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## Syphilis Update — Alaska, 2014

### Background

In 2010, the Section of Epidemiology (SOE) first described a syphilis outbreak in Alaska that was primarily associated with men who have sex with men (MSM) residing in the Anchorage area.<sup>1</sup> Since 2010, the annual incidence of syphilis in Alaska has continued to increase.<sup>2,3</sup> The purpose of this *Bulletin* is to provide an update on the status of the outbreak.

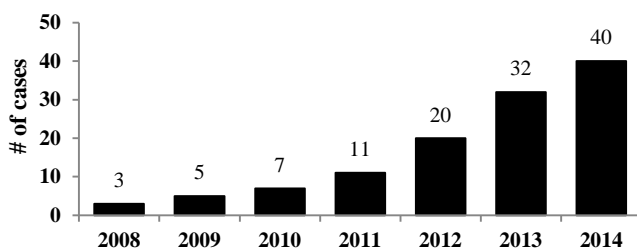
### Methods

Syphilis case data were obtained from the SOE reportable conditions database and the Sexually Transmitted Disease-Management Information System.

### 2014 Summary Results

A total of 40 new confirmed cases of syphilis were reported to SOE in 2014, including three primary, 12 secondary, and 25 early latent syphilis cases. These cases represent a 25% increase over the 32 cases reported in 2013, and an eightfold increase since 2009 (Figure).

**Figure. Primary, Secondary, Early Latent, and Congenital Syphilis, Alaska 2008–2014**



Of the 40 new syphilis cases,

- 37 (93%) were in males, 31 (84%) of whom identified as gay, bisexual, or other men who have sex with men (MSM);
- 6 (15%) were in persons who were co-infected with chlamydia or gonorrhea, and 4 (10%) were in persons co-infected with human immunodeficiency virus (HIV);
- 3 (8%) were in persons who were subsequently diagnosed with neurosyphilis, two of whom experienced ocular involvement;
- 19 (48%) cases were in whites, 7 (18%) were in Alaska Native persons, 7 (18%) were in blacks, 6 (15%) were in Asian persons, and 1 (3%) was in a Hispanic person;
- 30 (75%) were in residents of Southcentral Alaska, and 10 (25%) were in residents of other areas of Alaska; and
- 4 (10%) were in military personnel.

### Disease Investigation Findings

Of the 39 patients with syphilis able to be interviewed,

- 31 (80%) reported multiple or anonymous partners;
- 25 (63%) reported that they sought sexual partners via the internet and phone apps (e.g., Craigslist, Grindr, Scruff);
- 14 (36%) had a history of incarceration; and
- 8 (21%) reported sex while intoxicated or high.

These interviews yielded 107 partner names (contact index: 2.7 contacts identified per person), 96 (90%) of whom were located and notified of their exposure. Of the 96 partners who were notified, 13 (33%) were found to be positive for syphilis and were treated accordingly. Of the remaining 83 partners,

- 33 (34%) tested negative and were preventively treated,
- 31 (32%) tested negative and did not require treatment,
- 13 (14%) had already received treatment from a health care provider prior to being contacted by public health, and
- 6 (6%) refused testing and treatment.

The median age of cases in 2014 was 28 years (range: 19–64), and has decreased considerably from 2010 to 2014 (Table 1).

**Table 1. Age Range and Median Age of Syphilis Cases — Alaska, 2010–2014**

Age (years)	2010	2011	2012	2013	2014
Range	37–69	20–55	21–74	15–45	19–64
Median	45	35	35	27	28

### Discussion

This ongoing syphilis outbreak continues to be fueled in part by persons engaging in anonymous sex, often with partners found through the internet and mobile phone apps. The demographic characteristics, geographic locations, and risk factors associated with the outbreak have been relatively consistent over time, with one notable exception—the cases are occurring in younger persons. While the vast majority of cases continue to be in males (especially MSM), in 2014, three cases were in females and 13 women were identified as sexual contacts to cases. One of the women identified as a sexual contact to a case was pregnant; fortunately, this woman tested negative for syphilis. Since 2012, two cases of congenital syphilis have been associated with this outbreak, one of which resulted in a syphilitic stillbirth.<sup>2,3</sup>

As of April 7, only two Alaska cases of syphilis have been reported in 2015. A brief review of the signs and symptoms of primary and secondary syphilis is provided below (Table 2).

**Table 2. Primary and Secondary Syphilis: Signs/Symptoms**

Disease	Signs and Symptoms
Primary Syphilis	<ul style="list-style-type: none"> <li>• A small, usually painless, ulcerated lesion in or around the genitals, mouth, or anus</li> <li>• A typical primary chancre will last 3 weeks and resolve on its own after which begins a latent period of 4 weeks</li> </ul>
Secondary Syphilis	<ul style="list-style-type: none"> <li>• Palmar/plantar rash</li> <li>• Body rashes, of the torso and extremities</li> <li>• Condylomata lata (flat, raised papules)</li> <li>• Mucous patches</li> <li>• Lymphadenopathy</li> <li>• Alopecia</li> </ul>

### Recommendations

1. Immediately report to SOE all confirmed and suspected syphilis cases, and pregnancy in females with syphilis, via fax (561-4239) or telephone (561-4234 or 800-478-1700).
2. Obtain a complete sexual history on all STD patients, including the number and gender of sexual partners, anonymous sexual encounters, and the use of sex-seeking websites and mobile phone apps.
3. Perform non-treponemal (RPR) and treponemal (FTA or TP-PA) tests on anyone suspected of having syphilis.
4. Screen all pregnant women during the first trimester; retest high-risk women during the third trimester.
5. Offer HIV, gonorrhea, and chlamydia testing to all patients with suspected syphilis infection.
6. Treat patients with primary, secondary, and early latent syphilis with *Bicillin L-A (benzathine penicillin G) 2.4 million units* in a single intramuscular dose.<sup>3</sup>
7. Contact SOE staff for consultation regarding interpretation of syphilis serology, staging, and partner management of syphilis cases (call 907-269-8000 Mon–Fri 8AM–5PM).

### References

1. SOE *Bulletin*. “Syphilis Outbreak—Alaska, 2011–2012.” No.4, Feb. 21, 2012. Available at: [http://www.epi.alaska.gov/bulletins/docs/b2012\\_04.pdf](http://www.epi.alaska.gov/bulletins/docs/b2012_04.pdf)
2. SOE *Bulletin*. “Syphilis Outbreak Update—Alaska, 2011–2013.” No.25, Sept. 26, 2013. Available at: [http://www.epi.alaska.gov/bulletins/docs/b2013\\_25.pdf](http://www.epi.alaska.gov/bulletins/docs/b2013_25.pdf)
3. SOE *Bulletin*. “Ongoing Syphilis Outbreak Update.” No.7, May 27, 2014. Available at: [http://www.epi.alaska.gov/bulletins/docs/b2014\\_07.pdf](http://www.epi.alaska.gov/bulletins/docs/b2014_07.pdf)