

## Syphilis

Syphilis is a sexually transmitted infection characterized by stages that can be separated by extended periods without symptoms.

**Primary syphilis** usually consists of a solitary, painless “chancre” at the site of inoculation that lasts one to five weeks. Syphilis is most infectious during this period and can be transmitted by direct contact with the primary lesion, ordinarily during sex. Blood tests for syphilis are often not positive until three weeks or more after the exposure (inoculation).

**Secondary syphilis** does not always follow in every case but when it does, it typically appears approximately four weeks after the sore disappears. It includes general body rash, swollen lymph nodes and focal rashes in moist sites, such as the mouth or vagina. These last one to six weeks then disappear, even without treatment. People with secondary syphilis remain infectious, especially upon contact with patchy lesions on the mucous membranes.

There are no symptoms during latent syphilis infection. Latent syphilis may go undetected for a lifetime or be followed within a few years by outward symptoms of *tertiary (late) syphilis*. Blood tests for syphilis are generally positive (reactive) throughout latent infection.

Between 30% and 40% of untreated people with primary syphilis will develop symptoms of tertiary (late) syphilis at some point. Late syphilis can cause disabilities such as dementia, and balance and sensory problems.

Infection acquired in the womb or during delivery is called congenital syphilis. Thanks

to syphilis testing during pregnancy, such infections are now rare. Congenital syphilis may cause miscarriage, stillbirth, neonatal death or chronic disability.

### Treatment

Syphilis can be cured with antibiotics. Recent sex partners of people with confirmed primary, secondary or early latent syphilis should receive treatment for syphilis regardless of whether or not they have a positive blood test for syphilis.

In Oregon, cases of early syphilis (including primary, secondary and early latent syphilis) increased substantially during the past five years, from a nadir of 26 cases (0.7/100,000) during 2007 to 404 (10/100,000) during 2013. The 404 cases reported during 2013 in Oregon were more than in any single year since 1989.

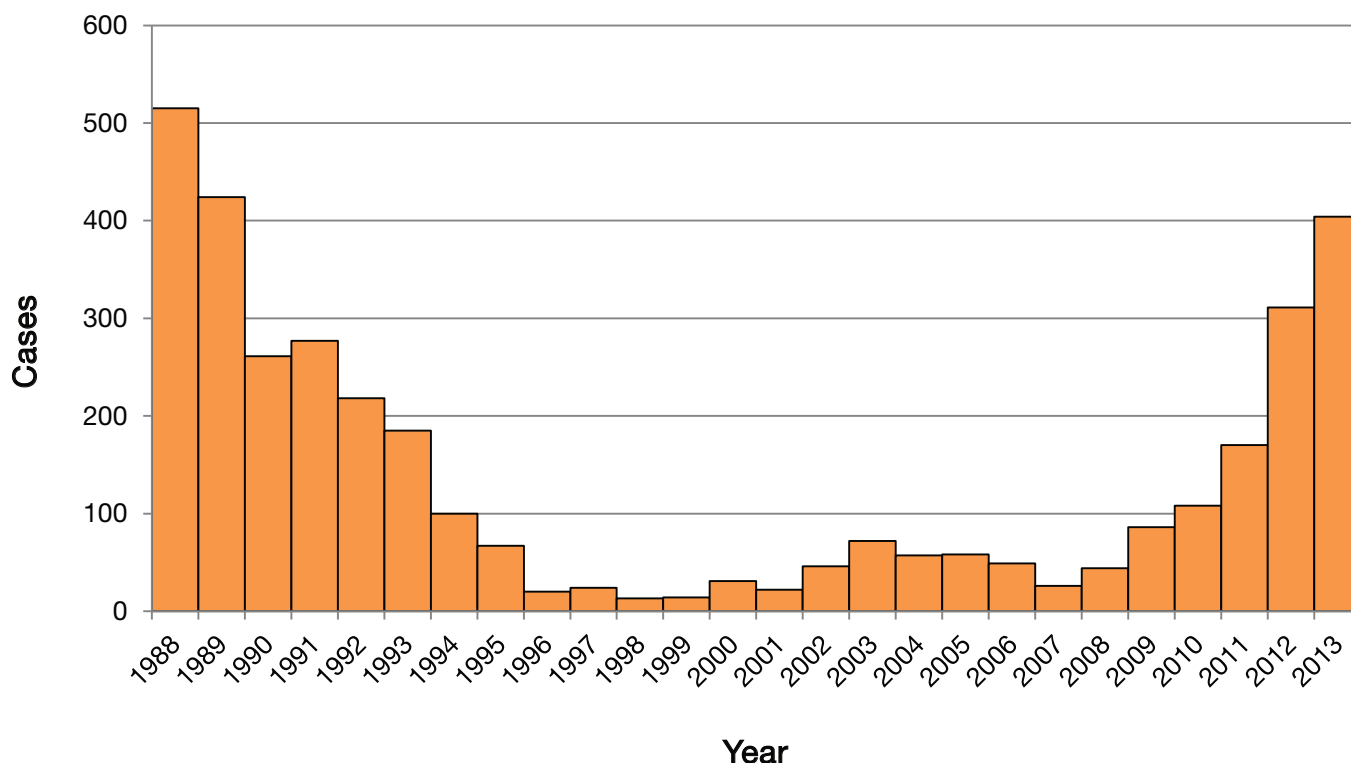
During 2013, elevated rates of early syphilis were observed in men aged 25–54 years, with the highest rate occurring in men aged 25–29 years (45/100,000). Almost all cases of syphilis in the last decade have occurred among men who have sex with other men (MSM). Of the men interviewed in 2013, 95% reported having sex with men. The 16 early syphilis cases reported in women during 2013 exceeded the sum of the previous three years. HIV-positive men comprised 54% (217/404) of 2013 early syphilis cases. As discussed elsewhere, relatively high numbers of gonorrhea reports are also being observed among men with HIV and/or men who have sex with men, in Oregon and the rest of the United States.

Although reasons for increased syphilis among men with HIV are not completely understood, two factors may contribute. In order to avoid transmitting HIV to HIV-negative partners, some men with HIV select sex partners who are also HIV-positive. Since syphilis is common in this population, they might inadvertently be exposing one another to syphilis. Men with syphilis appear to transmit the infection more easily if they also have

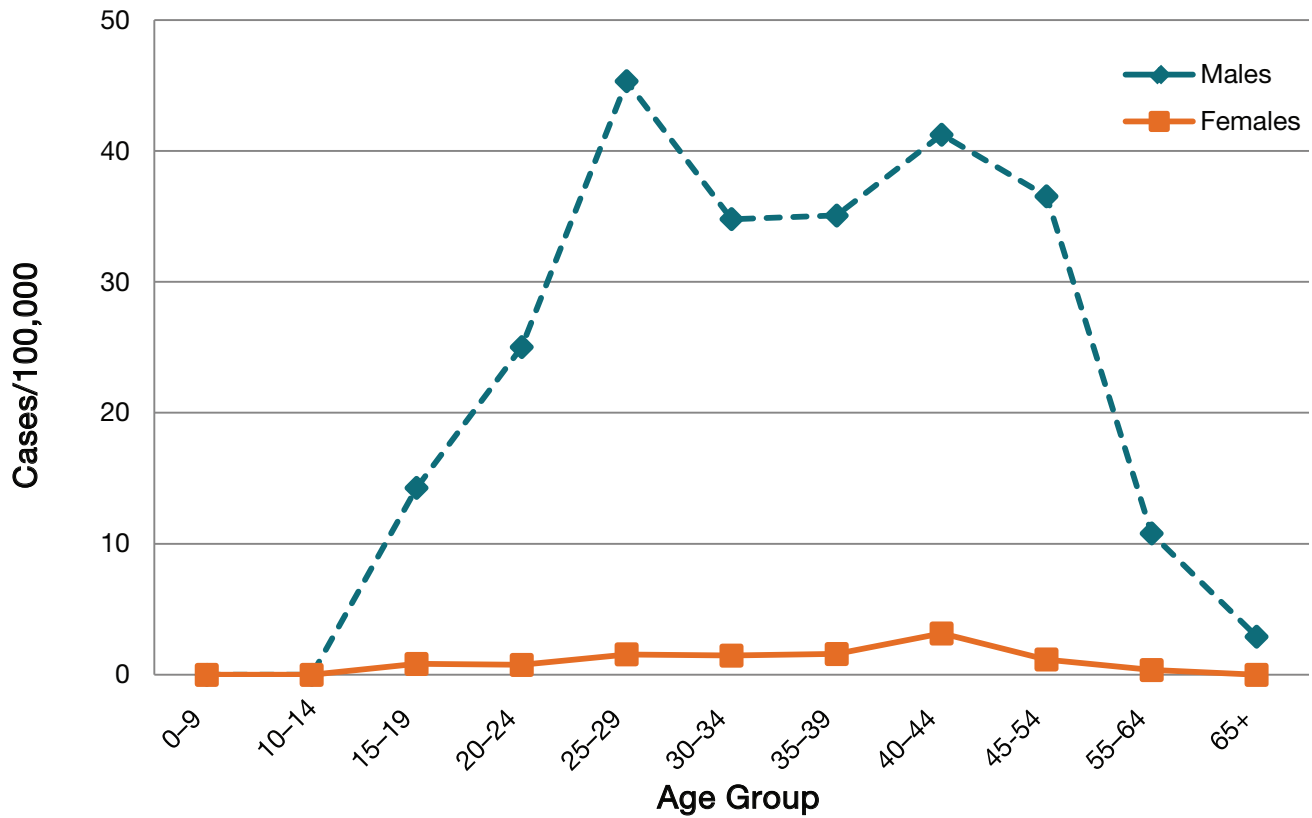
HIV, and men who have HIV appear to be more easily infected after exposure to syphilis. For this reason, men with HIV should be encouraged to test regularly for syphilis.

During 2013, 238 people with reported cases of early syphilis lived in Multnomah County (32/100,000) and accounted for 59% of all early syphilis in Oregon during the year.

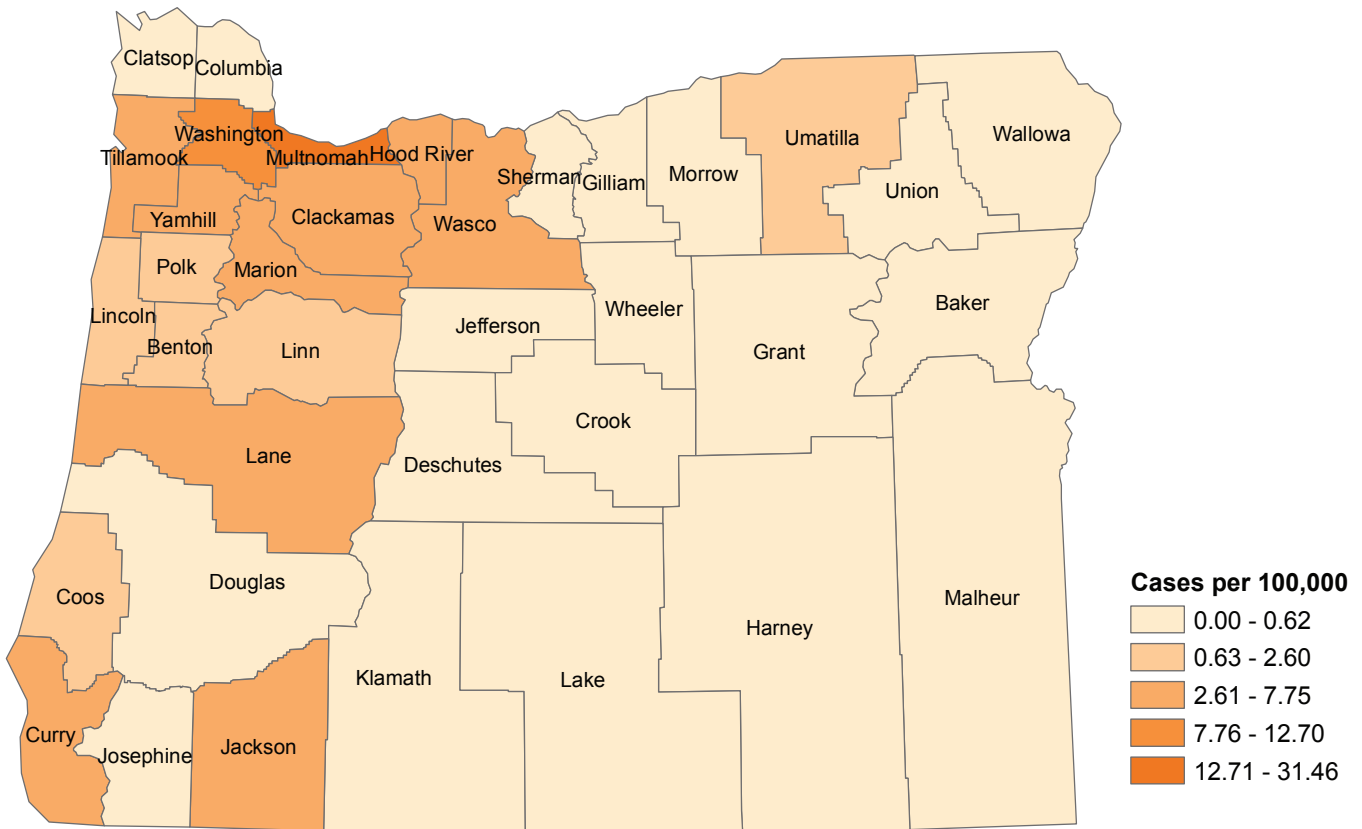
Incidence of syphilis by year, Oregon, 1988–2013



Cases of early syphilis by age group and sex, Oregon, 2013



Cases and incidence of early syphilis by county, 2013



## Prevention

Primary prevention strategies aim to prevent a person from becoming infected in the first place by:

- Delaying age at onset of sexual intercourse.
- Decreasing the number of sex partners.
- Using condoms properly from start to finish when having sex.
- Abstain from sex with a partner who has any sore in the genital, anal, or oral area.
- Rapid identification and treatment of new cases can also be considered primary prevention when it results in averting transmission to a sex partner.

Secondary prevention strategies aim to eradicate existing infections by:

- Regularly screening HIV positive persons, MSM and anyone with a sex partner known to have had syphilis.
- Screening pregnant women and treating infections in pregnant women promptly to reduce risk of congenital syphilis.
- Treating early syphilis infections.
- Treating all sex partners exposed  $\leq 90$  days before diagnosis of a case of early syphilis.
- Screening all sex partners exposed  $>90$  days before diagnosis of a case of early syphilis, treating all such partners with serologic evidence of infection, and presumptively treating anyone for whom screening results are not promptly available or who might not be easily located and treated when testing results are available.