

In Washington, sexually transmitted infections (STIs) are the most commonly reported of all communicable diseases and comprised more than 76% of notifiable diseases or conditions reported to the Washington State Department of Health in 2012.

Healthcare providers and laboratories are required to report confirmed cases of chlamydia, gonorrhea, syphilis, herpes, lymphogranuloma venereum, chancroid and granuloma inguinale to their local health departments. **Table 1** compares total STI cases diagnosed and reported in Washington State in 2011 and 2012.

Table 1 Reported STI Cases by Disease, Washington State, 2011–2012

Disease	2011	2012	
Chlamydia Infection (CT)	23,237	24,600	↑
Gonorrhea (GC)	2,730	3,282	↑
Primary & Secondary Syphilis	329	300	↓
Early and Late Latent Syphilis	379	405	↑
Late Syphilis	0	1	↑
Congenital Syphilis	0	2	↑
Genital Herpes, adult initial infection	2,149	2,197	↑
Neonatal Herpes	8	5	↓
Lymphogranuloma Venereum	1	0	↓
Chancroid	0	0	–
Granuloma Inguinale	0	0	–
Total reportable STIs	28,833	30,792	↑

*Cases diagnosed in the calendar year and reported as of 03/04/13

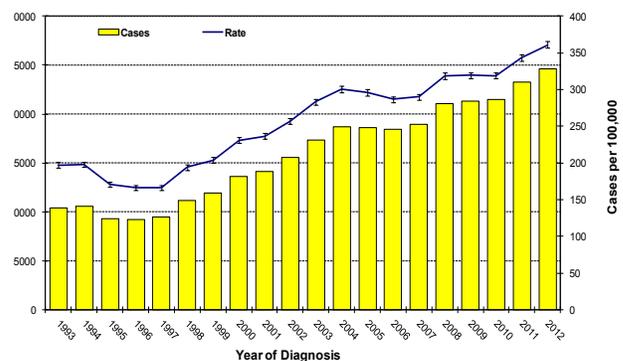
Chlamydial Infection

Infection with the bacterium *Chlamydia trachomatis* (CT) is the most frequently reported STI nationally and in Washington. Under reporting is likely as many people with chlamydia are not aware of their infections and thus do not seek testing, especially men. Later consequences of untreated CT can include damage to a woman’s reproductive organs such as pelvic inflammatory disease (PID), infertility and ectopic pregnancy.

The number of chlamydial infection cases and incidence rate among persons in Washington State for 1993 to 2012 are presented in **Figure 1** and

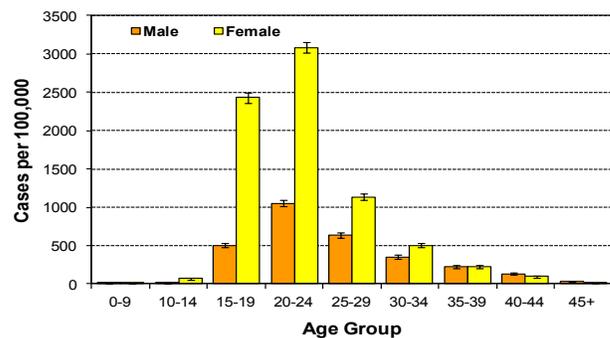
show a steady rise between 1998 and 2004 before leveling off for four years. Sharp increases in rate are seen again from 2008 to the 2012 incidence rate of 361 cases per 100,000 population. However, Washington’s 2012 CT rate remains lower than the national CT incidence rate, which was 458 cases per 100,000 in 2011.

Figure 1 Chlamydial Infection Cases and Rates, Washington State 1993 – 2012



Age-specific incidence rates by gender for CT infection cases in Washington State in 2012 are presented in **Figure 2**. Young women between 15 and 24 years continue to have disproportionately higher incidence rates than other age groups or than males, which may point toward less testing in men overall.

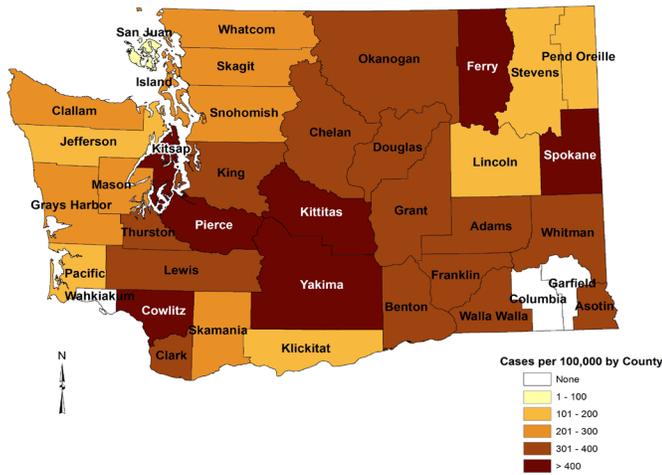
Figure 2 Chlamydial Rates by Gender and Age Group, Washington State 2012



Chlamydial infection cases were reported from all counties in Washington State in 2012. As presented in **Figure 3**, CT is widespread with rural

counties experiencing rates similar to more densely populated urban areas.

Figure 3 Chlamydia Incidence Rates by County, Washington State 2012

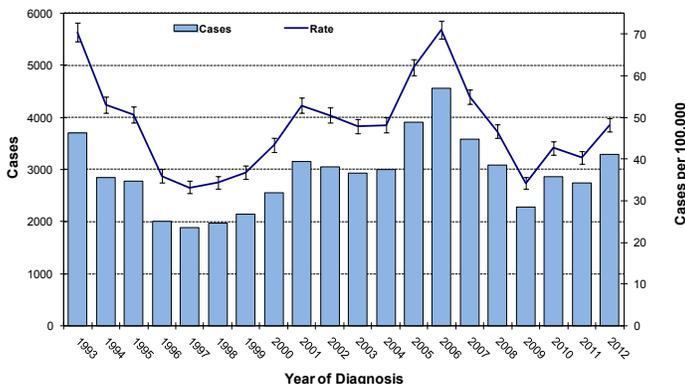


- CT cases reported and incidence rate increased by almost 6% in 2012
- Age-specific CT rates were highest among 20 – 24 year olds for both females and males in 2012
- 66% of CT cases reported in 2012 were for persons aged 24 years and younger

Gonorrhea

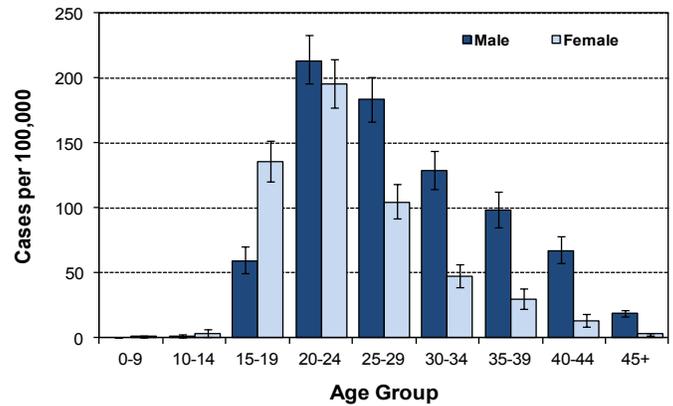
Infection with the bacterium *Neisseria gonorrhoeae* (GC) is a common cause of morbidity in the United States. Symptoms may be absent, but when present include abnormal genital discharge and painful urination. Consequences of untreated gonorrhea may include PID, infertility and disseminated infections. Gonorrhea also increases the likelihood of contracting other infections, including HIV.

Figure 4 Gonorrhea Cases and Rates, Washington State 1993–2012



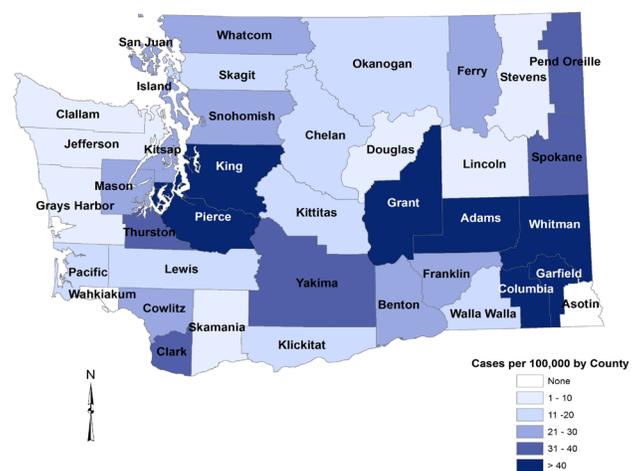
After several years of steady decline, the gonorrhea rate in Washington State sharply increased from 2009 through 2012 (**Figure 4**). The overall GC incidence rate for Washington State in 2012 was 48 cases per 100,000. However, Washington's 2012 GC rate remains lower than the national GC incidence rate, which was 104 cases per 100,000 in 2011.

Figure 5 Gonorrhea Rates by Gender and Age Group, Washington State 2012



The age distribution for gonorrhea differs between genders and age groups as seen in **Figure 5**. Among males, the burden of disease continues to be distributed across older age groups, reflecting transmission among men who have sex with men (MSM).

Figure 6 Gonorrhea Incidence Rates by County, Washington State 2012



Gonorrhea rates by county are presented in **Figure 6**. GC cases were reported from a majority of counties in Washington State in 2012.

- **Gonorrhea cases reported and annual incidence increased by 20% in 2012**
- **Age-specific GC rates were highest among 20 – 24 year olds for both females and males in 2012**
- **47% of all GC cases reported in 2012 were persons living in King County**

Gonorrhea Treatment Update

Worldwide, gonorrhea is becoming increasingly resistant to the antibiotics used to treat it. Quinolone-resistant *N. gonorrhoeae* strains are common in the United States and thus this group of antibiotics is no longer recommended for use against GC. Resistance to the cephalosporin class of antibiotics was first reported in Asia, but has since been detected in Australia and Western Europe. New evidence suggests that cephalosporin resistance may soon emerge in the United States. Overuse or incorrect use of antibiotics and gonorrhea's ability to mutate rapidly in response to treatment are believed to be the main reasons the bacteria is quickly becoming resistant to all available treatments. Given that the cephalosporins are currently the only class of antibiotics recommended for the treatment of gonorrhea, there is a risk that gonorrhea may become untreatable in the future.

Since 2009, an increasing percentage of isolates tested at the University of Washington's Neisseria Reference Laboratory have shown resistance to antibiotics formerly used to treat GC, as well as reduced susceptibility to the various cephalosporin antibiotics currently recommended. We do not know if this reduced susceptibility will result in clinical treatment failure, although this has been reported elsewhere. Providers should promptly report suspected treatment failure to their local health department. Experts say that the best way to combat drug-resistant strains is to rapidly diagnose the STD, then treat it with recommended antibiotic combinations.

Please see the U.S. Centers for Disease Control and Prevention (CDC) treatment guidelines:
<http://www.cdc.gov/std/treatment/2010/>

In response to these developments, the Washington State Department of Health offers the following recommendations for treating gonorrhea when identified:

2012 CDC GC Treatment Update

1. Treat with ceftriaxone (250mg IM) in combination with either azithromycin (1g) or doxycycline (100mg BID x7 days)
2. If ceftriaxone is not an option, then treat with cefixime (400mg), also with a second drug (see #1 above)
3. Persons suspected of having gonorrhea should be treated presumptively at the time of their initial evaluation, before test results are available.
4. If cefixime is used, then the patient should return in 1 week for a test-of-cure at the site of infection.

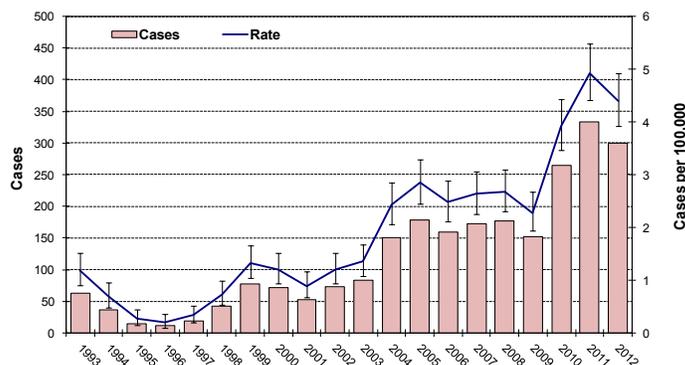
MMWR, August 10, 2012, Vol.61 No.31

Syphilis

Syphilis is caused by infection with the *Treponema pallidum* bacterium. Early symptoms of syphilis include painless lesions, rash and flu-like symptoms. Untreated syphilis can cause long-term effects such as damage to internal organs, dementia and blindness. Syphilis occurs in overlapping disease stages of primary, secondary, latent and late. Primary and secondary (P&S) syphilis are the infectious stages and indicate likely acquisition of the disease in the preceding year. Thus, the cases with these two syphilis stages are the focus of epidemiologic analysis.

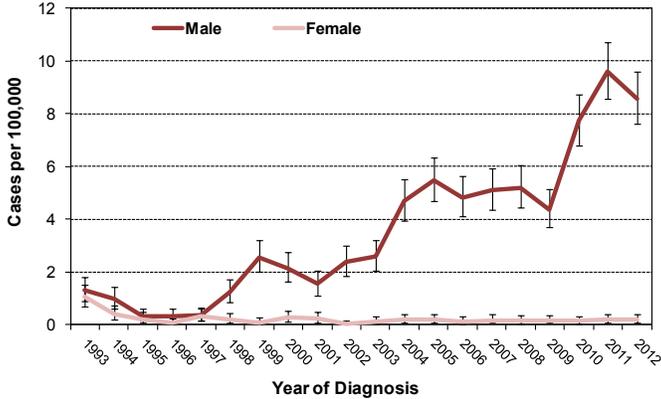
Starting in 1997, infectious syphilis reemerged in Washington primarily among urban MSM. A sharp increase in incidence rate has been observed since that time (**Figure 7**). In 2012, there were 300 cases of primary and secondary syphilis reported in Washington for an incidence rate of 4.4 cases per 100,000. Washington's 2012 P&S syphilis rate is similar to the national rate, which was 4.5 cases per 100,000 in 2011.

Figure 7 Primary & Secondary Syphilis Cases & Rates, Washington State 1993-2012



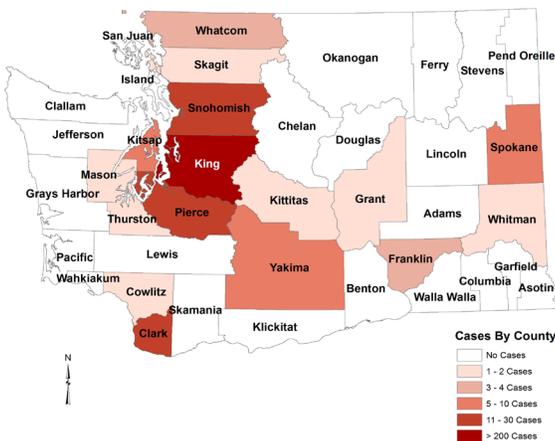
There continues to be a large disparity between male and female P&S syphilis rates as shown in **Figure 8**. This pattern of case incidence has been observed since 1997 and is consistent with an epidemic concentrated among MSM. Two cases of congenital syphilis were diagnosed in 2012.

Figure 8 Primary & Secondary Syphilis Rates by Gender, Washington State 1993-2012



Almost 82% of the primary and secondary syphilis cases diagnosed in 2012 were people living in the predominately urban Puget Sound region of the state including Snohomish, King and Pierce Counties (**Figure 9**).

Figure 9 Primary & Secondary Syphilis Cases Reported by County, Washington State, 2012

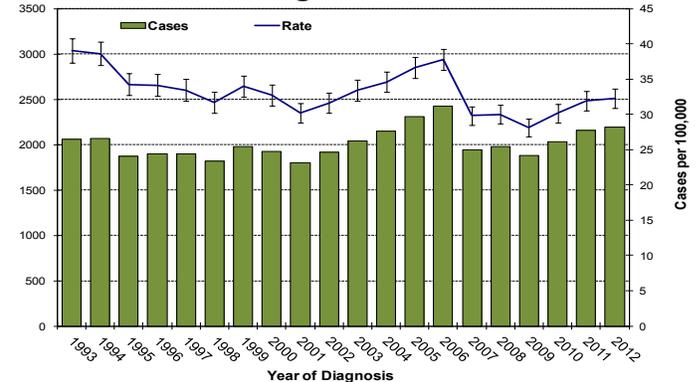


- Primary and secondary syphilis rates decreased nearly 9% between 2011 and 2012
- 85% of the P&S syphilis cases in 2012 reported a history of MSM
- 59% of the P&S syphilis cases in 2012 were co-infected with HIV

Other STIs

Washington State requires reporting of initial infection of genital herpes, as well as other serious but less commonly occurring STIs. In 2012, 2,197 cases of genital herpes initial infection were reported for an incidence rate of 32 cases per 100,000 persons (**Figure 10**). Five cases of neonatal herpes were reported in 2012 for a rate of 5.7 per 100,000 live births*. No cases of lymphogranuloma venereum, chancroid or granuloma inguinale were reported in 2012.

Figure 10 Adult Initial Infection Herpes Cases and Rates, Washington State 1993 - 2012



*Preliminary 2012 WA State occurrence birth counts as of June 21, 2012

For More Information

Infectious Disease Prevention

WA State Dept. of Health:

<http://www.doh.wa.gov/YouandYourFamily/IllnessandDisease/SexuallyTransmittedDisease>

U.S. Centers for Disease Control & Prevention:

www.cdc.gov/std/

For persons with disabilities, this document is available on request in other formats. To submit a request, please call 1-800-525-0127 or TDD/TTY 1-800-833-6388 DOH 347-350

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