

**Special Focus ~ Changes in Disease Monitoring Methods in Washington State**

Beginning in April of 2007, Washington State began implementing significantly revised methods for case monitoring and evaluation, including deployment of a web-based electronic reporting system. This system allows cases to be recorded by local health jurisdictions directly into a statewide registry called PHIMS-STD. As this statewide reporting system matures, additional functionality for monitoring and evaluating disease trends at the local and state level, evaluating intervention effectiveness, and assessing system performance in terms of timeliness and completeness of reporting will be made available.

In reflection of these system enhancements, publications from the STD Services Section will now present trends in incidence and prevalence based on the *date a case is diagnosed* rather than by the *date the case was reported*. This change is designed to present STI data in a way that more accurately reflects epidemiologic trends and provides more timely data for targeting interventions and resources at the state and local level.

**Resources**

Additional information about sexually transmitted infections, STI treatment guidelines, Washington State Dept. of Health reporting requirements, ways to prevent the spread of STIs, and general information about reproductive health issues is available from:

**The U.S. Centers for Disease Control & Prevention:**

[www.cdc.gov/std/](http://www.cdc.gov/std/)

**STD Services Section, Washington State Dept. of Health:**

[www.doh.wa.gov/cfh/STD](http://www.doh.wa.gov/cfh/STD)

**Family Planning & Reproductive Health, Washington State Dept. of Health:**

[www.doh.wa.gov/cfh/FPRH](http://www.doh.wa.gov/cfh/FPRH)

**Henry J. Kaiser Family Foundation:**

[www.kff.org/index.cfm](http://www.kff.org/index.cfm)



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**STI Fast Facts:  
Washington State 2007**



The burden of sexually transmitted infections (STIs) may be considered a reflection of the overall sexual health of our communities. STIs continue to be the most commonly reported of all communicable diseases in Washington State and comprised more than 75% of all communicable diseases or conditions reported to the Department of Health in 2007.

Healthcare providers and laboratories report confirmed cases of chlamydia, gonorrhea, syphilis, chancroid, granuloma inguinale and lymphogranuloma venereum to their local health departments; **Table 1** shows total cases diagnosed in Washington State in 2006 and 2007.

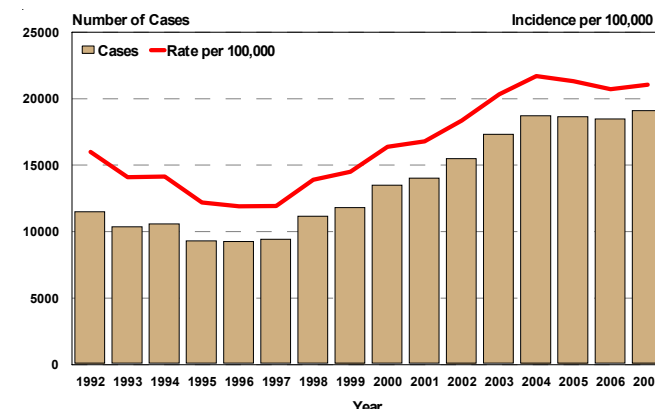
**Table 1 - Reported STI Cases by Disease, Washington State, 2006 - 2007**

Disease	2006 Cases*	2007 Cases*	Change
Chlamydia (CT)	18,485	19,123	↑
Gonorrhea (GC)	4,580	3,646	↓
Primary & Secondary Syphilis	162	168	↑
Early and Late Latent Syphilis	234	213	↓
Congenital Syphilis	0	2	↑
Herpes, Initial Infection	2,445	1,952	↓
Neonatal Herpes	6	1	↓
Disseminated GC(DGI)	0	0	↔
Lymphogranuloma Venereum	1	1	↔
Chancroid/GI	0	0	↔
<b>Total Reportable STIs</b>	<b>25,913</b>	<b>25,106</b>	<b>↓</b>

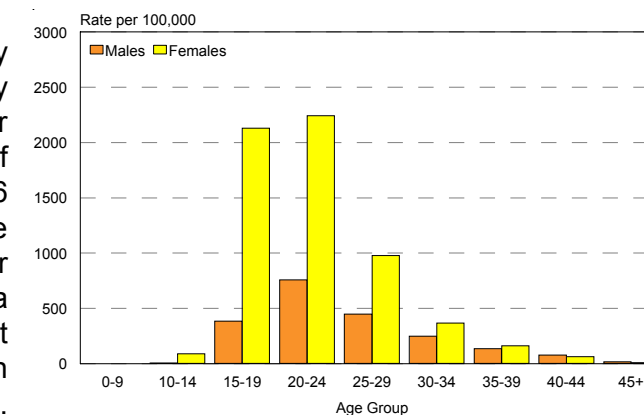
\*Cases diagnosed in the calendar year and reported as of March 2008

**Chlamydia**

*Chlamydia trachomatis* (CT) is the most commonly reported STI nationally. It is estimated that approximately 3 million new cases occur in the United States each year (Kaiser Family Foundation, 1998). Only a fraction of those cases, 1,030,911, were reported to CDC in 2006 (CDC, 2007). The number of chlamydia cases and the incidence rate among persons in Washington State for 1992 to 2007 are presented in **Figure 1**. Chlamydia cases and rates increased steadily through 2004, but have remained statistically stable since. Washington State's CT incidence rate was 295 per 100,000 for 2007. The national CT incidence rate for 2006 was 348 cases per 100,000.



**Figure 1 - Chlamydia Cases and Rates, Washington State 1992 - 2007**



**Figure 2 - Chlamydia Rates by Gender and Age Group, Washington State 2007**

Age-specific incidence rates by gender for chlamydia cases reported in Washington State in 2007 are presented in **Figure 2**. Younger women continue to have disproportionately higher incidence rates than other age groups or their male counterparts.

- Age-specific CT rates peak among 20 - 24 year olds for both females and males
- 84.8% of all CT cases reported in 2007 are for persons aged 29 years and younger

## Gonorrhea

Infections due to *Neisseria gonorrhoeae* (GC) are a major cause of morbidity in the United States. Consequences of gonorrhea infection may include pelvic inflammatory disease (PID), infertility, ectopic pregnancy, and chronic pelvic pain.

The national gonorrhea incidence rate increased to a rate of 121 per 100,000 nationally in 2006 (CDC 2007). After falling steadily for several decades, GC rates began to rise in 2005. In Washington State, gonorrhea rates increased to a 13-year high in 2006 but decreased in 2007 to 56 per 100,000 (Figure 3). Increased resistance to a commonly used antibiotic was widely noted in early 2007 and the observed drop in case rates may be due, in part, to more appropriate treatment.

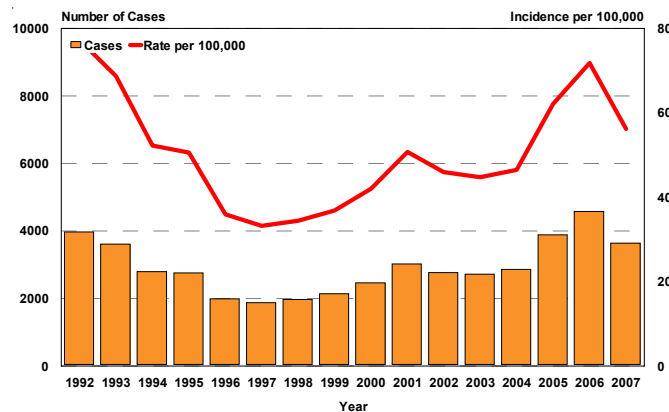


Figure 3 - Gonorrhea Cases and Rates, Washington State 1992 - 2007

- Gonorrhea cases reported and annual incidence rate decreased 21% in 2007
- GC incidence among males is highest in the 20 – 24 age group at 183 per 100,000
- Highest GC incidence for females is also in the 20 – 24 age group at 257 per 100,000

The age distribution for gonorrhea differs between genders and age groups as seen in Figure 4. Among males, the burden of disease continues to be distributed more evenly across age groups; 65% of cases are reported among those 25 years of age and older.

The overall gender specific rate for males and females in 2007 demonstrated no significant gender-based inequality in burden of disease (55.7 versus 56.1 per 100,000, respectively). Yet there is a continuing outbreak of gonorrhea among men who have sex with men (MSM), which is evidenced by higher rates among older males versus females.

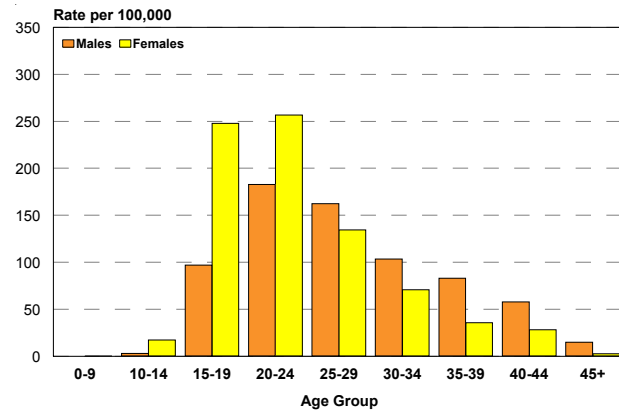


Figure 4 - Gonorrhea Rates by Gender and Age Group, Washington State 2007

## Chlamydia & Gonorrhea Rates by County

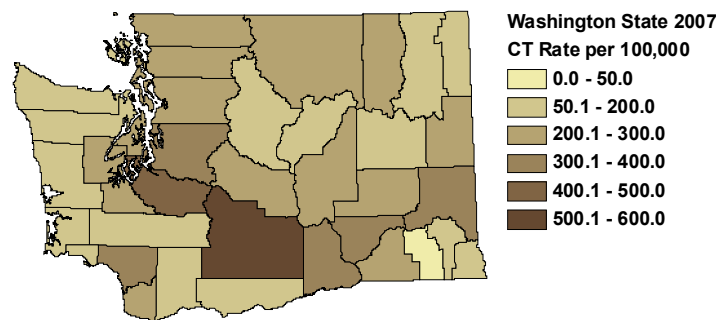


Figure 5 - Chlamydia Incidence Rates by County, Washington State 2007

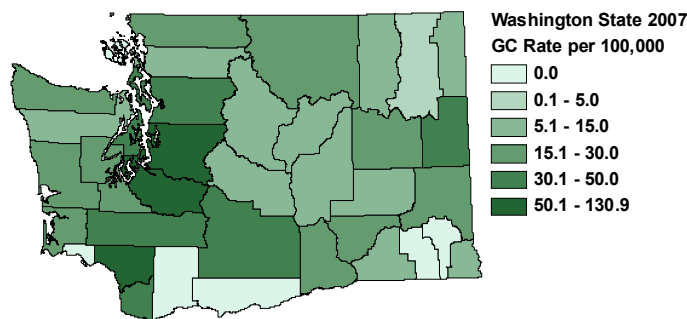


Figure 6 - Gonorrhea Incidence Rates by County, Washington State 2007

While chlamydia and gonorrhea cases were reported from a majority of counties in Washington State in 2007, gonorrhea incidence is concentrated in urban settings. Despite overall decreases, gonorrhea incidence has increased in cities in eastern Washington.

Chlamydia continues to be more broadly dispersed than gonorrhea, with many rural counties experiencing rates similar to more densely populated urban areas.

## Syphilis

Syphilis is caused by infection with *Treponema pallidum*, a spiral-shaped, slender and highly mobile spirochete bacteria. Syphilis infection occurs in four distinct stages: primary, secondary, early latent, and late latent. All four stages of syphilis were reported in 2007.

- Primary & Secondary Syphilis rates decreased slightly between 2006 and 2007
- Syphilis among MSM in King County accounts for a majority of cases reported in 2007

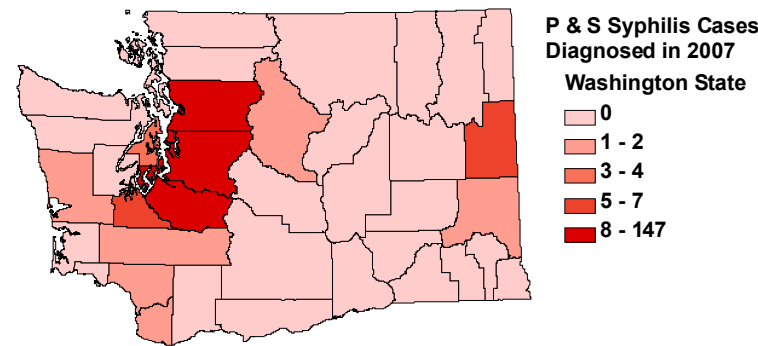


Figure 7 - Early Syphilis Cases Reported by County, Washington State, 2007

Primary and secondary infection are the infectious stages where can be spread. Of 167 primary and secondary cases diagnosed in 2007, 120 (72%) were reported from King County. There continues to be a large disparity between male and female rates (Figure 8). This pattern of case incidence has been observed since 1997 and is consistent with an epidemic concentrated among MSM in primarily urban settings. Two cases of congenital syphilis were diagnosed in 2007.

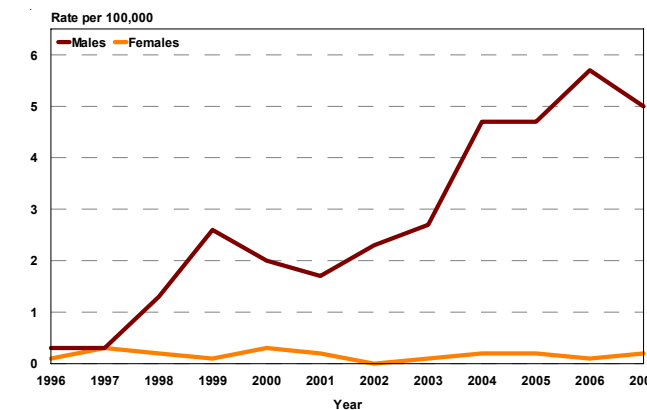


Figure 8 - Primary & Secondary Syphilis Incidence Rate by Gender, Washington State 1996 - 2007

## Other STDs

Washington State requires reporting of initial infection of genital herpes. Only the initial infection is tracked in the state surveillance system. In 2007, 1,925 cases of genital herpes initial infection were reported for an incidence rate of 30 cases per 100,000 persons. One case of Lymphogranuloma Venereum was reported in 2007; no cases of Granuloma Inguinale or Chancroid were reported.

## Human Papillomavirus (HPV)

Recent findings from the National Health and Nutrition Examination Survey (Forhan, S, et. al., 2008) indicate that as many as 18% of all young women aged 14 - 19 year are infected with at least one of the most common types of HPV. Among those reporting sexual activity, observed prevalence was 29.5%. The CDC recommends that all females 9 to 26 years of age be vaccinated for HPV. In Washington State, the Vaccines for Children Program provides the three-shot vaccine free of charge for young women under 19 years of age.

## Comprehensive Sex Education

In 2007, the Washington State legislature passed Senate Bill 5297 requiring all schools teaching sex education to have approved curricula which include medically and scientifically accurate sexual health education information. The Washington State Department of Health STD Services Section, in collaboration with the Office of the Superintendent of Public Instruction, is working with school districts statewide to assure the accuracy of curricula offered to our students.

## Infertility Prevention

Washington State's Infertility Prevention Project, a collaborative of the Centers for Disease Control and Prevention and the Office of Population Affairs, offers chlamydia and gonorrhea screening services to women in reproductive health and other clinical settings. Providers are reminded that all sexually active young women and men should be tested for chlamydial infection at least annually or more frequently if their sexual history indicates.