



Disease Bulletin

- New Reporting Requirements: All Arboviral Disease Now Reportable
- New Recommendations Modify Risk Criteria and Periodicity for Syphilis Screening

New Reporting Requirements: All Arboviral Diseases Now Reportable

The emergence of arboviruses into new habitats globally and locally is of increasing public health significance because of their potential to cause serious health effects. Although asymptomatic infections or mild disease are common for some arboviruses, clinical manifestations can be severe (e.g., hemorrhagic fever, encephalitis), life-long (e.g., paralysis, microcephaly), or even fatal depending on the infecting virus and the host.

The continental United States first encountered the emergence of WNV in 1999, which subsequently became established coast-to-coast by 2004. This arbovirus impacted public health surveillance and added to the burden of healthcare significantly across the country, including in Idaho. Following on the heels of WNV, came more first case-reports of local acquisition of emerging arboviruses into the continental United States; chikungunya in 2014, Zika in 2016, and the re-emergence of dengue. Zika virus is the latest arbovirus to emerge in the western hemisphere and has been linked to significant birth defects and fetal death.

In response to the public health significance of locally-acquired and imported arboviruses and the relatively frequent introduction of emerging arboviruses into the continental United States, the Idaho Division of Public Health has expanded reporting requirements. As of January 1, 2017 all arboviral diseases are now reportable in Idaho. Each case of suspected or confirmed arboviral disease must be reported to the Idaho Department of Health and Welfare or local Public Health District within three working days of identification, in accordance with the Idaho Reportable Diseases chapter of

Idaho's Administrative Code (IDAPA 16.02.10). The new reporting category, "arboviral diseases", is meant to capture cases of all of the approximately 130 arboviruses described worldwide that cause disease in people.

Arboviral diseases are caused by viruses primarily transmitted by any competent hematophagous arthropod vector (e.g., mosquito, tick, sandfly, blackfly, midge). Vector competence refers to the ability of the arthropod to acquire, maintain, and transmit microbial agents. Some competent vectors and arboviral transmission cycles are well-established in Idaho (e.g., *Culex tarsalis* and *C. pipiens* mosquitoes and West Nile virus [WNV]; *Dermacentor andersoni* ticks and Colorado tick fever). *Aedes aegypti* and *A. albopictus* mosquitoes, which are significant competent vectors for many arboviruses globally, such as dengue and Zika, prefer a warmer climate and have not been found in Idaho. However, competence of endemic arthropods, although unlikely, has not been proven for most arboviruses that could become introduced. Changes in vector control practices, movement of certain vector species into new ecosystems due to climate change, and the return home of viremic global travelers are all important factors aiding arboviral introduction and emergence. Novel arboviruses, once introduced into new ecosystems, can spread quickly under the right circumstances, as shown by WNV in the United States and Zika virus in the western hemisphere. Even in the absence of competent vectors, non-vector-borne routes of transmission, including bloodborne and sexual, have been described for some arboviruses.

Timely surveillance for endemic or imported arbo-

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viral diseases, particularly those where serious medical outcomes are possible, is important to the public's health. Until now, WNV was the only arboviral disease specifically reportable in Idaho; cases of other locally-acquired arboviral disease including Colorado tick fever, Jamestown Canyon, and St. Louis encephalitis, and imported cases of non-endemic arboviruses such as Zika, dengue, and chikungunya were permissively reported to Idaho public health under the category of "Extraordinary Occurrence of Illness" and likely under-reported because of this practice. Now that all arboviral diseases are reportable, please review your reporting practices to ensure all suspected or confirmed arboviral infections are routinely reported to public health in a timely manner.

New Recommendations Modify Risk Criteria and Periodicity for Syphilis Screening

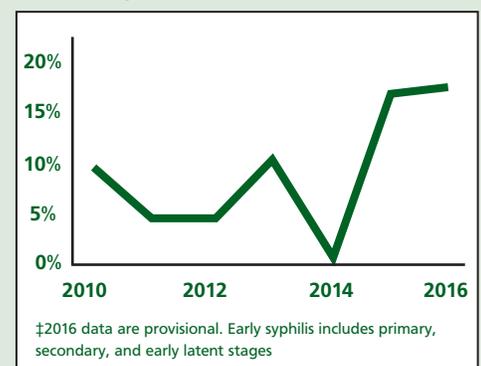
Surging syphilis incidence in the U.S. in recent years has prompted new guidelines for syphilis screening in non-pregnant adults and adolescents. The U.S. Preventive Services Task Force (USPSTF) now include men who have sex with men (MSM) and persons living with HIV as explicit high risk groups to receive screening for syphilis.¹ Screening periodicity for MSM and persons living with HIV has been left to clinical judgment; however the USPSTF evidence report concluded that screening every 3 months is associated with improved syphilis detection in these groups.² Males younger than 29 years are now listed as a population with increased risk for syphilis infection and therefore should also receive screening for syphilis. These high- and increased-risk categories are in addition to risk groups described in previous recommendations (Box 1).

Healthcare providers who serve male patients or persons living with HIV are recommended to modify screening practices to optimize detection among their at-risk patient populations.

Men in the U.S. were reported with infectious syphilis (primary and secondary stages) at greater than twice the frequency of women since the early 2000s and more than 8 times the frequency of women during 2013–2015.³ Much of the increase is attributed to the high toll infectious syphilis is taking on MSM. Of cases among men with known sex of sex partner in the U.S., 81.7% were among MSM. HIV co-infection is common among MSM with infectious syphilis, with nearly equal numbers of HIV-positive and HIV-negative MSM reported in the U.S. during 2015.

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Figure 1. Percentage of female cases among total reported early syphilis—Idaho, 2010–2016†



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An electronic version of the Idaho Reportable Diseases Rules may be found at <http://admin-rules.idaho.gov/rules/current/16/0210.pdf>.

Current and past issues are archived online at www.idb.dhw.idaho.gov.

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In Idaho, men represented 89% of early syphilis (primary, secondary, and early latent stages) cases reported during 2010–2016;* among these men, 68% reported sex with only men or with both men and women.⁴

USPSTF recommendations for all pregnant women are unchanged: all pregnant women should be tested for syphilis during the first trimester.⁵ Women at high risk for syphilis should be screened again in the third trimester and at delivery. Because of an ongoing syphilis outbreak in southwest and central Idaho, pregnant women in these areas with histories of multiple sexual partners, current alcohol or substance abuse, or a diagnosis of another STD are also considered at high risk for syphilis and should receive screening for syphilis in the third trimester and at delivery (see April 2016 Idaho Disease Bulletin at www.idb.dhw.idaho.gov).

Recent changes in incidence have also revealed an increasing burden among women. Infectious syphilis rates in the U.S. increased notably for both men and women in the U.S. during 2014–2015; the rate change among women was greater, with an increase of 27.3% compared with an increase of 18.1% among men.⁵ Likewise, syphilis among women has also been increasing in Idaho, where the proportion of women among total reported early syphilis cases nearly doubled from 2010 to 2016* (Figure 1).⁶

With increasing numbers of syphilis cases among women, the potential for rising numbers of congenital syphilis cases is a concern. Preventing congenital syphilis must always be kept in mind for healthcare

providers who serve women. See <https://www.cdc.gov/std/tg2015/congenital.htm> for guidelines for prevention, detection, and treatment of congenital syphilis.

*2016 data are provisional.

References

- ¹ US Preventive Services Task Force. Screening for Syphilis Infection in Nonpregnant Adults and Adolescents: US Preventive Services Task Force Recommendation Statement. *JAMA*. 2016;315(21):2321-7. Available at: <http://jamanetwork.com/journals/jama/fullarticle/2526645>
- ² Cantor A, Pappas M, Daeges M. Screening for Syphilis: Updated Evidence Report and Systematic Review for the US Preventive Services Task Force. *JAMA*. 2016;315(21):2328-37. Available at: <http://jamanetwork.com/journals/jama/fullarticle/2526646>
- ³ Centers for Disease Control and Prevention. Sexually Transmitted Disease Surveillance 2015. Atlanta: U.S. Department of Health and Human Services; 2016. Available at <https://www.cdc.gov/std/stats15/toc.htm>.
- ⁴ Idaho Department of Health and Welfare. Unpublished surveillance data.
- ⁵ US Preventive Services Task Force. Screening for syphilis infection in pregnancy: US Preventive Services Task Force recommendation statement. *Ann Intern Med*. 2009;150(10):705-9. Available at: <http://annals.org/aim/article/744501/screening-syphilis-infection-pregnancy-u-s-preventive-services-task-force>

FIGURE 1. Percentage of female cases among total reported early syphilis—Idaho, 2010–2016YTD‡

- All men and women at increased risk for syphilis should receive screening:
 - MSM**
 - persons living with HIV,**
 - males <29 years of age,†
 - commercial sex workers or persons who exchange sex for drugs,† and
 - persons with a history of incarceration.†
- Pregnant women should receive screening:
 - at first prenatal visit for all pregnant women,
 - at third trimester and delivery for women with:
 - increased risk according to the above criteria,
 - diagnosed STD,†
 - illicit drug use,†
 - current alcohol or substance abuse, § or
 - multiple sexual partners[§]

¶ New in 2016 USPSTF recommendation risk groups

**High risk for syphilis infection

†Associated with increased prevalence

§Recommendations for pregnant women in Southwest and Central Public Health Districts during the ongoing syphilis outbreak