State of Alaska Epidemiology **Bulletin**

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Syphilis Update — Alaska, 2022

Background

Syphilis rates in Alaska have increased dramatically since 2018.[1-3] A similar trend is occurring nationally.[4] This *Bulletin* provides an update on the epidemiology of syphilis in Alaska.

Methods

Data were obtained from the Section of Epidemiology's (SOE) National Electronic Disease Surveillance System Base System and syphilis case management records.

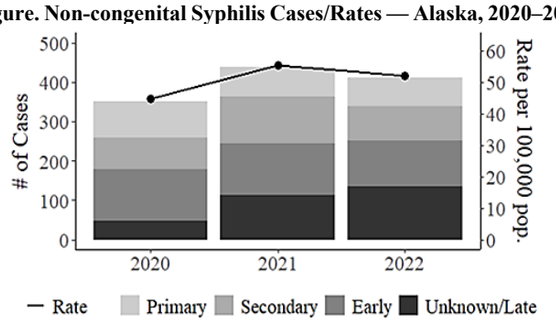
Results

During 2022, 424 cases of syphilis, including congenital, were reported. Of these, 73 (17%) cases were primary, 87 (21%) were secondary, 116 (27%) were early non-primary, non-secondary, and 136 (32%) cases were unknown duration or late stages of infection (Figure). The remaining 12 (3%) were congenital syphilis. In 2022, Alaska's non-congenital, age-adjusted syphilis incidence was 54 cases per 100,000 persons (the 2021 U.S. rate was 53 per 100,000).[4] Of the 412 persons reported with non-congenital syphilis,

- 220 (53%) were male, 143 (65%) of whom identified as heterosexual, 46 (21%) as gay, 12 (5%) as bisexual, and 19 (9%) were other/unknown/undisclosed;
- 192 (47%) were female, 170 (89%) of whom were of reproductive age (15–44 years); 150 (79%) identified as heterosexual, 14 (7%) as bisexual, and 27 (14%) were other/unknown/undisclosed;
- 406 (99%) identified as cisgender and 6 (1.0%) identified as non-binary, transgender, or were unknown/undisclosed;
- 172 (42%) were Alaska Native/American Indian people, 111 (27%) were White, 36 (9%) were Black, 58 (14%) were multiracial, 30 (7%) were Hispanic/Latino (of all races), 18 (4%) were Native Hawaiian/Pacific Islander, 9 (2%) were Asian persons, and 8 (2%) were other/unknown race;
- 362 (88%) were residents of urban communities (i.e., Anchorage, Mat-Su, Juneau, and Fairbanks);
- the age range was 14–79 years (48% were aged <35 years);
- 24 (6%) were coinfected with human immunodeficiency virus (HIV), 57 (14%) were coinfected with chlamydia, and 30 (7%) were coinfected with gonorrhea; and
- 54 (13%) were experiencing homelessness or were unstably housed.

SOE staff interviewed 322 (78%) cases (increasing from 66% in 2020); 49% of cases were detected through self-referral, partners referred by DPH, or partners referred by patients. Of those interviewed, 82 (25%) reported methamphetamine use and 59 (13%) reported injection drug use in the past year.

Figure. Non-congenital Syphilis Cases/Rates — Alaska, 2020–2022



Discussion

Alaska syphilis cases remained elevated during 2022 and occurred with similar distribution between males and females. Most reported cases occurred in people who live in an urban environment (88%) and who identified as heterosexual. Alaska's sharp rise in cases among women of reproductive age and subsequent congenital syphilis highlight the need for increased prenatal syphilis screening and timely provision of adequate treatment. Consistent with national trends, racial/ethnic disparities persist, as well as co-occurrences of other STIs and substance use.

The increase in unknown duration or late-stage syphilis cases in the past 2 years (Figure) may reflect the STI-screening and service utilization impacted by the COVID-19 pandemic, combined with the resumption of field services initially impeded by the pandemic (though disease investigation capacity remains limited). This is also partially due to an increase in the proportion of cases occurring in women, who are less commonly diagnosed with primary syphilis in part because vaginal lesions can be harder to see than penile lesions. Indeed, females were nearly half as frequently diagnosed with primary syphilis compared to males (12% vs 23%, respectively) and nearly 40% more frequently diagnosed with unknown/late syphilis (39% vs. 28%, respectively).

Recommendations

Screening

1. Perform non-treponemal (RPR) and treponemal (FTA, TP-PA, or equivalent) tests on suspected syphilis cases and comprehensive STI screening. Obtain a sexual history, including the number and gender of sexual partners and their contact information.[5]
2. Perform physical examinations and testing (including extragenital) on all suspected syphilis patients to aid in staging, diagnosis, and assurance of proper treatment. Include a thorough neurologic exam and, if applicable, a cerebrospinal fluid evaluation on patients with neurologic dysfunction.[5]
3. Perform repeat serologic testing 6 months post-treatment on all patients with positive syphilis serology.[5]
4. Comprehensively screen sexually active men who have sex with men *annually* or *every 3–6 months* for those who engage in sexual activities with multiple or anonymous sex partners.[5]
5. Screen asymptomatic people with increased risk (e.g., reproductive age, history of incarceration, history of transactional sex, substance use, multiple/anonymous partners, unstable housing, late/no prenatal care and STIs during pregnancy).[5]

Treatment

6. Promptly treat patients with primary, secondary, or early non-primary non-secondary syphilis with *Bicillin L-A (benzathine penicillin G) 2.4 million units* intramuscular in a single dose. Doxycycline is an alternative therapy for certain patients when *Bicillin L-A* has decreased availability.[5] During *Bicillin L-A* shortages, prioritize use during pregnancy, and for congenital syphilis patients, patients who are unlikely to complete a doxycycline course, and others who are at increased risk.[5]

Pregnancy

7. Ensure that pregnancy status is determined and reported, as appropriate, for newly identified cases.
8. Perform syphilis screening during pregnancy at the first prenatal visit, early in 3rd trimester, *and* at the time of delivery.
9. Test for syphilis in all patients who experienced a fetal death after 20 weeks gestation.[5]

Public Health Follow-up

10. Notify infected patients they will be contacted by SOE staff and encourage them to participate in partner notification services.
11. Promptly report all suspected and confirmed cases of syphilis via fax to 907-561-4239 or by telephone at 907-269-8000. Contact SOE staff for consultation, staging, and partner management.

References

1. SOE *Bulletin*. "Syphilis Update – Alaska, 2021 and Recommendations for Care." No. 16, November 30,2022.
2. Alaska Public Health Advisory. Increase in Syphilis Among Women and Non-Gay-Identified Men. September 5, 2019.
3. SOE *Bulletin*. "Congenital Syphilis on the Rise – Alaska, 2018-2022." No. 9, August 2, 2023.
4. CDC. Sexually Transmitted Disease Surveillance 2021. National Overview of STDs, 2021. Last reviewed May 16, 2023.
5. CDC. 2021 Sexually Transmitted Infections Treatment Guidelines, 2021. *MMWR Recomm Report* 2021;RR-70(4)

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