In Washington (WA), sexually transmitted diseases (STDs) are the most commonly reported of all communicable diseases. STDs comprised 74% of notifiable diseases or conditions reported to the Washington State Department of Health in 2018.

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.

Reported cases of chlamydia, gonorrhea, and syphilis all increased from 2017 to 2018. Table 1 shows the number of STD cases reported in WA in 2017 and 2018.

Table 1: Reported STD Cases by Disease, Washington State, 2017-2018

<table>
<thead>
<tr>
<th>Disease</th>
<th>2017</th>
<th>2018</th>
<th>Trend</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chlamydia (CT)</td>
<td>32,544</td>
<td>34,754</td>
<td>↑</td>
</tr>
<tr>
<td>Gonorrhea (GC)</td>
<td>10,034</td>
<td>11,215</td>
<td>↑</td>
</tr>
<tr>
<td>Primary &amp; Secondary Syphilis</td>
<td>676</td>
<td>809</td>
<td>↑</td>
</tr>
<tr>
<td>Early non-primary non-secondary Syphilis</td>
<td>599</td>
<td>601</td>
<td>↑</td>
</tr>
<tr>
<td>Unknown Duration or Late Syphilis</td>
<td>491</td>
<td>509</td>
<td>↑</td>
</tr>
<tr>
<td>Congenital Syphilis</td>
<td>6</td>
<td>6</td>
<td>-</td>
</tr>
<tr>
<td>Genital Herpes, adult initial infection</td>
<td>2,082</td>
<td>1,812</td>
<td>↓</td>
</tr>
<tr>
<td>Neonatal Herpes</td>
<td>5</td>
<td>3</td>
<td>↓</td>
</tr>
<tr>
<td>Lymphogranuloma Venereum</td>
<td>1</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Chancroid</td>
<td>0</td>
<td>0</td>
<td>-</td>
</tr>
<tr>
<td>Granuloma Inguinale</td>
<td>0</td>
<td>0</td>
<td>-</td>
</tr>
</tbody>
</table>

Table notes: Case counts in this table reflect reported cases only. Trends may reflect changes in reporting in addition to true changes in incidence.

Chlamydia

Infection with the bacterium *Chlamydia trachomatis* (CT) is the most frequently reported STD statewide and nationally. While many people with CT experience minor discomfort and do not seek testing or treatment, untreated CT in women can lead to pelvic inflammatory disease (PID), infertility, ectopic pregnancy, and other reproductive health issues. Untreated CT may increase the likelihood of contracting or transmitting HIV and other STDs.

The number of chlamydia cases and incidence rate estimates among persons in WA State from 1999 to 2018 are presented in Figure 1. Washington reported 467.9 cases of CT per 100,000 persons in 2018, a 47% increase since 2010. Nationally, 539.9 cases of chlamydia were reported per 100,000 people in 2018.

All Washington counties reported one or more chlamydial infections in 2018 (Figure 2).

Statewide CT rates for 2018 are presented by gender and age group in Figure 3. Women 15 to 24 years of age have the highest rates of chlamydia, partially due to better detection and screening of CT among women of childbearing age. Transgender persons represented less than 1% of all chlamydia cases in 2018.

Rates by gender and race/ethnicity are presented in Figure 4. In Washington, rates of CT were lowest among white non-Hispanic persons and highest among black persons, specifically non-Hispanic black females. The overall rates of chlamydia for Hispanic and black non-Hispanic persons were higher in Washington than nationally.
• Reported CT cases increased by 7% in 2018.
• Chlamydia rates were highest among women, specifically those 15-24 years of age and black non-Hispanic women.
• 52% of CT cases reported in 2018 were under the age of 24 years.

Gonorrhea

Infection with the bacterium Neisseria gonorrhoeae (GC) is the second most commonly reported STD in the United States. Symptoms include abnormal genital discharge and painful urination. Some people do not notice any symptoms. Untreated GC may lead to PID or infertility, and the infection may spread to the joints or other parts of the body. Untreated GC may also increase the likelihood of contracting or transmitting HIV and other STDs.

Statewide GC rates from 1999-2018 are presented in Figure 5. The rate of gonorrhea in Washington has increased every year since 2012. In 2018, there were 151.0 cases of gonorrhea per 100,000 people in Washington, a 354% increase since 2010. In the United States, there were 179.1 cases of gonorrhea per 100,000 people in 2018.\[1\]

Gonorrhea rates for 2018 are mapped by county in Figure 6. All Washington counties reported one or more gonorrhea cases in 2018.

Gonorrhea cases by age and sex are shown in Figure 7. Rates were highest among males 25-34 years of age. Males have a higher rate of gonorrhea than females in most age groups, partly due to high rates among men who have sex with men (MSM). About 4% of men in Washington are MSM,\[1,2\] yet MSM represented 47% of male gonorrhea cases in 2018. Transgender persons represented less than 1% of all gonorrhea cases in 2018.

Rates by gender and race/ethnicity are presented in Figure 8. Gonorrhea rates in Washington were highest among black non-Hispanic males and lowest for white non-Hispanic females in 2018. Rates for white non-Hispanic, black non-Hispanic, and Hispanic persons were higher in Washington than nationally.\[1,2\]
Syphilis is caused by the bacterium *Treponema pallidum*. Syphilis progresses through stages of primary, secondary, early non-primary non-secondary, and unknown duration or late. Primary and secondary (P&S) syphilis are the first stages of the disease during which persons are most contagious. P&S syphilis symptoms include painless lesions, rashes, and flu-like symptoms. Untreated syphilis can cause internal organ damage, dementia, hearing loss, and blindness. Syphilis may increase the likelihood of contracting or transmitting HIV and other STDs.

Annual rates of P&S syphilis from 1999-2018 are shown in Figure 9. There were 10.9 cases of P&S syphilis reported per 100,000 people in WA State, a 279% increase since 2010. Washington’s 2018 P&S syphilis rate is slightly higher than the 2018 national P&S rate of 10.8 cases per 100,000 people. 

In 2018, 63% of P&S syphilis cases lived in Snohomish, King, and Pierce Counties (Figure 10). Spokane county residents accounted for 13% of cases. 

Men had higher rates of P&S syphilis than women in 2018, with the highest rates by age and gender being among 25-34-year-old males (Figure 11). MSM represented 75% of male P&S syphilis cases. Less than 1% of all cases were among transgender persons.

Figure 7: Gonorrhea Rates by Gender and Age Group, Washington State, 2018

Figure 8: Gonorrhea Rates by Gender and Race and Ethnicity Group, Washington State, 2018

Figure 9: Reported Primary and Secondary Syphilis Cases and Rates, WA State, 1999-2018

Figure 10: Primary and Secondary Syphilis Cases Reported by County, WA State, 2018

Figure 11: Primary and Secondary Syphilis Rates by Gender and Age Group, Washington State, 2018

Figure 12 shows rates by race and ethnicity group
and gender. Both overall and among males, rates of P&S syphilis were highest for black non-Hispanic persons and lowest for white non-Hispanic persons in 2018. There were not enough female syphilis cases to reliably compare rates by race/ethnicity. The rate of P&S syphilis among white persons was higher in Washington than nationally.\(^i\)\(^,\)\(^ii\)

**Figure 12: P&S Syphilis Rates by Gender and Race and Ethnicity Group, WA State, 2018**

- Reported P&S syphilis case counts increased 18% from 2017 to 2018.
- 65% of P&S syphilis cases were MSM.
- 20% of cases were people living with HIV.

**Special Focus: Meth and Syphilis**

The recent rise in P&S syphilis cases is more marked among women and among men who have sex with women (MSW) when compared to MSM.
- From 2014 to 2018, P&S syphilis case counts increased by 185% [284 to 526] among MSM.
- Over the same period, cases increased by 488% [58 to 283] among women and MSW; this is likely a factor in the increase of congenital syphilis, from 2 cases in 2014 to 6 cases in 2018.
- Among women and MSW outside of the Puget Sound Metropolitan Area (PSMA; King, Pierce, and Snohomish counties), cases increased by 642% from 2014 to 2018, as shown in **Figure 13**.

**Figure 13: Primary and Secondary Syphilis Case Counts Among Women and MSW by PSMA Residency Status, Washington State, 2014-2018.**

Methamphetamine (meth) use has been identified as a possible mechanism influencing syphilis transmission among women and MSW.
- Meth was the most commonly reported drug used in the past year for all P&S syphilis cases, at 18% of interviewed cases in 2018.
- Of interviewed women and MSW with P&S syphilis outside PSMA, 37% reported meth use.

**Call to Action:** Health care providers should screen women and MSW for syphilis, particularly among those reporting meth use. All pregnant people should likewise be screened for syphilis in the first and third trimesters. **Detection and treatment of syphilis in heterosexual people helps to prevent congenital cases in infants.** Drug treatment programs should integrate infectious disease screening into their services, and persons who use meth and other drugs should seek regular syphilis testing.

**Notes**

\(^i\) National estimates of STD rates by year: https://www.cdc.gov/std/stats18/tables.htm.
\(^ii\) ‘Other races’ includes persons of non-Hispanic ethnicity reporting a race other than white or black, including multiple races and missing race. Other race, non-Hispanic estimates cannot be directly compared to national estimates.

\(^iii\) MSM population estimates: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4873305/.
\(^\text{iii}i\) Cases with an interview were not demographically the same as cases without an interview, so they may not be representative of all individuals with P&S syphilis.

**For More Information**

Washington State Department of Health: http://www.doh.wa.gov/YouandYourFamily/IlnessSandDisease/SexuallyTransmittedDisease

U.S. Centers for Disease Control & Prevention: www.cdc.gov/std/

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