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Chlamydia trachomatis Infection — Alaska, 2007

Background

Chlamydia trachomatis infection (CT) is an important cause of pelvic inflammatory disease (PID), ectopic pregnancy, and infertility among women, and neonatal conjunctivitis and pneumonia during early infancy. Additionally, CT has been associated with preterm labor. Mandatory reporting by health care providers and laboratories in Alaska commenced in 1996. Alaska has had the first or second highest CT rate in the United States each year since 2000.

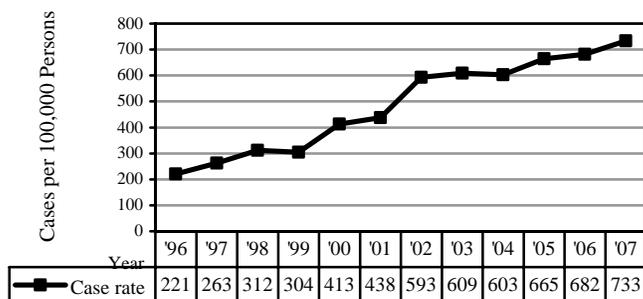
Methods

Case data were obtained from the Alaska Section of Epidemiology's reportable conditions database and population data from the Alaska Department of Labor and Workforce Development. Simple linear regression was used to calculate the p-value for trend in annual CT incidence rates.

Summary Results

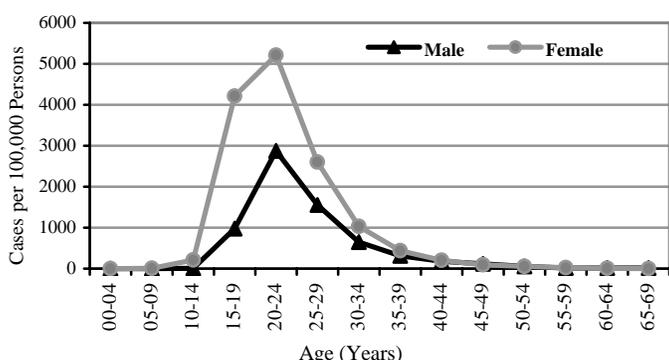
A total of 4,911 cases (733 cases per 100,000 persons) of CT were reported in Alaska in 2007, an 8% increase over the 2006 chlamydia incidence (Figure 1). Of the 4,911 cases, 3,293 (67%) occurred in females; 70 (2%) infected females also were reported with PID. Chlamydial infection incidence rates have significantly increased from 1996 to 2007 at an average rate of 49 cases per 100,000 population per year ($p < 0.001$; Figure 1).

Figure 1. Chlamydial Infection Rates — Alaska, 1996–2007



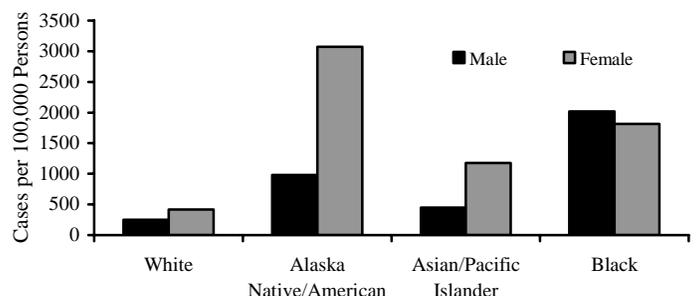
In 2007, the highest documented CT rates were among females aged 15–19 and 20–24 years (4,212 and 5,210 per 100,000 persons, respectively; Figure 2). From 2006 to 2007, the greatest increases in CT rates occurred among females aged 20–24 and 25–29 years (an increase of 450 cases per 100,000 persons [10%] and 335 cases per 100,000 persons [15%], respectively); and among males aged 20–24 and 25–29 years (an increase of 281 cases [11%] and 299 cases per 100,000 persons [24%], respectively).

Figure 2. Chlamydial Infection Rates, by Age and Sex — Alaska, 2007 (N=4,911)



Chlamydial infection rates were highest among Alaska Native/American Indian persons (980 per 100,000 persons for males and 3,070 per 100,000 persons for females) and black persons (2,017 per 100,000 persons for males and 1,814 per 100,000 persons for females; Figure 3). Compared with 2006, 2007 CT rates decreased in Asian/Pacific Islander males, and increased in all other groups, with the greatest increase occurring among black and Asian/Pacific Islander females (an increase of 427 cases per 100,000 persons [31%] and 200 cases per 100,000 persons [20%], respectively) and among black males (an increase of 584 cases per 100,000 persons [41%]).

Figure 3. Chlamydial Infection Rates, by Race and Sex — Alaska, 2007 (N=4,911)*



*Cases of unknown race for 22 males and 17 females are not included in the figure.

Discussion

Chlamydia has a disproportionate impact on 1) women, both in numbers and in clinical outcomes; 2) adolescents and young adults [84% of CT cases in 2007 were among individuals aged 15–29 years]; and 3) racial and ethnic minorities in Alaska. In addition to these persistent disparities, Alaska's CT rates are consistently among the highest in the U.S. and CT plays a role in facilitating HIV transmission.

For these reasons, the HIV/STD Program of the Section of Epidemiology partners with public health nurses, staff from the native health corporations, Planned Parenthood clinics, Department of Corrections, and private providers throughout the State to deliver quality comprehensive STD clinical services and to provide partner notification. Partner notification is a highly effective disease intervention strategy that targets those at highest risk for a sexually transmitted disease—those with an exposure to a known positive case.

Recommendations

1. Health care providers should refer to CDC's Updated Sexually Transmitted Diseases Treatment Guidelines, 2006 Recommendations and Reports for current *Chlamydia trachomatis* treatment recommendations (available at: http://www.epi.alaska.gov/bulletins/docs/rr2007_03.pdf).
2. Health care providers should report all diagnosed or suspected cases of CT to the Alaska Section of Epidemiology using the Rapid Telephonic Reporting system (561-4234 in Anchorage or 800-478-1700 statewide).
3. Health care providers should familiarize themselves with partner notification services available in their locale and should encourage their patients with CT to participate in the confidential and timely notification of all partners at risk.

Reference

1. Centers for Disease Control and Prevention. Sexually transmitted diseases treatment guidelines, 2006. MMWR Morb Mortal Wkly Rep 2006;55(RR-11).