State of Alaska Epidemiology Bulletin

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Gonococcal Infection Update — Alaska, 2014

Background

Alaska has seen dramatic fluctuation in gonococcal infection (GC) rates over the past seven years (Figure 1). In 2013, Alaska had the fourth highest GC incidence rate in the nation.[1,2] Untreated GC can result in pelvic inflammatory disease (PID), pre-term labor, ectopic pregnancy, and infertility in women; epididymitis and infertility in men; and conjunctivitis in neonates. GC also facilitates the transmission and acquisition of human immunodeficiency virus (HIV).

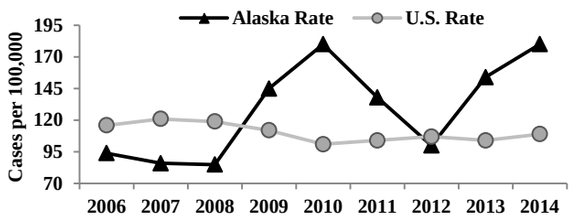
Methods

Case data were obtained from the Section of Epidemiology (SOE) reportable conditions database and the Sexually Transmitted Disease-Management Information System. Population data were obtained from the Alaska Department of Labor and Workforce Development.

Results

In 2014, 1,323 GC cases were reported to SOE; the incidence rate was 180 cases per 100,000 persons, representing a 17% increase compared to 2013. Alaska's 2014 GC rate is preliminarily ranked third highest in the nation (Figure 1).

Figure 1. Gonococcal Infection Rates, by Year — Alaska and the United States, 2006–2014*

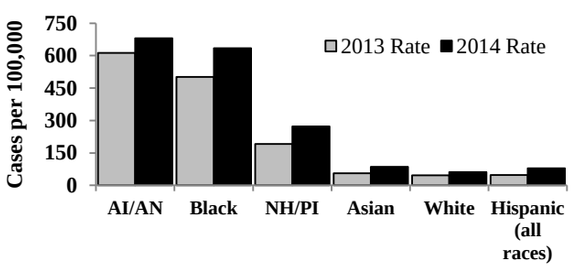


**The 2014 U.S. GC infection rate is preliminary.*

Of the 1,323 GC cases reported in 2014, 798 (60%) were in persons aged ≤29 years, and 658 (50%) were in females, 15 (2%) of whom developed PID. Of the 665 cases in males, 143 (22%) were interviewed by SOE staff, 18 (13%) of whom self-identified as men who have sex with men (MSM).

The highest GC rates were among non-Hispanic American Indian/Alaska Native persons (AI/AN), Blacks, and Native Hawaiian/Pacific Islanders (NH/PI). Increased rates were seen in 2014 across all racial/ethnic groups (Figure 2).

Figure 1. Gonococcal Infection Rates, by Race/Ethnicity — Alaska, 2013–2014*



** 32 cases in 2013 and 31 cases in 2014 were of unknown or multiple races and are not included in this figure.*

In 2014, the Northern and Southwest regions experienced the highest GC rates in Alaska (Table). The greatest GC rate increases compared to 2013 occurred in the Anchorage/Mat-Su and Southeast regions; moderate decreases occurred in the Interior and the Gulf Coast regions. While the statewide GC case rate has increased considerably since 2012, the 5-year data depicts substantial changes in most regions since the peak of the 2010 outbreak (Table).

Table. Gonococcal Rates per 100,000 Population with 1- and 5-year Rate Changes, by Region — Alaska, 2010–2014

Region	2010	2011	2012	2013	2014	1 year	5 year
Anch/ MatSu	141	85	63	141	205	+45%	+45%
Gulf Coast	18	21	26	41	30	-27%	+39%
Interior	154	217	103	139	94	-32%	-39%
Northern	745	486	532	614	627	+2%	-16%
Southeast	15	12	12	18	24	+33%	+60%
Southwest	846	635	453	477	438	-8%	-48%
Statewide	180	129	100	154	180	+17%	--

Discussion

Alaska's GC incidence continued to climb in 2014. This was driven mostly by a marked increase in case counts in the Anchorage/MatSu region (from 563 cases in 2013 to 815 cases in 2014). One contributor to this rise is that providers are testing extragenital sites more frequently, and thus detecting more GC in patients with negative urinalysis results (supportive data will be presented in an upcoming *Bulletin*).

The 48% decrease in GC incidence in the Southwest region over the past 5 years is a notable achievement. This decrease is likely due in large part to modified response strategies undertaken by the Yukon-Kuskokwim Health Corporation (YKHC) and Bethel Public Health (BPH). In 2011, YKHC substantially reduced the duration of GC test-to-treatment time by 56%, from 6.1 days (January) to 2.7 days (December).[3] Simultaneously, YKHC and BPH also worked diligently to increase the number of sexual partners who received timely prophylactic treatment. Lastly, in 2011, YKHC began implementing routine expedited partner therapy (EPT), and made EPT medications available in village health clinics.

Recommendations

1. Promptly treat GC-infected patients and their sex partner(s) with ceftriaxone 250 mg IM **AND** azithromycin 1 g PO, each in a single dose. Alternative regimens are allowable if the use of ceftriaxone is contraindicated.[4]
2. Test all persons who are infected with GC for other sexually transmitted diseases, including HIV.
3. Elicit a thorough sexual history from all STD patients to include same-sex and oral/anal activities; obtain rectal and/or pharyngeal specimens, as appropriate.
4. Encourage patients with GC infection to participate in partner services activities, including the confidential and timely notification of all sex partners.
5. Consider EPT for heterosexual partners who are unable or unwilling to present for clinical evaluation.[5]
6. Report suspected cephalosporin treatment failure to SOE immediately for case consultation.
7. Report confirmed GC cases and treatment to SOE within 5 working days by fax to 561-4239, or call 561-4234 (800-478-1700). Report forms are available at: www.epi.alaska.gov/pubs/conditions/frmSTD.pdf

References

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4. CDC. Update to CDCs STD Treatment Guidelines, 2010. *MMWR* 2012;61(31):590-4. Available at: http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6131a3.htm?s_cid=mm6131a3_w
5. SOE Epidemiology *Bulletin.* "Expedited Partner Therapy Recommendations for Alaska Providers." No. 1, January 12, 2011. Available at: http://www.epi.alaska.gov/bulletins/docs/b2011_01.pdf

(Contributed by Donna Cecere, BA, Section of Epidemiology.)