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Bulletin No. 4 February 21, 2012

## Syphilis Outbreak — Alaska, 2011–2012

### Background

Syphilis is a sexually transmitted disease caused by the bacterium *Treponema pallidum*. Syphilis is infectious during the primary and secondary stages and, like other genital ulcer diseases, it facilitates the transmission of HIV infection. If untreated, syphilis will lapse into a latent stage, during which the disease becomes non-contagious but can continue to cause substantial complications. Latent syphilis acquired within the preceding year is referred to as *early latent* syphilis and although not infectious is considered to be recently acquired and therefore is of increased public health importance.

In Alaska, syphilis is a condition reportable to the Alaska Section of Epidemiology (SOE). Alaska experienced few primary, secondary, and early latent syphilis cases until late 2004, when an outbreak occurred that was not controlled until the fall of 2007.<sup>1</sup> An unrelated outbreak was also identified in 2010. Both of these outbreaks primarily involved men who have sex with men (MSM) that were engaging in high-risk sexual behaviors.

### Methods

Syphilis case and interview data were obtained from the SOE reportable conditions database and the Sexually Transmitted Disease-Management Information System. Cases were identified when infected persons sought medical care for clinical symptoms, were referred into care after having been named as a sexual contact to an infected person, or tested positive from a syphilis screening test.

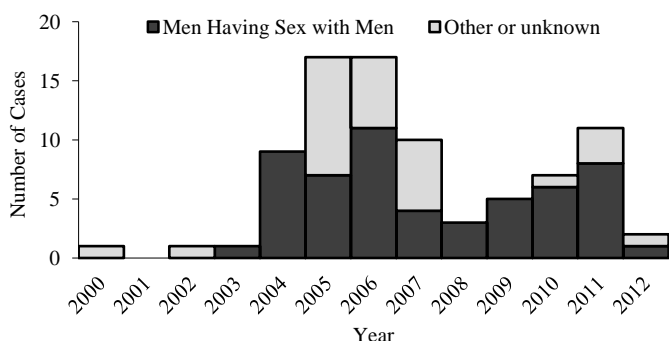
### Results

From January 1, 2011 through February 14, 2012, 19 syphilis cases were reported to SOE; 10 (53%) of these cases were reported since October 2011. Of the 19 reported cases, 13 (68%) were classified as primary, secondary, or early latent syphilis (indicating a recently-acquired infection; Figure); five were classified as being infected for longer than one year, and one is newly identified and has not yet been staged.

Among the 13 persons with a recently-acquired infection,

- the median age was 31 years (range: 20–56 years);
- 11 (85%) were male, eight of whom were MSM;
- seven of the MSM reported having anonymous sexual partners, and five reported finding sexual partners on internet sex-seeking websites;
- four were White, four were Alaska Native, four were Hispanic, and one was Black;
- 10 reside in Anchorage, two reside in Fairbanks, and one resides in a rural Alaska village; the village resident was determined to have likely contracted syphilis while visiting Anchorage; and
- three were previously diagnosed with human immunodeficiency virus (HIV).

**Figure. Primary, Secondary, and Early Latent Syphilis, by Year and Risk Factor — Alaska, 2000–2012**



### Discussion

We describe an outbreak of syphilis that is primarily affecting MSM in the Anchorage area. Many of the MSM reported having anonymous sexual partners that were obtained through internet sex-seeking websites. The presence of HIV infection in three of the recently-acquired syphilis cases is cause for heightened concern as the presence of syphilis facilitates HIV transmission, and persons co-infected with HIV and syphilis may be at increased risk for neurologic complications.<sup>2</sup>

Persons who have syphilis may seek treatment for signs or symptoms of primary infection (e.g., a chancre at the infection site) or secondary infection (e.g., manifestations that include but are not limited to skin rash, mucocutaneous lesions, and lymphadenopathy). Treatment depends on the stage and clinical manifestations of the disease. All newly identified cases are offered partner services, and SOE staff are available for consultation on syphilis staging and treatment.

Similar outbreaks reported nationally suggest that an increasing number of MSM are participating in high-risk sexual behavior that put them at increased risk for HIV and syphilis infection.<sup>3</sup> Internet sex-seeking sites are a relatively new conduit for high-risk sexual behaviors in Alaska. Due to the largely anonymous nature of these sexual encounters, public health staff are often unable to identify, notify, and test partners exposed to HIV and syphilis infected persons.

### Recommendations

1. Health care providers should be alert to risks for and symptoms of syphilis, and test for syphilis in patients who present with a clinically compatible history.
2. Health care providers should perform serological nontreponemal (RPR) and treponemal (FTA or TP-PA) tests on all suspected cases of syphilis.
3. Health care providers should evaluate all syphilis patients for neurosyphilis.
4. All persons who are tested for syphilis should be offered gonorrhea, chlamydia, and HIV testing.
5. All women of childbearing age that are diagnosed with syphilis should be screened for pregnancy.
6. Exposed sexual partners of confirmed early syphilis cases should receive prophylactic treatment along with serological testing and examination.
7. Promptly treat patients with primary, secondary, or early latent syphilis and their sex partners (whose exposure was within the previous 3 months) with *Bicillin L-A (benzathine penicillin G) 2.4 million units* in a single intramuscular dose.<sup>2</sup>
8. Patients infected for more than 1 year who do not have neurosyphilis should be treated with *benzathine penicillin G 7.2 million units* administered as 3 doses of 2.4 million units each intramuscularly at 1-week intervals.<sup>2</sup>
9. Providers should report suspected and confirmed cases of syphilis to the Section of Epidemiology immediately via fax at 907-561-4239 or telephone at 907-561-4234 or 800-478-1700.

### References

1. Alaska Epidemiology *Bulletin*. "Outbreak of Infectious Syphilis in Alaska." No. 29, December 13, 2004. Available at: [http://www.epi.alaska.gov/bulletins/docs/b2004\\_29.pdf](http://www.epi.alaska.gov/bulletins/docs/b2004_29.pdf)
2. Sexually Transmitted Diseases Treatment Guidelines, 2010. *MMWR* 2010; 59 (RR-12). Available at: <http://www.cdc.gov/std/treatment/2010>
3. Outbreak of Syphilis among Men Who Have Sex with Men – Southern California, 2000. *MMWR* 2001; 50;117-120. Available at: <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5007a2.htm>