State of Alaska Epidemiology Bulletin

Department of Health and Social Services
Valerie J. Davidson, Commissioner

3601 C Street, Suite 540
Anchorage, Alaska 99503 http://dhss.alaska.gov/dph/Epi

Division of Public Health
Jay C. Butler, MD, Chief Medical Officer and Director

Local (907) 269-8000
24 Hour Emergency (800) 478-0084

Editors:
Joe McLaughlin, MD, MPH
Louisa Castrodale, DVM, MPH

Bulletin No. 18 July 19, 2017

Syphilis Update — Alaska, 2016

Background

The Centers for Disease Control and Prevention (CDC) announced in its 2015 STD Surveillance Report a 19% increase in primary and secondary syphilis cases in the United States during 2014–2015.[1] Likewise, after several years of decline, the national rate of congenital syphilis (CS) cases increased by 38% between 2012 and 2014.[2] The increase in cases of syphilis has also coincided with an increase in cases of ocular syphilis, a manifestation of neurosyphilis.[3] Preliminary national data suggest that the incidence of CS continued to increase in 2016. This *Bulletin* provides an update on the epidemiology of syphilis in Alaska.

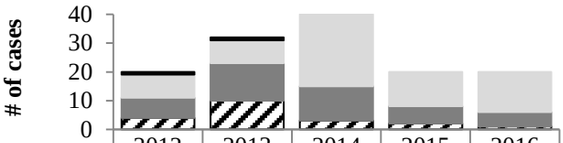
Methods

Syphilis case data were obtained from the Patient Reporting Investigation Surveillance Manager (PRISM) database.

2016 Summary Results

A total of 20 new confirmed cases of syphilis were reported to the Section of Epidemiology (SOE) in 2016, including one primary, five secondary, and 14 early latent syphilis cases (Figure).

Figure. Primary, Secondary, Early Latent, and Congenital Syphilis — Alaska, 2012–2016 (N=130)



	2012	2013	2014	2015	2016
Congenital	1	1	0	0	0
Early Latent	8	8	25	12	14
Secondary	7	13	12	6	5
Primary	4	10	3	2	1

Of the 20 people identified with syphilis in 2016,

- 15 (75%) were residents of Southcentral Alaska;
- the median age was 26 years (range: 18–51);
- 15 (75%) were male, 14 (93%) of whom identified as gay, bisexual, or other men who have sex with men (MSM);
- 5 (25%) were female, all of whom were of childbearing age (i.e., aged 18–31 years);
- 8 (40%) were white, 4 (20%) were Black/African American, 4 (20%) were Hispanic, 3 (15%) were Alaska Native, and 1 (5%) was Asian;
- 3 (15%) were persons co-infected with chlamydia or gonorrhea; and
- 3 (15%) were persons co-infected with HIV.

Epidemiological Findings

Public health investigations of new syphilis infections were conducted to identify sexual partners who had been exposed to the infection and to identify associated risk factors. These interviews resulted in a total of 34 sexual partners identified, 25 (74%) of whom were located and notified of their exposure. Of those notified, 24 (96%) received appropriate clinical evaluation, five (20%) tested positive for syphilis and were treated, and one (4%) refused testing and treatment.

Associated risk factors included having multiple or anonymous sexual partners (12, 60%), using online and mobile applications to find sex partners (9, 45%), having sex while intoxicated or high (7, 35%), and being incarcerated at or near the time of diagnosis (7, 35%).

Discussion

From January 1, 2012 to December 31, 2016, 130 cases of adult primary, secondary, and early latent syphilis (including three cases of ocular syphilis) and two CS cases were reported to SOE and investigated. Alaska has not seen such a high number of syphilis cases in a 5-year period since the early 1980s. Throughout this epidemic, the majority of cases have occurred among MSM in Southcentral Alaska; however, a substantial proportion of cases have been in women (19/130; 15%) and people living outside of Southcentral Alaska (33/130; 25%). Moreover, there have been two cases of congenital syphilis reported since 2012.

Due to the increase in syphilis incidence nationally, CDC has issued a *Call to Action*,[5] which includes action steps for health care providers and high-risk groups (e.g., pregnant women and MSM). CDC advises that all persons with syphilis, especially those co-infected with HIV, be evaluated for neurological symptoms.[3] A lumbar puncture with cerebrospinal fluid (CSF) examination should be performed in patients with suspected neurosyphilis, which must be treated immediately in order to prevent permanent neurological damage.

The Council of State and Territorial Epidemiologists and CDC are working together to improve the standardization of syphilis surveillance, as the current case definition for syphilis lacks detail about the specific manifestations of neurosyphilis (e.g., visual and auditory).[6]

Recommendations

1. 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.[7]
2. Perform non-treponemal (RPR) and treponemal (FTA or TP-PA) tests on anyone suspected of having syphilis.
3. Offer HIV, gonorrhea, and chlamydia testing to all patients with suspected syphilis infection.
4. Obtain a complete sexual history on all STD patients, including the number and gender of sexual partners.
5. Screen for pregnancy in all women of childbearing age with syphilis; screen all pregnant women in their first trimester and retest high-risk women in the third trimester.
6. Treat neurosyphilis with *Aqueous crystalline Penicillin 18-24 million units IV* per day for 10-14 days.[7]
7. Promptly report to SOE all confirmed and suspected syphilis cases via fax (907-561-4239) or telephone (907-269-8000).
8. Contact SOE staff for consultation regarding interpretation of syphilis serology, staging, and partner management (call 907-269-8000 Mon–Fri 8AM–5PM).

References

1. CDC. 2015 STD Surveillance. Atlanta: U.S. DHHS; 2016. Available at: https://www.cdc.gov/std/stats15/default.htm
2. CDC. Increase in incidence of congenital syphilis – United States, 2012-2014. *MMWR* 2015;64(44):1241-45. Available at: http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6444a3.htm
3. CDC. Clinical Advisory: Ocular Syphilis in the United States. Available at: http://www.cdc.gov/std/syphilis/clinicaladvisoryos2015.htm
4. SOE *Bulletin*. "Syphilis Update – Alaska, 2015." No. 10, April 26, 2016. Available at: http://www.epi.alaska.gov/bulletins/docs/b2016_10.pdf
5. CDC. Call to Action: Let's Work Together to Stem the Tide of Rising Syphilis in the United States. April 25, 2017. Available at: https://www.cdc.gov/std/syphilis/SyphilisCalltoActionApril2017.pdf
6. CDC. National Notifiable Disease Surveillance System (NNDSS). Syphilis 2014 Case Definition. Available at: https://wwwn.cdc.gov/nndss/conditions/syphilis/case-definition/2014/S
7. CDC. 2015 STD Treatment Guidelines. *MMWR Recomm Rep* 2015;64(RR-3). Available at: http://www.cdc.gov/std/tg2015/default.htm

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