Background
Alaska has had the first or second highest Chlamydia trachomatis (CT) infection rate in the United States each year since 2000. Untreated CT infections in women can cause pelvic inflammatory disease (PID), ectopic pregnancy, infertility, and preterm labor. Infants born to infected women are at risk for inflammatory disease (PID), ectopic pregnancy, infertility, and perinatal mortality.2 Untreated CT infections in men can cause epididymitis, Reiter syndrome, and infertility.

Methods
Case data were obtained from the Section of Epidemiology’s reportable conditions database; population data were obtained from the Alaska Department of Labor and Workforce Development.

Summary Results
A total of 5,253 cases of CT infection were reported in Alaska in 2009; this represents an 8% increase from the 4,869 CT cases reported in 2008. In 2009, the CT infection rate in Alaska was nearly two times higher than the 2008 CT infection rate in the United States (Figure 1).

Figure 1. Chlamydia trachomatis Infection Rates — Alaska and the United States, 1996–2009*

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<thead>
<tr>
<th>Year</th>
<th>AK Rates</th>
<th>US Rates</th>
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<td>330/909</td>
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*The 2009 CT infection rate for the U.S. is not currently available.

Of the 5,253 CT cases reported in 2009,
- 3,442 (66%) were in females;
- 4,347 (83%) of CT cases were in persons aged 15–29 years;
- the highest documented CT infection rates by sex and age were among females aged 20–24 years at 6,370 cases per 100,000 females, and males aged 20–24 years at 3,200 cases per 100,000 males (Figure 2);
- 2,642 (50%) were in Alaska Natives; 1,714 (33%) were in whites, 515 (10%) were in blacks, 321 (6%) were in Asian/Pacific Islanders, and 61 (1%) were in persons of other/unknown race;
- the highest documented CT infection rates by sex and race were among Alaska Native females at 3,116 cases per 100,000 persons, Alaska Native males at 1,140 cases per 100,000 persons, black males at 1,833 cases per 100,000 persons, and black females at 1,513 cases per 100,000 persons; and
- 47 (1%) were associated with PID; and
- 296 (5.6%) were in persons co-infected with gonorrhea (the 2008 co-infection rate was 3.6%).

Discussion
Alaska’s CT infection rates are consistently among the highest in the United States, and Alaskan women, adolescents and young adults, and racial minority groups are disproportionately impacted by chlamydia. The 2009 increase in co-infection with Neisseria gonorrhoeae is likely associated with the recent widespread increase in gonococcal infection.3 The Alaska HIV/STD Program is working collaboratively with federal, state and local health partners to improve the effectiveness of existing CT control measures and to explore new Alaska-specific control strategies such as expedited partner therapy.4

Figure 2. Chlamydia trachomatis Infection Rates, by Age and Sex — Alaska, 2009 (N=5,253)

**Note:** The 2009 CT infection rate for the U.S. is not currently available.

Recomendations
1. Patients with uncomplicated CT infection should be treated promptly with the following:
   - Azithromycin 1 g orally in a single dose, OR
   - Doxycycline 100 mg orally twice a day for 7 days,
   - AND treatment for Neisseria gonorrhoeae if gonorrhea infection is not ruled out. Treat with:
     - Ceftriaxone 125 mg IM in a single dose, OR
     - Cefixime 400 mg orally in a single dose.
2. Perform annual CT screening on all sexually active females aged ≤25 years and older women with risk factors (e.g., those who have new or multiple sex partners).
3. Screen all pregnant women for CT and Neisseria gonorrhoeae infection at their first prenatal visit.
4. Reinfected pregnant women during the third trimester to prevent maternal perinatal complications and CT infection in the infant.
5. Rescreen for CT in all females aged ≤25 years and in all males aged <20 years, three months after they have received appropriate treatment.
6. Rescreen for CT in all females aged ≤25 years and in all males aged 20–29 years when they next seek medical care within the following 3-12 months after treatment.
7. Strongly encourage patients with CT infection to participate in partner services activities, including the confidential and timely notification of all partners at risk.
8. Test and appropriately treat all sex partners to confirmed CT-infected patients.
10. Discuss STD risk reduction strategies with patients at risk for CT infection.
11. Report confirmed or suspected cases of CT infection to the Section of Epidemiology within 5 working days via fax (561-4239) or telephone (561-4234 or 800-478-1400).

References
2. CDC’s Updated STD Treatment Guidelines, 2006. Epi RnR. Available at: http://www.epi.hss.state.ak.us/bulletins/docs/r2007_03.pdf

(Contributed by Donna Cecere, BA, and Susan Jones, RN MN, HIV/STD Program, Section of Epidemiology.)