

# Sexually Transmitted Disease Surveillance 2020



## Sexually Transmitted Disease Surveillance 2020

#### **New Data Show that STDs Remain Far Too High**

Even in the face of a pandemic, 2.4 million cases of chlamydia, gonorrhea, and syphilis were reported.

Congenital Syphilis	Syphilis	Gonorrhea	Chlamydia
2,148 cases; up 235% from 2016	133,945 cases; up 52% from 2016	677,769 cases; up 45% from 2016	1.6 million cases; down 1.2% from 2016

Sexually Transmitted Disease Surveillance, 2020 serves as a reminder that STDs remain a significant public health concern, even in the face of a pandemic. In 2020, COVID-19 significantly affected STD surveillance and prevention efforts. This report reflects the realities of a strained public health infrastructure, while simultaneously providing the most current data on reported cases of STDs in the United States. Trends presented in this report should be interpreted cautiously.

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#### Announcement

#### Dear Partners in Prevention,

Today, during the third annual <u>STD Awareness Week</u>, CDC released *Sexually Transmitted Disease (STD) Surveillance, 2020*. The annual report shows STDs continued to increase during the first year of the coronavirus disease 2019 (COVID-19) pandemic.

In 2020, the COVID-19 pandemic abruptly interrupted the world. <u>STD program resources were not spared</u>, shifting to help control the disease. Many jurisdictions reported critical effects on staffing and testing and treatment supplies, straining an already <u>crumbling public health infrastructure</u>. COVID-19 significantly affected STD surveillance and prevention efforts, and these challenges are reflected in this new report.

#### What we know about reported STDs in 2020

Even in the face of a pandemic, 2.4 million cases of STDs were reported in the U.S. in 2020. The syphilis epidemic continued to surge, driving another year of increases in congenital syphilis. Jurisdictions reported more than 2,100 cases of congenital syphilis, an increase of almost 15 percent since 2019 and a 235 percent increase since 2016. Gonorrhea and primary and secondary (P&S) syphilis cases increased by 10 percent and 7 percent from 2019 to 2020, while reported cases of chlamydia declined 13 percent. However, chlamydial infections are usually asymptomatic and identified through screening. Therefore, this decline is likely due to decreases in STD screening and underdiagnosis during the pandemic, rather than a reduction in new infections. The 2020 STD data also show that some racial and ethnic minority groups, gay and bisexual men, and our nation's youth continue to experience high rates of STDs.

"The COVID-19 pandemic increased awareness of a reality we've long known about STDs. Social and economic factors – such as poverty and health insurance status – create barriers, increase health risks, and often result in worse health outcomes for some people. If we are to make lasting progress against STDs in this country, we have to understand the systems that create inequities and work with partners to change them. No one can be left behind."

Leandro Mena, MD, MPH, Director,
 CDC's Division of STD Prevention

#### Congenital syphilis continues to be a consequence of the U.S. syphilis epidemic

Focused attention is needed to combat the surge in congenital syphilis, which has dramatically increased in the past five years. In 2020, there were 149 stillbirths and infant deaths, reflecting a startling 210 percent increase since 2016. Data show that 47 states reported at least one case of congenital syphilis is 2020, compared to only 24 states in 2011. The most common missed congenital syphilis opportunity occurred when mothers did not receive timely prenatal care or syphilis testing (41 percent). Fueling this national trend are parallel increases in P&S syphilis (i.e., most infectious phases) among women aged 15-44 years by more than 156 percent from 2016 to 2020. Early 2021 data indicate P&S syphilis and congenital syphilis continued to increase, with congenital syphilis cases already surpassing 2020 counts.

#### COVID-19 affected STD surveillance

Although 2020 data ultimately point to continued STD increases in the U.S., during the early months of the year – at the start of the COVID-19 pandemic – nationally reported cases of STDs drastically decreased.

Several factors likely contributed to the initial decline in all reported STD cases, as well as the overall drop in reported cases of chlamydia seen at year's end:

 Reduced screening at healthcare clinics, facility closures, and CDC guidance to prioritize diagnosis and treatment of syphilis and gonorrhea cases;

- Limited resources, including shortages of STD test kits and laboratory supplies, and health department staff shifting to COVID-19 work (affecting STD contact tracing and reporting);
- Enforced stay-at-home orders that may have delayed routine healthcare visits;
- Increased unemployment resulting in a lapse of health insurance coverage for many; and
- Increased use of telemedicine practices to treat symptomatic patients without a confirmed laboratory test result.

COVID-19 continues to impact our healthcare system and STD program resources. It is unclear how the pandemic will affect future STD surveillance data. However, there is no reason to believe we will be back to "business as usual" with STD case reporting anytime soon.

STDs are not patiently waiting for the pandemic to end, and neither can we

There is much to be done to rebuild, innovate, and expand STD prevention in the U.S. to close gaps and create lasting change. We must prioritize and focus our efforts to regain lost ground to control the spread of STDs. Despite many challenges, the field remains dedicated to the work by offering innovative solutions to meet people where they are.

While these times may be unprecedented, with the help of our partners and the STI field, we will continue to rise to the challenge – and protect the nation's health.

Thank you for your continued support,

Leandro Mena, MD, MPH

Director, Division of STD Prevention National Center for HIV, Viral Hepatitis, STD, and TB Prevention US Centers for Disease Control and Prevention

Stay in touch with the Division of STD Prevention by following @CDCSTD on Twitter and CDC STD on Facebook.

#### Impact of COVID-19 on STDs

Sexually Transmitted Disease Surveillance, 2020 serves as a stark reminder that STDs continue to persist as a significant public health concern, even in the face of a pandemic. The new report reflects the realities of a strained public health infrastructure, while simultaneously providing the most current data on reported cases of STDs in the United States. However, the picture remains very unclear. Coronavirus disease 2019 (COVID-19) significantly affected trends in STDs during 2020 – resulting in likely underreporting of infections and possibly increased STD transmission. It's likely that such effects will persist for several more years and we may never know the full impact of the pandemic on STDs. What is clear, however, is the state of STDs did not improve in the United States. Prevention and control efforts remain as important as ever.

Below we describe the effect of COVID-19 on STD surveillance activities and data collected in 2020 in more detail and ask that you consider this information as you explore the rest of the report.

#### Impact on STD Case Surveillance

Before preventive measures to reduce the spread of COVID-19 were put in place in the United States, the weekly number of diagnosed and reported chlamydia, gonorrhea, and primary and secondary (P&S) syphilis case counts were all higher in 2020 compared to 2019. Unsurprisingly, the number of reported STDs rapidly fell during initial shelter-in-place orders in March and April 2020.

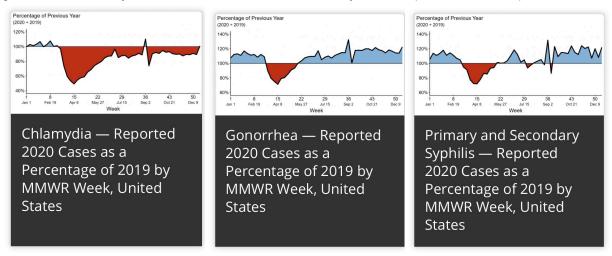
Factors contributing to the initial decrease in STD case counts included:

- Reduced screening: Many healthcare clinics either closed entirely or limited in-person visits to
  symptomatic patients only. STDs often do not show symptoms, and screening is necessary for
  timely diagnosis and treatment. Additionally, decreased routine healthcare visits, increased
  unemployment and loss of health insurance, as well as STD test kit and laboratory supply
  shortages, may have reduced screening during the pandemic.
- Limited resources: STD program resources shifted to help control the spread of COVID-19.
   Many jurisdictions redirected staff from routine STD surveillance and control efforts to COVID-19 activities. The observed drop in reported STD cases may reflect challenges in maintaining key STD activities, including case investigation, partner services, and case reporting.
- Social distancing measures: Because COVID-19 can spread during sexual contact, social
  distancing measures (e.g., shelter-in-place orders) were used to mitigate disease. These
  measures may have influenced sexual behaviors by limiting sexual activity or the number of new
  sexual partners, thus reducing the spread of STDs. The fear of being exposed to COVID-19 and
  limited access to public transportation also may have affected sexual behaviors and led to people
  with STD symptoms delaying care.

Although initial decreases were observed across STDs, deficits were more pronounced for chlamydia. Trends later in the year showed continued decreases in chlamydia cases, while reported cases of gonorrhea and P&S syphilis increased. These data reflect the complicated effect of COVID-19 on STD trends.

#### Reductions in Chlamydia Diagnoses

By the end of 2020, the number of reported cases of chlamydia decreased by nearly 13%. However, this decrease is likely due to changes in STD screening, not a reduction in new infections. Most people with chlamydia usually have no signs or symptoms and most cases are identified through screening at routine preventive care visits. Therefore, it is likely chlamydia was disproportionately affected by reduced screening during the pandemic, resulting in undiagnosed infections. Additionally, in response to reduced staffing resources, many health departments prioritized the diagnosis and treatment of syphilis and gonorrhea. This likely further reduced the number of chlamydia cases processed and reported.



#### Increases in Gonorrhea and Syphilis, including Congenital Syphilis

Although case counts for gonorrhea and P&S syphilis dropped below 2019 levels during March and April 2020, cases of both STDs surged the rest of the year. By the end of 2020, reported cases of gonorrhea increased 10% and reported cases of P&S syphilis increased 7% from 2019 to 2020.

Increased case counts seen in late-2020 may reflect an increase in service utilization as health care clinics re-opened. It is also possible more people sought care when available for P&S syphilis, since symptoms can be visible, and gonorrhea symptoms can be painful, particularly in men. Furthermore, clinics may have continued targeting services to patients most likely to be infected, increasing the number of cases identified.

Increases in case reporting could also reflect higher disease transmission during 2020. For example, due to reduced access to care, those with an STD may have had their infections longer, providing more opportunities to transmit infection to their sexual partners. Additionally, following the initial shelter-in-place orders, sexual behaviors may have changed, including frequency of new sexual partners, leading to spread in sexual networks.

Concerningly, rates of P&S syphilis increased 24% among reproductive-aged women from 2019 to 2020, resulting in increases in congenital syphilis. In 2020, there were 2,148 congenital syphilis cases, an increase of 15% since 2019. Increases in congenital syphilis, including increases in congenital syphilis-related deaths, are a stark reminder of the need to prevent the worst outcomes related to STDs.

#### Impact on Enhanced and Sentinel STD Surveillance

The COVID-19 pandemic also affected enhanced and sentinel surveillance activities in 2020.

#### STD Surveillance Network (SSuN)

Jurisdictions participating in SSuN conduct both:

- sentinel surveillance in STD clinics to monitor trends in patient demographics, provision of STDrelated health services, and the proportion of patients testing positive for an STD; and
- enhanced gonorrhea surveillance by completing patient and provider follow-up on a representative sample of reported cases.

COVID-19 significantly disrupted in-person STD health services in SSuN jurisdictions (e.g., clinic closures, prioritizing symptomatic patients), reducing the number of patient visits. Given these changes in service provision, the proportion of clinic patients testing positive for STDs in 2020 is higher than in previous years which may reflect targeted testing among patients most likely to have an infection.

Enhanced surveillance helps describe the epidemiology of gonorrhea, including trends by sex and sex of sex partners and in the proportion of cases receiving appropriate treatment. During the pandemic, several jurisdictions either suspended enhanced investigations or completed fewer enhanced investigations due to staffing resources. As a result, some jurisdictions did not have sufficient SSuN data to include in this report.

#### **Gonococcal Isolate Surveillance Project (GISP)**

Jurisdictions participating in GISP conduct sentinel surveillance for antibiotic resistant gonorrhea by collecting specimens from symptomatic men diagnosed with urogenital gonorrhea at STD clinics. Regional laboratories conduct antimicrobial susceptibility testing, and results are used to inform treatment guidelines. Like STD clinics participating in SSuN, many clinics collecting Neisseria gonorrhoeae isolates as part of GISP experienced temporary closures or prioritized other clinic services. Although some clinics were able to conduct GISP activities throughout 2020, many clinics were only able to collect isolates for part of the year, with an average clinic participation of 9 months. As a result, there was a 32% decrease in the number of gonococcal isolates collected in GISP compared to 2019. Therefore, the GISP data presented in this report should be viewed with some caution. Although the number of isolates was reduced in 2020, GISP data presented in this report continue to reflect similar trends demonstrated in prior years.

#### Conclusion

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting STD surveillance data collected during 2020. Trends presented in *Sexually Transmitted Disease Surveillance, 2020* should be interpreted cautiously. As the pandemic continues, the ability to obtain an accurate picture of the STD epidemic in the U.S. may be impaired beyond 2020. Additionally, the impact of delayed STD diagnoses and treatment on adverse outcomes, such as pelvic inflammatory disease and infertility, remain to be seen. However, one thing is clear – STD cases are still too high. Adequate public health resources are needed now more than ever. We must prioritize on-the ground support for STD prevention and surveillance programs through disease investigation, contact tracing, training, partnerships, and community engagement.

#### Sources

This page summarizes a number of publications and communications throughout the pandemic. You can find more information in the following resources:

- Pagaoa et al. Trends in Nationally Notifiable Sexually Transmitted Disease Case Reports During the US COVID-19 Pandemic, January to December 2020. Sex Transm Dis. 2021 Oct; 48(10): 798–804.
  - o Press release: https://www.cdc.gov/nchhstp/newsroom/2021/2020-std-trend-report.html
  - o Full text: <a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8459909/">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8459909/</a>

- Wright et al. Impact of the COVID-19 Pandemic on Centers for Disease Control and Prevention-Funded STD Programs. Sex Transm Dis. 2021 Oct 12.
  - Summary of key findings: <a href="https://www.cdc.gov/std/program/327850-">https://www.cdc.gov/std/program/327850-</a>
     A FS COVID19 STD Impact 508 FINAL.pdf
  - O Abstract: <a href="https://pubmed.ncbi.nlm.nih.gov/34654769/">https://pubmed.ncbi.nlm.nih.gov/34654769/</a>
- Dear Colleague Letters from CDC's Division of STD Prevention
  - o Providing effective care and prevention when facility-based services and in-person patient-clinician contact is limited: <a href="https://www.cdc.gov/std/dstdp/DCL-STDTreatment-COVID19-04062020.pdf">https://www.cdc.gov/std/dstdp/DCL-STDTreatment-COVID19-04062020.pdf</a>
  - o Update: STD treatment options: <a href="https://www.cdc.gov/std/dstdp/dcl-clarification-may2020.pdf">https://www.cdc.gov/std/dstdp/dcl-clarification-may2020.pdf</a>
  - Shortage of STI Diagnostic Test Kits and Laboratory
     Supplies: <a href="https://www.cdc.gov/std/general/DCL-Diagnostic-Test-Shortage.pdf">https://www.cdc.gov/std/general/DCL-Diagnostic-Test-Shortage.pdf</a>

#### Additional COVID-19 information is available here:

- COVID-19: <a href="https://www.cdc.gov/coronavirus/2019-ncov/index.html">https://www.cdc.gov/coronavirus/2019-ncov/index.html</a>
- COVID Data Tracker: https://covid.cdc.gov/covid-data-tracker/#datatracker-home

#### National Overview of STDs, 2020

As noted in the 2021 National Academies of Sciences Engineering and Medicine report, <u>Sexually Transmitted Infections</u>: <u>Adopting a Sexual Health Paradigm</u>, surveillance is key to understanding the magnitude of sexually transmitted infections in the United States and in subpopulations that are most affected. The 2020 STD Surveillance Report provides trends in STDs to describe current epidemiology of nationally notifiable STDs and inform prevention and control strategies. This overview summarizes national surveillance data for 2020 on the three notifiable diseases for which there are federally funded control programs: chlamydia, gonorrhea, and syphilis.

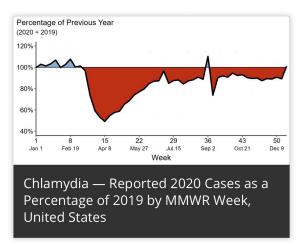
The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting STD surveillance data collected during 2020 and trends presented in *Sexually Transmitted Disease Surveillance*, 2020 should be interpreted cautiously. For more information, please see Impact of COVID-19 on STDs.

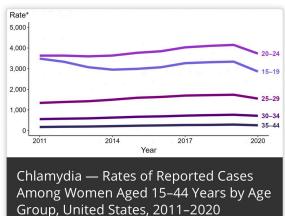
#### Chlamydia

In 2020, a total of 1,579,885 cases of *Chlamydia trachomatis* infection were reported to the CDC, making it the most common notifiable sexually transmitted infection in the United States for that year. This case count corresponds to a rate of 481.3 cases per 100,000 population, a decrease of 13% compared with the rate in 2019. During 2019–2020, rates of reported chlamydia decreased among both males and females, in all regions of the United States, and, except for rates among non-Hispanic persons of multiple races, among all racial/Hispanic ethnicity groups.

Decreases in rates of reported chlamydia in 2020 are unlikely due to a reduction in new infections. As chlamydial infections are usually asymptomatic, case rates are heavily influenced by screening coverage. During the COVID-19 pandemic, many health care clinics limited in-person visits to patients with symptoms or closed entirely, and it is likely that preventive health care visits where STD screening usually happens, such as annual reproductive health visits for young women, decreased. During the initial shelter-in-place orders in March and April of 2020, the number of chlamydia cases decreased substantially when compared to the number of cases reported in 2019 and the deficit persisted throughout the year.

Rates of reported chlamydia are highest among adolescents and young adults. In 2020, almost two-thirds (61%) of all reported chlamydia cases were among persons aged 15–24 years. Decreases in rates of diagnosed and reported chlamydia during 2020 were most noticeable among females aged 15–24 years, one of the populations targeted for chlamydia screening. Although still high, rates of reported chlamydia decreased 15% among 15–19-year-old females and decreased 10% among 20–24-year-old females during 2019–2020.



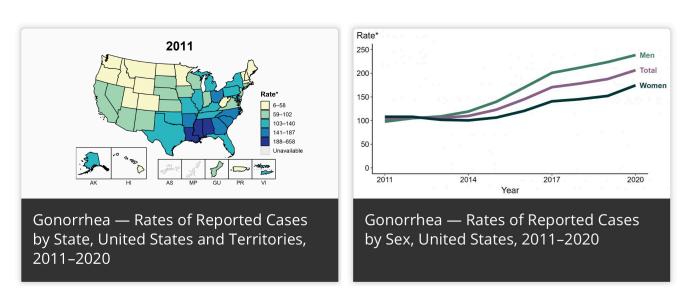


#### Gonorrhea

In 2020, a total of 677,769 cases of gonorrhea were reported to the CDC, making it the second most common notifiable sexually transmitted infection in the United States for that year. Rates of reported gonorrhea have increased 111% since the historic low in 2009. During 2019–2020, the overall rate of reported gonorrhea increased 5.7%. During 2019–2020, rates increased among both males and females and in three regions of the United States (Midwest, Northeast, and South). Rates of reported gonorrhea increased in most racial/Hispanic ethnicity groups, with the greatest increases observed among non-Hispanic Black/African American persons and non-Hispanic persons of multiple races.

During the initial shelter-in-place orders in March and April of 2020, the weekly number of cases of reported gonorrhea was lower compared to counts in 2019; however, later in the year, the number of reported gonorrhea cases increased. Reasons for the increase are unclear but may have resulted from increased service utilization as health care clinics re-opened or increased transmission later in the year. During 2019–2020, rates of reported gonorrhea increased in 36 states and two US territories.

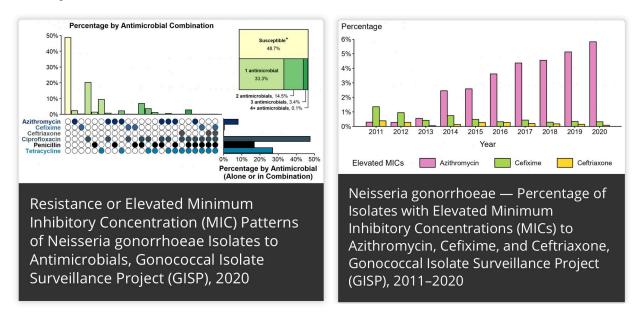
Rates of reported gonorrhea have increased since 2009 and since 2013, rates have been higher among men compared to women, likely reflecting cases identified in both men who have sex with men (MSM) and men who have sex with women only. Although there are limited data available on sexual behaviors of persons reported with gonorrhea at the national level, enhanced data from jurisdictions participating in a sentinel surveillance system, the STD Surveillance Network (SSuN), suggest that about a third of gonorrhea cases occurred among MSM in 2020. During 2019–2020, rates increased among both men and women, but increases were greater among women (15%) compared to men (6.6%) which may reflect differences in diagnosing and reporting of cases among MSM in 2020. As extragenital infections are often asymptomatic and are likely identified by screening, diagnoses among MSM may have been reduced in 2020 due to the effect of COVID-19 on screening coverage.



#### Antibiotic Resistant Gonorrhea

Gonorrhea can quickly develop resistance to antibiotics used to treat infection, and in 2020, about half of all infections were estimated to be resistant to at least one antibiotic. Since 2010, almost all circulating strains in the United States, based on gonococcal isolates collected through sentinel surveillance in the Gonococcal Isolate Surveillance Project (GISP), remain susceptible to ceftriaxone, the primary treatment for gonorrhea; only 0.1% of isolates displayed elevated ceftriaxone minimum inhibitory concentrations (MICs) in 2020. In 2020, 5.8% of isolates had elevated azithromycin MICs; the proportion was higher among MSM compared to men who have sex with women only (9.2% vs 4.3%). Continued monitoring of susceptibility patterns to antibiotics is critical to inform gonorrhea treatment guidelines.

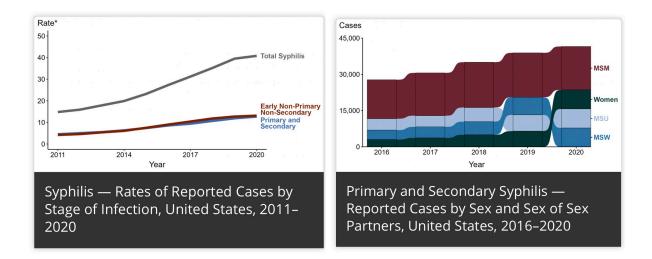
Despite significant disruptions in access to health care in 2020, most reported gonorrhea cases received the recommended treatment in jurisdictions participating in a sentinel surveillance system, the STD Surveillance Network (SSuN). In December of 2020, CDC released updated gonorrhea treatment guidelines, recommending a single 500 mg intramuscular dose of ceftriaxone for uncomplicated gonorrhea.<sup>2</sup> Continued surveillance of treatment practices is a critical public health priority to help assure that patients receive the highest quality of care, and to address the emerging threat of antimicrobial-resistant gonorrhea.



#### Syphilis

In 2020, 133,945 cases of all stages of syphilis were reported, including 41,655 cases of primary and secondary (P&S) syphilis, the most infectious stages of the disease. Since reaching a historic low in 2000 and 2001, the rate of P&S syphilis has increased almost every year, increasing 6.8% during 2019–2020. Rates increased among both males and females and in three regions of the United States (Midwest, Northeast, and South). Rates of P&S syphilis increased in most racial/Hispanic ethnicity groups, with greatest increases among non-Hispanic American Indian/Alaska Native persons and non-Hispanic persons of multiple races.

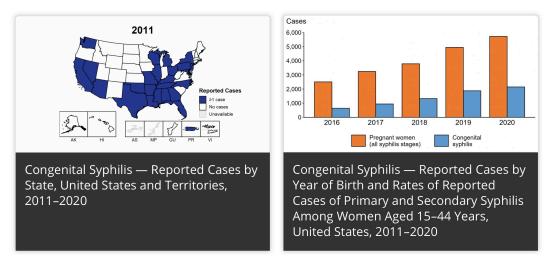
Since 2000, rates of P&S syphilis have increased among men, likely attributable to increases in cases among MSM; however, increases among MSM have slowed in recent years and during 2019-2020, the number of cases of P&S syphilis among MSM decreased 2.2%. Still, MSM are disproportionately impacted, accounting for a majority (53%) of all male P&S syphilis cases in 2020 and in states with complete information on sex of sex partners for male cases, rates of P&S syphilis among MSM increased in 18 states during 2019–2020. Although rates of P&S syphilis are lower among women, rates have increased substantially in recent years, increasing 21% during 2019–2020 and 147% during 2016–2020, suggesting that the heterosexual syphilis epidemic continues to rapidly increase in the United States.



#### Congenital Syphilis

The 2013 rate of congenital syphilis (9.2 cases per 100,000 live births) marked the first increase in congenital syphilis since 2008. Since 2013, the rate of congenital syphilis has increased each year. In 2020, 2,148 cases of congenital syphilis were reported, including 149 congenital syphilis-related stillbirths and infant deaths. Although the majority of congenital syphilis cases were reported from a few states, 49 jurisdictions (47 states, the District of Columbia, and one US territory) reported at least one case of congenital syphilis in 2020, up from just 26 jurisdictions in 2011.

The national congenital syphilis rate of 57.3 cases per 100,000 live births in 2020 represents a 15% increase relative to 2019 and 254% increase relative to 2016. These increases mirror increases in syphilis among reproductive aged women. During 2019–2020 the rate of P&S syphilis increased 24% among women aged 15–44 years. In 2020, there were 5,726 cases of syphilis (all stages) diagnosed among pregnant women, an increase of 16% from 2019.



#### Disparities in STDs

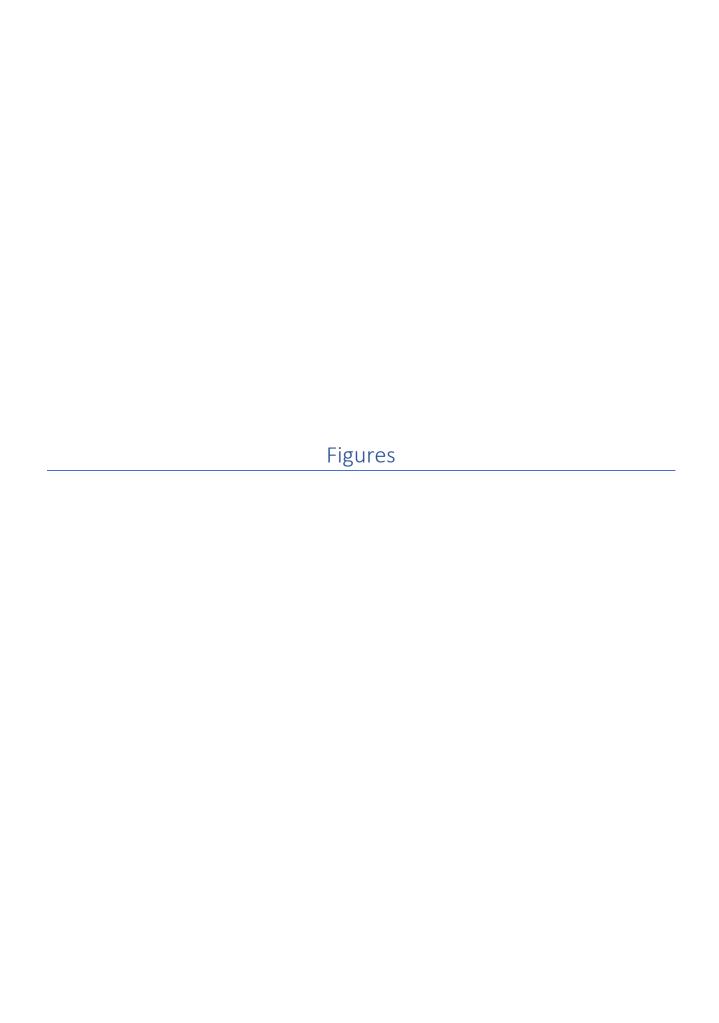
As in past years, there were significant disparities in rates of reported STDs. In 2020, over half (53%) of reported cases of STDs were among adolescents and young adults aged 15–24 years. Disparities continue to persist in rates of reported STDs among some racial minority or Hispanic groups when compared with rates among non-Hispanic White persons. In 2020, 32% of all cases of chlamydia, gonorrhea, and P&S syphilis were among non-Hispanic Black persons, even though they made up only

approximately 12% of the US population.<sup>3</sup> MSM are disproportionally impacted by STDs, including P&S syphilis and gonorrhea.

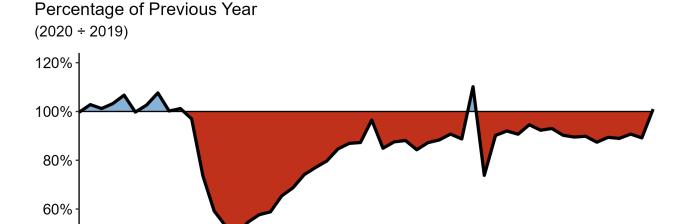
It is important to note that these disparities are unlikely explained by differences in sexual behavior and rather reflect differential access to quality sexual health care, as well as differences in sexual network characteristics. For example, in communities with higher prevalence of STDs, with each sexual encounter, people face a greater chance of encountering an infected partner than those in lower prevalence settings do, regardless of similar sexual behavior patterns. Acknowledging inequities in STD rates is a critical first step toward empowering affected groups and the public health community to collaborate in addressing systemic inequities in the burden of disease — with the ultimate goal of minimizing the health impacts of STDs on individuals and populations.

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- 3. U.S. Census. 2020 U.S. Population More Racially and Ethnically Diverse Than Measured in 2010. Available at: <a href="https://www.census.gov/library/stories/2021/08/2020-united-states-population-more-racially-ethnically-diverse-than-2010.html">https://www.census.gov/library/stories/2021/08/2020-united-states-population-more-racially-ethnically-diverse-than-2010.html</a>



# Chlamydia — Reported 2020 Cases as a Percentage of 2019 by *MMWR* Week, United States



**NOTE:** The *MMWR* week is the week of the epidemiologic year for which the case is assigned by the reporting local or state health department.

29

Jul 15

Week

36

Sep 2

43

Oct 21

50

Dec 9

22

May 27

Adapted from Pagaoa et al, Sexually Transmitted Diseases, 2021

15

Apr 8

8

Feb 19

#### Summary

40%

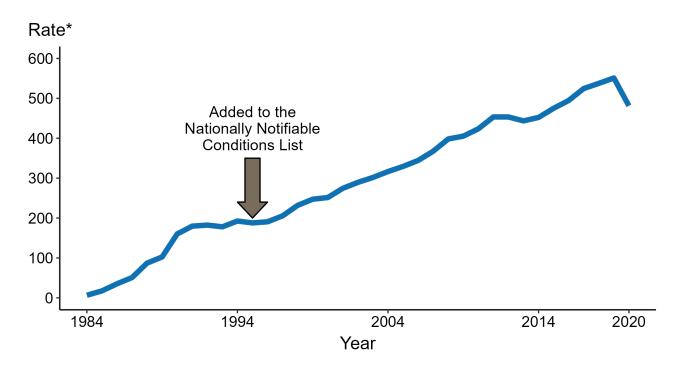
Jan 1

To quantify the COVID-19 pandemic's potential impact on reported STDs, the number of 2020 cases reported for a given MMWR week was compared to the number of cases reported in the same week in 2019. The comparison is expressed in terms of the percentage of the previous year's cases that were reported. Percentages lower than 100% denote when 2020 numbers were less than 2019 numbers, while percentages higher than 100% indicate when 2020 numbers were higher than 2019 numbers.

From MMWR weeks 1–11 (December 29, 2019–March 14, 2020), the 2020 cumulative total of reported chlamydia cases (386,187 cases) was higher than the 2019 cumulative total for the same number of weeks (378,482 cases). In week 12 (week of March 15–21, 2020; the first full week of the emergency declaration for the COVID-19 pandemic), the weekly number of 2020 chlamydia cases was 73.6% of 2019 cases. Following week 12, the difference between 2020 cases compared to 2019 cases increased, reaching its greatest point at week 15 (49.2%; week of April 5–11, 2020). The final number of reported cases of chlamydia for 2020 was 87.3% of the 2019 total (1,579,885 and 1,808,703 respectively).

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on chlamydia case reporting.



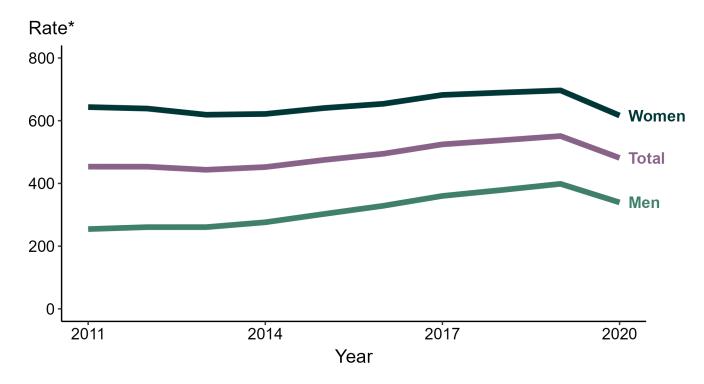
\* Per 100,000

Data collection for chlamydia began in 1984 and chlamydia was made a nationally notifiable condition in 1995; however, chlamydia was not reportable in all 50 states and the District of Columbia until 2000. Steady increases in chlamydia case rates beginning in 1996 are due, in part, to improved reporting, increased screening, and use of more sensitive diagnostic tests.

In 2020, 1,579,885 total cases of chlamydia were reported in the United States. During 2019 to 2020, the rate of reported chlamydia decreased 12.6% (from 551.0 to 481.3 per 100,000).

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on chlamydia case reporting.



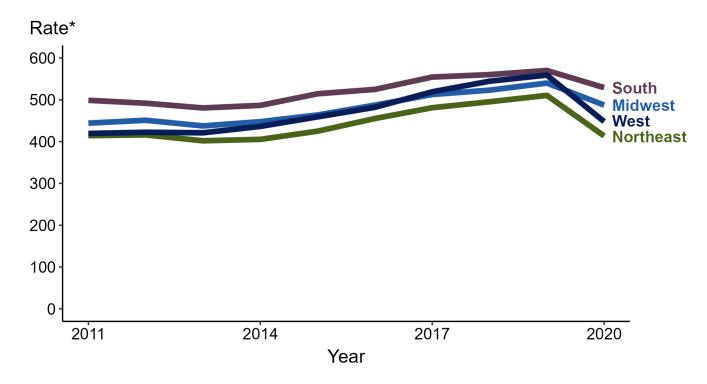
\* Per 100,000

During 2019 to 2020, the chlamydia rate among women decreased 11.5% (from 696.6 to 616.5 per 100,000) and the rate among men decreased 14.9% (from 398.6 to 339.4 per 100,000).

Over the last 5 years, the chlamydia rate among men increased 3.3% (from 328.7 to 339.4 per 100,000) and the rate among women decreased 5.7% (from 653.9 to 616.5 per 100,000). Over the last 10 years, the chlamydia rate among men increased 33.4% (from 254.4 to 339.4 per 100,000) and the rate among women decreased 4.2% (from 643.4 to 616.5 per 100,000).

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on chlamydia case reporting.



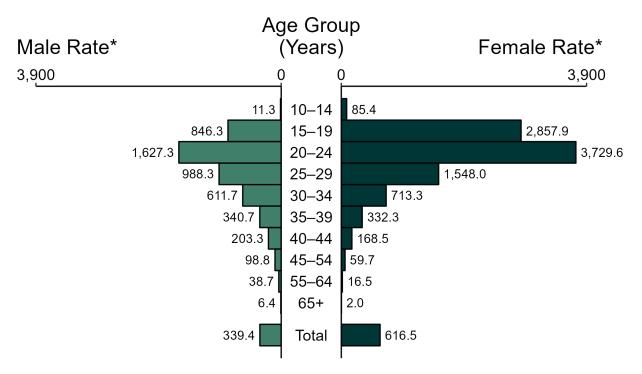
\* Per 100,000

In 2020, the South had the highest rate of reported chlamydia (529.1 cases per 100,000; 7.2% decrease from 2019), followed by the Midwest (487.4 cases per 100,000; 9.7% decrease from 2019), the West (447.9 cases per 100,000; 19.9% decrease from 2019), and the Northeast (413.5 cases per 100,000; 19.0% decrease from 2019).

The South had the greatest 5-year increase in rates of reported cases of chlamydia (524.8 to 529.1 per 100,000; 0.8% increase from 2016). The Midwest had the greatest 10-year increase in rates of reported cases of chlamydia (444.2 to 487.4 per 100,000; 9.7% increase from 2011).

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on chlamydia case reporting.



<sup>\*</sup> Per 100,000

**NOTE:** Total includes all ages.

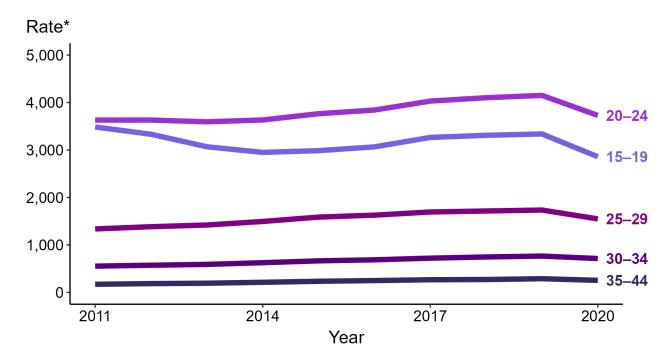
#### **Summary**

In 2020, women aged 20 to 24 years had the highest rate of reported cases of chlamydia (3,729.6 per 100,000), followed by those aged 15 to 19 years (2,857.9 per 100,000) and 25 to 29 years (1,548.0 per 100,000). Among men, those aged 20 to 24 years had the highest rate of reported cases of chlamydia (1,627.3 per 100,000), followed by those aged 25 to 29 years (988.3 per 100,000) and 15 to 19 years (846.3 per 100,000).

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on chlamydia case reporting.

Chlamydia — Rates of Reported Cases Among Women Aged 15–44 Years by Age Group, United States, 2011–2020



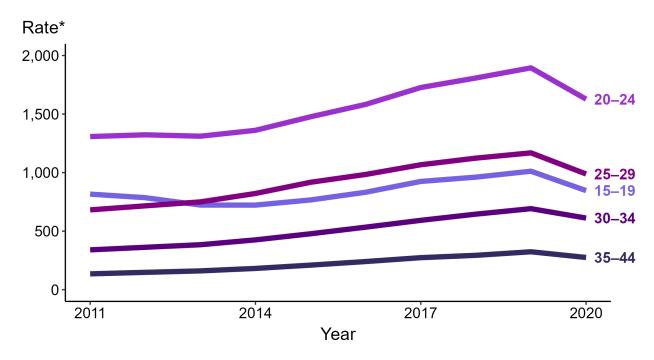
\* Per 100,000

In 2020, women aged 20 to 24 years had the highest rate of reported cases of chlamydia among women (3,729.6 cases per 100,000; 10.1% decrease from 2019), followed by those aged 15 to 19 years (2,857.9 cases per 100,000; 14.4% decrease from 2019), those aged 25 to 29 years (1,548.0 cases per 100,000; 10.8% decrease from 2019), those aged 30 to 34 years (713.3 cases per 100,000; 6.7% decrease from 2019), and those aged 35 to 44 years (253.7 cases per 100,000; 11.9% decrease from 2019).

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on chlamydia case reporting.

#### Chlamydia — Rates of Reported Cases Among Men Aged 15–44 Years by Age Group, United States, 2011–2020



\* Per 100,000

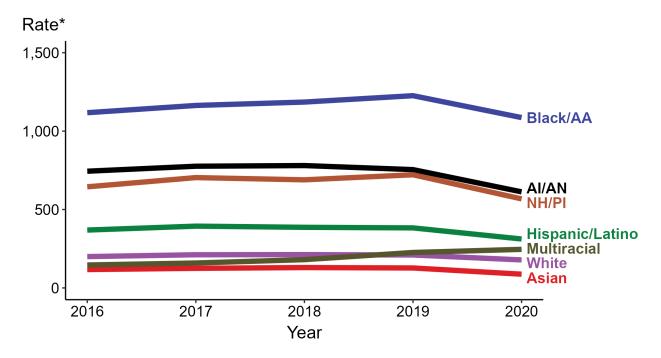
#### **Summary**

In 2020, men aged 20 to 24 years had the highest rate of reported cases of chlamydia among men (1,627.3 cases per 100,000; 14.1% decrease from 2019), followed by those aged 25 to 29 years (988.3 cases per 100,000; 15.4% decrease from 2019), those aged 15 to 19 years (846.3 cases per 100,000; 16.4% decrease from 2019), those aged 30 to 34 years (611.7 cases per 100,000; 11.6% decrease from 2019), and those aged 35 to 44 years (275.2 cases per 100,000; 15.0% decrease from 2019).

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on chlamydia case reporting.

Chlamydia — Rates of Reported Cases by Race/Hispanic Ethnicity, United States, 2016—2020



\* Per 100,000

**ACRONYMS:** Al/AN = American Indian/Alaska Native; Black/AA = Black or African American; NH/PI = Native Hawaiian/Pacific Islander

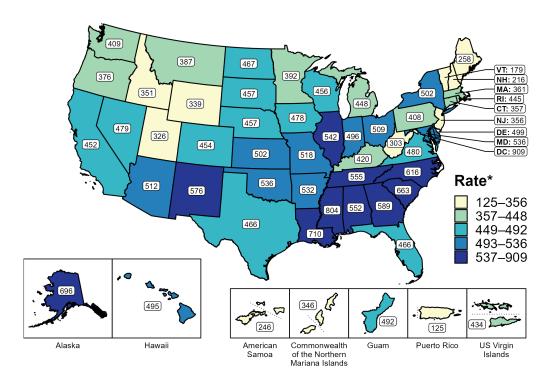
#### **Summary**

In 2020, the highest rate of reported cases of chlamydia was among non-Hispanic Black or African American persons (1,086.3 cases per 100,000; 11.4% decrease from 2019), followed by non-Hispanic American Indian or Alaska Native persons (612.6 cases per 100,000; 18.8% decrease from 2019), non-Hispanic Native Hawaiian or other Pacific Islander persons (567.9 cases per 100,000; 21.3% decrease from 2019), Hispanic or Latino persons of any race (312.0 cases per 100,000; 18.5% decrease from 2019), non-Hispanic persons of multiple races (246.0 cases per 100,000; 8.8% increase from 2019), non-Hispanic White persons (178.6 cases per 100,000; 15.0% decrease from 2019), and non-Hispanic Asian persons (87.6 cases per 100,000; 31.1% decrease from 2019). Non-Hispanic persons of multiple races had the greatest 5-year increase in rates of reported cases of chlamydia (146.2 to 246.0 per 100,000; 68.3% increase from 2016).

For this figure, race/Hispanic ethnicity is categorized first by reported Hispanic ethnicity, then by reported race. Therefore, cases categorized as Hispanic/Latino can be of any race; cases categorized into a race group include both non-Hispanic persons and persons of unknown Hispanic ethnicity. Not all US jurisdictions reported cases in Office of Management and Budget compliant race categories during 2016 to 2020. This may minimally under- or overestimate rates for Asian, Native Hawaiian or other Pacific Islander, or multiracial individuals. No population data exist for unknown or other race; therefore, rates are not calculated. For completeness, data in this figure include cases reported from all jurisdictions.

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs or more information.

See Technical Notes for information on chlamydia case reporting and reporting of race/Hispanic ethnicity for STD cases.



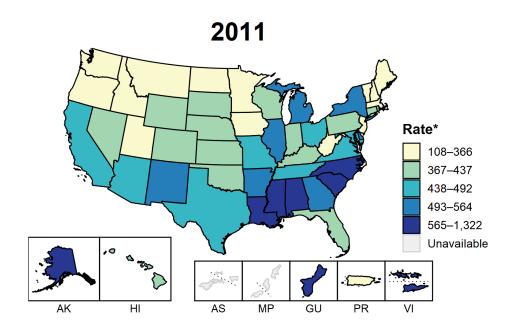
\* Per 100,000

In 2020, rates of reported chlamydia ranged by state from 179 cases per 100,000 population in Vermont to 804 cases per 100,000 population in Mississippi. The rate of reported chlamydia in the District of Columbia was 909 per 100,000 population.

Among US territories, rates of reported chlamydia ranged from 125 cases per 100,000 population in Puerto Rico to 492 cases per 100,000 population in Guam.

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on chlamydia case reporting and on interpreting reported rates in US territories.



\* Per 100,000

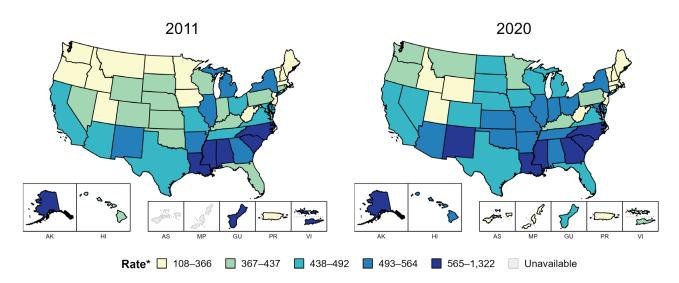
This slide contains an animated figure that will play when the slide is in presentation mode. A static version of the figure that displays maps from the first and last years of the range is available as a separate slide.

In 2011, 13 states, the District of Columbia (DC), and two US territories (28.6% of available areas) had a rate of reported chlamydia greater than or equal to 493 cases per 100,000 population. This increased to 21 states and DC (39.3% of available areas) in 2020. During 2019 to 2020, rates of reported chlamydia increased in one state and one territory.

American Samoa and the Commonwealth of the Northern Mariana Islands began reporting data on chlamydia cases to CDC in 2018; data are not available for those areas prior to that year. In addition, data on reported chlamydia cases in 2018 are not available for the US Virgin Islands.

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on chlamydia case reporting and on interpreting reported rates in US territories.



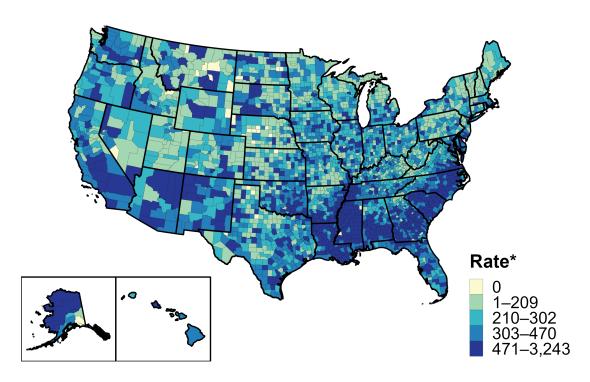
<sup>\*</sup> Per 100,000

In 2011, 13 states, the District of Columbia (DC), and two US territories (28.6% of available areas) had a rate of reported chlamydia greater than or equal to 493 cases per 100,000 population. This increased to 21 states and DC (39.3% of available areas) in 2020.

American Samoa and the Commonwealth of the Northern Mariana Islands began reporting data on chlamydia cases to CDC in 2018; data are not available for those areas prior to that year.

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on chlamydia case reporting and on interpreting reported rates in US territories.



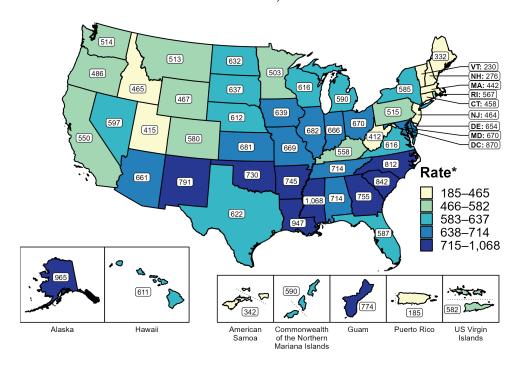
\* Per 100,000

In 2020, 99% of all counties and county equivalents in the United States reported at least one case of chlamydia. Out of 3,143 counties and county equivalents, 102 (3%) reported over half of all cases of chlamydia.

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on chlamydia case reporting.

Chlamydia — Rates of Reported Cases Among Women by State, United States and Territories, 2020



\* Per 100,000

#### **Summary**

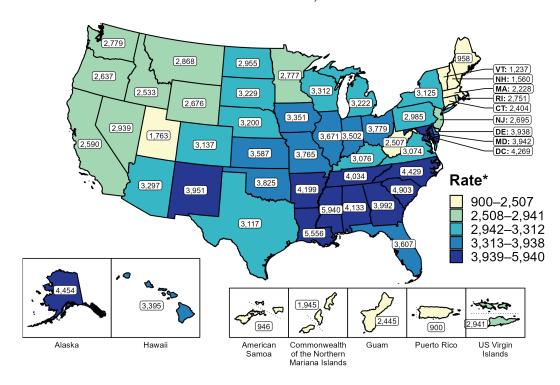
In 2020, rates of reported chlamydia ranged by state from 230 cases per 100,000 women in Vermont to 1,068 cases per 100,000 women in Mississippi. The rate of reported chlamydia in the District of Columbia was 870 per 100,000 women.

Among US territories, rates of reported chlamydia ranged from 185 cases per 100,000 women in Puerto Rico to 774 cases per 100,000 women in Guam.

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on chlamydia case reporting and on interpreting reported rates in US territories.

Chlamydia — Rates of Reported Cases Among Women Aged 15–24 Years by State, United States and Territories, 2020



<sup>\*</sup> Per 100,000

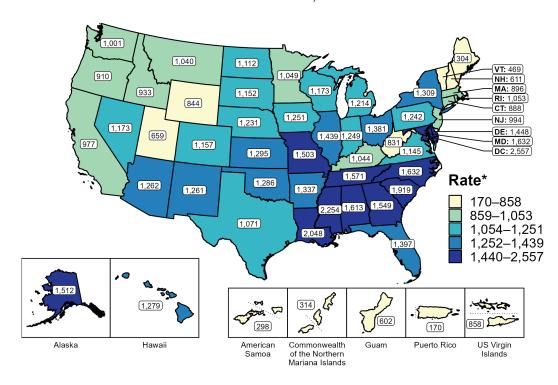
In 2020, rates of reported chlamydia ranged by state from 958 cases per 100,000 women aged 15 to 24 years in Maine to 5,940 cases per 100,000 women aged 15 to 24 years in Mississippi. The rate of reported chlamydia in the District of Columbia was 4,269 per 100,000 women aged 15 to 24 years.

Among US territories, rates of reported chlamydia ranged from 900 cases per 100,000 women aged 15 to 24 years in Puerto Rico to 2,941 cases per 100,000 women aged 15 to 24 years in the US Virgin Islands.

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notesfor information on chlamydia case reporting and on interpreting reported rates in US territories.

Chlamydia — Rates of Reported Cases Among Men Aged 15–24 Years by State, United States and Territories, 2020



<sup>\*</sup> Per 100,000

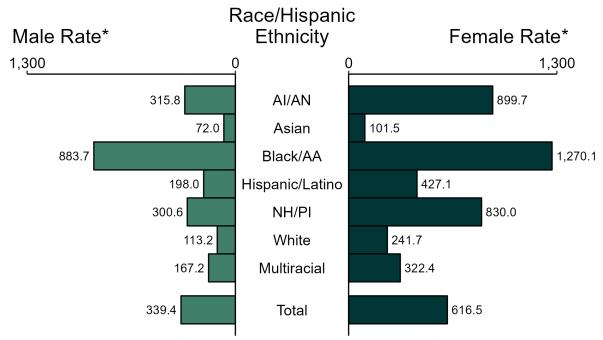
In 2020, rates of reported chlamydia ranged by state from 304 cases per 100,000 men aged 15 to 24 years in Maine to 2,254 cases per 100,000 men aged 15 to 24 years in Mississippi. The rate of reported chlamydia in the District of Columbia was 2,557 per 100,000 men aged 15 to 24 years.

Among US territories, rates of reported chlamydia ranged from 170 cases per 100,000 men aged 15 to 24 years in Puerto Rico to 858 cases per 100,000 men aged 15 to 24 years in the US Virgin Islands.

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on chlamydia case reporting and on interpreting reported rates in US territories.

Chlamydia — Rates of Reported Cases by Race/Hispanic Ethnicity and Sex, United States, 2020



<sup>\*</sup> Per 100,000

**ACRONYMS:** Al/AN = American Indian/Alaska Native; Black/AA = Black or African American; NH/PI = Native Hawaiian/Pacific Islander

NOTE: Total includes all cases including those with unknown race/Hispanic ethnicity.

#### Summary

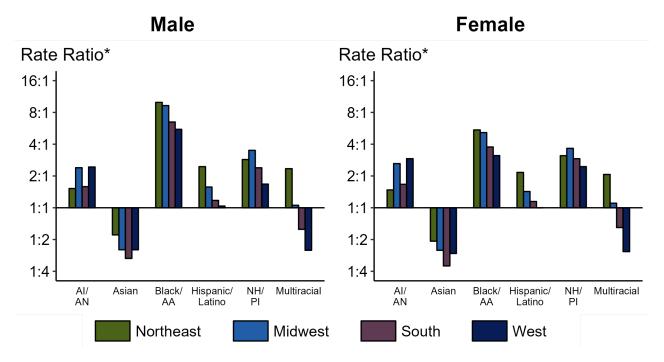
In 2020, non-Hispanic Black or African American women had the highest rate of reported cases of chlamydia (1,270.1 per 100,000), followed by non-Hispanic American Indian or Alaska Native women (899.7 per 100,000) and non-Hispanic Native Hawaiian or other Pacific Islander women (830.0 per 100,000). Among men, non-Hispanic Black or African American men also had the highest rate of reported cases of chlamydia (883.7 per 100,000), followed by non-Hispanic American Indian or Alaska Native men (315.8 per 100,000) and non-Hispanic Native Hawaiian or other Pacific Islander men (300.6 per 100,000).

Using non-Hispanic White persons as the reference category, the greatest racial disparity in rates of reported chlamydia was observed among non-Hispanic Black or African American men, with a rate ratio of 7.8. Among women, the greatest disparity was observed among non-Hispanic Black or African American women as well, with a rate 5.3 times that of non-Hispanic White women.

For this figure, race/Hispanic ethnicity is categorized first by reported Hispanic ethnicity, then by reported race. Therefore, cases categorized as Hispanic/Latino can be of any race; cases categorized into a race group include both non-Hispanic persons and persons of unknown Hispanic ethnicity. Not all US jurisdictions reported cases in Office of Management and Budget compliant race categories in 2020. This may minimally under- or overestimate rates for Asian, Native Hawaiian or other Pacific Islander, or multiracial individuals. No population data exist for unknown or other race; therefore, rates are not calculated. For completeness, data in this figure include cases reported from all jurisdictions.

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on chlamydia case reporting and reporting of race/Hispanic ethnicity for STD cases.



<sup>\*</sup> For the rate ratios, non-Hispanic White persons are the reference population. Y-axis is log scale.

**ACRONYMS:** Al/AN = American Indian/Alaska Native; Black/AA = Black or African American; NH/PI = Native Hawaiian/Pacific Islander

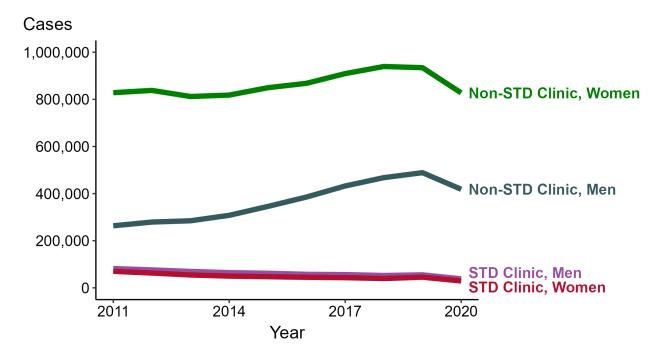
### **Summary**

Among males and females aged 15-24 years, rate ratios of rates of reported chlamydia by race/Hispanic ethnicity (using non-Hispanic White persons as the reference population) varied by region in 2020. Among males aged 15-24 years, the greatest rate ratio was in the Northeast where the rate of reported chlamydia among non-Hispanic Black males was 10.0 times the rate among non-Hispanic White males. Among females aged 15-24 years, the greatest rate ratio was in the Northeast where the rate of reported chlamydia among non-Hispanic Black females was 5.5 times the rate among non-Hispanic White females.

For this figure, race/Hispanic ethnicity is categorized first by reported Hispanic ethnicity, then by reported race. Therefore, cases categorized as Hispanic/Latino can be of any race; cases categorized into a race group include both non-Hispanic persons and persons of unknown Hispanic ethnicity. Not all US jurisdictions reported cases in Office of Management and Budget compliant race categories in 2020. This may minimally under- or overestimate rates for Asian, Native Hawaiian or other Pacific Islander, or multiracial individuals. No population data exist for unknown or other race; therefore, rates and rate ratios are not calculated. For completeness, data in this figure include cases reported from all jurisdictions.

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on chlamydia case reporting and reporting of race/Hispanic ethnicity for STD cases.



**NOTE:** During 2011 to 2020, the proportion of all cases with unknown reporting source was 14.3%, from a low of 11.6% in 2012 to a high of 16.7% in 2020.

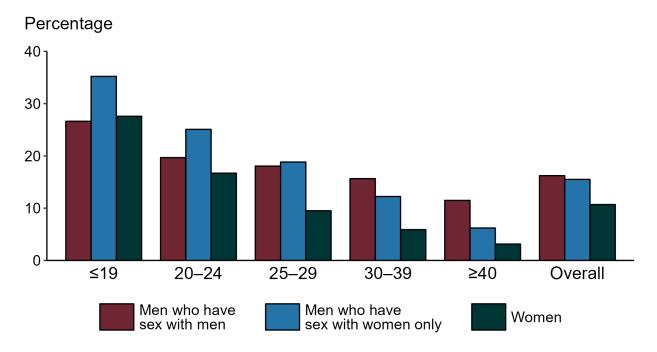
# **Summary**

During 2011 to 2020, the number of chlamydia cases reported from STD clinics decreased 53.5% among men (81,886 to 38,100 cases) and decreased 58.3% among women (70,025 to 29,175 cases), while the number of cases reported from non-STD clinics increased 58.8% among men (263,374 to 418,334 cases) and decreased 0.1% among women (828,383 to 827,524 cases).

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on chlamydia case reporting.

Chlamydia — Proportion of STD Clinic Patients Testing Positive by Age Group, Sex, and Sex of Sex Partners, STD Surveillance Network (SSuN), 2020



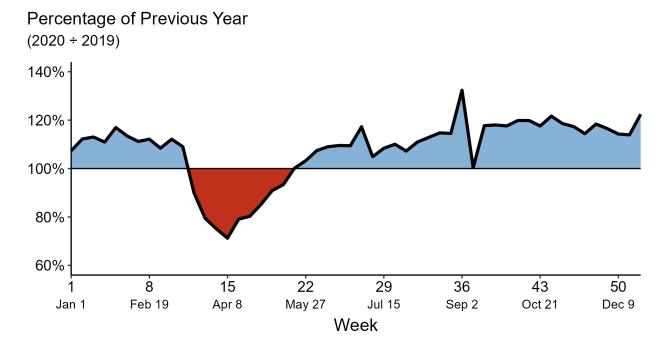
**NOTE:** Results are based on unique patients in eight participating jurisdictions (Baltimore, Florida, Indiana, Multnomah County, New York City, Philadelphia, San Francisco, and Washington) with known sex of sex partners attending SSuN STD clinics who were tested ≥1 times for chlamydia in 2020 (n=33,147).

#### **Summary**

Among patients accessing care in participating STD clinics in the STD Surveillance Network (SSuN) who were tested for chlamydia in 2020, 16.2% of men who have sex with men, 15.5% of men who have sex with women only, and 10.7% of women were found to be positive. The proportion testing positive for chlamydia varied by sex and sex of sex partners, as well as by age group. The highest proportion of patients testing positive were women aged 19 years and younger (27.6%) and men who have sex with women only aged 19 years and younger (35.2%).

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting data collected in 2020. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on SSuN methodology.



**NOTE:** The *MMWR* week is the week of the epidemiologic year for which the case is assigned by the reporting local or state health department.

Adapted from Pagaoa et al, Sexually Transmitted Diseases, 2021

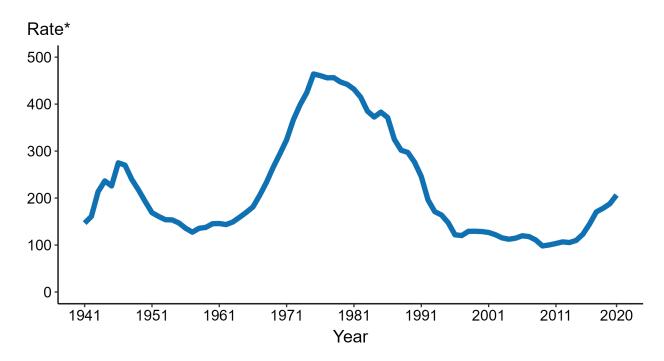
#### Summary

To quantify the COVID-19 pandemic's potential impact on reported STDs, the number of 2020 cases reported for a given *MMWR* week was compared to the number of cases reported in the same week in 2019. The comparison is expressed in terms of the percentage of the previous year's cases that were reported. Percentages lower than 100% denote when 2020 numbers were less than 2019 numbers, while percentages higher than 100% indicate when 2020 numbers were higher than 2019 numbers.

From *MMWR* weeks 1–11 (December 29, 2019–March 14, 2020), the 2020 cumulative total of reported gonorrhea cases (135,769 cases) was higher than the 2019 cumulative total for the same number of weeks (121,625 cases). In week 12 (week of March 15–21, 2020; the first full week of the emergency declaration for the COVID-19 pandemic), the weekly number of 2020 gonorrhea cases was 89.9% of 2019 cases. Following week 12, the difference between 2020 cases compared to 2019 cases increased, reaching its greatest point at week 15 (71.2%; week of April 5–11, 2020). The final number of reported cases of gonorrhea for 2020 was 110.0% of the 2019 total (677,769 and 616,392 respectively).

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on gonorrhea case reporting.



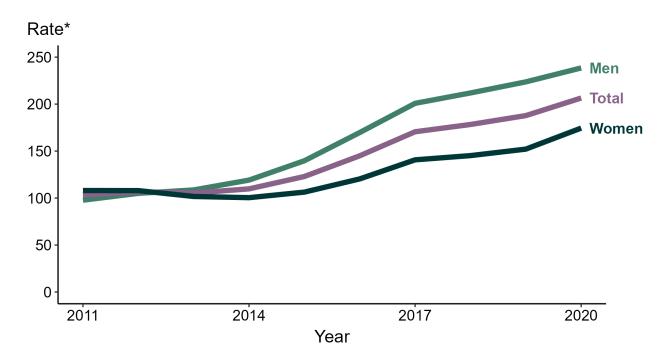
\* Per 100,000

Data collection for gonorrhea began in 1941 and gonorrhea was made a nationally notifiable condition in 1944. Steep declines in cases rates in the 1940s and 1950s likely reflect expanded use of penicillin to treat infection.

In 2020, 677,769 total cases of gonorrhea were reported in the United States. During 2019 to 2020, the rate of reported gonorrhea increased 10.0% (from 187.8 to 206.5 per 100,000).

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on gonorrhea case reporting.



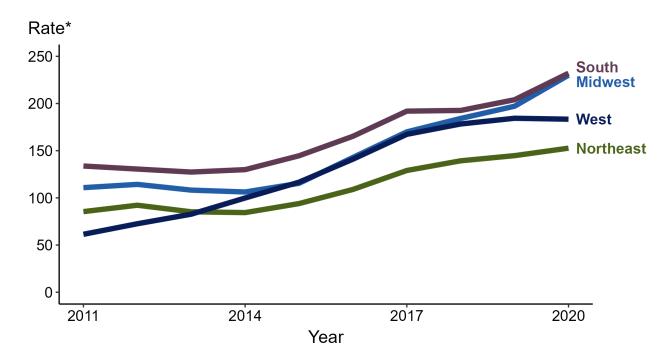
\* Per 100,000

During 2019 to 2020, the gonorrhea rate among women increased 14.7% (from 152.1 to 174.5 per 100,000) and the rate among men increased 6.6% (from 223.7 to 238.5 per 100,000).

Over the last 5 years, the gonorrhea rate among women increased 44.9% (from 120.4 to 174.5 per 100,000) and the rate among men increased 40.5% (from 169.7 to 238.5 per 100,000). Over the last 10 years, the gonorrhea rate among men increased 144.1% (from 97.7 to 238.5 per 100,000) and the rate among women increased 61.6% (from 108.0 to 174.5 per 100,000).

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on gonorrhea case reporting.



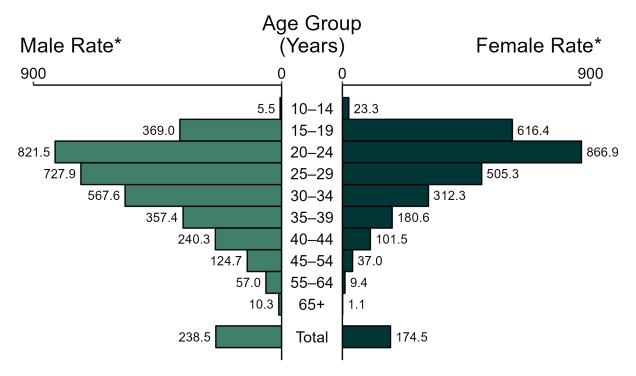
\* Per 100,000

In 2020, the South had the highest rate of reported gonorrhea (232.1 cases per 100,000; 13.8% increase from 2019), followed by the Midwest (230.0 cases per 100,000; 16.7% increase from 2019), the West (183.4 cases per 100,000; 0.5% decrease from 2019), and the Northeast (152.7 cases per 100,000; 5.5% increase from 2019).

The Midwest had the greatest 5-year increase in rates of reported cases of gonorrhea (142.8 to 230.0 per 100,000; 61.1% increase from 2016). The West had the greatest 10-year increase in rates of reported cases of gonorrhea (61.4 to 183.4 per 100,000; 198.7% increase from 2011).

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on gonorrhea case reporting.



<sup>\*</sup> Per 100,000

NOTE: Total includes all ages.

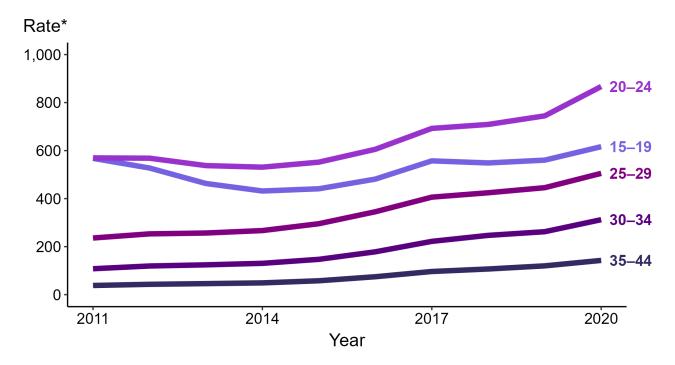
# **Summary**

In 2020, women aged 20 to 24 years had the highest rate of reported cases of gonorrhea (866.9 per 100,000), followed by those aged 15 to 19 years (616.4 per 100,000) and 25 to 29 years (505.3 per 100,000). Among men, those aged 20 to 24 years had the highest rate of reported cases of gonorrhea (821.5 per 100,000), followed by those aged 25 to 29 years (727.9 per 100,000) and 30 to 34 years (567.6 per 100,000).

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on chlamydia case reporting.

# Gonorrhea — Rates of Reported Cases Among Women Aged 15–44 Years by Age Group, United States, 2011–2020



<sup>\*</sup> Per 100,000

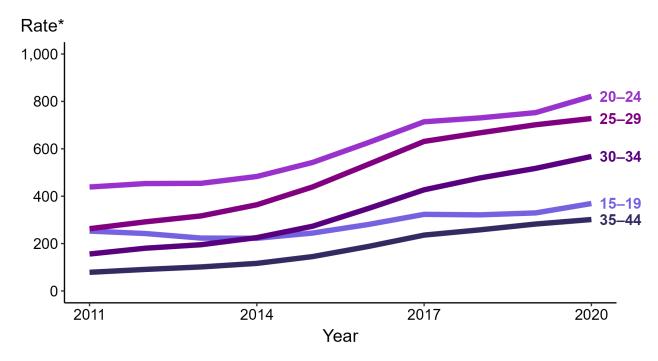
#### **Summary**

In 2020, women aged 20 to 24 years had the highest rate of reported cases of gonorrhea among women (866.9 cases per 100,000; 16.4% increase from 2019), followed by those aged 15 to 19 years (616.4 cases per 100,000; 10.0% increase from 2019), those aged 25 to 29 years (505.3 cases per 100,000; 13.4% increase from 2019), those aged 30 to 34 years (312.3 cases per 100,000; 19.1% increase from 2019), and those aged 35 to 44 years (142.7 cases per 100,000; 18.9% increase from 2019).

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on gonorrhea case reporting.

# Gonorrhea — Rates of Reported Cases Among Men Aged 15–44 Years by Age Group, United States, 2011–2020



<sup>\*</sup> Per 100,000

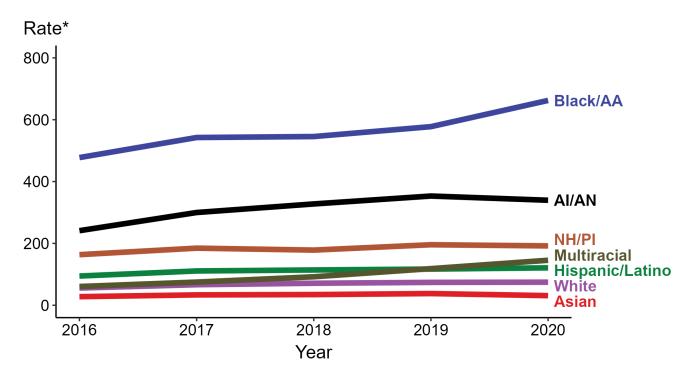
#### Summary

In 2020, men aged 20 to 24 years had the highest rate of reported cases of gonorrhea among men (821.5 cases per 100,000; 9.2% increase from 2019), followed by those aged 25 to 29 years (727.9 cases per 100,000; 3.8% increase from 2019), those aged 30 to 34 years (567.6 cases per 100,000; 9.7% increase from 2019), those aged 15 to 19 years (369.0 cases per 100,000; 12.0% increase from 2019), and those aged 35 to 44 years (301.6 cases per 100,000; 6.8% increase from 2019).

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on gonorrhea case reporting.

Gonorrhea — Rates of Reported Cases by Race/Hispanic Ethnicity, United States, 2016—2020



<sup>\*</sup> Per 100.000

**ACRONYMS:** Al/AN = American Indian/Alaska Native; Black/AA = Black or African American; NH/PI = Native Hawaiian/Pacific Islander

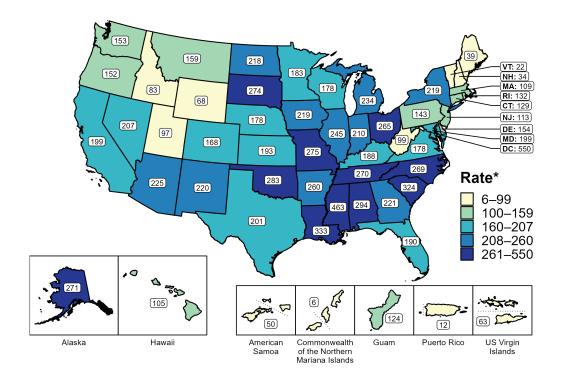
#### **Summary**

In 2020, the highest rate of reported cases of gonorrhea was among non-Hispanic Black or African American persons (662.4 cases per 100,000; 14.7% increase from 2019), followed by non-Hispanic American Indian or Alaska Native persons (339.6 cases per 100,000; 3.9% decrease from 2019), non-Hispanic Native Hawaiian or other Pacific Islander persons (192.0 cases per 100,000; 1.9% decrease from 2019), non-Hispanic persons of multiple races (145.5 cases per 100,000; 22.9% increase from 2019), Hispanic or Latino persons of any race (121.0 cases per 100,000; 3.4% increase from 2019), non-Hispanic White persons (74.6 cases per 100,000; 0.8% increase from 2019), and non-Hispanic Asian persons (31.1 cases per 100,000; 17.7% decrease from 2019). Non-Hispanic persons of multiple races had the greatest 5-year increase in rates of reported cases of gonorrhea (60.7 to 145.5 per 100,000; 139.7% increase from 2016).

For this figure, race/Hispanic ethnicity is categorized first by reported Hispanic ethnicity, then by reported race. Therefore, cases categorized as Hispanic/Latino can be of any race; cases categorized into a race group include both non-Hispanic persons and persons of unknown Hispanic ethnicity. Not all US jurisdictions reported cases in Office of Management and Budget compliant race categories during 2016 to 2020. This may minimally under- or overestimate rates for Asian, Native Hawaiian or other Pacific Islander, or multiracial individuals. No population data exist for unknown or other race; therefore, rates are not calculated. For completeness, data in this figure include cases reported from all jurisdictions.

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on chlamydia case reporting.



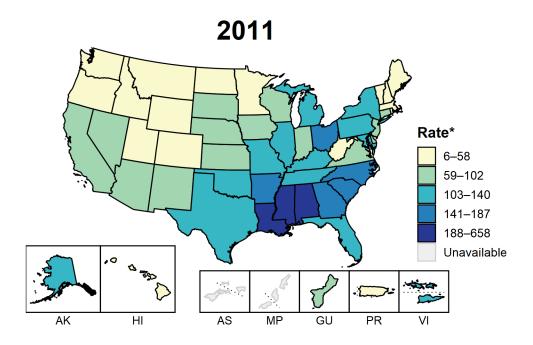
\* Per 100,000

In 2020, rates of reported gonorrhea ranged by state from 22 cases per 100,000 population in Vermont to 463 cases per 100,000 population in Mississippi. The rate of reported gonorrhea in the District of Columbia was 550 per 100,000 population.

Among US territories, rates of reported gonorrhea ranged from 6 cases per 100,000 population in the Commonwealth of the Northern Mariana Islands to 124 cases per 100,000 population in Guam.

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on gonorrhea case reporting and on interpreting reported rates in US territories.



\* Per 100,000

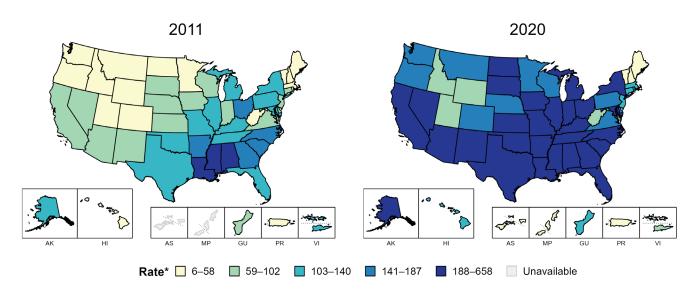
This slide contains an animated figure that will play when the slide is in presentation mode. A static version of the figure that displays maps from the first and last years of the range is available as a separate slide.

In 2011, eight states and the District of Columbia (DC; 16.1% of available areas) had a rate of reported gonorrhea greater than or equal to 141 cases per 100,000 population. This increased to 38 states and DC (69.6% of available areas) in 2020. During 2019 to 2020, rates of reported gonorrhea increased in 36 states and two territories.

American Samoa and the Commonwealth of the Northern Mariana Islands began reporting data on gonorrhea cases to CDC in 2018; data are not available for those areas prior to that year. In addition, data on reported gonorrhea cases in 2018 are not available for the US Virgin Islands.

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on gonorrhea case reporting and on interpreting reported rates in US territories.



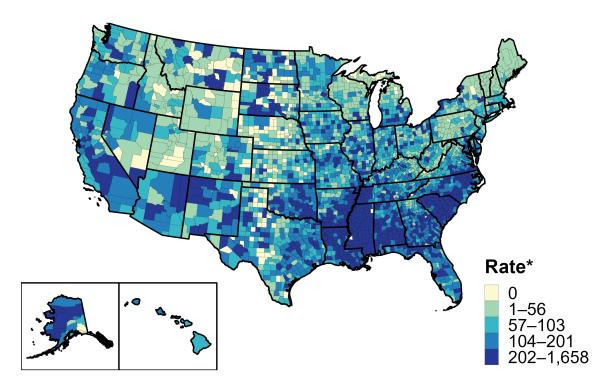
<sup>\*</sup> Per 100,000

In 2011, eight states and the District of Columbia (DC; 16.1% of available areas) had a rate of reported gonorrhea greater than or equal to 141 cases per 100,000 population. This increased to 38 states and DC (69.6% of available areas) in 2020.

American Samoa and the Commonwealth of the Northern Mariana Islands began reporting data on gonorrhea cases to CDC in 2018; data are not available for those areas prior to that year.

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on gonorrhea case reporting and on interpreting reported rates in US territories.



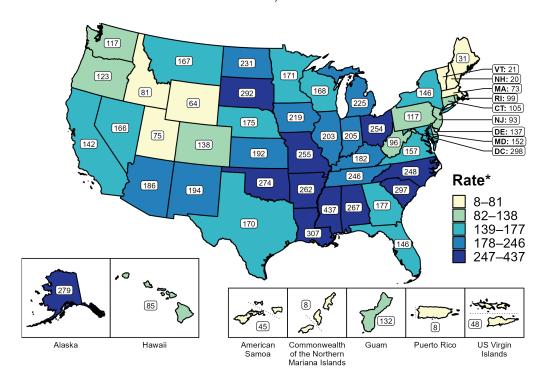
\* Per 100,000

In 2020, 94% of all counties and county equivalents in the United States reported at least one case of gonorrhea. Out of 3,143 counties and county equivalents, 78 (2%) reported over half of all cases of gonorrhea.

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on gonorrhea case reporting.

Gonorrhea — Rates of Reported Cases Among Women by State, United States and Territories, 2020



<sup>\*</sup> Per 100,000

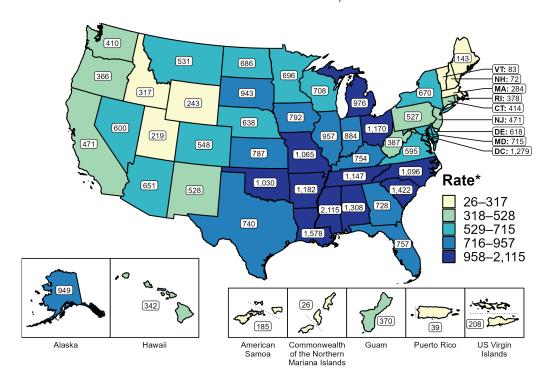
In 2020, rates of reported gonorrhea ranged by state from 20 cases per 100,000 women in New Hampshire to 437 cases per 100,000 women in Mississippi. The rate of reported gonorrhea in the District of Columbia was 298 per 100,000 women.

Among US territories, rates of reported gonorrhea ranged from 8 cases per 100,000 women in the Commonwealth of the Northern Mariana Islands and Puerto Rico to 132 cases per 100,000 women in Guam.

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on gonorrhea case reporting and on interpreting reported rates in US territories.

# Gonorrhea — Rates of Reported Cases Among Women Aged 15–24 Years by State, United States and Territories, 2020



<sup>\*</sup> Per 100,000

# **Summary**

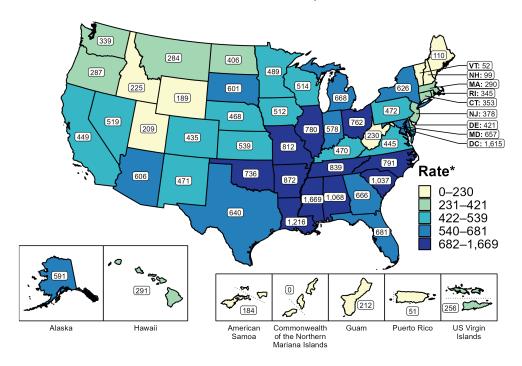
In 2020, rates of reported gonorrhea ranged by state from 72 cases per 100,000 women aged 15 to 24 years in New Hampshire to 2,115 cases per 100,000 women aged 15 to 24 years in Mississippi. The rate of reported gonorrhea in the District of Columbia was 1,279 per 100,000 women aged 15 to 24 years.

Among US territories, rates of reported gonorrhea ranged from 26 cases per 100,000 women aged 15 to 24 years in the Commonwealth of the Northern Mariana Islands to 370 cases per 100,000 women aged 15 to 24 years in Guam.

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on gonorrhea case reporting and on interpreting reported rates in US territories.

# Gonorrhea — Rates of Reported Cases Among Men Aged 15–24 Years by State, United States and Territories, 2020



\* Per 100,000

#### **Summary**

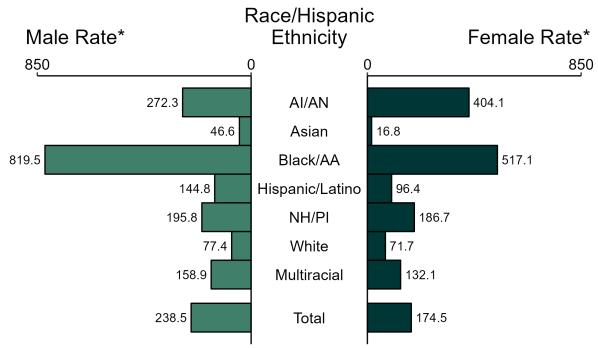
In 2020, rates of reported gonorrhea ranged by state from 52 cases per 100,000 men aged 15 to 24 years in Vermont to 1,669 cases per 100,000 men aged 15 to 24 years in Mississippi. The rate of reported gonorrhea in the District of Columbia was 1,615 per 100,000 men aged 15 to 24 years.

Among US territories, rates of reported gonorrhea ranged from 0 cases per 100,000 men aged 15 to 24 years in the Commonwealth of the Northern Mariana Islands to 256 cases per 100,000 men aged 15 to 24 years in the US Virgin Islands.

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on gonorrhea case reporting and on interpreting reported rates in US territories.

Gonorrhea — Rate of Reported Cases by Race/Hispanic Ethnicity and Sex, United States, 2020



<sup>\*</sup> Per 100,000

**ACRONYMS:** Al/AN = American Indian/Alaska Native; Black/AA = Black or African American; NH/PI = Native Hawaiian/Pacific Islander

NOTE: Total includes all cases including those with unknown race/Hispanic ethnicity.

#### Summary

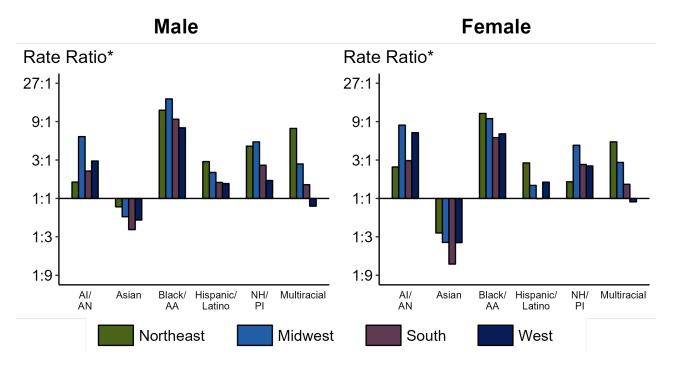
In 2020, non-Hispanic Black or African American men had the highest rate of reported cases of gonorrhea (819.5 per 100,000), followed by non-Hispanic American Indian or Alaska Native men (272.3 per 100,000) and non-Hispanic Native Hawaiian or other Pacific Islander men (195.8 per 100,000). Among women, non-Hispanic Black or African American women also had the highest rate of reported cases of gonorrhea (517.1 per 100,000), followed by non-Hispanic American Indian or Alaska Native women (404.1 per 100,000) and non-Hispanic Native Hawaiian or other Pacific Islander women (186.7 per 100,000).

Using non-Hispanic White persons as the reference category, the greatest racial disparity in rates of reported gonorrhea was observed among non-Hispanic Black or African American men, with a rate ratio of 10.6. Among women, the greatest disparity was observed among non-Hispanic Black or African American women as well, with a rate 7.2 times that of non-Hispanic White women.

For this figure, race/Hispanic ethnicity is categorized first by reported Hispanic ethnicity, then by reported race. Therefore, cases categorized as Hispanic/Latino can be of any race; cases categorized into a race group include both non-Hispanic persons and persons of unknown Hispanic ethnicity. Not all US jurisdictions reported cases in Office of Management and Budget compliant race categories in 2020. This may minimally under- or overestimate rates for Asian, Native Hawaiian or other Pacific Islander, or multiracial individuals. No population data exist for unknown or other race; therefore, rates are not calculated. For completeness, data in this figure include cases reported from all jurisdictions.

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on gonorrhea case reporting and reporting of race/Hispanic ethnicity for STD cases.



<sup>\*</sup> For the rate ratios, non-Hispanic White persons are the reference population. Y-axis is log scale.

**ACRONYMS:** Al/AN = American Indian/Alaska Native; Black/AA = Black or African American; NH/PI = Native Hawaiian/Pacific Islander

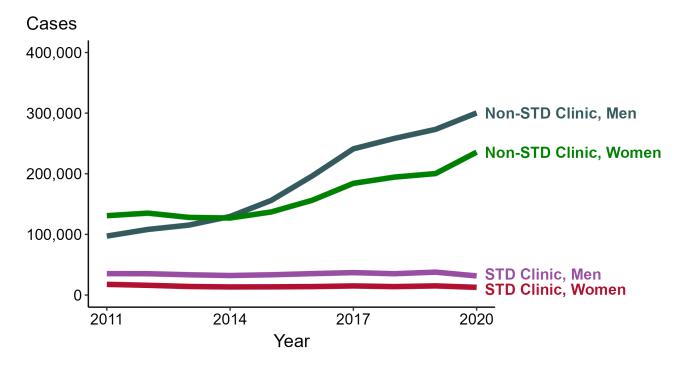
#### Summary

Among males and females, rate ratios of rates of reported gonorrhea by race/Hispanic ethnicity (using non-Hispanic White persons as the reference population) varied by region in 2020. Among males, the greatest rate ratio was in the Midwest where the rate of gonorrhea among non-Hispanic Black males was 17.2 times the rate among non-Hispanic White males. Among females, the greatest rate ratio was in the Northeast where the rate of gonorrhea among non-Hispanic Black females was 11.4 times the rate among non-Hispanic White females.

For this figure, race/Hispanic ethnicity is categorized first by reported Hispanic ethnicity, then by reported race. Therefore, cases categorized as Hispanic/Latino can be of any race; cases categorized into a race group include both non-Hispanic persons and persons of unknown Hispanic ethnicity. Not all US jurisdictions reported cases in Office of Management and Budget compliant race categories in 2020. This may minimally under- or overestimate rates for Asian, Native Hawaiian or other Pacific Islander, or multiracial individuals. No population data exist for unknown or other race; therefore, rates and rate ratios are not calculated. For completeness, data in this figure include cases reported from all jurisdictions.

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on gonorrhea case reporting and reporting of race/Hispanic ethnicity for STD cases.



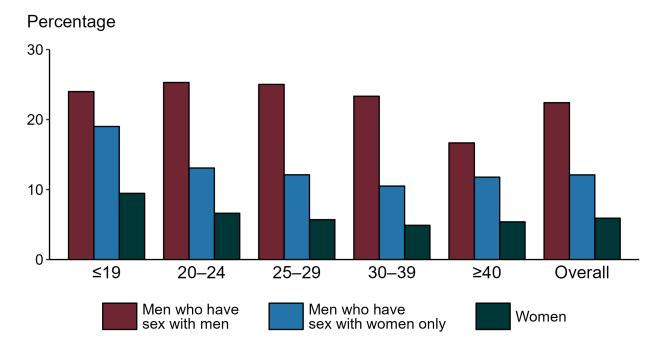
**NOTE:** During 2011 to 2020, the proportion of all cases with unknown reporting source was 13.7%, from a low of 11.9% in 2012 to a high of 14.4% in 2019.

During 2011 to 2020, the number of gonorrhea cases reported from STD clinics decreased 10.7% among men (35,274 to 31,511 cases) and decreased 27.8% among women (17,577 to 12,693 cases), while the number of cases reported from non-STD clinics increased 208.9% among men (97,215 to 300,286 cases) and increased 80.1% among women (130,837 to 235,623 cases).

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on gonorrhea case reporting.

Gonorrhea — Proportion of STD Clinic Patients Testing Positive by Age Group, Sex, and Sex of Sex Partners, STD Surveillance Network (SSuN), 2020



**NOTE:** Results are based on data obtained from unique patients in eight participating sites (Baltimore, Florida, Indiana, Multnomah County, New York City, Philadelphia, San Francisco, and Washington) with known sex of sex partners attending SSuN STD clinics who were tested ≥1 times for gonorrhea in 2020 (n=33,367).

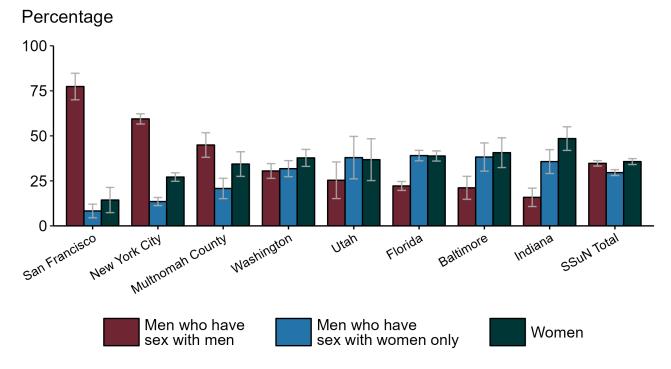
#### Summary

Among patients accessing care in participating STD clinics in the STD Surveillance Network (SSuN) who were tested for gonorrhea in 2020, 22.4% of men who have sex with men, 12.1% of men who have sex with women only, and 5.9% of women were positive. The proportion of STD clinic patients who tested positive for gonorrhea varied by sex and sex of sex partners, as well as by age group. Men who have sex with men were noted to have higher proportions of testing positive in all age groups when compared to women and men who have sex with women only.

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting data collected in 2020. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on SSuN methodology.

Estimated Proportion of Gonorrhea Cases by Sex and Sex of Sex Partners and Jurisdiction, STD Surveillance Network (SSuN), 2020



**NOTE:** Estimate based on weighted analysis of data on sex of sex partners obtained from interviews (n=4,244) conducted among a random sample of gonorrhea cases reported January to December 2020. Includes eight SSuN sites reporting completed case investigations in 2020 for at least 2% of all reported cases.

# **Summary**

In 2020, San Francisco had the highest proportion of gonorrhea cases reported among men who have sex with men, Indiana had the highest proportion of gonorrhea case reported among women and Washington state had the highest proportion of gonorrhea cases reported among men who have sex with women only. Overall, the proportion of gonorrhea estimated to be attributed to men who have sex with men in 2020 was 34.7%.

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting data collected in 2020. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on SSuN methodology.

Gonorrhea – Estimated Proportion of Cases Treated with Recommended Regimen by Jurisdiction, STD Surveillance Network (SSuN), 2020

# Percentage 100 7550250 Baltimore Florida Indiana County New York City Utah San Francisco SSUN Total Nullmornan Caunty

**NOTE:** Includes SSuN jurisdictions with treatment and dosage data ascertained for at least 80% of sampled, investigated cases. In 2020, the recommended treatment for uncomplicated gonorrhea was ceftriaxone 250 mg intramuscular plus azithromycin 1 gm orally. In December 2020, gonorrhea treatment recommendations were updated to recommend only a single 500 mg intramuscular dose of ceftriaxone. Data in this figure reflect the previous treatment recommendations only.

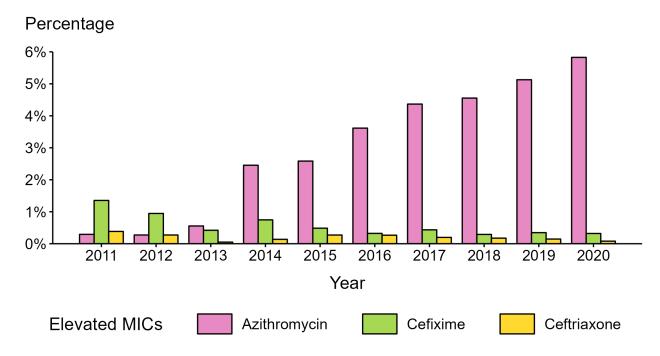
#### Summary

In 2020, Utah reported the highest proportion of gonorrhea cases treated with the recommended regimen and San Francisco reported the lowest proportion of cases treated with the recommended regimen. The overall proportion of cases treated with the recommended regimen was 87.5% in 2020.

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting data collected in 2020. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on SSuN methodology.

Neisseria gonorrhoeae — Percentage of Isolates with Elevated Minimum Inhibitory Concentrations (MICs) to Azithromycin, Cefixime, and Ceftriaxone, Gonococcal Isolate Surveillance Project (GISP), 2011–2020



**NOTE:** Elevated MICs = Azithromycin: ≥ 2.0 μg/mL; Cefixime: ≥ 0.25 μg/mL; Ceftriaxone: ≥ 0.125 μg/mL

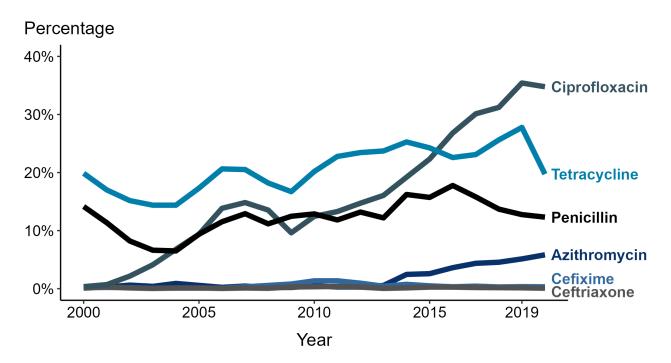
# **Summary**

During 2011–2020, the percentage of *Neisseria gonorrhoeae* isolates that exhibited elevated ceftriaxone minimum inhibitory concentrations, defined as  $\geq 0.125~\mu g/mL$ , fluctuated between 0.1% and 0.4%. In 2020, 0.1% of isolates had elevated ceftriaxone minimum inhibitory concentrations. The percentage of isolates with elevated cefixime minimum inhibitory concentrations ( $\geq 0.25~\mu g/mL$ ) declined from 1.4% in 2011 to 0.3% in 2020. During 2012–2014, the percentage of isolates with elevated azithromycin minimum inhibitory concentrations ( $\geq 2~\mu g/mL$ ) ranged from 0.3% to 2.5% with a sharp increase during 2013–2014 (0.6% to 2.5%); during 2014–2020, the percentage increased from 2.5% to 5.8%.

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting data collected in 2020. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on GISP methodology.

Neisseria gonorrhoeae — Prevalence of Tetracycline, Penicillin, or Ciprofloxacin Resistance\* or Elevated Cefixime, Ceftriaxone, or Azithromycin Minimum Inhibitory Concentrations (MICs)†, by Year — Gonococcal Isolate Surveillance Project (GISP), 2000— 2020



\* Resistance: Ciprofloxacin: MIC  $\geq$  1.0 µg/mL; Penicillin: MIC  $\geq$  2.0 µg/mL or Beta-lactamase positive; Tetracycline: MIC  $\geq$  2.0 µg/mL

† Elevated MICs: Azithromycin: MIC  $\geq$  1.0 µg/mL 29 (2000–2004);  $\geq$  2.0 µg/mL (2005–2020); Ceftriaxone: MIC  $\geq$  0.125 µg/mL; Cefixime: MIC  $\geq$  0.25 µg/mL

NOTE: Cefixime susceptibility was not tested in 2007 and 2008.

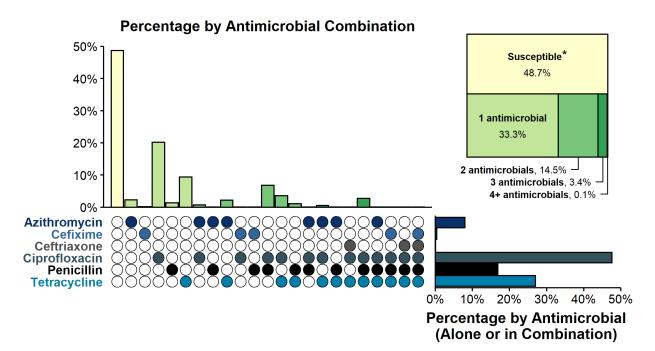
#### Summary

In 2020, 34.8% of *Neisseria gonorrhoeae* isolates collected from GISP sites were resistant to ciprofloxacin, 19.7% to tetracycline, and 12.3% to penicillin.

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting data collected in 2020. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on GISP methodology.

Resistance or Elevated Minimum Inhibitory Concentration (MIC) Patterns of *Neisseria* gonorrhoeae Isolates to Antimicrobials, Gonococcal Isolate Surveillance Project (GISP), 2020



\* Susceptible category includes isolates with penicillin (or Beta-lactamase negative), tetracycline, and ciprofloxacin MIC values that are not considered resistant (i.e., susceptible and intermediate resistant) based on Clinical & Laboratory Standards Institute criteria and isolates with ceftriaxone, cefixime, and azithromycin MIC values that are not considered elevated based on GISP "alert" values.

**NOTE:** Elevated MIC = Ceftriaxone: MIC  $\geq$  0.125 µg/mL; Cefixime: MIC  $\geq$  0.25 µg/mL; Azithromycin: MIC  $\geq$  2.0 µg/mL. Resistance = Tetracycline: MIC  $\geq$  2.0 µg/mL; Ciprofloxacin: MIC  $\geq$  1.0 µg/mL; Penicillin: MIC  $\geq$  2.0 µg/mL or Beta-lactamase positive. In the figure, a filled circle reflects resistance or elevated MIC to a specific antimicrobial; only antimicrobial combinations with non-zero percentages are shown.

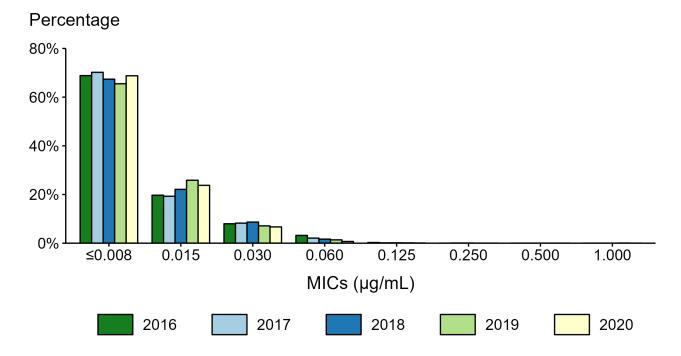
#### Summary

In 2020, 48.7% of *Neisseria gonorrhoeae* isolates collected through GISP were susceptible to the six antimicrobials tested. Less than half (49%) were resistant to at least one of three antimicrobials (tetracycline, penicillin, or ciprofloxacin). An additional 2.4% of isolates were susceptible to those antimicrobials, but had elevated minimum inhibitory concentrations to ceftriaxone, cefixime, or azithromycin. Overall, 14.5% of isolates demonstrated resistance or elevated minimum inhibitory concentrations to two antimicrobials tested; 3.4% demonstrated resistance or elevated minimum inhibitory concentrations to three antimicrobials tested. No isolates with elevated azithromycin minimum inhibitory concentrations also had elevated ceftriaxone minimum inhibitory concentrations.

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting data collected in 2020. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on GISP methodology.

Neisseria gonorrhoeae — Distribution of Ceftriaxone Minimum Inhibitory Concentrations (MICs) by Year, Gonococcal Isolate Surveillance Project (GISP), 2016–2020



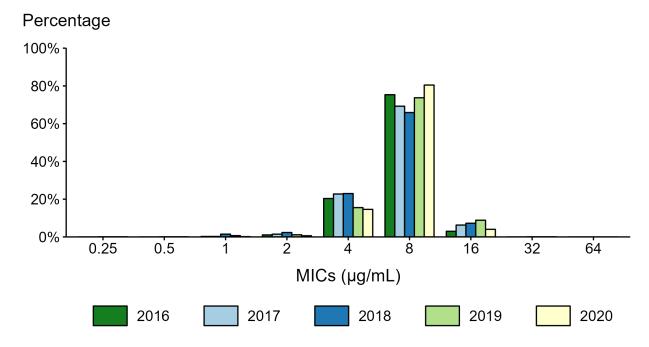
#### **Summary**

During 2016 to 2020, 65.5–70.2% of all tested *Neisseria gonorrhoeae* isolates had a ceftriaxone minimum inhibitory concentration value  $\leq$ 0.008 µg/mL and 99.7–99.9% had a minimum inhibitory concentration value  $\leq$ 0.125 µg/mL.

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting data collected in 2020. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on GISP methodology.

Neisseria gonorrhoeae — Distribution of Gentamicin Minimum Inhibitory Concentrations (MICs) by Year, Gonococcal Isolate Surveillance Project (GISP), 2016–2020



**NOTE:** Beginning in 2018, the antibiotic susceptibility testing range for gentamicin was expanded from MICs of 1  $\mu$ g/mL-32  $\mu$ g/mL in previous years to 0.25  $\mu$ g/mL-64  $\mu$ g/mL.

# **Summary**

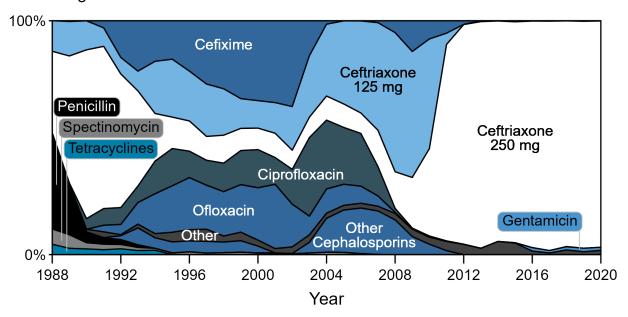
During 2016 to 2020, 65.9–80.5% of all tested *Neisseria gonorrhoeae* isolates had a gentamicin minimum inhibitory concentration value of 8 µg/mL. In 2020, 0.03% of all tested *Neisseria gonorrhoeae* isolates had a gentamicin minimum inhibitory concentration above 16 µg/mL.

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting data collected in 2020. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on GISP methodology.

Distribution of Primary Antimicrobial Drugs Used to Treat Gonorrhea Among Participants, Gonococcal Isolate Surveillance Project (GISP), 1988–2020

# Percentage



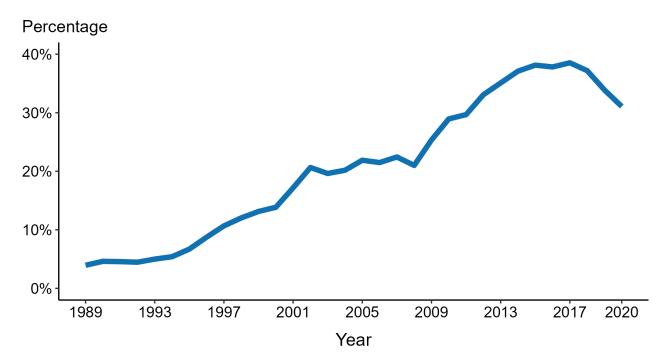
# **Summary**

In 2020, 96.8% of GISP participants were treated with ceftriaxone 250 mg. Participants treated with gentamicin 240 mg increased from 0.2% in 2015 to 1.3% in 2020.

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting data collected in 2020. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on GISP methodology.

Neisseria gonorrhoeae — Percentage of Urethral Isolates Obtained from MSM Attending STD Clinics, Gonococcal Isolate Surveillance Project (GISP), 1989–2020



ACRONYMS: MSM = Gay, bisexual, and other men who have sex with men

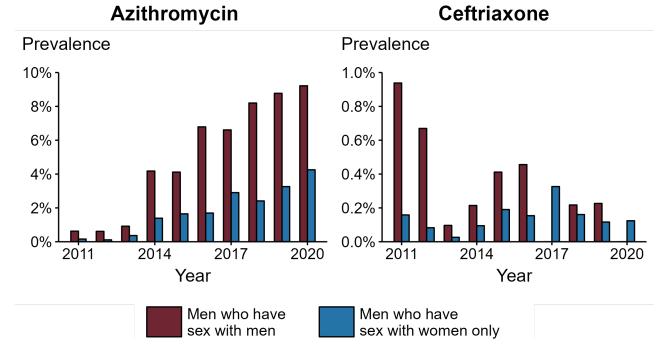
# **Summary**

Overall, the proportion of *Neisseria gonorrhoeae* isolates collected in selected STD clinics participating in GISP that were from men who have sex with men increased steadily from 3.9% in 1989 to a high of 38.5% in 2017. In 2020, this proportion was 31.1%.

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting data collected in 2020. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on GISP methodology.

Neisseria gonorrhoeae — Percentage of Urethral Isolates with Elevated Minimum Inhibitory Concentrations (MICs) to Azithromycin\* and Ceftriaxone† by Sex and Sex of Sex Partners, Gonococcal Isolate Surveillance Project (GISP), 2011–2020



<sup>\*</sup> Elevated Azithromycin MIC: ≥ 2.0 µg/mL

† Elevated Ceftriaxone MIC: ≥ 0.125 μg/mL

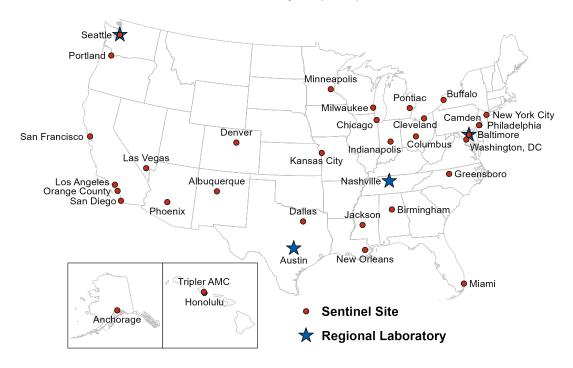
#### Summary

In 2020, the proportion of *Neisseria gonorrhoeae* isolates with elevated azithromycin minimum inhibitory concentrations ( $\geq 2.0~\mu g/mL$ ) was higher in isolates from men who have sex with men than from men who have sex with women only. For azithromycin, 9.2% of isolates from men who have sex with men had elevated minimum inhibitory concentrations compared to 4.3% in men who have sex with women only. For ceftriaxone, the proportion of isolates with elevated ceftriaxone minimum inhibitory concentrations ( $\geq 0.125~\mu g/mL$ ) was higher at 0.1% in men who have sex with women only compared to 0% in men who have sex with men.

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting data collected in 2020. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on GISP methodology.

# Location of Participating Sentinel Sites and Regional Laboratories, Gonococcal Isolate Surveillance Project (GISP), 2020

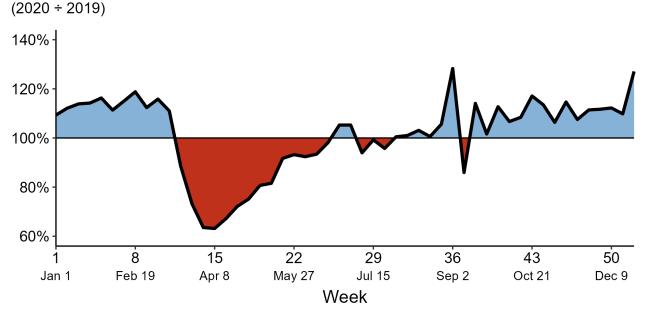


**NOTE:** Baltimore and Seattle are both sentinel sites and regional laboratories.

# **Summary**

See Technical Notes for information on GISP methodology.





**NOTE:** The *MMWR* week is the week of the epidemiologic year for which the case is assigned by the reporting local or state health department.

Adapted from Pagaoa et al, Sexually Transmitted Diseases, 2021

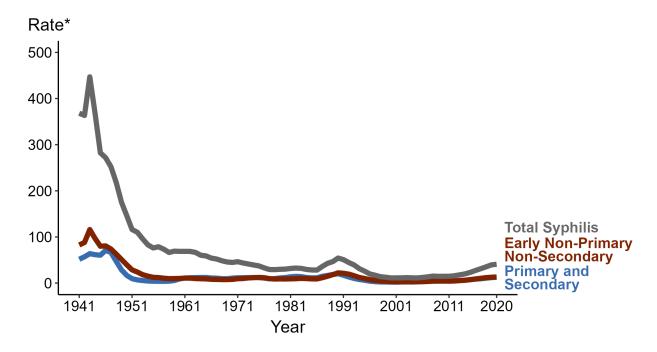
#### **Summary**

To quantify the COVID-19 pandemic's potential impact on reported STDs, the number of 2020 cases reported for a given *MMWR* week was compared to the number of cases reported in the same week in 2019. The comparison is expressed in terms of the percentage of the previous year's cases that were reported. Percentages lower than 100% denote when 2020 numbers were less than 2019 numbers, while percentages higher than 100% indicate when 2020 numbers were higher than 2019 numbers.

From *MMWR* weeks 1–11 (December 29, 2019–March 14, 2020), the 2020 cumulative total of reported syphilis (all stages) cases (30,620 cases) was higher than the 2019 cumulative total for the same number of weeks (26,924 cases). In week 12 (week of March 15–21, 2020; the first full week of the emergency declaration for the COVID-19 pandemic), the weekly number of 2020 syphilis (all stages) cases was 88.6% of 2019 cases. Following week 12, the difference between 2020 cases compared to 2019 cases increased, reaching its greatest point at week 15 (63.2%; week of April 5–11, 2020). The final number of reported cases of syphilis (all stages) for 2020 was 103.0% of the 2019 total (131,797 and 127,943 respectively).

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on syphilis case reporting.



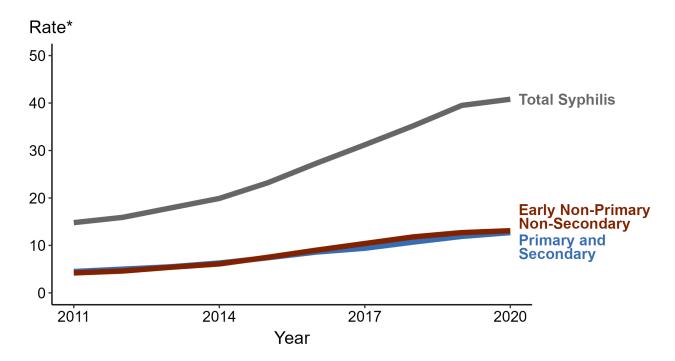
\* Per 100,000

Data collection for syphilis began in 1941, and syphilis was made a nationally notifiable condition in 1944. Rates of total syphilis include syphilis of all stages, including congenital syphilis. Steep declines in case rates in the 1940s and 1950s likely reflect expanded use of penicillin to treat infection.

In 2020, 133,945 total cases of syphilis were reported in the United States. During 2019 to 2020, the rate of reported syphilis increased 3.3% (from 39.5 to 40.8 per 100,000).

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on syphilis case reporting.

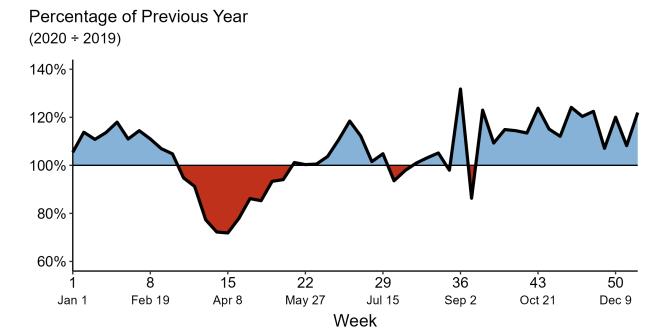


\* Per 100,000

In 2020, 133,945 total cases of syphilis, 43,145 cases of early non-primary non-secondary syphilis, and 41,655 cases of primary and secondary syphilis were reported in the United States. During 2019 to 2020, the total rate of syphilis increased 3.3% (39.5 to 40.8 per 100,000), the rate of early non-primary non-secondary syphilis increased 3.1% (12.7 to 13.1 per 100,000), and the rate of primary and secondary syphilis increased 6.7% (11.9 to 12.7 per 100,000).

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on syphilis case reporting.



**NOTE:** The *MMWR* week is the week of the epidemiologic year for which the case is assigned by the reporting local or state health department.

Adapted from Pagaoa et al, Sexually Transmitted Diseases, 2021

#### Summary

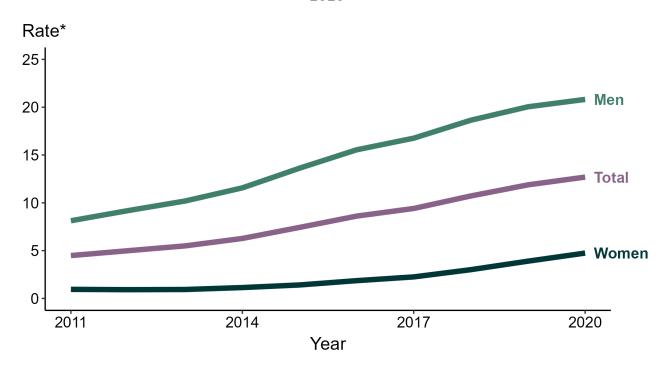
To quantify the COVID-19 pandemic's potential impact on reported STDs, the number of 2020 cases reported for a given *MMWR* week was compared to the number of cases reported in the same week in 2019. The comparison is expressed in terms of the percentage of the previous year's cases that were reported. Percentages lower than 100% denote when 2020 numbers were less than 2019 numbers, while percentages higher than 100% indicate when 2020 numbers were higher than 2019 numbers.

From *MMWR* weeks 1–11 (December 29, 2019–March 14, 2020), the 2020 cumulative total of reported primary and secondary syphilis cases (8,848 cases) was higher than the 2019 cumulative total for the same number of weeks (8,074 cases). In week 12 (week of March 15–21, 2020; the first full week of the emergency declaration for the COVID-19 pandemic), the weekly number of 2020 primary and secondary syphilis cases was 91.2% of 2019 cases. Following week 12, the difference between 2020 cases compared to 2019 cases increased, reaching its greatest point at week 15 (71.9%; week of April 5–11, 2020). The final number of reported cases of primary and secondary syphilis for 2020 was 106.8% of the 2019 total (41,655 and 38,992 respectively).

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on syphilis case reporting.

Primary and Secondary Syphilis — Rates of Reported Cases by Sex, United States, 2011–2020



\* Per 100,000

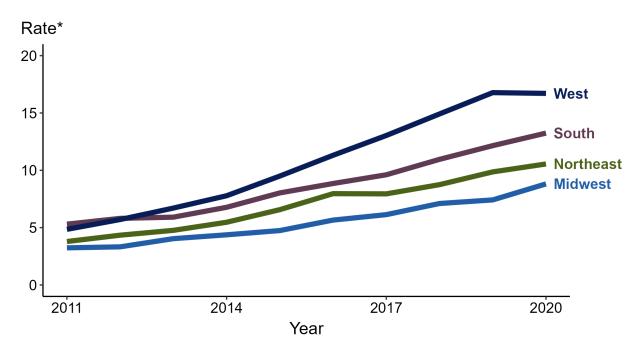
## **Summary**

During 2019 to 2020, the primary and secondary syphilis rate among women increased 20.5% (from 3.9 to 4.7 per 100,000) and the rate among men increased 4.0% (from 20.0 to 20.8 per 100,000).

Over the last 5 years, the primary and secondary syphilis rate among women increased 147.4% (from 1.9 to 4.7 per 100,000) and the rate among men increased 34.2% (from 15.5 to 20.8 per 100,000). Over the last 10 years, the primary and secondary syphilis rate among women increased 422.2% (from 0.9 to 4.7 per 100,000) and the rate among men increased 156.8% (from 8.1 to 20.8 per 100,000).

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on syphilis case reporting.



\* Per 100,000

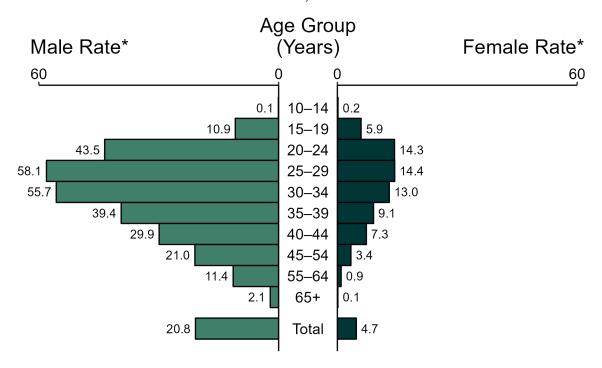
In 2020, the West had the highest rate of reported primary and secondary syphilis (16.7 cases per 100,000; 0.6% decrease from 2019), followed by the South (13.2 cases per 100,000; 8.2% increase from 2019), the Northeast (10.6 cases per 100,000; 7.1% increase from 2019), and the Midwest (8.8 cases per 100,000; 18.9% increase from 2019).

The Midwest had the greatest 5-year increase in rates of reported cases of primary and secondary syphilis (5.7 to 8.8 per 100,000; 54.4% increase from 2016). The West had the greatest 10-year increase in rates of reported cases of primary and secondary syphilis (4.9 to 16.7 per 100,000; 240.8% increase from 2011).

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on syphilis case reporting.

Primary and Secondary Syphilis — Rates of Reported Cases by Age Group and Sex, United States, 2020



<sup>\*</sup> Per 100,000

NOTE: Total includes all ages.

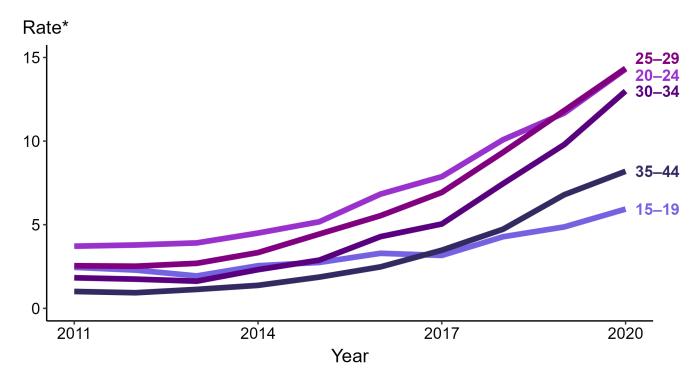
## **Summary**

In 2020, men aged 25 to 29 years had the highest rate of reported cases of primary and secondary syphilis (58.1 per 100,000), followed by those aged 30 to 34 years (55.7 per 100,000) and 20 to 24 years (43.5 per 100,000). Among women, those aged 25 to 29 years had the highest rate of reported cases of primary and secondary syphilis (14.4 per 100,000), followed by those aged 20 to 24 years (14.3 per 100,000) and 30 to 34 years (13.0 per 100,000).

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on syphilis case reporting.

Primary and Secondary Syphilis — Rates of Reported Cases Among Women Aged 15–44 Years by Age Group, United States, 2011–2020



<sup>\*</sup> Per 100,000

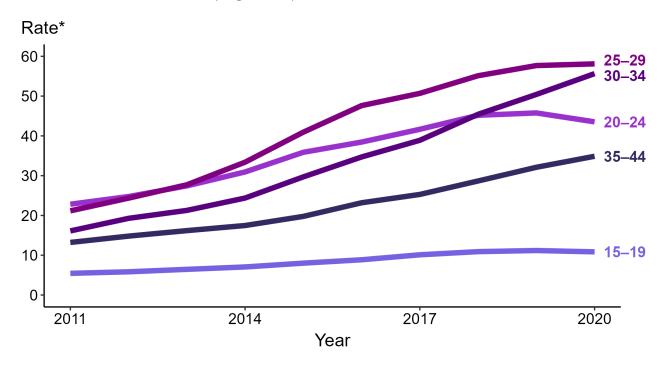
## **Summary**

In 2020, women aged 25 to 29 years had the highest rate of reported cases of primary and secondary syphilis among women (14.4 cases per 100,000; 22.0% increase from 2019), followed by those aged 20 to 24 years (14.3 cases per 100,000; 22.2% increase from 2019), those aged 30 to 34 years (13.0 cases per 100,000; 32.7% increase from 2019), those aged 35 to 44 years (8.2 cases per 100,000; 20.6% increase from 2019), and those aged 15 to 19 years (5.9 cases per 100,000; 20.4% increase from 2019).

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs (for more information.

See Technical Notes for information on syphilis case reporting.

## Primary and Secondary Syphilis — Rates of Reported Cases Among Men Aged 15–44 Years by Age Group, United States, 2011–2020



<sup>\*</sup> Per 100,000

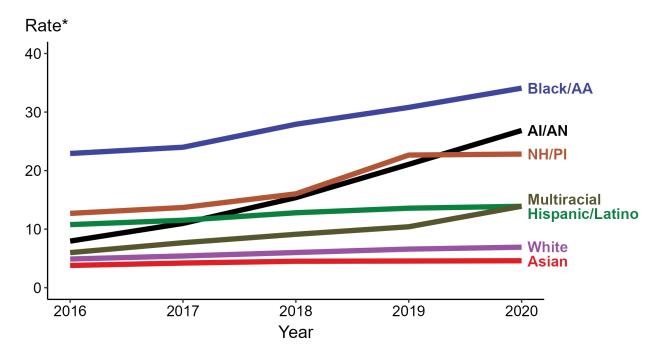
## **Summary**

In 2020, men aged 25 to 29 years had the highest rate of reported cases of primary and secondary syphilis among men (58.1 cases per 100,000; 0.7% increase from 2019), followed by those aged 30 to 34 years (55.7 cases per 100,000; 10.5% increase from 2019), those aged 20 to 24 years (43.5 cases per 100,000; 5.0% decrease from 2019), those aged 35 to 44 years (34.9 cases per 100,000; 8.7% increase from 2019), and those aged 15 to 19 years (10.9 cases per 100,000; 2.7% decrease from 2019).

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on syphilis case reporting.

Primary and Secondary Syphilis — Rates of Reported Cases by Race/Hispanic Ethnicity, United States, 2016–2020



\* Per 100,000

**ACRONYMS:** Al/AN = American Indian/Alaska Native; Black/AA = Black or African American; NH/PI = Native Hawaiian/Pacific Islander

## Summary

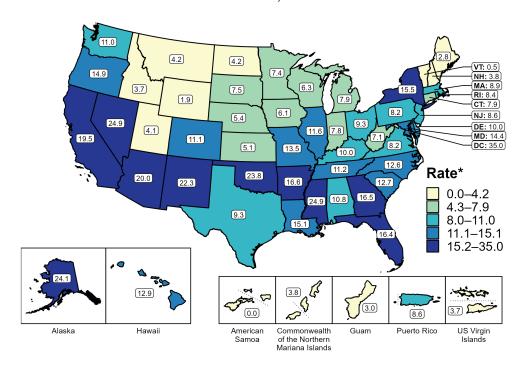
In 2020, the highest rate of reported cases of primary and secondary syphilis was among non-Hispanic Black or African American persons (34.1 cases per 100,000; 10.7% increase from 2019), followed by non-Hispanic American Indian or Alaska Native persons (26.9 cases per 100,000; 27.5% increase from 2019), non-Hispanic Native Hawaiian or other Pacific Islander persons (22.8 cases per 100,000; 0.4% increase from 2019), non-Hispanic persons of multiple races (13.9 cases per 100,000; 33.7% increase from 2019), Hispanic or Latino persons of any race (13.9 cases per 100,000; 2.2% increase from 2019), non-Hispanic White persons (6.9 cases per 100,000; 4.5% increase from 2019), and non-Hispanic Asian persons (4.6 cases per 100,000; 0.0% change from 2019). Non-Hispanic American Indian or Alaska Native persons had the greatest 5-year increase in rates of reported cases of primary and secondary syphilis (8.0 to 26.9 per 100,000; 236.2% increase from 2016).

For this figure, race/Hispanic ethnicity is categorized first by reported Hispanic ethnicity, then by reported race. Therefore, cases categorized as Hispanic/Latino can be of any race; cases categorized into a race group include both non-Hispanic persons and persons of unknown Hispanic ethnicity. Not all US jurisdictions reported cases in Office of Management and Budget compliant race categories during 2016 to 2020. This may minimally under- or overestimate rates for Asian, Native Hawaiian or other Pacific Islander, or multiracial individuals. No population data exist for unknown or other race; therefore, rates are not calculated. For completeness, data in this figure include cases reported from all jurisdictions.

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on syphilis case reporting and reporting of race/Hispanic ethnicity for STD cases.

Primary and Secondary Syphilis — Rates of Reported Cases by State, United States and Territories, 2020



\* Per 100,000

#### **Summary**

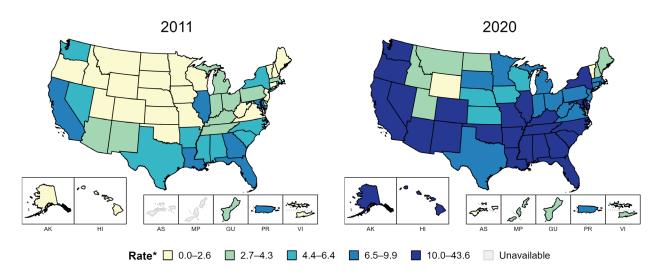
In 2020, rates of reported primary and secondary syphilis ranged by state from 0.5 cases per 100,000 population in Vermont to 24.9 cases per 100,000 population in Mississippi and Nevada. The rate of reported primary and secondary syphilis in the District of Columbia was 35.0 per 100,000 population.

Among US territories, rates of reported primary and secondary syphilis ranged from 0.0 cases per 100,000 population in American Samoa to 8.6 cases per 100,000 population in Puerto Rico.

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on syphilis case reporting and on interpreting reported rates in US territories.

# Primary and Secondary Syphilis — Rates of Reported Cases by State, United States and Territories, 2011 and 2020



<sup>\*</sup> Per 100,000

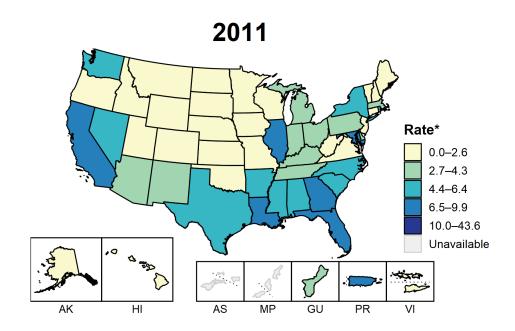
#### **Summary**

In 2011, six states, the District of Columbia (DC), and one US territory (14.3% of available areas) had a rate of reported primary and secondary syphilis greater than or equal to 6.5 cases per 100,000 population. This increased to 38 states, DC, and one US territory (71.4% of available areas) in 2020.

American Samoa and the Commonwealth of the Northern Mariana Islands began reporting data on primary and secondary syphilis cases to CDC in 2018; data are not available for those areas prior to that year.

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on syphilis case reporting and on interpreting reported rates in US territories.



\* Per 100,000

This slide contains an animated figure that will play when the slide is in presentation mode. A static version of the figure that displays maps from the first and last years of the range is available as a separate slide.

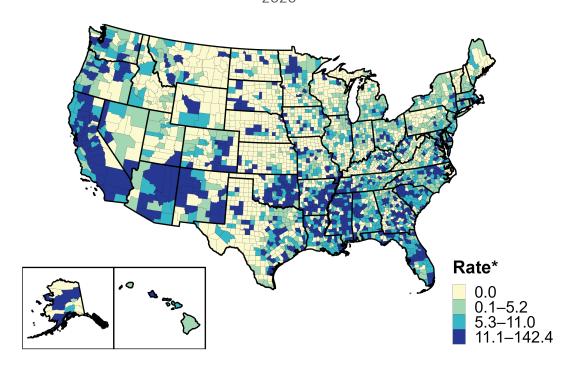
In 2011, six states, the District of Columbia (DC), and one US territory (14.3% of available areas) had a rate of reported primary and secondary syphilis greater than or equal to 6.5 cases per 100,000 population. This increased to 38 states, DC, and one US territory (71.4% of available areas) in 2020. During 2019 to 2020, rates of reported primary and secondary syphilis increased in 33 states and two territories.

American Samoa and the Commonwealth of the Northern Mariana Islands began reporting data on primary and secondary syphilis cases to CDC in 2018; data are not available for those areas prior to that year. In addition, data on reported primary and secondary syphilis cases in 2018 are not available for the US Virgin Islands.

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on syphilis case reporting and on interpreting reported rates in US territories.

Primary and Secondary Syphilis — Rates of Reported Cases by County, United States, 2020



\* Per 100,000

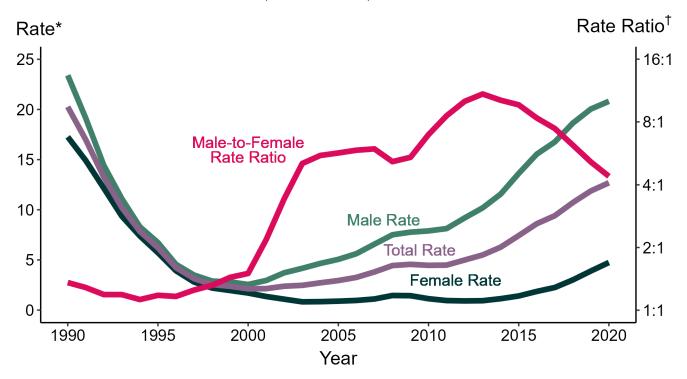
## **Summary**

In 2020, 58% of all counties and county equivalents in the United States reported at least one case of primary and secondary syphilis. Out of 3,143 counties and county equivalents, 50 (2%) reported over half of all cases of primary and secondary syphilis.

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on syphilis case reporting.

Primary and Secondary Syphilis — Rates of Reported Cases by Sex and Male-to-Female Rate Ratios, United States, 1990–2020



<sup>\*</sup> Per 100,000

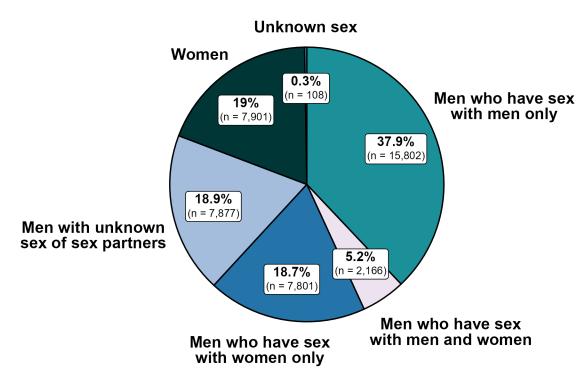
† Log scale

#### **Summary**

Although the male-to-female rate ratio for primary and secondary syphilis increased from 1990 to 2013, the rate ratio is now declining due to the increasing rate of syphilis among women. During 2016 to 2020, the rate of primary and secondary syphilis among women more than doubled (1.9 per 100,000 in 2016 to 4.7 per 100,000 in 2020).

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on syphilis case reporting.

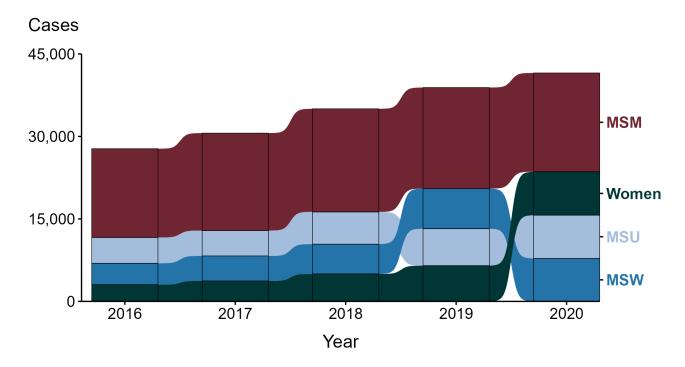


Of 41,655 reported primary and secondary syphilis cases in 2020, 37.9% were among men who have sex with men only. Men who have sex with men only combined with men who have sex with both men and women accounted for 43.1% of all primary and secondary syphilis cases, 53.4% of all male primary and secondary syphilis cases, and 69.7% of male primary and secondary syphilis cases with information on sex of sex partners.

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on syphilis case reporting.

Primary and Secondary Syphilis — Reported Cases by Sex and Sex of Sex Partners, United States, 2016–2020



**ACRONYMS:** MSM = Gay, bisexual, and other men who have sex with men; MSU = Men with unknown sex of sex partners; MSW = Men who have sex with women only

**NOTE:** Over the five year period, 0.2% of cases were missing sex and were not included.

#### **Summary**

During 2016 to 2020, the majority (51.2%) of primary and secondary syphilis cases were among men who have sex with men (MSM; 89,000).

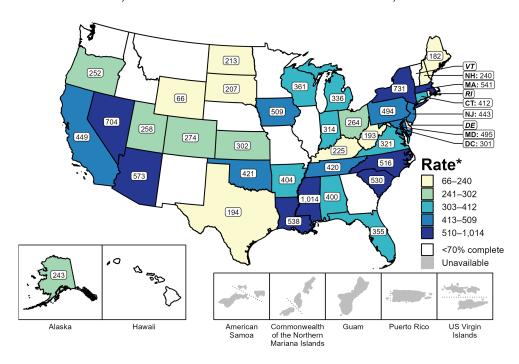
During 2019 to 2020, the number of cases among MSM decreased 2.2% (18,381 in 2019 to 17,968 in 2020), while the number of cases increased 17.0% among men with unknown sex of sex partners (MSU; 6,732 in 2019 to 7,877 in 2020), increased 7.0% among men who have sex with women only (MSW; 7,289 in 2019 to 7,801 in 2020), and increased 21.7% among women (6,493 in 2019 to 7,901 in 2020).

During 2016 to 2020, the number of cases among MSM increased 11.2% (16,155 in 2016 to 17,968 in 2020), while the number of cases increased 68.0% among MSU (4,689 in 2016 to 7,877 in 2020), increased 101.1% among MSW (3,880 in 2016 to 7,801 in 2020), and increased 159.1% among women (3,049 in 2016 to 7,901 in 2020).

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on syphilis case reporting.

Primary and Secondary Syphilis — Estimated Rates of Reported Cases Among MSM by State, 37 States and the District of Columbia, 2020



<sup>\*</sup> Per 100.000

**NOTE:** States reporting <70% of male cases identified as MSM or MSW in 2020 are suppressed. Population estimates for MSM in US territories are unavailable.

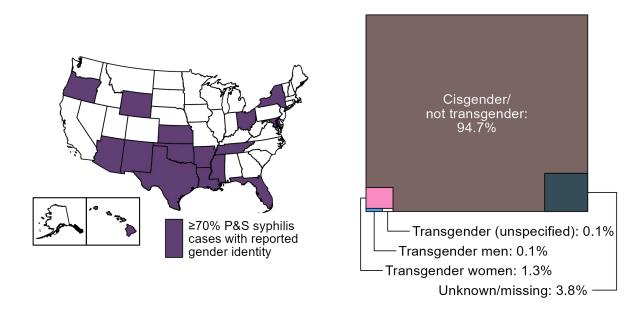
**ACRONYMS:** MSM = Gay, bisexual, and other men who have sex with men; MSW = Men who have sex with women only

#### **Summary**

In 2020, 37 states and the District of Columbia provided data to classify at least 70% of male primary and secondary syphilis cases as men who have sex with men (MSM) or men who have sex with women only. Among the states, estimated rates of primary and secondary syphilis cases in MSM ranged from 66 per 100,000 in Wyoming to 1,014 per 100,000 in Mississippi. The estimated rate in the District of Columbia was 301 per 100,000.

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on syphilis case reporting.



\* States reporting gender identity for ≥70% primary and secondary syphilis cases in 2020; in 2020, 24 states and the District of Columbia reported on gender identity for primary and secondary syphilis cases

## **Summary**

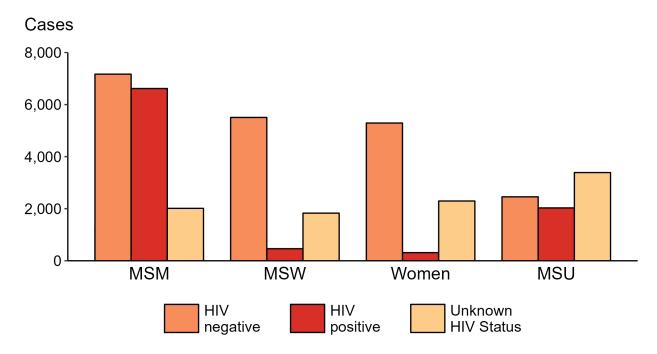
Starting in 2018, jurisdictions were able to provide gender identity for reported cases of primary and secondary syphilis; however, not all jurisdictions have been able to report complete data. To minimize bias due to missing data, this figure displays data from states with ≥70% complete information on gender identity for primary and secondary syphilis cases. As reporting of gender identity improves, case counts and distribution of cases by gender identity will become more representative of the US.

In 2020, 16 states reported gender identity for ≥70% of primary and secondary syphilis cases. In those states, 17,754 total cases were reported, of which 94.7% were reported with cisgender (i.e., not transgender) identity, 3.8% were reported with missing or unknown gender identity, and 1.5% were reported with transgender identity, specifically as transgender women (1.3%), transgender men (0.1%), and unspecified transgender identity (0.1%).

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on syphilis case reporting.

Primary and Secondary Syphilis — Reported Cases by Sex, Sex of Sex Partners, and HIV Status, United States, 2020



**NOTE:** Of all reported cases of primary and secondary syphilis, 0.3% were cases with unknown sex.

**ACRONYMS:** MSM = Gay, bisexual, and other men who have sex with men; MSW = Men who have sex with women only; MSU = Men with unknown sex of sex partners

## **Summary**

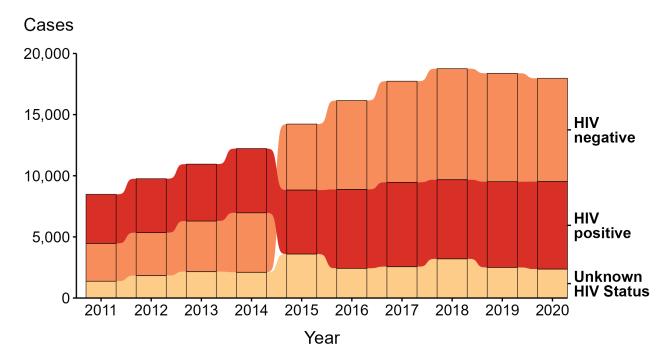
Among primary and secondary syphilis cases with reported HIV status, 45.9% of cases among men who have sex with men were HIV positive, compared with 45.3% of cases among men with unknown sex of sex partners, 7.8% of cases among men who have sex with women only, and 5.6% of cases among women.

For this figure, HIV status is categorized as reported by jurisdictions. Jurisdictions determine HIV status using multiple sources, including self-report, match with HIV registry, and available test results. Cases reported with a missing or unknown status are categorized as having an unknown HIV status.

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on syphilis case reporting.

Primary and Secondary Syphilis — Reported Cases Among Men Who Have Sex with Men by HIV Status, United States, 2011–2020



### **Summary**

During 2011 to 2020, a plurality (43.5%) of primary and secondary syphilis cases among men who have sex with men were among persons reported as HIV negative.

During 2019 to 2020, the number of cases among men who have sex with men who were reported as HIV negative decreased 4.8% (from 8,867 in 2019 to 8,441 in 2020), the number who were reported as HIV positive increased 2.1% (from 7,013 in 2019 to 7,161 in 2020), and the number who were reported with unknown HIV status decreased 5.4% (from 2,501 in 2019 to 2,366 in 2020).

During 2011 to 2020, the number of cases among men who have sex with men who were reported as HIV negative increased 173.5% (from 3,086 in 2011 to 8,441 in 2020), the number who were reported as HIV positive increased 78.3% (from 4,017 in 2011 to 7,161 in 2020), and the number who were reported with unknown HIV status increased 71.6% (from 1,379 in 2011 to 2,366 in 2020).

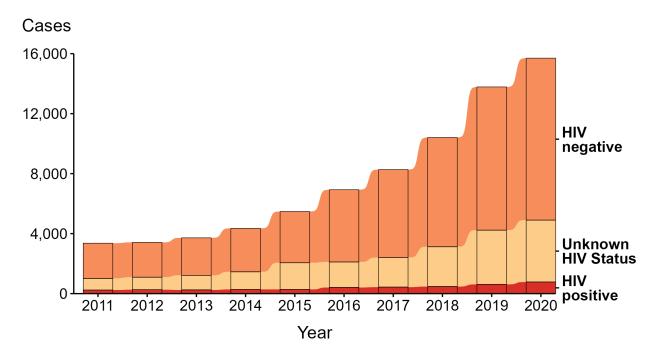
Since 2015, the number of primary and secondary syphilis cases among men who have sex with men who are HIV negative has surpassed the number of cases among those who are HIV positive.

For this figure, HIV status is categorized as reported by jurisdictions. Jurisdictions determine HIV status using multiple sources, including self-report, match with HIV registry, and available test results. Cases reported with a missing or unknown status are categorized as having an unknown HIV status.

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on syphilis case reporting.

Primary and Secondary Syphilis — Reported Cases Among Women and Men Who Have Sex with Women Only by HIV Status, United States, 2011–2020



## **Summary**

During 2011 to 2020, the majority (68.7%) of primary and secondary syphilis cases among women and men who have sex with women only were among persons reported as HIV negative.

During 2019 to 2020, the number of cases among women and men who have sex with women only who were reported as HIV negative increased 13.1% (from 9,552 in 2019 to 10,799 in 2020), the number who were reported with unknown HIV status increased 14.3% (from 3,611 in 2019 to 4,126 in 2020), and the number who were reported as HIV positive increased 25.5% (from 619 in 2019 to 777 in 2020).

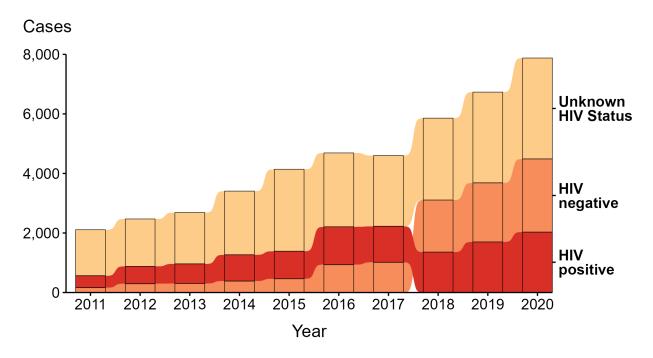
During 2011 to 2020, the number of cases among women and men who have sex with women only who were reported as HIV negative increased 359.1% (from 2,352 in 2011 to 10,799 in 2020), the number who were reported with unknown HIV status increased 435.8% (from 770 in 2011 to 4,126 in 2020), and the number who were reported as HIV positive increased 222.4% (from 241 in 2011 to 777 in 2020).

For this figure, HIV status is categorized as reported by jurisdictions. Jurisdictions determine HIV status using multiple sources, including self-report, match with HIV registry, and available test results. Cases reported with a missing or unknown status are categorized as having an unknown HIV status.

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on syphilis case reporting.

Primary and Secondary Syphilis — Reported Cases Among Men with Unknown Sex of Sex Partners by HIV Status, United States, 2011–2020



## **Summary**

During 2011 to 2020, the majority (53.4%) of primary and secondary syphilis cases among men with unknown sex of sex partners were among persons reported with unknown HIV status.

During 2019 to 2020, the number of cases among men with unknown sex of sex partners who were reported with unknown HIV status increased 11.2% (from 3,049 in 2019 to 3,389 in 2020), the number who were reported as HIV negative increased 23.9% (from 1,983 in 2019 to 2,457 in 2020), and the number who were reported as HIV positive increased 19.5% (from 1,700 in 2019 to 2,031 in 2020).

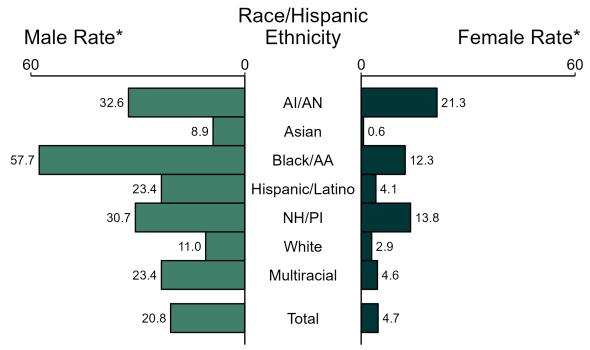
During 2011 to 2020, the number of cases among men with unknown sex of sex partners who were reported with unknown HIV status increased 119.4% (from 1,545 in 2011 to 3,389 in 2020), the number who were reported as HIV positive increased 406.5% (from 401 in 2011 to 2,031 in 2020), and the number who were reported as HIV negative increased 1,407.4% (from 163 in 2011 to 2,457 in 2020).

For this figure, HIV status is categorized as reported by jurisdictions. Jurisdictions determine HIV status using multiple sources, including self-report, match with HIV registry, and available test results. Cases reported with a missing or unknown status are categorized as having an unknown HIV status.

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on syphilis case reporting.

Primary and Secondary Syphilis — Rates of Reported Cases by Race/Hispanic Ethnicity and Sex, United States, 2020



<sup>\*</sup> Per 100,000

**ACRONYMS:** Al/AN = American Indian/Alaska Native; Black/AA = Black or African American; NH/PI = Native Hawaiian/Pacific Islander

NOTE: Total includes all cases including those with unknown race/Hispanic ethnicity.

#### Summary

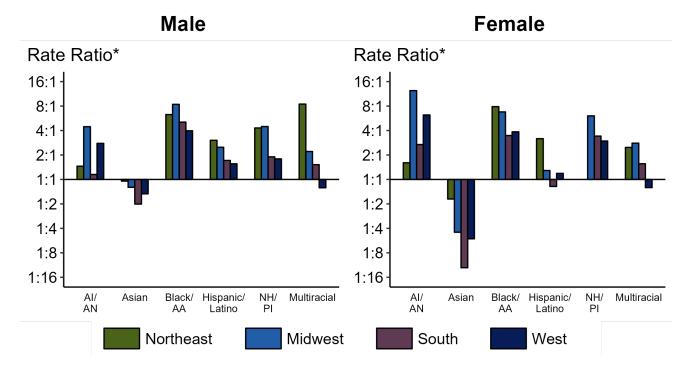
In 2020, non-Hispanic Black or African American men had the highest rate of reported cases of primary and secondary syphilis (57.7 per 100,000), followed by non-Hispanic American Indian or Alaska Native men (32.6 per 100,000) and non-Hispanic Native Hawaiian or other Pacific Islander men (30.7 per 100,000). Among women, non-Hispanic American Indian or Alaska Native women had the highest rate of reported cases of primary and secondary syphilis (21.3 per 100,000), followed by non-Hispanic Native Hawaiian or other Pacific Islander women (13.8 per 100,000) and non-Hispanic Black or African American women (12.3 per 100,000).

Using non-Hispanic White persons as the reference category, the greatest racial disparity in rates of reported primary and secondary syphilis was observed among non-Hispanic American Indian or Alaska Native women, with a rate ratio of 7.2. Among men, the greatest disparity was observed among non-Hispanic Black or African American men, with a rate 5.3 times that of non-Hispanic White men.

For this figure, race/Hispanic ethnicity is categorized first by reported Hispanic ethnicity, then by reported race. Therefore, cases categorized as Hispanic/Latino can be of any race; cases categorized into a race group include both non-Hispanic persons and persons of unknown Hispanic ethnicity. Not all US jurisdictions reported cases in Office of Management and Budget compliant race categories in 2020. This may minimally under- or overestimate rates for Asian, Native Hawaiian or other Pacific Islander, or multiracial individuals. No population data exist for unknown or other race; therefore, rates are not calculated. For completeness, data in this figure include cases reported from all jurisdictions.

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on syphilis case reporting.



<sup>\*</sup> For the rate ratios, non-Hispanic White persons are the reference population. Y-axis is log scale.

**ACRONYMS:** Al/AN = American Indian/Alaska Native; Black/AA = Black or African American; NH/PI = Native Hawaiian/Pacific Islander

#### Summary

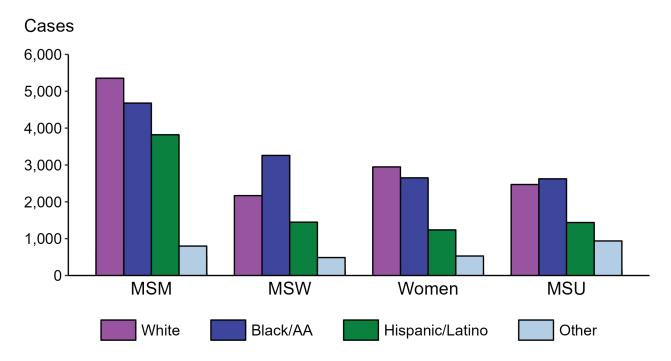
Among males and females, rate ratios of rates of reported primary and secondary syphilis by race/Hispanic ethnicity (using non-Hispanic White persons as the reference population) varied by region in 2020. Among males, the greatest rate ratio was in the Northeast where the rate of reported primary and secondary syphilis among non-Hispanic males of multiple races was 8.5 times the rate among non-Hispanic White males. Among females, the greatest rate ratio was in the Midwest where the rate of reported primary and secondary syphilis among non-Hispanic Alaskan Native/American Indian females was 12.4 times the rate among non-Hispanic White females.

For this figure, race/Hispanic ethnicity is categorized first by reported Hispanic ethnicity, then by reported race. Therefore, cases categorized as Hispanic/Latino can be of any race; cases categorized into a race group include both non-Hispanic persons and persons of unknown Hispanic ethnicity. Not all US jurisdictions reported cases in Office of Management and Budget compliant race categories in 2020. This may minimally under- or overestimate rates for Asian, Native Hawaiian or other Pacific Islander, or multiracial individuals. No population data exist for unknown or other race; therefore, rates and rate ratios are not calculated. For completeness, data in this figure include cases reported from all jurisdictions.

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on syphilis case reporting.

Primary and Secondary Syphilis — Reported Cases by Sex, Sex of Sex Partners, and Race/Hispanic Ethnicity, United States, 2020



NOTE: Of all reported cases of primary and secondary syphilis, 0.3% were cases with unknown sex.

**ACRONYMS:** MSM = Gay, bisexual, and other men who have sex with men; MSW = Men who have sex with women only; MSU = Men with unknown sex of sex partners

#### **Summary**

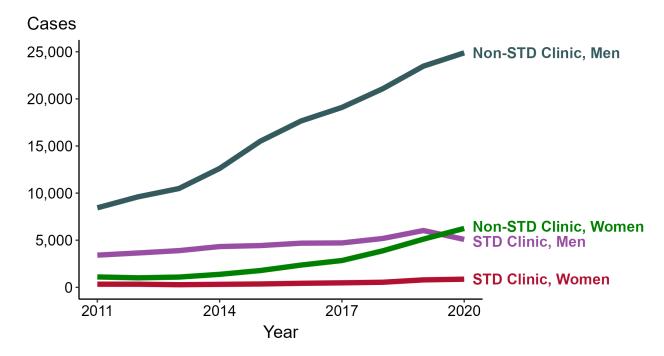
Across the four race and Hispanic ethnicity groups displayed, men who have sex with men (MSM) accounted for the highest proportion of primary and secondary (P&S) syphilis cases. Of P&S syphilis cases among MSM, 33.6% were non-Hispanic White, 30.4% were non-Hispanic Black or African American, 23.7% were Hispanic or Latino, and 12.2% were another race and not Hispanic or Latino.

For this figure, race/Hispanic ethnicity is categorized first by reported Hispanic ethnicity, then by reported race. Therefore, cases categorized as Hispanic/Latino can be of any race; cases categorized into a race group include both non-Hispanic persons and persons of unknown Hispanic ethnicity. Not all US jurisdictions reported cases in Office of Management and Budget compliant race categories in 2020. This may minimally under- or overestimate rates for Asian, Native Hawaiian or other Pacific Islander, or multiracial individuals. For completeness, data in this figure include cases reported from all jurisdictions.

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on syphilis case reporting.

Primary and Secondary Syphilis — Reported Cases by Reporting Source and Sex, United States, 2011–2020



**NOTE:** During 2011 to 2020, the proportion of all cases with unknown reporting source was 9.4%, from a low of 4.8% in 2011 to a high of 12.4% in 2018.

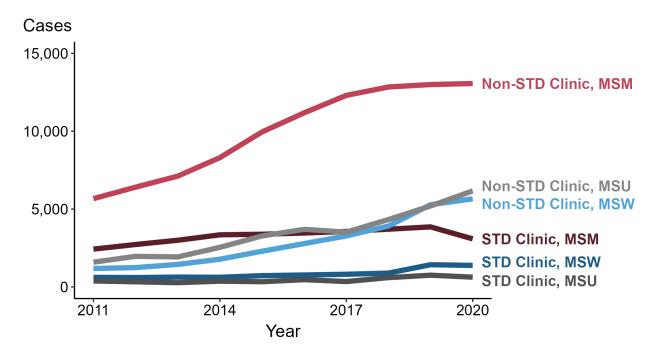
### Summary

During 2011 to 2020, the number of primary and secondary syphilis cases reported from STD clinics increased 48.9% among men (3,416 to 5,087 cases) and increased 158.7% among women (334 to 864 cases), while the number of cases reported from non-STD clinics increased 195.0% among men (8,437 to 24,888 cases) and increased 466.8% among women (1,103 to 6,252 cases).

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on syphilis case reporting.

Primary and Secondary Syphilis — Reported Cases among Men by Reporting Source and Sex of Sex Partners, United States, 2011–2020



**NOTE**: During 2011 to 2020, the proportion of all cases with unknown reporting source was 9.4%, from a low of 4.8% in 2011 to a high of 12.6% in 2018.

**ACRONYMS:** MSM = Gay, bisexual, and other men who have sex with men; MSW = Men who have sex with women only; MSU = Men with unknown sex of sex partners

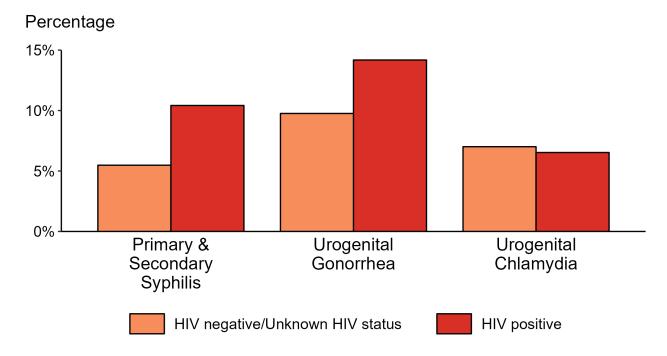
#### Summary

During 2011 to 2020, the number of primary and secondary syphilis cases reported from STD clinics increased 27.1% among MSM (2,426 to 3,084 cases), increased 126.4% among MSW (609 to 1,379 cases), and increased 63.8% among MSU (381 to 624 cases), while the number of cases reported from non-STD clinics increased 130.4% among MSM (5,669 to 13,064 cases), increased 379.1% among MSW (1,181 to 5,658 cases), and increased 288.5% among MSU (1,587 to 6,166 cases).

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on syphilis case reporting.

Proportion of MSM with Primary and Secondary Syphilis, Urogenital Gonorrhea, or Urogenital Chlamydia by HIV Status, STD Surveillance Network (SSuN), 2020



**NOTE:** Results are based on data obtained from patients in eight participating sites (Baltimore, Florida, Indiana, Multnomah County, New York City, Philadelphia, San Francisco, and Washington).

ACRONYMS: MSM = Gay, bisexual, and other men who have sex with men

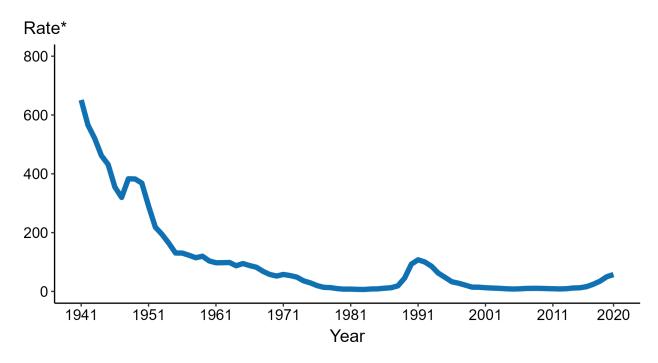
## **Summary**

Among gay, bisexual and other men who have sex with men (referred to as MSM) attending participating STD clinics in the STD Surveillance Network, the portion diagnosed with primary and secondary syphilis was higher for those that were HIV positive compared with those not known to be HIV positive (10.4% versus 5.5%). The pattern was similar for urogential gonorrhea, with the proportion of testing positive higher among HIV-positive MSM compared with MSM not known to be HIV positive (14.2% versus 9.8%); however, the proportion testing positive for urogential chlamydia was similar (7.0% among HIV-positive MSM and 6.5% among MSM not known to be HIV positive).

For this figure, HIV status is categorized using documented in the clinic records (based on self-report or most recent HIV test result) or matched information documented in the jurisdiction's HIV registry.

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on syphilis case reporting.



\* Per 100,000 live births

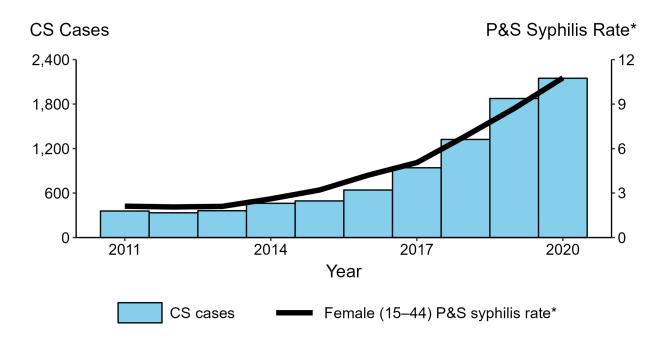
Data collection for congenital syphilis began in 1941, and congenital syphilis was made a nationally notifiable condition in 1944. There was a significant change in the congenital syphilis case definition in 1990s and trends during this time should be interpreted with caution.

In 2020, 2,148 total cases of congenital syphilis were reported in the United States. During 2019 to 2020, the rate of reported congenital syphilis increased 14.6% (from 50.0 to 57.3 per 100,000 live births).

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on syphilis case reporting.

Congenital Syphilis — Reported Cases by Year of Birth and Rates of Reported Cases of Primary and Secondary Syphilis Among Women Aged 15–44 Years, United States, 2011–2020



<sup>\*</sup> Per 100,000

**ACRONYMS:** CS = Congenital syphilis; P&S = Primary and secondary syphilis

#### **Summary**

In 2020, there were a total of 2,148 cases of congenital syphilis reported for a rate of 57.3 per 100,000 live births.

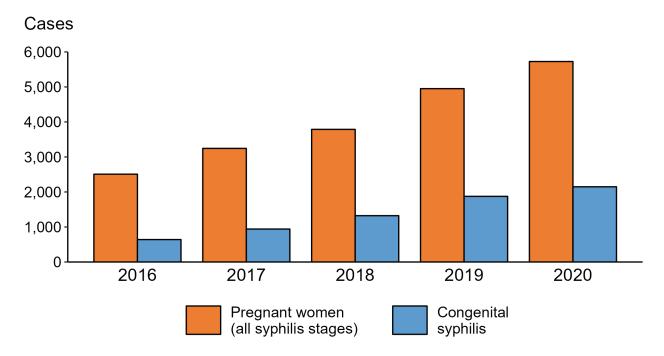
During 2019 to 2020, the number of cases of congenital syphilis increased 14.6% (1,875 to 2,148 cases), concurrent with a 24.1% increase (8.7 to 10.8 per 100,000) in the rate of primary and secondary syphilis among women aged 15 to 44 years.

During 2011 to 2020, the number of cases of congenital syphilis increased 500.0% (358 to 2,148 cases), concurrent with a 414.3% increase (2.1 to 10.8 per 100,000) in the rate of primary and secondary syphilis among women aged 15 to 44 years.

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on syphilis case reporting.

Syphilis — Reported Cases of Syphilis (All Stages) among Pregnant Women and Reported Cases of Congenital Syphilis By Year of Birth, United States, 2016–2020



**NOTE:** The percent of cases missing information on pregnancy status decreased from 20% in 2016 to 11% in 2020.

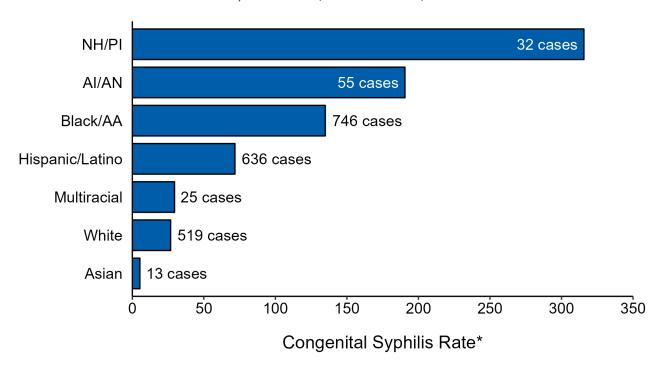
During 2019 to 2020, the number of women reported with syphilis (all stages) who were pregnant increased 15.7% (from 4,951 in 2019 to 5,726 in 2020). During the same time period, the number of reported cases of congenital syphilis increased 14.6% (from 1,875 in 2019 to 2,148 in 2020).

During 2016 to 2020, the number of women reported with syphilis (all stages) who were pregnant increased 128.3% (from 2,508 in 2016 to 5,726 in 2020). During the same time period, the number of reported cases of congenital syphilis increased 235.1% (from 641 in 2016 to 2,148 in 2020).

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on syphilis case reporting.

# Congenital Syphilis — Case Counts and Rates of Reported Cases by Race/Hispanic Ethnicity of Mother, United States, 2020



<sup>\*</sup> Per 100,000 live births

**NOTE:** In 2021, 122 cases (0.1%) were missing reported race and/or Hispanic ethnicity.

**ACRONYMS:** Al/AN = American Indian/Alaska Native; Black/AA = Black or African American; NH/PI = Native Hawaiian/Pacific Islander

## **Summary**

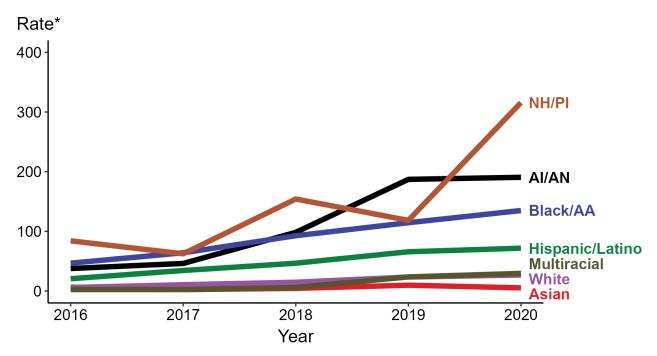
In 2020, rates of congenital syphilis were highest among mothers who were non-Hispanic Native Hawaiian or other Pacific Islander (315.7 per 100,000 live births), followed by mothers who were non-Hispanic American Indian or Alaska Native (190.6 per 100,000 live births) and mothers who were non-Hispanic Black or African American (134.9 per 100,000 live births). The greatest number of reported cases was among mothers who were non-Hispanic Black or African American (746 cases), followed by mothers who were Hispanic or Latino and of any race (636 cases) and mothers who were non-Hispanic White (519 cases).

For this figure, race/Hispanic ethnicity is categorized first by reported Hispanic ethnicity of the mother, then by reported race of the mother. Therefore, cases categorized as Hispanic/Latino can be of any race; cases categorized into a race group include both non-Hispanic persons and persons of unknown Hispanic ethnicity. Not all US jurisdictions reported cases in Office of Management and Budget compliant race categories in 2020. This may minimally under- or overestimate rates for Asian, Native Hawaiian or other Pacific Islander, or multiracial individuals. No population data exist for unknown or other race; therefore, rates are not calculated. For completeness, data in this figure include cases reported from all jurisdictions.

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on syphilis case reporting.

Congenital Syphilis — Rates of Reported Cases by Year of Birth, Race/Hispanic Ethnicity of Mother, United States, 2016–2020



<sup>\*</sup> Per 100,000 live births

**ACRONYMS:** Al/AN = American Indian/Alaska Native; Black/AA = Black or African American; NH/PI = Native Hawaiian/Pacific Islander

#### Summary

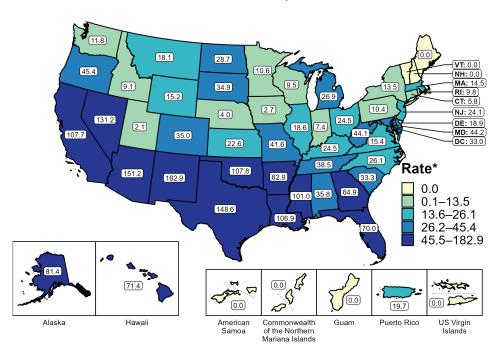
In 2020, the highest rate of reported cases of congenital syphilis was among mothers who were non-Hispanic Native Hawaiian or other Pacific Islander (315.7 cases per 100,000 live births; 166.6% increase from 2019), followed by mothers who were non-Hispanic American Indian or Alaska Native (190.6 cases per 100,000 live births; 1.9% increase from 2019), mothers who were non-Hispanic Black or African American (134.9 cases per 100,000 live births; 17.8% increase from 2019), mothers who were Hispanic or Latino and of any race (71.7 cases per 100,000 live births; 9.0% increase from 2019), mothers who were non-Hispanic and of multiple races (29.5 cases per 100,000 live births; 25.0% increase from 2019), and mothers who were non-Hispanic White (26.8 cases per 100,000 live births; 14.0% increase from 2019). Mothers who were non-Hispanic Asian (5.3 cases per 100,000 live births; 45.9% decrease from 2019). Mothers who were non-Hispanic and of multiple races had the greatest 5-year increase in rates of reported cases of congenital syphilis (2.5 to 29.5 per 100,000 live births; 1,080.0% increase from 2016).

For this figure, race/Hispanic ethnicity is categorized first by reported Hispanic ethnicity of the mother, then by reported race of the mother. Therefore, cases categorized as Hispanic/Latino can be of any race; cases categorized into a race group include both non-Hispanic persons and persons of unknown Hispanic ethnicity. Not all US jurisdictions reported cases in Office of Management and Budget compliant race categories during 2016 to 2020. This may minimally under- or overestimate rates for Asian, Native Hawaiian or other Pacific Islander, or multiracial individuals. No population data exist for unknown or other race; therefore, rates are not calculated. For completeness, data in this figure include cases reported from all jurisdictions.

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on syphilis case reporting.

# Congenital Syphilis — Rates of Reported Cases by Year of Birth and State, United States and Territories, 2020



<sup>\*</sup> Per 100,000 live births

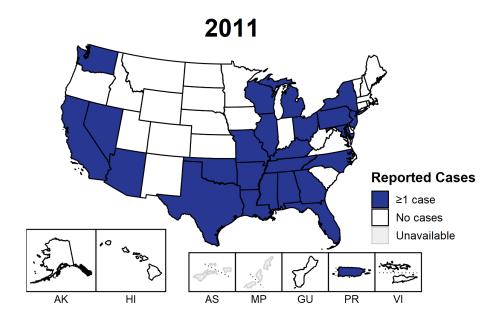
## **Summary**

In 2020, rates of reported congenital syphilis ranged by state from 0.0 cases per 100,000 live births in Maine, New Hampshire, and Vermont to 182.9 cases per 100,000 live births in New Mexico. The rate of reported congenital syphilis in the District of Columbia was 33.0 per 100,000 live births.

Among US territories, rates of reported congenital syphilis ranged from 0.0 cases per 100,000 live births in American Samoa, Guam, the Commonwealth of the Northern Mariana Islands, and the US Virgin Islands to 19.7 cases per 100,000 live births in Puerto Rico.

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on syphilis case reporting.



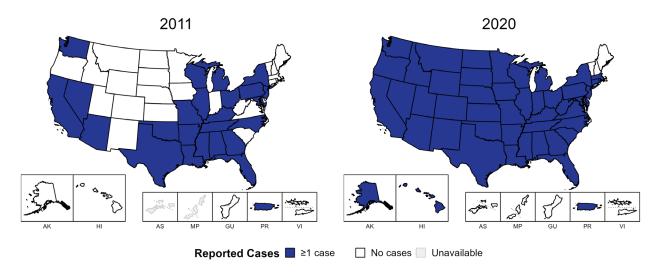
This slide contains an animated figure that will play when the slide is in presentation mode. A static version of the figure that displays maps from the first and last years of the range is available as a separate slide.

In 2011, 24 states, the District of Columbia (DC), and one US territory (46.4% of available areas) reported one or more cases of congenital syphilis. This increased to 47 states, DC, and one US territory (87.5% of available areas) in 2020.

American Samoa and the Commonwealth of the Northern Mariana Islands began reporting data on congenital syphilis cases to CDC in 2018; data are not available for those areas prior to that year. In addition, data on reported congenital syphilis cases in 2018 are not available for the US Virgin Islands.

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on syphilis case reporting.

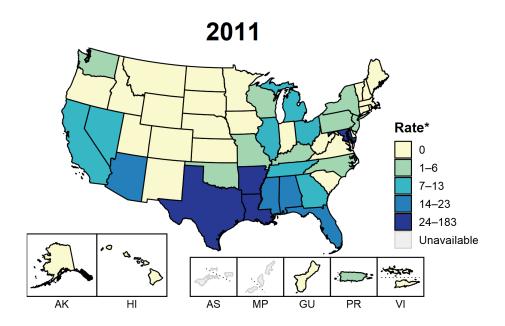


In 2011, 24 states, the District of Columbia (DC), and one US territory (46.4% of available areas) reported one or more cases of congenital syphilis. This increased to 47 states, DC, and one US territory (87.5% of available areas) in 2020.

American Samoa and the Commonwealth of the Northern Mariana Islands began reporting data on congenital syphilis cases to CDC in 2018; data are not available for those areas prior to that year.

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on syphilis case reporting.



\* Per 100,000 live births

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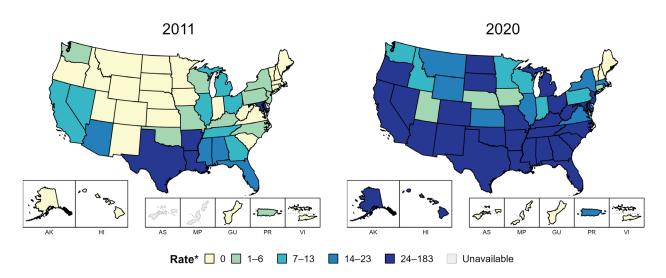
In 2011, eight states (14.3% of available areas) had a rate of reported congenital syphilis greater than or equal to 14 cases per 100,000 live births. This increased to 36 states, DC, and one US territory (67.9% of available areas) in 2020. During 2019 to 2020, rates of reported congenital syphilis among live births increased in 35 states and one the District of Columbia.

American Samoa and the Commonwealth of the Northern Mariana Islands began reporting data on congenital syphilis cases to CDC in 2018; data are not available for those areas prior to that year. In addition, data on reported congenital syphilis cases in 2018 are not available for the US Virgin Islands.

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on syphilis case reporting.

# Congenital Syphilis — Rates of Reported Cases by State, United States and Territories, 2011 and 2020



<sup>\*</sup> Per 100,000 live births

#### **Summary**

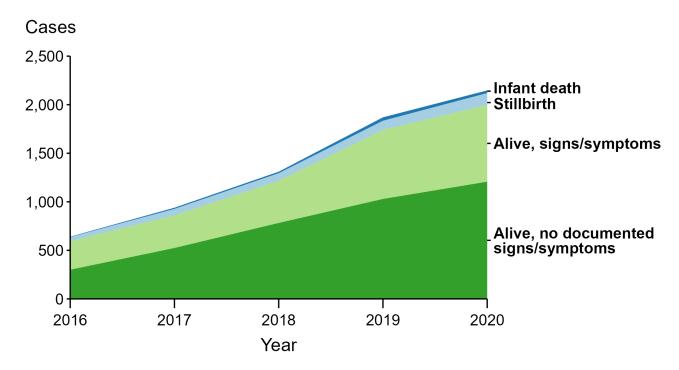
In 2011, eight states (14.3% of available areas) had a rate of reported congenital syphilis greater than or equal to 14 cases per 100,000 live births. This increased to 36 states, the District of Columbia, and one US territory (67.9% of available areas) in 2020.

American Samoa and the Commonwealth of the Northern Mariana Islands began reporting data on congenital syphilis cases to CDC in 2018; data are not available for those areas prior to that year.

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on syphilis case reporting.

Congenital Syphilis — Reported Cases by Vital Status and Clinical Signs and Symptoms\* of Infection, United States, 2016–2020



\*Infants with signs/symptoms of congenital syphilis have documentation of at least one of the following: long bone changes consistent with congenital syphilis, snuffles, condyloma lata, syphilitic skin rash, pseudoparalysis, hepatosplenomegaly, edema, jaundice due to syphilitic hepatitis, reactive CSF-VDRL, elevated CSF WBC or protein, or evidence of direct detection of *T. Pallidum*.

**NOTE**: Of the 6,928 congenital syphilis cases reported during 2016 to 2020, 21 (0.3%) did not have sufficient information to be categorized.

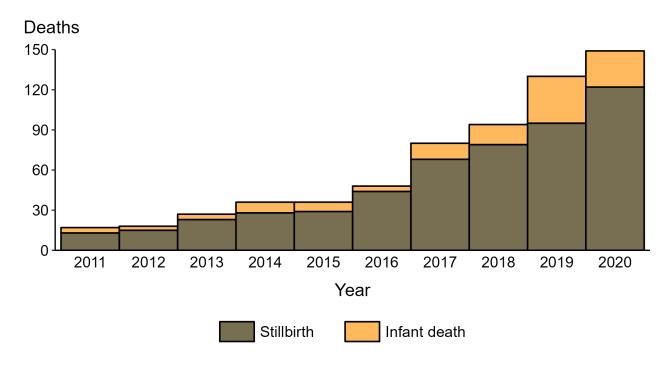
#### **Summary**

In 2020, there were 149 congenital syphilis-related deaths (122 stillbirths and 27 infant deaths), an increase of 14.6% from 2019 (130 in 2019 to 149 in 2020) and an increase of 210.4% from 2016 (48 in 2016 to 149 in 2020).

The number of infants reported with congenital syphilis who were born alive with congenital syphilis-related signs and symptoms increased 11.3% from 2019 to 2020 (711 in 2019 to 791 in 2020) and increased 170.0% from 2016 to 2020 (293 in 2016 to 791 in 2020).

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on syphilis case reporting.



#### **Summary**

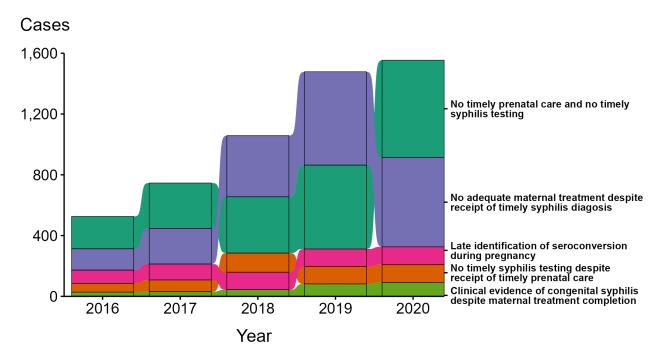
In 2020, 122 congenital syphilis-related stillbirths were reported, an increase of 28.4% since 2019 and an increase of 838.5% since 2011.

In 2020, 27 congenital syphilis-related infant deaths were reported, a decrease of 22.9% since 2019 and an increase of 575.0% since 2011.

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on syphilis case reporting.

# Congenital Syphilis — Missed Prevention Opportunities among Mothers Delivering Infants with Congenital Syphilis, United States, 2016–2020



**NOTE:** Of the 6,928 congenital syphilis cases reported during 2016 to 2020, 1,566 (22.6%) were not able to have the primary missed prevention opportunity identified due to insufficient information provided to CDC related to maternal prenatal care, testing, or treatment.

#### **Summary**

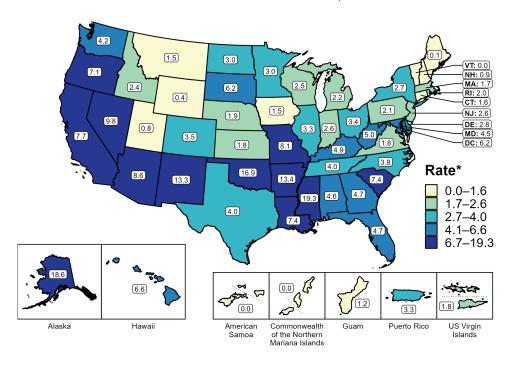
During 2016 to 2020, the majority of missed prevention opportunities among mothers of infants with congenital syphilis were those with no timely prenatal care or syphilis testing (n = 2,073; 39%) and timely syphilis testing but no adequate maternal treatment (n = 1,980; 37%). In 2020, the most common missed congenital syphilis prevention opportunity was mothers who had no timely prenatal care or syphilis testing (n = 639; 41%), followed by those who had timely syphilis testing but no adequate maternal treatment (n = 589; 38%).

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on syphilis case reporting.

Data points are available at: <a href="https://www.cdc.gov/std/statistics/2020/data.zip">https://www.cdc.gov/std/statistics/2020/data.zip</a>

### Primary and Secondary Syphilis — Rates of Reported Cases Among Women by State, United States and Territories, 2020



<sup>\*</sup> Per 100,000

#### **Summary**

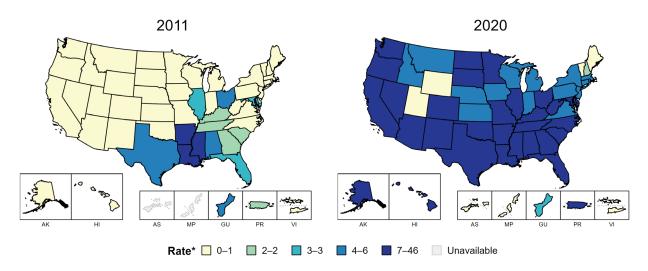
In 2020, rates of reported primary and secondary syphilis ranged by state from 0.0 cases per 100,000 women in Vermont to 19.3 cases per 100,000 women in Mississippi. The rate of reported primary and secondary syphilis in the District of Columbia was 6.2 per 100,000 women.

Among US territories, rates of reported primary and secondary syphilis ranged from 0.0 cases per 100,000 women in American Samoa and the Commonwealth of the Northern Mariana Islands to 3.3 cases per 100,000 women in Puerto Rico.

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on syphilis case reporting.

### Primary and Secondary Syphilis — Rates of Reported Cases Among Women Aged 15-44 Years by State, United States and Territories, 2011–2020



<sup>\*</sup> Per 100,000

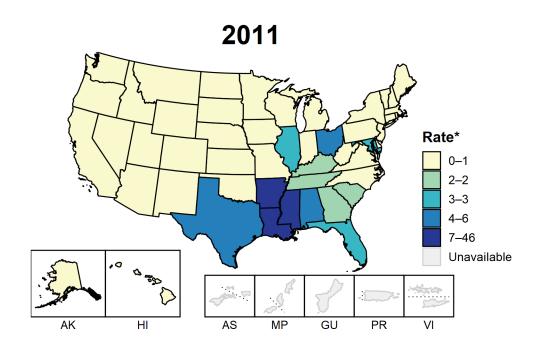
#### **Summary**

In 2011, six states, the District of Columbia (DC), and one US territory (14.3% of available areas) had a rate of reported primary and secondary syphilis greater than or equal to 4 cases per 100,000 women aged 15 to 44 years. This increased to 45 states, DC, and one US territory (83.9% of available areas) in 2020.

American Samoa and the Commonwealth of the Northern Mariana Islands began reporting data on primary and secondary syphilis cases to CDC in 2018; data are not available for those areas prior to that year. Additionally, population estimates by age and sex were not available in all territories in both years.

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on syphilis case reporting.



\* Per 100,000

#### **Summary**

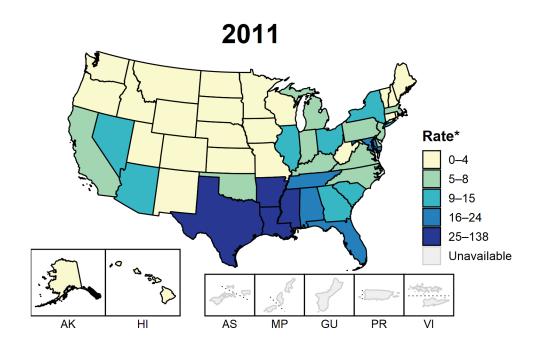
This slide contains an animated figure that will play when the slide is in presentation mode. A static version of the figure that displays maps from the first and last years of the range is available as a separate slide.

In 2011, six states and the District of Columbia (DC; 12.5% of available areas) had a rate of reported primary and secondary syphilis greater than or equal to 4 cases per 100,000 women aged 15 to 44 years. This increased to 45 states, DC, and one US territory (83.9% of available areas) in 2020. During 2019 to 2020, rates of reported primary and secondary syphilis among women aged 15 to 44 years increased in 35 states and two territories.

American Samoa and the Commonwealth of the Northern Mariana Islands began reporting data on primary and secondary syphilis cases to CDC in 2018; data are not available for those areas prior to that year. In addition, data on reported primary and secondary syphilis cases in 2018 are not available for the US Virgin Islands. Furthermore, population estimates by age and sex were not available in all territories in all years.

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on syphilis case reporting.



\* Per 100,000

#### Summary

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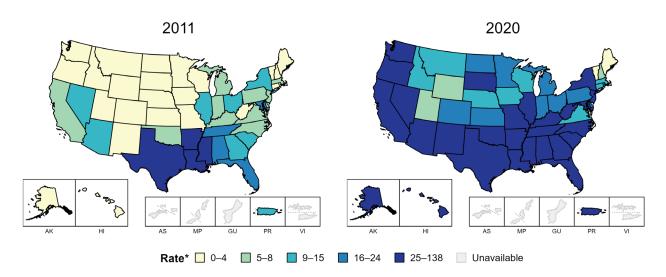
In 2011, eight states and the District of Columbia (DC; 16.1% of available areas) had a rate of reported syphilis (all stages) greater than or equal to 16 cases per 100,000 women aged 15 to 44 years. This increased to 37 states, DC, and one US territory (69.6% of available areas) in 2020. During 2019 to 2020, rates of reported syphilis (all stages) among women aged 15 to 44 years increased in 31 states and DC.

Data on reported cases of syphilis other than primary and secondary syphilis are not available by age and sex for American Samoa, the Commonwealth of the Northern Mariana Islands, Guam, and the US Virgin Islands. Additionally, population estimates by age and sex were not available in all territories in all years.

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on syphilis case reporting.

# Syphilis (All Stages) — Rates of Reported Cases Among Women Aged 15-44 Years by State, United States and Territories, 2011–2020



<sup>\*</sup> Per 100,000

#### **Summary**

In 2011, eight states and the District of Columbia (DC; 16.1% of available areas) had a rate of reported syphilis (all stages) greater than or equal to 16 cases per 100,000 women aged 15 to 44 years. This increased to 37 states, DC, and one US territory (69.6% of available areas) in 2020.

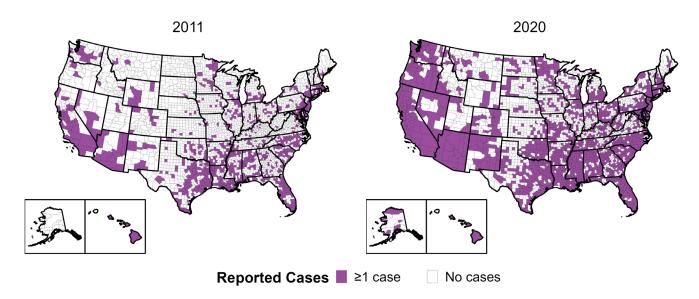
Data on reported cases of syphilis other than primary and secondary syphilis are not available by age and sex for American Samoa, the Commonwealth of the Northern Mariana Islands, Guam, and the US Virgin Islands. Additionally, population estimates by age and sex were not available in all territories in both years.

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on syphilis case reporting.

Data points are available at: <a href="https://www.cdc.gov/std/statistics/2020/data.zip">https://www.cdc.gov/std/statistics/2020/data.zip</a>

# Syphilis (All Stages) — Rates of Reported Cases Among Women Aged 15-44 Years by County, United States, 2011 and 2020

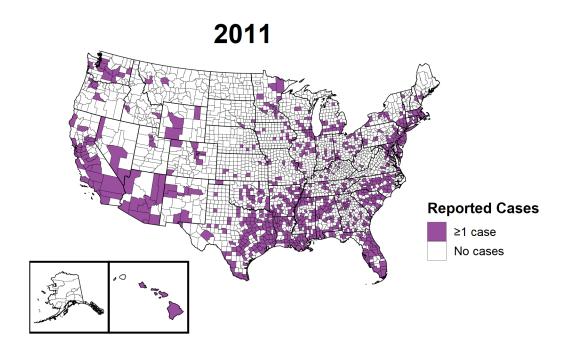


#### **Summary**

In 2011, 845 (26.9%) of US counties reported at least one case of syphilis (all stages) among women of reproductive age (15–44 years), increasing to 1,710 (54.4%) of counties in 2020.

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on syphilis case reporting.



#### **Summary**

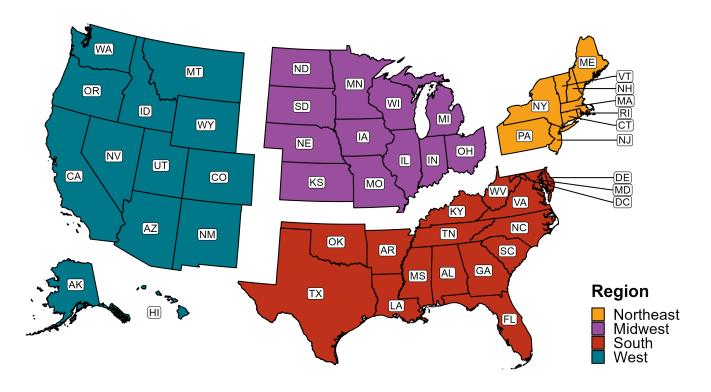
In 2011, 845 (26.9%) of US counties reported at least one case of syphilis (all stages) among women of reproductive age (15–44 years), increasing to 1,710 (54.4%) of counties in 2020. During 2019 to 2020, the number of counties increased from 1,568 (49.9%) in 2019 to 1,710 (54.4%) in 2020.

The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

See Technical Notes for information on syphilis case reporting.

Data points are available at: <a href="https://www.cdc.gov/std/statistics/2020/data.zip">https://www.cdc.gov/std/statistics/2020/data.zip</a>

### Reference Map of US Census Regions



### Tables – Sexually Transmitted Disease Surveillance, 2020

The COVID-19 pandemic affected STD prevention and control efforts, introducing uncertainty and difficulty in interpreting 2020 surveillance data. These tables highlight current trends for three nationally notifiable STDs – chlamydia, gonorrhea, and syphilis.

Trends presented in *Sexually Transmitted Disease Surveillance, 2020* should be interpreted cautiously. For more information, see Impact of COVID-19 on STDs.

State Rankings are available in Table 2, Table 7, Table 13, and Table 20;

Table 1. Sexually Transmitted Diseases – Reported Cases and Rates of Reported Cases\*, United States, 1941-2020

	Syphilis															
Year†	Total Syphilis‡		Primary Seconda		Early Non-P&S		Unk. Dura or Late§	tion	Congeni	tal	Chlamydia		Gonorrhea		Chancro	oid¶
	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Ratell	Cases	Rate	Cases	Rate	Cases	Rate
1941	485,560	368.2	68,231	51.7	109,018	82.6	202,984	153.9	17,600	651.1	NR	_	193,468	146.7	3,384	2.5
1942	479,601	363.4	75,312	57.0	116,245	88.0	202,064	153.1	16,918	566.0	NR	_	212,403	160.9	5,477	4.1
1943	575,593	447.0	82,204	63.8	149,390	116.0	251,958	195.7	16,164	520.7	NR	_	275,070	213.6	8,354	6.4
1944	467,755	367.9	78,443	61.6	123,038	96.7	202,848	159.6	13,578	462.0	NR	_	300,676	236.5	7,878	6.1
1945	359,114	282.3	77,007	60.5	101,719	79.9	142,187	111.8	12,339	431.7	NR	_	287,181	225.8	5,515	4.3
1946	363,647	271.7	94,957	70.9	107,924	80.6	125,248	93.6	12,106	354.9	NR	_	368,020	275.0	7,091	5.2
1947	355,592	252.3	93,545	66.4	104,124	73.9	122,089	86.6	12,200	319.6	NR	_	380,666	270.0	9,515	6.7
1948	314,313	218.2	68,174	47.3	90,598	62.9	123,312	85.6	13,931	383.0	NR	_	345,501	239.8	7,661	5.3
1949	256,463	175.3	41,942	28.7	75,045	51.3	116,397	79.5	13,952	382.4	NR	_	317,950	217.3	6,707	4.6
1950	217,558	146.0	23,939	16.7	59,256	39.7	113,569	70.2	13,377	368.3	NR	_	286,746	192.5	4,977	3.3
1951	174,924	116.1	14,485	9.6	43,316	28.7	98,311	65.2	11,094	290.4	NR	_	254,470	168.9	4,233	2.8
1952	167,762	110.2	10,449	6.9	36,454	24.0	105,238	69.1	8,553	218.8	NR	_	244,957	160.8	3,738	2.5
1953	148,573	95.9	8,637	5.6	28,295	18.3	98,870	63.8	7,675	193.9	NR	_	238,340	153.9	3,338	2.2
1954	130,697	82.9	7,147	4.5	23,861	15.1	89,123	56.5	6,676	164.0	NR	_	242,050	153.5	3,003	1.9
1955	122,392	76.2	6,454	4.0	20,054	12.5	86,526	53.8	5,354	130.7	NR	_	236,197	147.0	2,649	1.7
1956	130,201	78.7	6,392	3.9	19,783	12.0	95,097	57.5	5,491	130.4	NR	_	224,346	135.7	2,135	1.3
1957	123,758	73.5	6,576	3.9	17,796	10.6	91,309	54.2	5,288	123.0	NR	_	214,496	127.4	1,637	1.0
1958	113,884	66.4	7,176	4.2	16,556	9.7	83,027	48.4	4,866	114.6	NR	_	232,386	135.6	1,595	0.9
1959	120,824	69.2	9,799	5.6	17,025	9.8	86,740	49.7	5,130	119.7	NR	_	240,254	137.6	1,537	0.9
1960	122,538	68.8	16,145	9.1	18,017	10.1	81,798	45.9	4,416	103.7	NR	_	258,933	145.4	1,680	0.9
1961	124,658	68.8	19,851	11.0	19,486	10.8	79,304	43.8	4,163	97.5	NR	_	264,158	145.8	1,438	0.8
1962	126,245	68.7	21,067	11.5	19,585	10.7	79,533	43.3	4,070	97.7	NR	_	263,714	143.6	1,344	0.7
1963	124,137	66.5	22,251	11.9	18,235	9.8	78,076	41.8	4,031	98.4	NR	_	278,289	149.0	1,220	0.7
1964	114,325	60.4	22,969	12.1	17,781	9.4	68,629	36.3	3,516	87.3	NR	_	300,666	158.9	1,247	0.7
1965	112,842	58.9	23,338	12.2	17,458	9.1	67,317	35.1	3,564	94.8	NR	_	324,925	169.5	982	0.5
1966	105,159	54.2	21,414	11.0	15,950	8.2	63,541	32.7	3,170	87.9	NR	_	351,738	181.2	838	0.4
1967	102,581	52.2	21,053	10.7	15,554	7.9	61,975	31.5	2,894	82.2	NR	_	404,836	205.9	784	0.4

	Syphilis															
Year†	Total Syphilis‡		Primary a		Early Non-P&S		Unk. Dura or Late§	tion	Congeni	tal	Chlamydia		Gonorrhea		Chancro	oid¶
	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Ratell	Cases	Rate	Cases	Rate	Cases	Rate
1968	96,271	48.4	19,019	9.6	15,150	7.6	58,564	29.4	2,381	68.0	NR	_	464,543	233.4	845	0.4
1969	92,162	45.7	19,130	9.5	15,402	7.6	54,587	27.1	2,074	57.6	NR	_	534,872	265.4	1,104	0.5
1970	91,382	44.8	21,982	10.8	16,311	8.0	50,348	24.7	1,953	52.3	NR	_	600,072	294.2	1,416	0.7
1971	95,997	46.4	23,783	11.5	19,417	9.4	49,993	24.2	2,052	57.7	NR	_	670,268	324.1	1,320	0.6
1972	91,149	43.6	24,429	11.7	20,784	9.9	43,456	20.8	1,758	54.0	NR	_	767,215	366.6	1,414	0.7
1973	87,469	41.4	24,825	11.7	23,584	11.2	37,054	17.5	1,527	48.7	NR	_	842,621	398.7	1,165	0.6
1974	83,771	39.3	25,385	11.9	25,124	11.8	31,854	14.9	1,138	36.0	NR	_	906,121	424.7	945	0.4
1975	80,356	37.3	25,561	11.9	26,569	12.3	27,096	12.6	916	29.1	NR	_	999,937	464.1	700	0.3
1976	71,761	33.0	23,731	10.9	25,363	11.7	21,905	10.1	626	19.8	NR	_	1,001,994	460.6	628	0.3
1977	64,621	29.4	20,399	9.3	21,329	9.7	22,313	10.2	463	13.9	NR	_	1,002,219	456.0	455	0.2
1978	64,875	29.2	21,656	9.8	19,628	8.8	23,038	10.4	434	13.0	NR	_	1,013,436	456.3	521	0.2
1979	67,049	29.9	24,874	11.1	20,459	9.1	21,301	9.5	332	9.5	NR	_	1,004,058	447.1	840	0.4
1980	68,832	30.3	27,204	12.0	20,297	8.9	20,979	9.2	277	7.7	NR	_	1,004,029	442.1	788	0.3
1981	72,799	31.7	31,266	13.6	21,033	9.2	20,168	8.8	287	7.9	NR	_	990,864	431.8	850	0.4
1982	75,579	32.6	33,613	14.5	21,894	9.5	19,779	8.5	259	7.0	NR	_	960,633	414.7	1,392	0.6
1983	74,637	31.9	32,698	14.0	23,738	10.2	17,896	7.7	239	6.6	NR	_	900,435	385.1	847	0.4
1984	69,872	29.6	28,607	12.1	23,131	9.8	17,829	7.6	305	8.3	7,594	6.5	878,556	372.5	665	0.3
1985	67,563	28.4	27,131	11.4	21,689	9.1	18,414	7.7	329	8.7	25,848	17.4	911,419	383.0	2,067	0.9
1986	67,779	28.2	27,667	11.5	21,656	9.0	18,046	7.5	410	10.9	58,001	35.2	892,229	371.5	3,045	1.3
1987	87,286	36.0	35,585	14.7	28,233	11.7	22,988	9.5	480	12.6	91,913	50.8	787,532	325.0	4,986	2.1
1988	104,546	42.8	40,474	16.6	35,968	14.7	27,363	11.2	741	19.0	157,854	87.1	738,160	301.9	4,891	2.0
1989	115,089	46.6	45,826	18.6	45,394	18.4	22,032	8.9	1,837	45.5	200,904	102.5	733,294	297.1	4,697	1.9
1990	135,590	54.3	50,578	20.3	55,397	22.2	25,750	10.3	3,865	92.9	323,663	160.2	690,042	276.4	4,212	1.7
1991	128,719	50.9	42,950	17.0	53,855	21.3	27,490	10.9	4,424	107.6	381,228	179.7	621,918	245.8	3,476	1.4
1992	114,730	44.7	34,009	13.3	49,929	19.5	26,725	10.4	4,067	100.0	409,694	182.3	502,858	196.0	1,906	0.7
1993	102,612	39.5	26,527	10.2	41,919	16.1	30,746	11.8	3,420	85.5	405,332	178.0	444,649	171.1	1,292	0.5
1994	82,713	31.4	20,641	7.8	32,017	12.2	27,603	10.5	2,452	62.0	451,785	192.5	419,602	163.9	782	0.3
1995	69,359	26.0	16,543	6.2	26,657	10.0	24,296	9.1	1,863	47.8	478,577	187.8	392,651	147.5	607	0.2
1996	53,240	19.8	11,405	4.2	20,187	7.5	20,366	7.6	1,282	32.9	492,631	190.6	328,169	121.8	386	0.1

	Syphilis															
Year†	Total Syphilis‡		Primary Seconda		Early Non-P&S		Unk. Dura or Late§	ation	Congen	ital	Chlamydia		Gonorrhea		Chancro	oid¶
	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Ratell	Cases	Rate	Cases	Rate	Cases	Rate
1997	46,716	17.1	8,556	3.1	16,631	6.1	20,447	7.5	1,082	27.9	537,904	205.5	327,665	120.2	246	0.1
1998	38,289	13.9	7,007	2.5	12,696	4.6	17,743	6.4	843	21.4	614,250	231.8	356,492	129.2	189	0.1
1999	35,386	12.7	6,617	2.4	11,534	4.1	16,655	6.0	580	14.6	662,647	247.2	360,813	129.3	110	0.0
2000	31,618	11.2	5,979	2.1	9,465	3.4	15,594	5.5	580	14.3	709,452	251.4	363,136	128.7	78	0.0
2001	32,286	11.3	6,103	2.1	8,701	3.0	16,976	5.9	506	12.6	783,242	274.5	361,705	126.8	38	0.0
2002	32,919	11.4	6,862	2.4	8,429	2.9	17,168	6.0	460	11.4	834,555	289.4	351,852	122.0	48	0.0
2003	34,289	11.8	7,177	2.5	8,361	2.9	18,319	6.3	432	10.6	877,478	301.7	335,104	115.2	54	0.0
2004	33,423	11.4	7,980	2.7	7,768	2.6	17,300	5.9	375	9.1	929,462	316.5	330,132	112.4	30	0.0
2005	33,288	11.2	8,724	2.9	8,176	2.8	16,049	5.4	339	8.2	976,445	329.4	339,593	114.6	17	0.0
2006	36,958	12.3	9,756	3.3	9,186	3.1	17,644	5.9	372	8.7	1,030,911	344.3	358,366	119.7	19	0.0
2007	40,925	13.6	11,466	3.8	10,768	3.6	18,256	6.1	435	10.1	1,108,374	367.5	355,991	118.0	23	0.0
2008	46,292	15.2	13,500	4.4	12,401	4.1	19,945	6.6	446	10.5	1,210,523	398.1	336,742	110.7	25	0.0
2009	44,832	14.6	13,997	4.6	13,066	4.3	17,338	5.6	431	10.4	1,244,180	405.3	301,174	98.1	28	0.0
2010	45,844	14.8	13,774	4.5	13,604	4.4	18,079	5.9	387	9.7	1,307,893	423.6	309,341	100.2	24	0.0
2011	46,040	14.8	13,970	4.5	13,136	4.2	18,576	6.0	358	9.1	1,412,791	453.4	321,849	103.3	8	0.0
2012	49,915	15.9	15,667	5.0	14,503	4.6	19,411	6.2	334	8.4	1,422,976	453.3	334,826	106.7	15	0.0
2013	56,485	17.9	17,375	5.5	16,929	5.4	21,819	6.9	362	9.2	1,401,906	443.5	333,004	105.3	10	0.0
2014	63,454	19.9	19,999	6.3	19,452	6.1	23,541	7.4	462	11.6	1,441,789	452.2	350,062	109.8	6	0.0
2015	74,709	23.2	23,872	7.4	24,173	7.5	26,170	8.1	494	12.4	1,526,658	475.0	395,216	123.0	11	0.0
2016	88,055	27.3	27,814	8.6	28,924	9.0	30,676	9.5	641	16.2	1,598,354	494.7	468,514	145.0	7	0.0
2017	101,590	31.2	30,644	9.4	34,013	10.4	35,992	11.1	941	24.4	1,708,569	524.6	555,608	170.6	7	0.0
2018	115,062	35.2	35,063	10.7	38,539	11.8	40,137	12.3	1,323	34.9	1,758,668	537.5	583,405	178.3	3	0.0
2019	129,818	39.5	38,992	11.9	41,655	12.7	47,296	14.4	1,875	50.0	1,808,703	551.0	616,392	187.8	8	0.0
2020	133,945	40.8	41,655	12.7	43,145	13.1	46,997	14.3	2,148	57.3	1,579,885	481.3	677,769	206.5	0	0.0

<sup>\*</sup> Per 100,000

<sup>†</sup> For 1941–1946, data were reported for the federal fiscal year ending June 30 of the year indicated. From 1947 to the present, data were reported for the calendar year ending December 31. For 1941–1958, data for Alaska and Hawaii were not included.

‡ Includes stage of syphilis not stated.

§ The case classification of 'Unknown duration or late syphilis' went into effect in January of 2018. Prior to 2018, cases in this category include cases classified as late latent syphilis, latent syphilis of unknown duration, late syphilis with clinical manifestations, and neurosyphilis.

|| Rates include all cases of congenitally acquired syphilis per 100,000 live births. As of 1995, cases of congenital syphilis are obtained in hardcopy and electronic format on the basis of case reporting form CDC 73.126.

¶ Although nationally notifiable, chancroid is not a reportable condition in all jurisdictions.

NR = No report.

**NOTE:** Adjustments to the number of cases reported from state health departments were made for hardcopy forms and for electronic data submissions through December 13, 2021. The number of cases and the rates shown here supersede those published in previous reports. Cases and rates shown in this table exclude US territories. Case definitions have changed over time. See Technical Notes for more information. The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

 $\hbox{ Table 2. Chlamydia} - \hbox{Reported Cases and Rates of Reported Cases by State, Ranked by Rates, United States, 2020 } \\$ 

1       Mississippi       23,919       803.7         2       Louisiana       32,997       709.8         3       Alaska       5,090       695.8         4       South Carolina       34,118       662.7         5       North Carolina       64,640       616.3         6       Georgia       62,582       589.4         7       New Mexico       12,084       576.3	
3       Alaska       5,090       695.8         4       South Carolina       34,118       662.7         5       North Carolina       64,640       616.3         6       Georgia       62,582       589.4	
4       South Carolina       34,118       662.7         5       North Carolina       64,640       616.3         6       Georgia       62,582       589.4	
5       North Carolina       64,640       616.3         6       Georgia       62,582       589.4	
6 Georgia 62,582 589.4	
7 Now Movico 12 094 576 2	
7 New Mexico 12,084 576.3	
8 Tennessee 37,907 555.1	
9 Alabama 27,075 552.2	
10 Illinois 68,716 542.3	
11 Oklahoma 21,208 536.0	
12 Maryland 32,398 535.9	
13 Arkansas 16,053 531.9	
14 Missouri 31,815 518.4	
15 Arizona 37,289 512.3	
16 Ohio 59,520 509.2	
17 New York 97,722 502.3	
18 Kansas 14,620 501.8	
19 Delaware 4,855 498.6	
20 Indiana 33,372 495.7	
21 Hawaii 7,005 494.7	
US TOTAL <sup>†</sup> 1,579,885 481.3	
22 Virginia 40,965 479.9	
23 Nevada 14,739 478.5	
24 lowa 15,097 478.5	
25 North Dakota 3,562 467.4	
26 Texas 135,124 466.0	
27 Florida 100,030 465.7	
28 Nebraska 8,844 457.2	
29 South Dakota 4,044 457.1	
30 Wisconsin 26,564 456.2	
31 Colorado 26,137 453.9	
32 California 178,679 452.2	
33 Michigan 44,769 448.3	
34 Rhode Island 4,714 445.0	
35 Kentucky 18,750 419.7	
36 Washington 31,181 409.5	
37 Pennsylvania 52,272 408.3	
38 Minnesota 22,114 392.1	

Rank*	State	Cases	Rate per 100,000 Population
39	Montana	4,133	386.7
40	Oregon	15,858	376.0
41	Massachusetts	24,901	361.3
42	Connecticut	12,716	356.7
43	New Jersey	31,649	356.3
44	Idaho	6,273	351.0
45	Wyoming	1,961	338.8
46	Utah	10,466	326.5
47	West Virginia	5,431	303.0
48	Maine	3,466	257.8
49	New Hampshire	2,931	215.6
50	Vermont	1,117	179.0

<sup>\*</sup> States were ranked by rate, then by case count, then in alphabetical order, with rates shown rounded to the nearest tenth.

NOTE: The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

<sup>†</sup> Total includes cases reported by the District of Columbia with 6,413 cases and a rate of 908.7, but excludes territories.

Table 3. Chlamydia — Reported Cases and Rates of Reported Cases by State/Territory and Region in Alphabetical Order, United States, 2016-2020

State /Tamitam.	Cases					Rates per	100,000 Po	pulation		
State/Territory	2016	2017	2018	2019	2020	2016	2017	2018	2019	2020
Alabama	26,901	29,935	28,437	31,228	27,075	553.1	614.1	581.8	636.9	552.2
Alaska	5,698	5,934	6,159	6,254	5,090	768.0	802.1	835.2	854.9	695.8
Arizona	34,923	39,598	40,807	43,058	37,289	503.9	564.4	569.0	591.6	512.3
Arkansas	16,737	17,320	17,663	17,196	16,053	560.1	576.5	586.1	569.8	531.9
California	198,155	218,785	231,415	236,719	178,679	504.9	553.4	585.0	599.1	452.2
Colorado	25,569	26,995	29,124	29,821	26,137	461.5	481.4	511.3	517.8	453.9
Connecticut	13,911	17,750	16,732	15,290	12,716	389.0	494.7	468.3	428.9	356.7
Delaware	5,365	5,392	6,038	5,864	4,855	563.5	560.5	624.3	602.2	498.6
District of Columbia	7,283	9,107	9,014	9,327	6,413	1,069.2	1,312.3	1,283.2	1,321.6	908.7
Florida	94,742	100,018	104,758	110,794	100,030	459.6	476.6	491.8	515.9	465.7
Georgia	62,776	65,104	65,936	67,720	62,582	608.9	624.2	626.8	637.8	589.4
Hawaii	6,902	6,850	7,735	8,093	7,005	483.1	479.8	544.5	571.6	494.7
Idaho	5,897	6,200	6,572	6,863	6,273	350.4	361.1	374.6	384.0	351.0
Illinois	72,201	75,518	77,325	81,012	68,716	564.0	589.9	606.9	639.3	542.3
Indiana	30,847	34,278	34,926	35,430	33,372	465.0	514.2	521.9	526.3	495.7
lowa	12,983	13,893	14,682	16,044	15,097	414.2	441.6	465.2	508.5	478.5
Kansas	12,160	13,554	14,231	15,286	14,620	418.3	465.3	488.8	524.7	501.8
Kentucky	18,286	19,320	19,440	20,911	18,750	412.1	433.7	435.1	468.1	419.7
Louisiana	31,727	34,756	36,293	36,131	32,997	677.7	742.0	778.8	777.2	709.8
Maine	4,156	4,555	4,345	3,989	3,466	312.1	341.0	324.6	296.8	257.8
Maryland	30,658	33,416	35,482	37,779	32,398	509.6	552.1	587.2	624.9	535.9
Massachusetts	26,807	29,315	30,460	31,622	24,901	393.5	427.3	441.3	458.8	361.3
Michigan	45,936	50,595	50,592	50,104	44,769	462.7	507.9	506.1	501.7	448.3
Minnesota	22,685	23,539	23,569	24,470	22,114	411.0	422.1	420.0	433.9	392.1
Mississippi	20,112	21,149	22,086	25,303	23,919	672.9	708.7	739.5	850.2	803.7
Missouri	30,843	32,683	34,728	34,416	31,815	506.2	534.6	566.9	560.8	518.4
Montana	4,416	4,560	4,917	4,753	4,133	423.6	434.1	462.9	444.7	386.7

State /Tamitam	Cases					Rates per	100,000 Po	pulation		
State/Territory	2016	2017	2018	2019	2020	2016	2017	2018	2019	2020
Nebraska	8,197	8,595	8,026	9,291	8,844	429.8	447.6	416.0	480.3	457.2
Nevada	14,649	16,260	17,508	17,827	14,739	498.3	542.4	577.0	578.8	478.5
New Hampshire	3,467	4,412	3,734	3,577	2,931	259.7	328.6	275.3	263.1	215.6
New Jersey	34,519	35,239	36,514	37,591	31,649	385.9	391.3	409.9	423.2	356.3
New Mexico	13,108	13,560	14,000	14,283	12,084	629.9	649.4	668.1	681.2	576.3
New York	109,433	116,814	119,571	124,622	97,722	554.2	588.5	611.9	640.6	502.3
North Carolina	58,006	62,876	66,553	70,257	64,640	571.7	612.0	640.9	669.9	616.3
North Dakota	3,455	3,278	3,525	3,880	3,562	455.8	433.9	463.8	509.1	467.4
Ohio	60,496	61,389	63,220	65,393	59,520	520.9	526.6	540.8	559.4	509.2
Oklahoma	21,449	21,752	21,974	23,518	21,208	546.7	553.4	557.3	594.3	536.0
Oregon	17,425	18,634	19,224	19,279	15,858	425.7	449.8	458.7	457.1	376.0
Pennsylvania	56,930	56,447	59,340	61,694	52,272	445.3	440.8	463.3	481.9	408.3
Rhode Island	4,936	5,282	5,487	5,718	4,714	467.2	498.5	519.0	539.8	445.0
South Carolina	28,179	32,235	33,910	35,950	34,118	568.0	641.6	667.0	698.2	662.7
South Dakota	4,331	4,437	4,432	4,547	4,044	500.4	510.2	502.4	514.0	457.1
Tennessee	32,304	35,087	38,212	41,089	37,907	485.7	522.4	564.4	601.7	555.1
Texas	142,952	151,533	146,510	129,075	135,124	513.1	535.4	510.5	445.1	466.0
Utah	9,457	10,135	10,541	11,075	10,466	309.9	326.7	333.5	345.5	326.5
Vermont	1,690	1,858	1,712	1,718	1,117	270.6	297.9	273.4	275.3	179.0
Virginia	39,666	42,374	42,965	48,169	40,965	471.6	500.3	504.4	564.3	479.9
Washington	31,254	32,231	34,449	37,795	31,181	428.8	435.2	457.2	496.3	409.5
West Virginia	4,821	4,140	3,599	5,609	5,431	263.3	228.0	199.3	313.0	303.0
Wisconsin	26,894	27,740	28,027	29,080	26,564	465.4	478.6	482.1	499.4	456.2
Wyoming	2,060	2,142	2,169	2,189	1,961	351.8	369.7	375.4	378.2	338.8
US TOTAL	1,598,354	1,708,569	1,758,668	1,808,703	1,579,885	494.7	524.6	537.5	551.0	481.3
Northeast	255,849	271,672	277,895	285,821	231,488	455.2	481.1	495.3	510.6	413.5
Midwest	331,028	349,499	357,283	368,953	333,037	487.2	512.6	523.0	540.0	487.4
South	641,964	685,514	698,870	715,920	664,465	524.8	554.4	560.2	570.1	529.1
West	369,513	401,884	424,620	438,009	350,895	482.0	519.2	544.4	559.1	447.9
American Samoa	NR	NR	55	81	119	_	_	108.2	167.2	245.6

State/Territory	Cases					Rates per	Rates per 100,000 Population						
State, remitory	2016	2017	2018	2019	2020	2016	2017	2018	2019	2020			
Guam	934	1,107	944	1,234	827	559.6	661.5	562.7	733.9	491.8			
Northern Mariana Islands	NR	NR	246	249	180	_	_	473.1	478.4	345.8			
Puerto Rico	7,198	5,961	5,942	4,817	3,995	211.0	177.8	180.4	150.8	125.1			
Virgin Islands	571	458	NR	537	463	530.1	427.0	_	503.4	434.1			
TERRITORIES	8,703	7,526	7,187	6,918	5,584	236.1	207.5	201.6	193.8	156.5			
TOTAL	1,607,057	1,716,095	1,765,855	1,815,621	1,585,469	491.7	521.1	533.9	547.2	477.8			

NR = No report.

**NOTE:** The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

Table 3A. Chlamydia Among Men – Reported Cases and Rates of Reported Cases by State/Territory and Region in Alphabetical Order, United States, 2016-2020

State /Towitow	Cases					Rates pe	er 100,000 Po	pulation		
State/Territory	2016	2017	2018	2019	2020	2016	2017	2018	2019	2020
Alabama	7,585	8,837	8,807	9,882	8,906	322.0	374.5	372.5	417.0	375.9
Alaska	1,891	1,993	2,189	2,240	1,713	487.2	515.3	569.2	587.3	449.1
Arizona	11,217	13,055	13,972	15,316	13,067	325.8	374.3	391.9	423.4	361.2
Arkansas	4,521	4,866	5,147	5,041	4,602	308.0	329.7	347.7	340.2	310.6
California	73,625	83,273	88,787	92,707	68,763	377.7	423.8	451.5	471.9	350.0
Colorado	8,624	9,744	10,650	11,073	9,560	309.6	345.2	371.4	381.7	329.5
Connecticut	4,268	5,618	5,829	5,054	4,303	244.5	320.7	334.3	290.6	247.4
Delaware	1,687	1,830	2,031	2,004	1,548	366.2	393.1	434.0	425.7	328.8
District of Columbia	3,112	4,279	4,135	4,192	3,155	962.8	1,299.8	1,240.6	1,252.4	942.6
Florida	31,275	33,811	36,219	39,850	35,556	310.6	329.6	347.9	379.6	338.7
Georgia	19,338	20,837	21,691	22,662	20,927	385.2	410.5	424.0	439.1	405.5
Hawaii	2,421	2,426	2,911	3,047	2,432	337.4	338.8	409.4	430.3	343.5
Idaho	1,869	1,990	2,102	2,297	2,124	221.6	231.3	239.1	256.4	237.1
Illinois	24,008	26,089	27,555	29,561	24,559	381.6	414.6	440.1	474.8	394.4
Indiana	9,174	10,673	11,131	11,518	10,632	280.6	324.7	337.3	346.9	320.2
lowa	4,111	4,631	4,889	5,485	4,968	263.7	296.0	311.2	349.1	316.2
Kansas	3,472	4,082	4,437	4,911	4,671	239.8	281.1	305.9	338.3	321.8
Kentucky	5,590	6,194	6,249	6,878	6,021	255.7	282.3	283.9	312.5	273.6
Louisiana	8,784	10,212	11,068	11,598	10,441	383.7	446.0	486.6	511.6	460.6
Maine	1,356	1,596	1,491	1,394	1,186	207.8	243.8	227.5	211.8	180.2
Maryland	10,479	11,449	12,539	13,514	11,427	359.6	390.2	428.1	461.4	390.2
Massachusetts	9,433	10,517	11,231	12,166	9,011	285.4	315.8	335.2	363.6	269.3
Michigan	14,417	16,420	16,844	17,129	14,886	295.1	334.8	342.2	348.3	302.7
Minnesota	7,703	8,183	8,527	8,875	7,830	280.4	294.7	305.1	315.9	278.7
Mississippi	5,955	6,363	6,723	7,873	7,494	411.0	440.1	464.4	545.9	519.6
Missouri	10,086	10,982	11,941	11,926	10,899	337.1	365.8	397.0	395.9	361.8
Montana	1,454	1,528	1,710	1,640	1,409	277.1	288.9	319.7	304.8	261.9
Nebraska	2,649	2,927	2,789	3,058	2,897	278.6	305.5	289.5	316.4	299.8

State /Tourison.	Cases					Rates p	er 100,000	Population		
State/Territory	2016	2017	2018	2019	2020	2016	2017	2018	2019	2020
Nevada	4,777	5,741	6,381	6,595	5,555	324.1	381.8	419.4	426.9	359.6
New Hampshire	1,150	1,494	1,259	1,298	1,024	174.0	224.7	187.3	192.6	152.0
New Jersey	10,435	11,362	11,817	12,869	10,457	238.9	258.4	271.5	296.5	240.9
New Mexico	3,794	4,229	4,313	4,378	3,702	368.1	408.9	415.8	422.0	356.8
New York	41,722	46,349	49,175	52,593	39,145	435.2	480.9	518.3	556.7	414.3
North Carolina	16,918	19,295	21,103	23,204	20,897	343.0	385.8	417.8	455.0	409.7
North Dakota	1,268	1,151	1,222	1,425	1,211	326.0	297.2	313.9	365.4	310.5
Ohio	18,699	19,257	20,546	21,750	19,576	328.5	337.1	358.5	379.5	341.6
Oklahoma	6,516	6,569	6,692	7,428	6,637	335.2	337.3	342.6	378.9	338.5
Oregon	5,876	6,412	6,638	7,017	5,481	289.9	312.3	319.5	335.6	262.2
Pennsylvania	19,840	20,184	21,350	22,496	18,630	316.9	321.8	340.3	358.5	296.9
Rhode Island	1,656	1,825	1,903	2,023	1,630	322.8	354.4	370.0	392.3	316.1
South Carolina	8,286	9,807	10,976	12,053	11,560	344.1	402.3	445.6	483.4	463.7
South Dakota	1,259	1,343	1,424	1,347	1,253	288.6	306.0	319.6	301.5	280.5
Tennessee	10,584	11,736	13,057	14,120	12,931	326.4	358.2	395.3	423.7	388.1
Texas	40,992	45,170	45,450	42,314	43,290	296.4	321.2	318.7	293.8	300.6
Utah	3,424	3,516	3,733	4,116	3,858	222.9	225.1	234.5	254.9	238.9
Vermont	518	611	527	565	388	167.9	198.2	170.4	183.3	125.8
Virginia	13,395	14,311	14,924	17,184	14,110	323.8	343.5	356.1	409.1	335.9
Washington	10,975	11,713	13,006	14,375	11,527	301.4	316.3	345.0	377.1	302.4
West Virginia	1,491	1,365	1,224	1,849	1,707	164.6	151.9	136.9	208.3	192.3
Wisconsin	8,487	9,058	9,386	9,682	8,492	295.4	314.2	324.5	334.2	293.1
Wyoming	704	741	747	765	628	235.5	250.8	253.6	259.6	213.1
US TOTAL	522,870	577,644	610,447	644,337	548,676	328.7	360.1	378.9	398.6	339.4
Northeast	90,378	99,556	104,582	110,458	85,774	329.8	361.6	382.2	404.6	314.1
Midwest	105,333	114,796	120,691	126,667	111,874	314.1	341.1	357.8	375.4	331.6
South	196,508	216,931	228,035	241,646	221,209	327.8	357.9	373.0	392.7	359.5
West	130,651	146,361	157,139	165,566	129,819	342.0	379.2	404.0	423.6	332.2
American Samoa	NR	NR	2	0	36	_	_	7.9	0.0	148.8
Guam	280	354	274	360	195	326.2	411.2	317.4	416.0	225.3

State/Territory	Cases					Rates per 100,000 Population					
State, Territory	2016	2017	2018	2019	2020	2016	2017	2018	2019	2020	
Northern Mariana Islands	NR	NR	57	48	36	_	_	206.2	173.6	130.2	
Puerto Rico	1,647	1,255	1,240	1,118	883	101.4	78.8	79.4	73.8	58.3	
Virgin Islands	166	140	NR	191	138	322.1	273.2	_	375.5	271.3	
TERRITORIES	2,093	1,749	1,573	1,717	1,288	118.8	101.1	92.4	100.7	75.5	
TOTAL	524,963	579,393	612,020	646,054	549,964	326.4	357.3	375.9	395.5	336.7	

NR = No report.

**NOTE:** Cases reported with unknown sex are not included in this table. See Technical Notes for more information on interpreting case counts and rates in US territories. The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

Table 3B. Chlamydia Among Women – Reported Cases and Rates of Reported Cases by State/Territory and Region in Alphabetical Order, United States, 2016-2020

Chata/Tamitam	Cases					Rates per	100,000 P	opulation		
State/Territory	2016	2017	2018	2019	2020	2016	2017	2018	2019	2020
Alabama	19,131	20,993	19,537	21,260	18,087	762.9	834.7	774.1	839.1	713.9
Alaska	3,807	3,941	3,965	4,011	3,377	1,076.1	1,116.4	1,123.7	1,145.6	964.5
Arizona	23,693	26,453	26,717	27,716	24,196	679.2	749.8	740.8	757.0	660.8
Arkansas	12,216	12,453	12,513	12,146	11,447	803.5	814.9	815.9	790.7	745.2
California	123,906	135,040	142,006	143,319	109,322	627.2	679.0	713.8	721.4	550.3
Colorado	16,945	17,251	18,474	18,748	16,577	615.1	619.5	653.3	656.1	580.1
Connecticut	9,495	11,487	10,751	10,168	8,366	518.6	625.5	587.7	556.9	458.2
Delaware	3,678	3,562	3,992	3,842	3,289	748.5	717.5	799.6	763.9	653.9
District of Columbia	4,018	4,754	4,812	5,026	3,228	1,122.5	1,303.3	1,303.5	1,354.6	870.0
Florida	63,415	66,173	68,509	70,892	64,429	601.5	616.8	629.2	645.6	586.7
Georgia	43,377	44,080	43,903	43,914	41,210	820.0	823.3	812.4	804.7	755.2
Hawaii	4,480	4,424	4,811	5,032	4,325	630.1	621.8	678.1	710.9	611.0
Idaho	4,022	4,198	4,452	4,566	4,146	479.0	490.1	508.7	512.4	465.2
Illinois	48,128	49,336	49,746	51,168	43,958	739.3	757.9	767.7	793.9	682.0
Indiana	21,664	23,595	23,768	23,896	22,711	644.1	698.1	700.8	700.4	665.6
lowa	8,872	9,261	9,793	10,559	10,129	563.1	585.8	617.7	666.6	639.5
Kansas	8,688	9,472	9,794	10,375	9,949	595.3	648.2	670.3	709.8	680.7
Kentucky	12,345	13,035	13,055	13,918	12,647	548.6	576.8	575.9	614.0	558.0
Louisiana	22,942	24,544	25,225	24,524	22,554	959.0	1,024.9	1,057.6	1,029.7	947.0
Maine	2,795	2,959	2,854	2,595	2,280	411.7	434.3	417.8	378.2	332.3
Maryland	20,145	21,957	22,912	24,264	20,876	649.4	704.2	735.8	778.5	669.8
Massachusetts	17,299	18,716	19,096	19,368	15,671	493.4	530.3	537.7	546.0	441.8
Michigan	31,497	34,120	33,687	32,955	29,882	624.5	674.5	663.9	650.2	589.6
Minnesota	14,967	15,338	15,021	15,565	14,232	539.9	547.8	533.3	550.0	502.9
Mississippi	14,123	14,740	15,325	17,381	16,376	917.1	958.2	995.9	1,133.2	1,067.6
Missouri	20,757	21,701	22,787	22,490	20,916	669.4	697.5	730.6	719.7	669.4
Montana	2,962	3,030	3,206	3,110	2,724	572.1	581.0	607.8	586.0	513.3
Nebraska	5,527	5,660	5,233	6,222	5,925	577.9	588.4	541.8	642.8	612.1

State /Touritour	Cases					Rates per	100,000 P	opulation		
State/Territory	2016	2017	2018	2019	2020	2016	2017	2018	2019	2020
Nevada	9,849	10,473	11,057	11,205	9,163	671.8	700.9	730.9	729.8	596.8
New Hampshire	2,316	2,917	2,474	2,278	1,894	343.7	430.4	361.6	332.1	276.1
New Jersey	24,021	23,811	24,688	24,627	21,060	524.9	516.6	541.8	542.3	463.7
New Mexico	9,306	9,328	9,683	9,895	8,377	886.0	885.1	915.1	934.0	790.7
New York	67,602	70,379	70,348	72,012	58,577	665.5	689.2	699.7	719.7	585.4
North Carolina	41,085	43,580	45,450	47,053	43,742	788.0	826.6	852.3	873.3	811.9
North Dakota	2,187	2,127	2,303	2,448	2,351	592.7	577.8	621.2	658.0	631.9
Ohio	41,797	42,132	42,674	43,643	39,944	705.7	708.6	716.2	732.4	670.4
Oklahoma	14,933	15,183	15,282	16,088	14,570	754.3	765.5	767.9	805.9	729.8
Oregon	11,542	12,203	12,567	12,235	10,341	558.5	583.9	594.7	575.2	486.2
Pennsylvania	37,030	36,201	37,938	39,132	33,596	567.7	554.0	580.8	599.5	514.7
Rhode Island	3,278	3,454	3,584	3,695	3,084	603.3	634.2	660.1	679.6	567.2
South Carolina	19,783	22,343	22,822	23,789	22,349	774.8	863.8	870.8	895.8	841.6
South Dakota	3,072	3,094	3,008	3,198	2,791	715.8	718.4	688.8	730.3	637.4
Tennessee	21,714	23,348	25,151	26,965	24,972	637.0	678.7	725.4	771.1	714.1
Texas	101,618	105,995	100,417	86,192	90,792	724.2	744.2	695.3	590.6	622.2
Utah	6,031	6,606	6,808	6,955	6,606	398.0	428.9	433.9	437.1	415.2
Vermont	1,171	1,242	1,171	1,149	727	370.4	393.8	369.3	364.0	230.3
Virginia	26,146	27,606	27,849	30,950	26,704	611.6	641.5	643.6	713.9	616.0
Washington	20,276	20,515	21,432	23,378	19,532	556.0	554.1	569.1	614.7	513.6
West Virginia	3,330	2,775	2,374	3,758	3,723	359.9	302.5	260.5	415.5	411.7
Wisconsin	18,382	18,667	18,617	19,372	18,011	632.7	640.9	637.3	662.2	615.7
Wyoming	1,356	1,399	1,422	1,423	1,326	473.2	492.8	502.1	501.0	466.9
US TOTAL	1,072,719	1,127,651	1,145,063	1,160,470	1,027,061	653.9	682.1	689.6	696.6	616.5
Northeast	165,007	171,166	172,904	175,024	145,255	572.8	591.4	601.4	610.3	506.5
Midwest	225,538	234,503	236,431	241,891	220,799	655.5	679.3	683.7	699.4	638.4
South	443,999	467,121	469,128	471,962	440,995	711.8	741.0	737.5	736.9	688.5
West	238,175	254,861	266,600	271,593	220,012	619.4	656.7	681.9	691.7	560.3
American Samoa	NR	NR	53	81	83	_	_	208.5	333.8	342.0
Guam	654	753	670	874	632	806.8	926.6	822.7	1,070.9	774.4

State/Territory	Cases					Rates per 100,000 Population				
State, remitory	2016	2017	2018	2019	2020	2016	2017	2018	2019	2020
Northern Mariana Islands	NR	NR	189	201	144	_	-	776.0	823.7	590.1
Puerto Rico	5,551	4,702	4,697	3,697	3,108	310.5	267.2	271.1	220.3	185.2
Virgin Islands	405	318	NR	346	325	720.9	567.6	_	620.0	582.4
TERRITORIES	6,610	5,773	5,609	5,199	4,292	343.4	304.4	301.0	278.9	230.3
TOTAL	1,079,329	1,133,424	1,150,672	1,165,669	1,031,353	650.3	677.9	685.3	692.0	612.3

NR = No report.

**NOTE:** Cases reported with unknown sex are not included in this table. See Technical Notes for more information on interpreting case counts and rates in US territories. The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

Table 4. Chlamydia — Reported Cases and Rates of Reported Cases by Age Group and Sex, United States, 2016-2020

V	A C	Cases				Rates per 100,00	0 Population*	
Year	Age Group	Total	Male	Female	Unknown Sex	Total	Male	Female
	0-4	597	225	368	4	3.0	2.2	3.8
	5-9	188	25	161	2	0.9	0.2	1.6
	10-14	10,571	1,341	9,206	24	51.3	12.7	91.2
	15-19	407,230	89,899	316,639	692	1927.3	832.3	3065.8
	20-24	601,173	181,857	418,388	928	2686.1	1582.6	3842.0
	25-29	298,176	114,484	183,222	470	1302.6	984.3	1627.3
2016	30-34	133,062	58,583	74,226	253	610.8	534.1	686.1
2016	35-39	66,669	31,671	34,872	126	320.9	305.2	335.4
	40-44	32,548	16,784	15,705	59	165.2	171.7	158.3
	45-54	32,316	19,569	12,683	64	75.5	92.7	58.5
	55-64	9,321	5,942	3,354	25	22.5	29.7	15.6
	65+	1,772	1,161	597	14	3.6	5.3	2.2
	Unknown Age	4,731	1,329	3,298	104			
	TOTAL	1,598,354	522,870	1,072,719	2,765	494.7	328.7	653.9
	0-4	514	188	323	3	2.6	1.8	3.3
	5-9	167	9	158	0	0.8	0.1	1.6
	10-14	10,726	1,252	9,454	20	51.6	11.8	92.9
	15-19	437,904	99,864	337,290	750	2072.3	924.6	3264.8
	20-24	631,207	195,971	434,050	1,186	2853.7	1726.7	4030.4
	25-29	321,857	127,007	194,267	583	1377.2	1067.1	1694.0
2017	30-34	144,451	65,690	78,502	259	657.4	592.4	721.3
2017	35-39	74,202	36,427	37,621	154	349.5	343.1	354.4
	40-44	36,332	19,310	16,940	82	185.0	198.0	171.3
	45-54	36,229	22,431	13,713	85	85.5	107.3	63.9
	55-64	11,356	7,490	3,840	26	27.0	37.0	17.7
	65+	2,178	1,461	698	19	4.3	6.5	2.5
	Unknown Age	1,446	544	795	107			
	TOTAL	1,708,569	577,644	1,127,651	3,274	524.6	360.1	682.1
2018	0-4	496	186	300	10	2.5	1.8	3.1

Vesu	A so Croup	Cases				Rates per 100,00	0 Population*	
Year	Age Group	Total	Male	Female	Unknown Sex	Total	Male	Female
	5-9	144	19	125	0	0.7	0.2	1.3
	10-14	10,905	1,438	9,450	17	52.2	13.5	92.5
	15-19	446,008	103,582	341,635	791	2114.1	961.3	3309.7
	20-24	641,269	202,528	437,732	1,009	2931.7	1808.0	4101.7
	25-29	333,561	135,059	197,966	536	1415.7	1123.7	1715.0
	30-34	154,132	72,222	81,645	265	696.3	645.3	746.0
	35-39	78,094	39,320	38,635	139	362.2	364.4	358.6
	40-44	38,657	21,111	17,462	84	196.1	215.5	176.1
	45-54	38,323	24,067	14,173	83	92.1	117.2	67.2
	55-64	12,536	8,474	4,029	33	29.7	41.5	18.4
	65+	2,331	1,676	640	15	4.4	7.2	2.2
	Unknown Age	2,212	765	1,271	176			
	TOTAL	1,758,668	610,447	1,145,063	3,158	537.5	378.9	689.6
	0-4	523	201	320	2	2.7	2.0	3.3
	5-9	182	32	146	4	0.9	0.3	1.5
	10-14	11,561	1,432	10,094	35	55.6	13.5	99.2
	15-19	453,927	108,724	344,130	1,073	2156.0	1011.8	3338.2
	20-24	649,450	209,635	438,567	1,248	3002.1	1894.6	4149.9
	25-29	340,542	140,281	199,581	680	1448.6	1168.6	1734.8
2019	30-34	163,671	78,579	84,726	366	729.7	692.0	764.9
2019	35-39	84,687	43,605	40,897	185	389.6	400.6	376.8
	40-44	43,005	23,715	19,185	105	215.9	239.4	191.6
	45-54	40,480	25,150	15,256	74	99.0	124.7	73.7
	55-64	13,984	9,567	4,378	39	32.9	46.7	19.9
	65+	2,783	2,036	736	11	5.1	8.5	2.5
	Unknown Age	3,908	1,380	2,454	74			
	TOTAL	1,808,703	644,337	1,160,470	3,896	551.0	398.6	696.6
	0-4	559	216	328	15	2.9	2.2	3.4
2020	5-9	197	39	155	3	1.0	0.4	1.6
	10-14	9,922	1,201	8,692	29	47.7	11.3	85.4

Year	Age Group	Cases				Rates per 10	Rates per 100,000 Population*				
Teal	Age Group	Total	Male	Female	Unknown Sex	Total	Male	Female			
	15-19	386,550	90,944	294,624	982	1835.9	846.3	2857.9			
	20-24	575,556	180,060	394,149	1,347	2660.6	1627.3	3729.6			
	25-29	297,451	118,636	178,085	730	1265.3	988.3	1548.0			
	30-34	148,819	69,456	79,015	348	663.4	611.7	713.3			
	35-39	73,333	37,085	36,068	180	337.4	340.7	332.3			
	40-44	37,115	20,139	16,875	101	186.3	203.3	168.5			
	45-54	32,381	19,930	12,352	99	79.2	98.8	59.7			
	55-64	11,600	7,941	3,629	30	27.3	38.7	16.5			
	65+	2,174	1,549	602	23	4.0	6.4	2.0			
	Unknown Age	4,228	1,480	2,487	261						
	TOTAL	1,579,885	548,676	1,027,061	4,148	481.3	339.4	616.5			

<sup>\*</sup> No population data are available for unknown sex and age; therefore, rates are not calculated.

**NOTE:** Cases in the 0–4 age group may include cases due to perinatal transmission. The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

Table 5A. Chlamydia — Reported Cases by Race/Hispanic Ethnicity, Age Group, and Sex, United States, 2020

Age Group	America Alaska N	n Indian/ ative		Asian			Black/ African An	nerican		Hispanic/L	.atino	
	Total*	Male	Female	Total*	Male	Female	Total*	Male	Female	Total*	Male	Female
0-4	2	1	1	3	0	2	120	61	58	71	16	55
5-9	1	0	1	2	0	2	46	6	40	31	10	21
10-14	130	13	117	40	5	35	3,518	559	2,958	1,083	121	962
15-19	3,169	553	2,616	2,380	376	2,001	119,016	34,759	84,145	42,422	8,391	33,972
20-24	4,556	1,101	3,451	5,504	1,562	3,931	160,839	57,865	102,850	67,376	18,131	49,142
25-29	3,043	808	2,234	3,589	1,697	1,883	88,128	38,045	49,997	37,268	13,717	23,492
30-34	1,987	594	1,392	2,210	1,196	1,007	40,816	20,989	19,790	19,627	8,820	10,787
35-39	1,109	354	754	1,189	666	522	17,106	9,987	7,101	10,141	4,952	5,163
40-44	468	168	300	701	411	289	7,892	4,986	2,893	5,244	2,895	2,342
45-54	333	136	197	679	426	252	6,299	4,414	1,878	4,192	2,580	1,601
55-64	94	42	52	186	107	79	2,389	1,695	692	1,001	677	322
65+	12	10	2	37	27	10	370	291	78	122	84	38
Unknown Age	13	5	8	41	13	28	445	198	246	386	135	247
TOTAL	14,917	3,785	11,125	16,561	6,486	10,041	446,984	173,855	272,726	188,964	60,529	128,144

Age Group	Multirac	Multiracial			lawaiian/ slander	White				Other/Unl	Other/Unknown		
	Total*	Male	Female	Total*	Male	Female	Total*	Male	Female	Total*	Male	Female	
0-4	3	0	3	1	0	1	122	47	72	237	91	136	
5-9	1	0	1	1	0	1	26	5	21	89	18	68	
10-14	117	11	106	16	1	15	1,785	104	1,679	3,233	387	2,820	
15-19	4,483	793	3,684	628	103	520	81,263	13,404	67,781	133,189	32,565	99,905	
20-24	6,471	1,674	4,793	1,235	255	969	131,049	35,127	95,764	198,526	64,345	133,249	
25-29	3,296	1,279	2,013	734	202	529	62,691	23,117	39,482	98,702	39,771	58,455	
30-34	1,751	987	763	402	156	241	33,649	14,985	18,609	48,377	21,729	26,426	
35-39	813	517	296	199	93	105	17,952	8,793	9,139	24,824	11,723	12,988	
40-44	407	303	104	74	38	36	9,311	4,953	4,341	13,018	6,385	6,570	
45-54	381	308	72	76	43	33	8,732	5,771	2,954	11,689	6,252	5,365	
55-64	137	115	22	15	7	8	3,687	2,873	811	4,091	2,425	1,643	
65+	20	15	5	1	1	0	744	588	154	868	533	315	
Unknown Age	10	2	8	2	2	0	1,340	416	920	1,991	709	1,030	
TOTAL	17,890	6,004	11,870	3,384	901	2,458	352,351	110,183	241,727	538,834	186,933	348,970	

<sup>\*</sup> Total includes cases reported with unknown sex.

**NOTE:** These tables should be used only for race/Hispanic ethnicity comparisons. See Table 4 for age-specific cases and rates and Tables 3, 3A, and 3B for total and sex-specific cases and rates. Cases in the 0–4 age group may include cases due to perinatal transmission. The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

Table 5B. Chlamydia — Rates of Reported Cases\* by Race/Hispanic Ethnicity, Age Group, and Sex, United States, 2020

Age Group	American Alaska Na			Asian			Black/ African American  Hispanic/La			<b>Latino</b>	atino	
	Total†	Male	Female	Total†	Male	Female	Total†	Male	Female	Total†	Male	Female
0-4	1.2	1.2	1.3	0.3	0.0	0.4	4.5	4.5	4.4	1.4	0.6	2.2
5-9	0.6	0.0	1.2	0.2	0.0	0.4	1.7	0.4	2.9	0.6	0.4	0.8
10-14	73.5	14.5	134.0	3.8	0.9	6.7	123.1	38.6	209.8	20.3	4.5	36.9
15-19	1,787.0	612.6	3,004.9	214.9	67.9	361.7	4,109.9	2,370.4	5,886.6	841.7	326.7	1,374.4
20-24	2,507.6	1,195.1	3,853.5	438.1	246.6	631.1	5,255.8	3,734.1	6,808.7	1,390.8	729.5	2,083.1
25-29	1,515.6	788.3	2,273.1	227.9	216.8	237.6	2,522.9	2,160.2	2,886.7	754.6	534.8	989.4
30-34	1,135.1	672.0	1,606.3	133.0	148.8	117.4	1,348.6	1,413.7	1,283.5	428.0	365.4	496.5
35-39	696.8	448.6	939.7	74.3	88.0	61.8	614.4	749.9	489.0	224.9	211.4	238.2
40-44	328.9	238.6	417.4	48.5	61.1	37.4	311.4	417.3	216.0	126.5	136.6	115.5
45-54	115.7	97.2	133.3	26.0	35.0	18.1	123.4	184.8	69.2	58.8	71.8	45.3
55-64	31.5	29.9	33.0	8.8	11.1	6.8	48.2	74.7	25.8	19.7	27.3	12.4
65+	4.0	7.4	1.2	1.5	2.5	0.7	7.4	14.4	2.6	2.6	4.2	1.5
Unknown Age												
TOTAL	612.6	315.8	899.7	87.6	72.0	101.5	1,086.3	883.7	1,270.1	312.0	198.0	427.1

Age Group	Multiracial			Native Haw Pacific Islar			White	White		
	Total†	Male	Female	Total†	Male	Female	Total†	Male	Female	
0-4	0.3	0.0	0.7	2.5	0.0	5.1	1.3	0.9	1.5	
5-9	0.1	0.0	0.2	2.5	0.0	5.1	0.3	0.1	0.4	
10-14	13.3	2.5	24.4	37.9	4.7	72.2	17.1	1.9	32.9	
15-19	594.3	207.8	988.4	1,514.6	485.4	2,568.7	736.2	236.7	1,261.1	
20-24	962.1	491.1	1,445.0	2,870.8	1,153.5	4,633.5	1,132.2	591.3	1,699.9	
25-29	564.2	441.1	684.2	1,443.8	774.2	2,137.5	495.0	356.9	638.0	
30-34	396.5	466.4	331.7	772.3	582.3	954.2	269.4	236.9	302.0	
35-39	215.7	291.0	148.6	403.6	368.4	436.4	146.5	142.5	150.2	
40-44	132.0	209.1	63.6	181.4	183.1	179.7	82.4	87.1	77.3	
45-54	74.2	127.6	26.5	105.0	118.7	91.3	34.7	46.0	23.4	
55-64	31.2	55.5	9.5	23.7	22.7	24.6	12.5	19.9	5.4	
65+	4.7	7.8	2.1	1.7	3.5	0.0	1.8	3.2	0.7	
Unknown Age										
TOTAL	246.0	167.2	322.4	567.9	300.6	830.0	178.6	113.2	241.7	

<sup>\*</sup> Per 100,000.

**NOTE:** These tables should be used only for race/Hispanic ethnicity comparisons. See Table 4 for age-specific cases and rates and Tables 3, 3A, and 3B for total and sex-specific cases and rates. Cases in the 0–4 age group may include cases due to perinatal transmission. No population data exist for unknown sex, unknown age, or unknown race; therefore rates are not calculated. The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

<sup>†</sup> Total includes cases reported with unknown sex.

Table 6A. Chlamydia — Reported Cases and Rates of Reported Cases Among Men Aged 15-24 Years by Age, United States, 2016-2020

Agos	Cases					Rates per 100	,000 Population	1		
Ages	2016	2017	2018	2019	2020	2016	2017	2018	2019	2020
15	4,074	4,144	4,088	4,459	3,729	190.2	197.4	193.6	209.4	175.1
16	9,997	10,782	10,573	11,240	9,275	458.3	500.1	501.9	531.1	438.3
17	17,690	19,665	19,972	20,956	17,206	822.6	894.7	922.3	992.0	814.5
18	25,214	28,502	30,184	31,552	26,208	1,168.1	1,313.8	1,365.9	1,452.4	1,206.4
19	32,924	36,771	38,765	40,517	34,526	1,517.5	1,688.0	1,777.2	1,829.4	1,558.9
20	37,391	41,038	43,337	45,850	39,465	1,701.6	1,876.1	1,981.9	2,100.2	1,807.7
21	38,743	42,212	43,800	45,646	39,587	1,719.6	1,906.6	1,996.7	2,087.1	1,810.0
22	37,628	40,515	41,619	43,437	36,821	1,634.5	1,784.7	1,875.1	1,978.6	1,677.3
23	35,462	37,373	38,096	38,735	33,885	1,514.0	1,611.7	1,673.6	1,743.4	1,525.1
24	32,633	34,833	35,676	35,967	30,302	1,361.8	1,476.7	1,534.2	1,579.3	1,330.5
Total	271,756	295,835	306,110	318,359	271,004	1,219.0	1,335.6	1,392.9	1,459.7	1,242.5

**NOTE:** Cases reported with unknown sex are not included in this table. The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

Table 6B. Chlamydia — Reported Cases and Rates of Reported Cases Among Women Aged 15-24 Years by Age, United States, 2016-2020

Agos	Cases					Rates per 100,000 Population						
Ages	2016	2017	2018	2019	2020	2016	2017	2018	2019	2020		
15	19,704	20,247	19,518	20,352	17,168	958.9	1,004.4	961.7	994.8	839.2		
16	39,066	40,681	40,001	40,135	33,901	1,874.5	1,968.3	1,976.3	1,973.0	1,666.5		
17	61,406	65,496	66,329	65,210	55,136	2,988.7	3,120.8	3,194.3	3,212.5	2,716.2		
18	93,174	98,907	101,783	102,336	87,113	4,521.3	4,774.1	4,824.0	4,911.9	4,181.2		
19	103,289	111,959	114,004	116,097	101,306	4,980.6	5,387.4	5,474.9	5,487.5	4,788.4		
20	100,524	107,397	110,939	111,609	99,860	4,812.4	5,140.2	5,315.2	5,349.0	4,785.9		
21	96,723	100,160	102,127	103,394	93,215	4,532.8	4,759.7	4,865.7	4,944.2	4,457.4		
22	84,813	86,678	86,274	86,633	78,669	3,892.5	4,030.4	4,078.8	4,118.6	3,740.0		
23	73,054	75,046	73,729	73,497	66,368	3,304.7	3,416.6	3,409.6	3,467.0	3,130.7		
24	63,274	64,769	64,663	63,434	56,037	2,777.9	2,906.1	2,928.1	2,927.2	2,585.9		
Total	735,027	771,340	779,367	782,697	688,773	3,464.1	3,655.5	3,712.3	3,749.1	3,299.2		

**NOTE:** Cases reported with unknown sex are not included in this table. The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

Table 7. Gonorrhea — Reported Cases and Rates of Reported Cases by State, Ranked by Rates, United States, 2020

Rank*	State	Cases	Rate per 100,000 Population
1	Mississippi	13,773	462.8
2	Louisiana	15,483	333.1
3	South Carolina	16,705	324.4
4	Alabama	14,426	294.2
5	Oklahoma	11,204	283.1
6	Missouri	16,855	274.6
7	South Dakota	2,424	274.0
8	Alaska	1,982	270.9
9	Tennessee	18,458	270.3
10	North Carolina	28,258	269.4
11	Ohio	30,977	265.0
12	Arkansas	7,857	260.4
13	Illinois	31,055	245.1
14	Michigan	23,412	234.4
15	Arizona	16,342	224.5
16	Georgia	23,463	221.0
17	New Mexico	4,608	219.8
18	Iowa	6,919	219.3
19	New York	42,517	218.6
20	North Dakota	1,660	217.8
21	Indiana	14,111	209.6
22	Nevada	6,364	206.6
	US TOTAL†	677,769	206.5
23	Texas	58,246	200.9
24	Maryland	12,052	199.3
25	California	78,444	198.5
26	Kansas	5,626	193.1
27	Florida	40,788	189.9
28	Kentucky	8,393	187.9
29	Minnesota	10,320	183.0
30	Virginia	15,217	178.3
31	Wisconsin	10,346	177.7
32	Nebraska	3,434	177.5
33	Colorado	9,686	168.2
34	Montana	1,698	158.9
35	Delaware	1,503	154.3
36	Washington	11,667	153.2
37	Oregon	6,412	152.0
38	Pennsylvania	18,280	142.8

Rank*	State	Cases	Rate per 100,000 Population
39	Rhode Island	1,399	132.1
40	Connecticut	4,604	129.1
41	New Jersey	10,060	113.3
42	Massachusetts	7,494	108.7
43	Hawaii	1,484	104.8
44	West Virginia	1,780	99.3
45	Utah	3,112	97.1
46	Idaho	1,480	82.8
47	Wyoming	392	67.7
48	Maine	520	38.7
49	New Hampshire	461	33.9
50	Vermont	139	22.3

<sup>\*</sup> States were ranked by rate, then case count, then in alphabetical order, with rates shown rounded to the nearest tenth.

<sup>†</sup> Total includes cases reported by the District of Columbia with 3,879 cases and a rate of 549.6, but excludes territories.

Table 8. Gonorrhea — Reported Cases and Rates of Reported Cases by State/Territory and Region in Alphabetical Order, United States, 2016-2020

Cases         Rates per 100,000 Population           2016         2017         2018         2019         2020         2016         2017         2018         2019         2020           Alabama         8,408         11,948         12,742         14,492         14,426         172.9         245.1         260.7         295.6         294.2           Alaska         1,454         2,189         2,247         2,213         1,982         196.0         295.9         304.7         302.5         270.9           Arizona         10,330         12,502         12,870         15,180         16,342         149.0         178.2         179.5         208.6         224.5           Arkansas         5,732         6,710         7,300         6,907         7,857         191.8         223.3         242.2         228.9         260.4           California         64,551         75,348         79,192         80,301         78,444         164.5         190.6         200.2         203.2         198.5           Colorado         5,975         8,478         8,894         9,572         9,686         107.8         151.2         156.2         166.2         168.2           Connecticu
Alabama       8,408       11,948       12,742       14,492       14,426       172.9       245.1       260.7       295.6       294.2         Alaska       1,454       2,189       2,247       2,213       1,982       196.0       295.9       304.7       302.5       270.9         Arizona       10,330       12,502       12,870       15,180       16,342       149.0       178.2       179.5       208.6       224.5         Arkansas       5,732       6,710       7,300       6,907       7,857       191.8       223.3       242.2       228.9       260.4         California       64,551       75,348       79,192       80,301       78,444       164.5       190.6       200.2       203.2       198.5         Colorado       5,975       8,478       8,894       9,572       9,686       107.8       151.2       156.2       166.2       168.2         Connecticut       2,731       3,913       4,959       4,418       4,604       76.4       109.1       138.8       123.9       129.1         Delaware       1,702       1,784       1,691       1,617       1,503       178.8       185.5       174.8       166.1       154.3 </th
Alaska       1,454       2,189       2,247       2,213       1,982       196.0       295.9       304.7       302.5       270.9         Arizona       10,330       12,502       12,870       15,180       16,342       149.0       178.2       179.5       208.6       224.5         Arkansas       5,732       6,710       7,300       6,907       7,857       191.8       223.3       242.2       228.9       260.4         California       64,551       75,348       79,192       80,301       78,444       164.5       190.6       200.2       203.2       198.5         Colorado       5,975       8,478       8,894       9,572       9,686       107.8       151.2       156.2       166.2       168.2         Connecticut       2,731       3,913       4,959       4,418       4,604       76.4       109.1       138.8       123.9       129.1         Delaware       1,702       1,784       1,691       1,617       1,503       178.8       185.5       174.8       166.1       154.3
Arizona       10,330       12,502       12,870       15,180       16,342       149.0       178.2       179.5       208.6       224.5         Arkansas       5,732       6,710       7,300       6,907       7,857       191.8       223.3       242.2       228.9       260.4         California       64,551       75,348       79,192       80,301       78,444       164.5       190.6       200.2       203.2       198.5         Colorado       5,975       8,478       8,894       9,572       9,686       107.8       151.2       156.2       166.2       168.2         Connecticut       2,731       3,913       4,959       4,418       4,604       76.4       109.1       138.8       123.9       129.1         Delaware       1,702       1,784       1,691       1,617       1,503       178.8       185.5       174.8       166.1       154.3
Arkansas       5,732       6,710       7,300       6,907       7,857       191.8       223.3       242.2       228.9       260.4         California       64,551       75,348       79,192       80,301       78,444       164.5       190.6       200.2       203.2       198.5         Colorado       5,975       8,478       8,894       9,572       9,686       107.8       151.2       156.2       166.2       168.2         Connecticut       2,731       3,913       4,959       4,418       4,604       76.4       109.1       138.8       123.9       129.1         Delaware       1,702       1,784       1,691       1,617       1,503       178.8       185.5       174.8       166.1       154.3
California       64,551       75,348       79,192       80,301       78,444       164.5       190.6       200.2       203.2       198.5         Colorado       5,975       8,478       8,894       9,572       9,686       107.8       151.2       156.2       166.2       168.2         Connecticut       2,731       3,913       4,959       4,418       4,604       76.4       109.1       138.8       123.9       129.1         Delaware       1,702       1,784       1,691       1,617       1,503       178.8       185.5       174.8       166.1       154.3
Colorado       5,975       8,478       8,894       9,572       9,686       107.8       151.2       156.2       166.2       168.2         Connecticut       2,731       3,913       4,959       4,418       4,604       76.4       109.1       138.8       123.9       129.1         Delaware       1,702       1,784       1,691       1,617       1,503       178.8       185.5       174.8       166.1       154.3
Connecticut       2,731       3,913       4,959       4,418       4,604       76.4       109.1       138.8       123.9       129.1         Delaware       1,702       1,784       1,691       1,617       1,503       178.8       185.5       174.8       166.1       154.3
Delaware 1,702 1,784 1,691 1,617 1,503 178.8 185.5 174.8 166.1 154.3
Florida 28,162 31,683 32,644 36,804 40,788 136.6 151.0 153.3 171.4 189.9
Georgia 20,553 22,667 20,867 21,257 23,463 199.3 217.3 198.4 200.2 221.0
Hawaii 1,467 1,358 1,495 1,494 1,484 102.7 95.1 105.2 105.5 104.8
Idaho 635 987 1,134 1,491 1,480 37.7 57.5 64.6 83.4 82.8
Illinois 21,199 23,859 25,422 29,272 31,055 165.6 186.4 199.5 231.0 245.1
Indiana 9,451 11,835 12,193 11,926 14,111 142.5 177.5 182.2 177.1 209.6
lowa 2,600 3,758 4,839 5,309 6,919 82.9 119.5 153.3 168.3 219.3
Kansas 3,353 4,545 5,256 4,948 5,626 115.3 156.0 180.5 169.8 193.1
Kentucky 5,812 7,417 7,470 7,379 8,393 131.0 166.5 167.2 165.2 187.9
Louisiana 10,782 12,017 12,043 12,800 15,483 230.3 256.5 258.4 275.3 333.1
Maine 451 620 710 547 520 33.9 46.4 53.0 40.7 38.7
Maryland 9,523 10,978 10,305 11,598 12,052 158.3 181.4 170.5 191.8 199.3
Massachusetts 4,980 7,737 8,076 7,396 7,494 73.1 112.8 117.0 107.3 108.7
Michigan 12,450 15,742 16,688 18,150 23,412 125.4 158.0 166.9 181.7 234.4
Minnesota 5,104 6,519 7,542 8,013 10,320 92.5 116.9 134.4 142.1 183.0
Mississippi 7,157 9,258 9,749 12,068 13,773 239.5 310.2 326.4 405.5 462.8
Missouri 11,479 13,086 15,090 15,585 16,855 188.4 214.0 246.3 253.9 274.6
Montana 867 782 1,181 1,595 1,698 83.2 74.4 111.2 149.2 158.9
Nebraska 2,156 2,653 2,696 2,967 3,434 113.1 138.2 139.7 153.4 177.5
Nevada 4,380 5,520 6,475 6,519 6,364 149.0 184.1 213.4 211.6 206.6
New Hampshire 456 513 594 410 461 34.2 38.2 43.8 30.2 33.9
New Jersey 8,162 9,439 9,067 9,622 10,060 91.3 104.8 101.8 108.3 113.3
New Mexico 3,516 4,489 5,268 4,886 4,608 169.0 215.0 251.4 233.0 219.8
New York 29,000 34,099 37,262 40,901 42,517 146.9 171.8 190.7 210.2 218.6
North Carolina 19,687 22,871 23,725 26,377 28,258 194.0 222.6 228.5 251.5 269.4
North Dakota 1,000 966 1,369 1,447 1,660 131.9 127.9 180.1 189.9 217.8
Ohio 20,487 23,967 25,146 26,065 30,977 176.4 205.6 215.1 223.0 265.0
Oklahoma 7,574 9,081 8,998 10,491 11,204 193.0 231.0 228.2 265.1 283.1
Oregon 4,353 5,022 5,913 6,130 6,412 106.3 121.2 141.1 145.3 152.0

Chaha /Tauwiham.	Cases					Rates p	er 100,0	000 Pop	ulation	
State/Territory	2016	2017	2018	2019	2020	2016	2017	2018	2019	2020
Pennsylvania	14,603	15,244	15,887	16,059	18,280	114.2	119.0	124.0	125.4	142.8
Rhode Island	716	1,087	1,336	1,516	1,399	67.8	102.6	126.4	143.1	132.1
South Carolina	9,194	12,623	13,801	14,160	16,705	185.3	251.2	271.5	275.0	324.4
South Dakota	1,269	1,290	1,689	2,170	2,424	146.6	148.3	191.4	245.3	274.0
Tennessee	10,179	12,426	14,627	16,026	18,458	153.0	185.0	216.1	234.7	270.3
Texas	42,472	47,409	47,231	44,230	58,246	152.4	167.5	164.6	152.5	200.9
Utah	2,100	2,543	2,895	2,886	3,112	68.8	82.0	91.6	90.0	97.1
Vermont	126	203	268	175	139	20.2	32.5	42.8	28.0	22.3
Virginia	11,084	12,596	11,776	13,840	15,217	131.8	148.7	138.3	162.1	178.3
Washington	8,174	9,915	11,207	11,736	11,667	112.2	133.9	148.7	154.1	153.2
West Virginia	919	1,296	1,143	1,771	1,780	50.2	71.4	63.3	98.8	99.3
Wisconsin	6,498	7,661	7,882	8,846	10,346	112.4	132.2	135.6	151.9	177.7
Wyoming	275	412	311	448	392	47.0	71.1	53.8	77.4	67.7
US TOTAL	468,514	555,608	583,405	616,392	677,769	145.0	170.6	178.3	187.8	206.5
Northeast	61,225	72,855	78,159	81,044	85,474	108.9	129.0	139.3	144.8	152.7
Midwest	97,046	115,881	125,812	134,698	157,139	142.8	170.0	184.2	197.1	230.0
South	202,166	237,327	240,352	256,199	291,485	165.3	191.9	192.7	204.0	232.1
West	108,077	129,545	139,082	144,451	143,671	141.0	167.3	178.3	184.4	183.4
American Samoa	NR	NR	13	9	24	_	_	25.6	18.6	49.5
Guam	133	202	261	305	208	79.7	120.7	155.6	181.4	123.7
Northern Mariana Islands	NR	NR	34	21	3	_	_	65.4	40.3	5.8
Puerto Rico	744	588	557	499	390	21.8	17.5	16.9	15.6	12.2
Virgin Islands	35	15	NR	47	67	32.5	14.0	_	44.1	62.8
TERRITORIES	912	805	865	881	692	24.7	22.2	24.3	24.7	19.4
TOTAL	469,426	556,413	584,270	617,273	678,461	143.6	168.9	176.7	186.0	204.5

**NOTE:** See Technical Notes for more information on interpreting case counts and rates in US territories. The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

Table 8A. Gonorrhea Among Men – Reported Cases and Rates of Reported Cases by State/Territory and Region in Alphabetical Order, United States, 2016-2020

a	Cases					Rates	oer 100,0	000 Pop	ulation	
State/Territory	2016	2017	2018	2019	2020	2016	2017	2018	2019	2020
Alabama	4,265	6,214	6,560	7,577	7,625	181.1	263.3	277.5	319.8	321.8
Alaska	716	1,099	1,189	1,081	1,006	184.5	284.1	309.2	283.4	263.8
Arizona	6,011	7,256	7,509	8,942	9,524	174.6	208.0	210.6	247.2	263.3
Arkansas	2,768	3,184	3,511	3,359	3,832	188.6	215.7	237.2	226.7	258.6
California	43,259	50,577	52,553	52,676	49,809	221.9	257.4	267.3	268.1	253.5
Colorado	3,652	5,013	5,305	5,682	5,754	131.1	177.6	185.0	195.8	198.3
Connecticut	1,564	2,246	3,003	2,483	2,664	89.6	128.2	172.3	142.7	153.2
Delaware	903	1,027	958	871	814	196.0	220.6	204.7	185.0	172.9
District of Columbia	2,298	3,254	2,989	3,055	2,754	710.9	988.5	896.8	912.7	822.8
Florida	16,661	18,904	19,704	23,267	24,696	165.4	184.3	189.2	221.7	235.3
Georgia	11,378	12,741	12,075	12,585	13,684	226.6	251.0	236.1	243.9	265.2
Hawaii	914	882	959	946	877	127.4	123.2	134.9	133.6	123.9
Idaho	396	629	622	841	761	46.9	73.1	70.8	93.9	84.9
Illinois	12,255	14,057	15,351	17,351	17,901	194.8	223.4	245.2	278.7	287.5
Indiana	4,636	5,899	6,101	6,124	7,100	141.8	179.5	184.9	184.4	213.8
lowa	1,332	1,870	2,363	2,592	3,450	85.4	119.5	150.4	165.0	219.6
Kansas	1,658	2,276	2,641	2,483	2,823	114.5	156.8	182.1	171.0	194.5
Kentucky	3,006	3,906	3,762	3,843	4,217	137.5	178.0	170.9	174.6	191.6
Louisiana	5,289	6,039	6,139	6,711	8,169	231.0	263.8	269.9	296.0	360.3
Maine	316	392	459	344	307	48.4	59.9	70.0	52.3	46.6
Maryland	5,573	6,346	6,074	7,029	7,272	191.2	216.3	207.4	240.0	248.3
Massachusetts	3,575	5,206	5,578	5,135	4,843	108.1	156.3	166.5	153.5	144.8
Michigan	6,245	8,121	8,700	9,491	11,998	127.8	165.6	176.8	193.0	243.9
Minnesota	2,881	3,568	4,187	4,311	5,472	104.9	128.5	149.8	153.4	194.7
Mississippi	3,486	4,681	4,846	5,831	7,048	240.6	323.7	334.7	404.3	488.7
Missouri	6,251	7,088	8,287	8,553	8,892	208.9	236.1	275.5	283.9	295.2
Montana	374	355	543	748	811	71.3	67.1	101.5	139.0	150.7
Nebraska	1,097	1,366	1,393	1,462	1,729	115.4	142.6	144.6	151.3	178.9
Nevada	2,763	3,539	3,985	4,082	3,812	187.4	235.3	261.9	264.2	246.8
New Hampshire	324	334	410	275	320	49.0	50.2	61.0	40.8	47.5
New Jersey	4,810	5,699	5,617	5,923	5,803	110.1	129.6	129.1	136.5	133.7
New Mexico	1,971	2,412	2,925	2,704	2,555	191.2	233.2	282.0	260.6	246.3
New York	20,224	24,383	27,025	29,548	27,910	210.9	253.0	284.8	312.7	295.4
North Carolina	10,160	11,857	12,245	13,947	14,918	206.0	237.1	242.4	273.5	292.5
North Dakota	484	438	661	717	799	124.4	113.1	169.8	183.8	204.9
Ohio	10,357	12,231	13,000	13,679	15,830	182.0	214.1	226.8	238.7	276.2
Oklahoma	3,521	4,360	4,442	5,280	5,734	181.1	223.9	227.4	269.3	292.5
Oregon	2,834	3,095	3,663	3,824	3,794	139.8	150.8	176.3	182.9	181.5
Pennsylvania	8,449	9,285	9,821	9,686	10,645	134.9	148.1	156.5	154.4	169.7

State/Territory	Cases					Rates p	er 100,0	000 Pop	ulation	
State/Territory	2016	2017	2018	2019	2020	2016	2017	2018	2019	2020
Rhode Island	495	729	879	953	861	96.5	141.6	170.9	184.8	167.0
South Carolina	4,436	6,122	6,744	7,257	8,715	184.2	251.1	273.8	291.1	349.6
South Dakota	512	568	715	946	1,145	117.4	129.4	160.5	211.7	256.3
Tennessee	5,497	6,758	7,946	8,438	9,848	169.5	206.3	240.6	253.2	295.5
Texas	23,779	26,344	27,117	25,770	32,985	171.9	187.3	190.2	178.9	229.0
Utah	1,383	1,672	1,953	1,872	1,924	90.0	107.1	122.7	115.9	119.1
Vermont	94	116	126	110	73	30.5	37.6	40.7	35.7	23.7
Virginia	5,996	6,779	6,525	7,790	8,354	144.9	162.7	155.7	185.5	198.9
Washington	5,231	6,425	7,279	7,547	7,178	143.7	173.5	193.1	198.0	188.3
West Virginia	497	678	601	933	914	54.9	75.4	67.2	105.1	103.0
Wisconsin	3,302	3,961	4,208	4,694	5,392	114.9	137.4	145.5	162.0	186.1
Wyoming	155	188	153	238	210	51.8	63.6	51.9	80.8	71.3
US TOTAL	270,033	322,169	341,401	361,586	385,551	169.7	200.8	211.9	223.7	238.5
Northeast	39,851	48,390	52,918	54,457	53,426	145.4	175.8	193.4	199.4	195.7
Midwest	51,010	61,443	67,607	72,403	82,531	152.1	182.5	200.4	214.6	244.6
South	109,513	129,194	132,238	143,543	161,579	182.7	213.1	216.3	233.3	262.6
West	69,659	83,142	88,638	91,183	88,015	182.3	215.4	227.9	233.3	225.2
American Samoa	NR	NR	9	7	13	_	_	35.4	28.9	53.7
Guam	74	105	118	157	100	86.2	122.0	136.7	181.4	115.6
Northern Mariana Islands	NR	NR	18	8	1	_	_	65.1	28.9	3.6
Puerto Rico	431	356	318	298	261	26.5	22.4	20.4	19.7	17.2
Virgin Islands	21	10	NR	23	40	40.8	19.5	_	45.2	78.6
TERRITORIES	526	471	463	493	415	29.9	27.2	27.2	28.9	24.3
TOTAL	270,559	322,640	341,864	362,079	385,966	168.2	199.0	210.0	221.6	236.3

Table 8B. Gonorrhea Among Women – Reported Cases and Rates of Reported Cases by State/Territory and Region in Alphabetical Order, United States, 2016-2020

o /=	Cases					Rates	oer 100,	000 Pop	ulation	
State/Territory	2016	2017	2018	2019	2020	2016	2017	2018	2019	2020
Alabama	4,088	5,693	6,134	6,878	6,765	163.0	226.4	243.1	271.5	267.0
Alaska	738	1,090	1,057	1,131	976	208.6	308.8	299.5	323.0	278.8
Arizona	4,315	5,219	5,332	6,229	6,803	123.7	147.9	147.9	170.1	185.8
Arkansas	2,964	3,525	3,788	3,546	4,021	195.0	230.7	247.0	230.8	261.8
California	20,914	24,599	26,425	27,291	28,288	105.9	123.7	132.8	137.4	142.4
Colorado	2,323	3,465	3,589	3,890	3,932	84.3	124.4	126.9	136.1	137.6
Connecticut	1,165	1,660	1,938	1,932	1,915	63.6	90.4	105.9	105.8	104.9
Delaware	799	757	728	745	687	162.6	152.5	145.8	148.1	136.6
District of Columbia	857	1,287	1,211	1,283	1,106	239.4	352.8	328.1	345.8	298.1
Florida	11,488	12,769	12,936	13,525	16,083	109.0	119.0	118.8	123.2	146.5
Georgia	9,156	9,873	8,718	8,375	9,641	173.1	184.4	161.3	153.5	176.7
Hawaii	551	476	531	539	602	77.5	66.9	74.8	76.1	85.0
Idaho	237	357	509	650	718	28.2	41.7	58.2	72.9	80.6
Illinois	8,920	9,750	10,064	11,825	13,101	137.0	149.8	155.3	183.5	203.3
Indiana	4,811	5,931	6,083	5,794	7,000	143.0	175.5	179.4	169.8	205.2
lowa	1,267	1,887	2,476	2,716	3,469	80.4	119.4	156.2	171.5	219.0
Kansas	1,695	2,269	2,615	2,465	2,803	116.1	155.3	179.0	168.6	191.8
Kentucky	2,716	3,478	3,643	3,489	4,136	120.7	153.9	160.7	153.9	182.5
Louisiana	5,493	5,978	5,904	6,088	7,314	229.6	249.6	247.5	255.6	307.1
Maine	134	225	250	203	213	19.7	33.0	36.6	29.6	31.0
Maryland	3,944	4,629	4,227	4,568	4,735	127.1	148.5	135.8	146.6	151.9
Massachusetts	1,390	2,495	2,431	2,217	2,579	39.6	70.7	68.4	62.5	72.7
Michigan	6,201	7,604	7,981	8,657	11,413	122.9	150.3	157.3	170.8	225.2
Minnesota	2,214	2,939	3,345	3,678	4,833	79.9	105.0	118.8	130.0	170.8
Mississippi	3,665	4,563	4,888	6,220	6,698	238.0	296.6	317.7	405.5	436.7
Missouri	5,228	5,997	6,803	7,032	7,963	168.6	192.7	218.1	225.0	254.8
Montana	493	427	638	847	887	95.2	81.9	121.0	159.6	167.1
Nebraska	1,055	1,285	1,302	1,503	1,694	110.3	133.6	134.8	155.3	175.0
Nevada	1,611	1,972	2,477	2,432	2,546	109.9	132.0	163.7	158.4	165.8
New Hampshire	132	179	184	135	140	19.6	26.4	26.9	19.7	20.4
New Jersey	3,338	3,731	3,446	3,680	4,226	72.9	80.9	75.6	81.0	93.1
New Mexico	1,542	2,073	2,343	2,179	2,050	146.8	196.7	221.4	205.7	193.5
New York	8,709	9,649	10,202	11,341	14,607	85.7	94.5	101.5	113.3	146.0
North Carolina	9,527	11,013	11,480	12,430	13,340	182.7	208.9	215.3	230.7	247.6
North Dakota	516	528	708	730	861	139.8	143.4	191.0	196.2	231.4
Ohio	10,130	11,736	12,146	12,386	15,147	171.0	197.4	203.8	207.9	254.2
Oklahoma	4,052	4,721	4,556	5,211	5,470	204.7	238.0	228.9	261.0	274.0
Oregon	1,519	1,920	2,244	2,288	2,612	73.5	91.9	106.2	107.6	122.8
Pennsylvania	6,135	5,947	6,050	6,359	7,625	94.1	91.0	92.6	97.4	116.8

State/Tarritory	Cases					Rates p	er 100,0	000 Pop	ulation	
State/Territory	2016	2017	2018	2019	2020	2016	2017	2018	2019	2020
Rhode Island	221	357	457	563	538	40.7	65.5	84.2	103.6	99.0
South Carolina	4,709	6,470	7,016	6,847	7,878	184.4	250.1	267.7	257.8	296.7
South Dakota	757	722	974	1,224	1,279	176.4	167.6	223.0	279.5	292.1
Tennessee	4,681	5,667	6,681	7,588	8,609	137.3	164.7	192.7	217.0	246.2
Texas	18,620	20,963	19,982	18,177	24,879	132.7	147.2	138.4	124.6	170.5
Utah	717	865	942	1,014	1,188	47.3	56.2	60.0	63.7	74.7
Vermont	32	87	140	65	66	10.1	27.6	44.2	20.6	20.9
Virginia	5,056	5,734	5,208	6,019	6,810	118.3	133.2	120.4	138.8	157.1
Washington	2,943	3,488	3,922	4,183	4,457	80.7	94.2	104.2	110.0	117.2
West Virginia	422	618	542	836	866	45.6	67.4	59.5	92.4	95.8
Wisconsin	3,189	3,696	3,670	4,146	4,915	109.8	126.9	125.6	141.7	168.0
Wyoming	120	224	158	210	182	41.9	78.9	55.8	73.9	64.1
US TOTAL	197,499	232,587	241,074	253,359	290,666	120.4	140.7	145.2	152.1	174.5
Northeast	21,256	24,330	25,098	26,495	31,909	73.8	84.1	87.3	92.4	111.3
Midwest	45,983	54,344	58,167	62,156	74,478	133.6	157.4	168.2	179.7	215.3
South	92,237	107,738	107,642	111,825	129,038	147.9	170.9	169.2	174.6	201.5
West	38,023	46,175	50,167	52,883	55,241	98.9	119.0	128.3	134.7	140.7
American Samoa	NR	NR	4	2	11	_	_	15.7	8.2	45.3
Guam	59	97	143	148	108	72.8	119.4	175.6	181.3	132.3
Northern Mariana Islands	NR	NR	16	13	2	_	_	65.7	53.3	8.2
Puerto Rico	313	230	238	201	129	17.5	13.1	13.7	12.0	7.7
Virgin Islands	14	5	NR	24	27	24.9	8.9	_	43.0	48.4
TERRITORIES	386	332	401	388	277	20.1	17.5	21.5	20.8	14.9
TOTAL	197,885	232,919	241,475	253,747	290,943	119.2	139.3	143.8	150.6	172.7

Table 9. Gonorrhea — Reported Cases and Rates of Reported Cases by Age Group and Sex, United States, 2016-2020

		Cases				Rates pe	r 100,000	Population*
Year	Age Group	Total	Male	Female	Unknown Sex	Total	Male	Female
	0-4	187	72	113	2	0.9	0.7	1.2
	5-9	98	16	81	1	0.5	0.2	0.8
	10-14	2,436	498	1,929	9	11.8	4.7	19.1
	15-19	80,172	30,316	49,710	146	379.4	280.7	481.3
	20-24	138,130	71,967	65,930	233	617.2	626.3	605.4
	25-29	101,283	62,189	38,881	213	442.5	534.7	345.3
2016	30-34	57,646	38,193	19,306	147	264.6	348.2	178.5
2016	35-39	34,058	23,744	10,230	84	163.9	228.8	98.4
	40-44	19,104	14,116	4,935	53	97.0	144.4	49.7
	45-54	24,142	19,762	4,330	50	56.4	93.6	20.0
	55-64	8,138	6,947	1,178	13	19.6	34.7	5.5
	65+	1,599	1,403	191	5	3.2	6.4	0.7
	Unknown Age	1,521	810	685	26			
	TOTAL	468,514	270,033	197,499	982	145.0	169.7	120.4
	0-4	203	56	144	3	1.0	0.5	1.5
	5-9	110	19	90	1	0.5	0.2	0.9
	10-14	2,725	507	2,212	6	13.1	4.8	21.7
	15-19	92,608	34,918	57,573	117	438.2	323.3	557.3
	20-24	155,862	81,036	74,578	248	704.7	714.0	692.5
	25-29	121,880	75,123	46,577	180	521.5	631.2	406.1
2017	30-34	71,603	47,342	24,157	104	325.9	426.9	222.0
2017	35-39	43,792	30,277	13,448	67	206.3	285.2	126.7
	40-44	24,108	17,753	6,331	24	122.7	182.0	64.0
	45-54	29,428	23,803	5,580	45	69.4	113.9	26.0
	55-64	10,867	9,311	1,538	18	25.9	46.0	7.1
	65+	2,063	1,818	233	12	4.1	8.1	0.8
	Unknown Age	359	206	126	27			
	TOTAL	555,608	322,169	232,587	852	170.6	200.8	140.7
	0-4	224	77	142	5	1.1	0.8	1.5
	5-9	111	13	98	0	0.5	0.1	1.0
	10-14	2,683	509	2,168	6	12.8	4.8	21.2
	15-19	91,373	34,614	56,628	131	433.1	321.2	548.6
	20-24	157,708	81,813	75,663	232	721.0	730.4	709.0
2018	25-29	129,385	80,216	48,991	178	549.1	667.4	424.4
	30-34	80,507	53,362	27,026	119	363.7	476.8	246.9
	35-39	48,399	33,556	14,769	74	224.4	311.0	137.1
	40-44	26,953	19,552	7,353	48	136.7	199.6	74.1
	45-54	31,270	25,092	6,132	46	75.1	122.2	29.1
	55-64	12,091	10,399	1,675	17	28.6	51.0	7.7

Voor	Age Group	Cases				Rates per 100,000 Population*			
Year	Age Group	Total	Male	Female	Unknown Sex	Total	Male	Female	
	65+	2,332	2,036	283	13	4.4	8.7	1.0	
	Unknown Age	369	162	146	61				
	TOTAL	583,405	341,401	241,074	930	178.3	211.9	145.2	
	0-4	218	72	137	9	1.1	0.7	1.4	
	5-9	106	20	84	2	0.5	0.2	0.9	
	10-14	2,646	522	2,113	11	12.7	4.9	20.8	
	15-19	93,379	35,402	57,758	219	443.5	329.5	560.3	
	20-24	162,298	83,278	78,700	320	750.2	752.6	744.7	
	25-29	135,711	84,207	51,260	244	577.3	701.5	445.6	
2019	30-34	87,990	58,749	29,045	196	392.3	517.4	262.2	
2019	35-39	53,587	36,866	16,614	107	246.5	338.7	153.1	
	40-44	30,362	21,871	8,417	74	152.4	220.8	84.0	
	45-54	33,316	26,356	6,884	76	81.5	130.7	33.3	
	55-64	13,630	11,683	1,916	31	32.1	57.0	8.7	
	65+	2,703	2,350	336	17	5.0	9.8	1.1	
	Unknown Age	446	210	95	141				
	TOTAL	616,392	361,586	253,359	1,447	187.8	223.7	152.1	
	0-4	294	90	188	16	1.5	0.9	2.0	
	5-9	107	13	91	3	0.5	0.1	0.9	
	10-14	2,958	582	2,368	8	14.2	5.5	23.3	
	15-19	103,391	39,656	63,542	193	491.1	369.0	616.4	
	20-24	182,880	90,894	91,618	368	845.4	821.5	866.9	
	25-29	145,825	87,378	58,127	320	620.3	727.9	505.3	
2020	30-34	99,228	64,453	34,590	185	442.4	567.6	312.3	
2020	35-39	58,623	38,898	19,604	121	269.7	357.4	180.6	
	40-44	34,060	23,807	10,164	89	171.0	240.3	101.5	
	45-54	32,900	25,152	7,663	85	80.5	124.7	37.0	
	55-64	13,771	11,678	2,063	30	32.4	57.0	9.4	
	65+	2,831	2,470	343	18	5.2	10.3	1.1	
	Unknown Age	901	480	305	116				
	TOTAL	677,769	385,551	290,666	1,552	206.5	238.5	174.5	

<sup>\*</sup> No population data are available for unknown sex and age; therefore, rates are not calculated.

**NOTE:** Cases in the 0–4 age group may include cases due to perinatal transmission. The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

Table 10A. Gonorrhea — Reported Cases by Race/Hispanic Ethnicity, Age Group, and Sex, United States, 2020

Age Group	American Indian/ Alaska Native			Asian	Asian			Black/ African American			Hispanic/Latino			
	Total*	Male	Female	Total*	Male	Female	Total*	Male	Female	Total*	Male	Female		
0-4	4	3	1	0	0	0	79	29	50	32	10	22		
5-9	1	0	1	0	0	0	36	9	27	11	2	9		
10-14	46	5	41	10	0	10	1,384	305	1,079	273	47	226		
15-19	892	260	631	461	141	319	47,915	20,155	27,720	9,347	3,385	5,954		
20-24	1,836	668	1,166	1,219	722	494	81,916	42,848	39,001	19,004	9,820	9,147		
25-29	1,847	712	1,134	1,436	1,115	318	61,941	38,617	23,258	16,651	10,717	5,893		
30-34	1,588	644	944	1,132	908	221	36,425	25,396	10,989	11,968	8,286	3,663		
35-39	1,015	425	588	715	569	141	18,153	13,378	4,759	7,074	5,039	2,021		
40-44	506	235	270	401	324	76	9,994	7,817	2,159	4,153	3,081	1,059		
45-54	416	232	182	368	311	55	9,351	7,897	1,442	3,526	2,805	708		
55-64	96	59	37	96	76	19	4,329	3,913	410	979	828	150		
65+	21	19	2	27	19	8	821	749	71	167	145	22		
Unknown Age	1	1	0	12	9	3	202	127	74	129	94	35		
TOTAL	8,269	3,263	4,997	5,877	4,194	1,664	272,546	161,240	111,039	73,314	44,259	28,909		

Age Group	Multiracial				Native Hawaiian/ Pacific Islander					Other/Unknown			
	Total*	Male	Female	Total*	Male	Female	Total*	Male	Female	Total*	Male	Female	
0-4	7	2	5	0	0	0	64	16	47	108	30	63	
5-9	2	0	2	0	0	0	18	1	17	39	1	35	
10-14	42	4	38	5	1	4	386	38	348	812	182	622	
15-19	1,573	436	1,137	137	47	90	15,905	3,959	11,932	27,161	11,273	15,759	
20-24	2,840	1,125	1,710	293	113	178	32,341	12,735	19,567	43,431	22,863	20,355	
25-29	2,396	1,386	1,004	264	146	117	29,886	15,487	14,361	31,404	19,198	12,042	
30-34	1,559	1,055	504	184	113	70	25,039	14,238	10,767	21,333	13,813	7,432	
35-39	968	694	273	127	75	52	17,218	10,094	7,112	13,353	8,624	4,658	
40-44	495	395	100	65	39	26	10,184	6,384	3,789	8,262	5,532	2,685	
45-54	501	430	67	55	42	13	10,532	7,616	2,904	8,151	5,819	2,292	
55-64	167	154	13	13	10	3	4,592	3,886	701	3,499	2,752	730	
65+	31	24	7	1	1	0	924	819	103	839	694	130	
Unknown Age	4	1	3	0	0	0	123	63	57	430	185	133	
TOTAL	10,585	5,706		1,144	587	553	147,212	75,336	71,705	158,822	90,966	66,936	

<sup>\*</sup> Total includes cases reported with unknown sex.

**NOTE:** These tables should be used only for race/Hispanic ethnicity comparisons. See Table 9 for age-specific cases and rates and Tables 8, 8A, and 8B for total and sex-specific cases and rates. Cases in the 0–4 age group may include cases due to perinatal transmission. The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

Table 10B. Gonorrhea — Rates of Reported Cases\* by Race/Hispanic Ethnicity, Age Group, and Sex, United States, 2020

Age Group		American Indian/ Alaska Native			Asian			Black/ African American			Hispanic/Latino			
	Total†	Male	Female	Total†	Male	Female	Total†	Male	Female	Total†	Male	Female		
0-4	2.5	3.6	1.3	0.0	0.0	0.0	2.9	2.1	3.8	0.6	0.4	0.9		
5-9	0.6	0.0	1.2	0.0	0.0	0.0	1.3	0.6	2.0	0.2	0.1	0.3		
10-14	26.0	5.6	46.9	0.9	0.0	1.9	48.4	21.1	76.5	5.1	1.7	8.7		
15-19	503.0	288.0	724.8	41.6	25.4	57.7	1,654.6	1,374.5	1,939.2	185.5	131.8	240.9		
20-24	1,010.5	725.1	1,302.0	97.0	114.0	79.3	2,676.8	2,765.0	2,581.9	392.3	395.1	387.7		
25-29	919.9	694.7	1,153.8	91.2	142.5	40.1	1,773.2	2,192.7	1,342.9	337.1	417.9	248.2		
30-34	907.2	728.6	1,089.3	68.1	113.0	25.8	1,203.5	1,710.5	712.7	261.0	343.3	168.6		
35-39	637.7	538.5	732.8	44.7	75.2	16.7	652.1	1,004.5	327.7	156.9	215.1	93.2		
40-44	355.6	333.7	375.6	27.7	48.2	9.8	394.4	654.3	161.2	100.2	145.4	52.2		
45-54	144.6	165.9	123.1	14.1	25.5	3.9	183.2	330.6	53.1	49.5	78.1	20.0		
55-64	32.2	42.0	23.5	4.5	7.9	1.6	87.4	172.5	15.3	19.3	33.4	5.8		
65+	7.0	14.0	1.2	1.1	1.8	0.6	16.5	37.2	2.4	3.6	7.2	0.8		
Unknown Age														
TOTAL	339.6	272.3	404.1	31.1	46.6	16.8	662.4	819.5	517.1	121.0	144.8	96.4		

Age Group	Multiracia	ı		Native Hav Pacific Isla			0 0.7 0.3 0 0.2 0.0 0.2 3.7 0.7 14.6 144.1 69.9 151.1 279.4 214.4 122.7 236.0 239.1 17.1 200.5 225.1 16.1 140.5 163.5 19.8 90.1 112.3		
	Total†	Male	Female	Total†	Male	Female	Total†	Male	Female
0-4	0.7	0.4	1.1	0.0	0.0	0.0	0.7	0.3	1.0
5-9	0.2	0.0	0.4	0.0	0.0	0.0	0.2	0.0	0.3
10-14	4.8	0.9	8.8	11.9	4.7	19.2	3.7	0.7	6.8
15-19	208.5	114.2	305.0	330.4	221.5	444.6	144.1	69.9	222.0
20-24	422.2	330.0	515.5	681.1	511.2	851.1	279.4	214.4	347.3
25-29	410.2	478.0	341.3	519.3	559.6	472.7	236.0	239.1	232.1
30-34	353.0	498.6	219.1	353.5	421.8	277.1	200.5	225.1	174.7
35-39	256.9	390.6	137.1	257.6	297.1	216.1	140.5	163.5	116.9
40-44	160.5	272.6	61.2	159.4	187.9	129.8	90.1	112.3	67.4
45-54	97.6	178.2	24.6	76.0	116.0	36.0	41.9	60.6	23.0
55-64	38.0	74.3	5.6	20.5	32.5	9.2	15.6	27.0	4.6
65+	7.2	12.5	3.0	1.7	3.5	0.0	2.2	4.4	0.5
Unknown Age									
TOTAL	145.5	158.9	132.1	192.0	195.8	186.7	74.6	77.4	71.7

<sup>\*</sup> Per 100,000.

**NOTE:** These tables should be used only for race/Hispanic ethnicity comparisons. See Table 9 for age-specific cases and rates and Tables 8, 8A, and 8B for total and sex-specific cases and rates. Cases in the 0–4 age group may include cases due to perinatal transmission. No population data exist for unknown sex, unknown age, or unknown race; therefore rates are not calculated. The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

<sup>†</sup> Total includes cases reported with unknown sex.

Table 11A. Gonorrhea — Reported Cases and Rates of Reported Cases Among Men Aged 15-24 Years by Age, United States, 2016-2020

Agos	Cases					Rates pe	r 100,000	Population	า	
Ages	2016	2017	2018	2019	2020	2016	2017	2018	2019	2020
15	1,294	1,335	1,333	1,376	1,707	60.4	63.6	63.1	64.6	80.2
16	3,078	3,374	3,189	3,282	3,722	141.1	156.5	151.4	155.1	175.9
17	5,504	6,301	6,185	6,051	7,002	256.0	286.7	285.6	286.4	331.4
18	8,945	10,482	10,356	10,778	11,711	414.4	483.2	468.6	496.1	539.1
19	11,495	13,426	13,551	13,915	15,514	529.8	616.3	621.2	628.3	700.5
20	12,949	15,085	15,280	15,610	17,707	589.3	689.6	698.8	715.0	811.1
21	14,178	15,985	16,089	16,483	18,315	629.3	722.0	733.4	753.7	837.4
22	14,754	16,484	16,421	16,973	18,651	640.9	726.1	739.8	773.2	849.6
23	15,060	16,663	16,968	17,042	18,296	643.0	718.6	745.4	767.1	823.5
24	15,026	16,819	17,055	17,170	17,925	627.0	713.0	733.4	753.9	787.1
Total	102,283	115,954	116,427	118,680	130,550	458.8	523.5	529.8	544.1	598.6

**NOTE:** Cases reported with unknown sex are not included in this table. The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

Table 11B. Gonorrhea — Reported Cases and Rates of Reported Cases Among Women Aged 15-24 Years by Age, United States, 2016-2020

Agos	Cases					Rates per 100,000 Population						
Ages	2016	2017	2018	2019	2020	2016	2017	2018	2019	2020		
15	3,678	3,976	3,750	3,821	4,126	179.0	197.2	184.8	186.8	201.7		
16	6,573	7,600	6,921	6,938	7,364	315.4	367.7	341.9	341.1	362.0		
17	9,855	11,479	11,047	10,961	11,952	479.7	547.0	532.0	540.0	588.8		
18	14,304	16,429	16,679	17,134	18,637	694.1	793.0	790.5	822.4	894.5		
19	15,300	18,089	18,231	18,904	21,463	737.8	870.4	875.5	893.5	1,014.5		
20	14,657	16,950	17,477	18,407	21,462	701.7	811.3	837.3	882.2	1,028.6		
21	14,149	15,968	16,556	17,693	20,397	663.1	758.8	788.8	846.1	975.4		
22	13,540	14,933	14,912	15,344	18,572	621.4	694.4	705.0	729.5	882.9		
23	12,245	14,046	13,670	13,989	16,459	553.9	639.5	632.2	659.9	776.4		
24	11,339	12,681	13,048	13,267	14,728	497.8	569.0	590.8	612.2	679.6		
Total	115,640	132,151	132,291	136,458	155,160	545.0	626.3	630.1	653.6	743.2		

**NOTE:** Cases reported with unknown sex are not included in this table. The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

Table 12. Total Syphilis\* — Reported Cases and Rates of Reported Cases by State/Territory and Region in Alphabetical Order, United States, 2016-2020

	Cases				Rates per 100,000 Population					
State/Territory	2016	2017	2018	2019	2020	2016	2017	2018	2019	2020
Alabama	905	1,202	1,285	1,634	1,518	18.6	24.7	26.3	33.3	31.0
Alaska	24	28	113	242	361	3.2	3.8	15.3	33.1	49.3
Arizona	1,906	2,424	3,249	4,022	4,460	27.5	34.5	45.3	55.3	61.3
Arkansas	567	726	964	1,106	1,243	19.0	24.2	32.0	36.6	41.2
California	17,603	21,804	25,253	28,811	26,414	44.8	55.1	63.8	72.9	66.9
Colorado	739	817	1,085	1,434	1,785	13.3	14.6	19.0	24.9	31.0
Connecticut	217	283	264	482	536	6.1	7.9	7.4	13.5	15.0
Delaware	149	194	129	216	222	15.7	20.2	13.3	22.2	22.8
District of Columbia	568	845	764	1,085	988	83.4	121.8	108.8	153.7	140.0
Florida	8,334	8,957	10,701	12,121	12,416	40.4	42.7	50.2	56.4	57.8
Georgia	4,112	4,310	4,928	5,683	5,596	39.9	41.3	46.8	53.5	52.7
Hawaii	215	165	210	252	397	15.1	11.6	14.8	17.8	28.0
Idaho	127	151	134	149	184	7.5	8.8	7.6	8.3	10.3
Illinois	4,039	3,838	4,472	4,511	4,565	31.6	30.0	35.1	35.6	36.0
Indiana	778	788	985	993	1,347	11.7	11.8	14.7	14.7	20.0
lowa	276	290	286	359	501	8.8	9.2	9.1	11.4	15.9
Kansas	304	339	495	565	539	10.5	11.6	17.0	19.4	18.5
Kentucky	572	722	881	1,096	1,143	12.9	16.2	19.7	24.5	25.6
Louisiana	2,598	2,854	2,744	2,744	2,497	55.5	60.9	58.9	59.0	53.7
Maine	64	132	147	136	81	4.8	9.9	11.0	10.1	6.0
Maryland	1,842	2,059	2,536	2,779	2,683	30.6	34.0	42.0	46.0	44.4
Massachusetts	1,446	1,474	1,305	1,844	1,658	21.2	21.5	18.9	26.8	24.1
Michigan	1,092	1,267	1,692	1,905	2,059	11.0	12.7	16.9	19.1	20.6
Minnesota	853	934	918	1,127	1,098	15.5	16.7	16.4	20.0	19.5
Mississippi	925	937	1,454	2,006	2,131	30.9	31.4	48.7	67.4	71.6
Missouri	955	1,337	1,914	2,188	2,331	15.7	21.9	31.2	35.7	38.0
Montana	24	85	104	140	101	2.3	8.1	9.8	13.1	9.5
Nebraska	121	118	219	291	268	6.3	6.1	11.4	15.0	13.9
Nevada	1,313	1,684	2,000	2,356	2,218	44.7	56.2	65.9	76.5	72.0
New Hampshire	100	109	137	135	120	7.5	8.1	10.1	9.9	8.8
New Jersey	1,620	1,867	1,777	2,085	2,385	18.1	20.7	19.9	23.5	26.9
New Mexico	470	510	812	1,294	1,496	22.6	24.4	38.8	61.7	71.3
New York	9,456	9,877	10,183	10,500	10,613	47.9	49.8	52.1	54.0	54.6
North Carolina	2,655	2,949	2,989	3,369	3,714	26.2	28.7	28.8	32.1	35.4
North Dakota	61	78	84	97	91	8.0	10.3	11.1	12.7	11.9
Ohio	1,600	1,900	1,909	2,005	2,457	13.8	16.3	16.3	17.2	21.0
Oklahoma	696	953	1,137	1,749	1,889	17.7	24.2	28.8	44.2	47.7
Oregon	810	848	1,042	1,245	1,320	19.8	20.5	24.9	29.5	31.3
Pennsylvania	2,037	2,235	2,414	2,764	2,897	15.9	17.5	18.8	21.6	22.6

Chala /Tauritana	Cases					Rates per 100,000 Population					
State/Territory	2016	2017	2018	2019	2020	2016	2017	2018	2019	2020	
Rhode Island	234	221	284	423	315	22.2	20.9	26.9	39.9	29.7	
South Carolina	974	1,096	1,152	1,306	1,681	19.6	21.8	22.7	25.4	32.6	
South Dakota	57	75	74	86	128	6.6	8.6	8.4	9.7	14.5	
Tennessee	1,448	1,453	1,726	2,226	2,463	21.8	21.6	25.5	32.6	36.1	
Texas	9,564	12,127	12,973	12,657	15,358	34.3	42.8	45.2	43.7	53.0	
Utah	259	299	423	431	351	8.5	9.6	13.4	13.4	10.9	
Vermont	37	26	29	24	23	5.9	4.2	4.6	3.8	3.7	
Virginia	1,304	1,758	2,039	2,071	1,953	15.5	20.8	23.9	24.3	22.9	
Washington	1,414	1,751	1,911	2,186	2,079	19.4	23.6	25.4	28.7	27.3	
West Virginia	151	124	185	277	406	8.2	6.8	10.2	15.5	22.7	
Wisconsin	423	551	509	569	834	7.3	9.5	8.8	9.8	14.3	
Wyoming	17	19	42	42	32	2.9	3.3	7.3	7.3	5.5	
US TOTAL	88,055	101,590	115,062	129,818	133,945	27.3	31.2	35.2	39.5	40.8	
Northeast	15,211	16,224	16,540	18,393	18,628	27.1	28.7	29.5	32.9	33.3	
Midwest	10,559	11,515	13,557	14,696	16,218	15.5	16.9	19.8	21.5	23.7	
South	37,364	43,266	48,587	54,125	57,901	30.5	35.0	38.9	43.1	46.1	
West	24,921	30,585	36,378	42,604	41,198	32.5	39.5	46.6	54.4	52.6	
American Samoa	NR	NR	0	0	0	_	_	0.0	0.0	0.0	
Guam	13	21	30	31	21	7.8	12.5	17.9	18.4	12.5	
Northern Mariana Islands	NR	NR	2	2	2	_	_	3.8	3.8	3.8	
Puerto Rico	1,185	1,055	1,089	949	828	34.7	31.5	33.1	29.7	25.9	
Virgin Islands	2	0	NR	45	40	1.9	0.0	-	42.2	37.5	
TERRITORIES	1,200	1,076	1,121	1,027	891	32.6	29.7	31.4	28.8	25.0	
TOTAL	89,255	102,666	116,183	130,845	134,836	27.3	31.2	35.1	39.4	40.6	

<sup>\*</sup> See Technical Notes for definition and more information on interpreting case counts and rates in US territories.

Table 13. Primary and Secondary Syphilis — Reported Cases and Rates of Reported Cases by State, Ranked by Rates, United States, 2020

Rank*	State	Cases	Rate per 100,000 Population
1	Nevada	767	24.9
2	Mississippi	741	24.9
3	Alaska	176	24.1
4	Oklahoma	941	23.8
5	New Mexico	467	22.3
6	Arizona	1,454	20.0
7	California	7,688	19.5
8	Arkansas	502	16.6
9	Georgia	1,757	16.5
10	Florida	3,520	16.4
11	New York	3,022	15.5
12	Louisiana	704	15.1
13	Oregon	628	14.9
14	Maryland	873	14.4
15	Missouri	829	13.5
16	Hawaii	182	12.9
	US TOTAL†	41,655	12.7
17	South Carolina	652	12.7
18	North Carolina	1,322	12.6
19	Illinois	1,467	11.6
20	Tennessee	767	11.2
21	Colorado	640	11.1
22	Washington	836	11.0
23	Alabama	529	10.8
24	Delaware	97	10.0
25	Kentucky	445	10.0
26	Texas	2,708	9.3
27	Ohio	1,084	9.3
28	Massachusetts	615	8.9
29	New Jersey	764	8.6
30	Rhode Island	89	8.4
31	Virginia	701	8.2
32	Pennsylvania	1,046	8.2
33	Michigan	787	7.9
34	Connecticut	280	7.9
35	Indiana	527	7.8
36	South Dakota	66	7.5
37	Minnesota	417	7.4
38	West Virginia	127	7.1
39	Wisconsin	366	6.3

Rank*	State	Cases	Rate per 100,000 Population
40	lowa	194	6.1
41	Nebraska	104	5.4
42	Kansas	150	5.1
43	Montana	45	4.2
44	North Dakota	32	4.2
45	Utah	131	4.1
46	New Hampshire	51	3.8
47	Idaho	66	3.7
48	Maine	38	2.8
49	Wyoming	11	1.9
50	Vermont	3	0.5

<sup>\*</sup> States were ranked by rate, then case count, then in alphabetical order, with rates shown rounded to the nearest tenth.

<sup>†</sup> Total includes cases reported by the District of Columbia with 247 cases and a rate of 35.0, but excludes territories.

Table 14. Primary and Secondary Syphilis — Reported Cases and Rates of Reported Cases by State/Territory and Region in Alphabetical Order, United States, 2016-2020

toto/Touritous	Cases							Rates per 100,000 Population					
tate/Territory	2016	2017	2018	2019	2020	2016	2017	2018	2019	2020			
llabama	376	424	477	618	529	7.7	8.7	9.8	12.6	10.8			
ılaska	8	13	55	129	176	1.1	1.8	7.5	17.6	24.1			
rizona	721	943	1,047	1,290	1,454	10.4	13.4	14.6	17.7	20.0			
rkansas	150	234	288	404	502	5.0	7.8	9.6	13.4	16.6			
California	5,891	6,708	7,607	8,266	7,688	15.0	17.0	19.2	20.9	19.5			
Colorado	250	292	337	486	640	4.5	5.2	5.9	8.4	11.1			
Connecticut	110	110	91	210	280	3.1	3.1	2.5	5.9	7.9			
Pelaware	58	57	30	94	97	6.1	5.9	3.1	9.7	10.0			
District of Columbia	161	274	279	308	247	23.6	39.5	39.7	43.6	35.0			
lorida	2,406	2,390	2,880	3,189	3,520	11.7	11.4	13.5	14.8	16.4			
Georgia	1,350	1,489	1,607	1,750	1,757	13.1	14.3	15.3	16.5	16.5			
lawaii	112	94	92	120	182	7.8	6.6	6.5	8.5	12.9			
daho	50	64	46	47	66	3.0	3.7	2.6	2.6	3.7			
linois	1,260	1,225	1,408	1,374	1,467	9.8	9.6	11.1	10.8	11.6			
ndiana	326	319	367	336	527	4.9	4.8	5.5	5.0	7.8			
owa	89	101	86	132	194	2.8	3.2	2.7	4.2	6.1			
ansas	124	133	152	190	150	4.3	4.6	5.2	6.5	5.1			
entucky	219	262	366	438	445	4.9	5.9	8.2	9.8	10.0			
ouisiana	750	679	669	700	704	16.0	14.5	14.4	15.1	15.1			
<i>M</i> aine	42	65	74	55	38	3.2	4.9	5.5	4.1	2.8			
Maryland Part of the state of t	509	573	737	868	873	8.5	9.5	12.2	14.4	14.4			
/lassachusetts	489	538	552	610	615	7.2	7.8	8.0	8.9	8.9			
<i>f</i> lichigan	365	480	649	678	787	3.7	4.8	6.5	6.8	7.9			
/linnesota	306	292	292	385	417	5.5	5.2	5.2	6.8	7.4			
Aississippi	326	310	464	690	741	10.9	10.4	15.5	23.2	24.9			
Aissouri	400	507	806	817	829	6.6	8.3	13.2	13.3	13.5			
Montana	14	48	45	67	45	1.3	4.6	4.2	6.3	4.2			

tata/Tamitam	Cases							Rates per 100,000 Population					
tate/Territory	2016	2017	2018	2019	2020	2016	2017	2018	2019	2020			
lebraska	67	43	119	136	104	3.5	2.2	6.2	7.0	5.4			
levada	444	587	682	808	767	15.1	19.6	22.5	26.2	24.9			
lew Hampshire	40	43	64	47	51	3.0	3.2	4.7	3.5	3.8			
lew Jersey	472	499	570	631	764	5.3	5.5	6.4	7.1	8.6			
lew Mexico	189	193	304	511	467	9.1	9.2	14.5	24.4	22.3			
lew York	2,455	2,355	2,654	2,865	3,022	12.4	11.9	13.6	14.7	15.5			
Iorth Carolina	1,082	1,138	1,098	1,122	1,322	10.7	11.1	10.6	10.7	12.6			
lorth Dakota	33	44	41	45	32	4.4	5.8	5.4	5.9	4.2			
Dhio	716	832	740	749	1,084	6.2	7.1	6.3	6.4	9.3			
Oklahoma	264	373	531	791	941	6.7	9.5	13.5	20.0	23.8			
)regon	327	352	424	454	628	8.0	8.5	10.1	10.8	14.9			
ennsylvania	755	793	797	991	1,046	5.9	6.2	6.2	7.7	8.2			
thode Island	90	71	96	101	89	8.5	6.7	9.1	9.5	8.4			
outh Carolina	316	361	384	516	652	6.4	7.2	7.6	10.0	12.7			
outh Dakota	26	33	41	48	66	3.0	3.8	4.6	5.4	7.5			
ennessee	390	488	553	676	767	5.9	7.3	8.2	9.9	11.2			
exas	1,955	2,233	2,538	2,357	2,708	7.0	7.9	8.8	8.1	9.3			
Jtah	92	117	169	138	131	3.0	3.8	5.3	4.3	4.1			
/ermont	23	13	11	11	3	3.7	2.1	1.8	1.8	0.5			
/irginia	459	536	702	659	701	5.5	6.3	8.2	7.7	8.2			
Vashington	565	677	802	816	836	7.8	9.1	10.6	10.7	11.0			
Vest Virginia	53	62	65	79	127	2.9	3.4	3.6	4.4	7.1			
Visconsin	132	173	152	179	366	2.3	3.0	2.6	3.1	6.3			
Vyoming	7	4	23	11	11	1.2	0.7	4.0	1.9	1.9			
JS TOTAL	27,814	30,644	35,063	38,992	41,655	8.6	9.4	10.7	11.9	12.7			
lortheast	4,476	4,487	4,909	5,521	5,908	8.0	7.9	8.7	9.9	10.6			
Лidwest	3,844	4,182	4,853	5,069	6,023	5.7	6.1	7.1	7.4	8.8			
outh	10,824	11,883	13,668	15,259	16,633	8.8	9.6	11.0	12.2	13.2			
Vest	8,670	10,092	11,633	13,143	13,091	11.3	13.0	14.9	16.8	16.7			
merican Samoa	NR	NR	0	0	0	_	_	0.0	0.0	0.0			

State/Territory	Cases					Rates per 100,000 Population					
State/ Territory	2016	2017	2018	2019	2020	2016	2017	2018	2019	2020	
Guam	2	13	18	5	5	1.2	7.8	10.7	3.0	3.0	
Northern Mariana Islands	NR	NR	1	1	2	_	_	1.9	1.9	3.8	
Puerto Rico	493	411	365	329	276	14.5	12.3	11.1	10.3	8.6	
Virgin Islands	0	0	NR	NR	4	0.0	0.0	_	_	3.7	
TERRITORIES	495	424	384	335	287	13.4	11.7	10.8	9.7	8.0	
TOTAL	28,309	31,068	35,447	39,327	41,942	8.7	9.4	10.7	11.9	12.6	

**NOTE:** See Technical Notes for more information on interpreting case counts and rates in US territories. The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

Table 14A. Primary and Secondary Syphilis Among Men – Reported Cases and Rates of Reported Cases by State/Territory and Region in Alphabetical Order, United States, 2016-2020

State/Territory	Cases					Rates per	100,000 Po	pulation		
State/Territory	2016	2017	2018	2019	2020	2016	2017	2018	2019	2020
Alabama	296	354	389	492	413	12.6	15.0	16.5	20.8	17.4
Alaska	8	12	51	79	111	2.1	3.1	13.3	20.7	29.1
Arizona	641	785	870	1,050	1,140	18.6	22.5	24.4	29.0	31.5
Arkansas	113	170	220	283	296	7.7	11.5	14.9	19.1	20.0
California	5,143	5,804	6,349	6,735	6,119	26.4	29.5	32.3	34.3	31.1
Colorado	234	274	312	424	541	8.4	9.7	10.9	14.6	18.6
Connecticut	98	97	84	189	250	5.6	5.5	4.8	10.9	14.4
Delaware	55	51	23	77	81	11.9	11.0	4.9	16.4	17.2
District of Columbia	152	264	264	283	224	47.0	80.2	79.2	84.6	66.9
Florida	2,140	2,069	2,524	2,729	3,000	21.3	20.2	24.2	26.0	28.6
Georgia	1,237	1,350	1,421	1,555	1,500	24.6	26.6	27.8	30.1	29.1
Hawaii	102	88	85	95	127	14.2	12.3	12.0	13.4	17.9
Idaho	44	49	41	38	45	5.2	5.7	4.7	4.2	5.0
Illinois	1,165	1,140	1,287	1,213	1,252	18.5	18.1	20.6	19.5	20.1
Indiana	290	292	341	282	438	8.9	8.9	10.3	8.5	13.2
lowa	83	92	75	97	170	5.3	5.9	4.8	6.2	10.8
Kansas	112	117	128	157	124	7.7	8.1	8.8	10.8	8.5
Kentucky	198	221	296	337	333	9.1	10.1	13.4	15.3	15.1
Louisiana	558	493	503	537	527	24.4	21.5	22.1	23.7	23.2
Maine	39	54	67	49	37	6.0	8.3	10.2	7.4	5.6
Maryland	455	526	656	747	733	15.6	17.9	22.4	25.5	25.0
Massachusetts	464	512	499	547	545	14.0	15.4	14.9	16.3	16.3
Michigan	334	446	580	583	674	6.8	9.1	11.8	11.9	13.7
Minnesota	267	252	248	311	332	9.7	9.1	8.9	11.1	11.8
Mississippi	268	222	312	432	445	18.5	15.4	21.6	30.0	30.9
Missouri	334	414	645	639	576	11.2	13.8	21.4	21.2	19.1
Montana	13	39	35	47	37	2.5	7.4	6.5	8.7	6.9
Nebraska	62	36	105	114	86	6.5	3.8	10.9	11.8	8.9

state/Territory						Rates per 100,000 Population 2016 2017 2018 2019 2020				
	2016	2017	2018	2019	2020	2016	2017	2018	2019	2020
Nevada	394	512	563	649	617	26.7	34.0	37.0	42.0	39.9
New Hampshire	36	39	61	43	45	5.4	5.9	9.1	6.4	6.7
New Jersey	448	465	511	557	643	10.3	10.6	11.7	12.8	14.8
New Mexico	162	174	258	376	326	15.7	16.8	24.9	36.2	31.4
New York	2,319	2,214	2,483	2,634	2,754	24.2	23.0	26.2	27.9	29.1
North Carolina	973	1,011	937	936	1,115	19.7	20.2	18.6	18.4	21.9
North Dakota	30	39	31	31	21	7.7	10.1	8.0	7.9	5.4
Dhio	622	720	648	635	882	10.9	12.6	11.3	11.1	15.4
Oklahoma	223	306	387	547	602	11.5	15.7	19.8	27.9	30.7
Oregon	292	298	332	349	475	14.4	14.5	16.0	16.7	22.7
Pennsylvania	693	717	698	857	911	11.1	11.4	11.1	13.7	14.5
Rhode Island	87	64	84	94	78	17.0	12.4	16.3	18.2	15.1
outh Carolina	264	305	317	408	451	11.0	12.5	12.9	16.4	18.1
outh Dakota	20	29	30	33	39	4.6	6.6	6.7	7.4	8.7
ennessee	334	441	486	571	626	10.3	13.5	14.7	17.1	18.8
-exas	1,725	1,920	2,114	1,917	2,122	12.5	13.7	14.8	13.3	14.7
Jtah	86	113	159	126	119	5.6	7.2	10.0	7.8	7.4
/ermont	20	12	9	10	3	6.5	3.9	2.9	3.2	1.0
/irginia	403	471	617	579	603	9.7	11.3	14.7	13.8	14.4
Vashington	514	606	701	698	672	14.1	16.4	18.6	18.3	17.6
Vest Virginia	43	41	46	59	82	4.7	4.6	5.1	6.6	9.2
Visconsin	125	161	134	162	294	4.4	5.6	4.6	5.6	10.1
Vyoming	6	4	18	10	10	2.0	1.4	6.1	3.4	3.4
JS TOTAL	24,724	26,885	30,034	32,402	33,646	15.5	16.8	18.6	20.0	20.8
Northeast	4,204	4,174	4,496	4,980	5,266	15.3	15.2	16.4	18.2	19.3
Midwest	3,444	3,738	4,252	4,257	4,888	10.3	11.1	12.6	12.6	14.5
outh	9,437	10,215	11,512	12,489	13,153	15.7	16.9	18.8	20.3	21.4
Vest	7,639	8,758	9,774	10,676	10,339	20.0	22.7	25.1	27.3	26.5
American Samoa	NR	NR	0	0	0	_	_	0.0	0.0	0.0
Guam	2	11	18	5	4	2.3	12.8	20.9	5.8	4.6

State/Territory	Cases					Rates per 1	100,000 Po	pulation		
State, remitting	2016	2017	2018	2019	2020	2016	2017	2018	2019	2020
Northern Mariana Islands	NR	NR	1	1	2	_	_	3.6	3.6	7.2
Puerto Rico	407	345	311	277	220	25.1	21.7	19.9	18.3	14.5
Virgin Islands	0	0	NR	NR	3	0.0	0.0	_	_	5.9
TERRITORIES	409	356	330	283	229	23.2	20.6	19.4	17.1	13.4
TOTAL	25,133	27,241	30,364	32,685	33,875	15.6	16.8	18.6	20.0	20.7

Table 14B. Primary and Secondary Syphilis Among Women – Reported Cases and Rates of Reported Cases by State/Territory and Region in Alphabetical Order, United States, 2016-2020

S /=	Cases					Rates pe	· 100,000 Pc	opulation		
State/Territory	2016	2017	2018	2019	2020	2016	2017	2018	2019	2020
Alabama	80	70	88	126	116	3.2	2.8	3.5	5.0	4.6
Alaska	0	1	4	50	65	0.0	0.3	1.1	14.3	18.6
Arizona	80	158	177	240	314	2.3	4.5	4.9	6.6	8.6
Arkansas	37	64	68	121	206	2.4	4.2	4.4	7.9	13.4
California	744	902	1,255	1,494	1,520	3.8	4.5	6.3	7.5	7.7
Colorado	16	18	25	62	99	0.6	0.6	0.9	2.2	3.5
Connecticut	12	13	5	20	30	0.7	0.7	0.3	1.1	1.6
Delaware	3	6	7	17	14	0.6	1.2	1.4	3.4	2.8
District of Columbia	5	7	12	21	23	1.4	1.9	3.3	5.7	6.2
Florida	266	321	356	460	520	2.5	3.0	3.3	4.2	4.7
Georgia	113	139	184	195	257	2.1	2.6	3.4	3.6	4.7
Hawaii	10	6	7	23	47	1.4	0.8	1.0	3.2	6.6
Idaho	6	15	5	9	21	0.7	1.8	0.6	1.0	2.4
Illinois	95	85	120	161	215	1.5	1.3	1.9	2.5	3.3
Indiana	36	27	26	54	88	1.1	0.8	0.8	1.6	2.6
lowa	6	9	11	35	24	0.4	0.6	0.7	2.2	1.5
Kansas	12	16	24	33	26	0.8	1.1	1.6	2.3	1.8
Kentucky	21	41	70	101	112	0.9	1.8	3.1	4.5	4.9
Louisiana	192	186	166	163	177	8.0	7.8	7.0	6.8	7.4
Maine	3	9	7	6	1	0.4	1.3	1.0	0.9	0.1
Maryland	54	47	81	121	140	1.7	1.5	2.6	3.9	4.5
Massachusetts	24	26	41	59	62	0.7	0.7	1.2	1.7	1.7
Michigan	31	34	69	95	113	0.6	0.7	1.4	1.9	2.2
Minnesota	37	38	44	70	85	1.3	1.4	1.6	2.5	3.0
Mississippi	58	88	152	258	296	3.8	5.7	9.9	16.8	19.3
Missouri	66	93	161	178	253	2.1	3.0	5.2	5.7	8.1
Montana	1	9	10	20	8	0.2	1.7	1.9	3.8	1.5
Nebraska	5	7	14	22	18	0.5	0.7	1.4	2.3	1.9

State /Tamitam.	Cases					Rates per 1	.00,000 Pop	ulation		
State/Territory	2016	2017	2018	2019	2020	2016	2017	2018	2019	2020
Nevada	50	75	119	159	150	3.4	5.0	7.9	10.4	9.8
New Hampshire	4	4	3	4	6	0.6	0.6	0.4	0.6	0.9
New Jersey	24	34	58	73	116	0.5	0.7	1.3	1.6	2.6
New Mexico	27	19	46	135	141	2.6	1.8	4.3	12.7	13.3
New York	115	121	171	231	268	1.1	1.2	1.7	2.3	2.7
North Carolina	109	127	160	186	207	2.1	2.4	3.0	3.5	3.8
North Dakota	3	5	10	14	11	0.8	1.4	2.7	3.8	3.0
Ohio	94	112	92	114	202	1.6	1.9	1.5	1.9	3.4
Oklahoma	41	67	144	244	338	2.1	3.4	7.2	12.2	16.9
Oregon	35	52	92	105	152	1.7	2.5	4.4	4.9	7.1
Pennsylvania	62	76	99	133	134	1.0	1.2	1.5	2.0	2.1
Rhode Island	3	7	12	7	11	0.6	1.3	2.2	1.3	2.0
South Carolina	52	56	67	104	197	2.0	2.2	2.6	3.9	7.4
South Dakota	6	4	11	15	27	1.4	0.9	2.5	3.4	6.2
Tennessee	56	47	67	105	141	1.6	1.4	1.9	3.0	4.0
Texas	230	313	424	416	583	1.6	2.2	2.9	2.9	4.0
Utah	6	4	10	12	12	0.4	0.3	0.6	0.8	0.8
Vermont	3	1	2	1	0	0.9	0.3	0.6	0.3	0.0
Virginia	47	60	77	66	78	1.1	1.4	1.8	1.5	1.8
Washington	51	70	100	117	159	1.4	1.9	2.7	3.1	4.2
West Virginia	10	21	19	20	45	1.1	2.3	2.1	2.2	5.0
Wisconsin	7	12	18	17	72	0.2	0.4	0.6	0.6	2.5
Wyoming	1	0	5	1	1	0.3	0.0	1.8	0.4	0.4
US TOTAL	3,049	3,722	4,995	6,493	7,901	1.9	2.3	3.0	3.9	4.7
Northeast	250	291	398	534	628	0.9	1.0	1.4	1.9	2.2
Midwest	398	442	600	808	1,134	1.2	1.3	1.7	2.3	3.3
South	1,374	1,660	2,142	2,724	3,450	2.2	2.6	3.4	4.3	5.4
West	1,027	1,329	1,855	2,427	2,689	2.7	3.4	4.7	6.2	6.8
American Samoa	NR	NR	0	0	0	_	_	0.0	0.0	0.0
Guam	0	2	0	0	1	0.0	2.5	0.0	0.0	1.2

State/Territory	Cases					Rates per 100,000 Population					
State, remitory	2016	2017	2018	2019	2020	2016	2017	2018	2019	2020	
Northern Mariana Islands	NR	NR	0	0	0	_	_	0.0	0.0	0.0	
Puerto Rico	86	66	52	52	56	4.8	3.8	3.0	3.1	3.3	
Virgin Islands	0	0	NR	NR	1	0.0	0.0	_	_	1.8	
TERRITORIES	86	68	52	52	58	4.5	3.6	2.8	2.9	3.1	
TOTAL	3,135	3,790	5,047	6,545	7,959	1.9	2.3	3.0	3.9	4.7	

Table 15. Primary and Secondary Syphilis — Reported Cases and Rates of Reported Cases by Age Group and Sex, United States, 2016-2020

Voor	And Group	Cases				Rates per 100,00	0 Population*	
Year	Age Group	Total	Male	Female	Unknown Sex	Total	Male	Female
	0-4	2	0	2	0	0.0	0.0	0.0
	5-9	2	1	1	0	0.0	0.0	0.0
	10-14	15	6	9	0	0.1	0.1	0.1
	15-19	1,298	957	340	1	6.1	8.9	3.3
	20-24	5,172	4,418	744	10	23.1	38.4	6.8
	25-29	6,177	5,538	624	15	27.0	47.6	5.5
2016	30-34	4,278	3,806	464	8	19.6	34.7	4.3
2016	35-39	3,043	2,729	311	3	14.6	26.3	3.0
	40-44	2,140	1,944	193	3	10.9	19.9	1.9
	45-54	3,953	3,691	261	1	9.2	17.5	1.2
	55-64	1,418	1,338	80	0	3.4	6.7	0.4
	65+	279	269	10	0	0.6	1.2	0.0
	Unknown Age	37	27	10	0			
	TOTAL	27,814	24,724	3,049	41	8.6	15.5	1.9
	0-4	5	0	5	0	0.0	0.0	0.1
	5-9	1	0	1	0	0.0	0.0	0.0
	10-14	20	6	14	0	0.1	0.1	0.1
	15-19	1,421	1,092	327	2	6.7	10.1	3.2
	20-24	5,580	4,728	848	4	25.2	41.7	7.9
	25-29	6,838	6,033	795	10	29.3	50.7	6.9
2017	30-34	4,870	4,313	549	8	22.2	38.9	5.0
2017	35-39	3,580	3,145	431	4	16.9	29.6	4.1
	40-44	2,290	2,005	282	3	11.7	20.6	2.9
	45-54	4,091	3,753	334	4	9.7	18.0	1.6
	55-64	1,586	1,468	117	1	3.8	7.2	0.5
	65+	349	329	19	1	0.7	1.5	0.1
	Unknown Age	13	13	0	0			
	TOTAL	30,644	26,885	3,722	37	9.4	16.8	2.3

Voor	Aca Craus	Cases				Rates per 100,00	0 Population*	
Year	Age Group	Total	Male	Female	Unknown Sex	Total	Male	Female
	0-4	2	1	1	0	0.0	0.0	0.0
	5-9	0	0	0	0	0.0	0.0	0.0
	10-14	20	9	11	0	0.1	0.1	0.1
	15-19	1,618	1,175	442	1	7.7	10.9	4.3
	20-24	6,140	5,061	1,076	3	28.1	45.2	10.1
	25-29	7,712	6,625	1,077	10	32.7	55.1	9.3
2018	30-34	5,907	5,084	816	7	26.7	45.4	7.5
2018	35-39	4,200	3,574	621	5	19.5	33.1	5.8
	40-44	2,690	2,328	358	4	13.6	23.8	3.6
	45-54	4,398	3,973	423	2	10.6	19.3	2.0
	55-64	1,929	1,782	145	2	4.6	8.7	0.7
	65+	437	412	25	0	0.8	1.8	0.1
	Unknown Age	10	10	0	0			
	TOTAL	35,063	30,034	4,995	34	10.7	18.6	3.0
	0-4	5	4	1	0	0.0	0.0	0.0
	5-9	2	1	1	0	0.0	0.0	0.0
	10-14	22	9	13	0	0.1	0.1	0.1
	15-19	1,708	1,202	502	4	8.1	11.2	4.9
	20-24	6,325	5,064	1,234	27	29.2	45.8	11.7
	25-29	8,308	6,924	1,361	23	35.3	57.7	11.8
2019	30-34	6,829	5,725	1,085	19	30.4	50.4	9.8
2019	35-39	4,837	3,987	839	11	22.3	36.6	7.7
	40-44	3,276	2,689	579	8	16.4	27.1	5.8
	45-54	4,749	4,099	646	4	11.6	20.3	3.1
	55-64	2,412	2,210	201	1	5.7	10.8	0.9
	65+	515	485	30	0	1.0	2.0	0.1
	Unknown Age	4	3	1	0			
	TOTAL	38,992	32,402	6,493	97	11.9	20.0	3.9
2020	0-4	1	1	0	0	0.0	0.0	0.0
2020	5-9	2	2	0	0	0.0	0.0	0.0

Voor	Age Group	Cases				Rates per 100,000	O Population*	
Year	Age Group	Total	Male	Female	Unknown Sex	Total	Male	Female
	10-14	24	8	16	0	0.1	0.1	0.2
	15-19	1,782	1,166	612	4	8.5	10.9	5.9
	20-24	6,351	4,817	1,512	22	29.4	43.5	14.3
	25-29	8,659	6,975	1,651	33	36.8	58.1	14.4
	30-34	7,779	6,319	1,439	21	34.7	55.7	13.0
	35-39	5,284	4,289	983	12	24.3	39.4	9.1
	40-44	3,693	2,963	727	3	18.5	29.9	7.3
	45-54	4,936	4,227	702	7	12.1	21.0	3.4
	55-64	2,544	2,333	208	3	6.0	11.4	0.9
	65+	548	505	40	3	1.0	2.1	0.1
	Unknown Age	52	41	11	0			
	TOTAL	41,655	33,646	7,901	108	12.7	20.8	4.7

<sup>\*</sup> No population data are available for unknown sex and age; therefore, rates are not calculated.

Table 16A. Primary and Secondary Syphilis — Reported Cases by Race/Hispanic Ethnicity, Age Group, and Sex, United States, 2020

Age Group		American Indian/ Alaska Native  Total* Male Female			Asian			Black/ African American			Hispanic/Latino		
	Total*	Male	Female	Total*	Male	Female	Total*	Male	Female	Total*	Male	Female	
0-4	0	0	0	0	0	0	0	0	0	0	0	0	
5-9	0	0	0	0	0	0	2	2	0	0	0	0	
10-14	0	0	0	0	0	0	11	3	8	9	4	5	
15-19	32	13	19	29	26	3	775	485	288	436	319	116	
20-24	83	44	39	106	94	10	2,573	1,923	644	1,454	1,187	258	
25-29	141	80	61	211	195	15	3,336	2,702	626	1,837	1,597	233	
30-34	135	79	56	159	150	9	2,752	2,319	426	1,649	1,406	234	
35-39	115	74	41	124	116	8	1,538	1,303	232	1,053	923	126	
40-44	61	40	21	76	69	7	1,014	849	165	742	624	116	
45-54	59	36	23	117	110	7	1,181	1,011	167	877	759	116	
55-64	23	20	3	38	34	4	672	598	72	298	271	27	
65+	4	4	0	8	6	1	157	140	17	53	46	7	
Unknown Age	1	1	0	2	2	0	15	9	6	13	13	0	
TOTAL	654	391	263	870	802	64	14,026	11,344	2,651	8,421	7,149	1,238	

5-9 10-14 15-19 20-24 25-29 30-34	Multiraci	Multiracial  Total* Male Female		Native H Pacific Is	awaiian/ lander		White			Other/Unknown		
	Total*	Male	Female	Total*	Male	Female	Total*	Male	Female	Total*	Male	Female
0-4	0	0	0	0	0	0	1	1	0	0	0	0
5-9	0	0	0	0	0	0	0	0	0	0	0	0
10-14	0	0	0	0	0	0	3	1	2	1	0	1
15-19	24	17	7	11	5	6	334	201	132	141	100	41
20-24	166	125	40	21	12	9	1,491	1,062	426	457	370	86
25-29	224	188	34	27	20	6	2,297	1,719	568	586	474	108
30-34	204	167	37	25	19	5	2,353	1,764	587	502	415	85
35-39	135	114	20	23	12	10	1,930	1,452	477	366	295	69
40-44	92	76	16	13	10	3	1,434	1,093	341	261	202	58
45-54	115	104	11	9	8	1	2,236	1,916	318	342	283	59
55-64	42	39	3	7	6	1	1,280	1,199	81	184	166	17
65+	9	9	0	0	0	0	272	261	10	45	39	5
Unknown Age	1	1	0	0	0	0	18	13	5	2	2	0
TOTAL	1,012	840	168	136	92	41	13,649	10,682	2,947	2,887	2,346	529

<sup>\*</sup> Total includes cases reported with unknown sex.

**NOTE:** These tables should be used only for race/Hispanic ethnicity comparisons. See Table 15 for age-specific cases and rates and Tables 14, 14A, and 14B for total and sex-specific cases and rates. Primary and secondary syphilis reported among children aged 0–4 may represent the misclassification of congenitally-acquired syphilis. Cases reported as congenitally-acquired syphilis (congenital syphilis) can be found in Table 20. The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

Table 16B. Primary and Secondary Syphilis — Rates of Reported Cases\* by Race/Hispanic Ethnicity, Age Group, and Sex, United States, 2020

Age Group	Americar Alaska Na			Asian			Black/ African A	African American		Hispanic/Latino		
	Total†	Male	Female	Total†	Male	Female	Total†	Male	Female	Total†	Male	Female
0-4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5-9	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0
10-14	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.2	0.6	0.2	0.1	0.2
15-19	18.0	14.4	21.8	2.6	4.7	0.5	26.8	33.1	20.1	8.7	12.4	4.7
20-24	45.7	47.8	43.5	8.4	14.8	1.6	84.1	124.1	42.6	30.0	47.8	10.9
25-29	70.2	78.1	62.1	13.4	24.9	1.9	95.5	153.4	36.1	37.2	62.3	9.8
30-34	77.1	89.4	64.6	9.6	18.7	1.0	90.9	156.2	27.6	36.0	58.3	10.8
35-39	72.3	93.8	51.1	7.7	15.3	0.9	55.2	97.8	16.0	23.3	39.4	5.8
40-44	42.9	56.8	29.2	5.3	10.3	0.9	40.0	71.1	12.3	17.9	29.5	5.7
45-54	20.5	25.7	15.6	4.5	9.0	0.5	23.1	42.3	6.2	12.3	21.1	3.3
55-64	7.7	14.2	1.9	1.8	3.5	0.3	13.6	26.4	2.7	5.9	10.9	1.0
65+	1.3	3.0	0.0	0.3	0.6	0.1	3.2	6.9	0.6	1.1	2.3	0.3
Unknown Age												
TOTAL	26.9	32.6	21.3	4.6	8.9	0.6	34.1	57.7	12.3	13.9	23.4	4.1

Age Group	Multiracial	Multiracial			an/ er		White			
	Total†	Male	Female	Total†	Male	Female	Total†	Male	Female	
0-4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
5-9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
10-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
15-19	3.2	4.5	1.9	26.5	23.6	29.6	3.0	3.5	2.5	
20-24	24.7	36.7	12.1	48.8	54.3	43.0	12.9	17.9	7.6	
25-29	38.3	64.8	11.6	53.1	76.7	24.2	18.1	26.5	9.2	
30-34	46.2	78.9	16.1	48.0	70.9	19.8	18.8	27.9	9.5	
35-39	35.8	64.2	10.0	46.6	47.5	41.6	15.7	23.5	7.8	
40-44	29.8	52.5	9.8	31.9	48.2	15.0	12.7	19.2	6.1	
45-54	22.4	43.1	4.0	12.4	22.1	2.8	8.9	15.3	2.5	
55-64	9.6	18.8	1.3	11.1	19.5	3.1	4.3	8.3	0.5	
65+	2.1	4.7	0.0	0.0	0.0	0.0	0.7	1.4	0.0	
Unknown Age										
TOTAL	13.9	23.4	4.6	22.8	30.7	13.8	6.9	11.0	2.9	

<sup>\*</sup> Per 100,000.

**NOTE:** These tables should be used only for race/Hispanic ethnicity comparisons. See Table 15 for age-specific cases and rates and Tables 14, 14A, and 14B for total and sex-specific cases and rates. Primary and secondary syphilis reported among children aged 0–4 may represent the misclassification of congenitally-acquired syphilis. Cases reported as congenitally-acquired syphilis (congenital syphilis) can be found in Table 20. No population data exist for unknown sex, unknown age, or unknown race; therefore rates are not calculated. The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

<sup>†</sup> Total includes cases reported with unknown sex.

Table 17. Primary and Secondary Syphilis—Reported Cases\* and Rates of Reported Cases Among Gay, Bisexual, and Other Men Who Have Sex with Men by State in Alphabetical Order, United States, 2016-2020

Class /Tamile	Cases					Rates pe	Rates per 100,000 Population					
State/Territory	2016	2017	2018	2019	2020	2016	2017	2018	2019	2020		
Alabama	ND	ND	ND	ND	173	_	_	_	_	399.7		
Alaska	7	9	42	28	20	78.5	110.3	510.8	340.5	243.2		
Arizona	465	539	555	612	653	416.6	476.1	487.3	537.4	573.4		
Arkansas	68	94	121	114	81	341.8	478.7	603.2	568.3	403.8		
California	3,240	3,773	3,855	3,902	3,355	440.9	509.9	516.1	522.4	449.2		
Colorado	175	197	213	279	321	155.4	170.6	182.1	238.5	274.4		
Connecticut	72	70	55	ND	132	224.5	217.9	171.7	_	412.0		
Delaware	ND	ND	ND	ND	ND	_	_	_	_	_		
District of Columbia	101	ND	ND	ND	147	214.4	-	_	_	300.8		
Florida	1,440	1,315	1,478	1,411	1,531	343.1	310.8	342.9	327.4	355.2		
Georgia	ND	ND	ND	ND	ND	_	_	_	_	_		
Hawaii	68	66	ND	56	ND	315.5	285.9	_	277.8	_		
Idaho	22	ND	24	ND	ND	132.1	_	132.9	_	<u> </u>		
Illinois	750	794	962	ND	ND	336.5	356.5	419.6	_	_		
Indiana	217	229	253	167	231	294.4	309.6	343.4	226.7	313.5		
lowa	59	68	59	68	87	362.9	428.1	345.5	398.2	509.5		
Kansas	76	78	85	82	65	390.2	368.6	395.1	381.2	302.2		
Kentucky	132	145	160	130	114	255.6	282.6	315.8	256.6	225.0		
Louisiana	348	326	327	294	278	679.7	619.6	632.3	568.5	537.5		
Maine	24	ND	ND	ND	22	185.9	_	_	_	182.0		
Maryland	290	363	411	447	420	330.2	421.7	484.8	527.3	495.4		
Massachusetts	348	426	355	415	405	484.3	593.9	473.9	554.0	540.7		
Michigan	267	323	403	357	395	229.0	279.1	343.0	303.9	336.2		
Minnesota	196	203	173	ND	ND	234.7	245.8	215.3	_	_		
Mississippi	181	148	164	185	175	968.5	868.4	950.0	1,071.7	1,013.7		
Missouri	233	243	342	321	ND	313.5	321.3	453.5	425.6	_		
Montana	9	ND	25	20	ND	78.5	_	250.2	200.1	_		
Nebraska	ND	ND	ND	ND	ND	_	_	_	_	_		

Chaha /Tamaihama	Cases					Rates per 100,000 Population					
State/Territory	2016	2017	2018	2019	2020	2016	2017	2018	2019	2020	
Nevada	296	359	328	381	361	658.2	748.6	639.6	742.9	703.9	
New Hampshire	29	29	45	22	27	264.9	258.8	400.6	195.9	240.4	
New Jersey	ND	ND	337	365	371	_	_	402.1	435.6	442.7	
New Mexico	120	121	153	144	ND	414.5	417.5	527.6	496.6	_	
New York	ND	1,351	1,515	1,767	2,008	_	492.6	551.5	643.2	730.9	
North Carolina	707	696	618	577	661	575.0	552.5	482.8	450.7	516.4	
North Dakota	21	28	9	10	9	503.8	646.7	212.7	236.4	212.7	
Ohio	424	523	426	401	418	267.2	326.3	268.8	253.1	263.8	
Oklahoma	158	195	196	238	186	367.6	442.3	443.8	538.9	421.1	
Oregon	207	182	204	181	207	269.2	230.1	248.0	220.0	251.6	
Pennsylvania	469	502	506	552	593	391.5	413.5	421.4	459.8	493.9	
Rhode Island	ND	ND	60	68	ND	_	_	365.9	414.6	_	
South Carolina	172	201	203	205	207	465.9	534.3	520.1	525.3	530.4	
South Dakota	15	21	15	17	8	367.7	533.3	388.7	440.5	207.3	
Tennessee	ND	321	336	333	378	_	357.8	372.9	369.6	419.5	
Texas	1,289	1,416	ND	992	994	264.4	282.1	_	193.9	194.3	
Utah	71	90	122	105	87	230.0	273.2	362.4	311.9	258.4	
Vermont	12	9	ND	ND	ND	197.9	163.3	_	_	_	
Virginia	284	316	428	377	398	225.3	253.6	345.0	303.9	320.8	
Washington	405	468	515	485	ND	296.2	340.6	367.6	346.2	_	
West Virginia	22	23	23	25	28	151.5	149.1	158.8	172.7	193.4	
Wisconsin	ND	ND	ND	ND	208	_	_	_	_	360.8	
Wyoming	ND	3	10	ND	3	_	55.6	220.1	_	66.0	

<sup>\*</sup> Cases are not displayed if the variable used to identify sex of sex partners is complete for <70% of male cases.

ND = Not displayed.

**NOTE:** Rates per 100,000 population are calculated based on population estimates of MSM. The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

Table 18. Early Non-Primary Non-Secondary Syphilis — Reported Cases and Rates of Reported Cases by State/Territory and Region in Alphabetical Order, United States and Territories, 2016-2020

Chaha /Tamaiham.	Cases					Rates pe	Rates per 100,000 Population					
State/Territory	2016	2017	2018	2019	2020	2016	2017	2018	2019	2020		
Alabama	293	425	447	540	479	6.0	8.7	9.1	11.0	9.8		
Alaska	13	9	41	78	130	1.8	1.2	5.6	10.7	17.8		
Arizona	488	620	898	1,179	1,249	7.0	8.8	12.5	16.2	17.2		
Arkansas	280	328	364	267	234	9.4	10.9	12.1	8.8	7.8		
California	5,289	7,028	7,708	8,284	7,673	13.5	17.8	19.5	21.0	19.4		
Colorado	274	281	362	453	519	4.9	5.0	6.4	7.9	9.0		
Connecticut	84	145	77	159	207	2.3	4.0	2.2	4.5	5.8		
Delaware	57	49	36	65	70	6.0	5.1	3.7	6.7	7.2		
District of Columbia	355	341	336	414	369	52.1	49.1	47.8	58.7	52.3		
Florida	2,634	3,033	3,939	4,142	4,423	12.8	14.5	18.5	19.3	20.6		
Georgia	1,263	1,218	1,517	1,733	1,719	12.2	11.7	14.4	16.3	16.2		
Hawaii	89	58	87	95	90	6.2	4.1	6.1	6.7	6.4		
Idaho	33	41	33	40	36	2.0	2.4	1.9	2.2	2.0		
Illinois	1,138	1,192	1,464	1,345	1,227	8.9	9.3	11.5	10.6	9.7		
Indiana	247	250	359	326	471	3.7	3.7	5.4	4.8	7.0		
lowa	59	91	85	100	163	1.9	2.9	2.7	3.2	5.2		
Kansas	178	202	291	282	234	6.1	6.9	10.0	9.7	8.0		
Kentucky	189	236	294	395	352	4.3	5.3	6.6	8.8	7.9		
Louisiana	568	623	576	576	614	12.1	13.3	12.4	12.4	13.2		
Maine	6	36	43	53	28	0.5	2.7	3.2	3.9	2.1		
Maryland	598	683	857	991	891	9.9	11.3	14.2	16.4	14.7		
Massachusetts	538	549	620	625	548	7.9	8.0	9.0	9.1	8.0		
Michigan	290	330	407	558	566	2.9	3.3	4.1	5.6	5.7		
Minnesota	251	313	286	367	368	4.5	5.6	5.1	6.5	6.5		
Mississippi	490	555	937	1,222	1,275	16.4	18.6	31.4	41.1	42.8		
Missouri	276	423	546	647	556	4.5	6.9	8.9	10.5	9.1		
Montana	6	23	25	25	21	0.6	2.2	2.4	2.3	2.0		
Nebraska	19	26	37	46	50	1.0	1.4	1.9	2.4	2.6		

tata /Tawitawa	Cases				Rates per 100,000 Population					
State/Territory	2016	2017	2018	2019	2020	2016	2017	2018	2019	2020
Nevada	510	498	512	522	496	17.3	16.6	16.9	16.9	16.1
New Hampshire	33	37	41	49	32	2.5	2.8	3.0	3.6	2.4
New Jersey	755	865	788	827	790	8.4	9.6	8.8	9.3	8.9
New Mexico	118	120	161	203	243	5.7	5.7	7.7	9.7	11.6
New York	3,504	3,914	4,097	4,376	4,770	17.7	19.7	21.0	22.5	24.5
North Carolina	799	771	797	989	1,105	7.9	7.5	7.7	9.4	10.5
North Dakota	12	12	13	10	12	1.6	1.6	1.7	1.3	1.6
Dhio	389	454	481	519	555	3.3	3.9	4.1	4.4	4.7
Oklahoma	339	478	342	339	380	8.6	12.2	8.7	8.6	9.6
Oregon	250	205	299	357	304	6.1	4.9	7.1	8.5	7.2
Pennsylvania	982	1,100	1,192	1,138	1,166	7.7	8.6	9.3	8.9	9.1
Rhode Island	63	71	71	109	97	6.0	6.7	6.7	10.3	9.2
South Carolina	613	687	732	681	796	12.4	13.7	14.4	13.2	15.5
South Dakota	14	19	9	8	38	1.6	2.2	1.0	0.9	4.3
ennessee	337	412	472	639	686	5.1	6.1	7.0	9.4	10.0
- exas	2,872	3,680	4,245	4,065	5,411	10.3	13.0	14.8	14.0	18.7
Jtah	61	85	101	120	81	2.0	2.7	3.2	3.7	2.5
/ermont	14	13	18	11	11	2.2	2.1	2.9	1.8	1.8
/irginia	602	659	668	679	646	7.2	7.8	7.8	8.0	7.6
Vashington	446	588	599	721	617	6.1	7.9	7.9	9.5	8.1
West Virginia	51	34	55	83	111	2.8	1.9	3.0	4.6	6.2
Visconsin	150	199	163	193	230	2.6	3.4	2.8	3.3	4.0
Vyoming	5	4	11	10	6	0.9	0.7	1.9	1.7	1.0
JS TOTAL	28,924	34,013	38,539	41,655	43,145	9.0	10.4	11.8	12.7	13.1
Northeast	5,979	6,730	6,947	7,347	7,649	10.6	11.9	12.4	13.1	13.7
Midwest	3,023	3,511	4,141	4,401	4,470	4.4	5.1	6.1	6.4	6.5
South	12,340	14,212	16,614	17,820	19,561	10.1	11.5	13.3	14.2	15.6
Vest	7,582	9,560	10,837	12,087	11,465	9.9	12.3	13.9	15.4	14.6
American Samoa	NR	NR	0	0	0	_	_	0.0	0.0	0.0
Guam	1	3	3	5	0	0.6	1.8	1.8	3.0	0.0

State/Territory	Cases	Cases						Rates per 100,000 Population					
State/Territory	2016	2017	2018	2019	2020	2016	2017	2018	2019	2020			
Northern Mariana Islands	NR	NR	0	0	0	_	_	0.0	0.0	0.0			
Puerto Rico	570	527	577	458	332	16.7	15.7	17.5	14.3	10.4			
Virgin Islands	2	0	NR	NR	9	1.9	0.0	_	_	8.4			
TERRITORIES	573	530	580	463	341	15.5	14.6	16.3	13.4	9.6			
TOTAL	29,497	34,543	39,119	42,118	43,486	9.0	10.5	11.8	12.7	13.1			

NR = No report.

**NOTE:** See Technical Notes for more information on interpreting case counts and rates in US territories. The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

Table 19. Unknown Duration or Late Syphilis\* — Reported Cases and Rates of Reported Cases by State/Territory and Region in Alphabetical Order, United States, 2016-2020

State/Territory	Cases					Rates per 100,000 Population					
State/Territory	2016	2017	2018	2019	2020	2016	2017	2018	2019	2020	
Alabama	232	347	354	461	489	4.8	7.1	7.2	9.4	10.0	
Alaska	3	6	16	35	47	0.4	0.8	2.2	4.8	6.4	
Arizona	680	829	1,243	1,444	1,637	9.8	11.8	17.3	19.8	22.5	
Arkansas	131	156	287	414	484	4.4	5.2	9.5	13.7	16.0	
California	6,216	7,787	9,609	11,817	10,572	15.8	19.7	24.3	29.9	26.8	
Colorado	211	240	378	485	604	3.8	4.3	6.6	8.4	10.5	
Connecticut	23	28	94	110	47	0.6	0.8	2.6	3.1	1.3	
Delaware	34	88	63	55	53	3.6	9.1	6.5	5.6	5.4	
District of Columbia	51	230	148	362	369	7.5	33.1	21.1	51.3	52.3	
Florida	3,233	3,435	3,773	4,645	4,319	15.7	16.4	17.7	21.6	20.1	
Georgia	1,478	1,580	1,773	2,144	2,038	14.3	15.1	16.9	20.2	19.2	
Hawaii	13	10	27	34	113	0.9	0.7	1.9	2.4	8.0	
Idaho	44	46	54	61	80	2.6	2.7	3.1	3.4	4.5	
Illinois	1,623	1,399	1,570	1,760	1,845	12.7	10.9	12.3	13.9	14.6	
Indiana	197	211	258	318	343	3.0	3.2	3.9	4.7	5.1	
lowa	127	96	112	126	143	4.1	3.1	3.5	4.0	4.5	
Kansas	0	3	44	84	147	0.0	0.1	1.5	2.9	5.0	
Kentucky	159	218	212	254	333	3.6	4.9	4.7	5.7	7.5	
Louisiana	1,233	1,495	1,456	1,400	1,116	26.3	31.9	31.2	30.1	24.0	
Maine	16	31	30	28	15	1.2	2.3	2.2	2.1	1.1	
Maryland	719	783	913	888	888	12.0	12.9	15.1	14.7	14.7	
Massachusetts	416	387	133	600	485	6.1	5.6	1.9	8.7	7.0	
Michigan	424	447	622	652	677	4.3	4.5	6.2	6.5	6.8	
Minnesota	289	327	330	354	306	5.2	5.9	5.9	6.3	5.4	
Mississippi	107	71	50	91	78	3.6	2.4	1.7	3.1	2.6	
Missouri	271	397	544	706	916	4.4	6.5	8.9	11.5	14.9	
Montana	4	13	34	47	33	0.4	1.2	3.2	4.4	3.1	
Nebraska	34	48	63	109	113	1.8	2.5	3.3	5.6	5.8	

State/Territory         2016         2017         2018         2019         2020         2016           Nevada         347         575         775         985         909         11.8           New Hampshire         27         29         31         37         37         2.0           New Jersey         381         489         406         612         807         4.3           New Mexico         160         196         337         552         744         7.7           New York         3,484         3,592         3,404         3,232         2,791         17.6           North Carolina         756         1,015         1,075         1,231         1,256         7.5           North Dakota         16         22         30         42         44         2.1           Ohio         483         596         667         718         785         4.2           Oklahoma         90         95         253         577         515         2.3	2017 19.2 2.2 5.4	2018 25.5 2.3	2019	2020
New Hampshire       27       29       31       37       37       2.0         New Jersey       381       489       406       612       807       4.3         New Mexico       160       196       337       552       744       7.7         New York       3,484       3,592       3,404       3,232       2,791       17.6         North Carolina       756       1,015       1,075       1,231       1,256       7.5         North Dakota       16       22       30       42       44       2.1         Ohio       483       596       667       718       785       4.2	2.2		22.0	
New Jersey       381       489       406       612       807       4.3         New Mexico       160       196       337       552       744       7.7         New York       3,484       3,592       3,404       3,232       2,791       17.6         North Carolina       756       1,015       1,075       1,231       1,256       7.5         North Dakota       16       22       30       42       44       2.1         Ohio       483       596       667       718       785       4.2		2.3	32.0	29.5
New Mexico       160       196       337       552       744       7.7         New York       3,484       3,592       3,404       3,232       2,791       17.6         North Carolina       756       1,015       1,075       1,231       1,256       7.5         North Dakota       16       22       30       42       44       2.1         Ohio       483       596       667       718       785       4.2	5.4		2.7	2.7
New York       3,484       3,592       3,404       3,232       2,791       17.6         North Carolina       756       1,015       1,075       1,231       1,256       7.5         North Dakota       16       22       30       42       44       2.1         Ohio       483       596       667       718       785       4.2		4.6	6.9	9.1
North Carolina     756     1,015     1,075     1,231     1,256     7.5       North Dakota     16     22     30     42     44     2.1       Ohio     483     596     667     718     785     4.2	9.4	16.1	26.3	35.5
North Dakota 16 22 30 42 44 2.1 Ohio 483 596 667 718 785 4.2	18.1	17.4	16.6	14.3
Ohio 483 596 667 718 785 4.2	9.9	10.4	11.7	12.0
	2.9	3.9	5.5	5.8
Oklahoma 90 95 253 577 515 2.3	5.1	5.7	6.1	6.7
	2.4	6.4	14.6	13.0
Oregon 227 283 299 416 369 5.5	6.8	7.1	9.9	8.7
Pennsylvania 295 335 416 622 671 2.3	2.6	3.2	4.9	5.2
Rhode Island 81 79 117 213 128 7.7	7.5	11.1	20.1	12.1
South Carolina 36 40 27 92 214 0.7	0.8	0.5	1.8	4.2
South Dakota 15 20 23 28 20 1.7	2.3	2.6	3.2	2.3
Tennessee 713 543 688 898 979 10.7	8.1	10.2	13.1	14.3
Texas 4,666 6,035 5,819 5,707 6,678 16.7	21.3	20.3	19.7	23.0
Utah 106 97 152 169 138 3.5	3.1	4.8	5.3	4.3
Vermont 0 0 0 2 9 0.0	0.0	0.0	0.3	1.4
Virginia 235 551 659 722 591 2.8	6.5	7.7	8.5	6.9
Washington 400 480 504 632 616 5.5	6.5	6.7	8.3	8.1
West Virginia         45         25         64         109         160         2.5	1.4	3.5	6.1	8.9
Wisconsin         140         176         193         195         232         2.4	3.0	3.3	3.3	4.0
Wyoming 5 11 8 21 14 0.9	1.9	1.4	3.6	2.4
US TOTAL 30,676 35,992 40,137 47,296 46,997 9.5	11.1	12.3	14.4	14.3
Northeast 4,723 4,970 4,631 5,456 4,990 8.4	8.8	8.3	9.7	8.9
Midwest 3,619 3,742 4,456 5,092 5,571 5.3	5.5	6.5	7.5	8.2
South 13,918 16,707 17,614 20,050 20,560 11.4	13.5	14.1	16.0	16.4
West 8,416 10,573 13,436 16,698 15,876 11.0	13.7	17.2	21.3	20.3
American Samoa NR NR 0 0 0 —	_	0.0	0.0	0.0
Guam 10 5 9 21 16 6.0	3.0	5.4	12.5	9.5

State/Territory	Cases						Rates per 100,000 Population					
State/ Territory	2016	2017	2018	2019	2020	2016	2017	2018	2019	2020		
Northern Mariana Islands	NR	NR	1	1	0	_	_	1.9	1.9	0.0		
Puerto Rico	117	110	138	155	216	3.4	3.3	4.2	4.9	6.8		
Virgin Islands	0	0	NR	NR	27	0.0	0.0	_	_	25.3		
TERRITORIES	127	115	148	177	259	3.4	3.2	4.2	5.1	7.3		
TOTAL	30,803	36,107	40,285	47,473	47,256	9.4	11.0	12.2	14.3	14.2		

<sup>\*</sup> The case classification of 'Unknown duration or late syphilis' went into effect in January 2018. During 2016–2017, cases in this category include cases classified as late latent syphilis and late syphilis with clinical manifestations. See Technical Notes for a detailed explanation of changes to the syphilis case definition.

NR = No report.

**NOTE:** See Technical Notes for more information on interpreting case counts and rates in US territories. The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

Table 20. Congenital Syphilis — Reported Cases and Rates of Reported Cases by State, Ranked by Rates, United States, 2020

Rank*	State†	Cases	Rate per 100,000 Live Births
1	New Mexico	42	182.9
2	Arizona	120	151.2
3	Texas	561	148.6
4	Nevada	46	131.2
5	Oklahoma	53	107.8
6	California	481	107.7
7	Louisiana	63	106.9
8	Mississippi	37	101.0
9	Alaska	8	81.4
10	Hawaii	12	71.4
11	Florida	154	70.0
12	Georgia	82	64.9
13	Arkansas	23	62.9
	US TOTAL‡	2,148	57.3
14	Oregon	19	45.4
15	Maryland	31	44.2
16	West Virginia	8	44.1
17	Missouri	30	41.6
18	Tennessee	31	38.5
19	Alabama	21	35.8
20	Colorado	22	35.0
21	South Dakota	4	34.9
22	South Carolina	19	33.3
23	North Dakota	3	28.7
24	Michigan	29	26.9
25	North Carolina	31	26.1
26	Ohio	33	24.5
27	Kentucky	13	24.5
28	New Jersey	24	24.1
29	Kansas	8	22.6
30	Delaware	2	18.9
31	Illinois	26	18.6
32	Montana	2	18.1
33	Virginia	15	15.4
34	Wyoming	1	15.2
35	Massachusetts	10	14.5
36	New York	30	13.5
37	Washington	10	11.8
38	Minnesota	7	10.6

Rank*	State†	Cases	Rate per 100,000 Live Births
39	Pennsylvania	14	10.4
40	Rhode Island	1	9.8
41	Wisconsin	6	9.5
42	Idaho	2	9.1
43	Indiana	6	7.4
44	Connecticut	2	5.8
45	Nebraska	1	4.0
46	lowa	1	2.7
47	Utah	1	2.1
	Maine	0	0.0
	New Hampshire	0	0.0
	Vermont	0	0.0

<sup>\*</sup> States were ranked by rate; then case count, then in alphabetical order, with rates shown rounded to the nearest tenth.

<sup>†</sup> Mother's state of residence was used to assign case.

<sup>‡</sup> Total includes cases reported by the District of Columbia with 3 case and a rate of 33.0, but excludes territories.

Table 21. Congenital Syphilis — Reported Cases and Rates of Reported Cases by Year of Birth, by State/Territory\* and Region in Alphabetical Order, United States, 2016-2020

c /= :	Cases					Rates per 100,000 Live Births					
State/Territory	2016	2017	2018	2019	2020	2016	2017	2018	2019	2020	
Alabama	4	6	7	15	21	6.8	10.2	12.1	25.6	35.8	
Alaska	0	0	1	0	8	0.0	0.0	9.9	0.0	81.4	
Arizona	17	32	61	109	120	20.1	39.1	75.6	137.3	151.2	
Arkansas	6	8	25	21	23	15.7	21.3	67.5	57.4	62.9	
California	207	281	329	444	481	42.3	59.6	72.3	99.4	107.7	
Colorado	4	4	8	10	22	6.0	6.2	12.7	15.9	35.0	
Connecticut	0	0	2	3	2	0.0	0.0	5.8	8.8	5.8	
Delaware	0	0	0	2	2	0.0	0.0	0.0	18.9	18.9	
District of Columbia	1	0	1	1	3	10.1	0.0	10.9	11.0	33.0	
Florida	61	99	109	145	154	27.1	44.3	49.2	65.9	70.0	
Georgia	21	23	31	56	82	16.1	17.8	24.6	44.3	64.9	
Hawaii	1	3	4	3	12	5.5	17.1	23.6	17.9	71.4	
Idaho	0	0	1	1	2	0.0	0.0	4.7	4.5	9.1	
Illinois	18	22	30	32	26	11.7	14.7	20.7	22.8	18.6	
Indiana	8	8	1	13	6	9.6	9.7	1.2	16.1	7.4	
lowa	1	2	3	1	1	2.5	5.2	7.9	2.7	2.7	
Kansas	2	1	8	9	8	5.3	2.7	22.1	25.4	22.6	
Kentucky	5	6	9	9	13	9.0	11.0	16.7	17.0	24.5	
Louisiana	47	57	43	68	63	74.4	93.4	72.1	115.4	106.9	
Maine	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	
Maryland	16	20	29	32	31	21.9	27.9	40.8	45.6	44.2	
Massachusetts	3	0	0	9	10	4.2	0.0	0.0	13.0	14.5	
Michigan	13	10	14	17	29	11.5	9.0	12.7	15.8	26.9	
Minnesota	7	2	10	21	7	10.0	2.9	14.8	31.8	10.6	
Mississippi	2	1	3	3	37	5.3	2.7	8.1	8.2	101.0	
Missouri	8	10	18	18	30	10.7	13.7	24.6	25.0	41.6	
Montana	0	1	0	1	2	0.0	8.5	0.0	9.0	18.1	

Chata /Tamihama	Cases					Rates per 100,000 Live Births				
State/Territory	2016	2017	2018	2019	2020	2016	2017	2018	2019	2020
Nebraska	1	1	0	0	1	3.8	3.9	0.0	0.0	4.0
Nevada	12	24	31	41	46	33.1	67.1	86.9	116.9	131.2
New Hampshire	0	0	1	2	0	0.0	0.0	8.3	16.9	0.0
New Jersey	12	14	13	15	24	11.7	13.8	12.8	15.1	24.1
New Mexico	3	1	10	28	42	12.1	4.2	43.4	122.0	182.9
New York	13	16	28	27	30	5.5	7.0	12.4	12.2	13.5
North Carolina	18	25	19	27	31	14.9	20.8	16.0	22.7	26.1
North Dakota	0	0	0	0	3	0.0	0.0	0.0	0.0	28.7
Ohio	12	18	21	19	33	8.7	13.2	15.5	14.1	24.5
Oklahoma	3	7	11	42	53	5.7	13.9	22.1	85.5	107.8
Oregon	6	8	20	18	19	13.2	18.3	47.4	43.0	45.4
Pennsylvania	5	7	9	13	14	3.6	5.1	6.6	9.7	10.4
Rhode Island	0	0	0	0	1	0.0	0.0	0.0	0.0	9.8
South Carolina	9	8	9	17	19	15.7	14.0	15.9	29.8	33.3
South Dakota	2	3	1	2	4	16.3	24.7	8.4	17.5	34.9
Tennessee	8	10	13	13	31	9.9	12.3	16.1	16.2	38.5
Texas	71	179	371	528	561	17.8	46.9	98.0	139.8	148.6
Utah	0	0	1	4	1	0.0	0.0	2.1	8.5	2.1
Vermont	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Virginia	8	12	10	11	15	7.8	12.0	10.0	11.3	15.4
Washington	3	6	6	17	10	3.3	6.9	7.0	20.0	11.8
West Virginia	2	3	1	6	8	10.5	16.1	5.5	33.1	44.1
Wisconsin	1	3	1	2	6	1.5	4.6	1.6	3.2	9.5
Wyoming	0	0	0	0	1	0.0	0.0	0.0	0.0	15.2
US TOTAL	641	941	1,323	1,875	2,148	16.2	24.4	34.9	50.0	57.3
Northeast	33	37	53	69	81	5.3	6.0	8.7	11.5	13.5
Midwest	73	80	107	134	154	8.8	9.9	13.4	17.1	19.6
South	282	464	691	996	1,147	18.4	30.9	46.5	67.4	77.6
West	253	360	472	676	766	26.4	38.9	52.5	76.2	86.4
American Samoa	NR	NR	0	0	0	_	_	0.0	0.0	0.0

State/Territory	Cases					Rates per 100,000 Live Births				
State/Territory	2016	2017	2018	2019	2020	2016	2017	2018	2019	2020
Guam	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Northern Mariana Islands	NR	NR	0	0	0	_	_	0.0	0.0	0.0
Puerto Rico	5	7	9	7	4	17.7	28.8	42.0	34.4	19.7
Virgin Islands	0	0	NR	0	0	0.0	0.0	_	0.0	0.0
TERRITORIES	5	7	9	7	4	15.2	24.3	34.5	26.8	15.3
TOTAL	646	948	1,332	1,882	2,152	16.2	24.4	34.9	49.9	57.0

<sup>\*</sup> Mother's state/territory of residence was used to assign case.

**NOTE:** See Technical Notes for more information on interpreting case counts and rates in US territories. The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

NR = No report.

Table 22. Congenital Syphilis — Reported Cases and Rates of Reported Cases\* by Year of Birth and Race/Hispanic Ethnicity of Mother, United States, 2016-2020

Year of Birth	American Indian/ Alaska Native		Asian		Black/ African American		Hispanic/Latino	
	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates
2016	12	37.7	17	6.6	263	46.7	189	20.6
2017	14	46.2	6	2.4	362	64.1	309	34.4
2018	29	98.4	11	4.5	516	92.7	413	46.6
2019	54	187.1	24	9.8	633	114.5	583	65.8
2020	55	190.6	13	5.3	746	134.9	637	71.9

Year of Birth	Multiracial		Native Hawaiian/ Pacific Islander		White		Other/Unknown	
	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates
2016	2	2.5	8	84.1	122	5.9	28	
2017	2	2.4	6	62.4	213	10.6	29	
2018	5	5.9	15	154.2	291	14.7	43	
2019	20	23.6	11	108.5	456	23.5	94	
2020	25	29.5	19	187.4	534	27.5	119	

<sup>\*</sup> Per 100,000 live births.

**NOTE:** This table was revised on May 9, 2022, to reflect updated race/Hispanic ethnicity data for reported cases of congenital syphilis in 2020.

No population data exist for other or unknown race; therefore, rates are not calculated. The COVID-19 pandemic has introduced uncertainty and difficulty in interpreting 2020 case data. See Impact of COVID-19 on STDs for more information.

Table 23. Syphilis—Reported Cases and Rates of Total Syphilis (All Stages) Among Women Aged 15-44 Years and Reported Cases and Rates of Congenital Syphilis by State/Territory\* and Region in Alphabetical Order, United States, 2020

State (Table)	All Stages A	mong Women Aged 15-44 Years	Congeni	tal
State/Territory	Cases	Rate per 100,000 Population	Cases	Rate per 100,000 Live Births
Alabama	333	35.1	21	35.8
Alaska	148	102.6	8	81.4
Arizona	1,115	79.7	120	151.2
Arkansas	464	80.2	23	62.9
California	5,578	69.2	481	107.7
Colorado	279	23.7	22	35.0
Connecticut	68	10.1	2	5.8
Delaware	37	20.6	2	18.9
District of Columbia	118	62.0	3	33.0
Florida	1,788	46.0	154	70.0
Georgia	785	36.0	82	64.9
Hawaii	99	37.7	12	71.4
Idaho	52	15.1	2	9.1
Illinois	845	33.8	26	18.6
Indiana	220	16.8	6	7.4
Iowa	78	13.1	1	2.7
Kansas	112	19.9	8	22.6
Kentucky	314	37.0	13	24.5
Louisiana	726	78.7	63	106.9
Maine	3	1.3	0	0.0
Maryland	446	37.6	31	44.2
Massachusetts	197	14.1	10	14.5
Michigan	359	19.1	29	26.9
Minnesota	240	22.2	7	10.6
Mississippi	807	138.1	37	101.0
Missouri	626	53.2	30	41.6
Montana	27	13.8	2	18.1
Nebraska	48	12.8	1	4.0

State/Tamitam;	All Stages A	mong Women Aged 15-44 Years	Congeni	tal
State/Territory	Cases	Rate per 100,000 Population	Cases	Rate per 100,000 Live Births
Nevada	217	36.1	46	131.2
New Hampshire	20	8.1	0	0.0
New Jersey	424	25.3	24	24.1
New Mexico	528	132.5	42	182.9
New York	996	25.7	30	13.5
North Carolina	606	29.5	31	26.1
North Dakota	26	17.5	3	28.7
Ohio	448	20.3	33	24.5
Oklahoma	633	81.7	53	107.8
Oregon	307	37.1	19	45.4
Pennsylvania	435	18.3	14	10.4
Rhode Island	39	18.7	1	9.8
South Carolina	406	41.3	19	33.3
South Dakota	48	29.6	4	34.9
Tennessee	466	34.9	31	38.5
Texas	3,697	61.2	561	148.6
Utah	43	6.1	1	2.1
Vermont	2	1.7	0	0.0
Virginia	253	15.0	15	15.4
Washington	387	25.5	10	11.8
West Virginia	158	50.1	8	44.1
Wisconsin	164	15.0	6	9.5
Wyoming	9	8.3	1	15.2
US TOTAL	26,224	40.8	2,148	57.3
Northeast	2,184	20.2	81	13.5
Midwest	3,214	24.6	154	19.6
South	12,037	48.7	1,147	77.6
West	8,789	55.8	766	86.4
American Samoa	NR	_	0	0.0
Guam	NR	_	0	0.0

State/Territory	All Stages Ar	nong Women Aged 15-44 Years	Congenital			
State/Territory	Cases	Rate per 100,000 Population	Cases	Rate per 100,000 Live Births		
Northern Mariana Islands	NR	_	0	0.0		
Puerto Rico	165	26.8	4	19.7		
Virgin Islands	NR	_	0	0.0		
TERRITORIES	165	26.8	4	15.3		
TOTAL	26,389	40.6	2,152	57.0		

<sup>\*</sup> Mother's state/territory of residence was used to assign case.

NR = No report.

Table 24. Trends in Reported Cases and Rates of Reported Cases for Nationally Notifiable STDs, United States, 2016-2020

Discora	Cov*	Cases					Percent Change	
Disease	Sex*	2016	2017	2018	2019	2020	5 Year	1 Year
	Men	522,870	577,644	610,447	644,337	548,676	4.9	-14.8
Chlamydia	Women	1,072,719	1,127,651	1,145,063	1,160,470	1,027,061	-4.3	-11.5
	Total	1,598,354	1,708,569	1,758,668	1,808,703	1,579,885	-1.2	-12.7
	Men	270,033	322,169	341,401	361,586	385,551	42.8	6.6
Gonorrhea	Women	197,499	232,587	241,074	253,359	290,666	47.2	14.7
	Total	468,514	555,608	583,405	616,392	677,769	44.7	10.0
Total Syphilis	Total	88,055	101,590	115,062	129,818	133,945	52.1	3.2
Congenital Syphilis†	Total	641	941	1,323	1,875	2,148	235.1	14.6
	Men	24,724	26,885	30,034	32,402	33,646	36.1	3.8
Primary and Secondary Syphilis	Women	3,049	3,722	4,995	6,493	7,901	159.1	21.7
	Total	27,814	30,644	35,063	38,992	41,655	49.8	6.8
	Men	24,919	29,251	32,619	34,427	35,165	41.1	2.1
Early Non-Primary Non-Secondary Syphilis	Women	3,939	4,684	5,891	7,081	7,809	98.2	10.3
	Total	28,924	34,013	38,539	41,655	43,145	49.2	3.6
	Men	22,785	26,178	28,872	32,411	31,868	39.9	-1.7
Unknown Duration or Late Syphilis‡	Women	7,850	9,740	11,232	14,598	14,959	90.6	2.5
	Total	30,676	35,992	40,137	47,296	46,997	53.2	-0.6
Combined Total of Chlamydia, Gonorrhea, and Total Syphilis	Total	2,154,923	2,365,767	2,457,135	2,554,913	2,391,599	11.0	-6.4

Diagona	Cav*	Rates per 100,000 Population					Percent Change	
Disease	Sex*	2016	2017	2018	2019	2020	5 Year	1 Year
	Men	328.7	360.1	378.9	398.6	339.4	3.3	-14.9
Chlamydia	Women	653.9	682.1	689.6	696.6	616.5	-5.7	-11.5
	Total	494.7	524.6	537.5	551.0	481.3	-2.7	-12.6
	Men	169.7	200.8	211.9	223.7	238.5	40.5	6.6
Gonorrhea	Women	120.4	140.7	145.2	152.1	174.5	44.9	14.7
	Total	145.0	170.6	178.3	187.8	206.5	42.4	10.0
Fotal Syphilis	Total	27.3	31.2	35.2	39.5	40.8	49.5	3.3
Congenital Syphilis†	Total	16.2	24.4	34.9	50.0	57.3	253.7	14.6
	Men	15.5	16.8	18.6	20.0	20.8	34.2	4.0
Primary and Secondary Syphilis	Women	1.9	2.3	3.0	3.9	4.7	147.4	20.5
	Total	8.6	9.4	10.7	11.9	12.7	47.7	6.7
	Men	15.7	18.2	20.2	21.3	21.8	38.9	2.3
Early Non-Primary Non-Secondary Syphilis	Women	2.4	2.8	3.5	4.3	4.7	95.8	9.3
	Total	9.0	10.4	11.8	12.7	13.1	45.6	3.1
	Men	14.3	16.3	17.9	20.0	19.7	37.8	-1.5
Unknown Duration or Late Syphilis‡	Women	4.8	5.9	6.8	8.8	9.0	87.5	2.3
	Total	9.5	11.1	12.3	14.4	14.3	50.5	-0.7
Combined Total of Chlamydia, Gonorrhea, and Total Syphilis	Total	666.9	726.3	751.0	778.4	728.6	9.3	-6.4

<sup>\*</sup> Total includes cases reported with unknown sex.

<sup>†</sup> Sex of infant is not reported. Rates are per 100,000 live births.

<sup>‡</sup> The case classification of 'Unknown duration or late syphilis' went into effect in January 2018. During 2016–2017, cases in this category include cases classified as late latent syphilis and late syphilis with clinical manifestations. See Technical Notes for a detailed explanation of changes to the syphilis case definition.

Table 25. Reported Cases of STDs by Reporting Source and Sex, United States, 2020

Disease	Non-STD Clinic			STD Clinic			Total		
	Male	Female	Total*	Male	Female	Total*	Male†	Female†	Total‡
Chlamydia	418,334	827,524	1,248,839	38,100	29,175	67,349	548,676	1,027,061	1,579,885
Gonorrhea	300,286	235,623	537,051	31,511	12,693	44,259	385,551	290,666	677,769
Primary Syphilis	10,209	2,046	12,278	2,113	282	2,400	13,923	2,650	16,612
Secondary Syphilis	14,679	4,206	18,931	2,974	582	3,564	19,723	5,251	25,043
Early Non-Primary Non-Secondary Syphilis	27,694	6,318	34,121	3,853	782	4,648	35,165	7,809	43,145
Syphilis, Unknown Duration or Late	23,814	11,692	35,576	2,385	837	3,229	31,868	14,959	46,997

<sup>\*</sup> Total includes cases reported with unknown sex.

<sup>†</sup> Total includes cases reported with unknown reporting source.

<sup>‡</sup> Total includes cases reported with unknown sex and reporting source.

Table A1. Selected STDs — Percentage of Unknown, Missing, or Invalid Values for Selected Variables by State and by Nationally Notifiable STD, 2020

	Primary and Secondary Syphilis							
State	Percentage Unknown	Percentage	Percentage	Percentage Unknown Sex	Percentage			
	Race/Hispanic Ethnicity	Unknown Age	Unknown Sex	of Sex Partners	Unknown County			
Alabama	0.6	0.0	0.0	25.5	0.0			
Alaska	0.6	0.0	0.0	24.4	0.6			
Arizona	4.7	0.0	0.0	10.6	0.0			
Arkansas	2.6	0.0	0.0	18.1	0.0			
California	10.6	0.0	0.6	21.5	0.0			
Colorado	2.7	0.0	0.0	12.2	0.0			
Connecticut	42.1	0.0	0.0	27.5	2.5			
Delaware :	34.0	0.0	2.1	59.8	0.0			
District of Columbia	3.2	0.0	0.0	19.8	0.0			
Florida	6.4	0.0	0.0	21.7	0.0			
Georgia	0.0	0.0	0.0	29.3	0.0			
Hawaii :	11.0	0.0	4.4	31.3	0.0			
Idaho :	18.2	0.0	0.0	30.3	0.0			
Illinois :	10.3	0.0	0.0	27.4	0.0			
Indiana	0.6	0.0	0.2	21.4	0.0			
Iowa	0.0	0.0	0.0	20.6	0.0			
Kansas	0.7	0.0	0.0	19.3	0.0			
Kentucky	2.5	0.0	0.0	27.2	0.0			
Louisiana	0.0	0.0	0.0	15.3	0.0			
Maine	0.0	0.0	0.0	21.1	0.0			
Maryland	0.3	0.0	0.0	7.6	0.0			
Massachusetts	4.1	0.0	1.3	9.3	0.0			
Michigan	0.5	0.0	0.0	6.6	0.0			
Minnesota	0.5	0.0	0.0	44.8	0.0			
Mississippi	0.9	0.0	0.0	10.3	0.0			
Missouri	3.7	0.0	0.0	54.6	0.0			
Montana	0.0	2.2	0.0	31.1	0.0			
Nebraska	8.7	0.0	0.0	45.2	0.0			
Nevada !	5.2	6.1	0.0	15.9	0.0			
New Hampshire	19.6	0.0	0.0	13.7	0.0			
New Jersey	3.0	0.0	0.7	13.7	0.0			
New Mexico	19.5	0.0	0.0	38.5	0.0			
New York	3.5	0.0	0.0	9.4	0.0			
North Carolina	0.2	0.0	0.0	16.4	0.4			
North Dakota	3.1	0.0	0.0	34.4	0.0			
	0.6	0.0	0.0	20.8	0.1			

	Primary and Secondary Sypl	nilis			
State	Percentage Unknown Race/Hispanic Ethnicity	Percentage Unknown Age	Percentage Unknown Sex	Percentage Unknown Sex of Sex Partners	Percentage Unknown County
Oklahoma	0.6	0.0	0.1	27.0	0.0
Oregon	8.3	0.0	0.2	29.9	0.0
Pennsylvania	3.1	0.0	0.1	9.3	0.0
Rhode Island	10.1	0.0	0.0	40.4	1.1
South Carolina	0.6	0.0	0.6	8.0	0.0
South Dakota	0.0	0.0	0.0	27.3	0.0
Tennessee	0.3	0.0	0.0	12.9	0.0
Texas	3.4	0.0	0.1	29.4	0.0
Utah	2.3	0.0	0.0	16.8	0.8
Vermont	66.7	0.0	0.0	100.0	33.3
Virginia	0.7	0.0	2.9	8.7	0.0
Washington	10.9	0.0	0.6	37.8	0.0
West Virginia	1.6	0.0	0.0	17.3	0.8
Wisconsin	3.0	0.0	0.0	23.8	0.3
Wyoming	54.5	0.0	0.0	18.2	0.0
U.S. Total	5.2	0.1	0.3	20.8	0.0

	Gonorrhea				Chlamydia			
State	Percentage Unknown Race/Hispanic Ethnicity	Percentage Unknown Age	Percentage Unknown Sex	Percentage Unknown County	Percentage Unknown Race/Hispanic Ethnicity	Percentage Unknown Age	Percentage Unknown Sex	Percentage Unknown County
Alabama	34.4	0.1	0.2	0.2	45.4	0.1	0.3	0.1
Alaska	17.4	0.0	0.0	0.7	19.8	0.0	0.0	0.9
Arizona	25.8	0.0	0.1	0.0	39.2	0.0	0.1	0.0
Arkansas	16.9	0.0	0.1	0.0	20.3	0.0	0.0	0.0
California	30.0	0.3	0.4	0.0	52.9	0.2	0.3	0.0
Colorado	28.8	0.0	0.0	0.0	35.6	0.0	0.0	0.0
Connecticut	82.4	0.0	0.5	3.1	79.4	0.0	0.4	2.2
Delaware	15.2	0.1	0.1	0.0	21.1	0.0	0.4	0.0
District of Columbia	64.0	0.0	0.5	0.0	85.2	0.0	0.5	0.0
Florida	16.2	0.0	0.0	0.0	25.0	0.0	0.0	0.0
Georgia	11.2	0.1	0.6	1.7	16.8	0.1	0.7	2.6
Hawaii	52.9	0.3	0.3	0.0	58.5	0.1	3.5	3.4
Idaho	29.3	0.1	0.1	0.0	31.5	0.1	0.0	0.0
Illinois	12.9	0.0	0.2	0.0	17.9	0.0	0.3	0.0
Indiana	11.9	0.0	0.1	0.0	21.1	0.0	0.1	0.0
Iowa	5.1	0.0	0.0	0.0	11.5	0.0	0.0	0.0
Kansas	12.4	0.0	0.0	3.7	15.5	0.0	0.0	0.2
Kentucky	44.1	0.2	0.5	0.1	51.1	0.2	0.4	0.0
Louisiana	0.8	0.0	0.0	0.1	1.5	0.0	0.0	0.0
Maine	3.7	0.0	0.0	0.0	34.8	55.8	0.0	6.8

	Gonorrhea				Chlamydia			
State	Percentage Unknown Race/Hispanic Ethnicity	Percentage Unknown Age	Percentage Unknown Sex	Percentage Unknown County	Percentage Unknown Race/Hispanic Ethnicity	Percentage Unknown Age	Percentage Unknown Sex	Percentage Unknown County
Maryland	25.0	0.0	0.4	0.0	39.5	0.0	0.3	0.0
Massachusetts	37.4	0.5	1.0	1.4	51.0	0.5	0.9	2.2
Michigan	16.0	0.0	0.0	0.0	21.3	0.0	0.0	0.0
Minnesota	15.4	0.0	0.1	2.0	16.4	0.0	0.2	2.2
Mississippi	24.1	0.0	0.2	0.0	32.7	0.0	0.2	0.0
Missouri	9.1	0.0	0.0	0.0	14.4	0.0	0.0	0.0
Montana	0.6	0.0	0.0	0.0	1.3	0.0	0.0	0.1
Nebraska	11.0	0.0	0.3	0.0	15.0	0.0	0.2	0.0
Nevada	37.6	6.4	0.1	0.2	48.0	7.4	0.1	0.1
New Hampshire	18.2	0.0	0.2	0.0	31.9	0.0	0.4	0.0
New Jersey	22.8	0.1	0.3	0.2	30.2	0.1	0.4	0.1
New Mexico	28.7	0.0	0.1	0.0	33.4	0.0	0.0	0.0
New York	20.2	0.0	0.0	0.0	35.2	0.0	0.0	0.0
North Carolina	20.1	0.0	0.0	0.8	25.5	0.0	0.0	0.8
North Dakota	12.5	0.0	0.0	0.0	17.1	0.1	0.0	0.0
Ohio	12.8	0.0	0.0	1.4	18.6	0.0	0.0	1.6
Oklahoma	12.0	0.0	0.0	0.0	17.0	0.0	0.0	0.0
Oregon	18.8	0.0	0.1	0.0	35.1	0.0	0.2	0.0
Pennsylvania	14.5	0.0	0.1	0.0	19.8	0.0	0.1	0.0
Rhode Island	10.8	0.0	0.0	2.0	20.5	6.3	0.0	7.9

State	Gonorrhea				Chlamydia			
	Percentage Unknown Race/Hispanic Ethnicity	Percentage Unknown Age	Percentage Unknown Sex	Percentage Unknown County	Percentage Unknown Race/Hispanic Ethnicity	Percentage Unknown Age	Percentage Unknown Sex	Percentage Unknown County
South Carolina	48.9	0.0	0.7	0.1	53.7	0.0	0.6	0.1
South Dakota	3.4	0.1	0.0	0.0	5.7	0.1	0.0	0.0
Tennessee	0.8	0.0	0.0	0.0	1.1	0.0	0.0	0.0
Texas	29.2	0.2	0.7	0.0	39.2	0.1	0.8	0.0
Utah	3.8	0.0	0.0	0.1	5.5	0.0	0.0	0.1
Vermont	33.8	0.0	0.0	1.4	25.3	0.1	0.2	0.2
Virginia	16.9	0.0	0.3	0.0	33.5	0.0	0.4	0.0
Washington	23.2	0.1	0.3	0.0	41.2	0.2	0.4	0.0
West Virginia	26.0	0.0	0.0	0.0	28.7	0.0	0.0	0.0
Wisconsin	8.2	0.0	0.4	0.1	8.4	0.0	0.2	0.3
Wyoming	64.5	0.0	0.0	0.0	75.1	0.0	0.4	0.0
U.S. Total	21.2	0.1	0.2	0.3	31.0	0.3	0.3	0.4

# **Technical Notes**

Sexually Transmitted Disease Surveillance 2020 presents trends in nationally notifiable sexually transmitted diseases (STDs) in the United States through 2020. This annual publication is intended as a reference document for policy makers, program managers, health planners, researchers, and others who are concerned with the public health implications of these diseases. The figures and tables in this report supersede those in earlier publications of these data. The surveillance data in this report are based on case notification data provided to the Centers for Disease Control and Prevention (CDC) through the National Notifiable Diseases Surveillance System (NNDSS) and data collected through projects and programs that monitor STDs in various settings, including the STD Surveillance Network (SSuN) and the Gonococcal Isolate Surveillance Project (GISP).

#### **Suggested Citation**

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The majority of data included presents trends in diagnoses of three STDs: chlamydia, gonorrhea, and syphilis, including congenital syphilis. It is important to note that these data reflect only a portion of STDs occurring in the US population. Over 30 pathogens can be sexually transmitted, including common STDs, such as herpes simplex virus, which causes genital herpes, and human papillomavirus, which can lead to genital warts and cervical cancer. Additionally, STDs are often asymptomatic and may not be diagnosed. Published estimates of the burden of STDs in the United States, including estimated prevalence, incidence, and cost, can be found in the January 2021 special issue of the journal *Sexually Transmitted Diseases*, available

here: https://journals.lww.com/stdjournal/pages/collectiondetails.aspx?TopicalCollectionId=4

Additionally, the STD data presented in this report for the year 2020 should be interpreted with caution. The COVID-19 pandemic impacted trends in diagnosed and reported STDs, as well as in data collected through enhanced and sentinel STD surveillance activities. For more information, see <a href="Impact of COVID-19">Impact of COVID-19</a> on STDs.

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New York City	Diana Sanchez	Em Pike	Emily Lutterloh	Jennifer Rakeman
North Carolina	Jacquelyn Clymore	Roger Follas	Zack Moore	Scott Shone
North Dakota	Lindsey VanderBusch	Lindsey VanderBusch	Tracy Miller	Jason Wahl
Ohio	Laurie Rickert	Karen Nicosia	Kristen Dickerson	Quanta Brown

State/City/ Territory	STD Project Directors	STD Program Managers	State Epidemiologists*	Laboratory Directors
Oklahoma	Terrainia Harris	Sally Bouse	Joilanne Stone	Samuel T. Dunn
Oregon	Annick Benson- Scott	Joshua Ferrer	Dean Sidelinger	John Fontana
Pennsylvania	Beth Butler	Kristine King	Sharon Watkins	Dongxiang Xia
Philadelphia	Coleman Terrell	Cherie Walker- Baban	Sharon Watkins	Kerry Buchs
Rhode Island	Thomas Bertrand	Katharine Howe	Utpala Bandy	Ewa King
South Carolina	Ali Mansaray	Bernard Gilliard	Linda Bell	Atwell Coleman
South Dakota	Angela Jackley	Angela Jackley	Joshua Clayton	Timothy Southern
Tennessee	Pamela Talley	Dreama Phillips	John Dunn	Richard Steece
Texas	Shelley Lucas	Karen Surita	Jennifer A. Shuford	Grace Kubin
Utah	Scott White	Scott White	Leisha Nolan	Erik Christensen (interim)
Vermont	Daniel Daltry	Daniel Daltry	Lori Cragin	Mary (Stella) Celotti
Virginia	Oana Vasiliu	Cameron Rose	Lilian Peake	Denise Toney
Washington	Zandt Bryan	Emalie Huriaux	Scott Lindquist	Romesh Gautom
West Virginia	Suzanne Wilson	Debora S. Blankinship	Shannon McBee	Sharon Lee Cibrik
Wisconsin	Scott Stokes	Brandon Kufalk	Ryan Westergaard	James Schauer
Wyoming	Leslie Fowler	Leslie Fowler	Alexia Harrist	Cari Sloma
American Samoa	Ina Sagaga	Ina Sagaga	Afili Tufa	Catherine Montablo, Amor Gonzales
Federated States of Micronesia	Mayleen Ekiek	Mayleen Ekiek	Marcus Samo	Maria Marfel, Yoichy Aut , Herbert Johnny, Aralai N. Tuione
Government of the Marshall Islands	Adela Sibok	Adela Sibok	Jill McReady	Paul Lalita
Northern Mariana Islands	Vicenta Tenorio	Vicenta Tenorio	Angela Largen	Philip Dauterman

State/City/ Territory	STD Project Directors	STD Program Managers	State Epidemiologists*	Laboratory Directors
Guam	Vince Aguon	Vince Aguon	Ann Pobutsky	AnneMarie Santos
Puerto Rico	Greduvel Duran Guzman	Javier Vazquez Melendez	Melissa Marzan	Gonzalo Gonzalez
Republic of Palau	Sherilynn Madraisau	Connie B. Olikong	Tmong Udui	Clarette Matlab, Lily Ulitech
Virgin Islands	Jason Henry	Bobby Thompson	Esther Ellis	Brett Ellis

<sup>\*</sup>As documented on the Council of State and Territorial Epidemiologists website (<a href="https://www.cste.org/page/StateEpi">https://www.cste.org/page/StateEpi</a>) as of February 23, 2022

# National Notifiable Diseases Surveillance System (NNDSS)

Four STDs are nationally notifiable conditions: chlamydia, gonorrhea, syphilis, and chancroid. STD control programs in state, local, and territorial health departments (also referred to as jurisdictions) collect case reports for these conditions using case definitions developed by the Council of State and Territorial Epidemiologists (CSTE) and CDC. Health departments voluntarily provide STD case notification data to CDC through NNDSS. The Division of STD Prevention in the National Center for HIV, Viral Hepatitis, STD, and TB Prevention uses the data for national surveillance, disseminating data and key findings. HIV, which can be sexually transmitted, is also a nationally notifiable condition; national data for trends in diagnosed HIV are available here: <a href="https://www.cdc.gov/hiv/library/reports/hiv-surveillance.html">https://www.cdc.gov/hiv/library/reports/hiv-surveillance.html</a>

National data collection for gonorrhea, syphilis, and chancroid began in 1941 and the three STDs became nationally notifiable in 1944. Data collection for chlamydia began in 1984 and chlamydia was made nationally notifiable in 1995; however, chlamydia was not reportable in all 50 states and the District of Columbia until 2000. For more information on nationally notifiable conditions, please refer to the NNDSS website: <a href="https://www.cdc.gov/nndss/index.html">https://www.cdc.gov/nndss/index.html</a>

## **Reporting Formats**

NNDSS STD case notification data presented in this report are compiled from electronic data received through the National Electronic Telecommunications System for Surveillance (NETSS) and via Health level 7 (HL7) messaging using National Electronic Disease Surveillance System (NEDSS) standards. Additionally, select jurisdictions provide congenital syphilis cases via REDCap and a few jurisdictions (e.g., territories) provide data using standardized hard copy reporting forms. STD case notification data sent to CDC through December 13, 2021 are included in this report.

Prior to 2003, the following hard copy forms were used to provide NNDSS STD data to CDC:

FORM CDC 73.998: *Monthly Surveillance Report of Early Syphilis*. This monthly hard copy reporting form was used during 1984–2002 to report summary data for primary and secondary (P&S) syphilis and early latent syphilis by county and state.

FORM CDC 73.688: Sexually Transmitted Disease Morbidity Report. This quarterly hard copy reporting form was used during 1963–2002 to report summary data for all stages of syphilis, congenital syphilis, gonorrhea, chancroid, chlamydia, and other STDs by sex and source of report (private versus public) for all 50 states, the District of Columbia, 64 selected cities, and territories of the United States. Chlamydia became a nationally notifiable condition in 1995 and the form was modified to support reporting of chlamydia that year. Congenital syphilis was dropped from this aggregate form in 1995 to encourage use of the congenital syphilis case-specific CDC 73.126 form that was introduced in 1983.

FORM CDC 73.2638: Report of Civilian Cases of Primary & Secondary Syphilis, Gonorrhea, and Chlamydia by Reporting Source, Sex, Race/Ethnicity, and Age Group. This annual hard copy form was used during 1981–2002 to report summary data for P&S syphilis, gonorrhea, and chlamydia by age, race, sex, and source of report (private versus public) for all 50 states, seven large cities (Baltimore, Chicago, New York City, Los Angeles, Philadelphia, San Francisco, and the District of Columbia), and territories of the United States. When chlamydia became a nationally notifiable condition in 1995, the form was modified to support reporting of chlamydia.

FORM CDC 73.126: Congenital Syphilis (CS) Case Investigation and Reporting. This case-specific hard copy form was first used in 1983 and was revised in 1990 and in 2013 to align with changes to the congenital syphilis case definition; minor revisions were also made in 2010. It continues to form the basis of the congenital syphilis REDCap form used by some jurisdictions.

As of December 31, 2003, all 50 states and the District of Columbia converted from summary hard copy reporting to electronic submission of line-listed (i.e., case-specific) data for chlamydia, gonorrhea, syphilis, and chancroid through NETSS. Puerto Rico converted to electronic reporting in 2006 for all STDs, excluding congenital syphilis. American Samoa, Guam, Northern Mariana Islands, and the Virgin Islands continue to report STD data through summary hard copy forms. In 2020, nine jurisdictions (Alabama, Connecticut, Idaho, Kentucky, Michigan, North Carolina, Oregon, South Carolina, and Wisconsin) provided STD case notification data to CDC via HL7 messaging. In 2020, 24 states and one US territory provided congenital syphilis data through REDCap.

## **Reporting Practices**

Although most state and local STD programs adhere to the case definitions collaboratively developed by CSTE and CDC for nationally notifiable STDs, differences in policies and systems for collecting surveillance data may exist. Thus, comparisons of case numbers and rates between jurisdictions should be interpreted with caution. However, because case definitions and surveillance activities within a given area remain relatively stable over time, trends over time should be minimally affected by these differences.

# **Chlamydia and Gonorrhea Reporting**

Trends in rates of reported cases of chlamydia and gonorrhea are influenced by changes in incidence of infection, as well as changes in diagnostic, screening, and reporting practices. As both chlamydial and gonococcal infections can be asymptomatic, the number of infections identified and reported can increase as more people are screened—even when incidence is flat or decreasing. Beginning in 2000, the expanded use of more sensitive diagnostic tests (e.g., nucleic acid amplification tests) likely increased the number of infections identified and reported independently of increases in incidence. Additionally, expanded testing at extragenital (rectal and pharyngeal) anatomic sites likely increased the number of infections identified. Further, the increased use of electronic laboratory reporting over the last decade or so also likely increased the proportion of diagnosed infections reported. Although chlamydia has been a nationally notifiable condition since 1994, it was not until 2000 that all 50 states and the District of Columbia required reporting of chlamydia cases. National chlamydia case rates prior to 2000 reflect incomplete reporting. Consequently, increasing case rates over time may reflect more complete reporting, as well as increases in incidence of infection, screening coverage, and use of more sensitive tests. Likewise, decreases in case rates may suggest decreases in incidence of infection or screening coverage. In 2020, the COVID-19 pandemic likely affected multiple aspects of chlamydia and gonorrhea case reporting, including reduced screening during the initial shelter-in-place orders. For more information, please see Impact of COVID-19 on STDs.

#### **Syphilis Reporting**

Case notifications for non-congenital syphilis are displayed in this report by surveillance stage of disease based on current CSTE case definitions. The majority of tables and figures present trends in primary and secondary syphilis, which reflect incident infections; however, trends are also presented for other syphilis stages, along with trends in "syphilis (all stages)" (all stages of non-congenital syphilis) and trends in "total syphilis" (all stages of non-congenital syphilis and congenital syphilis, including syphilitic stillbirths).

The surveillance case definition for syphilis has changed over time. Since 2018, the category of "total syphilis" includes: primary, secondary, early non-primary non-secondary, unknown duration or late, congenital syphilis, and syphilitic stillbirth. However, in previous years, "total syphilis" has included different case classifications. For example, in the 1990 syphilis case definition, "total syphilis" or "all stages of syphilis" included: primary, secondary, latent, early latent, late latent, latent unknown duration, neurosyphilis, syphilitic stillbirth, and congenital syphilis. More information on syphilis case definition changes over time can be found at: <a href="https://ndc.services.cdc.gov/conditions/syphilis/">https://ndc.services.cdc.gov/conditions/syphilis/</a>

## **Congenital Syphilis Reporting**

The congenital syphilis case definition has remained largely unchanged since 1989—when jurisdictions moved away from using the clinical Kaufman criteria for reporting congenital syphilis in favor of using a more sensitive definition of congenital syphilis that includes asymptomatic infants born to women with untreated or inadequately treated syphilis. By January 1, 1992, the new, more sensitive congenital syphilis case definition was fully implemented by all reporting areas.

Since 1995, congenital syphilis cases have been reported by the state and city of residence of the mother and by the reported race and Hispanic ethnicity of the mother. Congenital syphilis is usually diagnosed at birth but can be identified years later; therefore, cases are sent to CDC when they are reported to local public health officials and are assigned as morbidity based upon the infant's year of birth. Congenital syphilis data reported after publication of the annual STD surveillance report will appear in subsequent reports. The current and historical congenital syphilis case definitions can be found on CDC's NNDSS case definition website: https://ndc.services.cdc.gov/conditions/congenital-syphilis/

Missed prevention opportunities among mothers of infants with congenital syphilis are identified based on information reported to CDC related to prenatal care, syphilis testing, and treatment. To describe the primary missed prevention opportunity, each reported congenital syphilis case is assigned to one of five mutually exclusive categories, assigned by hierarchy: 1) lack of timely prenatal care with no timely syphilis testing; 2) lack of timely syphilis testing despite timely prenatal care; 3) lack of adequate maternal treatment despite a timely syphilis diagnosis; 4) late identification of seroconversion during pregnancy (identified <30 days before delivery); or 5) clinical evidence of congenital syphilis despite maternal treatment completion. For categorization purpose, congenital syphilis prevention opportunities are considered timely if they occurred ≥30 days before delivery. Adequate maternal treatment is defined as completion of a penicillin-based regimen recommended for the mother's stage of syphilis which was initiated ≥30 days before delivery. For a case of congenital syphilis to be categorized as resulting from lack of adequate maternal treatment despite a timely syphilis diagnosis, a pregnant person would 1) need to have evidence of a diagnosis of syphilis during pregnancy with syphilis testing performed ≥30 days before delivery and 2) not have received adequate treatment for syphilis. Those who did not receive adequate treatment had no treatment at all, only received 1 dose when 3 doses were indicated based on maternal staging, received the doses at improper intervals, received the first dose of treatment <30 days before delivery, or were treated with a nonpenicillin-based regimen.

#### Race/Hispanic Ethnicity

In April 2008, the NETSS record layout for sending STD case notification data was updated to conform to the Office of Management and Budget's (OMB's) current government-wide standard for collection and reporting of race/Hispanic ethnicity data. The OMB standards were first issued in 1997. Cases are reported with information on both race and Hispanic ethnicity. Cases reported as Hispanic are classified as Hispanic, regardless of their race, and include cases with unknown race. Cases reported as non-Hispanic or of unknown Hispanic ethnicity are considered non-Hispanic and categorized based on race. Since the publication of Sexually Transmitted Disease Surveillance 2012, most race/Hispanic ethnicity data presented in the report are displayed as: American Indian or Alaska Native, Asian, Black or African American, Hispanic or Latino, Native Hawaiian or Other Pacific Islander (NH/PI), White, and Multirace.

Most reporting jurisdictions report in the current OMB standard race categories, including Multirace; however, in 2020, a small number of jurisdictions reported race in pre-1997 single race categories or reported race using categories based on current OMB standards but were unable to report more than one race per person. For this report, all race/Hispanic ethnicity case notification data reported by jurisdictions are summarized in tables, figures, and interpretative text regardless of local compliance with the 1997 OMB standards. The few cases reported in the legacy 'Asian/Pacific Islander' category from non-OMB compliant jurisdictions are re-coded to 'Unknown' because these cases cannot be properly re-coded into a category currently in OMB standards. Therefore, the rates for Asians, NH/PI, or Multirace persons may be minimally under- or overestimated.

In 2020, 31.0% of chlamydia cases and 21.2% of gonorrhea cases were reported with missing information on race/Hispanic ethnicity. (Table A1) Given the substantial number of these infections diagnosed, case data are primarily based on information received on the laboratory report which may not contain information about race/Hispanic ethnicity. As most P&S syphilis cases are investigated by local public health officials, only a small proportion (5.2%) were reported with missing information on race/Hispanic ethnicity in 2020. Cases missing race and/or Hispanic ethnicity are not included in the calculation of rates by race/Hispanic ethnicity. As a consequence, rate data presented in this report underestimate actual case incidence in these population categories and caution should be used in interpreting specific rate data points.

#### Sex and Gender Identity

When providing STD case notification data to CDC, jurisdictions indicate the "current sex" (male, female, unknown) of the case-patient. Many of the tables and figures in this report present trends in rates of reported chlamydia, gonorrhea, and syphilis stratified by sex, based on information provided in the "current sex" variable.

Starting in 2018, jurisdictions were also able to provide "gender identity" (cisgender, transgender male-to-female, transgender female-to-male, and transgender unknown) for STD case notifications. As modifications to local and state surveillance systems may be required to collect, store, and transmit gender identity data, not all jurisdictions have begun providing these data to CDC. Additionally, among jurisdictions who have begun sending gender identity data, data are most complete for cases of P&S syphilis, as investigation of these cases likely include patient and provider follow-up allowing for collection of gender identity. To minimize bias due to missing data, gender identity data presented in this report are limited to data from states with ≥70% complete information on gender identity for P&S syphilis cases. As reporting of gender identity improves, case counts and distribution of cases by gender identity will become more representative of the US.

## **Reporting Sources**

Before 1996, states classified the source of case reports as either private source (including private physicians, hospitals, and institutions) or public source (primarily STD clinics). As states began reporting morbidity data electronically in 1996, the classification categories for source of case reports expanded to include the following data sources: STD clinics, HIV counseling and testing sites, drug treatment clinics, family planning clinics, prenatal/obstetrics clinics, tuberculosis clinics, private physicians/health maintenance organizations, hospitals (inpatient), emergency rooms, correctional facilities, laboratories, blood banks, the National Job Training Program, school-based clinics, mental health providers, the military, the Indian Health Service, and other unspecified sources. For figures displaying trends in cases by reporting source, case notification data are displayed as STD clinic and non-STD clinic, which includes all other reporting sources, including other unspecified sources.

#### Geography

To describe regional trends, data are stratified by US census region the Northeast region (Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont), the Midwest region (Iowa, Illinois, Indiana, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, Oklahoma, South Dakota, and Wisconsin), the South region (Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, South Carolina, Virginia, Tennessee, Texas, and West Virginia), and the West region (Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming).

Selected tables and figures include data from five US territories (American Samoa, Guam, Northern Mariana Islands, Puerto Rico, and the US Virgin Islands); however, most of the case notification data presented in the report exclude data from these territories. There are a number of issues affecting STD

surveillance data reported to CDC from the US territories, including limited access to STD test kits, resulting in an inability to test or screen for undetermined periods of time, as well as a variety of data collection, entry, and transmission issues. As such, the data likely underestimate the total STD burden in these areas and should be interpreted cautiously.

Population Denominators and Rate Calculations

### 2000-2020 Rates and Population

For those figures and tables presenting race using the 1997 Office of Management and Budget (OMB) standards, non-bridged-race data provided directly by the United States Census Bureau were used to calculate rates. To align with previous reports, the 2019 population estimates were used to calculate 2020 rates. Because of the use of the updated population data, rates for 2000–2019 may be different from those presented in previous STD surveillance reports.

Population estimates for Puerto Rico, American Samoa, Guam, Northern Mariana Islands, and the Virgin Islands were obtained from the US Census Bureau International Programs Web site at: <a href="https://www.census.gov/programs-surveys/international-programs.html">www.census.gov/programs-surveys/international-programs.html</a>

# 1990-1999 Rates and Population

The population counts for 1990 through 1999 incorporated the bridged single-race estimates of the April 1, 2000 US resident population. These files were prepared by the US Census Bureau with support from the National Cancer Institute.

## 1981–1989 Rates and Population

Rates were calculated by using US Census Bureau population estimates for 1981 through 1989.

### 1941–1980 Rates and Population

Rates for 1941 through 1980 were based on population estimates from the US Census Bureau and are currently maintained by CDC's Division of STD Prevention.

# 1941–2020 Congenital Syphilis Rates and Live Births

The congenital syphilis data in <u>Table 1</u> of this report represent the number of congenital syphilis cases per 100,000 live births for all years during 1941–2020. Previous publications presented congenital syphilis rates per 100,000 population during 1941–1994 and rates for cases diagnosed at younger than 1 year of age per 100,000 live births during 1995–2005. To allow for trends in congenital syphilis rates to be compared for the period of 1941 through 2020, live births now are used as the denominator for congenital syphilis and case counts are no longer limited to those diagnosed within the first year of life. Congenital syphilis morbidity is assigned by year of birth. Rates of congenital syphilis for 1963 through 1988 were calculated by using published live birth data. Congenital syphilis rates for 1989 through 2020 were calculated by using live birth data provided to National Center for Health Statistics (NCHS) through the Vital Statistics Cooperative Program. Rates for 2020 were calculated using live birth data for 2019, the most recently available data at time of publication.

# 2016–2020 Gay, Bisexual, and Other Men Who Have Sex with Men Rates and Population

For the figure and table showing state-level rates of reported cases of P&S syphilis among gay, bisexual, and other men who have sex with men (MSM), population estimates of MSM are based on a method that combines published estimates of the prevalence of same-sex behavior among adult men with housing and population data from the American Community Survey 5-year summary file (2014–2018). County-specific estimates begin with MSM prevalence estimates that are determined by their urbanicity according to the NCHS urban-rural classification scheme for counties and their United States region. Estimates are then multiplied by a modified ratio of each county's percentage of male same-sex households to the total

percentage of male same-sex households among all counties at the same level of urbanicity and within the same region. Thus, the final estimate for each county reflects what would be expected based on the county's geography, urban-rural classification, and observed concentration of households with a male head of household and a male partner. State-level estimates are then aggregated from the county-specific estimates.

# References

1. Grey JA, Bernstein KT, Sullivan PS, et al. Estimating the population sizes of men who have sex with men in US states and counties using data from the American Community Survey. JMIR Public Health Surveill. 2016;2(1):e14.

# Other Sources of Surveillance Data

### STD Surveillance Network

In 2005, CDC established the STD Surveillance Network (SSuN) as a collaborative network of state, county and/or city health departments following common protocols to conduct sentinel and enhanced STD surveillance activities. The purpose of SSuN is to improve the capacity of national, state, and local STD programs to detect, monitor, and respond to trends in STDs through enhanced data collection, reporting, analysis, visualization, and interpretation of disease information. More information about SSuN is available here: <a href="https://www.cdc.gov/std/ssun/default.htm">https://www.cdc.gov/std/ssun/default.htm</a>

Cycle 4 (2019–2024) of SSuN provides funding to 11 jurisdictions to conduct two core sentinel and enhanced STD surveillance activities. SSuN Cycle 4 sentinel surveillance activities include abstraction of clinical and demographic information on a full census of patients attending participating 16 STD clinics (Strategy A). SSuN Cycle 4 enhanced surveillance activities include provider and patient investigations on a probability sample of all persons diagnosed and reported with gonorrhea and case data for reported adult syphilis cases (Strategy B). All patient records from Strategy A and Strategy B activities are matched to the jurisdiction's HIV surveillance registry. Funded jurisdictions collaborating in SSuN Cycle 4 include Baltimore City (Maryland), California (excluding San Francisco County), City of Columbus (8-County metropolitan statistical area), Florida, Indiana, Multnomah County (Oregon), New York City (New York), Philadelphia City/County (Pennsylvania), San Francisco City/County (California), Utah, and Washington State.

In both core Strategies of SSuN, unique persons (diagnosed and reported with gonorrhea or seeking care in participating clinical facilities) are longitudinally followed using unique, non-name-based coded IDs to provide information on repeat infections and/or care seeking behaviors. The primary unit of analysis for sentinel surveillance activities in clinical facilities is unique persons. These data are merged with multiple clinic visit, laboratory, diagnostic, and treatment observations to provide a comprehensive picture of services and diagnoses received for each individual patient. For enhanced, case-based surveillance activities in SSuN, the primary unit of analysis is a diagnosed and reported episode (case) of gonorrhea or adult syphilis from any provider type or setting within the funded jurisdiction. Case data also included a unique person identifier, which allowed merging with multiple laboratory observations, matching with other health department disease registries, querying provider-based clinical information systems, and unique patient demographic and behavioral data obtained through direct patient interviews. Gonorrhea cases in the probability sample were weighted to reflect study design and to adjust for non-response by demographic category of the patient. Weighted analysis provides estimates of case-level and person-level characteristics representative of all gonorrhea cases diagnosed and reported in the funded jurisdictions.

Gay, bisexual, and other men who have sex with men (MSM) are defined in all SSuN data collection activities as men who: a) reported having sex with another man in the preceding 2–3 months, and/or, b) those who reported that they considered themselves gay/homosexual or bisexual. Men who have sex with women (MSW) are defined as men who reported having sex with women exclusively, or who did not report the sex of their sex partners but reported that they considered themselves to be straight/heterosexual.

Data presented from Strategy A (sentinel surveillance in STD clinics) include data from STD clinics in eight of the 11 participating Cycle 4 jurisdictions (Baltimore [Maryland], Miami, Leon, and Escambia County STD clinics [Florida], Multnomah County [Oregon], New York City [New York], Philadelphia [Pennsylvania], San Francisco [California], and Seattle [Washington]).

Data presented from Strategy B (enhanced surveillance of gonorrhea cases) of SSuN for 2020 include gonorrhea cases sampled, investigated and weighted for analysis from Baltimore City, Florida, Indiana, Multnomah County (Oregon), New York City, San Francisco County, Utah and Washington State.

# Gonococcal Isolate Surveillance Project

Data on antimicrobial susceptibility in *Neisseria gonorrhoeae* were collected through the Gonococcal Isolate Surveillance Project (GISP), a sentinel system of selected STD clinics located at an average of 27 GISP sentinel sites and 4 regional laboratories in the United States. More details about GISP are available here: https://www.cdc.gov/std/GISP/.

For 2020, the antimicrobial agents tested by GISP were ceftriaxone, cefixime, azithromycin, ciprofloxacin, penicillin, tetracycline, and gentamicin. Many of the antimicrobial susceptibility criteria used in GISP for 2020 are also recommended by the Clinical and Laboratory Standards Institute (CLSI). As of December 2020, the CLSI criteria for resistance to ceftriaxone, cefixime, gentamicin, and azithromycin and for susceptibility to gentamicin have not been established for *N. gonorrhoeae*.

The following criteria are used to display GISP data in this report based on minimum inhibitory concentrations (MICs):

### Resistance:

Ciprofloxacin: MIC ≥ 1.0 µg/mL

Penicillin: MIC ≥ 2.0 µg/mL or Beta-lactamase positive

Tetracycline: MIC ≥ 2.0 µg/mL

### **Elevated MICs:**

Azithromycin: MIC  $\geq$  1.0 µg/mL (2000–2004);  $\geq$  2.0 µg/mL (2005–2020)

Ceftriaxone: MIC  $\geq$  0.125 µg/mL Cefixime: MIC  $\geq$  0.25 µg/mL

# Job Corps

Job Corps (formerly referred to as the National Job Training Program in STD Surveillance Reports) is the largest nationwide residential career training program in the country. The program helps eligible young people ages 16 through 24 complete their high school education, trains them for meaningful careers, and assists them with obtaining employment. As part of the health and wellness program, Job Corps students are provided a medical examination at enrollment, including chlamydia and gonorrhea screening. Deidentified chlamydia and gonorrhea test results are provided to CDC by the US Department of Labor. More information is available at: <a href="https://www.dol.gov/agencies/eta/jobcorps">https://www.dol.gov/agencies/eta/jobcorps</a>

Due to the COVID-19 pandemic, there were no new enrollments into the Job Corps after mid-March 2020, resulting in a lower number of chlamydia and gonorrhea tests in 2020 compared to earlier years. To increase the stability of the estimates, chlamydia or gonorrhea prevalence data are typically presented when valid test results for 100 or more students per year are available for the population subgroup and state. For 2020, the number of chlamydia and gonorrhea tests did not meet these criteria in any state, and hence data from the Job Corps are not included in the *Sexually Transmitted Disease Surveillance* 2020.

### References

 Clinical and Laboratory Standards Institute (CLSI). Performance Standards for Antimicrobial Susceptibility Testing. 30th ed. CLSI supplement M100 Wayne (PA): Clinical and Laboratory Standards Institute; 2020.

# STD Case Definitions in Effect During 2020

# Nationally Notifiable STDs

The Council of State and Territorial Epidemiologists (CSTE) recommends that state health departments report cases of selected diseases to CDC's National Notifiable Diseases Surveillance System (NNDSS). Case definitions are periodically revised using CSTE's Position Statements and provide uniform criteria of nationally notifiable conditions for reporting purposes. The surveillance case definitions for nationally notifiable STDs in place during 2020 are listed below. Please see the NNDSS website (<a href="https://ndc.services.cdc.gov/">https://ndc.services.cdc.gov/</a>) for historical case definitions and for the case definitions in use for the current calendar year.

Chancroid (Effective as of 9/1996)

# **Clinical description**

A sexually transmitted disease characterized by painful genital ulceration and inflammatory inguinal adenopathy. The disease is caused by infection with *Haemophilus ducreyi*.

# Laboratory criteria for diagnosis

• Isolation of *H. ducreyi* from a clinical specimen.

### **Case classification**

*Probable:* a clinically compatible case with both a) no evidence of *Treponema pallidum* infection by darkfield microscopic examination of ulcer exudate or by a serologic test for syphilis performed ≥7 days after onset of ulcers, and b) either a clinical presentation of the ulcer(s) not typical of disease caused by herpes simplex virus (HSV) or a culture negative for HSV.

Confirmed: a clinically compatible case that is laboratory confirmed.

Chlamydia trachomatis Infection (Effective as of 1/2010)

### Clinical description

Infection with *Chlamydia trachomatis* may result in urethritis, epididymitis, cervicitis, acute salpingitis, or other syndromes when sexually transmitted; however, the infection is often asymptomatic in women. Perinatal infections may result in inclusion conjunctivitis and pneumonia in newborns. Other syndromes caused by *C. trachomatis* include lymphogranuloma venereum (see Lymphogranuloma Venereum) and trachoma.

### Laboratory criteria for diagnosis

- Isolation of *C. trachomatis* by culture, OR
- Demonstration of C. trachomatis in a clinical specimen by detection of antigen or nucleic acid.

#### Case classification

Confirmed: a case that is laboratory confirmed.

# Clinical description

A sexually transmitted infection commonly manifested by urethritis, cervicitis, proctitis, salpingitis, or pharyngitis. Infection may be asymptomatic.

# Laboratory criteria for diagnosis

- Observation of gram-negative intracellular diplococci in a urethral smear obtained from a male or an endocervical smear obtained from a female, OR
- Isolation of typical gram-negative, oxidase-positive diplococci by culture (presumptive *Neisseria gonorrhoeae*) from a clinical specimen, OR
- Demonstration of *N. gonorrhoeae* in a clinical specimen by detection of antigen or nucleic acid.

#### Case classification

*Probable:* demonstration of gram-negative intracellular diplococci in a urethral smear obtained from a male or an endocervical smear obtained from a female.

Confirmed: a person with laboratory isolation of typical gram-negative, oxidase-positive diplococci by culture (presumptive *N. gonorrhoeae*) from a clinical specimen, or demonstration of *N. gonorrhoeae* in a clinical specimen by detection of antigen or detection of nucleic acid via nucleic acid amplification (e.g., polymerase chain reaction [PCR]) or hybridization with a nucleic acid probe.

Syphilis (Effective as of 1/2018)

Syphilis is a complex sexually transmitted disease that has a highly variable clinical course. Adherence to the surveillance case definitions will facilitate understanding the epidemiology of syphilis across the US.

Syphilis, primary

# **Clinical description**

A stage of infection with *Treponema pallidum* characterized by one or more ulcerative lesions (e.g., chancre), which might differ considerably in clinical appearance.

### Laboratory criteria for diagnosis

# Confirmatory:

- Demonstration of *T. pallidum* by darkfield microscopy in a clinical specimen that was not obtained from the oropharynx and is not potentially contaminated by stool, OR
- Demonstration of *T. pallidum* by polymerase chain reaction (PCR) or equivalent direct molecular methods in any clinical specimen.

## Supportive:

- A reactive nontreponemal serologic test (Venereal Disease Research Laboratory [VDRL], rapid plasma reagin [RPR], or equivalent serologic methods), OR
- A reactive treponemal serologic test (*T. pallidum* particle agglutination [TP-PA], enzyme immunoassay [EIA], chemiluminescence immunoassay [CIA], or equivalent serologic methods).\*

<sup>\*</sup> These treponemal tests supersede older testing technologies, including microhemagglutination assay for antibody to T. pallidum [MHA-TP].

### **Case classification**

*Probable:* a case that meets the clinical description of primary syphilis and the supportive laboratory criteria.

Confirmed: a case that meets the clinical description of primary syphilis and the supportive confirmatory criteria.

*Syphilis, secondary* 

### Clinical description

A stage of infection caused by *T. pallidum* characterized by localized or diffuse mucocutaneous lesions (e.g., rash – such as non-pruritic macular, maculopapular, papular, or pustular lesions), often with generalized lymphadenopathy. Other symptoms can include mucous patches, condyloma lata, and alopecia. The primary ulcerative lesion may still be present. Because of the wide array of symptoms and signs possibly indicating secondary syphilis, serologic tests for syphilis and a physical examination are crucial to determining if a case should be classified as secondary syphilis.

Laboratory criteria for diagnosis

### Confirmatory:

- Demonstration of *T. pallidum* by darkfield microscopy in a clinical specimen that was not obtained from the oropharynx and is not potentially contaminated by stool, OR
- Demonstration of *T. pallidum* by polymerase chain reaction (PCR) or equivalent direct molecular methods in any clinical specimen.

# Supportive:

- A reactive nontreponemal serologic test (VDRL, RPR, or equivalent serologic methods), AND
- A reactive treponemal serologic test (TP-PA, EIA, CIA, or equivalent serologic methods).

#### Case classification

*Probable:* a case that meets the clinical description of secondary syphilis and the supportive laboratory criteria.

Confirmed: a case that meets the clinical description of secondary syphilis and the confirmatory laboratory criteria.

Syphilis, early non-primary non-secondary

### Clinical description

A stage of infection caused by *T. pallidum* in which initial infection has occurred within the previous 12 months, but there are no signs or symptoms of primary or secondary syphilis.

### Laboratory criteria for diagnosis

# Supportive:

 A current nontreponemal test titer demonstrating fourfold or greater increase from the last nontreponemal test titer, unless there is evidence that this increase was not sustained for >2 weeks.

### **Case classification**

*Probable:* a person with no clinical signs or symptoms of primary or secondary syphilis who has one of the following:

- No prior history of syphilis, AND a current reactive nontreponemal test (e.g., VDRL, RPR, or
  equivalent serologic methods), AND a current reactive treponemal test (e.g., TP-PA, EIA, CIA, or
  equivalent serologic methods), OR
- A prior history of syphilis and meets the supportive laboratory criteria.

AND evidence of having acquired the infection within the previous 12 months based on one or more of the following criteria:

- Documented seroconversion or fourfold or greater increase in titer of a nontreponemal test during the previous 12 months, unless there is evidence that this increase was not sustained for >2 weeks
- Documented seroconversion of a treponemal test during the previous 12 months
- A history of symptoms consistent with primary or secondary syphilis during the previous 12 months
- Meets epidemiologic criteria.

## Epidemiological criteria:

- A history of sexual exposure to a partner within the previous 12 months who had primary, secondary, or early non-primary non-secondary syphilis (documented independently as duration <12 months).</li>
- Only sexual contact (sexual debut) was within the previous 12 months.

Syphilis, unknown duration or late

# Clinical description

A stage of infection caused by *T. pallidum* in which initial infection has occurred >12 months previously or in which there is insufficient evidence to conclude that infection was acquired during the previous 12 months.

### **Case classification**

*Probable:* a person with no clinical signs or symptoms of primary or secondary syphilis who meets one of the following sets of criteria:

- No prior history of syphilis, and a current reactive nontreponemal test (e.g., VDRL, RPR, or
  equivalent serologic methods), and a current reactive treponemal test (e.g., TP-PA, EIA, CIA, or
  equivalent serologic methods), OR
- A prior history of syphilis, and a current nontreponemal test titer demonstrating fourfold or greater increase from the last nontreponemal test titer, unless there is evidence that this increase was not sustained for >2 weeks, OR
- Clinical signs or symptoms and laboratory results that meet the likely or verified criteria for neurologic, ocular, otic, or late clinical manifestations syphilis (see below)

AND who has no evidence of having acquired the disease within the preceding 12 months (see Syphilis, early non-primary non-secondary).

Comments: Although cases of syphilis of unknown duration are grouped together with late syphilis for the purposes of surveillance, the conservative clinical and public health responses to these cases will differ

when there is uncertainty about the duration of infection. When faced with uncertainty, clinicians should act conservatively and treat unknown duration syphilis as if it were late infection, with three doses of benzathine penicillin. In contrast, the most conservative approach for STD control programs would be to manage cases of syphilis of unknown duration as early non-primary non-secondary infections and search for partners who may have been recently infected. Because this would not be feasible for most STD control programs, programs should consider prioritizing cases of syphilis of unknown duration with higher nontreponemal titers (e.g., 1:32 or higher) for investigation and partner services. Although nontreponemal titers cannot reliably distinguish between early infection (<12 months duration) and late infection (>12 months duration), nontreponemal titers usually are higher early in the course of syphilis infection.

Syphilis, congenital

# **Clinical description**

A condition caused by infection in utero with *T. pallidum*. A wide spectrum of severity exists, from inapparent infection to severe cases that are clinically apparent at birth. An infant or child (aged less than 2 years) may have signs such as hepatosplenomegaly, rash, condyloma lata, snuffles, jaundice (nonviral hepatitis), pseudoparalysis, anemia, or edema (nephrotic syndrome and/or malnutrition). An older child may have stigmata (e.g., interstitial keratitis, nerve deafness, anterior bowing of shins, frontal bossing, mulberry molars, Hutchinson teeth, saddle nose, rhagades, or Clutton joints).

# Laboratory criteria for diagnosis

- Demonstration of *T. pallidum* by darkfield microscopy of lesions, body fluids, or neonatal nasal discharge, OR
- PCR or other equivalent direct molecular methods of lesions, neonatal nasal discharge, placenta, umbilical cord, or autopsy material, OR
- Immunohistochemistry (IHC), or special stains (e.g., silver staining) of specimens from lesions, placenta, umbilical cord, or autopsy material.

### **Case classification**

*Probable:* a condition affecting an infant whose mother had untreated or inadequately treated\* syphilis at delivery, regardless of signs in the infant, OR an infant or child who has a reactive non-treponemal test for syphilis (VDRL, RPR, or equivalent serologic methods) AND any one of the following:

- Any evidence of congenital syphilis on physical examination (see Clinical description).
- Any evidence of congenital syphilis on radiographs of long bones.
- A reactive CSF VDRL test.
- In a non-traumatic lumbar puncture, an elevated CSF leukocyte (white blood cell [WBC]) count or protein (without other cause):
  - Suggested parameters for abnormal CSF WBC and protein values:
    - 1. During the first 30 days of life, a CSF WBC count of >15 WBC/mm3 or a CSF protein >120 mg/dL is abnormal.
    - 2. After the first 30 days of life, a CSF WBC count of >5 WBC mm3 or a CSF protein >40 mg/dL, regardless of CSF serology.
  - The treating clinician should be consulted to interpret the CSF values for the specific patient.
- \* Adequate treatment is defined as completion of a penicillin-based regimen, in accordance with CDC treatment guidelines, appropriate for stage of infection, initiated 30 or more days before delivery.

Confirmed: a case that is laboratory confirmed.

Comments: Congenital and acquired syphilis may be difficult to distinguish when a child is seropositive after infancy. Signs of congenital syphilis may not be obvious, and stigmata may not yet have developed. Abnormal values for CSF VDRL, WBC count, and protein may be found in either congenital or acquired syphilis. Findings on radiographs of long bones may help because radiographic changes in the metaphysis and epiphysis are considered classic signs of congenitally acquired syphilis. While maternal antibodies can complicate interpretation of serologic tests in an infant, reactive tests past 18 months of age are considered to reflect the status of the child. The decision may ultimately be based on maternal history and clinical judgment. In a young child, the possibility of sexual abuse should be considered as a cause of acquired rather than congenital syphilis, depending on the clinical picture. For reporting purposes, congenital syphilis includes cases of congenitally acquired syphilis among infants and children as well as syphilitic stillbirths.

Syphilitic Stillbirth

### Clinical case definition

A fetal death that occurs after a 20-week gestation or in which the fetus weighs greater than 500g and the mother had untreated or inadequately treated\* syphilis at delivery.

\* Adequate treatment is defined as completion of a penicillin-based regimen, in accordance with CDC treatment guidelines, appropriate for stage of infection, initiated 30 or more days before delivery.

Comments: For reporting purposes, congenital syphilis includes cases of congenitally acquired syphilis among infants and children as well as syphilitic stillbirths.

Comments: Additional information to be collected on clinical manifestations of reported syphilis cases

Syphilis is a systemic infection that, if untreated, can cause a variety of clinical manifestations, including:

- Signs and symptoms of primary and secondary syphilis (see above case definitions).
- Latent infections (i.e., those lacking any signs or symptoms).
- Neurologic, ocular, or otic manifestations (neurosyphilis, ocular syphilis, or otosyphilis), which can occur at any stage of syphilis.
- Late clinical manifestations (tertiary syphilis), which generally occur after 15–30 years of untreated infection.

The following provides guidance for reporting neurologic, ocular, otic, and late clinical manifestations of syphilis. Cases should be reported according to stage of infection, as defined above (e.g., primary syphilis; secondary syphilis; early non-primary, non-secondary syphilis; or unknown duration or late syphilis) and the clinical manifestations should be reported in the case report data, as defined below.

# Neurologic manifestations:

Neurologic manifestations (neurosyphilis) can occur at any stage of syphilis. If the patient has neurologic manifestations of syphilis, the case should be reported with the appropriate stage of infection (as if neurologic manifestations were not present) and neurologic manifestations should be noted in the case report data.

### **Clinical description**

Infection of the central nervous system with *T. pallidum*, as evidenced by manifestations including syphilitic meningitis, meningovascular syphilis, general paresis, including dementia, and tabes dorsalis.

# Classification of neurologic manifestations (neurosyphilis)

Possible: a person with a reactive nontreponemal test (e.g., VDRL, RPR, or equivalent serologic methods) and a reactive treponemal test (e.g., TP-PA, EIA, CIA or equivalent serologic methods) and clinical symptoms or signs that are consistent with neurosyphilis without other known causes for these clinical abnormalities.

*Likely:* a person with a reactive nontreponemal test (e.g., VDRL, RPR, or equivalent serologic methods) and a reactive treponemal test (e.g., TP-PA, EIA, CIA or equivalent serologic methods) with both of the following:

- Clinical symptoms or signs that are consistent with neurosyphilis without other known causes for these clinical abnormalities. AND
- Elevated CSF protein (>50 mg/dL2) or leukocyte count (>5 WBC/mm3 CSF) in the absence of other known causes of these abnormalities.

*Verified:* a person with a reactive nontreponemal test (e.g., VDRL, RPR, or equivalent serologic methods) and a reactive treponemal test (e.g., TP-PA, EIA, CIA or equivalent serologic methods) with both of the following:

- Clinical symptoms or signs that are consistent with neurosyphilis without other known causes for these clinical abnormalities, AND
- A reactive VDRL in CSF in the absence of grossly bloody contamination of the CSF.

### Ocular manifestations:

Ocular manifestations (ocular syphilis) can occur at any stage of syphilis. If the patient has ocular manifestations of syphilis, the case should be reported with the appropriate stage of infection (as if ocular manifestations were not present) and ocular manifestations should be noted in the case report data.

### Clinical description

Infection of any eye structure with *T. pallidum*, as evidenced by manifestations including posterior uveitis, panuveitis, anterior uveitis, optic neuropathy, and retinal vasculitis. Ocular syphilis may lead to decreased visual acuity including permanent blindness.

### Classification of ocular manifestations (ocular syphilis)

Possible: a person with a reactive nontreponemal test (e.g., VDRL, RPR, or equivalent serologic methods) and a reactive treponemal test (e.g., TP-PA, EIA, CIA or equivalent serologic methods) and clinical symptoms or signs consistent with ocular syphilis without other known causes for these clinical abnormalities.

*Likely:* a person with a reactive nontreponemal test (e.g., VDRL, RPR, or equivalent serologic methods) and a reactive treponemal test (e.g., TP-PA, EIA, CIA or equivalent serologic methods) and both of the following:

- Clinical symptoms or signs consistent with ocular syphilis without other known causes for these clinical abnormalities, AND
- Findings on exam by an ophthalmologist that are consistent with ocular syphilis in the absence of other known causes for these abnormalities.

*Verified:* a person with a reactive nontreponemal test (e.g., VDRL, RPR, or equivalent serologic methods) and a reactive treponemal test (e.g., TP-PA, EIA, CIA or equivalent serologic methods) and both of the following:

- Clinical symptoms or signs consistent with ocular syphilis without other known causes for these clinical abnormalities, AND
- Demonstration of *T. pallidum* in aqueous or vitreous fluid by darkfield microscopy, or by PCR or equivalent direct molecular methods.

### Otic manifestations:

Otic manifestations can occur at any stage of syphilis. If the patient has otic manifestations of syphilis, the case should be reported with the appropriate stage of infection (as if otic manifestations were not present) and otic manifestations should be noted in the case report data.

# **Clinical description**

Infection of the cochleovestibular system with *T. pallidum*, as evidenced by manifestations including sensorineural hearing loss, tinnitus, and vertigo.

# Classification of otic manifestations (otosyphilis)

Possible: a person with a reactive nontreponemal test (e.g., VDRL, RPR, or equivalent serologic methods) and a reactive treponemal test (e.g., TP-PA, EIA, CIA or equivalent serologic methods) and clinical symptoms or signs consistent with otosyphilis without other known causes for these clinical abnormalities.

*Likely:* a person with a reactive nontreponemal test (e.g., VDRL, RPR, or equivalent serologic methods) and a reactive treponemal test (e.g., TP-PA, EIA, CIA or equivalent serologic methods) and both of the following:

- Clinical symptoms or signs consistent with otosyphilis without other known causes for these clinical abnormalities, AND
- Findings on exam by an otolaryngologist that are consistent with otosyphilis in the absence of other known causes for these abnormalities.

*Verified:* a person with a reactive nontreponemal test (e.g., VDRL, RPR, or equivalent serologic methods) and a reactive treponemal test (e.g., TP-PA, EIA, CIA or equivalent serologic methods) and both of the following:

- Clinical symptoms or signs consistent with otosyphilis without other known causes for these clinical abnormalities, AND
- Demonstration of *T. pallidum* in inner ear fluid by darkfield microscopy, or by PCR or equivalent direct molecular detection methods.

### Late clinical manifestations:

Late clinical manifestations of syphilis usually develop only after a period of 15–30 years of untreated infection. Therefore, if the patient has late clinical manifestations of syphilis, the case should be reported with the appropriate stage of infection (for the vast majority of cases, unknown duration or late syphilis) and late clinical manifestations should be noted in the case report data.

### Clinical description

Late clinical manifestations of syphilis (tertiary syphilis) may include inflammatory lesions of the cardiovascular system (e.g., aortitis, coronary vessel disease), skin (e.g., gummatous lesions), bone (e.g., osteitis), or other tissue. Rarely, other structures (e.g., the upper and lower respiratory tracts, mouth, eye, abdominal organs, reproductive organs, lymph nodes, and skeletal muscle) may be involved. In addition, certain neurologic manifestations (e.g., general paresis and tabes dorsalis) are also late clinical manifestations of syphilis.

# Classification of late clinical manifestations of syphilis (tertiary syphilis)

*Likely:* a person with a reactive nontreponemal test (e.g., VDRL, RPR, or equivalent serologic methods) and a reactive treponemal test (e.g., TP-PA, EIA, CIA or equivalent serologic methods) with either of the following:

- Characteristic abnormalities or lesions of the cardiovascular system (e.g., aortitis, coronary vessel disease), skin (e.g., gummatous lesions), bone (e.g., osteitis), or other tissue, in the absence of other known causes of these abnormalities, OR
- Clinical signs and symptoms consistent with late neurologic manifestations of syphilis (e.g., general paresis, including dementia, or tabes dorsalis) in a case that meets the criteria for likely neurologic manifestations of syphilis (see above).

*Verified:* a person with a reactive nontreponemal test (e.g., VDRL, RPR, or equivalent serologic methods) and a reactive treponemal test (e.g., TP-PA, EIA, CIA or equivalent serologic methods) and either of the following:

- Characteristic abnormalities or lesions of the cardiovascular system (e.g., aortitis, coronary vessel disease), skin (e.g., gummatous lesions), bone (e.g., osteitis), or other tissue in the absence of other known causes of these abnormalities, in combination with either demonstration of *T. pallidum* in late lesions by special stains or equivalent methods, or by PCR or equivalent direct molecular methods, or demonstration of pathologic changes that are consistent with *T. pallidum* infection on histologic examination of late lesions, OR
- Clinical signs and symptoms consistent with late neurologic manifestations of syphilis (e.g., general paresis, including dementia, or tabes dorsalis) in a case that meets the criteria for verified neurologic manifestations of syphilis (see above).

# Non-nationally Notifiable STDs

Although the conditions below are not currently nationally notifiable, they may be reportable in some jurisdictions. To provide uniform criteria for those jurisdictions, case definitions are provided by CSTE. Case definitions are periodically revised. The most current surveillance case definitions for non-notifiable STDs are listed below. Please see the NNDSS website (https://wwwn.cdc.gov/nndss/case-definitions.html) for historical case definitions.

Genital Herpes (Herpes Simplex Virus) (Effective as of 9/1996)

### **Clinical description**

A condition characterized by visible, painful genital or anal lesions.

### Laboratory criteria for diagnosis

- Isolation of herpes simplex virus from cervix, urethra, or anogenital lesion, OR
- Demonstration of virus by antigen detection technique in clinical specimens from cervix, urethra, or anogenital lesion, OR
- Demonstration of multinucleated giant cells on a Tzanck smear of scrapings from an anogenital lesion.

### **Case classification**

*Probable:* a clinically compatible case (in which primary and secondary syphilis have been excluded by appropriate serologic tests and darkfield microscopy, when available) with either a diagnosis of genital herpes based on clinical presentation (without laboratory confirmation) or a history of one or more previous episodes of similar genital lesions.

Confirmed: a clinically compatible case that is laboratory confirmed.

#### Comment

Genital herpes should be reported only once per patient. The first diagnosis for a patient with no previous diagnosis should be reported.

Genital Warts (Effective as of 9/1996)

# Clinical description

An infection characterized by the presence of visible, exophytic (raised) growths on the internal or external genitalia, perineum, or perianal region.

# Laboratory criteria for diagnosis

- Histopathologic changes characteristic of human papillomavirus infection in specimens obtained by biopsy or exfoliative cytology, OR
- Demonstration of virus by antigen or nucleic acid detection in a lesion biopsy.

#### **Case classification**

*Probable:* a clinically compatible case without histopathologic diagnosis and without microscopic or serologic evidence that the growth is the result of secondary syphilis.

Confirmed: a clinically compatible case that is laboratory confirmed.

#### Comment

Genital warts should be reported only once per patient. The first diagnosis for a patient with no previous diagnosis should be reported.

Granuloma Inguinale (Effective as of 1/1997)

# **Clinical description**

A slowly progressive ulcerative disease of the skin and lymphatics of the genital and perianal area caused by infection with *Calymmatobacterium granulomatis*. A clinically compatible case would have one or more painless or minimally painful granulomatous lesions in the anogenital area.

### Laboratory criteria for diagnosis

 Demonstration of intracytoplasmic Donovan bodies in Wright or Giemsa-stained smears or biopsies of granulation tissue.

### **Case classification**

Confirmed: a clinically compatible case that is laboratory confirmed.

Lymphogranuloma Venereum

### Clinical description

Infection with L1, L2, or, L3 serovars of *C. trachomatis* may result in a disease characterized by genital lesions, suppurative regional lymphadenopathy, or hemorrhagic proctitis. The infection is usually sexually transmitted.

# Laboratory criteria for diagnosis

- Isolation of C. trachomatis, serotype L1, L2, or L3 from clinical specimen, OR
- Demonstration by immunofluorescence of inclusion bodies in leukocytes of an inguinal lymph node (bubo) aspirate, OR
- Positive microimmunofluorescent serologic test for a lymphogranuloma venereum strain of *C. trachomatis*.

### Case classification

*Probable:* a clinically compatible case with one or more tender fluctuant inguinal lymph nodes or characteristic proctogenital lesions with supportive laboratory findings of a single *C. trachomatis* complement fixation titer of >64.

Confirmed: a clinically compatible case that is laboratory confirmed.

Mucopurulent Cervicitis (Effective as of 9/1996)

# Clinical description

Cervical inflammation that is not the result of infection with *N. gonorrhoeae* or *Trichomonas vaginalis*. Cervical inflammation is defined by the presence of one of the following criteria:

- Mucopurulent secretion (from the endocervix) that is yellow or green when viewed on a white, cotton-tipped swab (positive swab test), OR
- Induced endocervical bleeding (bleeding when the first swab is placed in the endocervix).

# Laboratory criteria for diagnosis

• No evidence of *N. gonorrhoeae* by culture, Gram stain, or antigen or nucleic acid detection, and no evidence of *T. vaginalis* on wet mount.

### **Case classification**

Confirmed: a clinically compatible case in a female who does not have either gonorrhea or trichomoniasis.

#### Comment

Mucopurulent cervicitis (MPC) is a clinical diagnosis of exclusion. The syndrome may result from infection with any of several agents (see *C. trachomatis*). If gonorrhea, trichomoniasis, and chlamydia are excluded, a clinically compatible illness should be classified as MPC. An illness in a female that meets the case definition of MPC and *C. trachomatis* infection should be classified as chlamydia.

Nongonococcal Urethritis (Effective as of 9/1996)

# **Clinical description**

Urethral inflammation that is not the result of infection with *N. gonorrhoeae*. Urethral inflammation may be diagnosed by the presence of one of the following criteria:

- A visible abnormal urethral discharge, OR
- A positive leukocyte esterase test from a male aged <60 years who does not have a history of kidney disease or bladder infection, prostate enlargement, urogenital anatomic anomaly, or recent urinary tract instrumentation, OR
- Microscopic evidence of urethritis (≥5 white blood cells per high-power field) on a Gram stain of a urethral smear.

### Laboratory criteria for diagnosis

 No evidence of N. gonorrhoeae infection by culture, Gram stain, or antigen or nucleic acid detection.

### **Case classification**

Confirmed: a clinically compatible case in a male in whom gonorrhea is not found, either by culture, Gram stain, or antigen or nucleic acid detection.

#### Comment

Nongonococcal urethritis (NGU) is a clinical diagnosis of exclusion. The syndrome may result from infection with any of several agents (see *C. trachomatis*). If gonorrhea and chlamydia are excluded, a clinically compatible illness should be classified as NGU. An illness in a male that meets the case definition of NGU and *C. trachomatis* infection should be classified as chlamydia.

Pelvic Inflammatory Disease (Effective as of 9/1996)

### Clinical case definition

A clinical syndrome resulting from the ascending spread of microorganisms from the vagina and endocervix to the endometrium, fallopian tubes, and/or contiguous structures. In a female who has lower abdominal pain and who has not been diagnosed as having an established cause other than pelvic inflammatory disease (PID) (e.g., ectopic pregnancy, acute appendicitis, and functional pain), all the following clinical criteria must be present:

- Lower abdominal tenderness, AND
- Tenderness with motion of the cervix, AND
- Adnexal tenderness.

In addition to the preceding criteria, at least one of the following findings must also be present:

- Meets the surveillance case definition of C. trachomatis infection or gonorrhea
- Temperature >100.4 F (>38.0 C)
- Leukocytosis >10,000 WBC/mm3
- Purulent material in the peritoneal cavity obtained by culdocentesis or laparoscopy
- Pelvic abscess or inflammatory complex detected by bimanual examination or by sonography
- Patient is a sexual contact of a person known to have gonorrhea, chlamydia, or nongonococcal urethritis.

### **Case classification**

Confirmed: a case that meets the clinical case definition.

### Comment

For reporting purposes, a clinician's report of PID should be counted as a case.