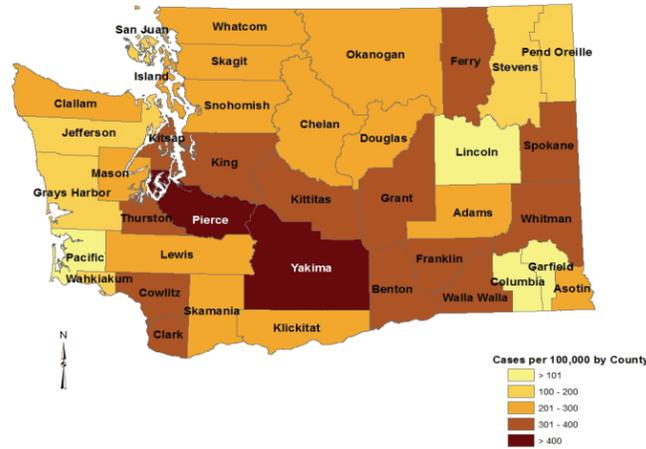


counties experiencing rates similar to more densely populated urban areas.

Figure 3 Chlamydia Incidence Rates by County, Washington State 2011

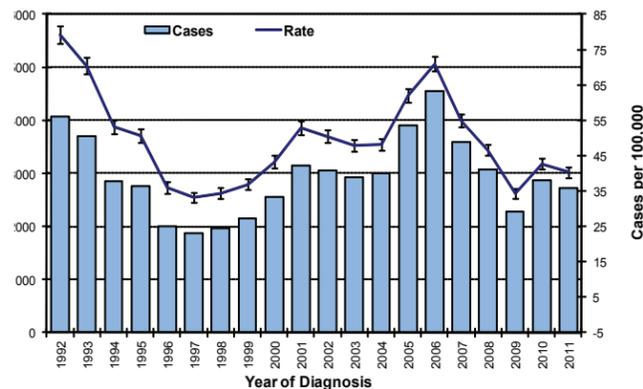


- CT cases reported and incidence rate increased by almost 8% in 2011
- Age-specific CT rates were highest among 20 – 24 year olds for both females and males in 2011
- 68% of CT cases reported in 2011 were for persons aged 24 years and younger

Gonorrhea

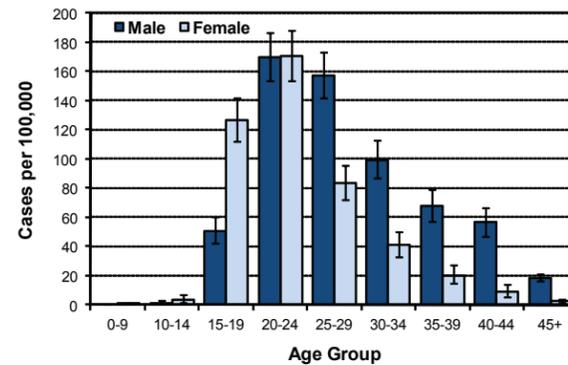
Infection with the bacterium *Neisseria gonorrhoeae* (GC) is a common cause of morbidity in the United States. Symptoms may be absent, but when present include abnormal genital discharge and painful urination. Consequences of untreated gonorrhea may include PID, infertility and disseminated infections.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

Figure 4 Gonorrhea Cases and Rates, Washington State 1992–2011



After several years of decline, gonorrhea rates in Washington State increased in 2010. While the 2011 incidence rate is slightly lower, it is not significantly different from the rate observed in 2010 (Figure 4). The overall GC incidence rate for Washington State in 2011 was 40 cases per 100,000. However, Washington's 2011 GC rate remains lower than the national GC incidence rate, which was 101 cases per 100,000 in 2010.

Figure 5 Gonorrhea Rates by Gender and Age Group, Washington State 2011



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 2011



Gonorrhea rates by county are presented in Figure 6. GC cases were reported from a majority of counties in Washington State in 2011, with incidence concentrated in more urban settings.

- Gonorrhea cases reported and annual incidence decreased by 5% in 2011
- Age-specific GC rates were highest among 20 – 24 year olds for both females and males in 2011
- 50% of all GC cases reported in 2011 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 Europe. Overuse or incorrect use of antibiotics and gonorrhea's ability to mutate quickly 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 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:

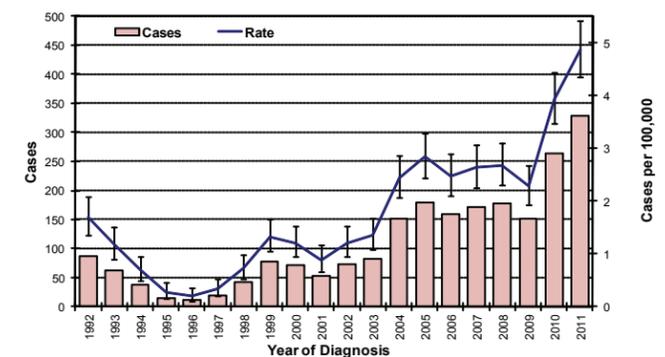
1. Treat with ceftriaxone (250mg IM) in combination with either azithromycin (1g) or doxycycline (100mg BID x7 days)
2. If ceftriaxone is not an option, then treat with cefixime (400mg), also with a second drug (see #1 above)
3. Cefpodoxime is not recommended
4. Persons suspected of having gonorrhea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

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.

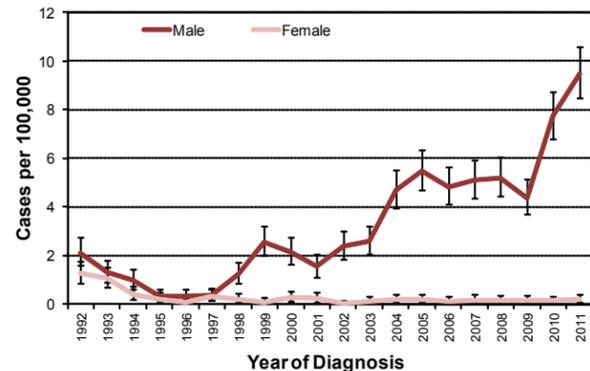
Significant increases in the number of primary and secondary syphilis cases and incidence rate among persons in Washington State have been observed in 2010 and 2011 compared to the relatively stable period between 2004 and 2009 (Figure 7). The overall P&S syphilis incidence rate for Washington State in 2011 was 4.9 cases per 100,000. Washington's 2011 P&S syphilis rate is similar to the national rate, which was 4.5 cases per 100,000 in 2010.

Figure 7 Primary & Secondary Syphilis Cases & Rates, Washington State 1992-2011



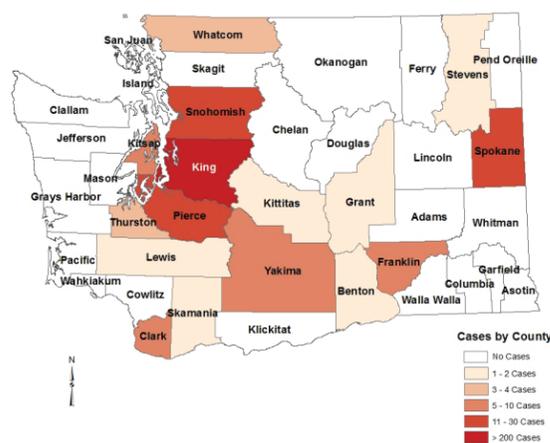
There continues to be a large disparity between male and female P&S syphilis rates as shown in **Figure 8**. This pattern of case incidence has been observed since 1997 and is consistent with an epidemic concentrated among MSM. No cases of congenital syphilis were diagnosed in 2011.

Figure 8 Primary & Secondary Syphilis Rates by Gender and Age Group, Washington State 2011



Almost 85% of the primary and secondary syphilis cases diagnosed in 2011 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, 2011

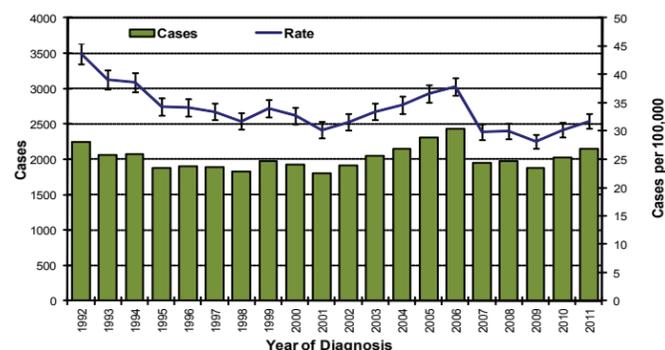


- Primary and secondary syphilis rates increased over 20% between 2010 and 2011
- Syphilis among MSM in King County accounted for a majority of cases reported in 2011
- 54% of the P&S syphilis cases in 2011 were co-infected with HIV

Other STIs

Washington State requires reporting of initial infection of genital herpes, as well as other serious but less commonly occurring STIs. In 2011, 2,149 cases of genital herpes initial infection were reported for an incidence rate of 32 cases per 100,000 persons (**Figure 10**). Eight cases of neonatal herpes were reported in 2011 for a rate of 9 per 100,000 live births*. One case of lymphogranuloma venereum and no cases of either chancroid or granuloma inguinale were reported in 2011.

Figure 10 Adult Initial Infection Herpes Cases and Rates, Washington State 1992 – 2011



*Preliminary 2011 WA State occurrence birth counts as of June 1, 2012

For More Information

STD Services Section, 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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STI Fast Facts: Washington State 2011

In Washington, sexually transmitted infections (STIs) are the most commonly reported of all communicable diseases and comprised more than 75% of notifiable diseases or conditions reported to the Washington State Department of Health in 2011.

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 2010 and 2011.

Table 1 Reported STI Cases by Disease, Washington State, 2010–2011

Disease	2010	2011	
Chlamydia Infection (CT)	21,401	23,237	↑
Gonorrhea (GC)	2,865	2,730	↓
Primary & Secondary Syphilis	261	329	↑
Latent Syphilis	265	379	↑
Congenital Syphilis	1	0	↓
Genital Herpes, adult initial infection	2,028	2,149	↑
Neonatal Herpes	6	8	↑
Lymphogranuloma Venereum	2	1	↓
Chancroid	1	0	↓
Granuloma Inguinale	0	0	—
Total reportable STIs	26,830	28,833	↑

*Cases diagnosed in the calendar year and reported as of 02/27/12

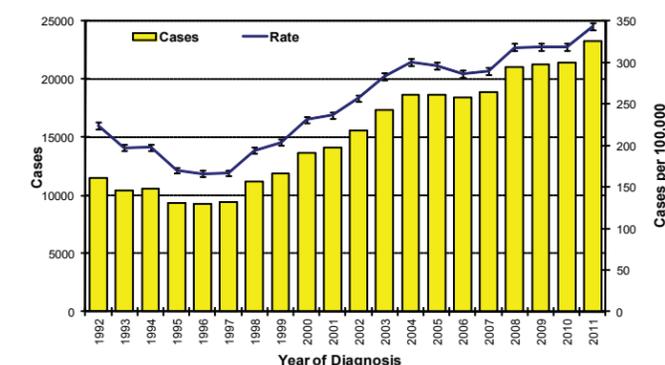
Chlamydial Infection

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 1992 to 2011 are presented in **Figure 1** and

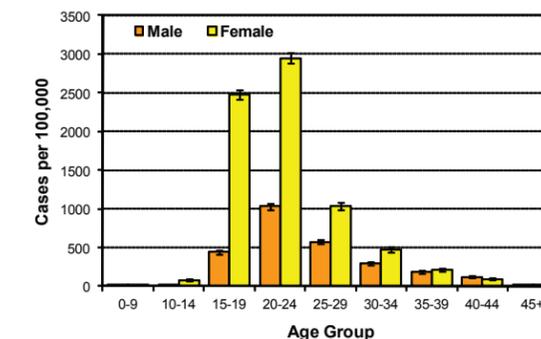
show a steady rise since 1998. The overall CT incidence rate for Washington State in 2011 was 343 cases per 100,000 population. This is a significant increase compared to the relatively stable rate observed in the preceding three years. However, Washington's 2011 CT rate remains lower than the national CT incidence rate, which was 426 cases per 100,000 in 2010.

Figure 1 Chlamydial Infection Cases and Rates, Washington State 1992 – 2011



Age-specific incidence rates by gender for CT infection cases in Washington State in 2011 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 2011



Chlamydial infection cases were reported from all counties in Washington State in 2011. As presented in **Figure 3**, CT is widespread with rural