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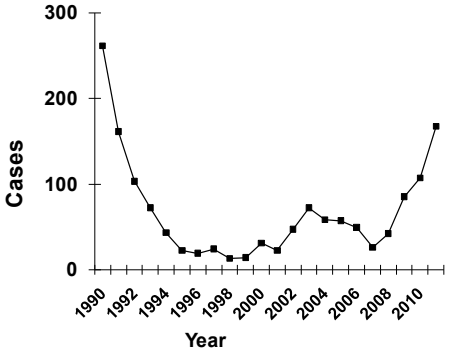
OREGON PUBLIC HEALTH DIVISION • OREGON HEALTH AUTHORITY

SYPHILIS IS BACK. BIG TIME!

1990. That was the last time Oregon experienced the numbers early syphilis* cases we are currently seeing. During 2011, 167 cases were reported (4.3 per 100,000), representing a 7-fold increase over the 26 cases (0.7 per 100,000) reported in 2007 (figure 1). The surge continues during 2012; through the end of July, 133 cases of early syphilis were reported, a 59% increase over the same period in 2011. While syphilis has increased steadily in the U.S. during this decade,[1] the recent increase in Oregon is greater than that occurring in adjacent states.

Figure 1. Reported cases of early syphilis,* Oregon, 1990–2011

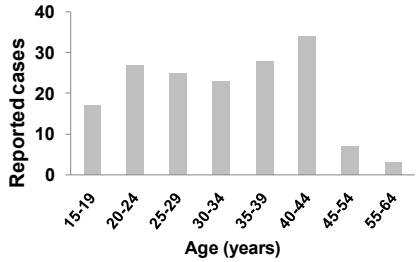


WHO?

Almost all recent cases of early syphilis have been detected among men. Of the 167 cases reported in 2011, only one was in a woman. Of the 133 cases in 2012, 5 have been in women; unfortunately, one newborn acquired congenital syphilis. Among men, the incidence is similar from ages 20 to 44 years and drops off for those ≥45 years (figure 2).

Most of the cases have occurred among men who have sex with men (MSM), many of whom also have HIV. During 2011, at least 129 (78%) of the 166 men with syphilis reported having had sex with other men, and similar numbers are being reported during 2012. However, as syphilis begins to recirculate, more women will undoubtedly be affected, raising the specter of congenital infection.

Figure 2. Early syphilis* cases by age group, Oregon, 2011

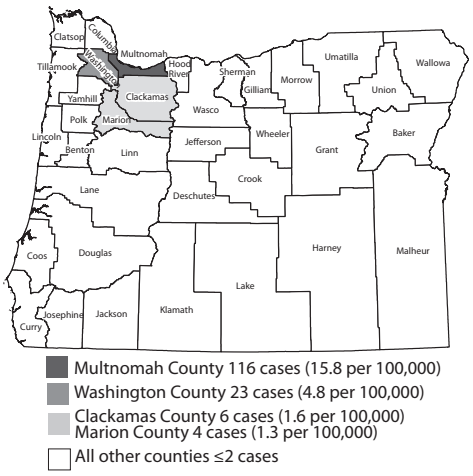


*All but one case occurred in men

WHERE?

Most 87% of the cases in Oregon have occurred in residents of the Portland metropolitan area, although rural counties have experienced cases as well (figure 3).

Figure 3. Early syphilis cases by county of residence, 2011.



WHY?

The concentration of syphilis among MSM, many of whom are HIV infected, is not completely understood. Several factors likely contribute.

In order to avoid transmitting HIV to HIV-negative partners, some men with HIV choose sex partners who are also HIV-positive.[2] If they don't use condoms, they might inadvertently expose one another to syphilis.

Pernicious bugs that they are, HIV and *Treponema pallidum* facilitate one another's transmission: HIV infection in a man with syphilis increases the likelihood that he will transmit syphilis to a partner *and,* having HIV infection increases one's susceptibility to syphilis.[3]

Sustained transmission among MSM can also be facilitated by specific clinical features of primary syphilis. Typically, primary syphilis is heralded by a painless chancre or ulcer, which can be small and innocuous. Among men who have anal intercourse, the chancre can occur inside the anus or rectum and not be readily visible. If primary syphilis is missed, it might go undetected altogether: secondary syphilis doesn't always manifest a rash or get recognized for what it is.[4]

Changing sexual networks might also play an important role. Partner notification and treatment has long been a mainstay of controlling sexually transmitted infections. However, men are increasingly turning to electronic networking tools, such as smart phone applications and internet sites to meet partners for anonymous trysts. Others go to adult bookstores and sex shops to meet for anonymous sex. Consequently they may not know how to name and contact their recent partners.[5]

WHAT TO DO?

- Clinicians should screen 1) MSM, 2) sex partners of MSM, and 3) men with HIV or syphilis regularly, for syphilis, using either the ageless Rapid Plasma Reagin (RPR) test or the more recently introduced Enzyme Immunoassay treponeme-specific screening algorithm. Clinicians should also consider that not everyone feels comfortable giving accurate history of same sex partners when deciding to offer syphilis testing.
- All adults should be tested at least once for HIV, and periodically thereafter if they have multiple sex partners or other behaviors that put them at risk.
- Every sexually active adult should be encouraged to use condoms if they have mutiple sex partners or are not certain whether or not they or their partner have HIV or another sexually transmitted infection.
- Partners of people with early syphilis should be treated presumptively.

* Including primary, secondary and early latent infections — the stages at which syphilis can be infectious.

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TREATMENT

All laboratory confirmed cases should be treated.

All sex partners of laboratory confirmed cases should be treated if they were exposed within 90 days. Other partners whose last sexual contact with the case was ≥90 days earlier should be tested, and treated if infection is confirmed.

Unless the case has an allergy or neurosypilis, syphilis is treated with benzathine penicillin,† one dose for primary, secondary and early latent syphilis, 3 weekly doses for late latent syphilis. Consult STD treatment guidelines online‡ or contact your local health department for treatment recommendations.

PUBLIC HEALTH INTERVENTIONS

Multnomah County Health Department and Cascade Aids Project initiated a series of public health interventions:

- Syphilis testing in addition to HIV testing for MSM at community- and clinic-based sites;
- Teaching Cascade AIDS Project staff to do syphilis testing;
- Ads and flyers about syphilis and testing in print media such as "Just Out," online meet-up sites, and adult bookstores;
- Palm cards about syphilis at lesbian-gay-bisexual-transsexual-oriented events;
- Cards for MSM to take to their clinician asking to be tested for syphilis;
- Social network strategy to increase testing that employs members of targeted sexual networks to recruit others for testing and offers incentives.

† Neurosyphilis is treated with daily intravenous aqueous penicillin G for 10 days.
‡ www.cdc.gov/std/treatment/2010/

FOR MORE INFORMATION

- Multnomah County Health Department (screening and diagnostic exams for syphilis, including dark field microscopy.) Providers can contact 503-988-3702 for information or to arrange for testing.
- Contact the Oregon STD Control Program 971-673-0153 for more information or to report a case if you can't reach your local health department.

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1. Centers for Disease Control and Prevention (CDC) Division of STD Prevention. Sexually transmitted disease surveillance, 2010. Available at: www.cdc.gov/std/stats10/surv2010.pdf
2. McFarland W, Chen YH, Raymond HF, et al. HIV seroadaptation among individuals, within sexual dyads, and by sexual episodes, men who have sex with men, San Francisco, 2008. AIDS Care 2011;23:261–8.
3. Fleming DT, Wasserheit JN. From epidemiological synergy to public health policy and practice: The contribution of other sexually transmitted diseases to sexual transmission of HIV infection. Sex Transm Infect 1999;75:3–17.
4. Holmes KK, Sparling PF, Stamm WE, et al., eds. Sexually transmitted diseases. 4 ed. New York, NY: McGraw Hill Medical; 2008.
5. CDC. Internet use and early syphilis infection among men who have sex with men—San Francisco, California, 1999-2003. MMWR 2003;52:1229–32.

CONGRATS TO DR. SHAMES

Dr. Jim Shames, Medical Director of Jackson County Health and Human Services and the Medical Officer for Josephine County is this year's recipient of the Oregon Medical Association's prestigious Doctor/Citizen of the Year award. Dr. Shames has been an innovator in the Oregon's fight against prescription drug abuse; Oregon ranks number two in the nation in terms of pain killer abuse. The honor is well-deserved! (*http://oregonrx-summit.org/rx_discussion/may-25-2012-dr-jim-shames-honored-as-doctorcitizen-of-the-year-2012/*)

Primer on Syphilis: Stages and Timeline

- *Primary syphilis:* consists of a solitary genital sore that lasts 1–5 weeks, is infectious and can be transmitted by direct contact with the primary sore, ordinarily during sex. Blood tests for syphilis are not positive until ≥3 weeks after exposure.
- *Secondary syphilis:* typically appears about 4 weeks after the sore disappears, and is infectious. Symptoms include: general body rash, swollen lymph nodes and focal rashes in moist sites, such as the mouth or vagina; last 1–6 weeks then disappear, even without treatment.
- *Latent syphilis:* does not cause symptoms, may be infectious, and may go undetected for a lifetime, or be followed by outward symptoms of tertiary (late) syphilis, anywhere from a few to ≥20 years later. Blood tests for syphilis are generally positive (reactive) throughout latent infection.
- *Tertiary (late) syphilis*: develops in 30-40 percent of people with primary syphilis who are not treated, might be transmissible from a mother to a fetus but is generally not infectious and can cause cardiovascular and neurologic diseases, as well as dementia.
- *Congenital syphilis:* fetal infections can be acquired while in the womb or during delivery, but thanks to syphilis testing during pregnancy, are rare. Congenital syphilis may cause abortion, stillbirth, neonatal death, or chronic disability in the child.