners.
- Report confirmed or suspected cases of CT and treatment to SOE within 5 working days via fax (907-561-4239) or telephone (907-561-4234 or 800-478-1700). Report forms: <http://www.epi.alaska.gov/pubs/conditions/frmSTD.pdf>

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