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## Gonococcal Infection — Alaska, 2011

### Background

Alaska's outbreak of *Neisseria gonorrhoeae* (GC) infection began in 2008, peaked in 2010, and began declining in 2011 when fewer GC cases were reported to the Alaska Section of Epidemiology (SOE). In 2010, Alaska's GC infection rates were the third highest in the nation.<sup>1</sup> The SOE worked collaboratively with federal, state and local partners to form outbreak recommendations to include the use of expedited partner therapy (EPT) as an additional strategy for GC and chlamydia (CT) disease control.<sup>2</sup>

Patients infected with GC are frequently coinfecting with CT. Therefore, CDC recommends that patients treated for GC also be treated with a regimen for uncomplicated CT (using azithromycin or doxycycline). Because most GC is susceptible to azithromycin and doxycycline, CDC now recommends the use of dual therapy to help control the development of GC resistance.<sup>3,4</sup>

Untreated or inadequately treated GC infection can result in pre-term labor, pelvic inflammatory disease (PID), ectopic pregnancy, and infertility among women; epididymitis and infertility among men; and conjunctivitis in neonates. GC infection also increases the likelihood of transmission and acquisition of human immunodeficiency virus (HIV).

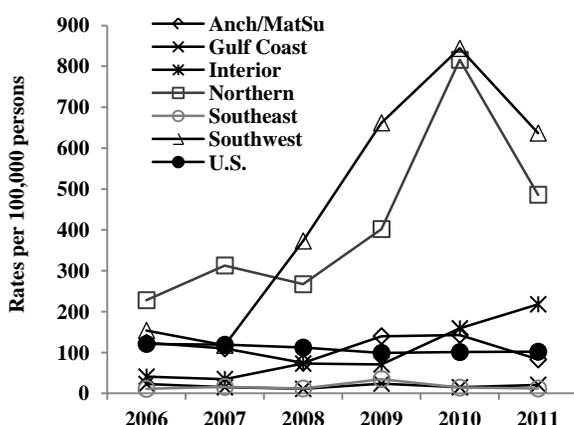
### Methods

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, a total of 993 GC cases were reported to SOE; Alaska's GC case rate was 138 cases per 100,000 persons. This represents a 22% decrease in case numbers and a 25% decrease in case rates compared to 2010 reports. GC rates decreased in all regions except the Interior and the Gulf Coast, where they increased by 42% and 17% respectively (Figure 1).

**Figure 1. Gonococcal Case Rates by Alaska Regions and the United States, 2006 – 2011\***

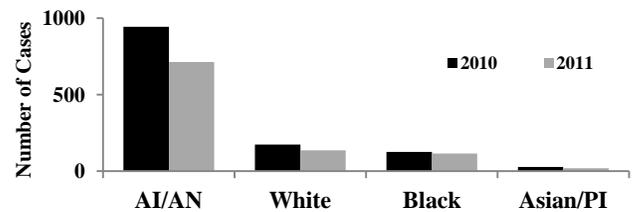


\*The U.S. 2011 rate is preliminary.

Of the 993 case reports, 662 (67%) were aged <30 years; 519 (52%) were among females; 714 (72%) were among American Indian/Alaska Native (AI/AN) persons; 314 (32%) were coinfecting with CT; and five (<1%) were associated with PID.

Reductions in incidence rates occurred among all racial groups: AI/AN by 25%; whites by 21%; blacks by 8%; and Asian/Pacific Islanders by 29%. Infection rates remained highest among AI/AN and blacks (Figure 2).

**Figure 2. Gonorrhea Case Reports, by Race — Alaska 2010 (N=1,273) and 2011 (N=993)**



### Discussion

Gonorrhea case reports and associated rates decreased substantially in 2011 compared to 2010. Alaska's 2011 GC rate of 138 cases per 100,000 persons continues to be higher than the national average of 102 cases per 100,000 persons. The increase in GC case rates in the Gulf Coast is unstable due to a small number of GC case reports, and factors contributing to the increase in the Interior region are being analyzed by SOE. Gonorrhea continues to disproportionately affect Alaska's racial and ethnic minority populations and young adults. In 2011, CT case reports and the statewide CT case rate also decreased (by four and five percent, respectively); the largest annual decrease since the inception of CT reporting in 1996.<sup>5</sup>

Factors that likely contributed to the 2011 decreases in GC and CT include the following: (1) increased awareness and actions among providers in disease control activities; (2) perhaps increased empiric treatment for suspected cases of GC; (3) increased implementation of EPT; and (4) more patients seeking services.

While these reductions are encouraging, health care providers need to remain vigilant about controlling GC. The threat of antibiotic resistance in GC is a growing public health concern; therefore providers must be observant for treatment failure and practice disease control activities, including partner services.

### Recommendations

- Health care providers should promptly treat GC-infected patients and their sex partner(s) with the following:
  - Ceftriaxone 250 mg IM in a single dose, **OR** Cefixime 400 mg orally in a single dose; **AND**
  - Azithromycin 1 g PO in a single dose, **OR** Doxycycline 100 mg orally twice daily for 7 days<sup>5</sup>
- Test all persons who are infected with GC for other STDs, including HIV.
- Strongly encourage patients with GC infection to participate in partner notification services, including confidential and timely notification of all sex partners.
- Health care providers who suspect cephalosporin treatment failure should immediately report to SOE for advice about possible re-treatment and additional GC testing.<sup>3,4</sup>
- Report confirmed or suspected cases of GC infection and treatment to SOE within 5 working days via fax (907-561-4239) or telephone (907-561-4234 or 800-478-1700). Reporting forms: [www.epi.alaska.gov/pubs/conditions/frmSTD.pdf](http://www.epi.alaska.gov/pubs/conditions/frmSTD.pdf)

### References

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