Sexually Transmitted Disease Surveillance 2014

Division of STD Prevention
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Web Site

The online version of this report is available at http://www.cdc.gov/std/stats.

Selected STD Surveillance and Prevention References and Web Sites

STD Surveillance Reports 1993–2013
http://www.cdc.gov/std/stats/

STD Data in the NCHHSTP Atlas
http://www.cdc.gov/nchhstp/atlas/

STD Data on Wonder
http://wonder.cdc.gov/std.html

STD Data Management & Information Technology
http://www.cdc.gov/std/Program/data-mgmt.htm

STD Fact Sheets
http://www.cdc.gov/std/healthcomm/fact_sheets.htm

STD Treatment Guidelines
http://www.cdc.gov/STD/treatment/

STD Program Evaluation Guidelines
http://www.cdc.gov/std/program/pupestd.htm

STD Program Operation Guidelines
http://www.cdc.gov/std/program/GL-2001.htm

Recommendations for Public Health Surveillance of Syphilis in the United States
http://www.cdc.gov/std/SyphSurvReco.pdf

Behavioral Surveillance
Youth Risk Behavior Surveillance System: http://www.cdc.gov/HealthyYouth/yrbs/index.htm

National Survey of Family Growth
http://www.cdc.gov/nchs/nsfg.htm

Foreword

"STDs are hidden epidemics of enormous health and economic consequence in the United States. They are hidden because many Americans are reluctant to address sexual health issues in an open way and because of the biologic and social characteristics of these diseases. All Americans have an interest in STD prevention because all communities are impacted by STDs and all individuals directly or indirectly pay for the costs of these diseases. STDs are public health problems that lack easy solutions because they are rooted in human behavior and fundamental societal problems. Many of the strongest predictors of health, including sexual health, are social, economic, and environmental. Providing information about personal health and health services can empower people to make healthier choices to protect their health. Indeed, there are many obstacles to effective prevention efforts. The first hurdle will be to confront the reluctance of American society to openly confront issues surrounding sexuality and STDs. Despite the barriers, there are existing individual- and community-based interventions that are effective and can be implemented immediately. That is why a multifaceted approach is necessary at both the individual and community levels.

To successfully prevent STDs, many stakeholders need to redefine their mission, refocus their efforts, modify how they deliver services, and accept new responsibilities. In this process, strong leadership, innovative thinking, partnerships, and adequate resources will be required. The additional investment required to effectively prevent STDs may be considerable, but it is negligible when compared with the likely return on the investment. The process of preventing STDs must be a collaborative one. No one agency, organization, or sector can effectively do it alone; all members of the community must do their part. A successful national initiative to confront and prevent STDs requires widespread public awareness and participation and bold national leadership from the highest levels."[1]

[1] Eng TR, Butler WT, editors; Institute of Medicine (US). Summary: The hidden epidemic: confronting sexually transmitted diseases. Washington (DC): National Academy Press; 1997. p. 43.

Preface

Sexually Transmitted Disease Surveillance 2014 presents statistics and trends for sexually transmitted diseases (STDs) in the United States through 2014. 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 edition supersede those in earlier publications of these data.

The surveillance information in this report is based on the following sources of data: (1) notifiable disease reporting from state and local STD programs; (2) projects that monitor STD positivity and prevalence in various settings, including the National Job Training Program, the STD Surveillance Network, and the Gonococcal Isolate Surveillance Project; and (3) other national surveys implemented by federal and private organizations.

The STD surveillance systems operated by state and local STD control programs, which provide the case report data for chlamydia, gonorrhea, syphilis, and chancroid, are the data sources of many of the figures and most of the statistical tables in this publication. These systems are an integral part of program management at all levels of STD prevention and control in the United States. Because of incomplete diagnosis and reporting, the number of STD cases reported to the Centers for Disease Control and Prevention is less than the actual number of cases occurring in the U.S. population. National summary data of case reports for other STDs are not available because they are not nationally notifiable diseases.

Beginning with the publication of *Sexually Transmitted Disease Surveillance 2010*, redistribution methodology is no longer applied to any of the data to account for cases missing race, sex or age. The counts presented in this report are summations of all valid data reported in reporting year 2014. Because missing data are excluded from calculations of rates by age group, race/ethnicity, and sex, incidence rates by these characteristics, particularly by race/ethnicity for chlamydia and gonorrhea, appear somewhat lower than in reports released for data prior to 2010.

The collection of information on race/ethnicity has been standardized since 1997 in the United States from the Office of Management and Budget (OMB). Following a revision in the National Electronic Telecommunication System for Surveillance (NETSS) implementation guide in April 2008, jurisdictions reporting STD data were to collect race according to the OMB standard categories: American Indian or Alaska Native, Asian, black or African American, Hispanic or Latino, Native Hawaiian/Other Pacific Islander, white and multirace. While 49 states collect and report data for at least one STD in formats compliant with these standards as of 2014, some jurisdictions only recently adopted this standard and used previous standards to report their case data to CDC in past years. In 2014, one jurisdiction reported data for syphilis cases in compliance with OMB standards, but reported chlamydia and gonorrhea using an outdated standard. Consequently, historical trend and rate data by race/ethnicity displayed in figures and interpreted in this report for 2010–2014 include only those jurisdictions reporting in the current standard consistently for 2010 through 2014.

Sexually Transmitted Disease Surveillance 2014 consists of four sections: the National Profile, the Special Focus Profiles, the Tables, and the Appendix. The National Profile section contains figures that provide an overview of STD morbidity in the United States. The accompanying text identifies major findings and trends for selected STDs. The Special Focus Profiles section contains figures and text that describe STDs in selected populations that are a focus of national and state prevention efforts. The Tables section provides statistical information about STDs at county, metropolitan statistical area, regional, state, and national levels. The Appendix includes information on how to interpret the STD surveillance data used to produce this report, as well as information about *Healthy People 2020* STD objectives and progress toward meeting these objectives, Government Performance and Results Act goals and progress toward meeting these goals, and STD surveillance case definitions.

Any comments and suggestions that would improve future publications are appreciated and should be sent to:

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Guide to Acronyms

CDC	Centers for Disease Control and Prevention
CI	confidence interval
CIA	chemiluminescence immunoassay
CSF	cerebrospinal fluid
EIA	enzyme immunoassay
EP	ectopic pregnancy
FTA-ABS	fluorescent treponemal antibody absorbed
GISP	Gonococcal Isolate Surveillance Project
HEDIS	Healthcare Effectiveness Data and Information
HMOs	health maintenance organizations
HIV	human immunodeficiency virus
HP2020	*Healthy People 2020*
HPV	human papillomavirus
HSV	herpes simplex virus
MHA-TP	microhemagglutination assay for antibody to *T. pallidum*
MICs	minimum inhibitory concentrations
MPC	mucopurulent cervicitis
MSA	metropolitan statistical area
MSM	gay, bisexual, and other men who have sex with men
MSW	men who have sex with women only
NAATs	nucleic acid amplification tests
NCHHSTP	National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention
NDTI	National Disease and Therapeutic Index
NGU	nongonococcal urethritis
NHANES	National Health and Nutrition Examination Survey
NJTP	National Job Training Program
OMB	Office of Management and Budget
P&S	primary and secondary
PCR	polymerase chain reaction
PID	pelvic inflammatory disease
RPR	rapid plasma reagin
SSuN	STD Surveillance Network
STD	sexually transmitted disease
TP-PA	*T. pallidum* particle agglutination
VDRL	Venereal Disease Research Laboratory

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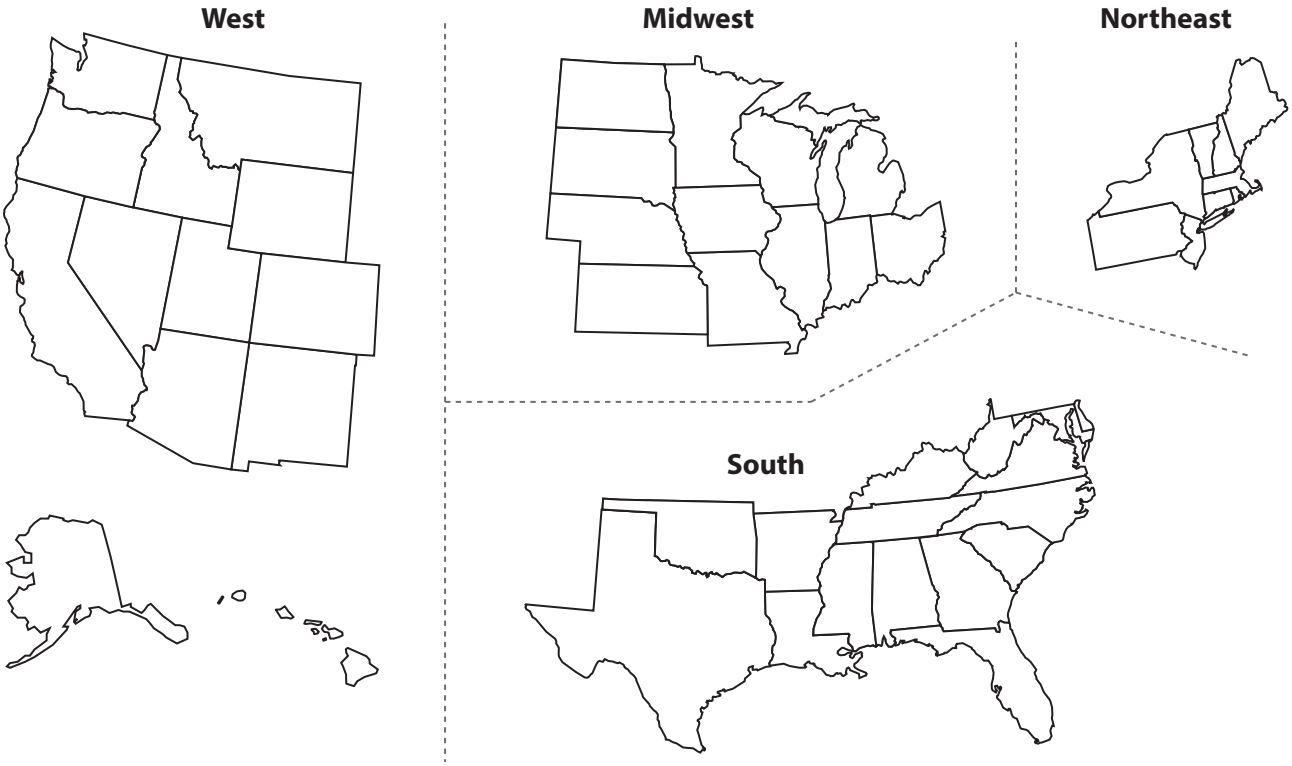


West	Midwest	South	Northeast
Alaska	Illinois	Alabama	Connecticut
Arizona	Indiana	Arkansas	Maine
California	Iowa	Delaware	Massachusetts
Colorado	Kansas	District of Columbia	New Hampshire
Hawaii	Michigan	Florida	New Jersey
Idaho	Minnesota	Georgia	New York
Montana	Missouri	Kentucky	Pennsylvania
Nevada	Nebraska	Louisiana	Rhode Island
New Mexico	North Dakota	Maryland	Vermont
Oregon	Ohio	Mississippi	
Utah	South Dakota	North Carolina	
Washington	Wisconsin	Oklahoma	
Wyoming		South Carolina	
		Tennessee	
		Texas	
		Virginia	
		West Virginia	

National Overview of Sexually Transmitted Diseases (STDs), 2014

All Americans should have the opportunity to make choices that lead to health and wellness. Working together, interested, committed public and private organizations, communities, and individuals can take action to prevent sexually transmitted diseases (STDs) and their related health consequences. In addition to federal, state, and local public support for STD prevention activities, local community leaders can promote STD prevention education. Health care providers can assess their patients' risks and talk to them about testing. Parents can better educate their children about STDs and sexual health. Individuals can use condoms consistently and correctly, and openly discuss ways to protect their health with partners and providers. As noted in the Institute of Medicine report, *The Hidden Epidemic: Confronting Sexually Transmitted Diseases,* surveillance is a key component of all our efforts to prevent and control these diseases.[1]

This overview summarizes national surveillance data for 2014 on the three notifiable diseases for which there are federally funded control programs: chlamydia, gonorrhea, and syphilis.

Chlamydia

In 2014, a total of 1,441,789 cases of *Chlamydia trachomatis* infection were reported to the CDC (Table 1). This case count corresponds to a rate of 456.1 cases per 100,000 population, an increase of 2.8% compared with the rate in 2013. This overall increase follows the first time since nationwide reporting for chlamydia began that the overall rate of reported cases of chlamydia decreased from 2011 to 2013. While the rate in women from 2013–2014 increased 1.3% and the rate in men increased 6.8%, the rate among women aged 15-19 years decreased 4.2%, continuing a decline in that group since 2011.

In 2014, the overall rate of chlamydial infection in the United States among women (627.2 cases per 100,000 females) based on reported cases was over two times the rate among men (278.4 cases per 100,000 males) (Tables 4 and 5), reflecting the larger number of women screened for this infection. However, with the increased availability of urine testing, men are increasingly being tested for chlamydial infection. During 2010–2014, the chlamydia rate in men increased 22%, compared with a 6% increase in women during this period.

Rates varied among different racial and ethnic minority populations. In 2014, the chlamydia rate in blacks was 6 times the rate in whites, and the rate among American Indians/Alaska Natives was almost 4 times the rate among whites.

Gonorrhea

In 2009, the national rate of reported gonorrhea cases reached an historic low of 98.1 cases per 100,000 population (Figure 12 and Table 1). However, during 2009–2012, the rate increased slightly each year, to 106.7 cases per 100,000 population in 2012. In 2013, the rate decreased to 105.3 cases per 100,000 population. But in 2014, a total of 350,062 gonorrhea cases were reported, and the national gonorrhea rate increased to 110.7 cases per 100,000 population.

The increase in gonorrhea rate during 2013–2014 was observed primarily among men (Figure 13). Gonorrhea rates among men increased in every region of the United States, while gonorrhea rates among women increased in the South and West but decreased in the Northeast and Midwest (Tables 15 and 16).

In 2014, the rate of reported gonorrhea cases remained highest among blacks (405.4 cases per 100,000 population) (Table 22B). The rate among blacks was 10.6 times the rate among whites (38.3 cases per 100,000 population). The gonorrhea rate among American Indians/Alaska Natives (159.4 cases per 100,000 population) was 4.2 times that of whites. While rates of gonorrhea during 2010-2014 have been declining among blacks, they have increased in all other racial/ethnic groups. In American Indian/Alaska Natives, they have increased 104% during this time period.

Antimicrobial resistance remains an important consideration in the treatment of gonorrhea. With increased resistance to the fluoroquinolones and declining susceptibility to cefixime, dual therapy with ceftriaxone and azithromycin is now the only CDC recommended treatment for gonorrhea.[2] In 2014, increases in minimum inhibitory concentrations (MICs) of cephalosporins (cefixime and ceftriaxone) were observed after decreases in 2012 and 2013 (Figures 26 and 27). While the percentage of isolates with reduced azithromycin susceptibility has remained stable (between 0.3% and 0.6% of all isolates tested) in previous years, between 2013 and 2014, this

percentage jumped up to 2.5% (Figure 28). Continued monitoring of susceptibility patterns to these antibiotics is critical.

Syphilis

In 2000 and 2001, the national rate of reported primary and secondary (P&S) syphilis cases was 2.1 cases per 100,000 population, the lowest rate since reporting began in 1941 (Figure 31, Table 1). However, the P&S syphilis rate has increased almost every year since 2000–2001. In 2014, a total of 19,999 P&S syphilis cases were reported, and the national P&S syphilis rate increased to 6.3 cases per 100,000 population, the highest rate since 1994.

During 2000–2014, the rise in the P&S syphilis rate was primarily attributable to increased cases among men and, specifically, among gay, bisexual, and other men who have sex with men (collectively referred to as MSM) (Figures 32 and 33). However, during 2013–2014, the rate increased both among men (14.4%) and among women (22.7%) (Tables 28 and 29). This increase among women is of particular concern because congenital syphilis cases tend to increase as the rate of P&S syphilis among women increases (Figure 46).

During 2013–2014, the overall male and female P&S syphilis rates increased in every region of the country (Figure 34, Tables 27–29). Nationally, P&S syphilis rates increased in every 5-year age group of those 15–44 years of age (Table 35) and in every race/ethnicity group except for Native Hawaiians/Other Pacific Islanders during 2013–2014 (Figure 40).

In 2014, men accounted for 91% of all cases of P&S syphilis. And, of those male cases for whom sex of sex partner was known, 83% were MSM. Reported cases of P&S syphilis continued to be characterized by a high rate of HIV co-infection, particularly among MSM. In 2014, 26 states reported both sex of sex partner and HIV status (HIV-positive or HIV-negative) for at least 70% of P&S syphilis cases (Figure 43). Among P&S syphilis cases with known HIV-status in these states, 51% of cases among MSM were HIV-positive, compared with 11% of cases among MSW, and 6% of cases among women.

Rates in women remained unchanged between 2011 and 2013 but increased 22% between 2013 and 2014. In 2014, 1,840 cases of P&S syphilis were reported in women compared with 1,500 in 2013. The 2013 rate of congenital syphilis (9.1 cases per 100,000 live births) marked the first increase in congenital syphilis since 2008. During 2013–2014, the rate increased 27.5%. There were 458 cases of congenital syphilis reported in 2014 compared with 359 in 2013 (Figure 46).

Significant racial and ethnic disparities in STD rates persist. In 2014, the P&S syphilis rate among blacks was 5.4 times the rate among whites (Figure 40). In some subgroups, however, disparities were even higher. The 2014 P&S syphilis rates among black and American Indian/Alaska Native women were between 9-10 times the rates for whites. (Table 36B). While rates of congenital syphilis increased in most race/ethnicity groups during 2013-2014, they were 10 times higher in blacks than in whites and over 3 times higher in Hispanics and in American Indian/Alaska Natives than in whites (Table 43).

[1] Eng TR, Butler WT, editors; Institute of Medicine (US). The hidden epidemic: confronting sexually transmitted diseases. Washington (DC): National Academy Press; 1997. p 43.

[2] Centers for Disease Control and Prevention. Sexually transmitted diseases treatment guidelines, 2015. MMWR Morb Mortal Wkly Rep 2015; 64(No. RR-3): 1–137.

NATIONAL PROFILE

NATIONAL PROFILE

National Profile

The National Profile section contains figures that show trends and the distribution of nationally reportable STDs (chlamydia, gonorrhea, syphilis, and chancroid) by age, sex, race/ethnicity, and location for the United States.

Chlamydia

Background

Chlamydia, caused by infection with *Chlamydia trachomatis,* is the most common notifiable disease in the United States. It is among the most prevalent of all STDs, and since 1994, has comprised the largest proportion of all STDs reported to CDC (Table 1). Studies also demonstrate the high prevalence of chlamydial infections in the general U.S. population, particularly among young women.[1,2]

Chlamydial infections in women are usually asymptomatic. However, untreated infection can result in pelvic inflammatory disease (PID), which is a major cause of infertility, ectopic pregnancy, and chronic pelvic pain. Data from randomized controlled trials of chlamydia screening suggested that screening programs can lead to a reduction in the incidence of PID.[3,4] As with other inflammatory STDs, chlamydial infection might facilitate the transmission of human immunodeficiency virus (HIV) infection.[5] In addition, pregnant women infected with chlamydia can pass the infection to their infants during delivery, potentially resulting in neonatal ophthalmia and pneumonia. Because of the large burden of disease and risks associated with infection, CDC recommends that all sexually active women younger than age 25 years receive annual chlamydia screening.[6]

The Healthcare Effectiveness Data and Information Set (HEDIS) contains a measure which assesses chlamydia screening coverage of sexually active young women who receive medical care through commercial or Medicaid managed care organizations. Among sexually-active women aged 16–24 years in commercial plans, chlamydia screening increased from 23.1% in 2001 to 46.2% in 2013. Among sexually-active women aged 16–24 years covered by Medicaid, screening rates increased from 40.4% in 2001 to 58.0% in 2011, then decreased to 54.9% in 2013.[7] Although chlamydia screening has expanded over the past two decades, many women who are at risk are still not being tested—reflecting, in part, the lack of awareness among some health care providers and the limited resources available to support these screenings.

Interpreting Rates of Reported Cases of Chlamydia

Trends in rates of reported cases of chlamydia are influenced by changes in incidence of infection, as well as changes in diagnostic, screening, and reporting practices. As chlamydial infections are usually asymptomatic, the number of infections identified and reported can increase as more people are screened even when incidence is flat or decreasing. Expanded use of more sensitive diagnostics tests (e.g., nucleic acid amplification tests) can also increase the number of infections identified and reported independent of increases in incidence. 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 case rates prior to 2000 reflect incomplete reporting. Additionally, increasing use of electronic laboratory reporting has likely increased the proportion of diagnosed cases that are reported. Consequently, an increasing chlamydia case rate may reflect increases in incidence of infection, screening coverage, and use of more sensitive tests, as well as more complete reporting. Likewise, decreases in chlamydia case rates may suggest decreases in incidence of infection or screening coverage.

Chlamydia — United States

In 2014, a total of 1,441,789 chlamydial infections were reported to CDC in 50 states and the District of Columbia (Table 1). This case count corresponds to a rate of 456.1 cases per 100,000 population. During 1993–2011, the rate of reported chlamydial infection increased from 178.0 to 453.4 cases per 100,000 population (Figure 1, Table 1). During 2011–2013, the rate of reported cases decreased to 443.5 cases per 100,000. During 2013–2014, the national rate of reported cases increased 2.8% to 456.1 cases per 100,000.

Chlamydia by Region

In 2014, rates of reported chlamydia were highest in the South (492.3 per 100,000 population), followed by the Midwest (448.9), the West (441.8), and the Northeast (406.9) (Table 3). Between 2005–2012, rates of reported cases of chlamydia increased in all regions (Figure 2). During 2012–2013, rates decreased in the Northeast, Midwest, and South and remained stable in the West. During 2013–2014, rates increased in all regions with the largest increase in the West (421.1 to 441.8 cases per 100,000) (Table 3).

Chlamydia by State

In 2014, rates of reported cases of chlamydia by state ranged from 254.5 cases per 100,000 population in West Virginia to 787.5 cases in Alaska (Figure 3, Table 2); the rate in the District of Columbia was 818.8 cases per 100,000 (Table 3). During 2013–2014, rates of reported chlamydia increased in 40 states.

Chlamydia by Metropolitan Statistical Area

In 2014, the rate of reported cases of chlamydia per 100,000 population in the 50 most populous metropolitan statistical areas (MSAs) increased 3.6% from the rate in 2013 (458.3 and 474.6 cases per 100,000, respectively) (Table 6). In 2014, 56.9% of chlamydia cases were reported by these MSAs. In these MSAs, the rate among women increased 1.7% during 2013–2014 (623.8 to 634.5 cases per 100,000) (Table 7) and the rate among men increased 8.1% (283.8 to 306.8 cases per 100,000) (Table 8).

Chlamydia by County

Counties in the United States with the highest rates of reported cases of chlamydia were located primarily in the South and West, including Alaska (Figure 4). In 2014, 785 (25.0%) of 3,142 counties had rates higher than 439 cases per 100,000 population. Seventy counties and independent cities reported 43% of all chlamydia cases in 2014 (Table 9).

Chlamydia by Sex

In 2014, 1,006,441 cases of chlamydia were reported among females for a case rate of 627.2 per 100,000 females. During 1995–2011, the rate among females increased each year (Figure 1). During 2011–2013, the rate decreased from 643.4 to 619.0 cases per 100,000 females and during 2013–2014, the rate increased 1.3% to 627.2 cases per 100,000 (Table 4).

After remaining stable during 2012–2013, the overall case rate among males increased (6.8%) during 2013–2014 (260.6 to 278.4 cases per 100,000 males). As in previous years, the reported case rate among females was about two times the case rate among males in 2014, likely reflecting a larger number of women screened for this infection (Figure 1, Tables 4 and 5). The lower rate among men also suggests that many of the sex partners of women with chlamydia are not receiving a diagnosis of chlamydia or being reported as having chlamydia.

However, with the advent of highly sensitive nucleic acid amplification tests (NAATs) that can be performed on urine, chlamydial infection is increasingly being diagnosed in symptomatic and asymptomatic men. During 2010–2014, the rate of reported cases among men increased 22.4% (from 233.2 to 278.4 cases per 100,000 males) compared with a 6.0% increase among women during the same period (from 605.1 to 627.2 cases per 100,000 females).

Chlamydia by Age

Rates of reported cases of chlamydia are highest among adolescents and young adults aged 15–24 years (Table 10). In 2014, the rate among 15–19 year olds was 1,804.0 cases per 100,000 and the rate among 20–24 year olds was 2,484.6 cases per 100,000.

Among women, the highest age-specific rates of reported chlamydia in 2014 were among those aged 15–19 years (2,941.0 cases per 100,000 females) and 20–24 years (3,651.1 cases per 100,000 females) (Figure 5, Table 10). Within these age ranges, reported rates were highest among women aged 19 years (4,640.4 cases per 100,000 females) and aged 20 years (4,567.5 cases per 100,000 females) (Table 12). After increasing steadily during 2000–2011, the rate among women aged 15–19 years decreased 5.6% during 2011–2012, decreased 8.7% during 2012–2013, and decreased 4.2% during 2013–2014. The rate increased among women aged 20–24 years during 2011–2014 (3,630.0 to 3,651.1 per 100,000 females) (Table 10).

Age-specific rates among men, although substantially lower than the rates among women, were highest in those aged 20–24 years (1,368.3 cases per 100,000 males) (Figure 5, Table 10). Similar to trends in women, after increasing for the last decade, reported case rate among men aged 15–19 years decreased 5.1% during 2011–2012 and decreased 9.0% during 2012–2013. Rates among men aged 15–19 years decreased slightly during 2013–2014 (722.9 to 718. 3 per 100,000 males). Among men aged 20–24 years, the reported case rate increased 4.4% during 2013–2014 (1,310.9 to 1,368.3 cases per 100,000 males).

Chlamydia by Race/Ethnicity

Among the 48 states that submitted data in the race and ethnicity categories in 2014 according to Office of Management and Budget (OMB) standards (see Section A1.5 in the Appendix), rates of reported cases of chlamydia were highest among non-Hispanic black men and women (Figure L, Table 11B). The rate of chlamydia among non-Hispanic blacks was 6.2 times the rate among non-Hispanic whites (1,117.9 and 180.6 cases per 100,000 population,

respectively). The rate among American Indians/Alaska Natives (668.8 cases per 100,000) was 3.7 times the rate among whites. The rate among Hispanics (380.6 cases per 100,000) was 2.1 times the rate among whites. The rate among Native Hawaiians/Other Pacific Islanders (625.1 cases per 100,000) was 3.5 times the rate among whites. The rate among Asians was lower than the rate among whites (112.0 cases and 180.6 cases per 100,000, respectively).

During 2010–2014, 43 states submitted chlamydia case report data in the race and ethnicity categories according to the OMB standards (see Section A1.5 in the Appendix). Between 2010–2014, rates increased among all races and ethnicities, except blacks (Figure 6). During 2013–2014, rates increased among whites (2.1%) and Asians (5.2%), and decreased 2.4% among American Indians/Alaska Natives. Rates were stable among blacks, Hispanics, Native Hawaiians/Other Pacific Islanders during 2013–2014 (Figure 6).

More information on chlamydia rates among race/ethnicity groups can be found in the Special Focus Profiles.

Chlamydia by Reporting Source

Most chlamydia cases reported in 2014 were from venues outside of STD clinics (Figure 8 and Table A2). Over time, the proportion of cases reported from non-STD clinic sites has continued to increase (Figure 7). In 2014, among women, only 4.9% of chlamydia cases were reported through an STD clinic (Figure 8). Most cases among women were reported from private physicians/health maintenance organizations (HMOs) (33.6%). Among men, 14.9% of chlamydia cases were reported from an STD clinic in 2014 and 25.0% were reported from private physicians/HMOs.

Chlamydia Prevalence in the Population

The National Health and Nutrition Examination Survey (NHANES; see Section A2.4 in the Appendix for more information) is a nationally representative survey of the U.S. civilian, non-institutionalized population aged 14–39 years that provides an important measure of chlamydia disease burden. During 2007–2012, the overall prevalence of chlamydia among persons aged 14–39 years was 1.7% (95% Confidence Interval [CI]: 1.4–2.0) (Figure 10). Among sexually active females aged 14–24 years, the population targeted for screening, prevalence was 4.7% (95% CI: 3.2–6.1), with highest prevalence among black females (13.5%, 95% CI: 9.2–17.7) (Figure 11).[1]

Chlamydia Positivity in Selected Populations

The STD Surveillance Network (SSuN) is an ongoing collaboration of states and independently funded cities collecting enhanced clinical and behavioral information among patients attending STD clinics in the SSuN jurisdictions. Due to a transition from SSuN Cycle 2 to Cycle 3, data for this report include information from patients attending STD clinics during 2014 in the 6 jurisdictions that overlap cycles. See Section A2.2 of the Appendix for more information about SSuN methodology.

In 2014, the proportion of STD clinic patients testing positive for chlamydia varied by age, sex, and sexual behavior. Adolescent men who have sex with women (MSW) had the highest prevalence (28.4%), either reflecting disproportionate testing of men with urethritis or targeted testing of partners of females diagnosed with chlamydia. Prevalence among all those tested decreased with age, though the variation in prevalence by age was not as pronounced for gay, bisexual, and other men who have sex with men (MSM) (Figure 9).

Chlamydia Among Special Populations

More information on chlamydia among women of reproductive age, adolescents and young adults, MSM, and minority populations is presented in the Special Focus Profiles.

Chlamydia Summary

Chlamydia continues to be the most commonly reported nationally notifiable disease with 1,441,789 cases reported in 2014. During 2013–2014, rates of reported chlamydia increased 2.8% overall, but decreased 4.2% among females aged 15–19 years. However, both test positivity and the number of reported cases of *C. trachomatis* infections remain high among most age groups, racial/ethnic groups, geographic areas, and both sexes. Racial differences also persist; reported case rates and prevalence estimates among blacks continue to be substantially higher than among other racial/ethnic groups.

1 Torrone E, Papp J, Weinstock H; Centers for Disease Control and Prevention (CDC). Prevalence of *Chlamydia trachomatis* genital infection among persons aged 14-39 years--United States, 2007-2012. MMWR Morb Mortal Wkly Rep. 2014 Sep 26;63(38):834-8.

2 Hogben M, Leichliter JS. Social determinants and sexually transmitted disease disparities. Sex Transm Dis. 2008 Dec;35(12 Suppl):S13-8.

3 Scholes D, Stergachis A, Heidrich FE, Andrilla H, Holmes KK, Stamm WE. Prevention of pelvic inflammatory disease by screening for cervical chlamydial infection. N Engl J Med 1996;34(21):1362-6.

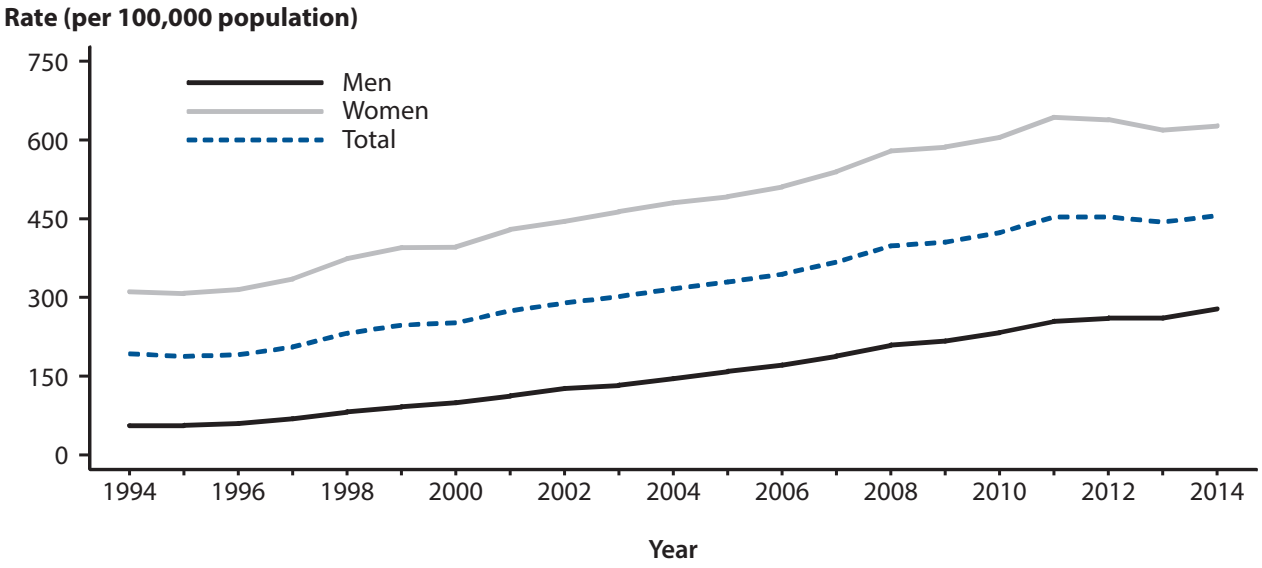
4 Oakeshott P, Kerry S, Aghaizu A, Atherton H, Hay S, Taylor-Robinson D, et al. Randomised controlled trial of screening for *Chlamydia trachomatis* to prevent pelvic inflammatory disease: the POPI (prevention of pelvic infection) trial. BMJ. 2010;340:c1642. doi: 10.1136/bmj.c1642.

5 Fleming DT, Wasserheit JN. From epidemiological synergy to public health policy and practice: the contribution of other sexually transmitted diseases to sexual transmission of HIV infection. Sex Transm Infect. 1999;75:3-17.

6 Centers for Disease Control and Prevention. Sexually transmitted diseases treatment guidelines, MMWR Morb Mortal Wkly Rep.2010; No.59(RR-12):1-110. Erratum in: MMWR Recomm Rep. 2011;60(1):18.

7 National Committee for Quality Assurance. The state of healthcare quality 2014. Washington (DC): National Committee for Quality Assurance; 2014. p. 68-69.

Figure 1. Chlamydia — Rates of Reported Cases by Sex, United States, 1994–2014



NOTE: As of January 2000, all 50 states and the District of Columbia have regulations that require the reporting of chlamydia cases.

Figure 2. Chlamydia — Rates of Reported Cases by Region, United States, 2005–2014

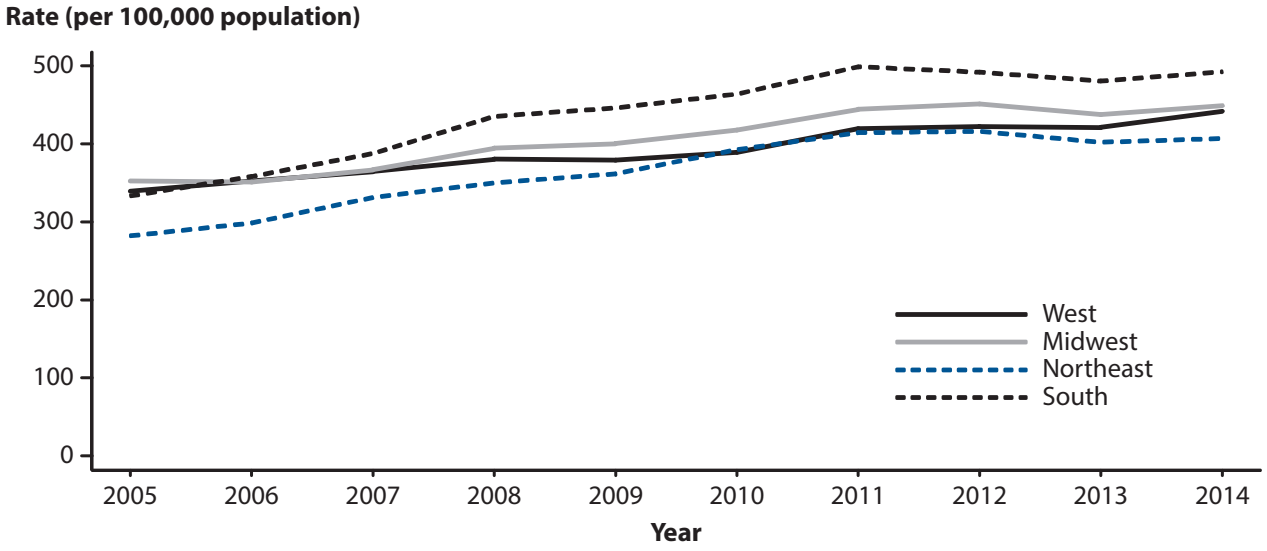
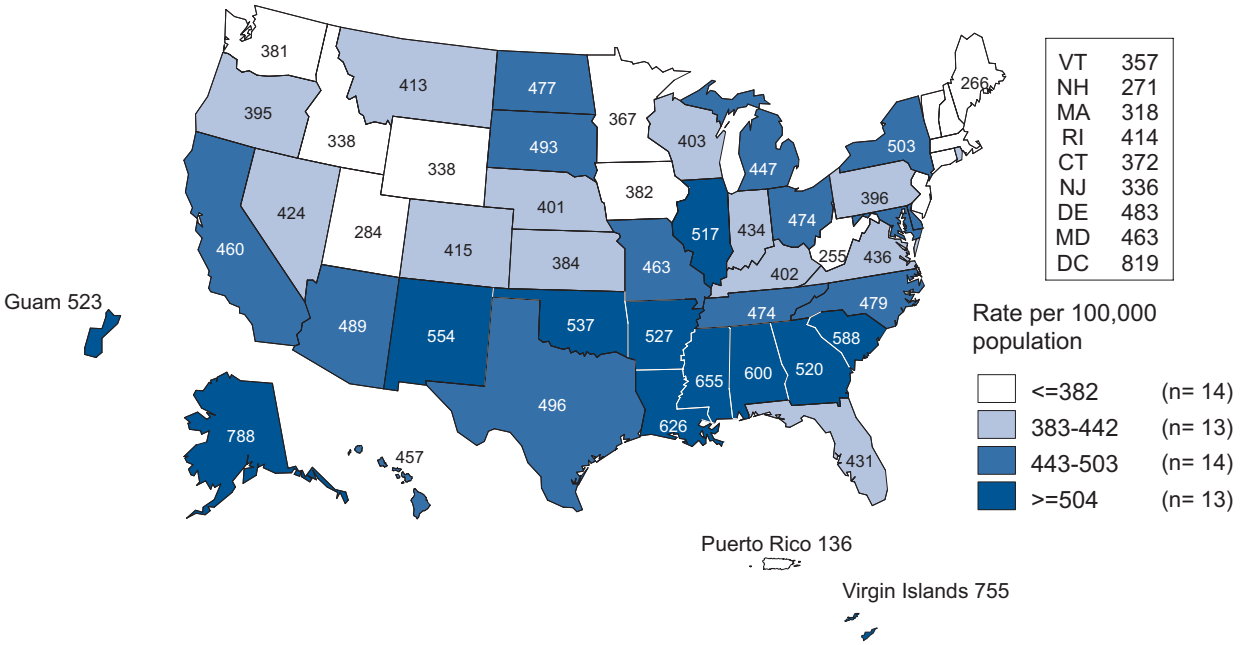


Figure 3. Chlamydia — Rates of Reported Cases by State, United States and Outlying Areas, 2014



NOTE: The total rate of reported cases of chlamydia for the United States and outlying areas (Guam, Puerto Rico, and Virgin Islands) was 452.6 per 100,000 population.

Figure 4. Chlamydia — Rates of Reported Cases by County, United States, 2014

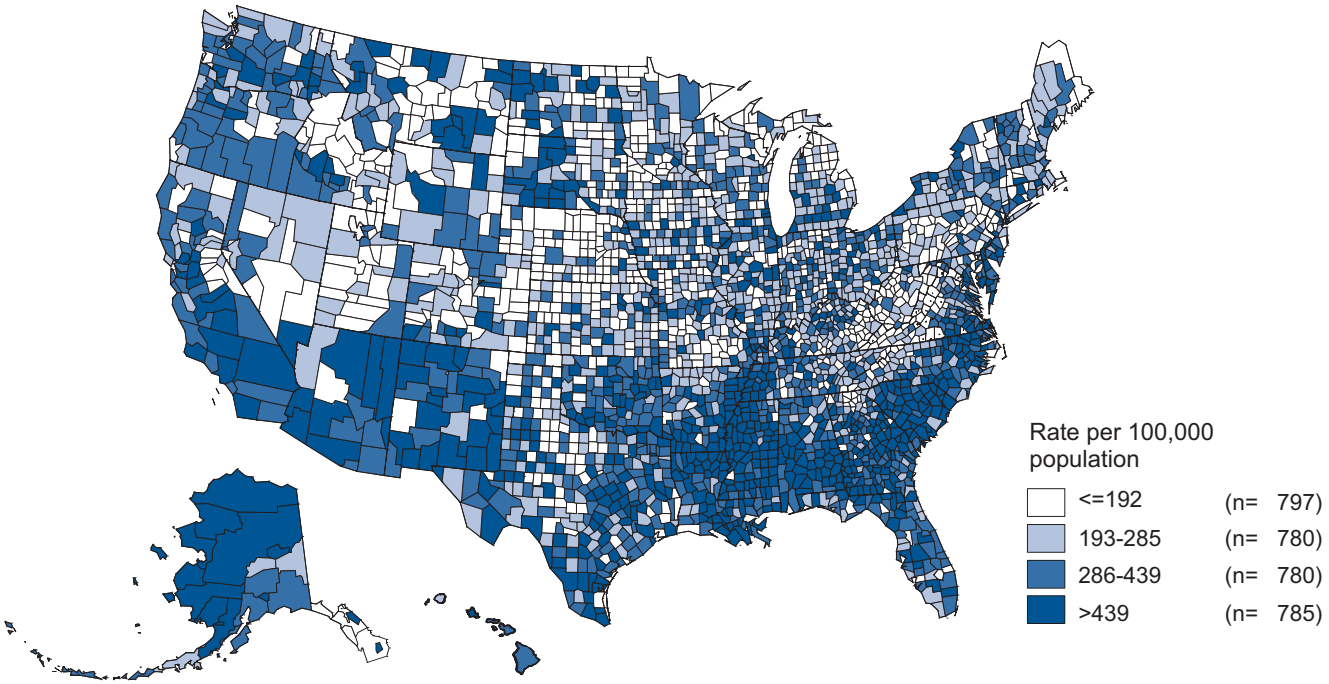


Figure 5. Chlamydia — Rates of Reported Cases by Age and Sex, United States, 2014

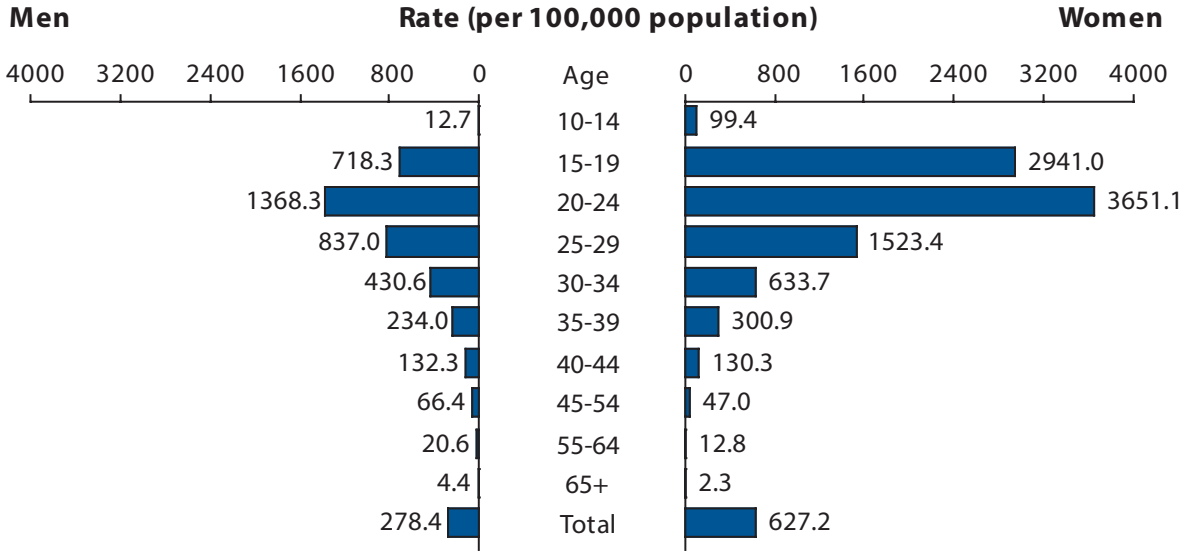
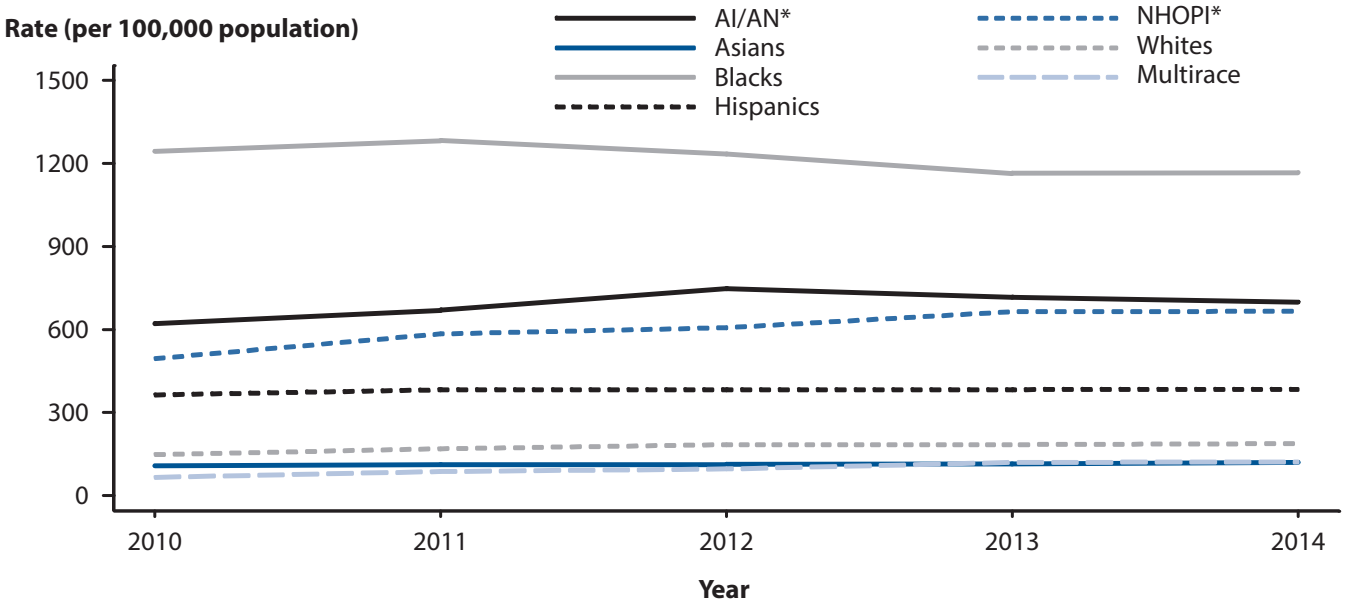


Figure 6. Chlamydia — Rates of Reported Cases by Race/Ethnicity, United States, 2010–2014



* AI/AN = American Indians/Alaska Natives; NHOPI = Native Hawaiians/Other Pacific Islanders.
NOTE: Includes 43 states reporting race/ethnicity data in Office of Management and Budget compliant formats during 2010–2014 (see Section A1.5 in the Appendix).

Figure 7. Chlamydia — Reported Cases by Reporting Source and Sex, United States, 2005–2014

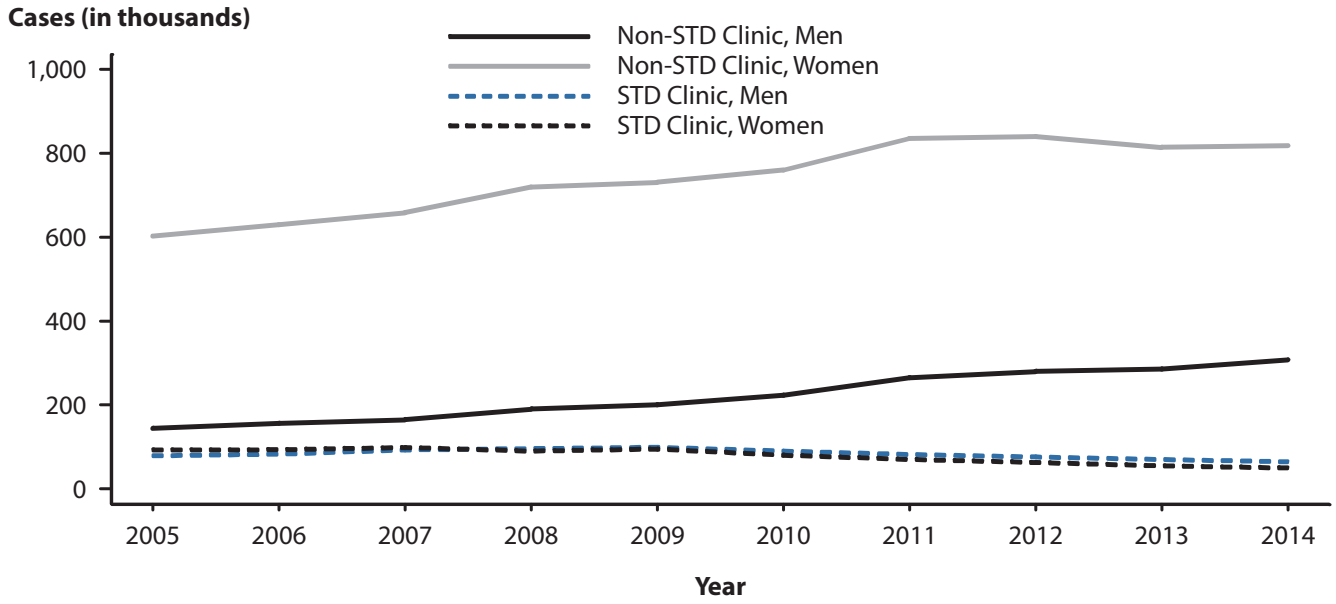
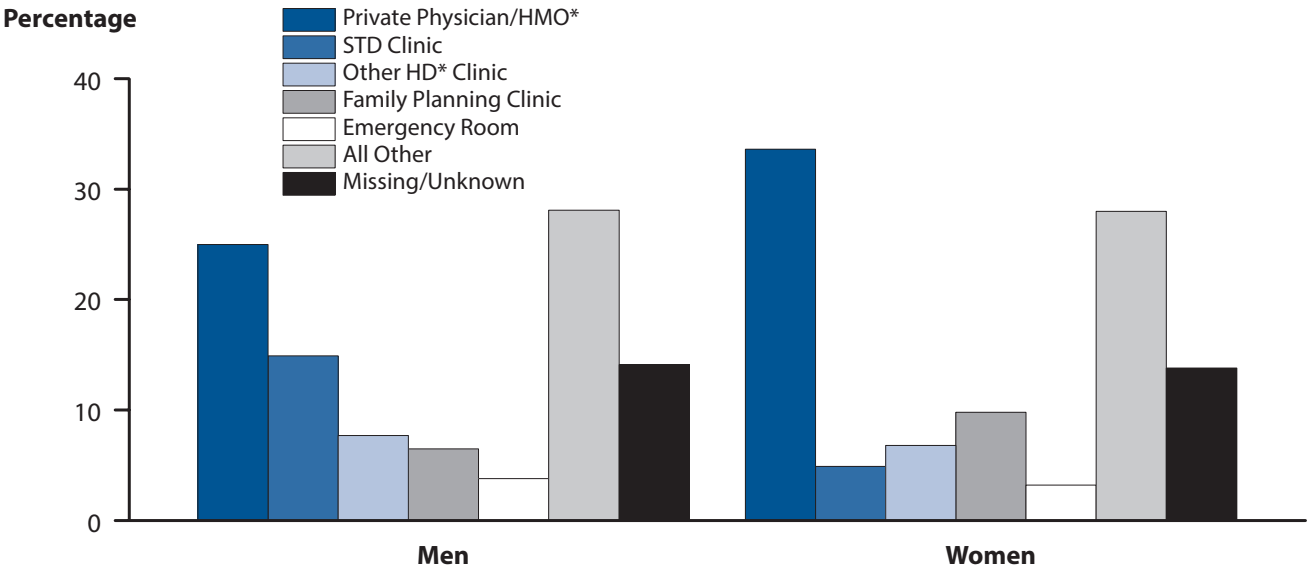
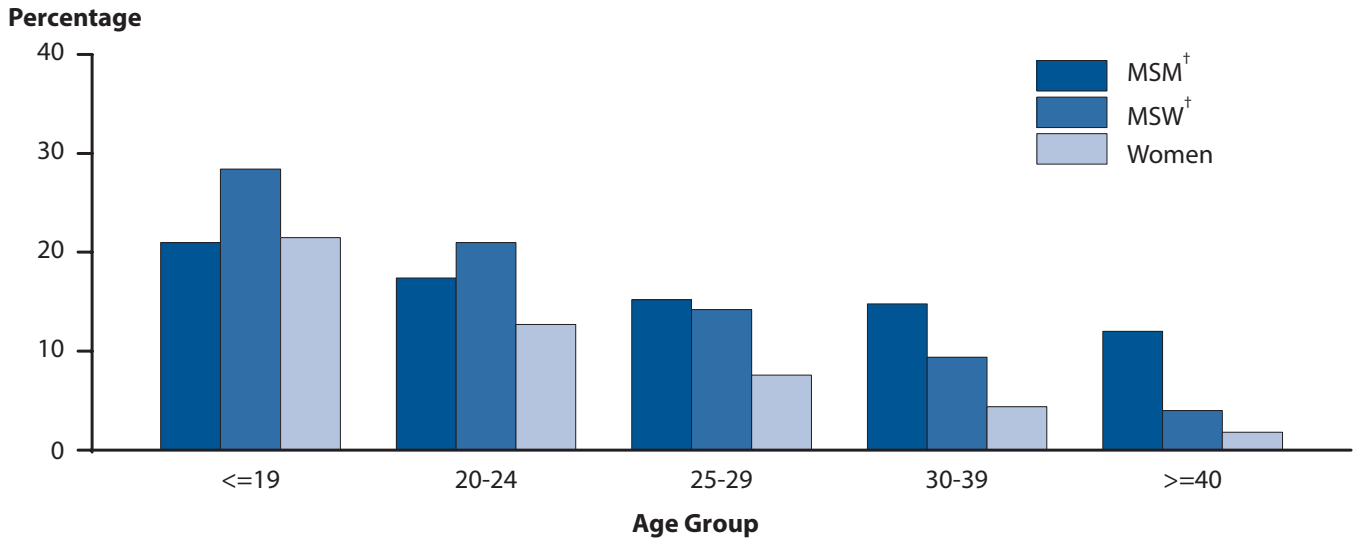


Figure 8. Chlamydia — Percentage of Reported Cases by Sex and Selected Reporting Sources, United States, 2014



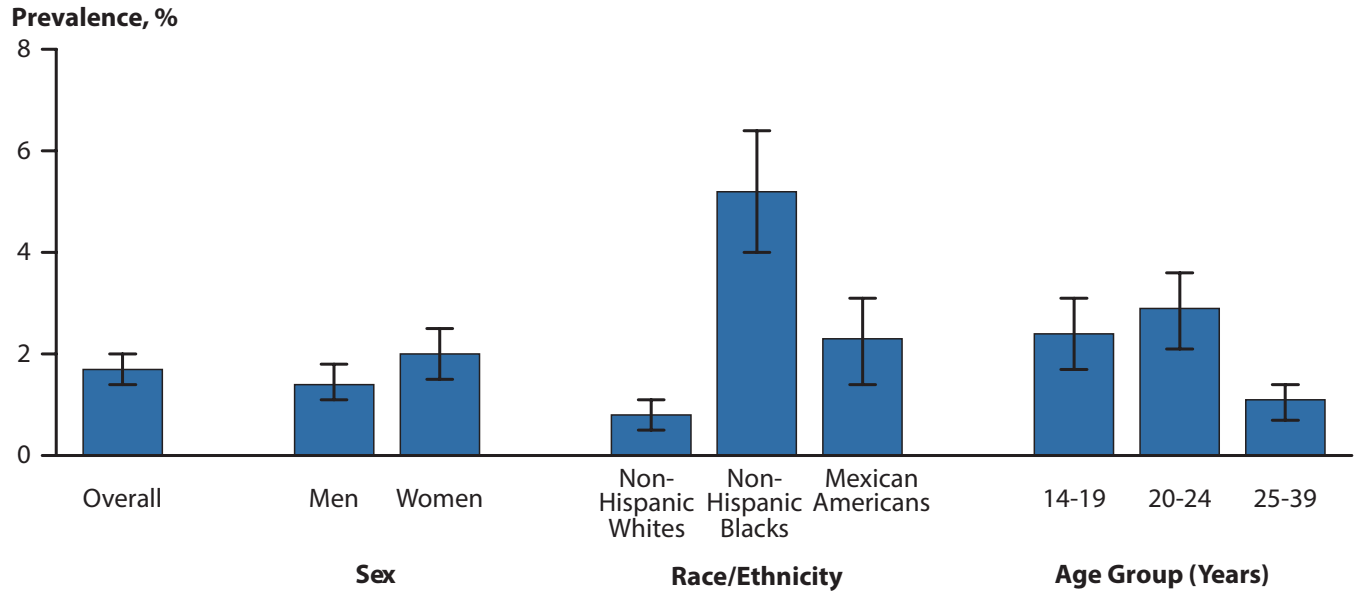
* HMO = health maintenance organization; HD = health department.
NOTE: Other includes: Drug Treatment, Tuberculosis Clinic, Correctional Facility, Laboratory, Blood Bank, Labor and Delivery, Prenatal Care, National Job Training Program, School-based Clinic, Mental Health Provider, Other Hospital, Indian Health Service, Military, and HIV Counseling and Testing Site

Figure 9. Chlamydia — Proportion of STD Clinic Patients* Testing Positive by Age, Sex, and Sexual Behavior, STD Surveillance Network (SSuN), 2014



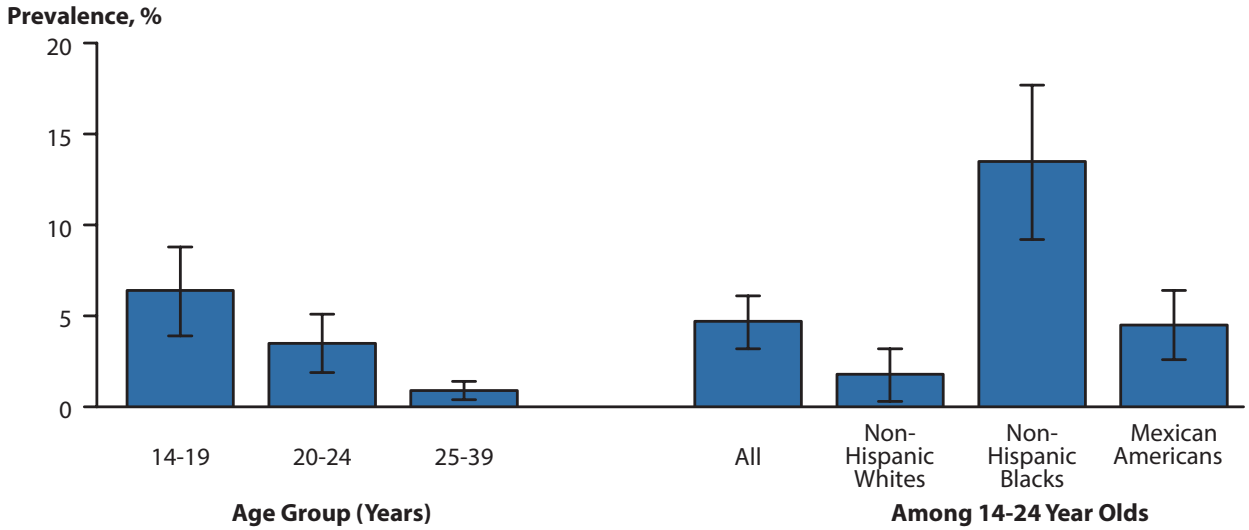
* Only includes patients tested for chlamydia.
† MSM = men who have sex with men; MSW = men who have sex with women only.
NOTE: Includes the six jurisdictions (Baltimore, Los Angeles, New York City, Philadelphia, San Francisco and Seattle) that contributed data for all of 2014.

Figure 10. Chlamydia — Prevalence Among Persons Aged 14–39 Years by Sex, Race/Ethnicity, or Age, National Health and Nutrition Examination Survey, 2007–2012



NOTE: Error bars indicate 95% confidence intervals.
SOURCE: Torrone E, Papp J, Weinstock H; Centers for Disease Control and Prevention (CDC). Prevalence of *Chlamydia trachomatis* genital infection among persons aged 14-39 years —United States, 2007-2012. MMWR Morb Mortal Wkly Rep. 2014 Sep 26;63(38):834-8.

Figure 11. Chlamydia — Prevalence Among Sexually-Active Women Aged 14–39 Years by Race/Ethnicity and Age, National Health and Nutrition Examination Survey, 2007–2012



NOTE: Error bars indicate 95% confidence intervals.
SOURCE: Torrone E, Papp J, Weinstock H; Centers for Disease Control and Prevention (CDC). Prevalence of *Chlamydia trachomatis* genital infection among persons aged 14-39 years—United States, 2007-2012. MMWR Morb Mortal Wkly Rep. 2014 Sep 26;63(38):834-8.

Gonorrhea

Background

Gonorrhea is the second most commonly reported notifiable disease in the United States. Infections due to *Neisseria gonorrhoeae*, like those resulting from *Chlamydia trachomatis*, are a major cause of pelvic inflammatory disease (PID) in the United States. PID can lead to serious outcomes in women, such as tubal infertility, ectopic pregnancy, and chronic pelvic pain. In addition, epidemiologic and biologic studies provide evidence that gonococcal infections facilitate the transmission of HIV infection.[1] Together sexual behavior and community prevalence can increase the risk of acquiring gonorrhea. Social determinants of health, such as socioeconomic status, discrimination, and access to quality health care, may contribute to the burden of gonorrhea in a community.[2]

In 2009, the national rate of reported gonorrhea cases reached an historic low of 98.1 cases per 100,000 population (Figure 12 and Table 1). However, during 2009–2012, the rate increased slightly each year, to 106.7 cases per 100,000 population in 2012. In 2013, the rate decreased slightly to 105.3 cases per 100,000 population. In 2014, a total of 350,062 gonorrhea cases were reported, and the national gonorrhea rate increased to 110.7 cases per 100,000 population.

The increase in gonorrhea rate during 2013–2014 was observed primarily among men (Figure 13). Overall, the gonorrhea rate increased in the South and the West, but decreased in the Northeast and Midwest (Figure 14). The rate increased among persons aged 20–24 years and in older age groups, but decreased among younger age groups (Table 21).

N. gonorrhoeae has progressively developed resistance to each of the antimicrobials used for treatment of gonorrhea. Most recently, declining susceptibility to cefixime (an oral cephalosporin antibiotic) resulted in a change to the CDC treatment guidelines, so that dual therapy with ceftriaxone (an injectable cephalosporin) and azithromycin is now the only CDC-recommended treatment regimen for gonorrhea.[3] The emerging threat of cephalosporin resistance highlights the need for continued surveillance of *N. gonorrhoeae* antimicrobial susceptibility.

The combination of persistently high gonorrhea morbidity in some populations and the threat of cephalosporin-resistant gonorrhea reinforces the need to better understand the epidemiology of gonorrhea.

Interpreting Rates of Reported Cases of Gonorrhea

Although gonorrhea case reporting is useful for monitoring disease trends, the number of gonorrhea cases reported to CDC is affected by many factors in addition to the actual occurrence of the infection within the population. Changes in the burden of gonorrhea may be masked by changes in screening practices (e.g., screening for chlamydia with tests that also detect *N. gonorrhoeae* infections or increased screening at extra-genital anatomic sites), the use of diagnostic tests with different test performance (e.g., the broader use of nucleic acid amplification tests [NAATs]), and changes in reporting practices. As with other STDs, the reporting of gonorrhea cases to CDC is incomplete.[4] For these reasons, supplemental data on gonorrhea prevalence in persons screened in a variety of settings are useful in assessing the burden of disease in selected populations.

Gonorrhea — United States

In 2014, a total of 350,062 cases of gonorrhea were reported in the United States, yielding a rate of 110.7 cases per 100,000 population (Table 1). The rate increased 5.1% since 2013, and increased 10.5% since 2010.

Gonorrhea by Region

In 2014, as in previous years, the South had the highest rate of reported gonorrhea cases (131.4 cases per 100,000 population) among the four regions of the United States, followed by the Midwest (106.6 cases per 100,000 population), West (101.1 cases per 100,000 population), and Northeast (84.7 cases per 100,000 population) (Table 14). During 2013–2014, the gonorrhea rate increased 22.2% in the West and 3.1% in the South, but decreased 1.5% in the Midwest and 0.6% in the Northeast (Figure 14, Table 14).

Gonorrhea by State

In 2014, rates of reported gonorrhea cases per 100,000 population ranged by state from 13.4 in Vermont to 194.6 in Louisiana; the gonorrhea rate in the District of Columbia was 291.3 per 100,000 population (Figure 15, Table 13). During 2013–2014, gonorrhea rates increased in 70% (35/50) of states, and decreased in 30% (15/50) of states and the District of Columbia (Table 14).

Gonorrhea by Metropolitan Statistical Area

The overall rate of reported gonorrhea cases in the 50 most populous metropolitan statistical areas (MSAs) was 122.8 cases per 100,000 population in 2014 (Table 17), representing a 5.0% increase compared with 2013 (117.0 cases per 100,000 population). In 2014, 60.6% of reported gonorrhea cases were reported by these MSAs. Since 2010, the gonorrhea rate among women in the 50 most populous MSAs has been lower than the rate among men (Tables 18 and 19). In 2014, the rate among women in these MSAs was 102.0 cases per 100,000 females, while the rate among men was 144.1 cases per 100,000 males.

Gonorrhea by County

In 2014, 50% of reported gonorrhea cases occurred in just 70 counties or independent cities (Table 20). In 2014, 792 counties (25.2%) in the United States had a rate less than or equal to 13 cases per 100,000 population (Figure 16). The rate ranged from 14 to 36 per 100,000 population in 791 counties (25.2%), ranged from 37 to 91 per 100,000 population in 777 counties (24.7%), and was more than 91 cases per 100,000 population in 782 counties (24.9%). As in previous years, counties with the highest gonorrhea rates were concentrated in the South.

Gonorrhea by Sex

As was observed in 2013, in 2014 the rate of reported gonorrhea cases among men (120.1 cases per 100,000 males) was higher than the rate among women (101.3 cases per 100,000 females) (Figure 13, Tables 15 and 16). During 2013–2014, the gonorrhea rate among men increased 10.5%, and the rate among women decreased 0.4%. During 2010–2014, the rate among men increased 27.9%, while the rate among women decreased 4.1%. The magnitude of the increase among men compared with a decrease among women suggests either increased transmission or increased case ascertainment (e.g., through increased extra-genital screening) among gay, bisexual, and other men who have sex with men (collectively referred to as MSM). However, most jurisdictions do not routinely report sex of sex partner or site of infection for gonorrhea cases, so trends in gonorrhea rates among MSM over time cannot be assessed.

Gonorrhea by Region and Sex

During 2013–2014 in the West, the rate of reported gonorrhea cases increased among men (25.7%) and among women (16.9%) (Tables 15 and 16). Similarly, in the South, the rate of reported gonorrhea cases increased both among men (6.2%) and among women (0.6%). In contrast, in the Northeast and Midwest, the gonorrhea rate increased among men (increased 8.9% in the Northeast, 4.2% in the Midwest), but decreased among women (decreased 12.0% in the Northeast, 6.5% in the Midwest).

Gonorrhea by Age

In 2014, rates of reported gonorrhea cases continued to be highest among adolescents and young adults (Figure 17, Table 21). In 2014, the highest rates among women were observed among those aged 20–24 years (533.7 cases per 100,000 females) and 15–19 years (430.5 cases per 100,000 females). Among men, the rate was highest among those aged 20–24 years (485.6 cases per 100,000 males) and 25–29 years (370.5 cases per 100,000 males).

In 2014, persons aged 15–44 years accounted for 93.2% of reported gonorrhea cases with known age. During 2013–2014, the gonorrhea rate decreased 5.0% among those aged 15–19 years (Table 21). However, the gonorrhea rate increased 2.8% among those aged 20–24 years, 12.1% among those aged 25–29 years, 12.7% among those aged 30–34 years, 15.3% among those aged 35–39 years, and 7.4% among those aged 40–44 years.

Among women aged 15–44 years, the rate decreased among those aged 15–19 years and 20–24 years, but increased in older age groups during 2013–2014 (Figure 18). Among men aged 15–44 years, the rate decreased among those aged 15–19 years, but increased in those aged 20–24 years and in older age groups during 2013–2014 (Figure 19).

Gonorrhea by Race/Ethnicity

In 2014, among the 48 states that submitted data in the race and ethnicity categories according to Office of Management and Budget (OMB) standards (see Section A1.5 in the Appendix), the rate of reported gonorrhea cases remained highest among blacks (405.4 cases per 100,000 population) (Table 22B). The rate among blacks was 10.6 times the rate among whites (38.3 cases per 100,000 population). The gonorrhea rate among American Indians/Alaska Natives (159.4 cases per 100,000 population) was 4.2 times that of whites, the rate among Native Hawaiians/Other Pacific Islanders (102.1 cases per 100,000 population) was 2.7 times that of whites, the rate among Hispanics (73.3 cases per 100,000 population) was 1.9 times that of whites, and the rate among Asians (19.3 cases per 100,000 population) was 0.5 times that of whites.

During 2010–2014, among the 43 states that submitted race and ethnicity data according to OMB standards (see Section A1.5 in the Appendix) for all five years during

that period, the gonorrhea rate increased among American Indians/Alaska Natives (100.3%), whites (59.3%), Hispanics (51.2%), Asians (45.3%), and Native Hawaiians/Other Pacific Islanders (44.2%) (Figure 20). During this same time period, the gonorrhea rate decreased 8.2% among blacks.

More information on gonorrhea rates among race/ethnicity groups can be found in the Special Focus Profiles.

Gonorrhea by Reporting Source

The number of gonorrhea cases reported by STD clinics declined during 2005–2014 (Figure 21). In 2014, 15.1% of gonorrhea cases with known reporting source were reported by STD clinics (Table A2). This is a decrease from 2013, when 16.3% of gonorrhea cases were reported by STD clinics. In 2014, among women, private physicians or health maintenance organizations (HMOs) (25.1%) were the most common reporting source, followed by family planning clinics (8.5%), STD clinics (8.2%), other health department clinics (6.6%), and emergency rooms (5.5%) (Figure 22). Among men, private physicians/HMOs (20.5%) and STD clinics (17.2%) were the most common reporting sources. Other reporting sources for men included other health department clinics (8.7%), emergency rooms (5.9%), and family planning clinics (4.7%).

STD Surveillance Network

The STD Surveillance Network (SSuN) is an ongoing collaboration of states and independently funded cities collecting enhanced information on a representative sample of gonorrhea case reports received from all reporting sources in their jurisdiction. Enhanced gonorrhea case report data for this report were obtained from Cycle 2 of SSuN, which included 12 sites collecting data through June 2013. These data for 2014 are not yet available due to transition to SSuN Cycle 3, which includes different sites and new data collection protocols. Subsequent cycles of SSuN will continue to provide more complete estimates of case characteristics often missing on routine case reports, such as gender of sex partners, which is essential for better targeting of gonorrhea control efforts. Between January 1 and June 30, 2013, SSuN cycle 2 collaborators interviewed 3,121 gonorrhea cases representing 8.1% of total morbidity reported from participating jurisdictions during that time period. The estimated burden of disease represented by MSM, men who have sex with women only (MSW), and women varied substantially across collaborating sites (Figure 23). San Francisco County had the highest proportion of estimated MSM cases (82.6%), while the lowest proportion of morbidity estimated to be attributed to MSM was found in Virginia at 13.0%. Across collaborating jurisdictions in 2013, 27.4% of gonorrhea cases were estimated to be among MSM, 30.5% among MSW, and 42.1% among women.

Enhanced clinical and behavioral information is also collected among patients attending STD clinics in SSuN jurisdictions. Clinic data for this report include information from patients attending STD clinics during 2014 in the 6 SSuN jurisdictions that were in both Cycle 2 and Cycle 3. In 2014, the proportion of STD clinic patients who tested positive for gonorrhea varied by age, sex, and sex of sex partner (Figure 24). Among those attending these clinics, MSM disproportionately have higher positivity rates when compared to MSW and women, especially among adolescent MSM ≤19 years of age (29.0%). Positivity rates decline with increasing age for MSM, MSW, and women.

Additional information about SSuN methodology can be found in Section A2.2 of the Appendix.

Gonococcal Isolate Surveillance Project

Antimicrobial resistance remains an important consideration in the treatment of gonorrhea.[3,5–7] In 1986, the Gonococcal Isolate Surveillance Project (GISP), a national sentinel surveillance system, was established to monitor trends in antimicrobial susceptibilities of urethral *N. gonorrhoeae* strains in the United States.[7] Data are collected from selected STD clinic sentinel sites and from regional laboratories (Figure 25).

Antimicrobial susceptibility is measured by the minimum inhibitory concentration (MIC), the lowest antimicrobial concentration that inhibits bacterial growth in the laboratory. Increases in MICs demonstrate that the bacteria can survive at higher antimicrobial concentrations in the laboratory. Monitoring of MIC trends is useful because increasing MICs can oftentimes be an early indicator of the emergence of antimicrobial resistance.

Information on the antimicrobial susceptibility criteria used in GISP can be found in the Section A2.3 in the Appendix. More information about GISP and additional data can be found at http://www.cdc.gov/std/GISP.

Ceftriaxone Susceptibility

Susceptibility testing for ceftriaxone began in 1987. During 2006–2014, the percentage of GISP isolates that exhibited elevated ceftriaxone MICs, defined as ≥0.125 µg/ml, fluctuated between 0.1% and 0.4% (Figure 26).

Five isolates with decreased ceftriaxone susceptibility (MIC = 0.5 µg/ml) have been previously identified in GISP: one from San Diego, California (1987), two from

Cincinnati, Ohio (1992 and 1993), one from Philadelphia, Pennsylvania (1997), and one from Oklahoma City, Oklahoma (2012).

Cefixime Susceptibility

Susceptibility testing for cefixime began in 1992, was discontinued in 2007, and was restarted in 2009. The percentage of isolates with elevated cefixime MICs (≥0.25µg/ml) declined from 1.4% in 2010 and 2011 to 0.4% in 2013 (Figure 27); in 2014, the percentage was 0.8%.

Azithromycin Susceptibility

Susceptibility testing for azithromycin began in 1992. Figure 28 displays the distribution of azithromycin MICs among GISP isolates collected during 2010–2014. Most isolates had MICs of 0.125–0.5 µg/ml. From 2010–2013, the percentage of isolates with reduced azithromycin susceptibility (MICs ≥ 2 µg/ml) ranged from 0.3% to 0.6%; between 2013 and 2014, the percentage increased from 0.6% to 2.5%.

Spectinomycin Susceptibility

All isolates were susceptible to spectinomycin in 2014. A spectinomycin-resistant isolate was last identified in GISP in 1994 (West Palm Beach, Florida).

Ciprofloxacin Susceptibility

During 1999–2007, the prevalence of ciprofloxacin increased from 0.4% to 14.8%. The prevalence declined in 2008 and 2009 and then increased. In 2014, 19.2% of GISP isolates were resistant to ciprofloxacin. Among isolates from MSM, 29.7% were resistant; 12.7% of isolates from MSW exhibited ciprofloxacin resistance.

Susceptibility to Other Antimicrobials

In 2014, 37.0% of isolates collected from GISP sites were resistant to penicillin, tetracycline, ciprofloxacin, or some combination of those antimicrobials (Figure 29). Although these antimicrobials are no longer recommended for treatment of gonorrhea, the resistance phenotypes remain common. Conversely, 63.0% of isolates were susceptible to all three of these antimicrobials.

Antimicrobial Treatments Given for Gonorrhea

The antimicrobial agents given to GISP patients for gonorrhea therapy are shown in Figure 30. The proportion of patients treated with ceftriaxone 250 mg increased from 84.0% in 2011 to 96.9% in 2013. In 2014, 93.7% of patients were treated with ceftriaxone 250 mg, 1.9% of patients were treated with azithromycin 2 grams as monotherapy, and 1 patient (<0.1%) was treated with cefixime.

Gonorrhea Among Special Populations

More information about gonorrhea in race/ethnicity groups, women of reproductive age, adolescents, and MSM can be found in the Special Focus Profiles.

Gonorrhea Summary

The national rate of reported gonorrhea cases reached an historic low in 2009, but increased each year during 2009–2012. After a temporary decrease in 2013, the gonorrhea rate increased again in 2014. This increase was largely attributable to an increase among men. High gonorrhea rates persist in certain geographic areas, among adolescents and young adults, and in some racial/ ethnic groups.

GISP continues to monitor for the emergence of decreased susceptibility and resistance to cephalosporins and azithromycin.

[1] Fleming DT, Wasserheit JN. From epidemiological synergy to public health policy and practice: the contribution of other sexually transmitted diseases to sexual transmission of HIV infection. Sex Transm Infect 1999; 75(1): 3–17.

[2] Hogben M, Leichliter JS. Social determinants and sexually transmitted disease disparities. Sex Transm Dis. 2008 Dec; 35(12 Suppl):S13-8.

[3] Centers for Disease Control and Prevention. Sexually transmitted diseases treatment guidelines, 2015. MMWR Morb Mortal Wkly Rep 2015; 64(No. RR-3): 1–137.

[4] Satterwhite CL, Torrone E, Meites E, et al. Sexually transmitted infections among US women and men: prevalence and incidence estimates, 2008. Sex Transm Dis 2013; 40(3): 187–193.

[5] Centers for Disease Control and Prevention. Update to CDC's sexually transmitted diseases treatment guidelines, 2006: fluoroquinolones no longer recommended for treatment of gonococcal infections. MMWR Morb Mortal Wkly Rep 2007; 56: 332–336.

[6] Centers for Disease Control and Prevention. Sexually transmitted diseases treatment guidelines, 2010. MMWR Recomm Rep 2010; 59(No.RR-12): 1–110.

[7] Schwarcz S, Zenilman J, Schnell D, et al. National surveillance of antimicrobial resistance in *Neisseria gonorrhoeae*. JAMA 1990; 264: 1413–1417.

Figure 12. Gonorrhea — Rates of Reported Cases by Year, United States, 1941–2014

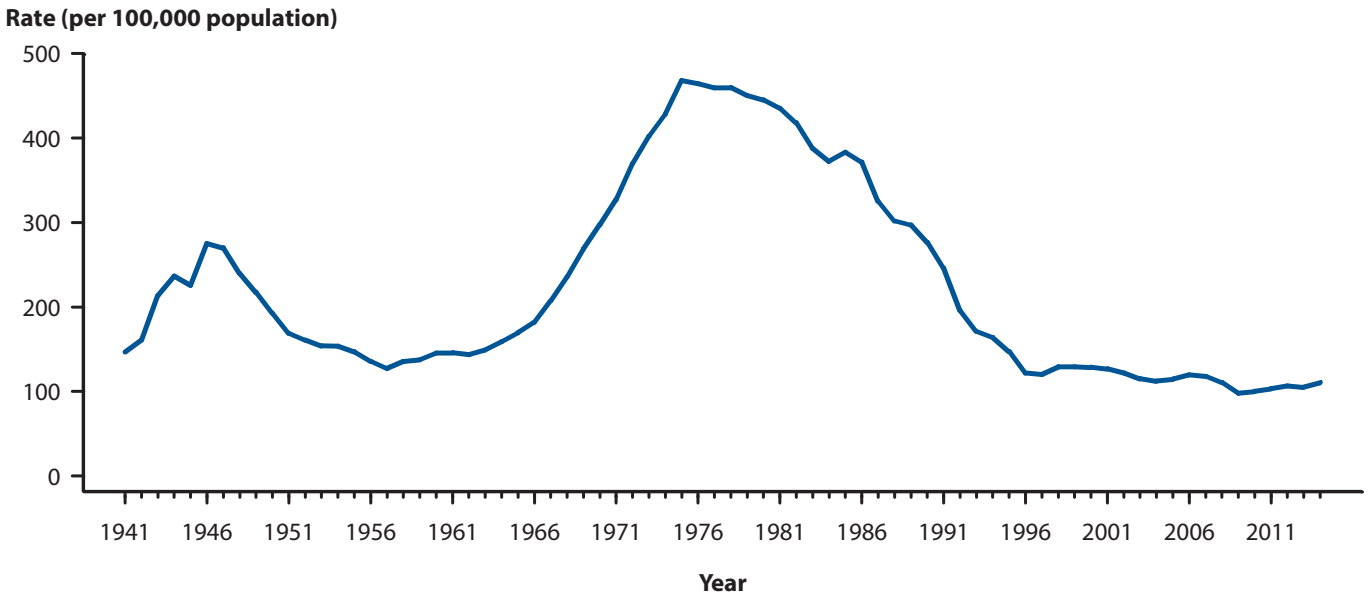


Figure 13. Gonorrhea — Rates of Reported Cases by Sex, United States, 1994–2014

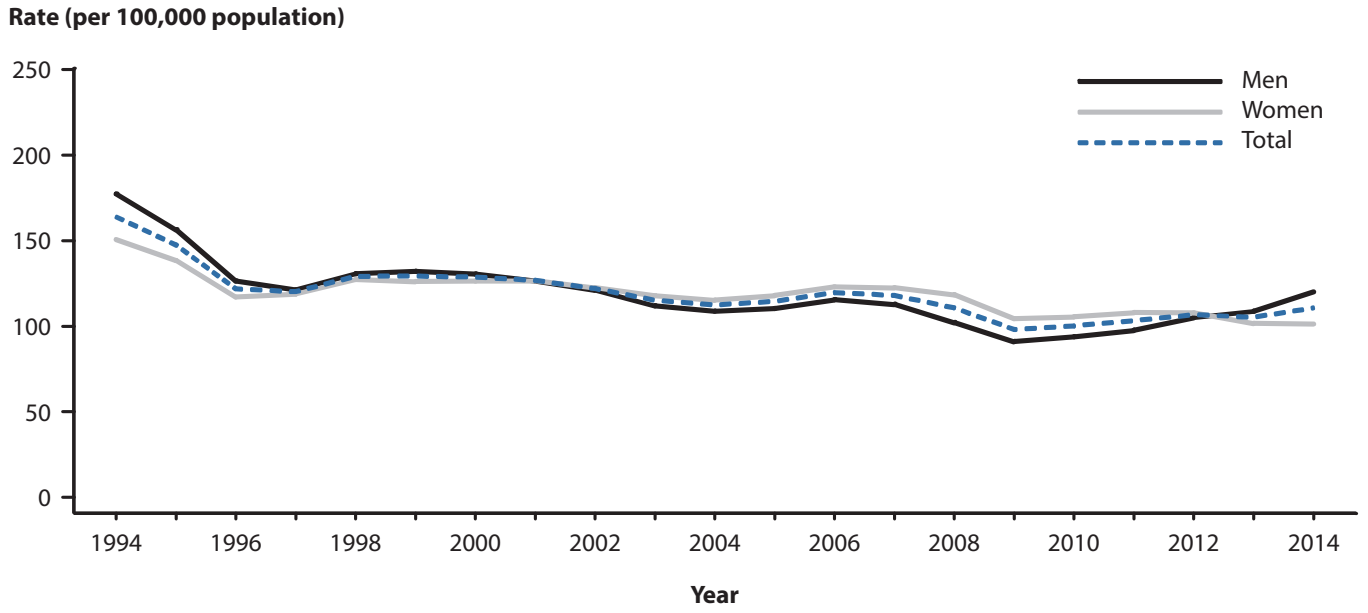


Figure 14. Gonorrhea — Rates of Reported Cases by Region, United States, 2005–2014

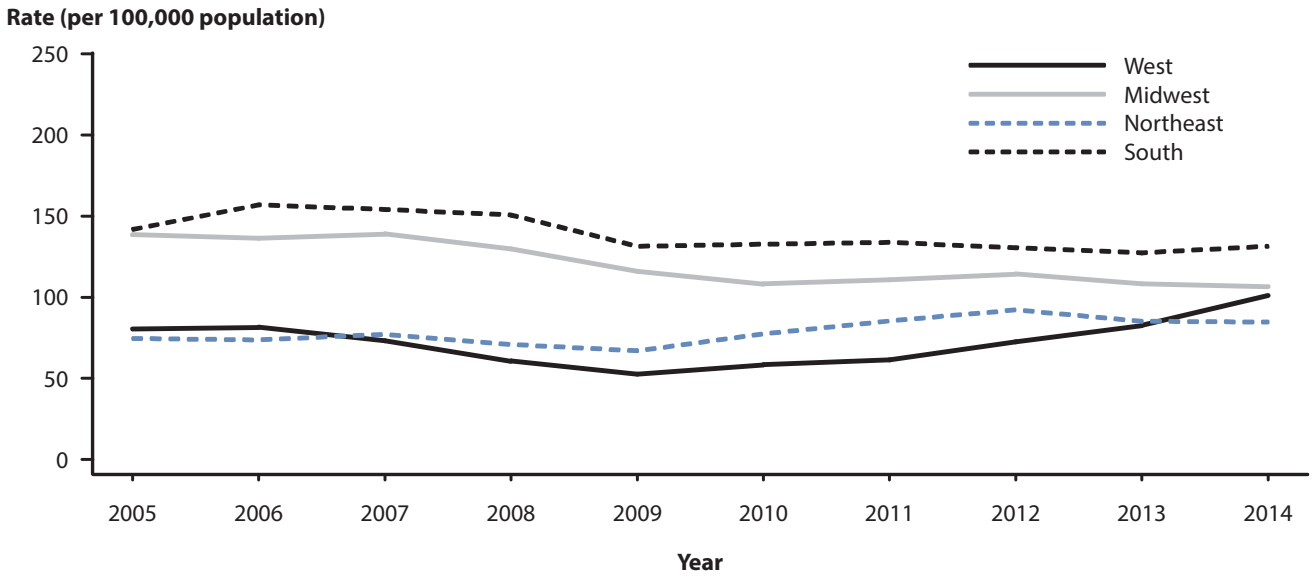
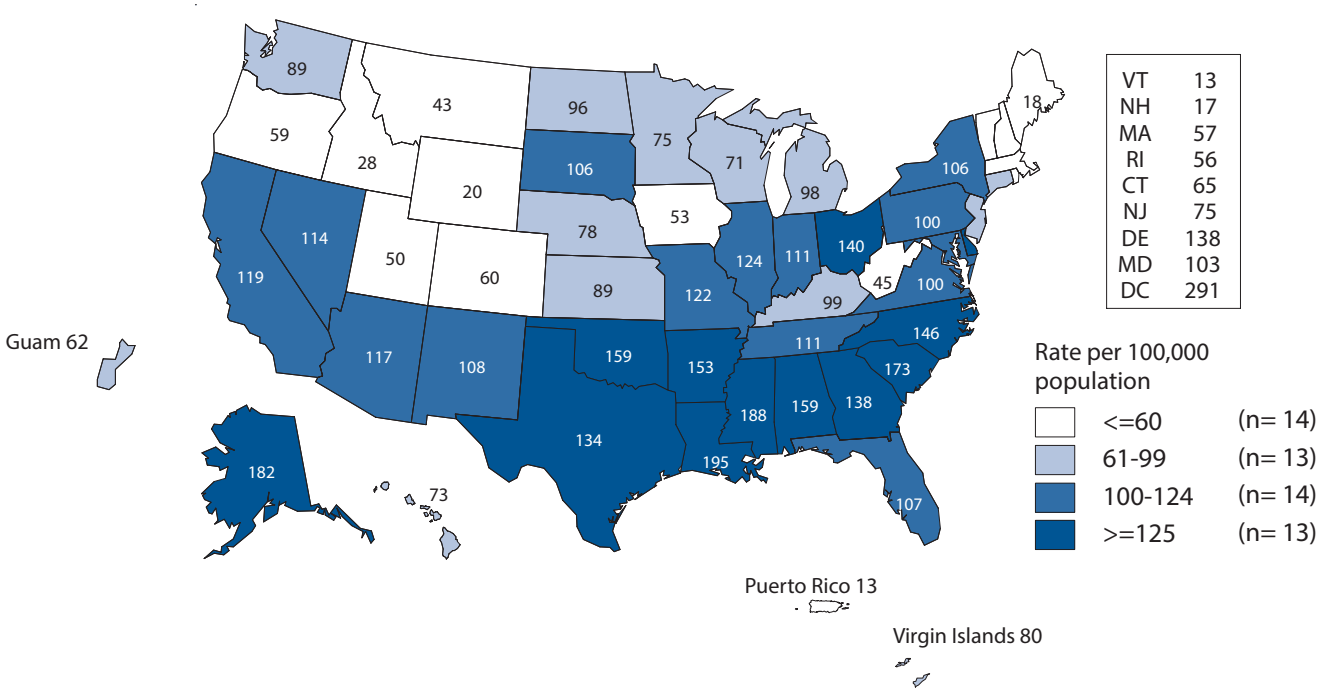


Figure 15. Gonorrhea — Rates of Reported Cases by State, United States and Outlying Areas, 2014



NOTE: The total rate of reported cases of gonorrhea for the United States and outlying areas (Guam, Puerto Rico, and Virgin Islands) was 109.6 per 100,000 population.

Figure 16. Gonorrhea — Rates of Reported Cases by County, United States, 2014

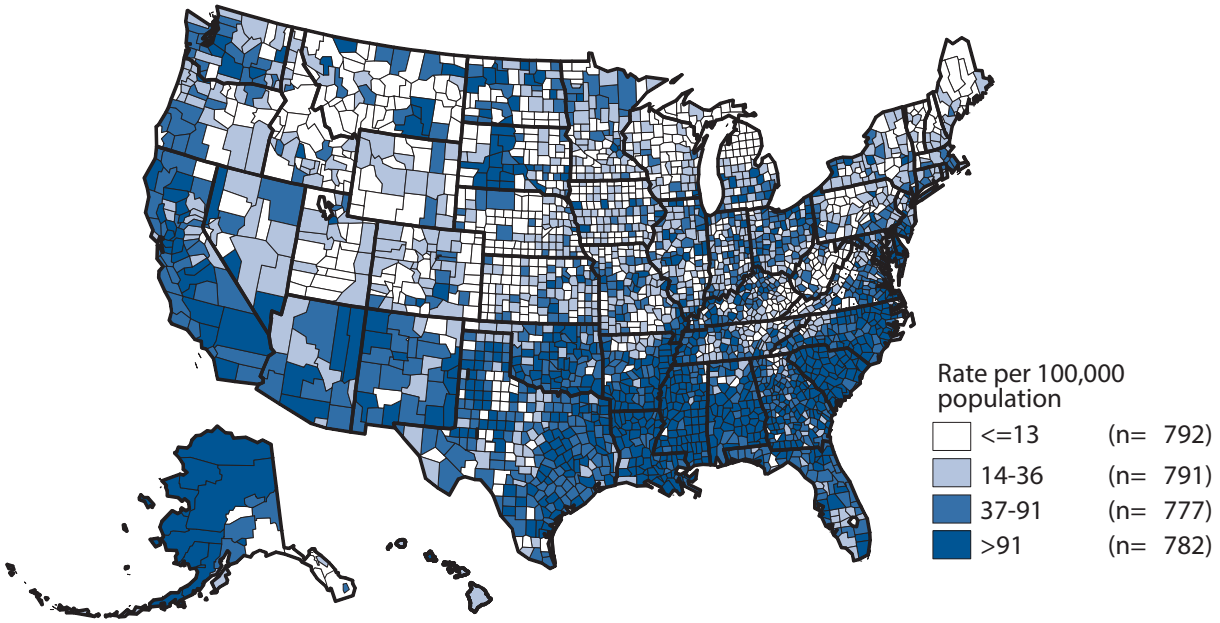


Figure 17. Gonorrhea — Rates of Reported Cases by Age and Sex, United States, 2014

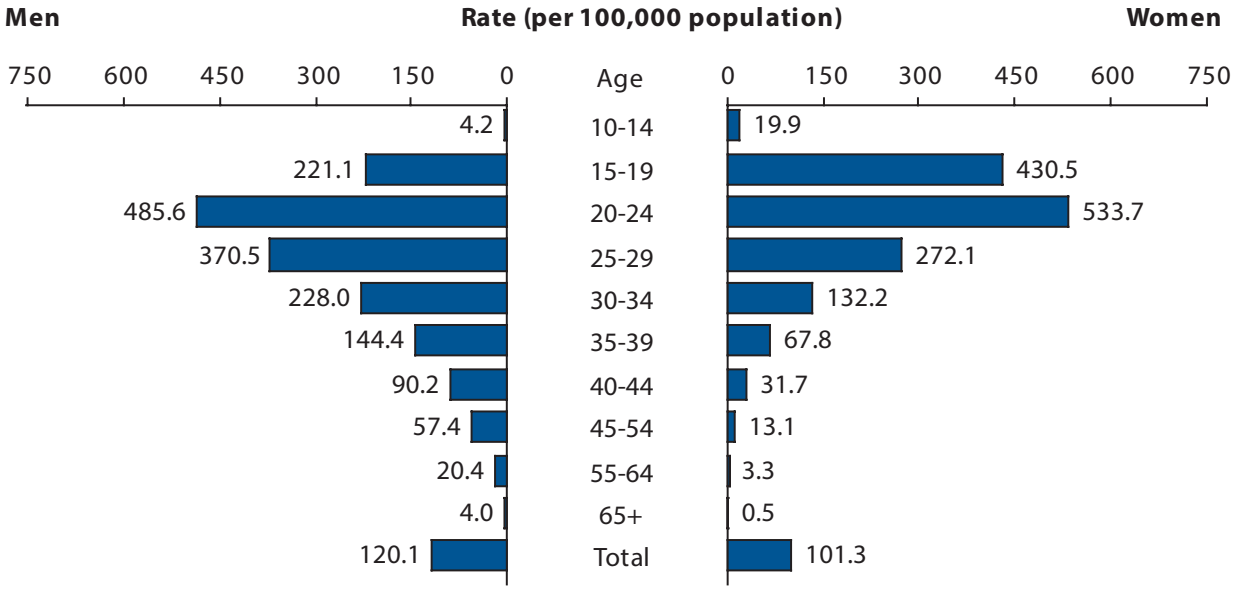


Figure 18. Gonorrhea — Rates of Reported Cases Among Women Aged 15–44 Years by Age, United States, 2005–2014

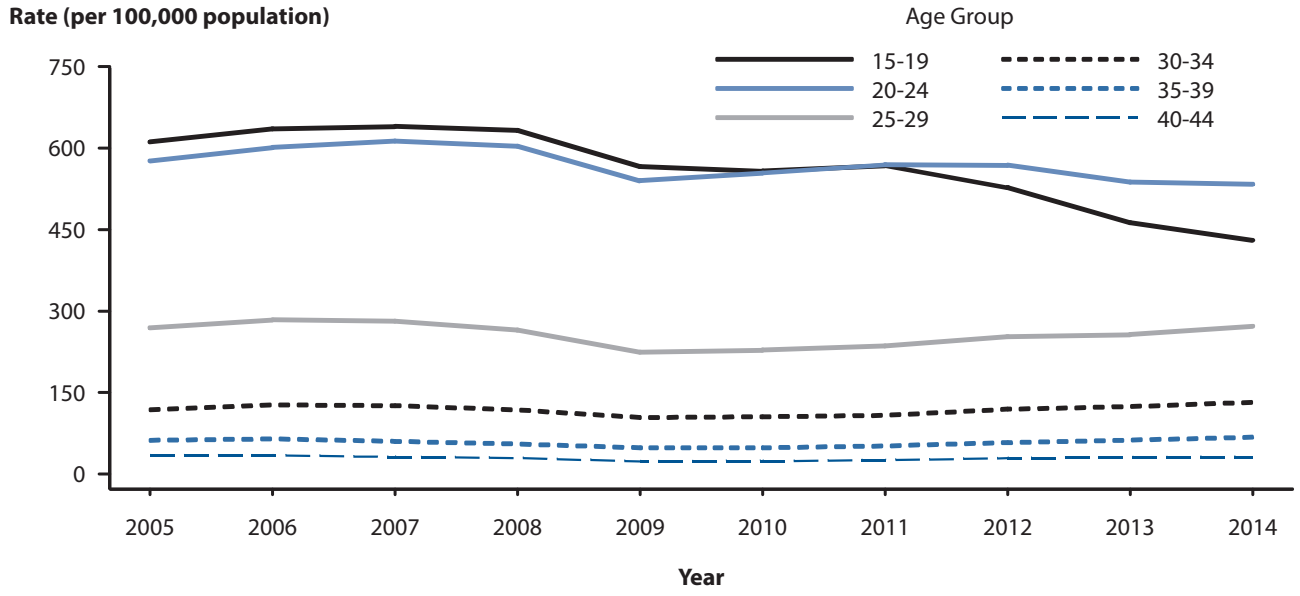


Figure 19. Gonorrhea — Rates of Reported Cases Among Men Aged 15–44 Years by Age, United States, 2005–2014

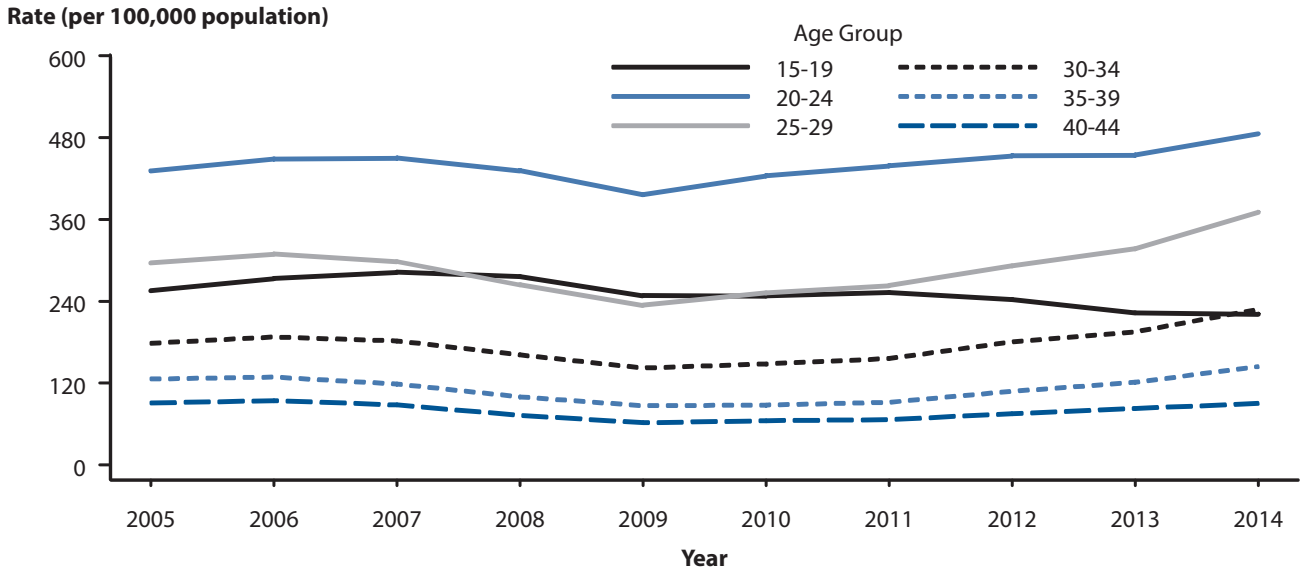
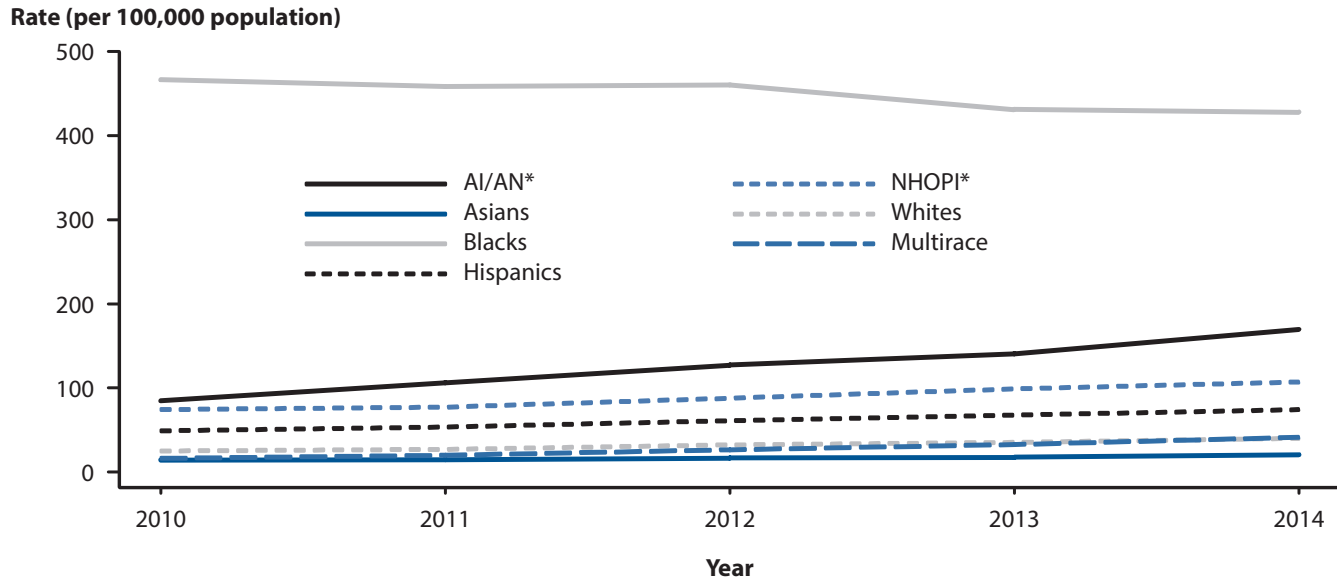


Figure 20. Gonorrhea — Rates of Reported Cases by Race/Ethnicity, United States, 2010–2014



* AI/AN = American Indians/Alaska Natives; NHOPI = Native Hawaiians/Other Pacific Islanders.
NOTE: Includes 43 states reporting race/ethnicity data in Office of Management and Budget compliant formats during 2010–2014 (see Section A1.5 in the Appendix).

Figure 21. Gonorrhea — Reported Cases by Reporting Source and Sex, United States, 2005–2014

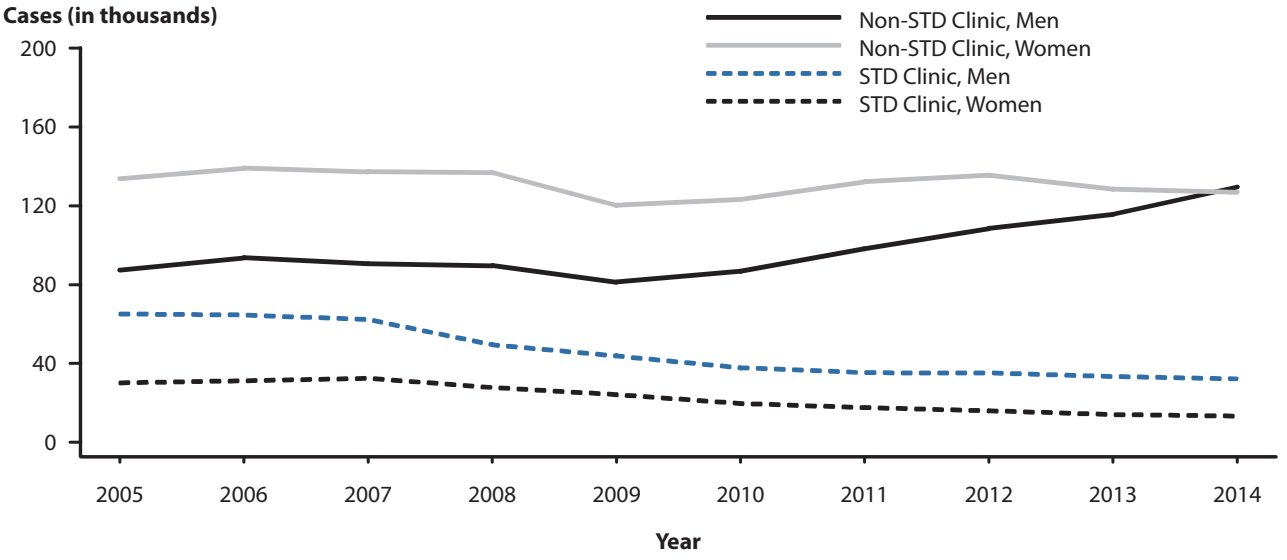
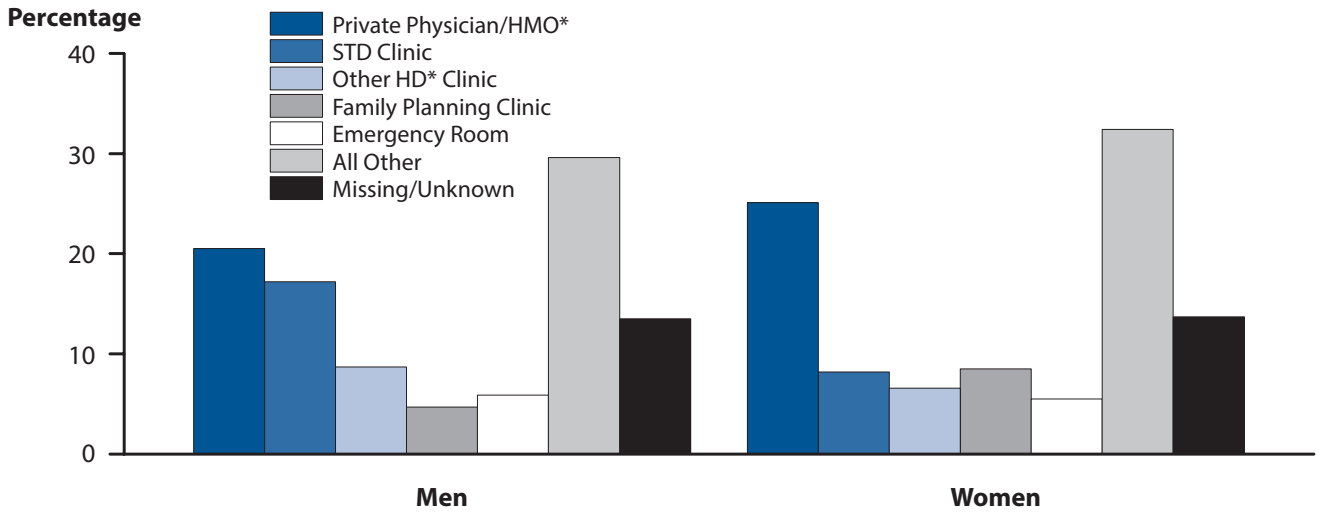


Figure 22. Gonorrhea — Percentage of Reported Cases by Sex and Reporting Sources, United States, 2014

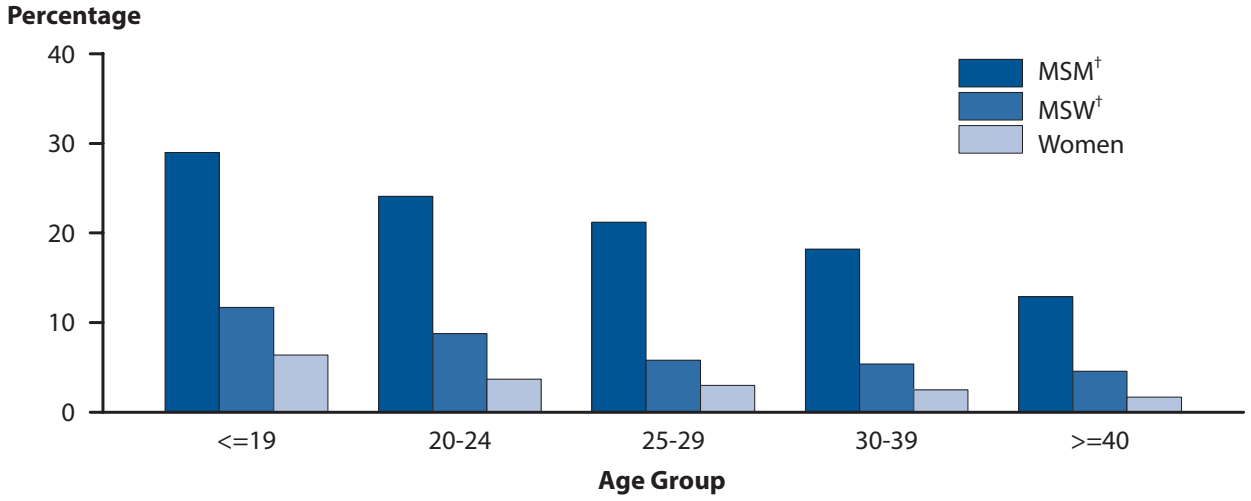


* HMO = health maintenance organization; HD = health department.
NOTE: Other includes: Drug Treatment, Tuberculosis Clinic, Correctional Facility, Laboratory, Blood Bank, Labor and Delivery, Prenatal Care, National Job Training Program, School-based Clinic, Mental Health Provider, Other Hospital, Indian Health Service, Military, and HIV Counseling and Testing Site

Figure 23. Gonorrhea — Estimated Proportion of MSM*, MSW*, and Women Among Gonorrhea Cases† by Site, STD Surveillance Network (SSuN), 2013

* MSM = men who have sex with men; MSW = men who have sex with women only.
† Estimate based on weighted analysis of data obtained from interviews (n=3,121) conducted among a random sample of reported gonorrhea cases during January to June 2013.
‡ California data excludes San Francisco County (shown separately).
NOTE: See Section A2.2 in the Appendix for STD Surveillance Network (SSuN) methods and jurisdictions included in each project area.

Figure 24. Gonorrhea — Proportion of STD Clinic Patients* Testing Positive by Age, Sex, and Sexual Behavior, STD Surveillance Network (SSuN), 2014



* Only includes patients tested for gonorrhea.
† MSM = men who have sex with men; MSW = men who have sex with women only.
NOTE: Includes the six jurisdictions (Baltimore, Los Angeles, New York City, Philadelphia, San Francisco and Seattle) that contributed data for all of 2014.

Figure 25. Location of Participating Sentinel Sites and Regional Laboratories, Gonococcal Isolate Surveillance Project (GISP), United States, 2014

NOTE: Austin is a regional laboratory only.

Figure 26. ***Neisseria gonorrhoeae*** **— Percentage of Isolates with Elevated Ceftriaxone Minimum Inhibitory Concentrations (MICs) (≥0.125 µg/ml), Gonococcal Isolate Surveillance Project (GISP), 2006–2014**

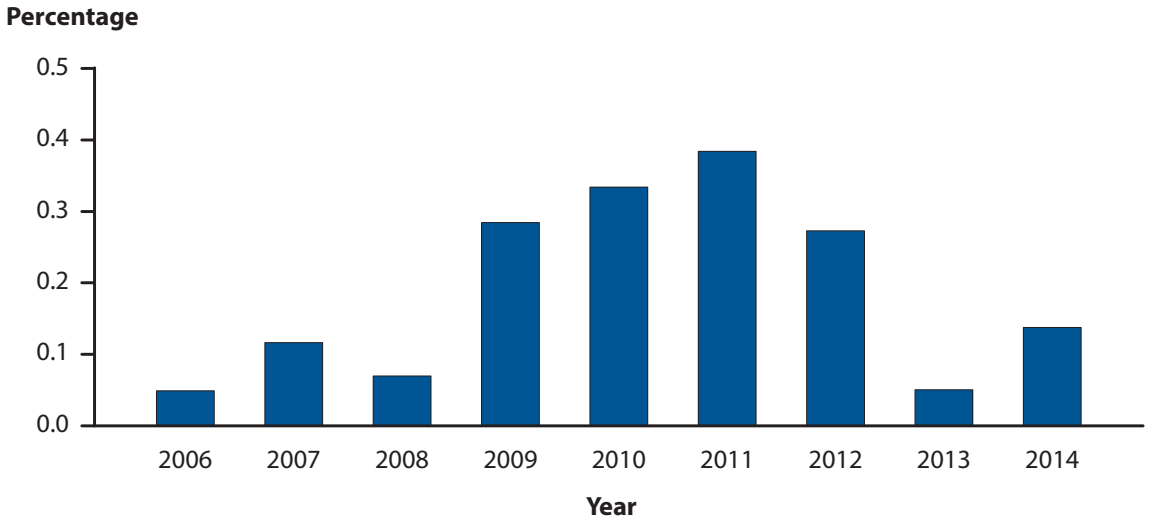
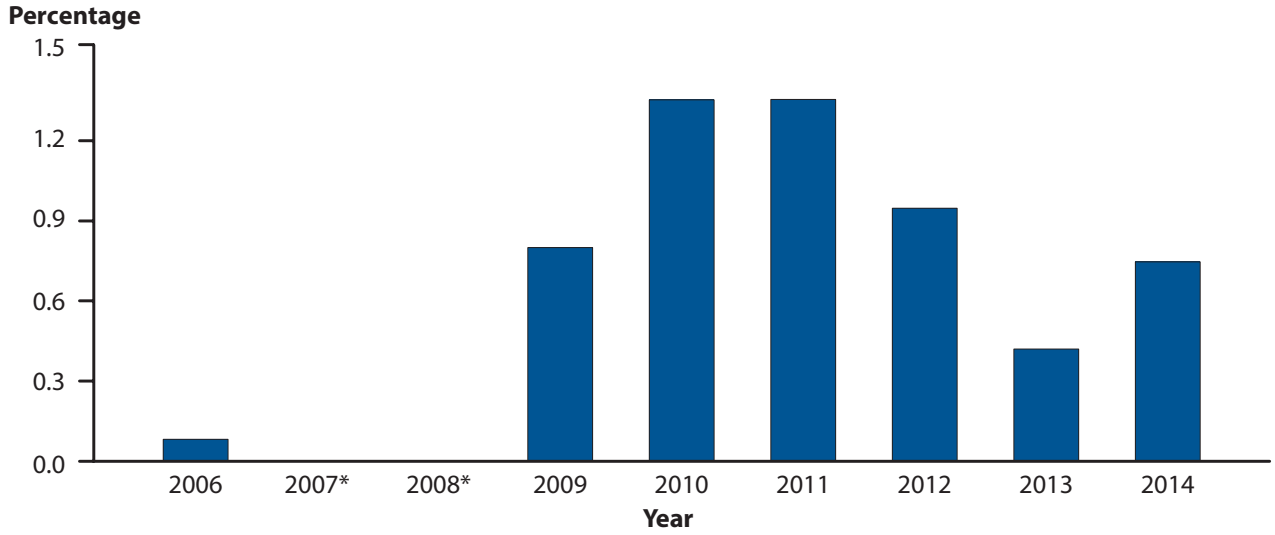


Figure 27. ***Neisseria gonorrhoeae*** **— Percentage of Isolates with Elevated Cefixime Minimum Inhibitory Concentrations (MICs) (≥0.25 µg/ml), Gonococcal Isolate Surveillance Project (GISP), 2006–2014**



* Isolates not tested for cefixime susceptibility in 2007 and 2008.

Figure 28. *Neisseria gonorrhoeae* **— Distribution of Azithromycin Minimum Inhibitory Concentrations (MICs), Gonococcal Isolate Surveillance Project (GISP), 2010–2014**

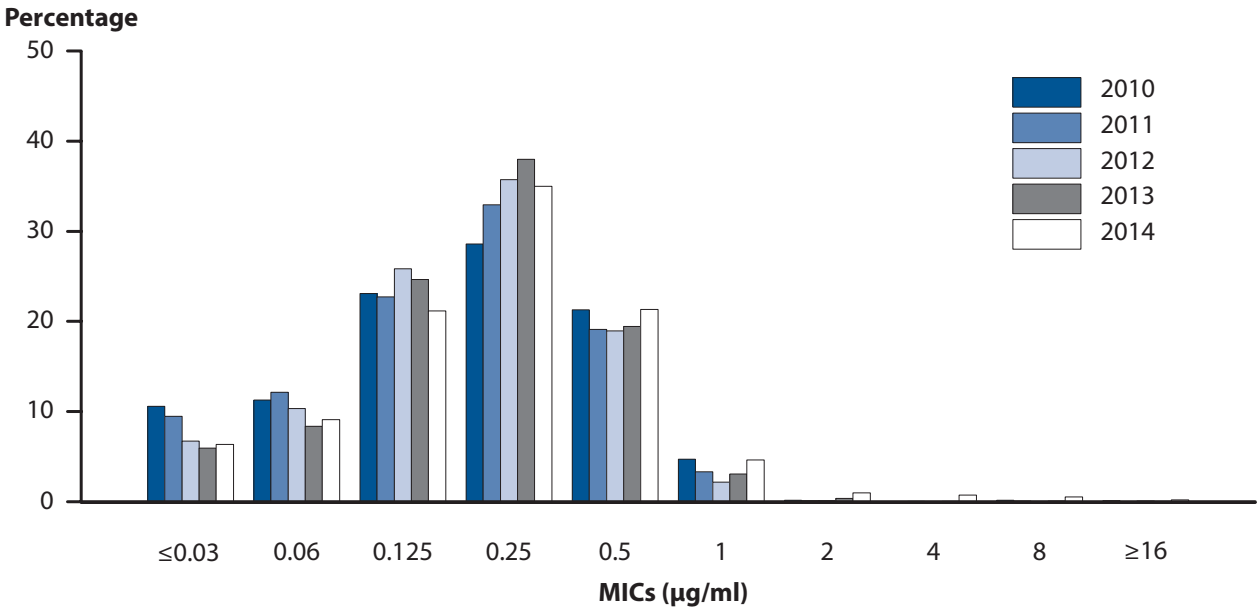
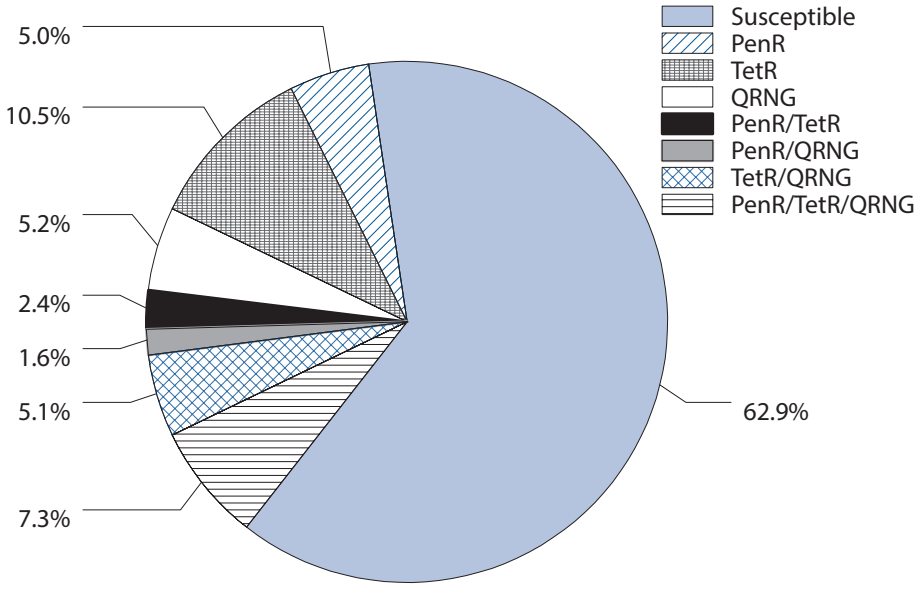
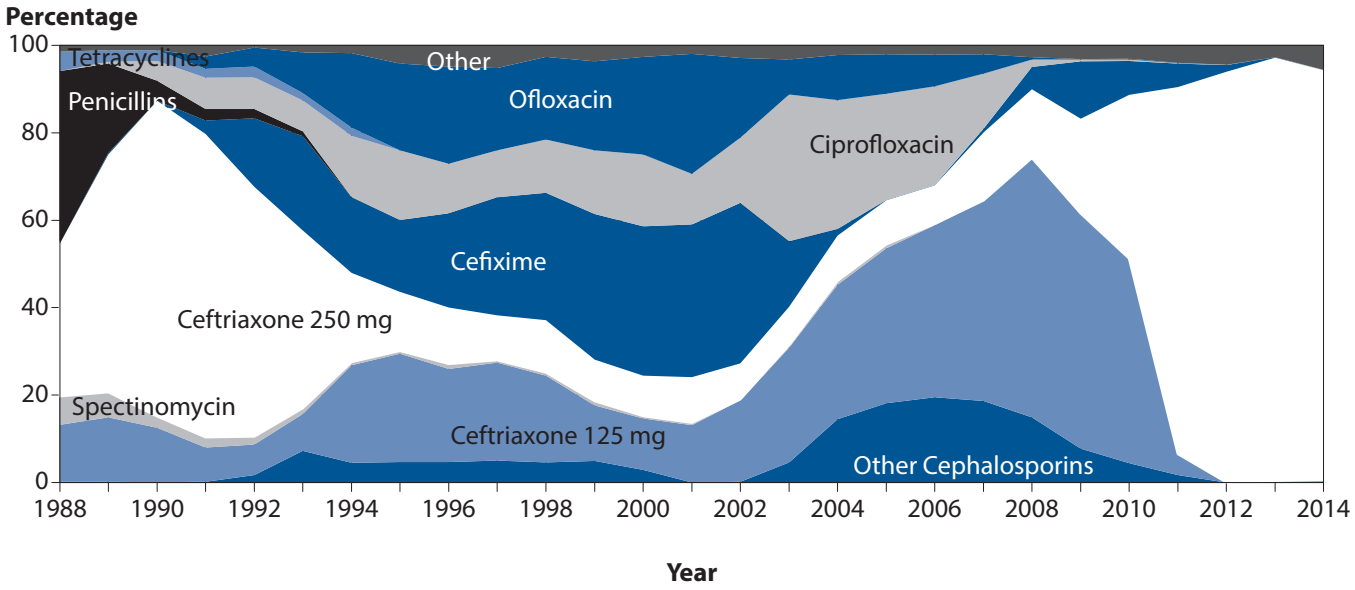


Figure 29. *Neisseria gonorrhoeae* **— Percentage of Isolates with Penicillin, Tetracycline, and/or Ciprofloxacin Resistance, Gonococcal Isolate Surveillance Project (GISP), 2014**



NOTE: PenR = penicillinase-producing *Neisseria gonorrhoeae* and chromosomally-mediated penicillin-resistant *N. gonorrhoeae*; TetR = chromosomally- and plasmid-mediated tetracycline-resistant *N. gonorrhoeae*; and QRNG = quinolone-resistant *N. gonorrhoeae*.

Figure 30. Primary Antimicrobial Drugs Used to Treat Gonorrhea Among Participants, Gonococcal Isolate Surveillance Project (GISP), 1988–2014



NOTE: For 2014, "Other" includes clinical trial study drugs (2.9%), azithromycin 2g (1.9%), no therapy (0.7%), and other less frequently used drugs (0.1%).

Syphilis

Background

Syphilis, a genital ulcerative disease caused by the bacterium *Treponema pallidum*, is associated with significant complications if left untreated and can facilitate the transmission and acquisition of HIV infection.[1–3] Additionally, historical data demonstrate that untreated early syphilis in pregnant women may result in perinatal death of the infant in up to 40% of cases and, if acquired during the 4 years before pregnancy, can lead to infection of the fetus in 80% of cases.[4]

In 2000 and 2001, the national rate of reported primary and secondary (P&S) syphilis cases was 2.1 cases per 100,000 population, the lowest rate since reporting began in 1941 (Figure 31, Table 1). However, the P&S syphilis rate has increased almost every year since 2000–2001. In 2014, a total of 19,999 P&S syphilis cases were reported, and the national P&S syphilis rate increased to 6.3 cases per 100,000 population, the highest rate reported since 1994.

During 2000–2014, the rise in the P&S syphilis rate was primarily attributable to increased cases among men and, specifically, among gay, bisexual, and other men who have sex with men (collectively referred to as MSM) (Figures 32 and 33). However, during 2013–2014, the rate increased both among men (14.4%) and among women (22.7%) (Tables 28 and 29). This increase among women is of particular concern because congenital syphilis cases tend to increase as the rate of P&S syphilis among women increases (Figure 46). During 2013–2014, the overall, male, and female P&S syphilis rates increased in every region of the country (Figure 34, Tables 27–29). Nationally, P&S syphilis rates increased in every age group 15–44 years of age (Table 35) and in every race/ethnicity group except for Native Hawaiians/Other Pacific Islanders during 2013–2014 (Figure 40).

As in recent years, MSM accounted for the majority of P&S syphilis cases in 2014 (Figures 32 and 41). Nationally, the highest rates of P&S syphilis in 2014 were observed among men aged 20–24 years and 25–29 years (Figure 37, Table 35), among men in the West and in the South (Table 29), and among black men (Table 36B).

Interpreting Rates of Reported Cases of Syphilis

Left untreated, infection with syphilis can span decades. Primary and secondary syphilis are the earliest stages of infection, reflect symptomatic disease, and are indicators of incident infection.[5] For these reasons, trend analyses of syphilis focus on reported cases and rates of reported cases of P&S syphilis. When referring to "P&S syphilis", case counts are the sum of both primary and secondary cases, and "rate of P&S syphilis" refers to this sum per unit population. Changes in reporting and screening practices can complicate interpretation of trends over time. To minimize the effect of changes in reporting over time, trend data in this report are restricted to jurisdictions that consistently report data of interest (e.g., sex of sex partner) for each year of a given time period. Details of these restrictions are provided in the text and footnotes of the pertinent text and figures.

P&S Syphilis — United States

In 2014, a total of 19,999 cases of P&S syphilis were reported in the United States, yielding a rate of 6.3 cases per 100,000 population (Table 1). This rate represents a 15.1% increase compared with 2013 (5.5 cases per 100,000 population), and a 40.0% increase compared with 2010 (4.5 cases per 100,000 population).

P&S Syphilis by Region

In 2014, the West had the highest rate of reported P&S syphilis cases (7.9 cases per 100,000 population), followed by the South (6.9 cases per 100,000 population), the Northeast (5.5 cases per 100,000 population), and the Midwest (4.4 cases per 100,000 population) (Table 27). During 2013–2014, the P&S syphilis rate increased in every region: 17.9% in the West, 16.9% in the South, 14.6% in the Northeast, and 10.0% in the Midwest (Figure 34, Table 27).

P&S Syphilis by State

In 2014, rates of reported P&S syphilis cases per 100,000 population ranged by state from 0.7 in Wyoming to 12.8 in Nevada; the P&S syphilis rate in the District of Columbia was 17.9 cases per 100,000 population (Figure 35, Table 26). During 2013–2014, P&S syphilis rates increased in 70% (35/50) of states and in the District of Columbia, and decreased in 30% (15/50) of states (Table 27).

P&S Syphilis by Metropolitan Statistical Area

The overall rate of reported P&S syphilis cases in the 50 most populous metropolitan statistical areas (MSAs) was 8.7 cases per 100,000 population in 2014, which represents a 13.0% increase since 2013 (7.7 cases per 100,000 population) (Table 30). In 2014, 74.9% of reported P&S syphilis cases (76.5% of male cases and 59.5% of female cases) were reported by these 50 MSAs. In 2014, the rate among women in these MSAs was 1.2 cases per 100,000 females, while the rate among men was 16.4 cases per 100,000 males (Tables 31 and 32).

P&S Syphilis by County

In 2014, 67% of reported P&S syphilis cases occurred in just 70 counties or independent cities (Table 33). Of 3,142 counties in the United States, 411 (13.1%) had a rate greater than 5.4 cases per 100,000 population, 400 (12.7%) reported a rate from 2.5 to 5.4 cases per 100,000 population, 389 (12.4%) reported a rate between 0.3 and 2.4 cases per 100,000 population, and 1,942 (61.8%) counties reported no cases of P&S syphilis in 2014 (Figure 36).

P&S Syphilis by Sex and Sex Behavior

As has been observed in previous years, in 2014 the rate of reported P&S syphilis cases among men (11.7 cases per 100,000 males) was much higher than the rate among women (1.1 cases per 100,000 females), and men account for a large majority (90.8%) of P&S syphilis cases with known sex (Figure 37, Tables 28 and 29). Among men, the rate of P&S syphilis has increased every year since 2000, and during 2013–2014 the rate among men increased 14.4% (Figure 33). In contrast, the P&S syphilis rate among women has fluctuated between 0.8 and 1.7 cases per 100,000 females since 2000. During 2013–2014, the P&S syphilis rate among women increased 22.7%.

These increases in male and female P&S syphilis rates were observed in every region of the country during 2013–2014. Among men, the rate increased 17.0% in the South, 15.9% in the West, 15.1% in the Northeast, and 6.8% in the Midwest (Table 29). Among women, the largest increases were observed in the West (50%), followed by the Midwest (28.5%), Northeast (25.0%), and South (7.1%).

MSM continued to account for the majority of P&S syphilis cases in 2014 (Figures 32 and 41). Of 19,999 P&S reported syphilis cases in 2014, 12,226 (61.1%) were among MSM, 2,513 (12.6%) were among men who have sex with women only (MSW), 1,840 (9.2%) were among women, 3,407 (17.0%) were among men without information about sex of sex partner, and 13 (0.1%) were cases reported with unknown sex (Figure 41). Among male cases with information on sex of sex partner, 82.9% occurred among MSM.

This same pattern was observed across race/ethnicity groups: the majority of P&S syphilis cases among whites, blacks, and Hispanics in 2014 occurred among MSM (Figure 42). Among MSM, the largest proportion of P&S syphilis cases in 2014 occurred among whites (37.6%), followed by blacks (31.8%) and Hispanics (21.8%). In contrast, the largest proportion of cases among MSW and women occurred among blacks (48.4% of cases among MSW and 50.0% of cases among women).

A total of 27 states reported sex of sex partner data for at least 70% of reported P&S cases each year during 2007–2014. In these states during 2013–2014, the number of cases increased 8.8% among MSM, 16.3% among MSW, and 28.1% among women. (Figure 32).

P&S Syphilis by Age

As in previous years, in 2014 rates of reported P&S syphilis cases were highest among persons aged 20–24 years and 25–29 years (Figure 37, Table 35). In 2014, the highest rates were observed among men aged 25–29 years (34.0 cases per 100,000 males) and 20–24 years (31.1 cases per 100,000 males). Similarly, the highest rates among women were among those aged 25–29 years (4.5 cases per 100,000 women) and those aged 20–24 years (2.5 cases per 100,000 women).

During 2013–2014, the P&S syphilis rate increased among all age groups aged 15–64 years (Table 35). Rates increased 11.6% among persons aged 15–19 years, 13.1% among persons aged 20–24 years, 23.4% among those aged 25–29 years, 18.3% among those aged 30–34 years, 13.0% among those aged 35–39 years, 3.7% among those aged 40–44 years, 13.3% among those aged 45–54 years, and 21.1% among those aged 55–64 years (Table 35).

In 2014, persons aged 15–44 years accounted for 79.7% of reported P&S syphilis cases with known age. Among men, the P&S syphilis rate increased during 2013–2014 among all age groups 15–44 years of age (Figure 39). Among women, the P&S syphilis rate remained stable among those aged 40–44 years, but increased among all age groups 15–39 years of age (Figure 38).

P&S Syphilis by Race/Ethnicity

In 2014, among the 49 states that submitted data in the race and ethnicity categories according to Office of Management and Budget (OMB) standards (see Section A1.5 in the Appendix), the rate of reported P&S syphilis cases remained highest among blacks (18.9 cases per 100,000 population) (Table 36B). The rate among blacks was 5.4 times the rate among whites (3.5 cases per 100,000 population). The P&S syphilis rates among American Indians/Alaska Natives (7.6 cases per 100,000 population) and Hispanics (7.6 cases per 100,000 population) were 2.2 times the rate among whites, the rate among Native Hawaiians/Other Pacific Islanders (6.5 cases per 100,000 population) was 1.9 times the rate among whites, and the rate among Asians (2.8 cases per 100,000 population) was 0.8 times the rate among whites.

During 2010–2014, among the 44 states that submitted race and ethnicity data according to OMB standards (see Section A1.5 in the Appendix) for all five years during that period, the P&S syphilis rate increased among all race/ethnicity groups (Figure 40). During 2013–2014, rates increased in every race/ethnicity group except for Native Hawaiians/Other Pacific Islanders. The greatest increases during 2013–2014 were observed among American Indians/Alaska Natives (68.8%) and those who identified as multiracial (47.3%), followed by Hispanics (15.7%), whites (14.3%), Asians (12.8%), and blacks (11.4%).

More information on P&S syphilis rates among race/ethnicity groups can be found in the Special Focus Profiles.

P&S Syphilis and HIV Co-infection

Reported cases of P&S syphilis continue to be characterized by a high rate of HIV co-infection, particularly among MSM. In 2014, 26 states reported both sex of sex partner and HIV status (HIV-positive or HIV-negative) for at least 70% of P&S syphilis cases (Figure 43). Among P&S syphilis cases with known HIV-status in these states, 51.2% of cases among MSM were HIV-positive, compared with 10.7% of cases among MSW, and 5.9% of cases among women.

P&S Syphilis by Reporting Source

The number of P&S syphilis cases reported by STD clinics and by non-STD clinic settings increased during 2005–2014 (Figure 44). However, the proportion of P&S syphilis cases that were reported by STD clinics declined during this period, from 31.3% of cases with known reporting source in 2005 to 24.9% of cases in 2014 (Table A2). In 2014, STD clinics and private physicians or health maintenance organizations (HMOs) were the most common reporting sources among MSM (28.7% and 28.2%, respectively), MSW (25.7% and 23.3% of cases, respectively), and women (18.7% and 24.3%, respectively)(Figure 45).

Congenital Syphilis

After decreasing during 2008–2012 (from 10.5 to 8.4 reported cases per 100,000 live births), the rate of reported congenital syphilis increased in 2013 to 9.1 cases per 100,000 live births (Table 1). During 2013–2014, the rate increased 27.5% to 11.6 cases per 100,000 live births in 2014. As has been observed historically, this increase paralleled a similar increase (22.2%) in P&S syphilis among women during 2013–2014 (Figure 46).

In 2014, the highest congenital syphilis rates continued to be reported from the South (15.5 cases per 100,000 live births), followed by the West (12.6 cases per 100,000 live births, Midwest (8.5 cases per 100,000 live births), and the Northeast (4.7 cases per 100,000 live births). During 2013–2014, the congenital syphilis rate increased in every region, with the largest increases occurring in the Northeast (74.1%) and West (63.6%) compared with the Midwest (32.8%) and South (9.2%) (Table 42). Increased congenital syphilis rates were also observed among most race/ethnicity groups during 2013–2014, including whites (32.1%), blacks (21.6%), Hispanics (19.6%), and Asians/Pacific Islanders (102.9%) (Table 43).

Syphilis — All Stages (P&S, Early Latent, Late, Late Latent, and Congenital)

Total case counts and rates for syphilis were the highest recorded since 1995. The total number of cases of syphilis (P&S, early latent, late, late latent, and congenital) reported to CDC increased 12.3% during 2013–2014 (from 56,482 cases to 63,450 cases) (Table 1). The number of cases of early latent syphilis reported to CDC increased 14.8% (from 16,929 cases to 19,452 cases), and the number of cases of late and late latent syphilis increased 7.9% (from 21,819 cases to 23,541 cases) (Tables 1, 37, and 39).

Syphilis among Special Populations

More information about syphilis and congenital syphilis in race/ethnicity groups, women of reproductive age, adolescents, and MSM can be found in the Special Focus Profiles.

Syphilis Summary

The national rate of reported P&S syphilis cases reached an historic low in 2000 and 2001, but has increased almost every year since then. This increase was largely attributable to an increase among men, and in particular among MSM. However, during 2013–2014, rates increased among both men and women in every region of the country. Rates of reported congenital syphilis cases also increased in every region of the country during 2013–2014.

MSM continued to account for the majority of P&S syphilis cases in 2014. Nationally, the highest rates of P&S syphilis in 2014 were observed among men aged 20–24 years and 25–29 years, among men in the West and in the South, and among black men.

[1] Jarzebowski W, Caumes E, Dupin N, et al. Effect of early syphilis infection on plasma viral load and CD4 cell count in human immunodeficiency virus-infected men: results from the FHDH-ANRS CO4 cohort. Arch Intern Med 2012; 172: 1237–1243.

[2] Buchacz K, Patel P, Taylor M, et al. Syphilis increases HIV viral load and decreases CD4 cell counts in HIV-infected patients with new syphilis infections. AIDS 2004; 18:2075–2079.

[3] Fleming DT, Wasserheit JN. From epidemiological synergy to public health policy and practice: the contribution of other sexually transmitted diseases to sexual transmission of HIV infection. Sex Trans Infect 1999; 75: 3–17.

[4] Ingraham NR. The value of penicillin alone in the prevention and treatment of congenital syphilis. Acta Derm Venereol 1951; 31(Suppl 24): 60–88.

[5] Peterman TA, Kahn RH, Ciesielski CA, Ortiz-Rios E, Furness BW, Blank S, et al. Misclassification of the stages of syphilis: implications for surveillance. Sex Transm Dis. 2005;32(3):144-9.

Figure 31. Syphilis — Reported Cases by Stage of Infection, United States, 1941–2014

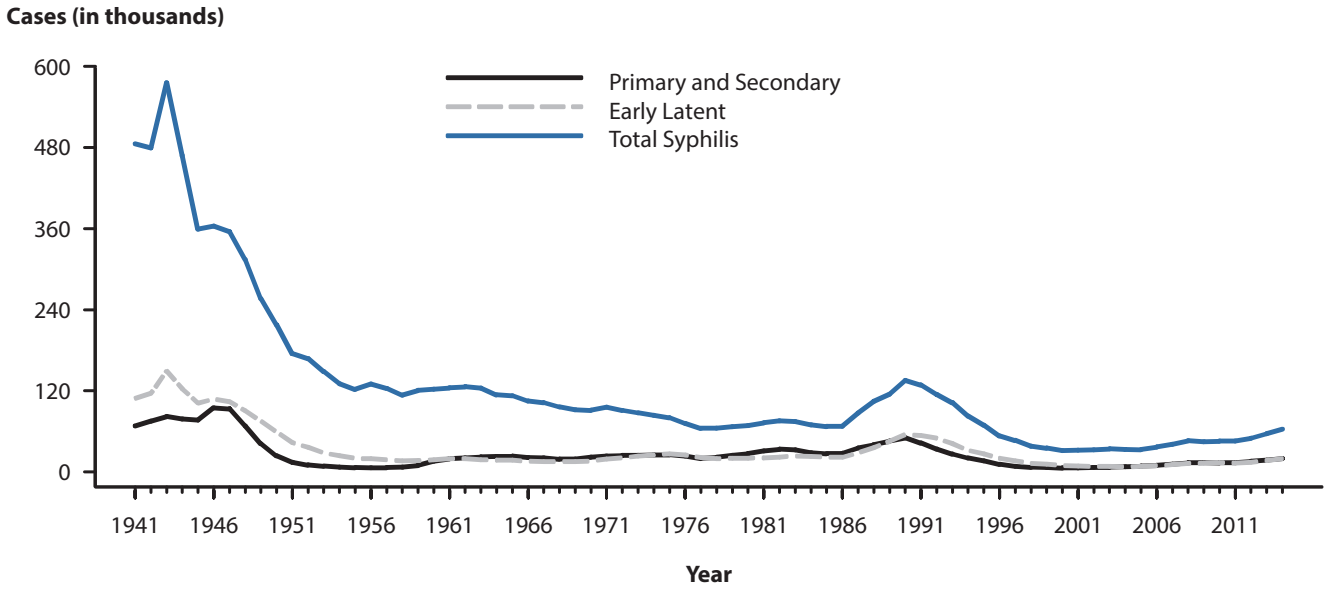
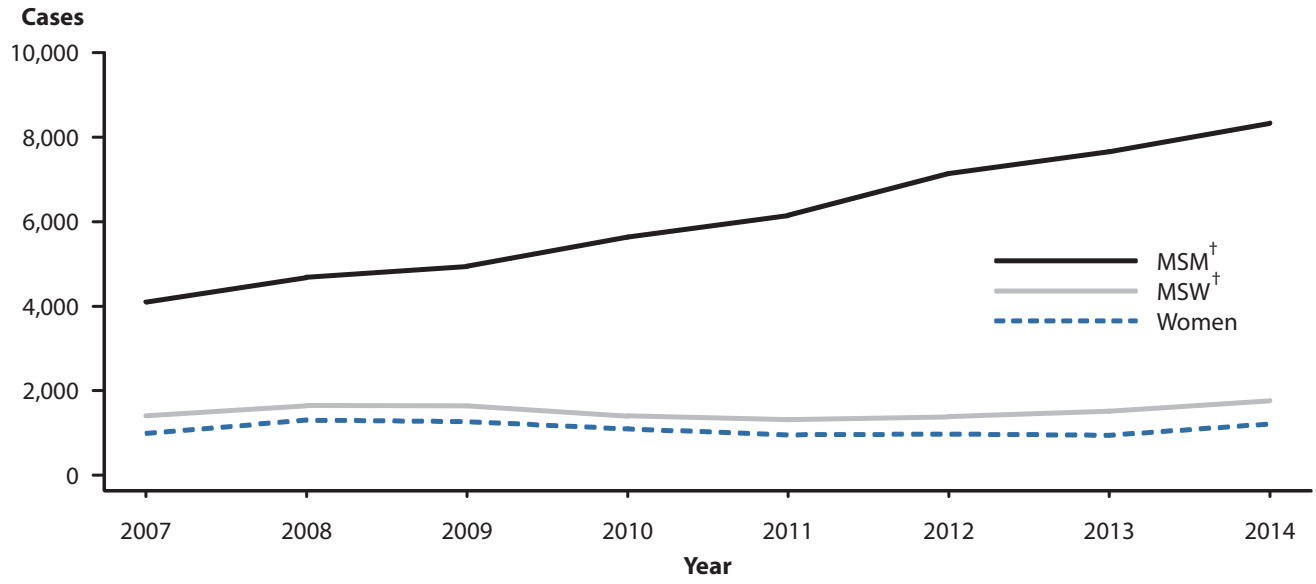


Figure 32. Primary and Secondary Syphilis — Reported Cases by Sex and Sexual Behavior, 27 Areas*, 2007–2014



* 27 states reported sex of partner data for ≥70% of reported cases of primary and secondary syphilis for each year during 2007–2014.
† MSM = men who have sex with men; MSW = men who have sex with women only.

Figure 33. Primary and Secondary Syphilis — Rates of Reported Cases by Sex and Male-to-Female Rate Ratios, United States, 1990–2014

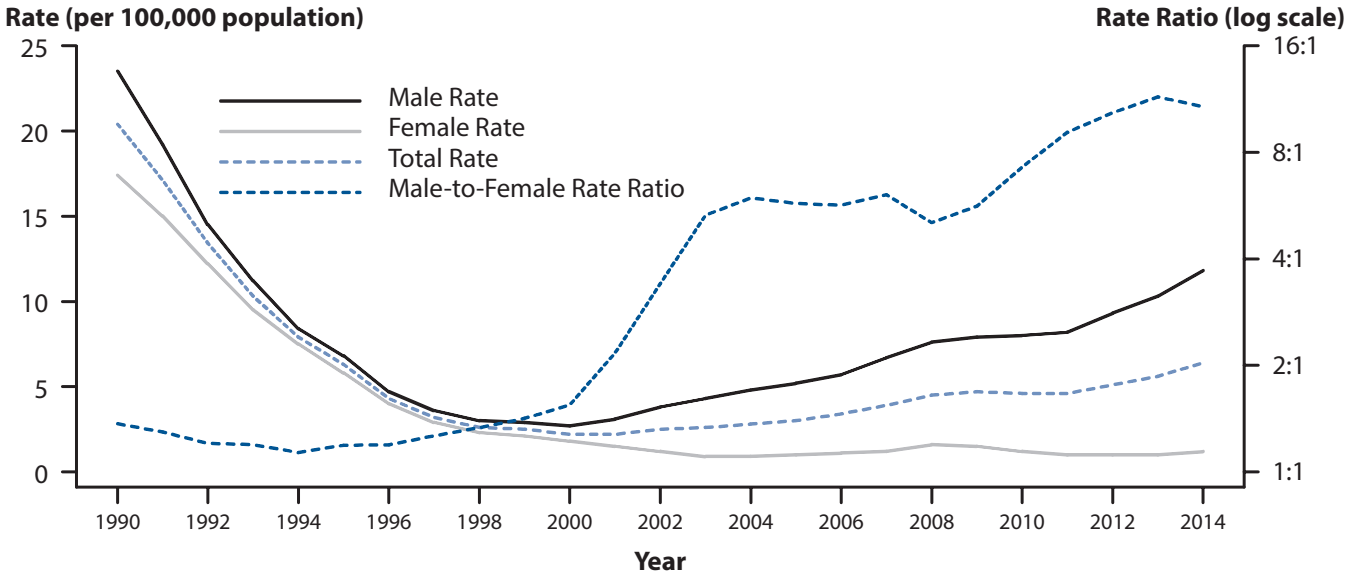


Figure 34. Primary and Secondary Syphilis — Rates of Reported Cases by Region, United States, 2005–2014

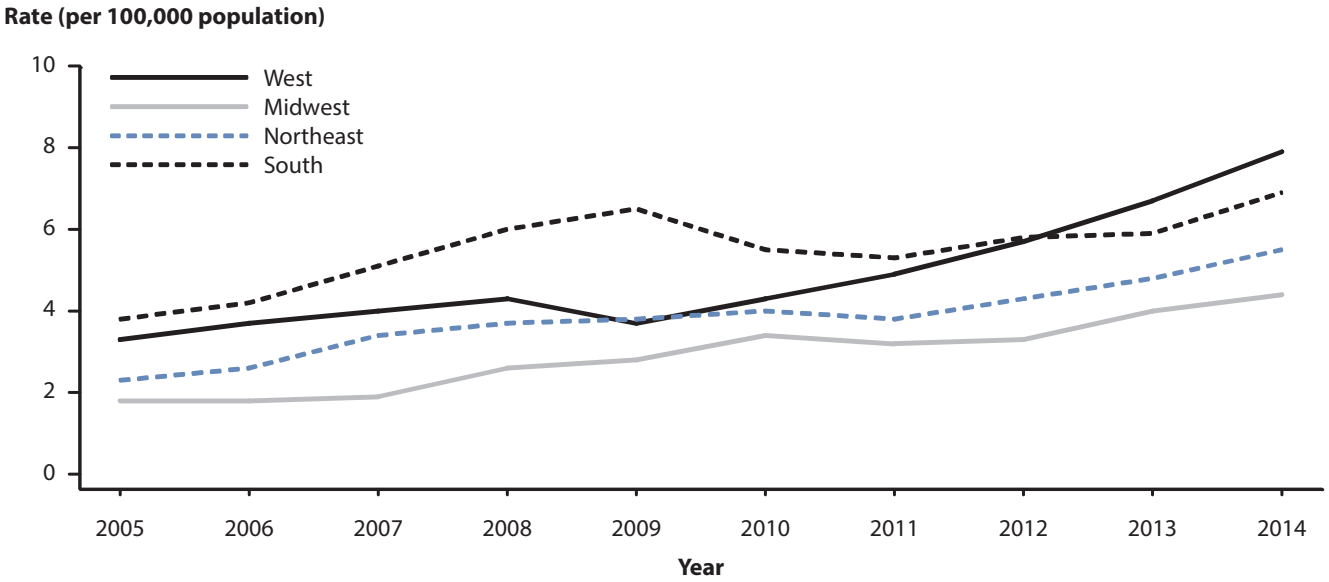
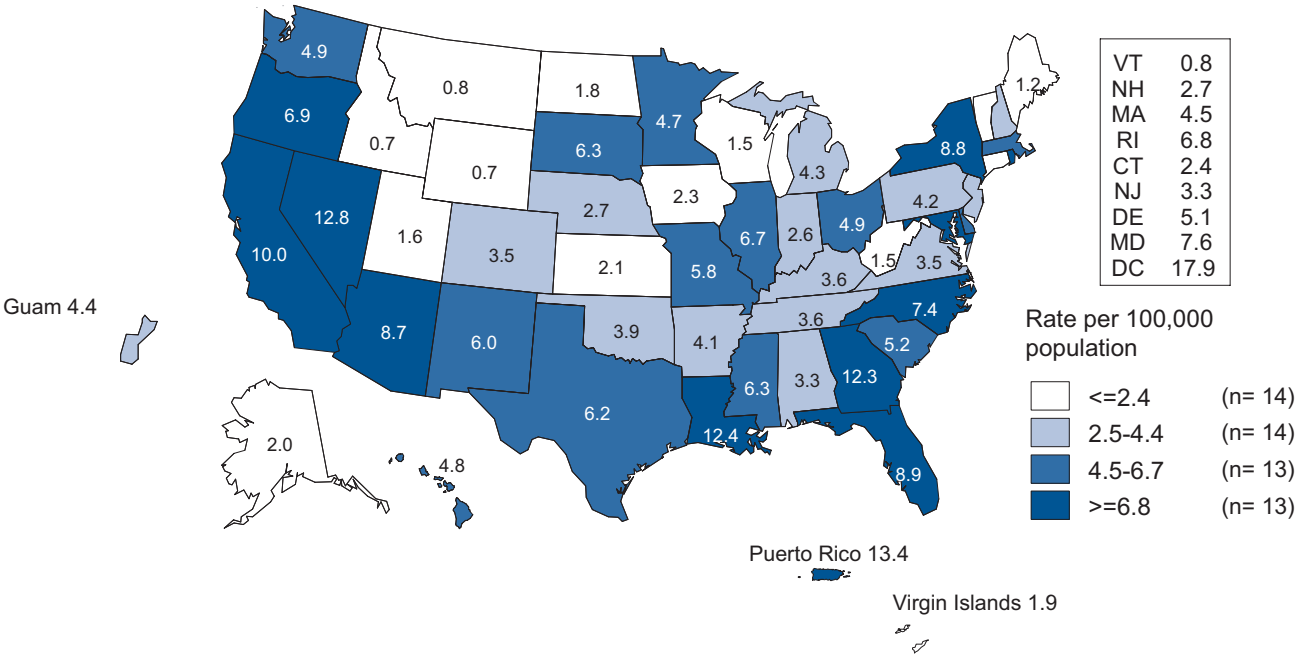
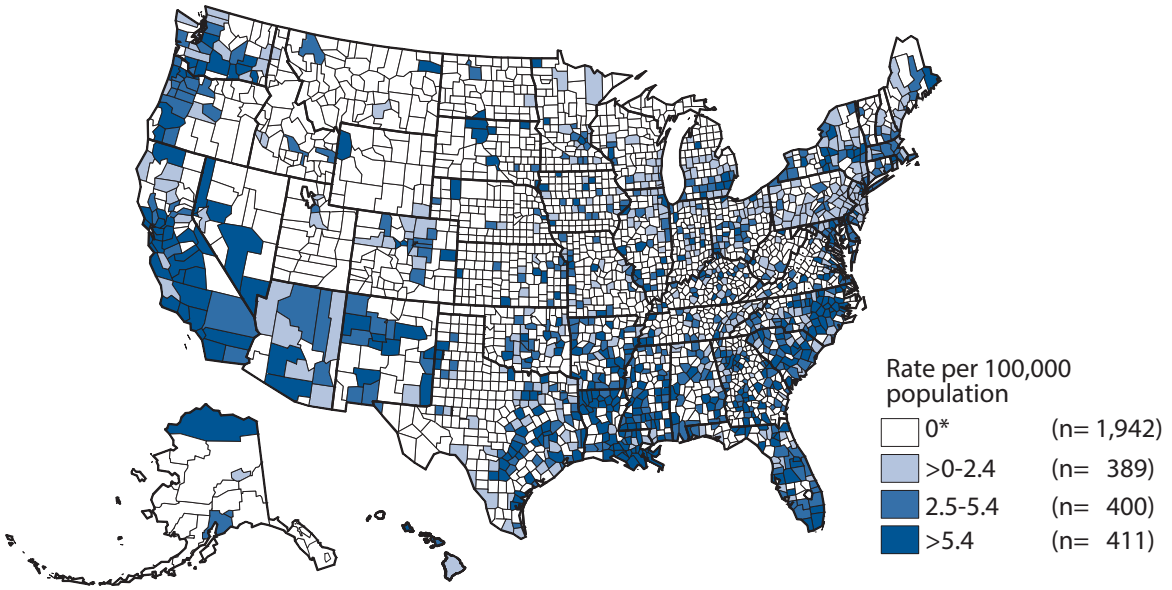


Figure 35. Primary and Secondary Syphilis — Rates of Reported Cases by State, United States and Outlying Areas, 2014



NOTE: The total rate of primary and secondary syphilis for the United States and outlying areas (Guam, Puerto Rico, and Virgin Islands) was 6.4 per 100,000 population.

Figure 36. Primary and Secondary Syphilis — Rates of Reported Cases by County, United States, 2014



* In 2014, 1,942 (61.8%) of 3,142 counties in the United States reported no cases of primary and secondary syphilis.

Figure 37. **Primary and Secondary Syphilis — Rates of Reported Cases by Age and Sex, United States, 2014**

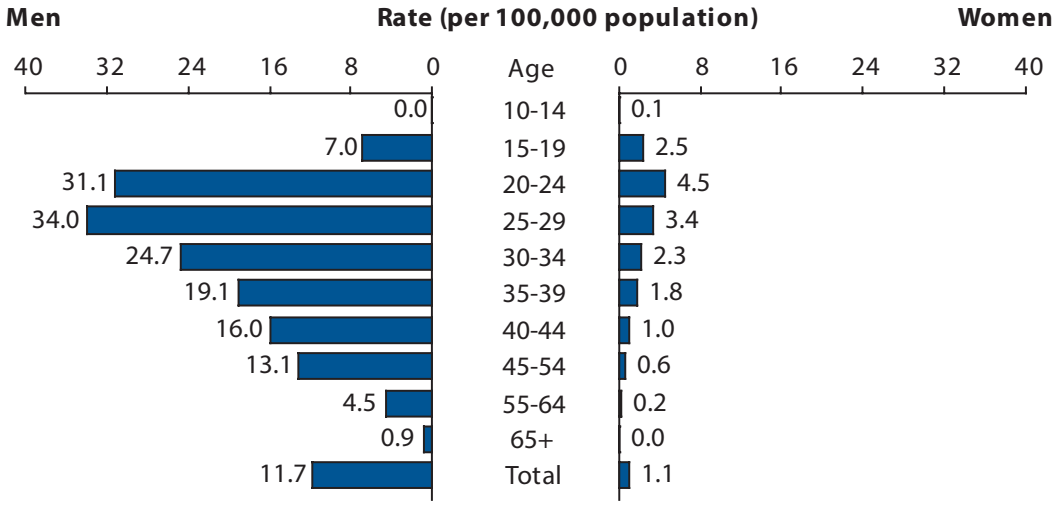


Figure 38. **Primary and Secondary Syphilis — Rates of Reported Cases Among Women Aged 15–44 Years by Age, United States, 2005–2014**

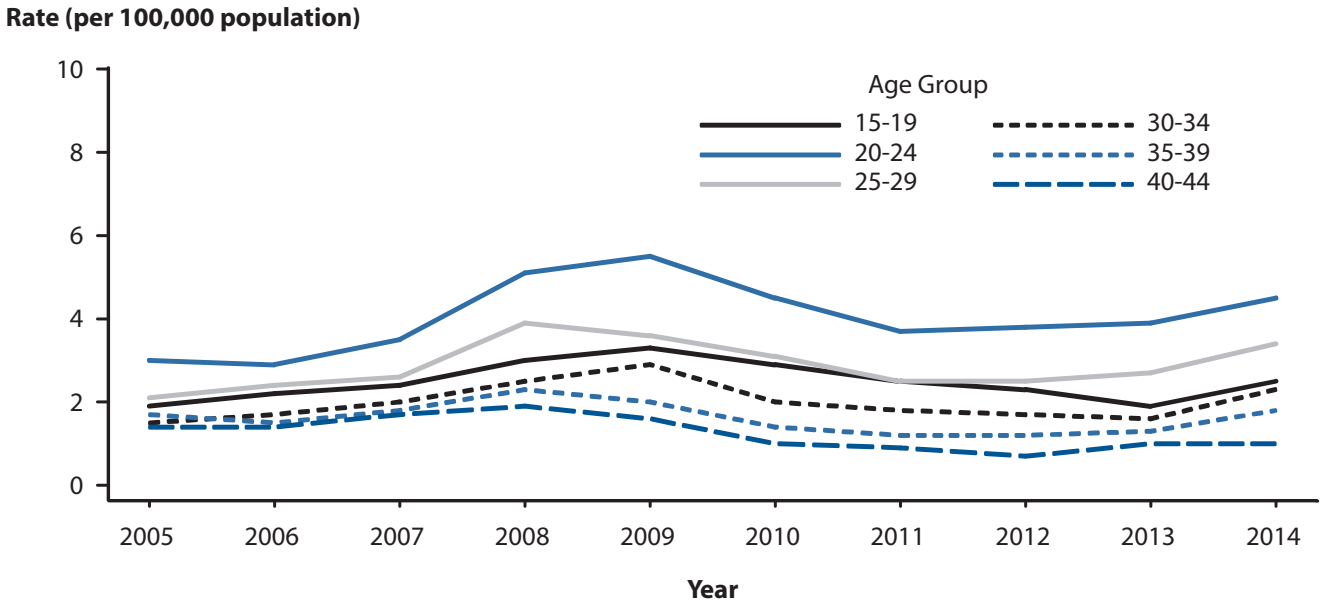


Figure 39. Primary and Secondary Syphilis — Rates of Reported Cases Among Men Aged 15–44 Years by Age, United States, 2005–2014

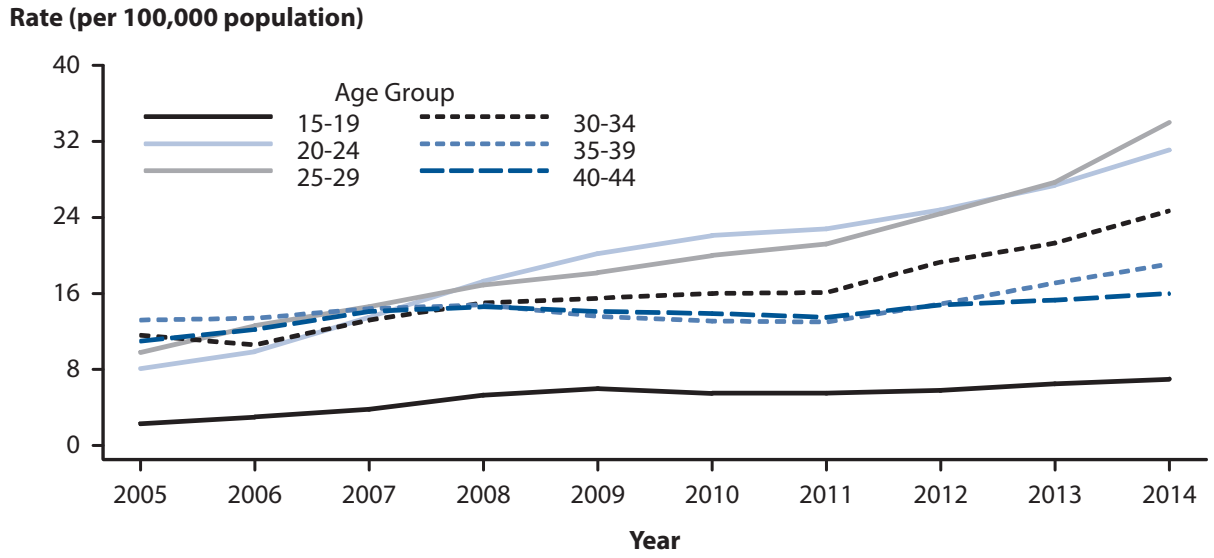
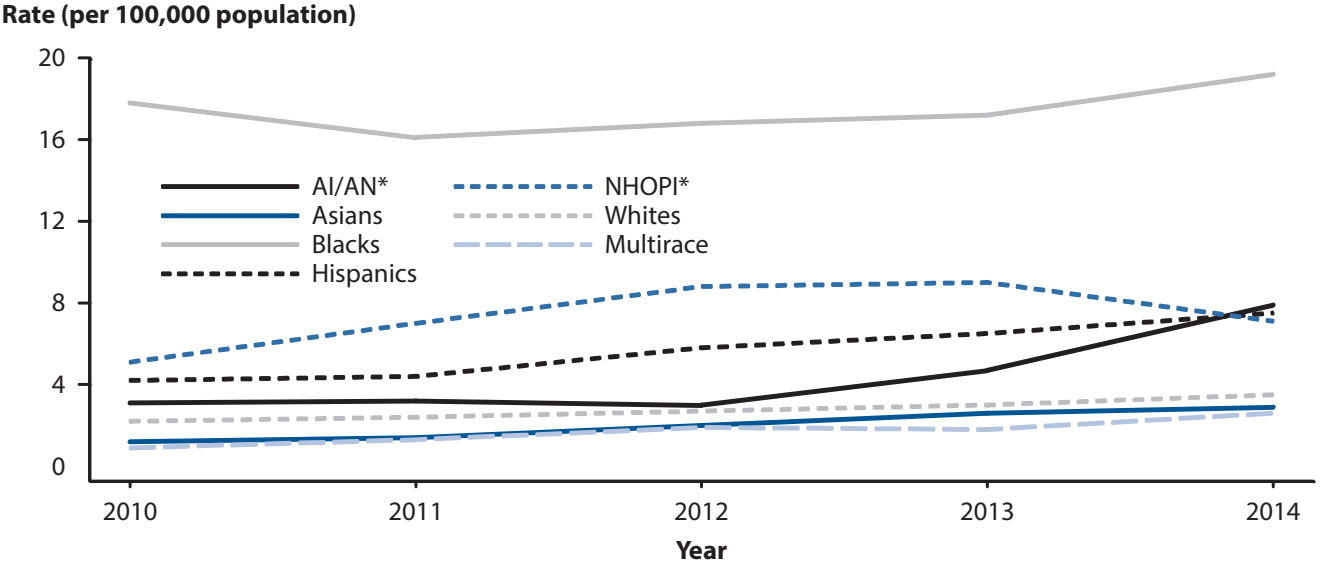
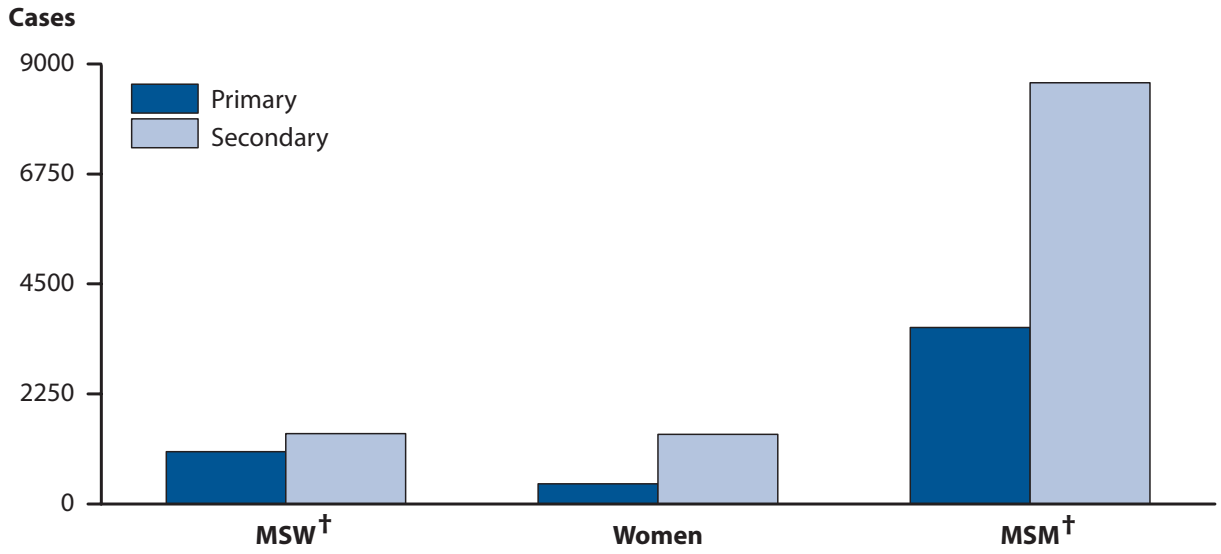


Figure 40. Primary and Secondary Syphilis — Rates of Reported Cases by Race/Ethnicity, United States, 2010–2014



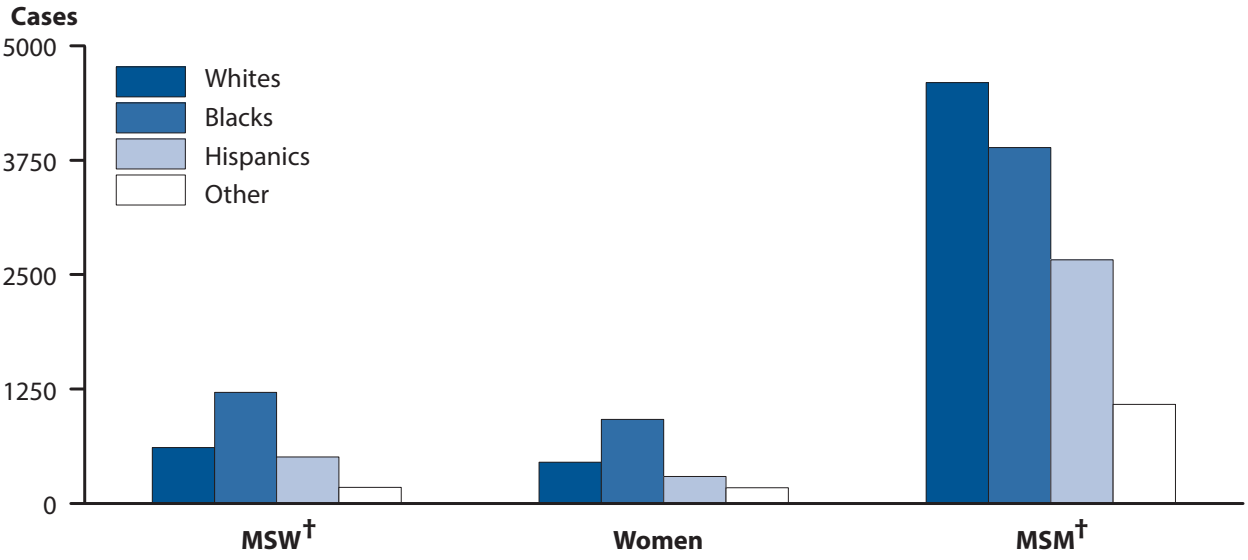
* AI/AN = American Indians/Alaska Natives; NHOPI = Native Hawaiians/Other Pacific Islanders.
NOTE: Includes 44 states reporting race/ethnicity data in Office of Management and Budget compliant formats during 2010–2014 (see Section A1.5 in the Appendix).

Figure 41. Primary and Secondary Syphilis — Reported Cases* by Stage, Sex, and Sexual Behavior, 2014



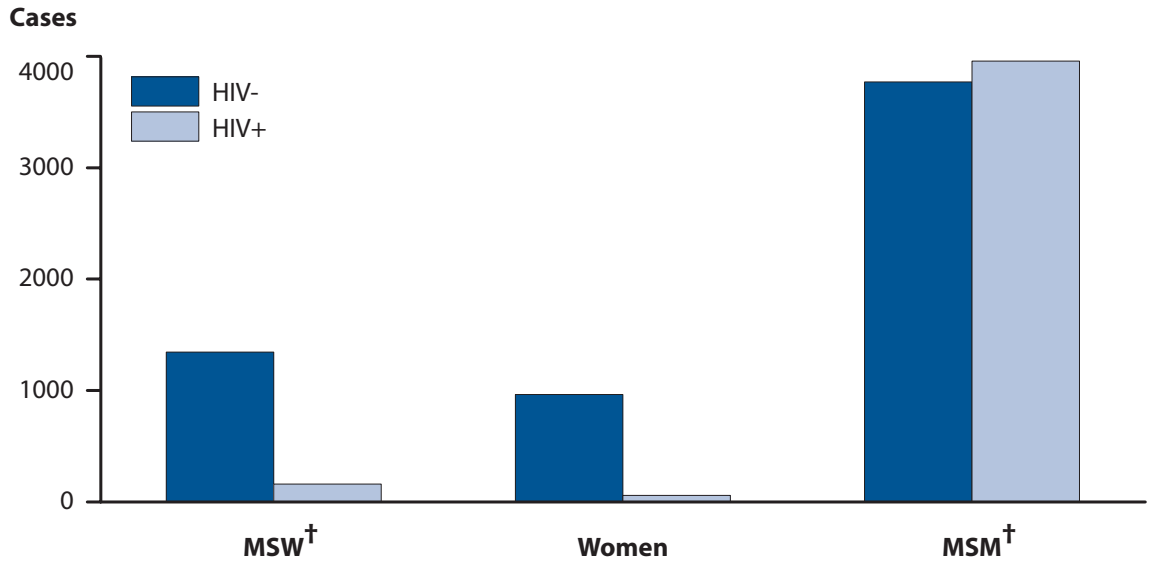
* Of the reported male cases of primary and secondary syphilis, 18.8% were missing sex of sex partner information.
† MSW = men who have sex with women only; MSM = men who have sex with men.

Figure 42. Primary and Secondary Syphilis — Reported Cases* by Sex, Sexual Behavior, and Race/Ethnicity, United States, 2014



* Of the reported male cases of primary and secondary syphilis, 18.8% were missing sex of sex partner information; 3.3% of reported male cases with sex of sex partner data were missing race/ethnicity data.
† MSW = men who have sex with women only; MSM = men who have sex with men.

Figure 43. Primary and Secondary Syphilis — Reported Cases by Sex, Sexual Behavior, and HIV Status (Positive or Negative), 26 Areas*, 2014



* 26 states reported both sex of sex partner and HIV status for ≥70% of reported cases of primary and secondary syphilis during 2014.
† MSW = men who have sex with women only; MSM = men who have sex with men.

Figure 44. Primary and Secondary Syphilis — Reported Cases by Reporting Source and Sex, United States, 2005–2014

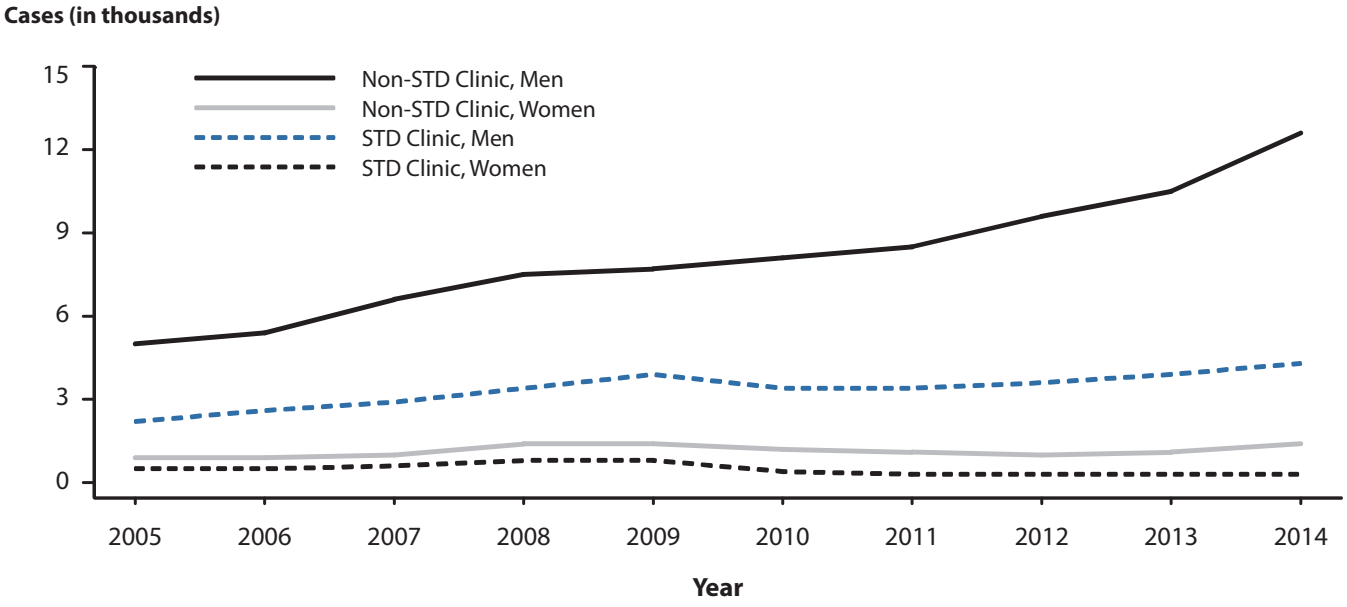
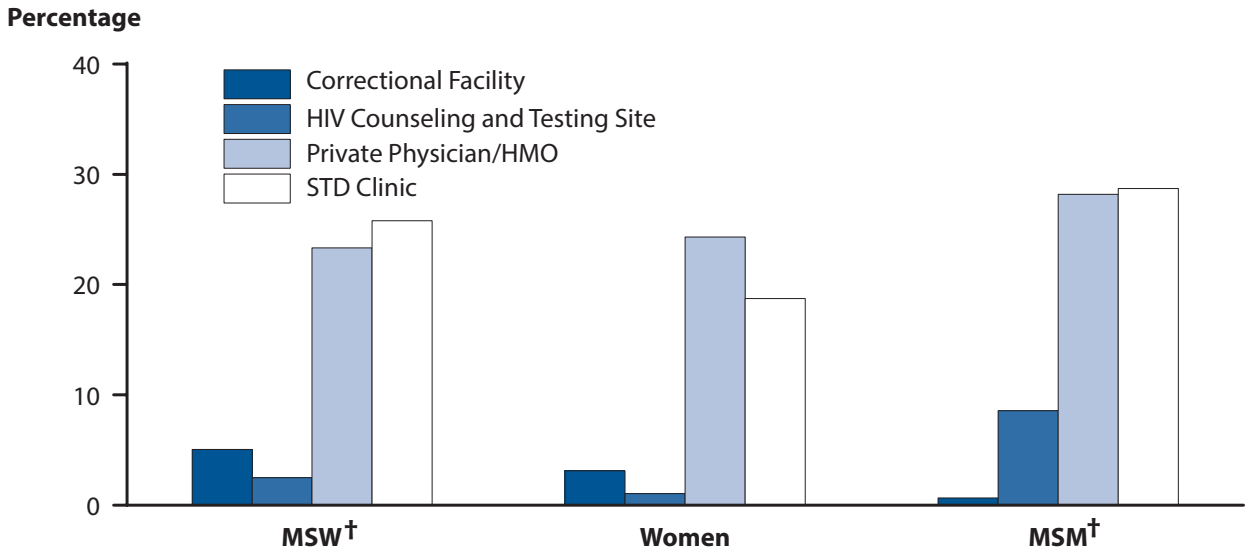
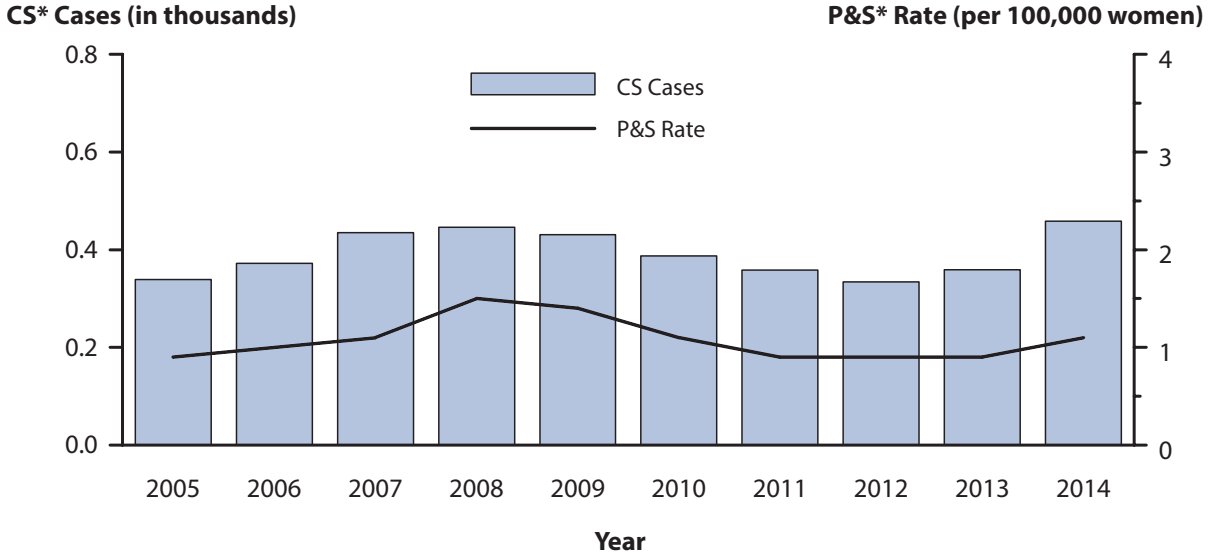


Figure 45. Primary and Secondary Syphilis — Percentage of Reported Cases* by Sex, Sexual Behavior, and Selected Reporting Sources, 2014



* Of all primary and secondary syphilis cases, 6.7% had a missing or unknown reporting source. Among all cases with a known reporting source the reporting source categories presented represent 62.0% of cases; 38.0% were reported from sources other than those shown.
† HMO = health maintenance organization; MSM = men who have sex with men; MSW = men who have sex with women only.

Figure 46. Congenital Syphilis — Reported Cases by Year of Birth and Rates of Primary and Secondary Syphilis Among Women, United States, 2005–2014



*CS = congenital syphilis; P&S = primary and secondary syphilis.

Other Sexually Transmitted Diseases

Chancroid

Chancroid is caused by infection with the bacterium *Haemophilus ducreyi*. Clinical manifestations include genital ulcers and inguinal lymphadenopathy or buboes.[1] Reported cases of chancroid declined steadily between 1987 and 2001. Since then, the number of reported cases has fluctuated somewhat, while still appearing to decline overall (Figure 47, Table 1). In 2014, a total of 6 cases of chancroid were reported in the United States. Only 3 states reported one or more cases of chancroid in 2014 (Table 44).

Although the overall decline in reported chancroid cases most likely reflects a decline in the incidence of this disease, these data should be interpreted with caution because *Haemophilus ducreyi*, the causative organism of chancroid, is difficult to culture; as a result, this condition may be underdiagnosed.[2,3]

Human Papillomavirus

Human papillomavirus (HPV) is the most common sexually transmitted infection in the United States.[4] Over 40 distinct types can infect the genital tract;[5] about 90% of infections are asymptomatic and resolve spontaneously within two years.[6] However, persistent infection with some HPV types can cause cancer and genital warts. HPV types 16 and 18 account for approximately 70% of cervical cancers worldwide,[7,8] while HPV 6 and 11 are responsible for approximately 90% of genital warts.[9,10]

A quadrivalent HPV vaccine that protects against HPV types 6, 11, 16 and 18 has been licensed in the United States for use in females since June 2006,[11] and in males since October 2009.12 In October 2009, a bivalent HPV vaccine that protects against HPV types 16 and 18 was licensed for use in females.[13] Either vaccine is recommended for routine use in females aged 11 or 12 years and in females who have not been vaccinated previously through age 26 years.[11] The quadrivalent vaccine is recommended for routine use in males aged 11 or 12 years and is recommended through age 21 years for males who have not been vaccinated previously.[11] Quadrivalent vaccination of gay, bisexual, and other men who have sex with men (collectively referred to as MSM) through age 26 is recommended; other males aged 22–26 years may also be vaccinated.[11] Vaccination is recommended through age 26 years for immunocompromised persons (including those infected with HIV) who have not been vaccinated previously.[11] In December 2014, a 9-valent vaccine that protects against the HPV types included in the quadrivalent vaccine, as well as five additional cancer causing types (HPV 31, 33, 45, 52, and 58), was licensed for use in the United States.[14]

HPV vaccine uptake in the United States remains lower than the Healthy People 2020 goal of 80% coverage.[15] In 2014, a national survey found that 60% of girls aged 13–17 years had received at least 1 dose of the HPV vaccine, and 40% had received all 3 doses in the series.[16] HPV vaccine uptake is lower among boys; 42% aged 13–17 years received at least 1 dose, but only 22% received all 3 doses.[16]

National population-based data were obtained from the National Health and Nutrition Examination Survey (NHANES; see Section A2.4 in the Appendix for more information) to examine the prevalence of HPV vaccine types in the civilian, non-institutionalized female population during 2003–2006. HPV detection and typing were performed on self-collected cervicovaginal swab samples using the Research Use Only Linear Array genotyping assay (Roche Diagnostics). In the pre-vaccine era (2003–2006), the overall prevalence of any HPV was 42.5% (95% Confidence Interval [CI]: 40.3–44.7) among females aged 14–59 years.[17] Prevalence varied significantly by age, peaking in young women 20–24 years of age (Figure 48).

Despite low vaccine coverage in the United States, prevalence of quadrivalent HPV vaccine types 6, 11, 16, and/or 18 in cervicovaginal specimens decreased from 11.5% (95% CI: 9.2–14.4) in the pre-vaccine era (2003–2006) to 5.1% (95% CI: 3.8–6.6) in the vaccine era (2007–2010) among females aged 14–19 years, the age group most likely to benefit from HPV vaccination (Figure 49).[18] Among other age groups, vaccine-type HPV prevalence did not differ significantly between the two time periods.

Data from the National Disease and Therapeutic Index (NDTI; see Section A2.5 in the Appendix for more information) suggest that cases of genital warts (Figure 50, Table 45), as measured by initial visits to physicians' offices, may have increased during the late 1990s through 2011. Although the number of cases appears to have decreased in 2012 and 2013, compared to 2011, more years of data are needed to discern whether genital warts are declining, particularly since 2013 cases exceed those reported in 2012. The 2014 NDTI data were not obtained in time to include them in this report.

Prevalence of genital warts in a large United States cohort of individuals with private health insurance significantly declined in 2007 through 2010 among girls aged 15–19 years.[19] Among women aged 20–24 years, genital wart prevalence, which had been increasing from 2003 through 2007, was stable from 2007 to 2009 and then decreased in 2010. Prevalence in women aged 25–29 increased through 2009, but decreases in genital warts were also observed for this group in 2010 (Figure 51).[19] These declines are what would be expected several years after initiating routine HPV vaccination for girls aged 11 to 12 years, with catch-up vaccination through age 26 years. Although genital wart prevalence in women aged 30–34 and 35–39 years did not continue to increase between 2009 and 2010, more years of data are needed to interpret these observations, as well as the observed decline in prevalence in 2010 for men aged 20–24 years. The NHANES data for 1999–2004 indicated that 5.6% (95% CI: 4.9–6.4) of sexually active adults aged 18–59 years self-reported a history of a genital wart diagnosis.[20]

For data reported in Figure 52, enhanced behavioral and demographic information on patients who presented for care in 2014 in the 6 jurisdictions that contributed data for all of 2014 to the STD Surveillance Network (SSuN) was used. See Section A2.2 in the Appendix for more information about the SSuN. Genital warts were identified by provider diagnosis or by documentation from the physical examination. MSM and men who have sex with women only (MSW) were defined by self-report or by sex of reported sex partners. The prevalence of genital warts in 2014 is presented separately for MSM, MSW, and women by SSuN jurisdiction in the figure. Among women the median prevalence of genital warts was 1.1% (range 0.8 to 2.3) across all jurisdictions, compared to 4.0% (range 2.9 to 4.7) for MSM and 4.9% (range 3.3 to 5.5) for MSW.

Pelvic Inflammatory Disease

For data on pelvic inflammatory disease, see Special Focus Profiles, STDs in Women and Infants.

Herpes Simplex Virus

Herpes simplex virus (HSV) is among the most prevalent sexually transmitted infections;[4,21] although most infections are subclinical,[22] clinical manifestations are characterized by recurrent, painful genital and/or anal lesions.[23] Most genital herpes infections in the United States are caused by HSV-2; however genital HSV-1 infections are increasing among college students and other populations.[24,25] Case reporting data for genital HSV are not available. Data on initial visits to physicians' offices for this condition are available from the NDTI (Figure 53, Table 45), however, the 2014 NDTI data were not obtained in time to include them in this report.

National trend data on the gender-specific seroprevalence of HSV-2 among those aged 14–49 years from the NHANES were compared across survey years 1988–1994, 1999–2002, 2003–2006, and 2007–2010 (Figure 54). Overall, HSV-2 seroprevalence decreased between 1988–1994 and 2007–2010, from 21.2% to 15.5%.[26] Among non-Hispanic white females, HSV-2 seroprevalence decreased from 19.5% (1988–1994) to 15.3% (2007–2010; P<0.001); HSV-2 seroprevalence remained stable among non-Hispanic black or African American (hereinafter referred to as black) females, from 52.5% (1988–1994) to 49.9% (2007–2010; P=0.1).[26] These data, along with data from the NHANES survey years 1976–1980,[27] indicate that blacks had higher seroprevalence than whites for each survey period and age group.

Although HSV-2 seroprevalence is decreasing, most persons with HSV-2 have not received a diagnosis. The overall percentage of HSV-2 seropositive NHANES participants who reported never being told by a doctor or health care professional that they had genital herpes did not change significantly between 1988–1994 and 2007–2010, and remained high (90.7% and 87.4%, respectively).[26] However, an overall increase in the number of visits for genital herpes over time, as suggested by the NDTI data, may indicate increased use of serologic testing and increased recognition of infection.

Neonatal HSV infections, although relatively rare, cause significant morbidity and mortality.[28] Most neonatal HSV infections result from vertical transmission from mother to neonate.[29] An examination of inpatient records of infants aged 60 days or younger at admission using the Healthcare Cost and Utilization Project Kid's Inpatient Database showed an overall incidence of 9.6 cases per 100,000 live births in 2006.[30] Rates did not vary significantly by region or race/ethnicity; however, prevalence was significantly higher among cases for which the expected primary payer was Medicaid (15.1 per 100,000; 95% CI: 12.1–18.1) compared with private insurance or managed health care (5.4 per 100,000; 95% CI: 4.0–6.8).

Trichomoniasis

Trichomonas vaginalis infection is a common sexually transmitted protozoal infection associated with adverse health outcomes such as preterm birth and symptomatic vaginitis.[4,31,32] Trend data for this infection are limited to estimates of initial physician office visits from the NDTI (Figure 55, Table 45); however, the 2014 NDTI data were

not obtained in time to include them in this report. The NHANES data from 2001–2004 indicated an overall trichomoniasis prevalence of 3.1% (95% CI: 2.3–4.3), with the highest prevalence observed among blacks (13.3%; 95% CI: 10.0–17.7).[32]

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Figure 47. Chancroid — Reported Cases by Year, United States, 1981–2014

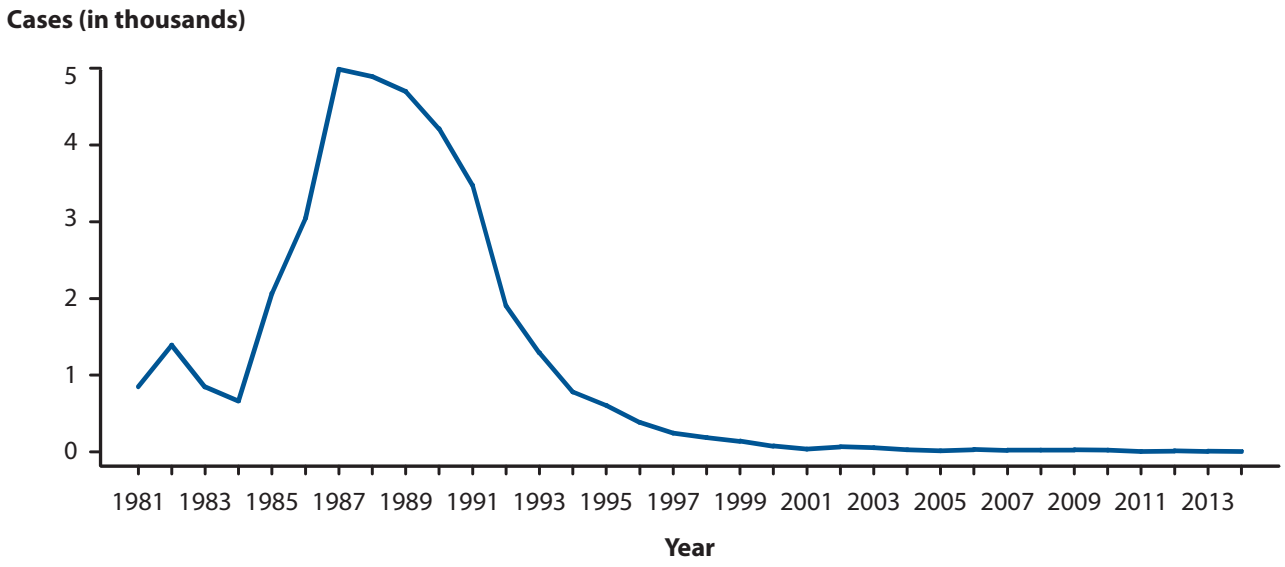
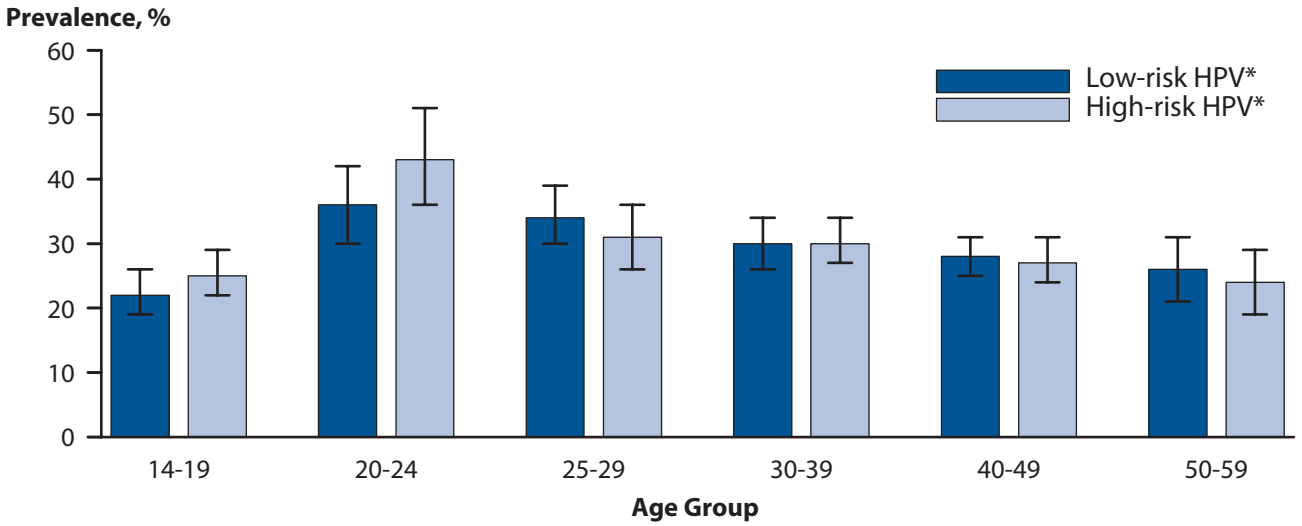
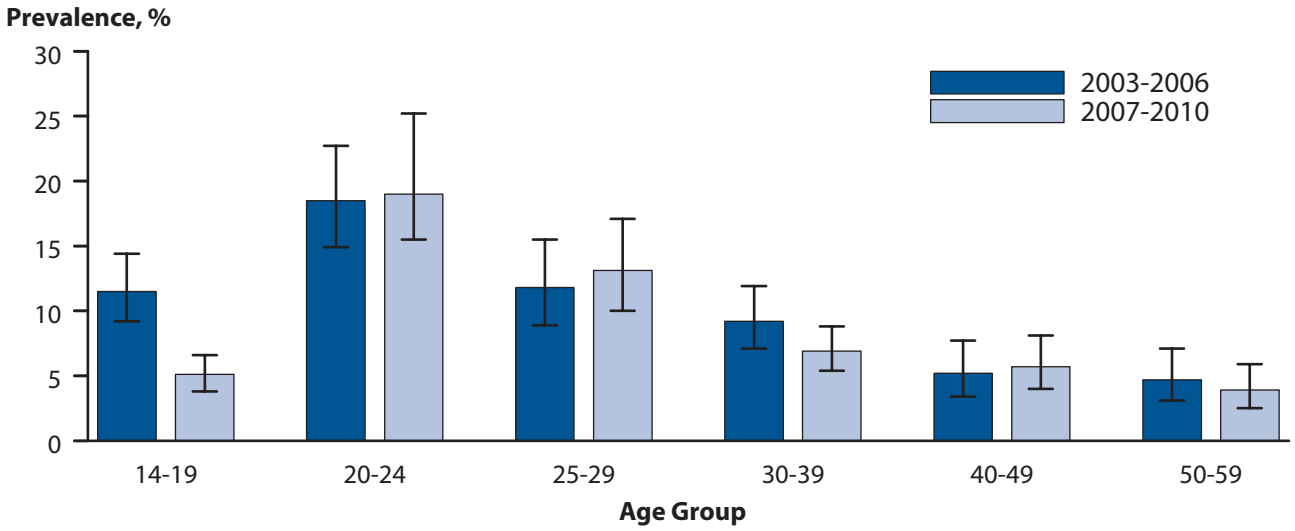


Figure 48. Human Papillomavirus — Cervicovaginal Prevalence of High-Risk and Low-Risk Types Among Women Aged 14–59 Years by Age Group, National Health and Nutrition Examination Survey, 2003–2006



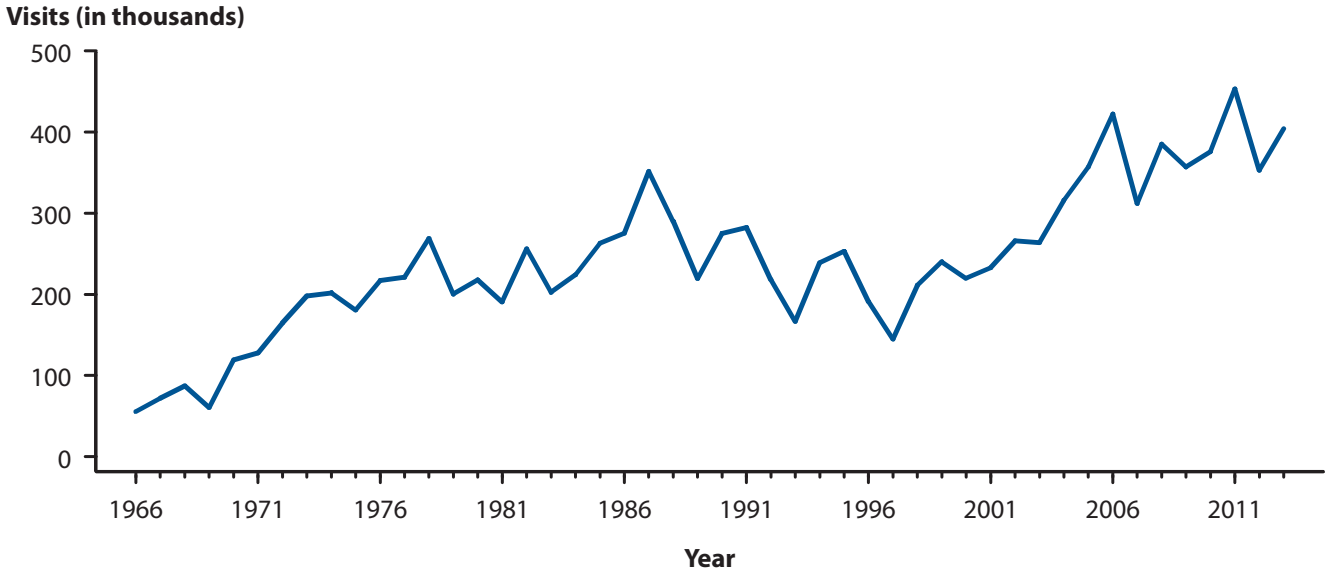
* HPV = human papillomavirus.
NOTE: Error bars indicate 95% confidence interval. Both high-risk and low-risk HPV types were detected in some females.
SOURCE: Hariri S, Unger ER, Sternberg M, Dunne EF, Swan D, Patel S, et al. Prevalence of genital human papillomavirus among females in the United States, the National Health and Nutrition Examination Survey, 2003–2006. J Infect Dis 2011;204(4):566–73.

Figure 49. Human Papillomavirus — Cervicovaginal Prevalence of Types 6, 11, 16 and 18 Among Women Aged 14–59 Years by Age Group and Time Period, National Health and Nutrition Examination Survey, 2003–2006 and 2007–2010



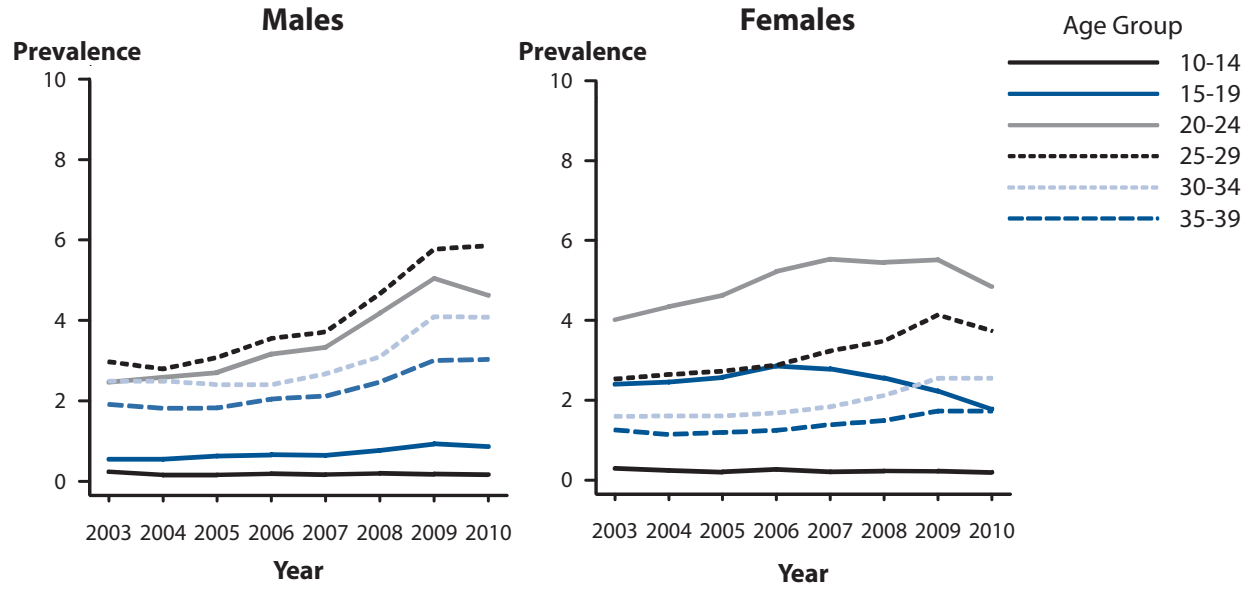
NOTE: Error bars indicate 95% confidence interval.
SOURCE: Markowitz LE, Hariri S, Lin C, Dunne EF, Steinau M, McQuillan G, et al. Reduction in human papillomavirus (HPV) prevalence among young women following HPV vaccine introduction in the United States, National Health and Nutrition Examination Surveys, 2003–2010. J Infect Dis 2013;208(3):385–93.

Figure 50. Genital Warts — Initial Visits to Physicians' Offices, United States, 1966–2013



NOTE: The relative standard errors for genital warts estimates of more than 100,000 range from 18% to 23%. See Section A2.5 in the Appendix and Table 45.
SOURCE: National Disease and Therapeutic Index, IMS Health, Integrated Promotional Services™. IMS Health Report, 1966–2013. The 2014 data were not obtained in time to include them in this report.

Figure 51. Genital Warts — Prevalence per 1000 Person-Years Among Participants in Private Health Plans Aged 10–39 Years by Sex, Age Group, and Year, 2003–2010

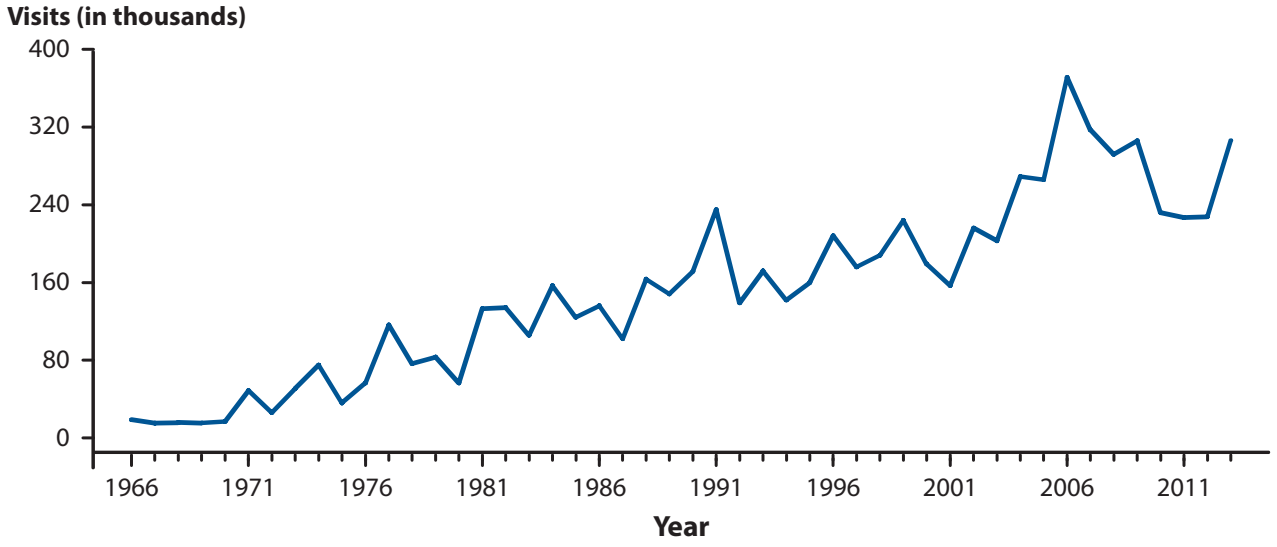


SOURCE: Flagg EW, Schwartz R, Weinstock H. Prevalence of anogenital warts among participants in private health plans in the United States, 2003–2010: potential impact of human papillomavirus vaccination. Am J Public Health 2013;103(8):1428–35.

Figure 52. Genital Warts — Prevalence among STD Clinic Patients by Sex, Sex of Partners, and Site, STD Surveillance Network (SSuN), 2014

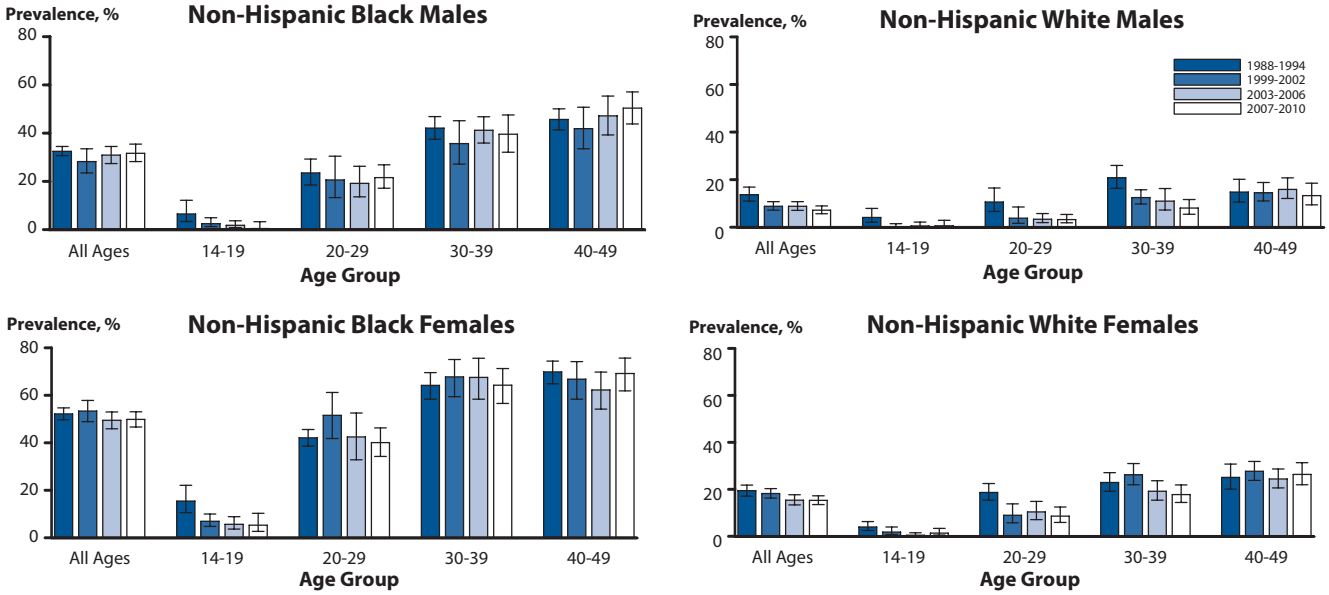
* MSM = men who have sex with men; MSW = men who have sex with women only.
NOTE: Includes the six jurisdictions (Baltimore, Los Angeles, New York City, Philadelphia, San Francisco and Seattle) which contributed data for all of 2014.

Figure 53. Genital Herpes — Initial Visits to Physicians' Offices, United States, 1966–2013



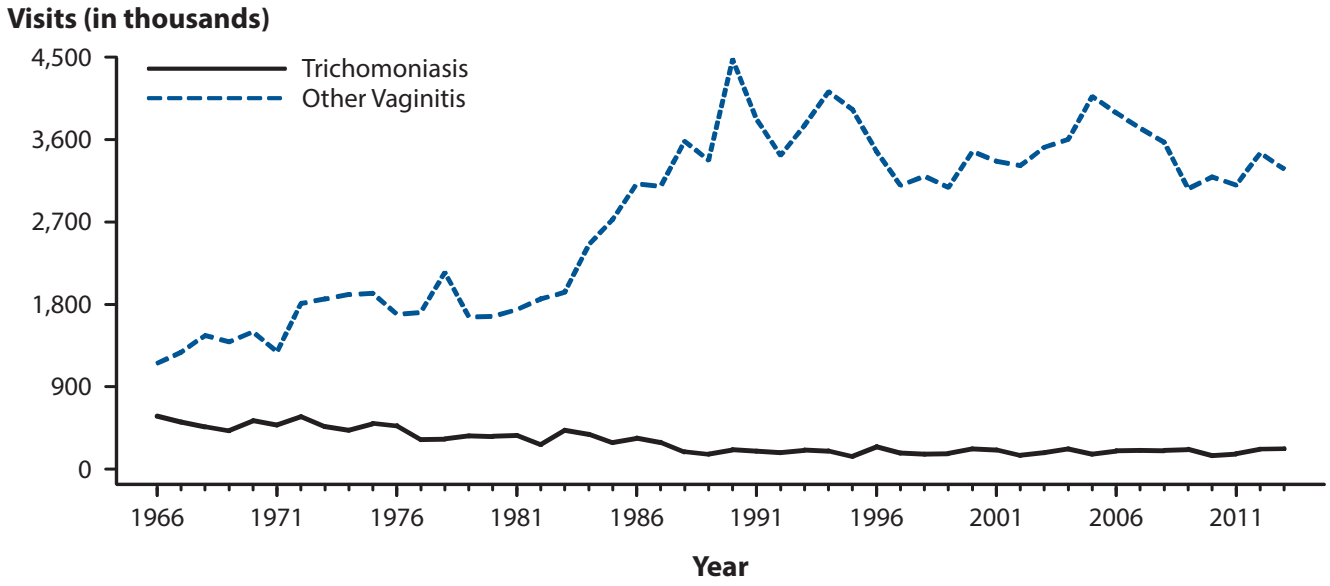
NOTE: The relative standard errors for genital herpes estimates of more than 100,000 range from 19% to 23%. See Section A2.5 in the Appendix and Table 45.
SOURCE: National Disease and Therapeutic Index, IMS Health, Integrated Promotional Services™. IMS Health Report, 1966–2013. The 2014 data were not obtained in time to include them in this report.

Figure 54. Herpes Simplex Virus Type 2 — Seroprevalence Among Non-Hispanic Whites and Non-Hispanic Blacks by Sex and Age Group, National Health and Nutrition Examination Survey, 1988–1994, 1999–2002, 2003–2006, and 2007–2010



NOTE: Error bars indicate 95% confidence interval.
SOURCE: Fanfair RN, Zaidi A, Taylor LD, Xu F, Gottlieb S, Markowitz L. Trends in seroprevalence of herpes simplex virus type 2 among non-Hispanic blacks and non-Hispanic whites aged 14 to 49 years — United States, 1988 to 2010. Sex Transm Dis 2013;40(11):860–4.

Figure 55. Trichomoniasis and Other Vaginal Infections Among Women — Initial Visits to Physicians' Offices, United States, 1966–2013



NOTE: The relative standard errors for trichomoniasis estimates range from 16% to 21% and for other vaginitis estimates range from 8% to 13%. See Section A2.5 in the Appendix and Table 45.
SOURCE: National Disease and Therapeutic Index, IMS Health, Integrated Promotional Services™, IMS Health Report, 1966–2013. The 2014 data were not obtained in time to include them in this report.

SPECIAL FOCUS PROFILES

SPECIAL FOCUS PROFILES

Special Focus Profiles

The Special Focus Profiles highlight trends and distribution of STDs in populations of particular interest to STD and HIV prevention programs in state and local health departments: women and infants, adolescents and young adults, racial and ethnic minority groups, and gay and bisexual men and other men who have sex with men (MSM). These populations are most vulnerable to STDs and their consequences and often lack adequate access to healthcare services. In 2013, in the U.S., age was strongly associated with having health insurance. Older adults (65 years and older) and children (19 years and under) were most likely to have health insurance. Working adults (19 years to 64 years) had higher uninsured rates. The rates of non-insured for whites, blacks, and Hispanics were: 9.8%, 15.9%, and 24.3% respectively.[1] The Patient Protection and Affordable Care Act (ACA) aims to increase access to sexual and reproductive health services through reforms based on the U.S. Preventive Services Task Force recommendations that include: chlamydia and gonorrhea screening (for sexually active women under 25 and all higher risk women), HIV screening (everyone 15–65 years old, pregnant, and higher risk), STD counseling (for all sexually active adolescents and higher-risk adults), and syphilis screening (for pregnant women and adults at higher risk).[2] However, although health insurance coverage has been expanded for most groups, including both men and women, and for most race and ethnic groups, evidence suggests that disparities in health insurance coverage and access to STD services remain.[3-4]

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STDs in Women and Infants

Public Health Impact

Women and infants are at significant risk for long-term consequences of STDs. A woman's relationship status with her male partner, in particular, has been identified as an important predictor of her sexual health.[1] In addition to social factors such as poverty and lack of access to quality STD services, a woman may be unable to negotiate safer sexual practices, such as condom use, which can significantly affect her sexual and reproductive health, as well as the health of her unborn baby.[2,3]

As an example of how social factors can impact women's health, a perceived shortage of available men in a community can cause women to be more accepting of their partners' concurrent sexual relationships, and partner concurrency is a factor associated with increased risk for STDs.[4] Because it may be her male partner's risk, rather than the woman's that increases a woman's risk for STDs, even a woman who has only one partner may be obliged to practice safer sex such as using condoms.[5] A number of studies have found significant associations between condom use and socio-demographic characteristics, including age, income, education, and acculturation.[6]

Women infected with *C. trachomatis* or *N. gonorrhoeae* can develop pelvic inflammatory disease (PID), which, in turn, can lead to reproductive morbidity such as ectopic pregnancy and tubal factor infertility. An estimated 10%–20% of women with chlamydia or gonorrhea may develop PID if they do not receive adequate treatment.[7,8] Among women with PID, tubal scarring can cause infertility in 8% of women, ectopic pregnancy in 9%, and chronic pelvic pain in 18%.[9]

About 80%–90% of chlamydial infections[10] and up to 80% of gonococcal infections[11] in women are asymptomatic. These infections are detected primarily through screening. Because the symptoms associated with PID can be nonspecific, up to 85% of women with PID delay seeking medical care, thereby increasing the risk for infertility and ectopic pregnancy.[12] Data from two randomized controlled trials of chlamydia screening suggest that such screening programs reduce PID incidence. [13,14]

Human papillomavirus (HPV) infections are highly prevalent in the United States, especially among young sexually active women. Although most HPV infections in women resolve within 2 years, they are a major concern because persistent infection with specific types of the virus can cause abnormal cervical cells to be noted on a Papanicolaou (Pap) smear. These abnormal cells can progress to cervical cancer. Other types cause genital warts, low-grade Pap smear abnormalities, and, rarely, recurrent respiratory papillomatosis in infants born to infected mothers.[15]

Impact on Pregnancy Outcomes

Chlamydia and gonorrhea can result in adverse outcomes of pregnancy, including neonatal ophthalmia and, in the case of chlamydia, neonatal pneumonia. Although topical prophylaxis of infants at delivery is effective for prevention of gonococcal ophthalmia neonatorum, prevention of neonatal pneumonia requires prenatal detection and treatment.

Genital infections with herpes simplex virus (HSV) are extremely common, can cause painful outbreaks, and can have serious consequences for pregnant women and their infants.[16]

When a woman has a syphilis infection during pregnancy, she can transmit the infection to the fetus in utero. Transmission can result in fetal death or an infant born with physical and mental developmental disabilities. Most cases of congenital syphilis are easily preventable if women are screened for syphilis and treated early during prenatal care.[17]

Observations

Chlamydia — United States

Chlamydial infections in women are usually asymptomatic and screening is necessary to identify most infections.[18] Routine chlamydia screening of sexually-active young women has been recommended by CDC since 1993.[19] Rates of reported cases among women increased steadily from the early 1990s likely reflecting expanded screening coverage and use of more sensitive diagnostic tests (Figure 1). During 2011–2013, rates decreased from 643.4 to 619.0 cases per 100,000 females and then increased 1.3% to 627.2 per 100,000 in 2014 (Table 4).

Chlamydia rates are highest among young women, the population targeted for screening (Figure 5, Table 10). During 2013–2014, rates of reported chlamydia decreased 4.2% among females aged 15–19 years and increased 1.6% among females aged 20–24 years. Regionally, chlamydia case rates are highest among women in the South, with a

rate of 694.4 per 100,000 females in 2014 (Table 4). Rates of reported chlamydia exceeded gonorrhea rates among women in all regions (Figures A and B, Tables 4 and 15).

Gonorrhea — United States

Like chlamydia, gonorrhea is often asymptomatic in women. Thus, gonorrhea screening is an important strategy for the identification of gonorrhea among women. Large-scale screening programs for gonorrhea in women began in the 1970s. After an initial increase in cases detected through screening, rates of reported gonorrhea cases for both women and men declined steadily throughout the 1980s and early 1990s and then declined more gradually in the late 1990s and the 2000s (Figure 12). After reaching a 40-year low in 2009 (104.5 cases per 100,000 females), the gonorrhea rate for women increased slightly each year during 2009–2011, but then decreased each year during 2012–2014. In 2014, the gonorrhea rate among women decreased to 101.3 cases per 100,000 females (Figure 13, Table 15).

The gonorrhea rate among women was slightly higher than the rate among men during 2001–2012, but the rate among men was higher than the rate among women in 2013 and 2014 (Figure 13, Tables 15 and 16). Gonorrhea rates are highest among young women (Figure 17, Table 21). Among young women and adolescents, rates were highest in 2014 among 19-year old females (643.9 per 100,000 females) (Table 23).

Congenital Syphilis

Trends in congenital syphilis usually follow trends in primary and secondary syphilis (P&S) among women, with a lag of 1–2 years (Figure 46). The rate of reported P&S syphilis cases among women declined 95.4% (from 17.3 to 0.8 cases per 100,000 females) during 1990–2004 (Figure 33). Since 2004, the rate has fluctuated. It increased during 2005–2008 to 1.5 cases per 100,000 females in 2008, decreased during 2009–2011 to 0.9 cases per 100,000 females in 2011, and plateaued at 0.9 cases per 100,000 females during 2012–2013. In 2014, the P&S syphilis rate among women increased to 1.1 cases per 100,000 females (Table 28). This represents a 22.2% increase relative to 2013.

Similarly, the reported rate of congenital syphilis cases declined by 92.4% during 1991–2005, from a peak of 107.6 cases per 100,000 live births in 1991 to 8.2 cases per 100,000 live births in 2005, but has fluctuated since 2005 (Table 1). The congenital syphilis rate increased during 2006–2008 to 10.5 cases per 100,000 live births in 2008, decreased during 2009–2012 to 8.4 cases per 100,000 live births in 2012, and subsequently increased each year in 2013 and 2014, to 11.6 cases per 100,000 live births in 2014. This increase in 2014 represents a 27.5% increase relative to 2013 and a 19.6% increase relative to 2010 (Table 42).

As in previous years, the highest rates of P&S syphilis among women and the highest rates of congenital syphilis were observed in the South (Figures C and D, Table 28 and 42). However, all regions experienced an increase in the rate of P&S syphilis among women and the rate of congenital syphilis during 2013–2014. The largest increases in the rate of P&S syphilis among women were seen in the West (50.0%), followed by the Midwest (28.5%), Northeast (25%), and South (7.1%). The largest increases in the rate of congenital syphilis were seen in the Northeast (74.1%), followed by the West (63.6%), the Midwest (32.8%), and the South (9.2%).

Although most cases of congenital syphilis occur among infants whose mothers have had some prenatal care, late or limited prenatal care has been associated with congenital syphilis. Failure of health care providers to adhere to maternal syphilis screening recommendations also contributes to the occurrence of congenital syphilis.[20]

Pelvic Inflammatory Disease

Accurate estimates of PID and tubal factor infertility resulting from chlamydial and gonococcal infections are difficult to obtain, in part because definitive diagnoses of these conditions can be complex. Published data suggest overall declining rates of women diagnosed with PID in the United States in both hospital and ambulatory settings.[21-23] The National Disease and Therapeutic Index (NDTI) provides estimates of initial visits to office-based, private physicians for PID (NDTI; see Section A2.5 in the Appendix for more information). NDTI estimated that from 2004–2013 the number of visits to such physicians for PID among women aged 15–44 decreased (39.8%) from 123,000 to 88,000 visits (Figure E). The 2014 NDTI data were not obtained in time to include them in this report. Several suggestions have been put forth as factors that could influence PID rates, including increases in chlamydia and gonorrhea screening coverage, more sensitive diagnostic technologies, and availability of single-dose therapies that increase adherence to treatment.[22-24] While PID is declining nationally, it still causes an enormous amount of unnecessary and expensive morbidity.

Differences in PID diagnoses or treatment by race/ethnicity have been observed in earlier research.[21] Using data from the National Survey of Family Growth, the overall proportion of sexually experienced women who have been treated for PID declined from 8.6% in 1995 to 5.7% in 2002 and leveled off to 5.0% in 2006–2010 (Figure F).[25] While this

pattern was observed across all racial/ethnic groups, the proportion who had received PID treatment was higher among non-Hispanic blacks than those among Hispanics or non-Hispanic whites. These disparities are consistent with the marked racial disparities observed for chlamydia and gonorrhea. However, because of the subjective methods by which PID is diagnosed, racial disparity data should be interpreted with caution.

Ectopic Pregnancy

Ectopic pregnancy (EP) is a potentially life-threatening adverse pregnancy outcome that requires prompt evaluation and treatment, and an important cause of pregnancy related mortality. Past studies have found that it affects 1–2% of all pregnancies.[26-27] Fallopian tube pathology is the most common etiology of EP.[28]

In the past, the National Hospital Discharge Survey, which collects information on discharged hospital in-patients in the United States, was used to estimate trends in the rate of EP. However, medical and surgical treatment of EP is currently provided in both inpatient and outpatient settings, making the task of tracking reliable estimates at the national level difficult.[29] More recent attempts to estimate EP incidence use data from surveys or administrative databases of public and private insurance and managed care systems.[30] Data from a large administrative claims database suggests the rate of EP increases with age among pregnancies in girls and women aged 15–44 years during the period of 2003 to 2013 (Figure G). In 2013, EP rates were highest among women aged 35–44 years. During 2012–2013, the EP rate decreased among all age groups, most notably in the 25–29 age group (21%).

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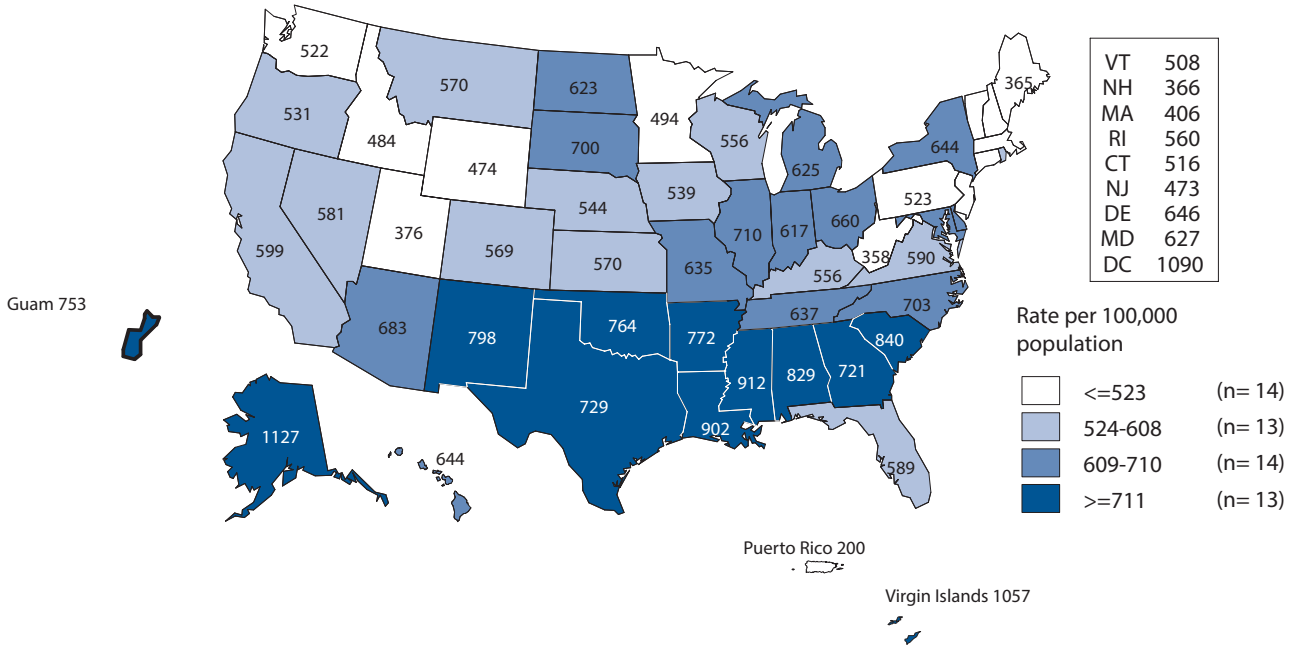
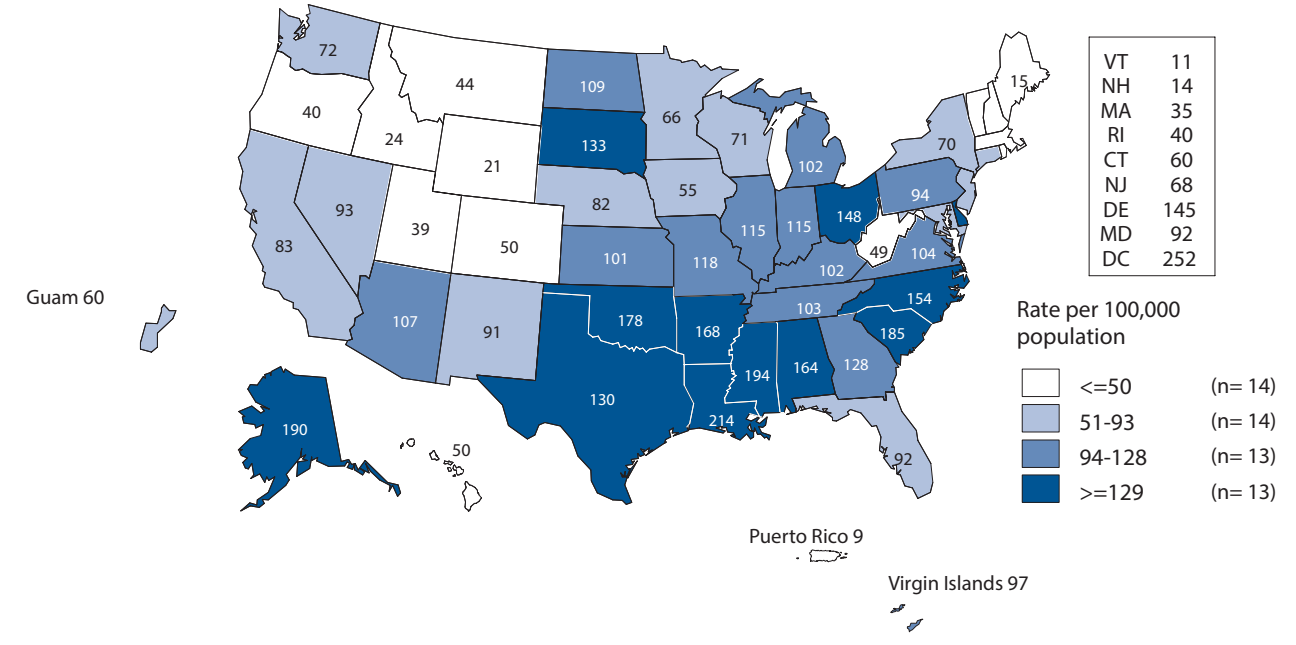
Figure A. Chlamydia — Rates of Reported Cases Among Women by State, United States and Outlying Areas, 2014



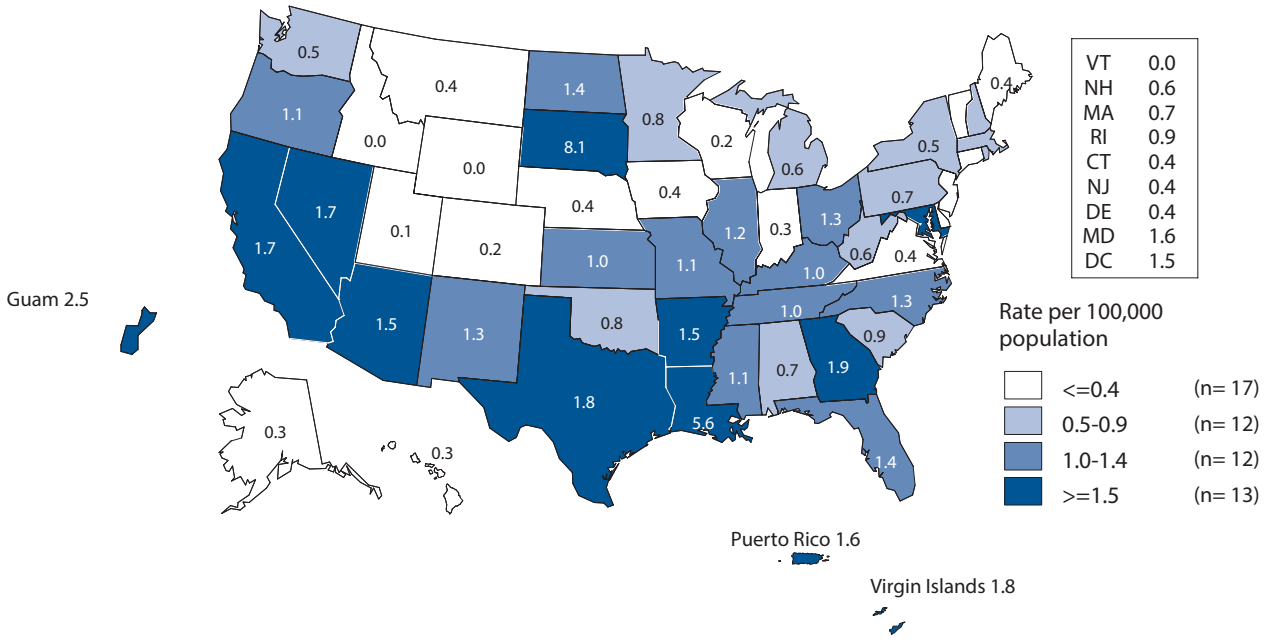
NOTE: The total rate of reported cases of chlamydia among women in the United States and outlying areas (Guam, Puerto Rico, and Virgin Islands) was 622.4 per 100,000 female population.

Figure B. Gonorrhea — Rates of Reported Cases Among Women by State, United States and Outlying Areas, 2014



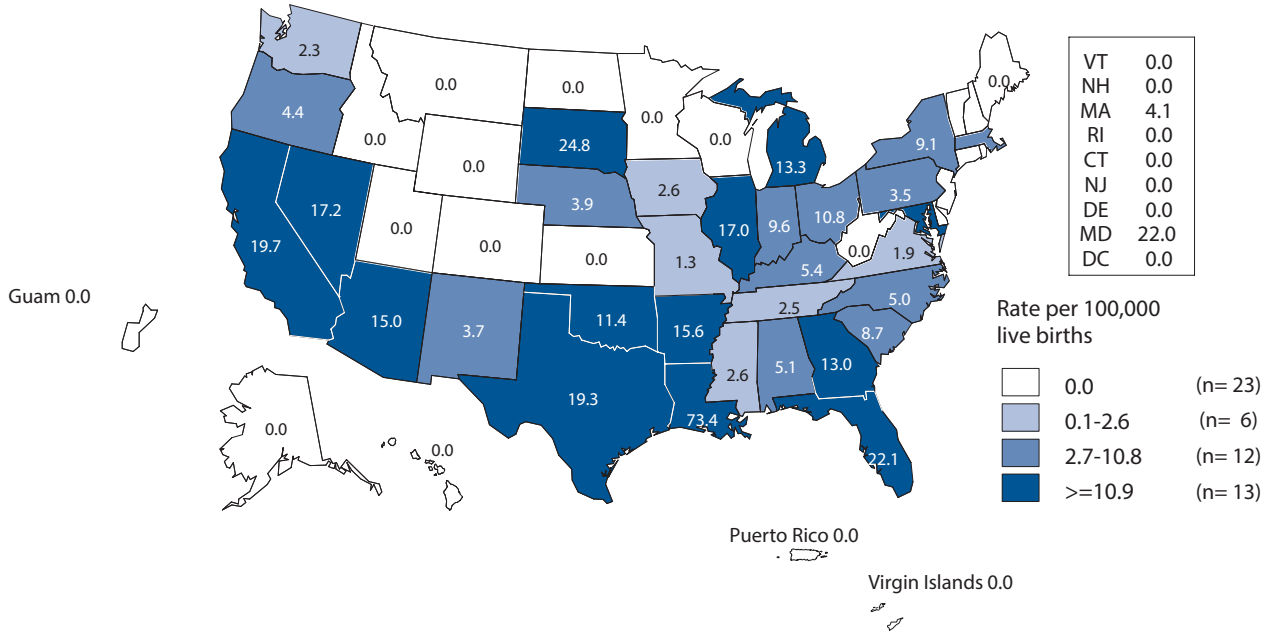
NOTE: The total rate of reported cases of gonorrhea among women in the United States and outlying areas (Guam, Puerto Rico, and Virgin Islands) was 100.2 per 100,000 female population.

Figure C. Primary and Secondary Syphilis — Rates of Reported Cases Among Women by State, United States and Outlying Areas, 2014



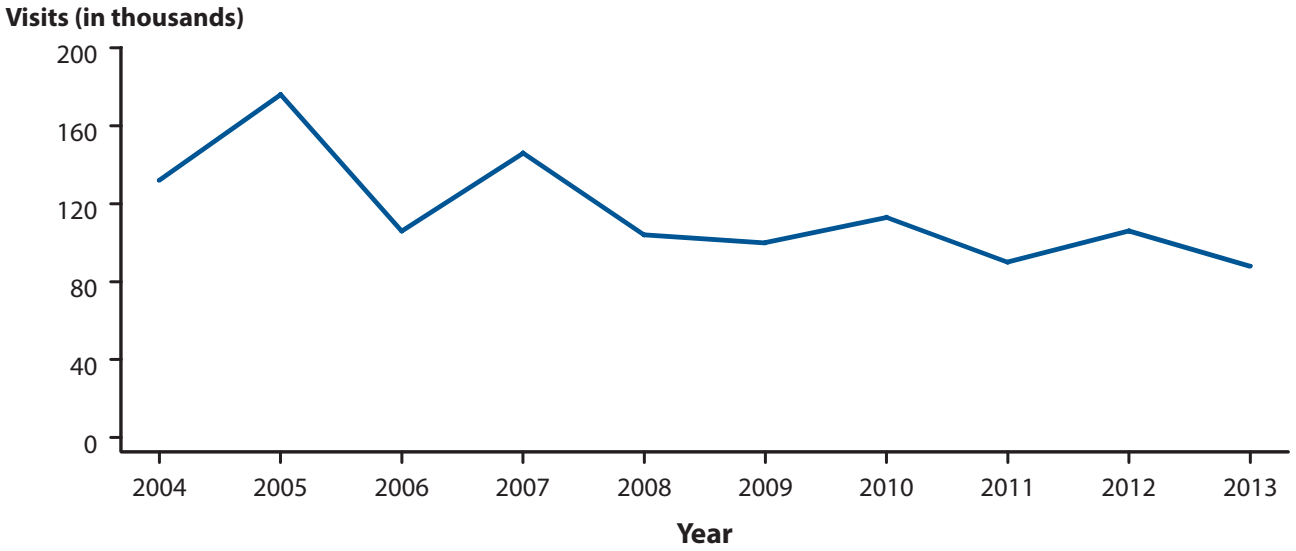
NOTE: The total rate of primary and secondary syphilis among women in the United States and outlying areas (Guam, Puerto Rico, and Virgin Islands) was 1.2 per 100,000 female population.

Figure D. Congenital Syphilis — Rates of Reported Cases by Year of Birth and State, United States and Outlying Areas, 2014



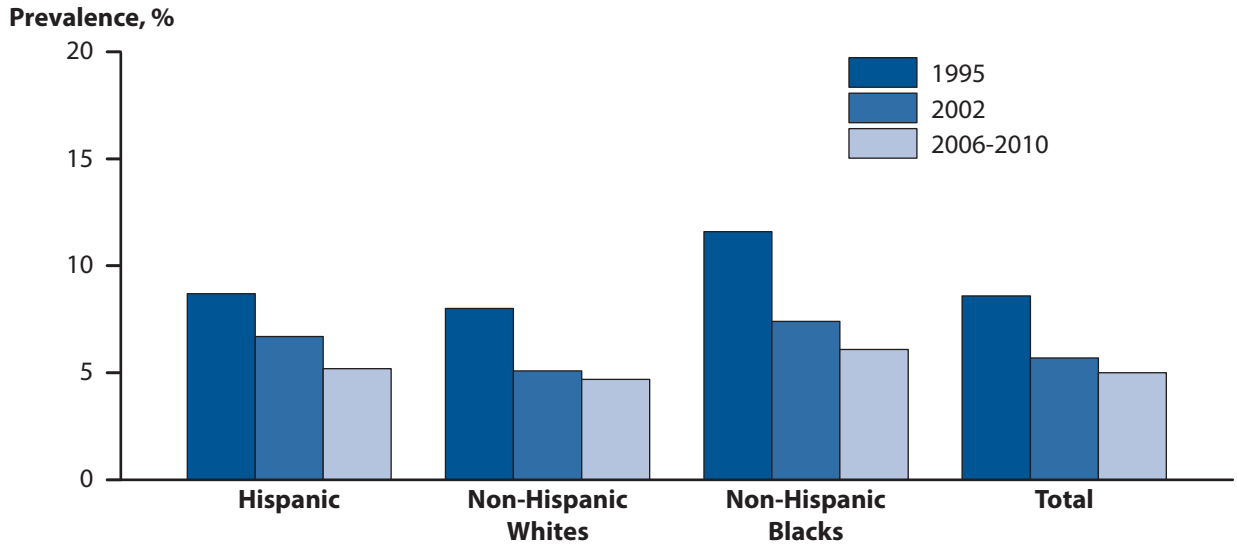
NOTE: The total rate of congenital syphilis for infants by year of birth for the United States and outlying areas (Guam, Puerto Rico, and Virgin Islands) was 11.5 per 100,000 live births.

Figure E. Pelvic Inflammatory Disease — Initial Visits to Physicians' Offices Among Women Aged 15–44 Years, United States, 2004–2013



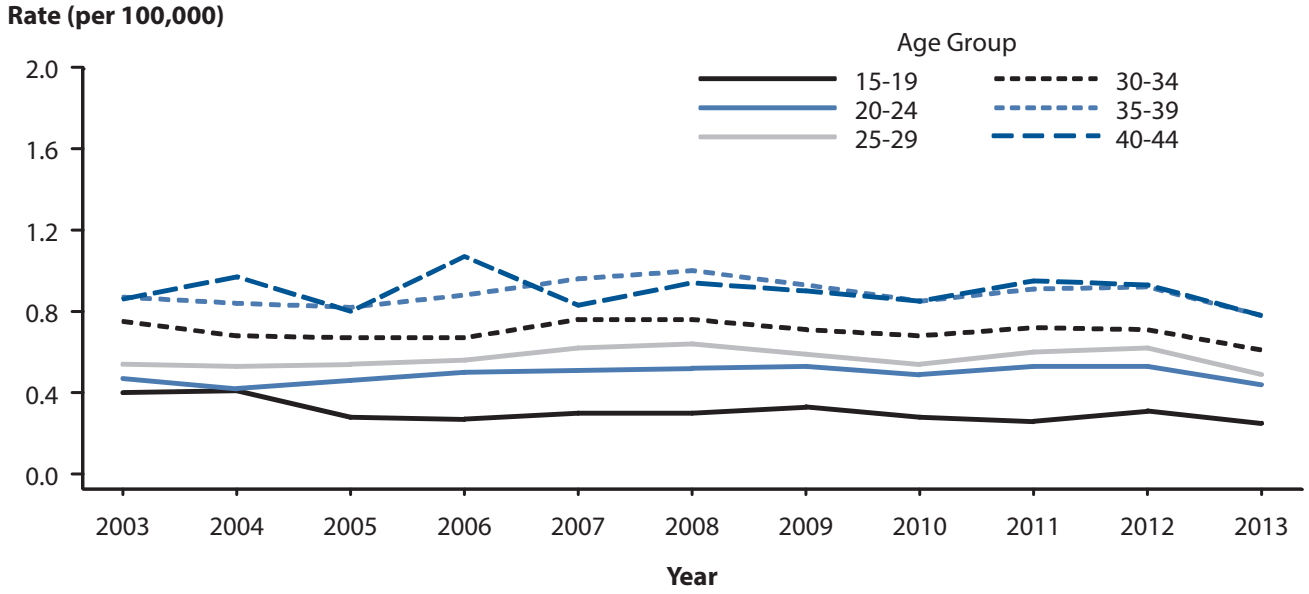
NOTE: The relative standard errors for these estimates are 16%–23%. See Section A2.5 in the Appendix and Table 45.
SOURCE: National Disease and Therapeutic Index, IMS Health, Integrated Promotional Services™, IMS Health Report, 2004–2013. The 2014 data were not obtained in time to include them in this report.

Figure F. Pelvic Inflammatory Disease — Trends in Lifetime Prevalence of Treatment Among Sexually Experienced Women Aged 15–44 by Race/Ethnicity, National Survey of Family Growth, 1995, 2002, 2006–2010



SOURCE: Leichliter, Jami. Chandra Anjani, Aral SO. Correlates of Self-Reported Pelvic Inflammatory Disease Treatment in Sexually Experienced Reproductive-Aged Women in the United States, 1995, 2002, and 2006-2010. Sex Transm Dis. 2013;40(5):413-418.

Figure G **Ectopic Pregnancy — Rates Among Commercially Insured Pregnant Women Aged 15–44 Years by Age, 2003–2013**



SOURCE: MarketScan Commercial Claims and Encounters Database, Truven Health Analytics, Ann Arbor, MI, 2003-2013.

STDs in Adolescents and Young Adults

Public Health Impact

Incidence and prevalence estimates suggest that young people aged 15–24 years acquire half of all new STDs[1] and that 1 in 4 sexually active adolescent females have an STD, such as chlamydia or human papillomavirus (HPV).[2] Compared with older adults, sexually active adolescents aged 15–19 years and young adults aged 20–24 years are at higher risk of acquiring STDs for a combination of behavioral, biological, and cultural reasons. For some STDs, such as chlamydia, adolescent females may have increased susceptibility to infection because of increased cervical ectopy. Cervical ectopy refers to columnar cells, which are typically located within the cervical canal, being located on the outer surface of the cervix. Although this is a normal finding in adolescent and young women, these cells are more susceptible infection. The higher prevalence of STDs among adolescents may also reflect multiple barriers to accessing quality STD prevention and management services, including inability to pay, lack of transportation, long waiting times, conflicts between clinic hours and work and school schedules, embarrassment attached to seeking STD services, method of specimen collection, and concerns about confidentiality.[3]

Traditionally, intervention efforts have targeted individual level factors associated with STD risk which do not address higher-level factors (e.g., peer norms and media influences) that may also influence behaviors.[4] Interventions for at-risk adolescents and young adults that address underlying aspects of the social and cultural conditions that affect sexual risk-taking behaviors are needed, as are strategies designed to improve the underlying social conditions themselves.[5,6] In addition, in designing STD programs, consideration should be given to the needs of adolescent and young adult populations including extended hours, optimizing privacy in waiting rooms, and urine based specimen collection.[3]

Observations

Chlamydia

In 2014, there were 948,102 reported cases of chlamydial infection among persons aged 15–24 years of age, representing 66% of all reported chlamydia cases. Among those aged 15–19 years, the rate of reported cases of chlamydia decreased 3.5% during 2013–2014 (1,869.7 to 1,804.0 per 100,000) (Table 10). Among those aged 20–24 years, the rate increased 2.3% during 2013–2014 (2,428.8.8 to 2,484.6 per 100,000) (Table 10).

Among women aged 15–24 years of age, the population targeted for chlamydia screening, the overall rate of reported cases of chlamydia was 3,309.4 per 100,000 females. Rates varied by state, with highest reported case rates in the South (Figure H).

15- to 19-Year Old Women — In 2014, the chlamydia case rate among women aged 15–19 years was 2,941.0 cases per 100,000 females, a 4.2% decrease from the 2013 rate of 3,068.4 cases per 100,000 females (Table 10). Decreases in rates of reported cases were largest among 15-, 16-, and 17-year old females (Table 12).

20- to 24-Year Old Women — In 2014, women aged 20–24 years had the highest rate of chlamydia (3,651.1 cases per 100,000 females) compared with any other age and sex group (Figure 5). The overall chlamydia case rate among women in this age group increased 1.6% during 2013–2014 (Table 10). However, increases in rates of reported cases were largest among 23- and 24-year old females (Table 12).

15- to 19-Year Old Men — During 2013-2014, the chlamydia case rate for men aged 15–19 years decreased 0.6% (722.9 to 718.3 cases per 100,000 males) (Table 10).

20- to 24-Year Old Men — In 2014, as in previous years, men aged 20–24 years had the highest rate of chlamydia among men (1,368.3 cases per 100,000 males). The chlamydia rate for men in this age group increased 4.4% during 2013–2014 (Table 10).

Gonorrhea

During 2013–2014, the rate of reported gonorrhea cases decreased 5.0% for persons aged 15–19 years and increased 2.8% for persons aged 20–24 years (Table 21). Among women aged 15–24 years, the overall rate was 484.0 per 100,000 females. Rates varied by state, with highest reported case rates in the South (Figure I).

15- to 19-Year Old Women — In 2014, women aged 15–19 years had the second highest rate of gonorrhea (430.5 cases per 100,000 females) compared with other females (Figure 17, Table 21). During 2013–2014, the gonorrhea rate for women in this age group decreased 7.0%.

20- to 24-Year Old Women — In 2014, women aged 20–24 years had the highest rate of gonorrhea (533.7 cases per 100,000 females) compared with any other age or sex group (Figure 17, Table 21). During 2013–2014, the gonorrhea rate for women in this age group decreased 0.7%.

15- to 19-Year Old Men — In 2014, the gonorrhea rate among men aged 15–19 years was 221.1 cases per 100,000 males (Figure 17, Table 21). During 2013–2014, the gonorrhea rate for men in this age group decreased 0.9%.

20- to 24-Year Old Men — In 2014, as in previous years, men aged 20–24 years had the highest rate of gonorrhea (485.6 cases per 100,000 males) compared with other males (Figure 17, Table 21). During 2013–2014, the gonorrhea rate for men in this age group increased 6.9%.

Primary and Secondary Syphilis

During 2013–2014, the rate of reported primary and secondary (P&S) syphilis cases increased 11.6% among persons aged 15–19 years and 13.1% among persons aged 20–24 years (Table 35).

15- to 19-Year Old Women — The rate of reported P&S syphilis cases among women aged 15–19 years decreased each year during 2009–2013 (from 3.3 cases to 1.9 cases per 100,000 females) (Figure 38, Table 35). However, during 2013–2014, the rate increased 31.6%, to 2.5 cases per 100,000 females.

20- to 24-Year Old Women — In 2014, women aged 20–24 years had the highest rate of P&S syphilis (4.5 cases per 100,000 females) compared with other female age groups (Figure 37, Table 35). During 2013–2014, the P&S syphilis rate for women in this age group increased 15.4%.

15- to 19-Year Old Men — In 2014, the P&S syphilis rate among men aged 15–19 years was 7.0 cases per 100,000 males (Figure 37). During 2013–2014, the P&S syphilis rate for men in this age group increased 7.7% (Figure 39, Table 35).

20- to 24-Year Old Men — In 2014, men aged 20–24 years had the second highest rate of P&S syphilis compared with any other age group for either sex (Figure 37). During 2013–2014, the P&S syphilis rate for men in this age group increased 13.5% (Figure 39, Table 35).

National Job Training Program

The National Job Training Program (NJTP) is an educational program for socioeconomically disadvantaged youth aged 16–24 years and is administered at more than 100 sites throughout the country. The NJTP screens participants for chlamydia and gonorrhea within two days of entry to the program. All of NJTP's chlamydia screening tests and the majority of gonorrhea screening tests are conducted by a single national contract laboratory*, which provides these data to CDC. To increase the stability of the estimates, chlamydia or gonorrhea prevalence data are presented when valid test results for 100 or more students per year are available for the population subgroup and state. The 2014 data were not available for inclusion in this report. Additional information about NJTP can be found in Section A2.1 in the Appendix.

Among women entering the program in 40 states, the District of Columbia, and Puerto Rico, the median state- specific chlamydia prevalence in 2013 was 11.7% (range: 4.1% to 19.0%) (Figure J). Among men entering the program in 47 states, the District of Columbia, and Puerto Rico, the median state-specific chlamydia prevalence was 7.4% (range: 1.8% to 14.6%) (Figure K).

Among women entering the program in 39 states and Puerto Rico, the median state-specific gonorrhea prevalence in 2013 was 2.1% (range: 0.0% to 5.6%) (Figure L). Among men entering the program in 36 states and Puerto Rico, the median state-specific gonorrhea prevalence was 0.7% (range: 0.0% to 2.6%) (Figure M).

* Laboratory data are provided by the Center for Disease Detection, LLC San Antonio, Texas.

1 Satterwhite CL, Torrone E, Meites E, Dunne EF, Mahajan R, Ocfemia MC, et al. Sexually transmitted infections among US women and men: prevalence and incidence estimates, 2008. Sex Transm Dis. 2013;40(3):187-93.

2 Forhan SE, Gottlieb SL, Sternberg MR, Xu F, Datta SD, McQuillan GM, et al. Prevalence of sexually transmitted infections among female adolescents aged 14 to 19 in the United States. Pediatrics. 2009;124(6):1505-12 doi: 10.1542/peds.2009-0674. Epub 2009 Nov 23.

3 Tilson EC, Sanchez V, Ford CL, Smurzynski M, Leone PA, Fox KK et al. Barriers to asymptomatic screening and other STD services for adolescents and young adults: focus group discussions, 2004. BMC Public Health 2004, (4):21.

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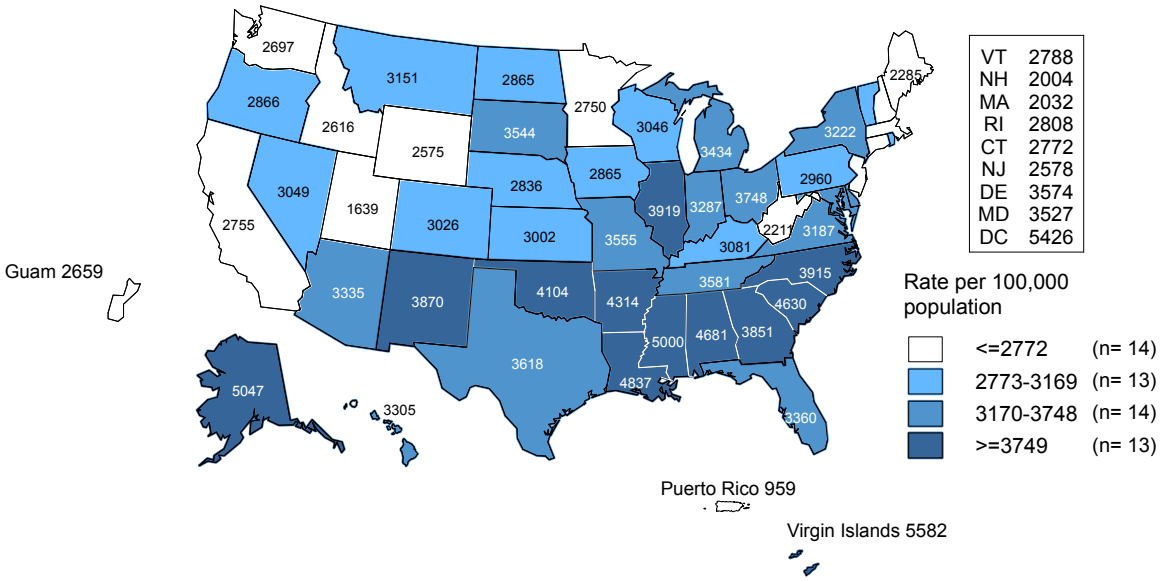
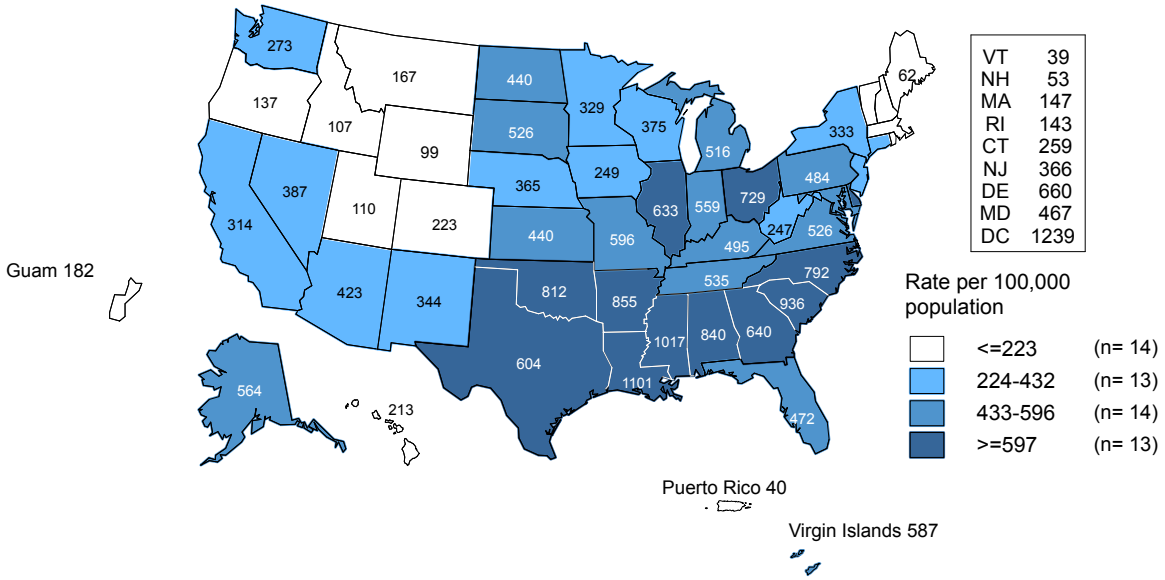
Figure H. Chlamydia — Rates of Reported Cases Among Women 15–24 Years of Age by State, United States and Outlying Areas, 2014



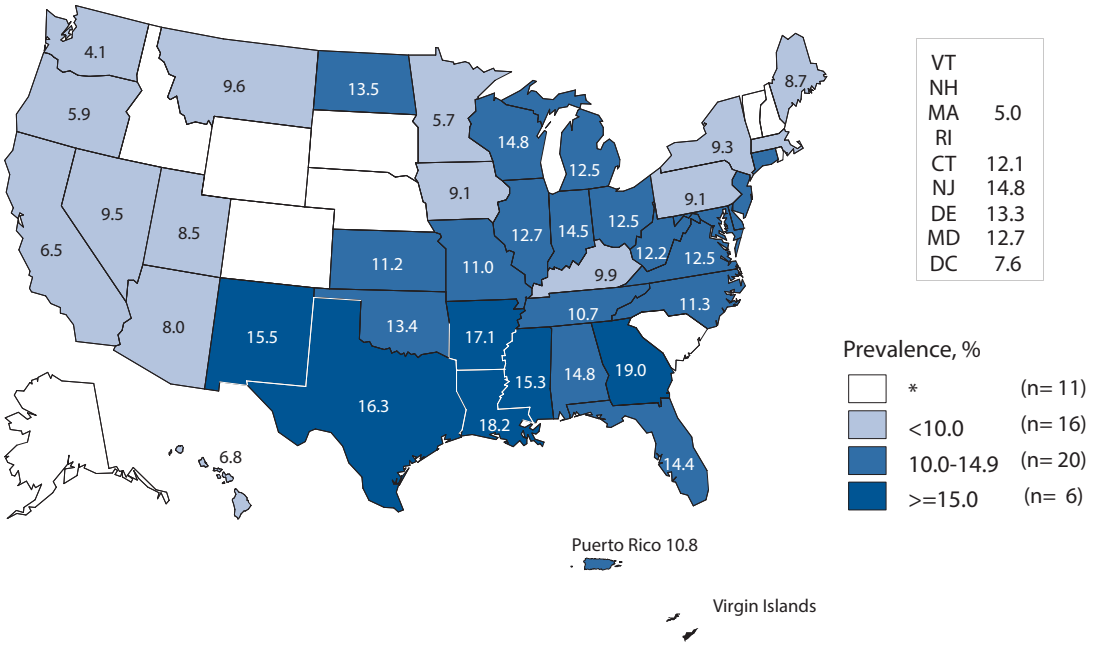
NOTE: Rates for Guam and the Virgin Islands were calculated by using the 2010 population estimates (see Section A1.2 in the Appendix).

Figure I. Gonorrhea — Rates of Reported Cases Among Women 15–24 Years of Age by State, United States and Outlying Areas, 2014



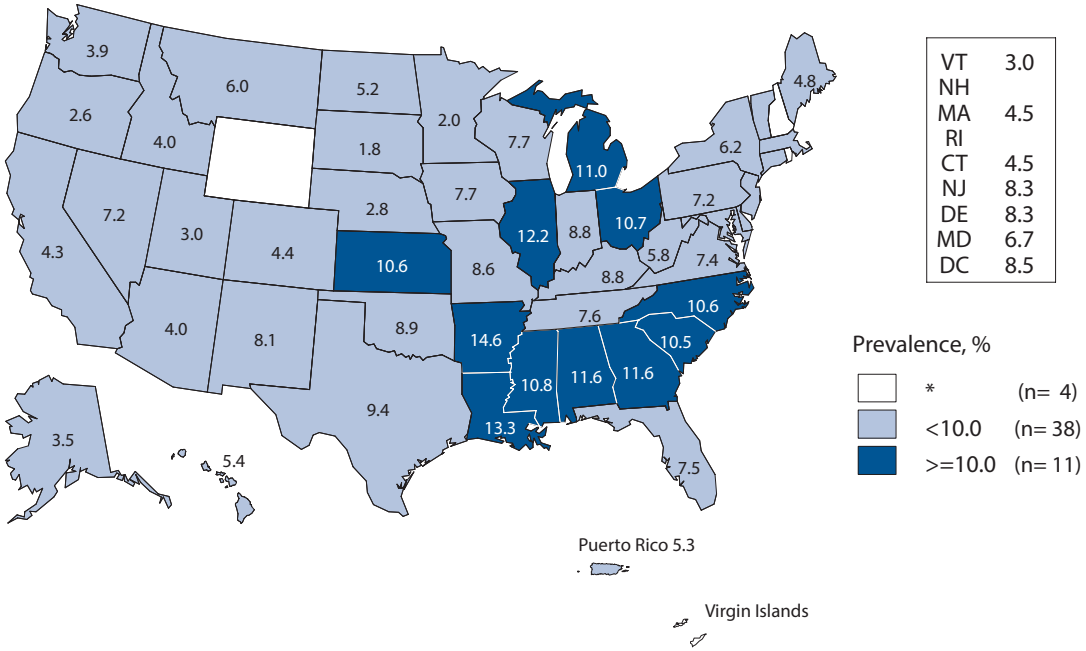
NOTE: Rates for Guam and the Virgin Islands were calculated by using the 2010 population estimates (see Section A1.2 in the Appendix).

Figure J. Chlamydia — Prevalence Among Women Aged 16–24 Years Entering the National Job Training Program by State of Residence, United States and Outlying Areas, 2013



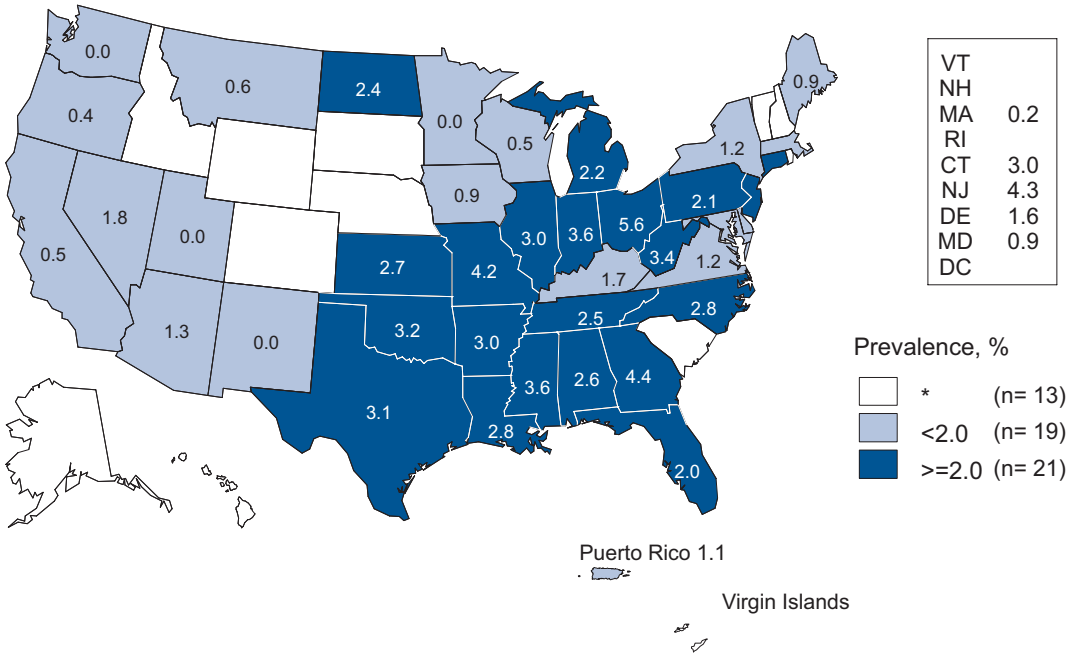
* Fewer than 100 women who resided in these states/areas and entered the National Job Training Program were screened for chlamydia in 2013.

Figure K. Chlamydia — Prevalence Among Men Aged 16–24 Years Entering the National Job Training Program by State of Residence, United States and Outlying Areas, 2013



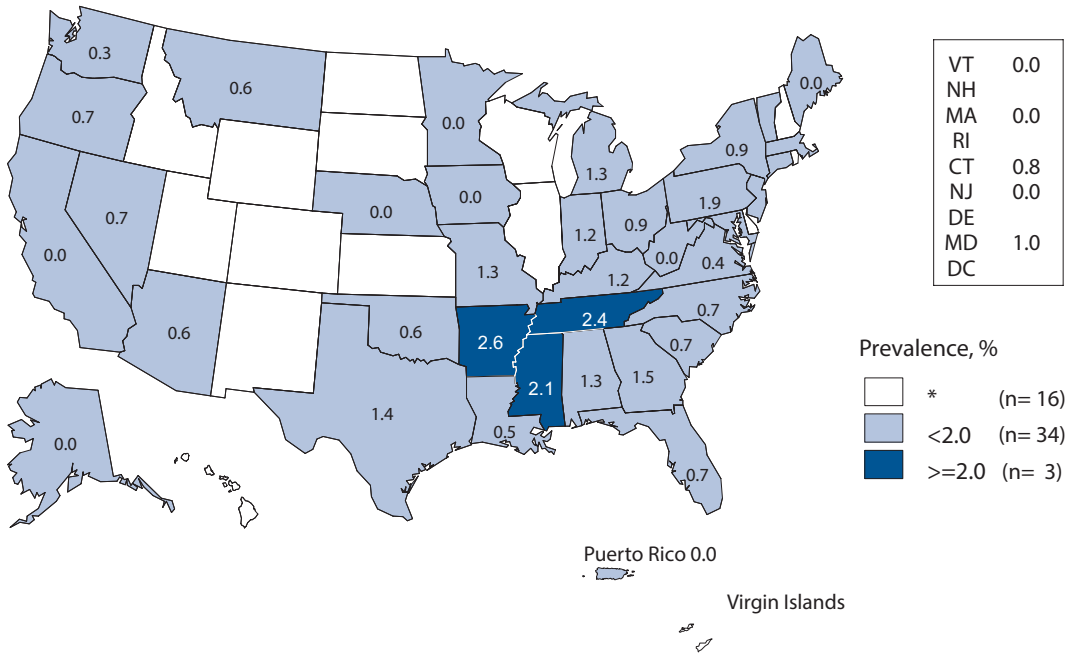
* Fewer than 100 men who resided in these states/areas and entered the National Job Training Program were screened for chlamydia in 2013.

Figure L. Gonorrhea — Prevalence Among Women Aged 16–24 Years Entering the National Job Training Program, by State of Residence, United States and Outlying Areas, 2013



* Fewer than 100 women who resided in these states/areas and entered the National Job Training Program were screened for gonorrhea in 2013.
NOTE: Many training centers use local laboratories to test female students for gonorrhea; these results are not available to CDC. For this map, gonorrhea test results for students at centers that submitted specimens to the national contract laboratory were included if the numbers of gonorrhea tests submitted was greater than the 90% of the number of chlamydia tests submitted.

Figure M. Gonorrhea — Prevalence Among Men Aged 16–24 Years Entering the National Job Training Program, by State of Residence, United States and Outlying Areas, 2013



* Fewer than 100 men who resided in these states/areas and entered the National Job Training Program were screened for gonorrhea in 2013.
NOTE: Many training centers use local laboratories to test female students for gonorrhea; these results are not available to CDC. For this map, gonorrhea test results for students at centers that submitted specimens to the national contract laboratory were included if the numbers of gonorrhea tests submitted was greater than the 90% of the number of chlamydia tests submitted.

STDs in Racial and Ethnic Minorities

Public Health Impact

Surveillance data show higher rates of reported STDs among some racial or ethnic minority groups when compared with rates among whites.[1,2] Race and ethnicity in the United States are population characteristics that are correlated with other fundamental determinants of health status such as high rates of poverty, income inequality, unemployment and low educational attainment.[3-5] People who struggle financially are often experiencing life circumstances that potentially increase their risk for STDs.[6]

Those who cannot afford basic necessities may have trouble accessing and affording quality sexual health services.[7] The overall U.S. poverty rate in 2013 was 14.5 (or 46.7 million) and remained the same in 2014 (the most recent year for which poverty statistics are available). Although the poverty rate did not change, many Americans continue to face economic challenges. For example, the poverty rate for whites was 10.1% (19.7 million), for blacks it was 26.2% (or 10.8 million), and for Hispanics it was 23.6% (or 13.1 million).[3,8] Although the overall proportion of adults without health insurance decreased from 13.3% in 2013 to 10.4% (or 316 million) in 2014, many people in the U.S. may still not have access to health care.[9] Among all races and ethnicities in the U.S., Hispanics had the lowest rate of health insurance coverage in 2014 at 80.1% (or 55.6 million).[9,10] Non-U.S. citizens (i.e., immigrants or undocumented persons) may face additional barriers in accessing care. In 2014, 31.2% (or 7 million) of persons not U.S. citizens did not have health insurance coverage. Even when health care is available, fear and distrust of health care institutions can negatively affect the health care-seeking experience for many racial/ethnic minorities when there is social discrimination, provider bias, or the perception that these may exist.[11] Moreover, the quality of care may differ substantially for minority patients.[12] These inequities in social and economic conditions are reflected in the profound disparities observed in the incidence of STDs among some racial and ethnic minorities.

In communities where STD prevalence is higher because of these inequalities, individuals may have a more difficult time reducing their risk for infection. With each sexual encounter, they face a greater chance of encountering an infected partner than those in lower prevalence settings.[2] Acknowledging the inequity in STD rates by race or ethnicity is one of the first steps in empowering affected communities to organize and focus on this problem.

STD Reporting Practices

Surveillance data are based on cases of STDs reported to state and local health departments (see Section A.1 in the Appendix). In many state and local health jurisdictions, electronic laboratory reporting is increasingly a primary source of initial case notifications. These reports are often missing race and ethnicity of the patient; ascertainment of information on race and Hispanic ethnicity is often a function of active follow-up or dependent on previous information available about the patient in existing health department surveillance databases. Prevalence data from population-based surveys, such as National Health and Nutrition Examination Survey (NHANES) and the National Longitudinal Study of Adolescent Health, confirm the existence of marked STD disparities in some minority populations.[13, 14]

Method of Classifying Race & Hispanic Ethnicity

Interpretation of racial and ethnic disparities among persons with STDs is influenced by data collection methods, and by the categories by which these data are displayed. Race/ethnicity data are presented in Office of Management and Budget (OMB) race and ethnic categories, according to the 1997 revised OMB standards. However, NCHS bridged-race categories are used where OMB categories are not available (congenital syphilis).[15] Forty-eight states collect and report data in formats compliant with these standards as of 2014. One additional jurisdiction reported cases of primary & secondary (P&S) syphilis by the appropriate standard, but did not report chlamydia and gonorrhea cases by this standard. Historical trend and rate data by race and Hispanic ethnicity displayed in figures and interpreted in this report for 2010–2014 include only those jurisdictions (43 states for chlamydia/gonorrhea and 44 states for syphilis) reporting in the current standard consistently for years 2010 through 2014. Please refer to Section A1.5 of the Appendix for additional information on reporting data for race and Hispanic ethnicity.

Completeness of Race/Ethnicity Data

Chlamydia — In 2014, 27.1% of chlamydia case reports were missing race or ethnicity data, ranging by state from 0.5% to 65.9% (Table A1).

Gonorrhea — In 2014, 19.3% of gonorrhea case reports were missing information on race or ethnicity, ranging by state from 0.0% to 64.0% (Table A1).

Syphilis — In 2014, 4.5% of P&S syphilis case reports were missing information on race or ethnicity, ranging from 0.0% to 31.3% among states with 10 or more cases of P&S syphilis (Table A1).

Observations

Chlamydia

Among the 43 states that submitted data on race and Hispanic ethnicity for each year during 2010–2014 according to the OMB standards, rates of reported cases of chlamydia increased during 2010–2014 among all racial and ethnic groups except among blacks (Figure 6). During 2010–2014, chlamydia rates increased 12.6% among American Indians/Alaska Natives, 5.6% among Hispanics, 11.5% among Asians, 34.5% among Native Hawaiians/Other Pacific Islanders, and 26.9% among whites. During 2010–2014, rates of reported cases of chlamydia decreased 6.2% among blacks.

In 2014, 48 states submitted data on race and Hispanic ethnicity according to the OMB standards. The following data pertain to those jurisdictions:

Blacks — In 2014, the overall rate among blacks in the United States was 1,117.9 cases per 100,000 population (Table 11B). The rate of reported cases of chlamydia among black women was 5.7 times the rate among white women (1,432.6 and 253.3 per 100,000 females, respectively) (Table 11B and Figure N). The chlamydia rate among black men was 7.3 times the rate among white men (772.0 and 105.5 cases per 100,000 males, respectively).

Rates of reported cases of chlamydia were highest for blacks aged 15–19 and 20–24 years in 2014 (Table 11B). The chlamydia rate among black females aged 15–19 years was 6,371.5 cases per 100,000 females, which was 4.9 times the rate among white females in the same age group (1,291.6 per 100,000 females). The rate among black women aged 20–24 years was 4.1 times the rate among white women in the same age group (Table 11B).

Similar racial disparities in reported chlamydia rates exist among men. Among males aged 15–19 years, the rate among blacks was nine times the rate among whites (Table 11B). The chlamydia rate among black men aged 20–24 years was 5.4 times the rate among white men of the same age group (3,241.2 and 603.5 cases per 100,000 males, respectively).

American Indians/Alaska Natives — In 2014, the chlamydia rate among American Indians/Alaska Natives was 668.8 cases per 100,000 population (Table 11B). Overall, the rate of chlamydia among American Indians/Alaska Natives in the United States was 3.7 times the rate among whites.

Native Hawaiians/Other Pacific Islanders — In 2014, the chlamydia rate among Native Hawaiians/Other Pacific Islanders was 625.1 cases per 100,000 population (Table 11B). The overall rate among Native Hawaiians/Other Pacific Islanders was 5.6 times the rate among whites and 3.5 times the rate among Asians.

Hispanics — In 2014, the chlamydia rate among Hispanics was 380.6 cases per 100,000 population (Table 11B) which is 2.1 times the rate among whites.

Asians — In 2014, the chlamydia rate among Asians was 112.0 cases per 100,000 population (Table 11B). The overall rate among whites is 1.6 times the rate among Asians.

Gonorrhea

During 2010–2014, among the 43 states that submitted data for each year according to the OMB standards, rates of reported gonorrhea cases increased 100.4% among American Indians/Alaska Natives (84.7 to 169.7 per 100,000 population), 59.8% among whites (25.1 to 40.1 per 100,000), 51.1% among Hispanics (49.1 to 74.2 per 100,000), 44.8% among Asians (14.3 to 20.7 per 100,000), and 44.1% among Native Hawaiians/Other Pacific Islanders (74.3 to 107.1 per 100,000) (Figure 20). The gonorrhea rate decreased 8.2% among blacks (466.4 to 428.1 per 100,000).

In 2014, 48 states submitted data in race and ethnicity categories according to the OMB standards. The following data pertain to those jurisdictions:

Blacks — In 2014, 55.4% of reported gonorrhea cases with known race/ethnicity occurred among blacks (excluding cases with missing information on race or ethnicity, and cases whose reported race or ethnicity was other) (Table 22A). The rate of gonorrhea among blacks in 2014 was 405.4 cases per 100,000 population, which was 10.6 times the rate among whites (38.3 per 100,000) (Table 22B). Although the calculated rate ratio for 2014 differs when considering the 43 jurisdictions that submitted data in race and ethnic categories according to the OMB standards for each year during 2010–2014, this disparity has decreased slightly in recent years (Figure O). In 2014, this disparity was similar for black men (10.6 times the rate among white men) and black women (10.7 times the rate among white women) (Figure P, Table 22B).

As in previous years, the disparity in gonorrhea rates for blacks in 2014 was larger in the Midwest and Northeast than in the West or the South (Figure Q).

Considering all racial/ethnic and age categories, gonorrhea rates were highest for blacks aged 20–24, 15–19, and 25–29 years in 2014 (Table 22B). Black women aged 20–24 had a gonorrhea rate of 1,799.9 cases per 100,000 women.

This rate was 9.5 times the rate among white women in the same age group (188.7 per 100,000). Black women aged 15–19 years had a gonorrhea rate of 1,541.0 cases per 100,000 women, which was 12.7 times the rate among white women in the same age group (121.3 per 100,000).

Black men aged 20–24 years had a gonorrhea rate of 1,670.4 cases per 100,000 men, which was 10.7 times the rate among white men in the same age group (155.4 per 100,000). Black men aged 25–29 years had a gonorrhea rate of 1,291.6 cases per 100,000 men, which was 8.9 times the rate among white men in the same age group (145.5 per 100,000).

American Indians/Alaska Natives — In 2014, the gonorrhea rate among American Indians/Alaska Natives was 159.4 cases per 100,000 population, which was 4.2 times the rate among whites (Table 22B). The disparity between gonorrhea rates for American Indians/Alaska Natives and whites was larger for American Indian/Alaska Native women (5.6 times the rate among white women) than for American Indian/Alaska Native men (2.9 times the rate among white men) (Figure P, Table 22 B). The disparity in gonorrhea rates for American Indians/Alaska Natives in 2014 was larger in the Midwest than in the West, Northeast, and South (Figure Q).

Native Hawaiians/Other Pacific Islanders — In 2014, the gonorrhea rate among Native Hawaiians/Other Pacific Islanders was 102.1 cases per 100,00 population, which was 2.7 times the rate among whites (Table 22B). The disparity between gonorrhea rates for Native Hawaiians/Other Pacific Islanders and whites was the similar for Native Hawaiian/Other Pacific Islander women (2.9 times the rate among white women) and Native Hawaiian/Other Pacific Islander men (2.4 times the rate among white men) (Figure P, Table 22B). The disparity in gonorrhea rates for Native Hawaiians/Other Pacific Islanders in 2014 was lower in the West than in the Midwest, Northeast, and South (Figure Q).

Hispanics — In 2014, the gonorrhea rate among Hispanics was 73.3 cases per 100,000 population, which was 1.9 times the rate among whites (Table 22B). This disparity was similar for Hispanic women (1.8 times the rate among white women) and Hispanic men (2.0 times the rate among white men) (Figure P, Table 22B). The disparity in gonorrhea rates for Hispanics was highest in the Northeast and lowest in the West and Midwest (Figure Q).

Asians — In 2014, the gonorrhea rate among Asians was 19.3 cases per 100,000 population, which was lower than (0.5 times) the rate among whites (Table 22B). This difference is larger for Asian women than for Asian men (Figure P, Table 22B). In 2014, rates among Asians were lower than rates among whites in all four regions of the United States (Figure Q).

Primary and Secondary (P&S) Syphilis

During 2010–2014, 44 states submitted syphilis data for each year according to the OMB standards. Among these states during 2010–2014, rates of reported P&S syphilis cases increased 152.6% among American Indians/Alaska Natives (3.1 to 7.9 per 100,000 population), 135.2% among Asians (1.2 to 2.9 per 100,000), 80.2% among Hispanics (4.2 to 7.5 per 100,000 population), 56.7% among whites (2.2 to 3.5 per 100,000), 38.2% among Native Hawaiians/Other Pacific Islanders (5.1 to 7.1 per 100,000), and 7.8% among blacks (17.8 to 19.2 per 100,000) (Figure 40).

In 2014, 49 states submitted syphilis data by race and ethnicity according to the OMB standards. The following data pertain to those jurisdictions:

Blacks — In 2014, 38.1% of reported P&S syphilis cases with known race/ethnicity occurred among blacks (excluding cases with missing information on race or ethnicity, and cases whose reported race or ethnicity was other) (Table 36A). The P&S syphilis rate among blacks in 2014 was 18.9 cases per 100,000 population, which was 5.4 times the rate among whites (3.5 per 100,000) (Table 36B). This disparity was higher for black women (9.2 times the rate among white women) than for black men (5.3 times the rate among white men) (Figure R, Table 36B).

Considering all race/ethnicity, sex, and age categories, P&S syphilis rates were highest among black men aged 20–24 years and 25–29 years in 2014 (Table 36B). Black men aged 20–24 years had a P&S syphilis rate of 106.3 cases per 100,000 men. This rate was 8.5 times the rate among white men in the same age group (12.5 per 100,000). Black men aged 25–29 years had a P&S syphilis rate of 121.3 cases per 100,000 men, which was 7.9 times the rate among white men in the same age group (15.4 per 100,000).

American Indians/Alaska Natives — In 2014, the P&S syphilis rate among American Indians/Alaska Natives was 7.6 cases per 100,000 population, 2.2 times the rate among whites (Table 36B). This disparity was larger for American Indian/Alaska Native women (9.6 times the rate among white women) than for American Indian/Alaska Native men (1.6 times the rate among white men).

Native Hawaiians/Other Pacific Islanders — In 2014, the P&S syphilis rate among Native Hawaiians/Other Pacific Islanders was 6.5 cases per 100,000 population, which was 1.9 times the rate among whites (Table 36B). This disparity was similar for Native Hawaiian/Other Pacific Islander women (1.6 times the rate among white women) and Native Hawaiian/Other Pacific Islander men (1.8 times the rate among white men).

Hispanics — In 2014, the P&S syphilis rate among Hispanics was 7.6 cases per 100,000 population, which was 2.2 times the rate among whites (Table 36B). This disparity was similar for Hispanic women (2.2 times the rate among white women) and Hispanic men (2.1 times the rate among white men).

Asians — In 2014, the P&S syphilis rate among Asians was 2.8 cases per 100,000 population, which was 0.8 times the rate among whites (Table 36B). This difference is larger for Asian women (0.4 times the rate among white women) than for Asian men (0.9 times the rate among white men).

Congenital Syphilis

Race/ethnicity for cases of congenital syphilis is based on the mother's race/ethnicity. During 2013–2014, rates of reported congenital syphilis cases increased 102.9% among Asians/Pacific Islanders, 32.1% among whites, 21.7% among blacks, and 19.8% among Hispanics (Table 43, Figure U). The congenital syphilis rate did not change among American Indians/Alaska Natives.

In 2014, 50.6% of congenital syphilis cases with known race/ethnicity occurred among blacks (excluding cases with missing information on race or ethnicity, and cases whose reported race or ethnicity was other) (Table 43). The rate of congenital syphilis among blacks in 2014 was 38.2 cases per 100,000 live births, which was 10.3 times the rate among whites (3.7 per 100,000 live births). The rate of congenital syphilis was 12.7 cases per 100,000 live births among American Indians/Alaska Natives (3.4 times the rate among whites), 12.1 cases per 100,000 live births among Hispanics (3.3 times the rate among whites), and 6.9 cases per 100,000 births among Asians/Pacific Islanders (1.9 times the rate among whites).

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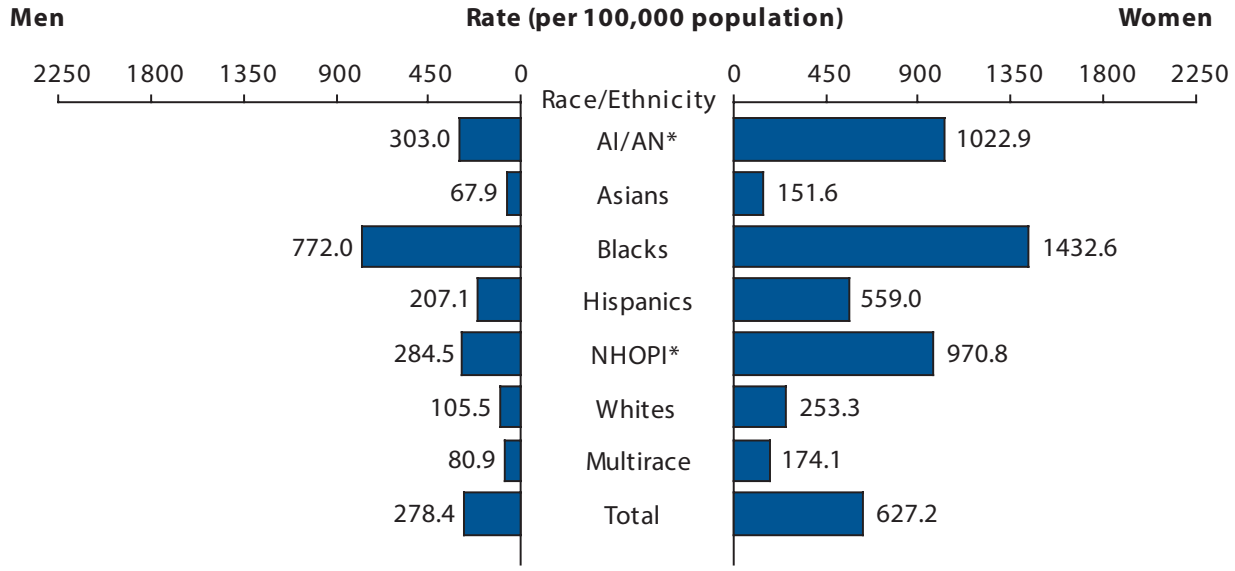
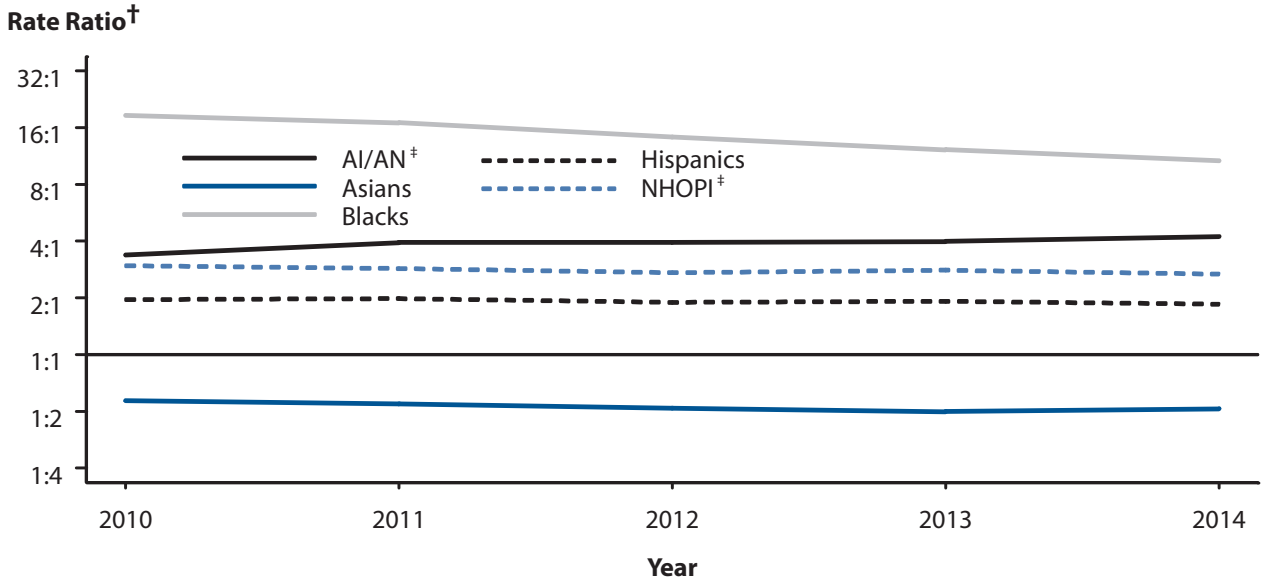
Figure N. Chlamydia — Rates of Reported Cases by Race/Ethnicity and Sex, United States, 2014



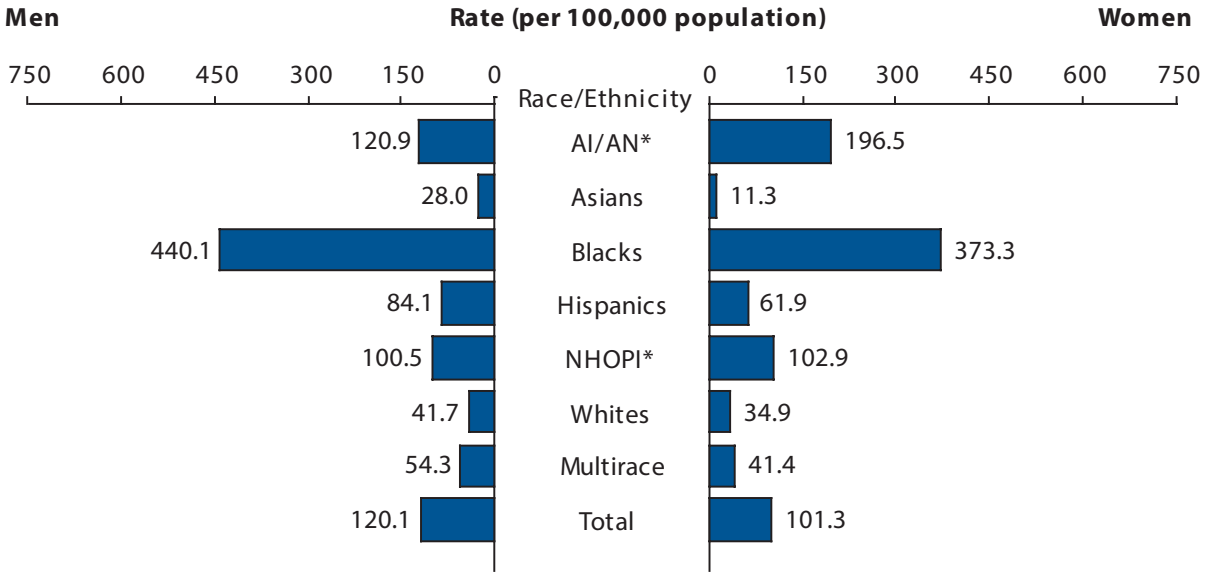
* AI/AN = American Indians/Alaska Natives; NHOPI = Native Hawaiians/Other Pacific Islanders.
NOTE: Includes 48 states reporting race/ethnicity data in Office of Management and Budget compliant formats in 2014 (see Section A1.5 in the Appendix).

Figure O. Gonorrhea — Rate Ratios* by Race/Ethnicity, United States, 2010–2014



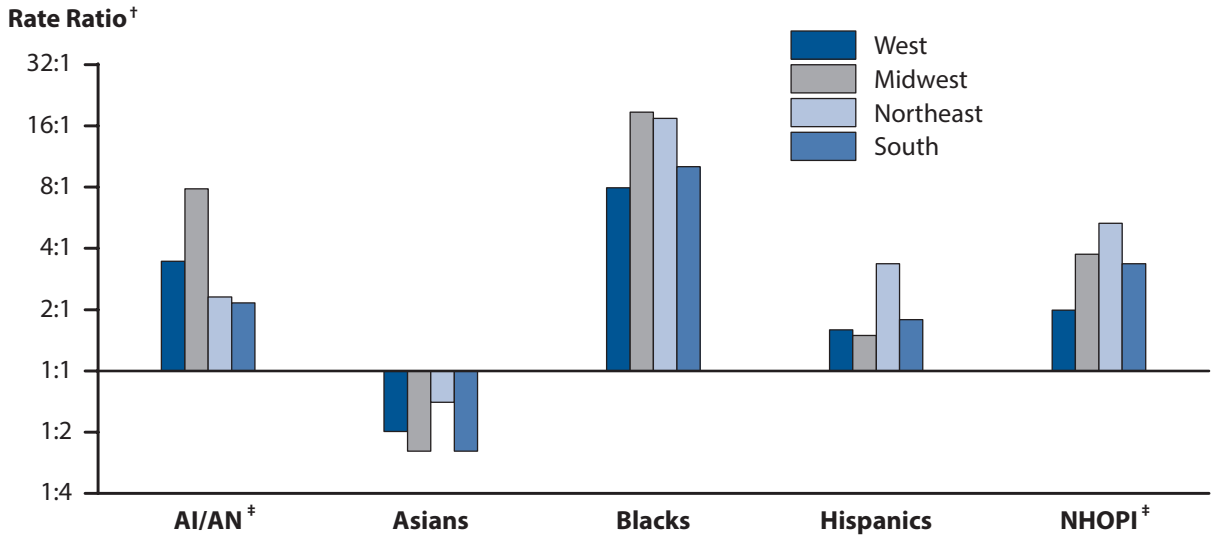
* Rate ratios are calculated as the rate of reported gonorrhea cases per 100,000 population for a given racial or ethnic minority population divided by the rate of reported gonorrhea cases per 100,000 population for non-Hispanic whites. Any population with a lower rate of reported cases of gonorrhea than the non-Hispanic white population will have a rate ratio of less than 1:1.
† Y-axis is log scale.
‡ AI/AN = American Indians/Alaska Natives; NHOPI = Native Hawaiians/Other Pacific Islanders.
NOTE: Includes 43 states reporting race/ethnicity data in Office of Management and Budget compliant formats during 2010–2014 (see Section A1. 5 in the Appendix).

Figure P. Gonorrhea — Rates of Reported Cases by Race/Ethnicity and Sex, United States, 2014



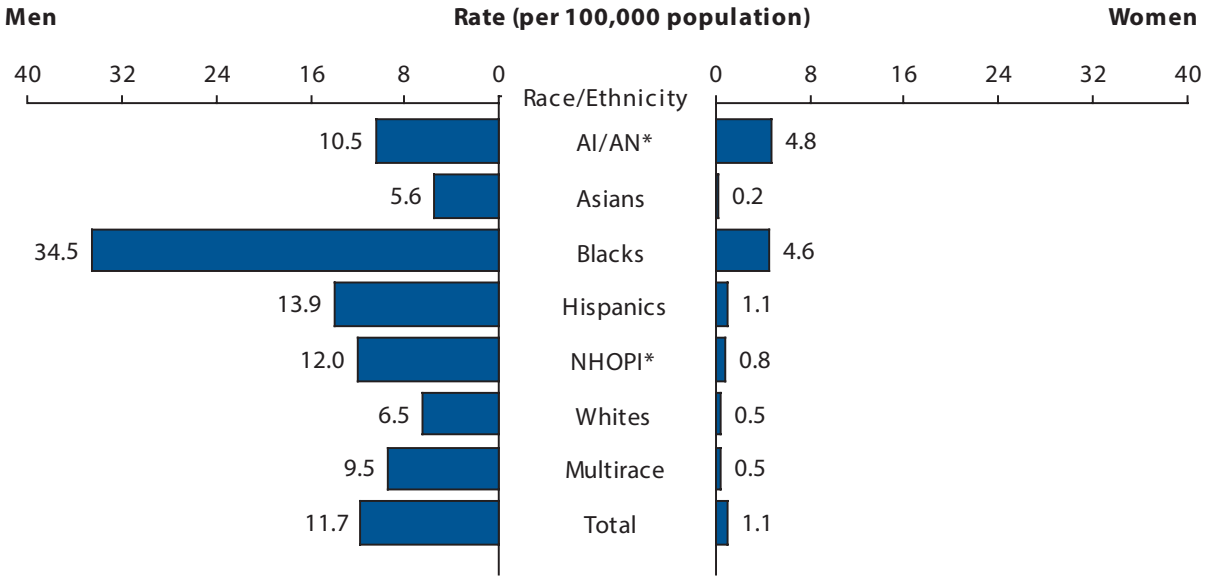
* AI/AN = American Indians/Alaska Natives; NHOPI = Native Hawaiians/Other Pacific Islanders.
NOTE: Includes 48 states reporting race/ethnicity data in Office of Management and Budget compliant formats in 2014 (see Section A1.5 in the Appendix).

Figure Q. Gonorrhea — Rate Ratios* by Race/Ethnicity and Region, United States, 2014



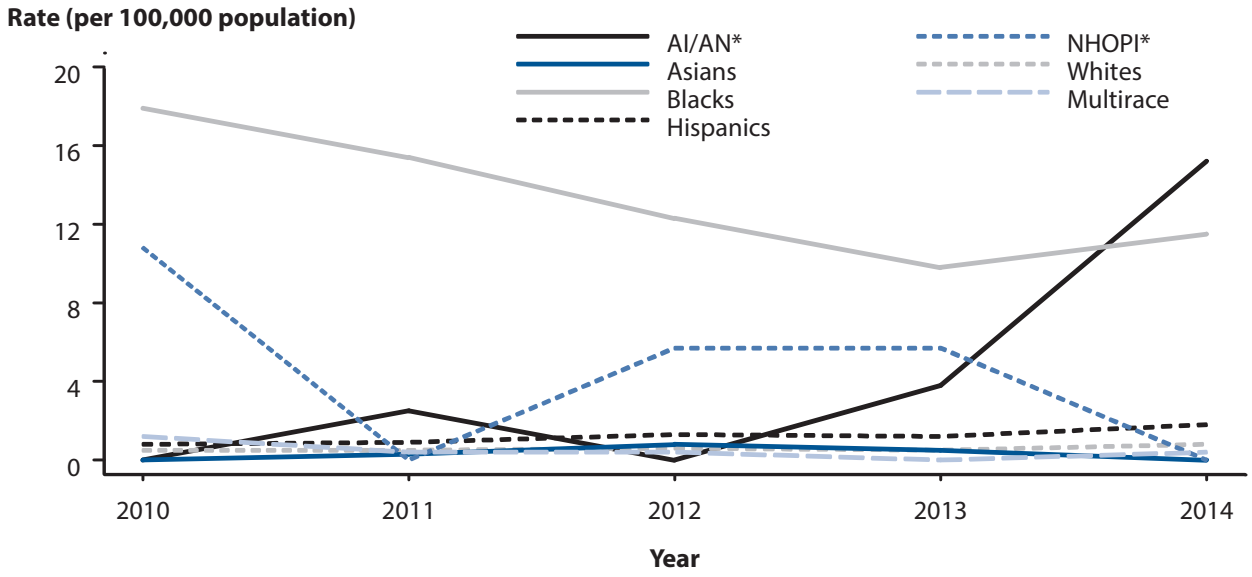
* Rate ratios are calculated as the rate of reported gonorrhea cases per 100,000 population for a given racial or ethnic minority population divided by the rate of reported gonorrhea cases per 100,000 population for non-Hispanic whites. Any population with a lower rate of reported cases of gonorrhea than the non-Hispanic white population will have a rate ratio of less than 1:1.
† Y-axis is log scale.
‡ AI/AN = American Indians/Alaska Natives; NHOPI = Native Hawaiians/Other Pacific Islanders.
NOTE: Includes 48 states reporting race/ethnicity data in Office of Management and Budget compliant formats in 2014 (see Section A1.5 in the Appendix).

Figure R. Primary and Secondary Syphilis — Rates of Reported Cases by Race/Ethnicity and Sex, United States, 2014



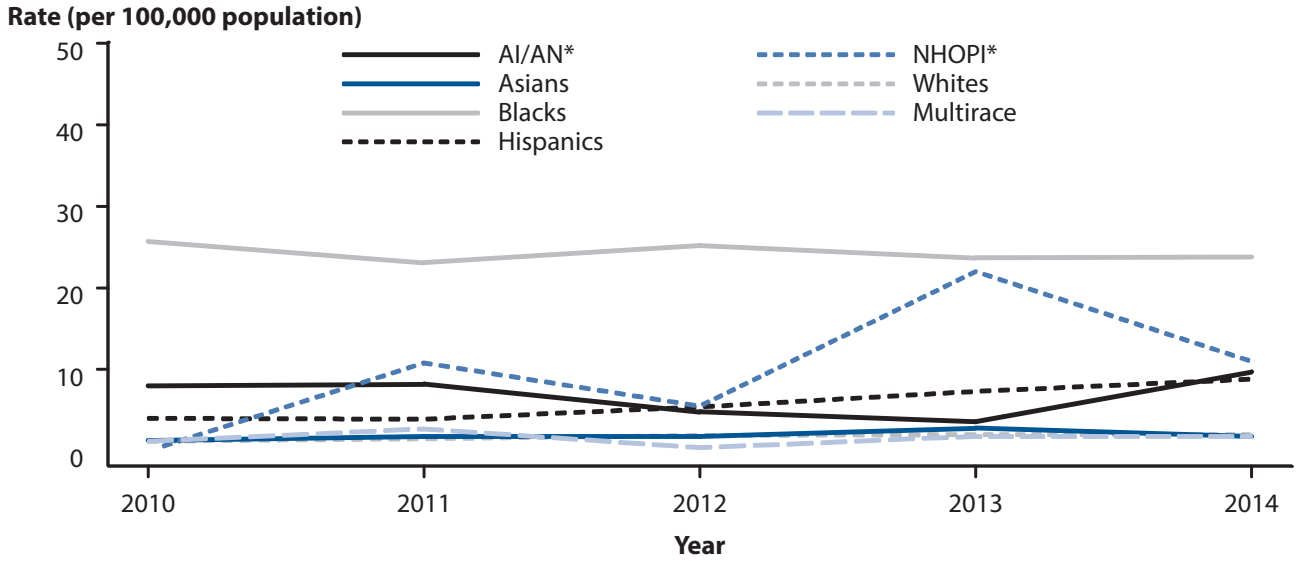
* AI/AN = American Indians/Alaska Natives; NHOPI = Native Hawaiians/Other Pacific Islanders.
NOTE: Includes 49 states reporting race/ethnicity data in Office of Management and Budget compliant formats in 2014 (see Section A1.5 in the Appendix).

Figure S. Primary and Secondary Syphilis — Rates of Reported Cases Among Females Aged 15–19 Years by Race/Ethnicity, United States, 2010–2014



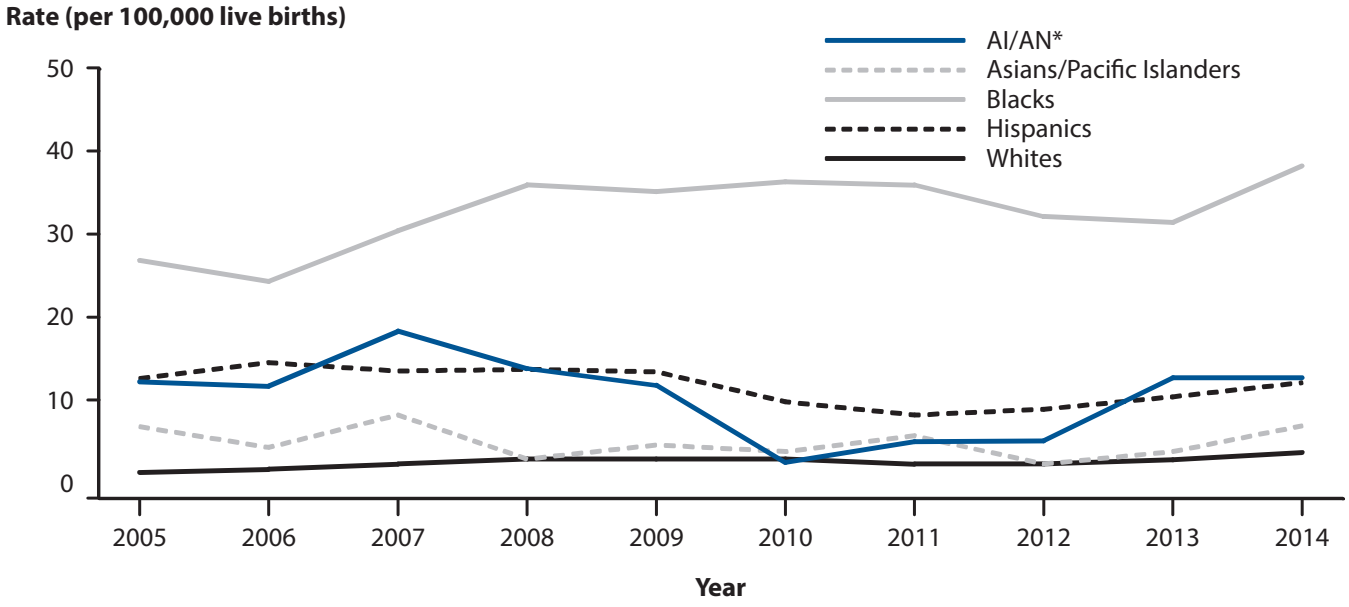
* AI/AN = American Indians/Alaska Natives; NHOPI = Native Hawaiians/Other Pacific Islanders.
NOTE: Includes 44 states reporting race/ethnicity data in Office of Management and Budget compliant formats during 2010–2014 (see Section A1.5 in the Appendix).

Figure T. Primary and Secondary Syphilis — Rates of Reported Cases Among Males Aged 15–19 Years, by Race/Ethnicity, United States, 2010–2014



* AI/AN = American Indians/Alaska Natives; NHOPI = Native Hawaiians/Other Pacific Islanders.
NOTE: Includes 44 states reporting race/ethnicity data in Office of Management and Budget compliant formats during 2010–2014 (see Section A1.5 in the Appendix).

Figure U. Congenital Syphilis — Rates of Reported Cases Among Infants, by Year of Birth and Mother's Race/Ethnicity, United States, 2005–2014



* AI/AN = American Indians/Alaska Natives.
NOTE: National Center for Health Statistics bridged race categories are presented to allow the display of data across several years. Cases missing maternal race/ethnicity information were excluded (< 1% of cases).

STDs in Men Who Have Sex with Men

Public Health Impact

Gay, bisexual, and other men who have sex with men (MSM) are at increased risk for STDs, including emergence of antimicrobial resistance when compared to women and exclusively heterosexual men.[1–4] Because STDs, and the behaviors associated with acquiring them, increase the likelihood of acquiring and transmitting HIV infection, STD incidence among MSM may also be an indicator of higher risk for subsequent HIV infection.[5, 6]

Population-level factors such as limited or overlapping social and sexual networks are associated with higher rates of STDs, including HIV among MSM.[7] Additionally, individual-level risk behaviors, such as number of lifetime sex partners, rate of partner exchange and frequency of unprotected sex, may contribute to rates of STDs.

MSM of lower economic status may be particularly vulnerable to poor health outcomes, especially if they belong to racial and ethnic minority populations.[8, 9] Among black MSM, factors such as community isolation and limited social support may influence sexual risk-taking. Similarly, for Hispanic men, the relationship between individual experiences of oppression (e.g., social discrimination and financial hardship) and risk for sexually transmitted infections in the United States has been documented.[10]

With the exception of reported syphilis cases, most nationally notifiable STD surveillance data do not include information on sexual behaviors; therefore, trends in STDs among MSM in the United States are based on findings from sentinel surveillance systems. Testing strategies are also evolving to include more extragenital screening, which may increase detection of asymptomatic infections. Until recently, testing for gonorrhea and chlamydia in MSM largely focused on detecting urethral infections, which are more likely to be symptomatic than pharyngeal or rectal infections.[11] Data from sentinel surveillance projects are presented in this section to provide information on STDs in MSM.

STD Surveillance Network (SSuN) — Monitoring Trends in Prevalence of STDs Among MSM Who Visit STD Clinics, 2014

The STD Surveillance Network (SSuN), established in 2005, is an ongoing collaboration of states and independently funded cities collecting enhanced clinical and behavioral information among patients attending participating SSuN STD clinics.[12] Data for 2014 were obtained from 6 jurisdictions (including 26 STD clinics) continuously participating in SSuN since 2008. For data reported in this section, MSM were defined as men who either reported having one or more male sex partners or who self-reported as gay/homosexual or bisexual. MSW were defined as men who reported having sex with women only or who did not report the sex of their sex partner, but reported that they considered themselves straight/heterosexual. Additional information about SSuN can be found in Section A2.2 of the Appendix.

Gonorrhea and Chlamydial Infection

In 2014, the proportion of MSM who tested positive for gonorrhea and chlamydia at STD clinics varied by SSuN site (Figure V). A larger proportion of MSM who visited STD clinics tested positive for gonorrhea than tested positive for chlamydia.

Across the participating STD clinics, 18,568 MSM were tested for gonorrhea and 18,414 MSM were tested for chlamydia. The median site-specific gonorrhea prevalence among those tested was 19.2% (range by site: 14.5%–25.3%). The median site-specific chlamydia prevalence among those tested was 14.9% (range by site: 7.0%–17.9%). For this report, a person who tested positive for gonorrhea or chlamydia more than one time in a year was counted only once for each infection.

Co-infection of Primary and Secondary (P&S) Syphilis and HIV

Among MSM who presented to participating STD clinics with P&S syphilis infection in 2014, the proportion who were also infected with HIV ranged from 9.1% in Los Angeles to 53.2% in Baltimore (Figure W). The median site-specific proportion of MSM co-infected with HIV (41.9%) was similar to the proportion of co-infection in MSM observed in 2014 case report data (51.6%). P&S syphilis was identified by provider diagnosis, and HIV status was identified by laboratory report, self-report, or provider diagnosis.

HIV status and STDs

Among MSM visiting SSuN STD clinics, prevalence of STDs was higher among MSM living with HIV than among HIV-negative MSM (Figure X). The prevalence of P&S syphilis was 10.4% among MSM living with HIV and 3.5% among HIV-negative MSM. Among MSM living with HIV, urethral gonorrhea positivity

was 11.4%, pharyngeal gonorrhea positivity was 6.7%, and rectal gonorrhea positivity was 12.4% (compared to 8.6%, 7.4%, and 5.5%, respectively, among HIV-negative MSM). Among MSM living with HIV, urethral chlamydia positivity was 6.1% and rectal chlamydia positivity was 12.1% (compared to 5.7% and 7.5%, respectively, among HIV-negative MSM).

Nationally Notifiable Syphilis Surveillance Data

The number of reported cases of P&S syphilis among MSM has been increasing since at least 2000.[3,14] Twenty-seven states reported sex of sex partner data for at least 70% of all cases of P&S syphilis each year during 2007–2014. Among these states, cases among MSM increased 8.8% during 2013–2014, and 47.9% during 2010–2014 (Figure 32). In 2014, MSM accounted for 82.9% of all male P&S syphilis cases with known information about sex of sex partners (Figure 41), and MSM accounted for more cases than MSW or women in all racial and ethnic groups (Figure 42). More information about syphilis can be found in the Syphilis section of the National Profile.

Gonococcal Isolate Surveillance Project (GISP)

GISP is a national sentinel surveillance system designed to monitor trends in antimicrobial susceptibilities of *N. gonorrhoeae* strains in the United States.[15] Overall, the proportion of isolates from MSM in selected STD clinics from GISP sentinel sites has increased steadily, from 4.6% in 1990 to 37.1% in 2014 (Figure Y). The reason for this increase is unclear, but might reflect changes in the epidemiology of gonorrhea or in health care seeking behavior of men infected with gonorrhea. GISP has demonstrated that gonococcal isolates from MSM are more likely to exhibit antimicrobial resistance than isolates from MSW.[4] During 2007–2014, the prevalence of elevated ceftriaxone MICs (≥0.125 µg/ml) was higher in isolates from MSM than from MSW (Figure Z).

More information on GISP can be found in the Gonorrhea section of the National Profile.

1 Brewer TH, Schillinger J, Lewis FM, Blank S, Pathela P, Jordahl L, et al. Infectious syphilis among adolescent and young adult men: implications for human immunodeficiency virus transmission and public health interventions. Sex Transm Dis. 2011;38(5):367-71.

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3 Su JR, Beltrami JF, Zaidi AA, Weinstock HS. Primary and secondary syphilis among black and Hispanic men who have sex with men: case report data from 27 States. Ann Intern Med. 2011; 155(3):145-51.

4 Kirkcaldy RD, Zaidi A, Hook EW 3rd, Holmes KK, Soge O, del Rio C, et al. *Neisseria gonorrhoeae* antimicrobial resistance among men who have sex with men and men who have sex exclusively with women: The Gonococcal Isolate Surveillance Project, 2005–2010. Ann Intern Med. 2013; 158(5 Pt 1):321–8.

5 Fleming DT, Wasserheit JN. From epidemiologic synergy to public health policy and practice: the contribution of other sexually transmitted diseases to sexual transmission of HIV infection. Sex Transm Infect. 1999;75:3-17.

6 Hall HI, Song R, Rhodes P, Prejean J, An Q, Lee LM, et al, for the HIV Incidence Surveillance Group. Estimation of HIV incidence in the United States. JAMA. 2008;6;300(5):520-9.

7 Koblin BA, Husnik MJ, Marla JB, Colfax GC, Huang Y, Madison ME, et al. Risk factors for HIV infection among men who have sex with men. AIDS. 2006;20(5):731-739.

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9 McKirnan DJ, Du Bois SN, Alvy LM, Jones K. Health Care Access and Health Behaviors Among Men Who Have Sex With Men: The Cost of Health Disparities. Health Educ Behav. 2013;40(1):32-41.

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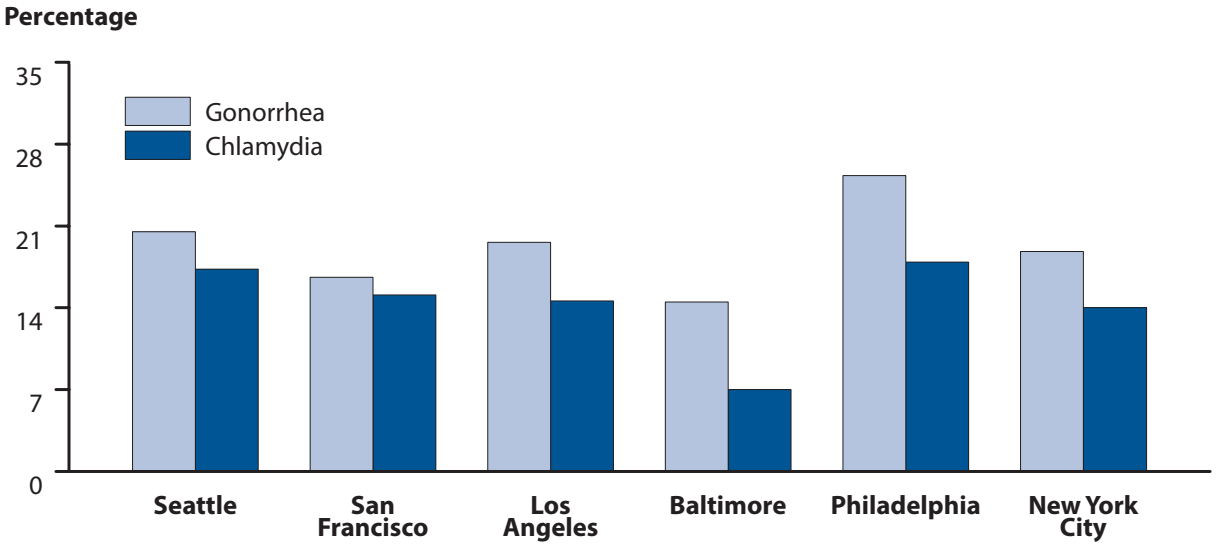
12 Rietmeijer K, Donnelly J, Bernstein K, Bissette J, Martins S, Pathela P, et al. Here comes the SSuN—early experiences with the STD Surveillance Network. Pub Health Rep. 2009;124(Suppl 2):72-77.

13 Centers for Disease Control and Prevention. Sexually Transmitted Disease Surveillance 2011. Atlanta: U.S. Department of Health and Human Services; 2012.

14 Heffelfinger JD, Swint EB, Berman SM, Weinstock HS. Trends in primary and secondary syphilis among men who have sex with men in the United States. Am J Public Health. 2007 Jun;97(6):1076-83.

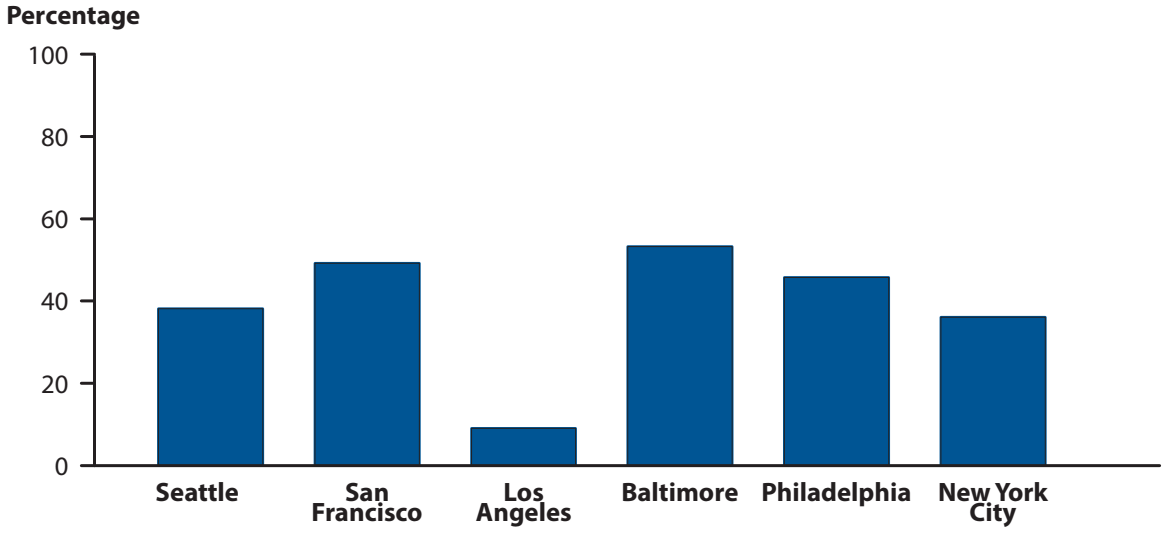
15 Schwarcz S, Zenilman J, Schnell D, Knapp JS, Hook EW III, Thompson S, et al. National surveillance of antimicrobial resistance in *Neisseria gonorrhoeae*. JAMA. 1990;264(11):1413-7.

Figure V. Gonorrhea and Chlamydia — Proportion of MSM* Attending STD Clinics Testing Positive for Gonorrhea and Chlamydia, STD Surveillance Network (SSuN), 2014



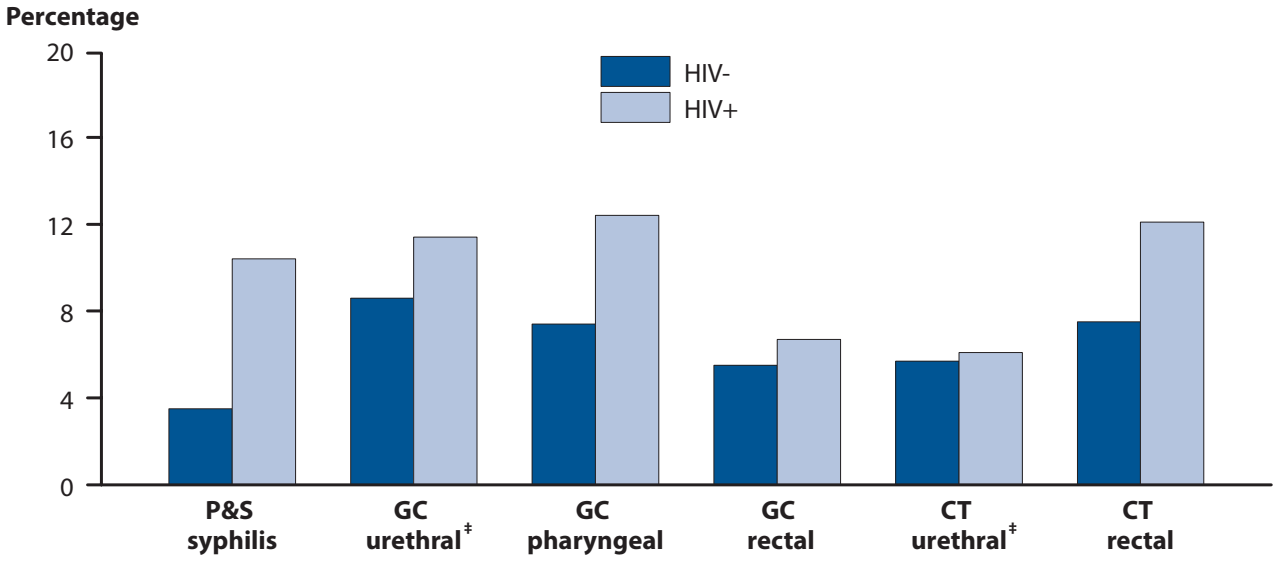
* Among men who have who sex with men who were tested for gonorrhea and/or chlamydia.
NOTE: Includes the six jurisdictions (Baltimore, Los Angeles, New York City, Philadelphia, San Francisco and Seattle) that contributed data for all of 2014.

Figure W. Primary and Secondary Syphilis and HIV — Proportion of MSM* Attending STD Clinics with Primary and Secondary Syphilis Who are Co-infected with HIV, STD Surveillance Network (SSuN), 2014



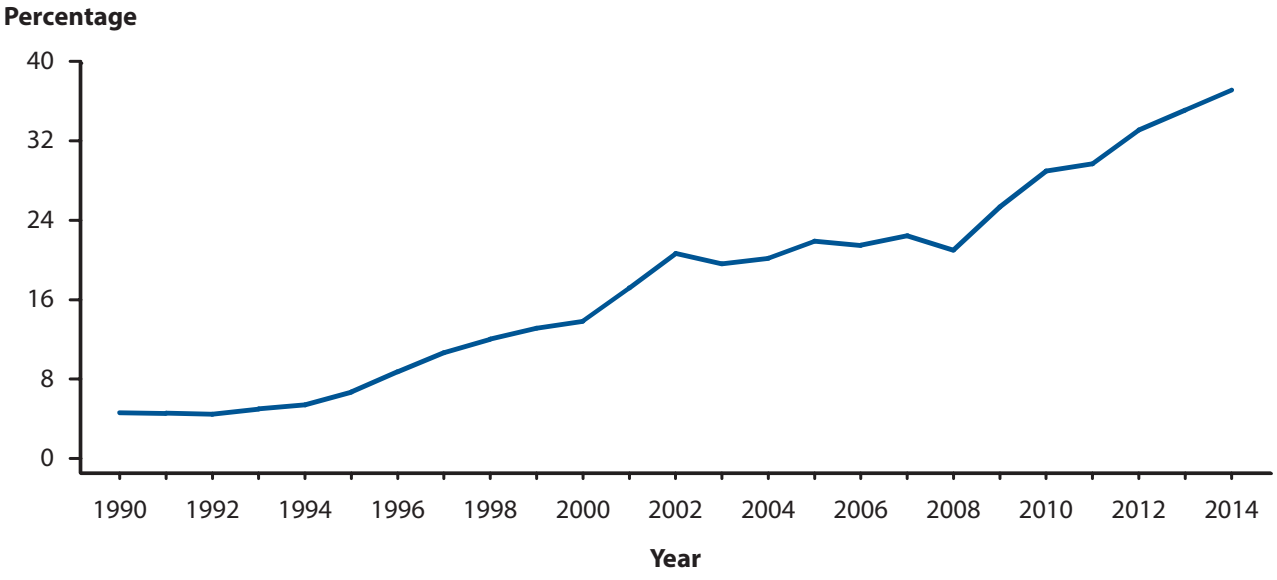
* MSM = men who have sex with men.
NOTE: Includes the six jurisdictions (Baltimore, Los Angeles, New York City, Philadelphia, San Francisco and Seattle) that contributed data for all of 2014.

Figure X. Proportion of MSM* Attending STD Clinics with Primary and Secondary Syphilis, Gonorrhea or Chlamydia by HIV Status†, STD Surveillance Network (SSuN), 2014



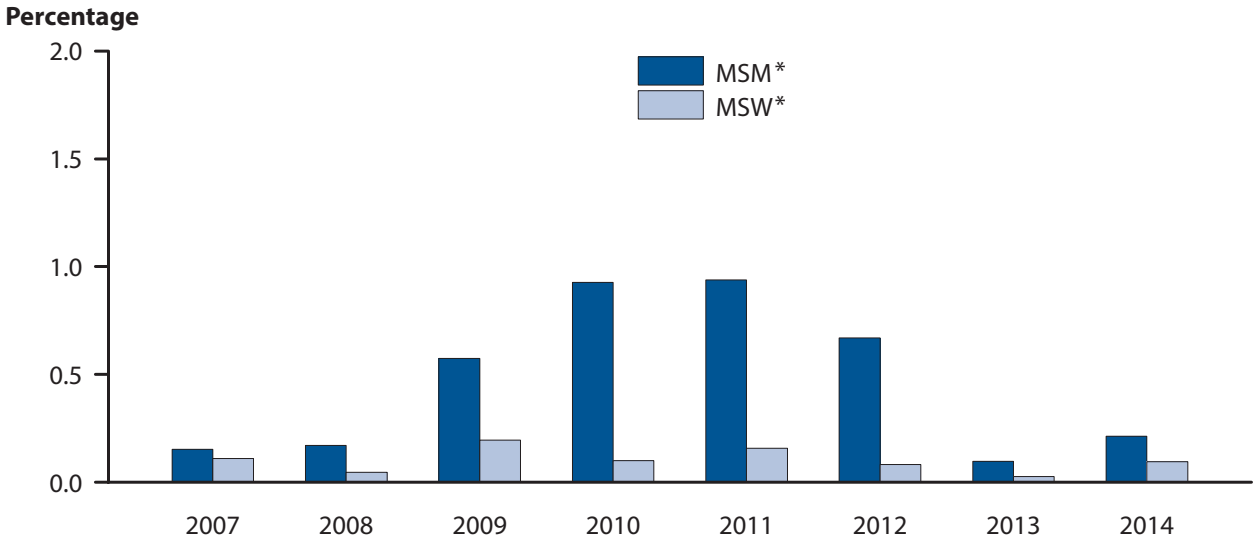
* MSM = men who have sex with men; P&S = primary and secondary syphilis; GC = gonorrhea; CT = chlamydia.
† Excludes all persons for whom there was no laboratory documentation or self-report of HIV status.
‡ GC urethral and CT urethral include results from both urethral and urine specimens.
NOTE: Includes the six jurisdictions (Baltimore, Los Angeles, New York City, Philadelphia, San Francisco and Seattle) that contributed data for all of 2014.

Figure Y. *Neisseria gonorrhoeae* — Percentage of Urethral Isolates Obtained from MSM* Attending STD Clinics, Gonococcal Isolate Surveillance Project (GISP), 1990–2014



* MSM = men who have sex with men.

Figure Z. ***Neisseria gonorrhoeae*** **— Percentage of Urethral Isolates with Elevated Ceftriaxone Minimum Inhibitory Concentrations (MICs) (≥0.125 µg/ml) by Reported Sex of Sex Partner, Gonococcal Isolate Surveillance Project (GISP), 2007–2014**



* MSM = men who have sex with men; MSW = men who have sex with women only.

TABLES

TABLES

Table 1. Sexually Transmitted Diseases — Reported Cases and Rates of Reported Cases per 100,000 Population, United States, 1941–2014

	Syphilis															
	All Stages[†]		Primary and Secondary		Early Latent		Late and Late Latent[‡]		Congenital		Chlamydia		Gonorrhea		Chancroid	
Year*	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate[§]	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
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

Table 1. Sexually Transmitted Diseases — Reported Cases and Rates of Reported Cases per 100,000 Population, United States, 1941–2014 (continued)

	Syphilis															
	All Stages†		Primary and Secondary		Early Latent		Late and Late Latent‡		Congenital		Chlamydia		Gonorrhea		Chancroid	
Year*	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate§	Cases	Rate	Cases	Rate	Cases	Rate
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
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	56,482	17.9	17,375	5.5	16,929	5.4	21,819	6.9	359	9.1	1,401,906	443.5	333,004	105.3	10	0.0
2014	63,450	20.1	19,999	6.3	19,452	6.2	23,541	7.4	458	11.6	1,441,789	456.1	350,062	110.7	6	0.0

* 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.

‡ Late and late latent syphilis includes late latent syphilis, latent syphilis of unknown duration, neurosyphilis, late syphilis with clinical manifestations other than neurosyphilis, and late syphilis with clinical manifestations (including late benign syphilis and cardiovascular syphilis).

§ 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.

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 June 10, 2015. The number of cases and the rates shown here supersede those published in previous reports. See Section A1.1 in the Appendix for more information. Cases and rates shown in this table exclude the outlying areas of Guam, Puerto Rico, and Virgin Islands.

Table 2. Chlamydia — Reported Cases and Rates of Reported Cases by State, Ranked by Rates, United States, 2014

Rank*	State	Cases	Rate per 100,000 Population
1	Alaska	5,789	787.5
2	Mississippi	19,605	655.4
3	Louisiana	28,955	626.0
4	Alabama	29,010	600.2
5	South Carolina	28,087	588.2
6	New Mexico	11,558	554.3
7	Oklahoma	20,662	536.6
8	Arkansas	15,605	527.3
9	Georgia	51,945	519.9
10	Illinois	66,536	516.5
11	New York	98,814	502.8
12	Texas	131,219	496.1
13	South Dakota	4,166	493.1
14	Arizona	32,397	488.9
15	Delaware	4,473	483.2
16	North Carolina	47,147	478.7
17	North Dakota	3,451	477.1
18	Ohio	54,858	474.1
19	Tennessee	30,793	474.0
20	Missouri	27,981	462.9
21	Maryland	27,424	462.6
22	California	176,308	459.9
23	Hawaii	6,419	457.2
	U.S. TOTAL†	**1,441,789**	**456.1**
24	Michigan	44,256	447.2
25	Virginia	36,048	436.4
26	Indiana	28,519	434.0
27	Florida	84,194	430.6
28	Nevada	11,841	424.4
29	Colorado	21,863	415.0
30	Rhode Island	4,349	413.6
31	Montana	4,193	413.0
32	Wisconsin	23,154	403.2
33	Kentucky	17,664	401.9
34	Nebraska	7,499	401.3
35	Pennsylvania	50,536	395.6
36	Oregon	15,508	394.6
37	Kansas	11,116	384.1
38	Iowa	11,804	382.0
39	Washington	26,577	381.2
40	Connecticut	13,382	372.1
41	Minnesota	19,907	367.3
42	Vermont	2,237	357.0
43	Wyoming	1,972	338.4
44	Idaho	5,442	337.6
45	New Jersey	29,904	336.0
46	Massachusetts	21,271	317.8
47	Utah	8,223	283.5
48	New Hampshire	3,586	271.0
49	Maine	3,530	265.8
50	West Virginia	4,719	254.5

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

† Total includes cases reported by the District of Columbia with 5,293 cases and a rate of 818.8, but excludes outlying areas (Guam with 839 cases and rate of 523.1, Puerto Rico with 4,899 cases and rate of 135.5, and Virgin Islands with 791 cases and rate of 755.2).

Table 3. Chlamydia — Reported Cases and Rates of Reported Cases by State/Area and Region in Alphabetical Order, United States and Outlying Areas, 2010–2014

State/Area	Cases					Rates per 100,000 Population				
	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014
Alabama	27,041	29,626	30,621	29,464	29,010	565.7	616.9	635.0	609.6	600.2
Alaska	6,019	5,739	5,462	5,774	5,789	847.5	794.1	746.7	785.4	787.5
Arizona	26,861	29,251	30,444	30,564	32,397	420.2	451.2	464.6	461.2	488.9
Arkansas	15,424	16,052	16,611	15,447	15,605	529.0	546.4	563.3	522.0	527.3
California	150,443	166,773	167,695	167,346	176,308	403.8	442.5	440.8	436.6	459.9
Colorado	19,447	21,811	21,631	20,386	21,863	386.7	426.3	417.0	387.0	415.0
Connecticut	12,649	13,649	13,065	12,775	13,382	353.9	381.2	363.9	355.2	372.1
Delaware	4,464	4,508	4,438	5,213	4,473	497.1	496.9	483.9	563.1	483.2
District of Columbia	5,589	6,585	6,808	6,414	5,293	928.8	1,065.5	1,076.7	992.2	818.8
Florida	74,744	76,033	77,644	80,182	84,194	397.5	399.0	401.9	410.1	430.6
Georgia	45,147	54,403	52,418	51,070	51,945	466.0	554.3	528.4	511.1	519.9
Hawaii	6,015	6,001	6,340	6,640	6,419	442.2	436.5	455.4	472.9	457.2
Idaho	4,208	4,699	4,550	5,428	5,442	268.4	296.5	285.1	336.7	337.6
Illinois	60,672	64,939	67,701	63,797	66,536	472.9	504.6	525.8	495.2	516.5
Indiana	22,825	27,801	29,505	28,023	28,519	352.0	426.6	451.3	426.5	434.0
Iowa	10,542	10,705	11,377	10,953	11,804	346.1	349.6	370.1	354.4	382.0
Kansas	9,601	10,598	11,135	11,012	11,116	336.5	369.1	385.8	380.5	384.1
Kentucky	16,376	16,629	17,273	17,134	17,664	377.4	380.6	394.3	389.8	401.9
Louisiana	29,151	31,614	27,353	28,739	28,955	643.0	691.0	594.4	621.3	626.0
Maine	2,586	3,094	3,413	3,438	3,530	194.7	232.9	256.8	258.8	265.8
Maryland	26,192	27,212	26,534	26,723	27,424	453.7	466.9	450.9	450.7	462.6
Massachusetts	21,080	22,764	23,550	23,210	21,271	321.9	345.6	354.3	346.8	317.8
Michigan	49,478	49,568	47,566	44,835	44,256	500.6	501.9	481.3	453.1	447.2
Minnesota	15,294	16,902	18,056	18,742	19,907	288.4	316.2	335.7	345.8	367.3
Mississippi	21,417	21,216	23,054	17,464	19,605	721.8	712.3	772.3	583.8	655.4
Missouri	26,049	27,887	27,835	27,328	27,981	435.0	464.0	462.2	452.1	462.9
Montana	3,082	3,406	3,827	3,818	4,193	311.5	341.2	380.7	376.1	413.0
Nebraska	5,114	6,780	6,748	7,301	7,499	280.0	368.0	363.7	390.7	401.3
Nevada	9,666	10,507	11,137	11,781	11,841	357.9	385.8	403.7	422.2	424.4
New Hampshire	2,462	3,010	3,072	3,119	3,586	187.0	228.3	232.6	235.7	271.0
New Jersey	26,142	26,209	27,271	28,327	29,904	297.3	297.1	307.6	318.3	336.0
New Mexico	11,706	11,374	11,898	12,249	11,558	568.5	546.2	570.5	587.4	554.3
New York	99,920	102,763	100,546	95,803	98,814	515.6	527.9	513.8	487.5	502.8
North Carolina	42,048	54,819	50,596	48,416	47,147	441.0	567.7	518.8	491.6	478.7
North Dakota	2,404	2,445	2,908	2,932	3,451	357.4	357.5	415.6	405.3	477.1
Ohio	51,150	52,653	53,141	53,121	54,858	443.4	456.1	460.3	459.1	474.1
Oklahoma	14,302	14,596	16,843	18,278	20,662	381.2	385.0	441.5	474.7	536.6
Oregon	12,352	13,643	13,454	14,181	15,508	322.4	352.4	345.0	360.8	394.6
Pennsylvania	47,518	52,884	54,993	52,056	50,536	374.1	415.0	430.9	407.5	395.6
Rhode Island	3,480	4,146	4,313	4,312	4,349	330.6	394.4	410.6	410.1	413.6
South Carolina	26,525	28,932	27,149	25,594	28,087	573.5	618.3	574.7	536.0	588.2
South Dakota	3,192	3,409	3,924	3,927	4,166	392.1	413.7	470.9	464.8	493.1
Tennessee	28,327	31,105	32,525	30,370	30,793	446.4	485.8	503.8	467.5	474.0
Texas	119,872	124,882	127,036	129,861	131,219	476.7	486.4	487.5	491.0	496.1
Utah	6,690	7,086	7,615	7,535	8,223	242.1	251.5	266.7	259.7	283.5
Vermont	1,257	1,483	1,724	1,842	2,237	200.9	236.7	275.4	294.0	357.0
Virginia	30,797	36,314	34,963	33,316	36,048	384.9	448.5	427.1	403.3	436.4
Washington	21,348	23,280	24,596	24,950	26,577	317.5	340.8	356.6	357.9	381.2
West Virginia	3,876	4,295	4,790	5,139	4,719	209.2	231.5	258.2	277.1	254.5
Wisconsin	23,236	24,619	23,726	23,572	23,154	408.6	431.0	414.3	410.5	403.2
Wyoming	2,113	2,092	2,102	2,005	1,972	374.9	368.2	364.7	344.1	338.4
U.S. TOTAL	**1,307,893**	**1,412,791**	**1,422,976**	**1,401,906**	**1,441,789**	**423.6**	**453.4**	**453.3**	**443.5**	**456.1**
Northeast	217,094	230,002	231,947	224,882	227,609	392.5	414.3	416.0	402.0	406.9
Midwest	279,557	298,306	303,622	295,543	303,247	417.7	444.2	451.0	437.5	448.9
South	531,292	578,821	576,656	568,824	582,843	463.8	498.8	491.8	480.5	492.3
West	279,950	305,662	310,751	312,657	328,090	389.1	419.5	422.3	421.1	441.8
Guam	899	1,071	1,031	937	839	563.9	671.1	644.7	584.2	523.1
Puerto Rico	5,960	5,634	6,227	5,969	4,899	160.0	152.0	169.8	165.1	135.5
Virgin Islands	609	820	802	775	791	573.1	775.2	761.8	739.9	755.2
OUTLYING AREAS	**7,468**	**7,525**	**8,060**	**7,681**	**6,529**	**187.1**	**189.4**	**205.0**	**198.0**	**168.3**
TOTAL	**1,315,361**	**1,420,316**	**1,431,036**	**1,409,587**	**1,448,318**	**420.6**	**450.1**	**450.2**	**440.5**	**452.6**

Table 4. Chlamydia Among Women — Reported Cases and Rates of Reported Cases by State/Area and Region in Alphabetical Order, United States and Outlying Areas, 2010–2014

State/Area	Cases					Rates per 100,000 Population				
	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014
Alabama	20,030	21,217	22,099	21,096	20,619	814.4	857.9	889.8	847.8	828.6
Alaska	3,960	3,801	3,670	3,899	3,940	1,162.6	1,093.7	1,047.9	1,115.4	1,127.1
Arizona	19,529	21,196	22,087	21,950	22,747	607.2	650.5	670.4	658.9	682.8
Arkansas	11,303	11,921	12,247	11,334	11,625	761.5	797.3	816.1	752.7	772.0
California	102,645	114,657	114,396	112,460	115,339	547.8	605.3	598.2	583.7	598.6
Colorado	14,188	15,751	15,476	14,336	14,906	565.6	617.8	598.9	546.8	568.5
Connecticut	9,223	9,824	9,464	9,210	9,512	502.8	535.1	514.2	500.0	516.4
Delaware	3,296	3,191	3,181	3,714	3,084	711.9	682.9	672.9	777.3	645.5
District of Columbia	3,782	4,357	4,426	3,992	3,709	1,191.2	1,337.4	1,328.0	1,173.4	1,090.2
Florida	53,318	54,262	55,628	56,688	58,800	554.7	557.3	563.6	567.4	588.6
Georgia	32,863	39,829	37,456	36,559	36,871	662.8	794.6	738.9	715.3	721.4
Hawaii	4,340	4,314	4,452	4,646	4,469	639.1	629.8	644.9	669.0	643.5
Idaho	3,014	3,345	3,206	3,885	3,895	385.3	422.7	402.2	482.6	483.8
Illinois	44,598	46,728	48,575	45,764	46,516	682.1	712.9	740.9	698.1	709.6
Indiana	16,344	20,065	21,633	20,307	20,586	496.2	606.2	651.8	609.0	617.3
Iowa	7,612	7,647	8,194	7,895	8,385	494.9	495.0	528.7	507.1	538.5
Kansas	7,449	8,158	8,440	8,323	8,276	518.1	564.4	581.8	573.2	570.0
Kentucky	11,859	11,990	12,366	12,086	12,404	538.0	540.2	556.3	541.5	555.8
Louisiana	20,564	23,390	20,507	21,258	21,297	888.6	1,001.1	872.7	900.2	901.8
Maine	1,814	2,149	2,420	2,404	2,478	267.4	316.9	356.5	354.5	365.4
Maryland	19,827	20,004	19,295	19,049	19,162	664.9	665.1	635.9	623.7	627.4
Massachusetts	14,753	15,744	16,319	15,851	14,000	436.4	463.3	476.4	459.7	406.0
Michigan	36,431	36,367	34,510	32,056	31,470	723.5	723.0	685.7	636.5	624.9
Minnesota	10,965	11,827	12,568	12,950	13,484	410.4	439.7	464.3	474.9	494.4
Mississippi	15,958	15,697	16,771	12,676	14,008	1,045.7	1,024.6	1,092.1	824.9	911.6
Missouri	18,867	20,097	19,745	19,303	19,549	617.5	655.4	643.0	626.7	634.7
Montana	2,194	2,390	2,655	2,701	2,878	445.3	480.9	530.8	534.5	569.5
Nebraska	3,561	4,783	4,628	4,945	5,110	387.0	515.7	495.9	526.8	544.4
Nevada	6,897	7,215	7,628	8,183	8,039	515.9	534.9	557.7	591.0	580.6
New Hampshire	1,808	2,184	2,150	2,187	2,452	271.0	327.3	321.6	326.5	366.1
New Jersey	20,128	19,886	20,231	20,771	21,556	446.1	439.9	445.5	456.0	473.2
New Mexico	8,718	8,309	8,724	9,033	8,395	836.9	789.7	828.6	858.9	798.2
New York	68,693	70,466	68,337	64,454	65,114	686.9	702.3	677.9	637.2	643.7
North Carolina	33,836	42,992	39,140	37,146	35,494	691.9	868.1	782.9	735.9	703.2
North Dakota	1,577	1,603	1,898	1,923	2,202	474.0	474.7	551.9	544.2	623.1
Ohio	38,636	38,914	38,879	38,293	39,033	654.4	658.9	658.8	647.8	660.3
Oklahoma	10,297	10,349	12,341	13,065	14,855	543.6	540.8	641.1	672.3	764.4
Oregon	8,565	9,489	9,425	9,932	10,545	442.6	485.3	478.8	500.2	531.1
Pennsylvania	33,175	36,463	37,569	35,657	34,170	509.4	558.5	575.0	545.9	523.2
Rhode Island	2,478	2,984	3,091	3,044	3,037	455.4	549.5	570.3	561.5	560.2
South Carolina	20,842	22,278	20,497	19,103	20,581	877.5	927.2	844.7	779.2	839.5
South Dakota	2,300	2,491	2,801	2,793	2,942	565.4	606.2	674.9	664.2	699.6
Tennessee	20,559	22,200	22,732	21,057	21,203	632.1	676.3	687.3	632.6	636.9
Texas	92,847	95,326	96,405	96,923	96,959	732.6	737.1	735.3	728.7	728.9
Utah	4,473	4,821	5,149	5,050	5,414	325.2	343.9	362.8	350.2	375.5
Vermont	910	1,106	1,296	1,319	1,613	286.6	348.3	408.5	415.5	508.1
Virginia	22,348	26,283	24,670	23,167	24,754	548.4	637.9	592.4	551.8	589.6
Washington	15,634	16,641	17,271	17,452	18,193	463.3	486.5	499.8	500.2	521.5
West Virginia	2,832	3,092	3,405	3,624	3,356	301.5	328.8	362.2	386.1	357.5
Wisconsin	16,657	17,402	16,727	16,448	16,063	581.5	605.1	580.1	569.0	555.7
Wyoming	1,305	1,357	1,492	1,387	1,352	472.5	487.4	528.8	486.0	473.8
U.S. TOTAL	**949,802**	**1,018,552**	**1,018,272**	**993,348**	**1,006,441**	**605.1**	**643.4**	**638.7**	**619.0**	**627.2**
Northeast	152,982	160,806	160,877	154,897	153,932	537.8	563.8	562.0	539.7	536.4
Midwest	204,997	216,082	218,598	211,000	213,616	602.9	633.7	639.9	615.9	623.6
South	396,361	428,378	423,166	412,537	418,781	678.5	724.2	708.3	684.1	694.4
West	195,462	213,286	215,631	214,914	220,112	541.5	583.9	584.6	577.5	591.5
Guam	664	783	726	700	595	846.8	996.9	921.9	885.8	752.9
Puerto Rico	4,878	4,528	5,102	4,766	3,770	251.4	234.3	267.1	252.7	199.9
Virgin Islands	427	591	592	579	590	757.7	1,051.7	1,056.8	1,037.1	1,056.8
OUTLYING AREAS	**5,969**	**5,902**	**6,420**	**6,045**	**4,955**	**287.6**	**285.5**	**314.0**	**299.1**	**245.2**
TOTAL	**955,771**	**1,024,454**	**1,024,692**	**999,393**	**1,011,396**	**601.0**	**638.8**	**634.6**	**615.0**	**622.4**

NOTE: Cases reported with unknown sex are not included in this table.

Table 5. Chlamydia Among Men — Reported Cases and Rates of Reported Cases by State/Area and Region in Alphabetical Order, United States and Outlying Areas, 2010–2014

State/Area	Cases					Rates per 100,000 Population				
	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014
Alabama	6,877	7,648	8,295	8,201	8,318	296.4	328.3	354.7	349.7	354.7
Alaska	2,058	1,938	1,792	1,875	1,849	556.8	516.5	470.0	486.3	479.6
Arizona	7,331	8,052	8,354	8,610	9,650	230.8	249.8	256.4	261.3	292.9
Arkansas	4,112	4,125	4,360	4,104	3,964	287.2	285.9	301.0	282.3	272.7
California	47,239	51,554	52,983	54,679	60,687	255.1	275.0	280.1	286.8	318.3
Colorado	5,259	6,057	6,155	6,050	6,957	208.6	235.9	236.4	228.6	262.9
Connecticut	3,426	3,825	3,524	3,481	3,757	196.9	219.2	201.4	198.4	214.2
Delaware	1,168	1,317	1,257	1,499	1,389	268.5	299.4	282.9	334.6	310.1
District of Columbia	1,789	2,225	2,345	2,400	1,555	629.4	761.4	784.2	783.7	507.8
Florida	21,362	21,685	22,009	23,300	25,239	232.5	232.6	233.0	243.7	263.9
Georgia	11,965	13,978	14,521	14,063	14,736	253.0	291.0	299.3	288.1	301.9
Hawaii	1,675	1,687	1,888	1,994	1,950	245.9	244.6	269.0	281.0	274.8
Idaho	1,183	1,347	1,344	1,528	1,547	150.6	169.7	168.3	189.3	191.7
Illinois	15,957	18,083	18,977	17,943	19,908	253.6	286.4	300.3	283.6	314.7
Indiana	6,451	7,681	7,850	7,708	7,921	202.2	239.5	243.9	238.2	244.8
Iowa	2,930	3,058	3,183	3,058	3,419	194.3	201.5	208.8	199.4	223.0
Kansas	2,152	2,440	2,695	2,689	2,840	152.0	171.1	187.8	186.5	197.0
Kentucky	4,488	4,577	4,851	4,989	5,194	210.2	212.9	224.8	230.6	240.1
Louisiana	6,658	7,568	6,846	7,481	7,655	300.0	338.1	304.0	330.4	338.1
Maine	768	944	990	1,031	1,050	118.1	145.2	152.2	158.6	161.5
Maryland	6,336	7,197	7,193	7,654	8,237	227.0	255.2	252.4	266.2	286.5
Massachusetts	6,302	7,000	7,193	7,341	7,197	199.0	219.5	223.4	226.2	221.8
Michigan	12,926	13,095	12,962	12,683	12,723	266.6	270.2	267.2	261.0	261.8
Minnesota	4,329	5,075	5,430	5,791	6,414	164.5	191.2	203.2	215.0	238.1
Mississippi	5,459	5,519	6,281	4,788	5,588	378.8	381.5	433.4	329.2	384.2
Missouri	7,182	7,790	8,090	8,025	8,432	244.8	264.6	274.1	270.8	284.5
Montana	888	1,016	1,172	1,116	1,314	178.8	202.7	232.1	218.9	257.7
Nebraska	1,548	1,987	2,093	2,196	2,357	170.8	217.1	226.9	236.2	253.5
Nevada	2,768	3,290	3,508	3,590	3,786	203.0	239.3	252.2	255.4	269.4
New Hampshire	654	826	922	932	1,130	100.7	126.9	141.4	142.6	172.9
New Jersey	5,874	6,231	6,958	7,476	8,272	137.3	144.9	160.9	172.1	190.4
New Mexico	2,986	3,054	3,170	3,209	3,148	293.5	296.5	307.0	310.5	304.6
New York	31,224	32,126	32,147	31,273	33,634	333.0	340.6	338.8	327.9	352.7
North Carolina	8,030	11,585	11,354	11,254	11,638	172.9	246.3	238.9	234.4	242.4
North Dakota	822	841	1,010	1,009	1,249	241.9	242.9	283.9	272.7	337.6
Ohio	12,320	13,731	14,262	14,828	15,825	218.7	243.5	252.8	262.0	279.6
Oklahoma	3,997	3,851	4,498	5,213	5,802	215.2	205.1	238.0	273.3	304.2
Oregon	3,786	4,154	4,028	4,243	4,953	199.7	216.7	208.6	218.2	254.7
Pennsylvania	14,297	16,364	17,388	16,360	16,315	231.0	263.3	279.1	262.1	261.4
Rhode Island	1,002	1,162	1,222	1,268	1,312	197.1	228.6	240.4	248.9	257.5
South Carolina	5,653	6,585	6,588	6,432	7,376	251.2	289.2	286.8	276.9	317.5
South Dakota	883	914	1,123	1,134	1,224	216.8	221.2	268.5	267.2	288.4
Tennessee	7,748	8,905	9,754	9,311	9,587	250.5	285.3	309.8	294.0	302.7
Texas	26,966	29,533	30,532	31,980	34,110	216.2	231.8	235.8	243.2	259.5
Utah	2,215	2,265	2,466	2,485	2,808	159.5	160.0	171.7	170.3	192.5
Vermont	347	377	428	523	622	112.6	122.1	138.6	169.2	201.2
Virginia	8,397	9,929	10,247	10,112	11,244	213.9	249.7	254.8	248.9	276.8
Washington	5,711	6,639	7,325	7,498	8,384	170.5	194.7	212.8	215.3	240.7
West Virginia	1,044	1,203	1,385	1,514	1,363	114.3	131.5	151.3	165.4	148.9
Wisconsin	6,573	7,203	6,999	7,114	7,077	232.9	254.0	246.2	249.4	248.1
Wyoming	808	734	610	617	619	281.1	253.3	207.3	207.5	208.2
U.S. TOTAL	**353,923**	**389,970**	**402,557**	**405,652**	**433,325**	**233.2**	**254.4**	**260.6**	**260.6**	**278.4**
Northeast	63,894	68,855	70,772	69,685	73,289	237.8	255.0	260.8	255.8	269.0
Midwest	74,073	81,898	84,674	84,178	89,389	225.0	247.7	255.4	252.9	268.5
South	132,049	147,430	152,316	154,295	162,995	235.2	259.1	264.8	265.7	280.7
West	83,907	91,787	94,795	97,494	107,652	234.1	252.6	258.3	263.2	290.6
Guam	235	288	305	234	244	290.1	355.3	375.8	287.6	299.9
Puerto Rico	1,076	1,106	1,125	1,203	1,126	60.3	62.3	64.0	69.6	65.1
Virgin Islands	182	229	210	196	201	364.7	461.8	426.3	400.7	411.0
OUTLYING AREAS	**1,493**	**1,623**	**1,640**	**1,633**	**1,571**	**77.9**	**85.2**	**86.9**	**87.8**	**84.5**
TOTAL	**355,416**	**391,593**	**404,197**	**407,285**	**434,896**	**231.2**	**252.3**	**258.5**	**258.6**	**276.1**

NOTE: Cases reported with unknown sex are not included in this table.

Table 6. Chlamydia — Reported Cases and Rates of Reported Cases in Selected Metropolitan Statistical Areas (MSAs)* in Alphabetical Order, United States, 2010–2014

MSAs	Cases					Rates per 100,000 Population				
	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014
Atlanta-Sandy Springs-Roswell, GA	22,203	27,372	26,470	16,429	25,744	420.0	509.0	485.0	297.5	466.1
Austin-Round Rock, TX	8,511	9,360	9,810	10,138	10,920	495.9	524.8	534.8	538.4	579.9
Baltimore-Columbia-Towson, MD	13,988	14,399	13,578	13,749	14,095	516.1	527.6	493.2	496.2	508.7
Birmingham-Hoover, AL	6,126	6,834	6,868	6,552	6,309	543.1	603.6	604.2	574.6	553.3
Boston-Cambridge-Newton, MA-NH	14,291	15,703	16,339	16,127	14,264	313.9	342.0	352.1	344.3	304.5
Buffalo-Cheektowaga-Niagara Falls, NY	5,938	5,965	6,010	5,724	5,841	522.9	526.0	529.9	504.7	515.0
Charlotte-Concord-Gastonia, NC-SC	9,060	13,257	11,548	11,418	11,766	408.7	587.2	502.8	488.9	503.8
Chicago-Naperville-Elgin, IL-IN-WI	45,726	49,590	51,329	47,837	51,457	483.3	521.7	539.0	501.6	539.5
Cincinnati, OH-KY-IN	9,791	10,044	10,234	10,207	10,516	463.0	473.2	480.8	477.5	492.0
Cleveland-Elyria, OH	11,608	12,348	12,339	12,126	11,363	558.8	597.0	598.0	587.3	550.3
Columbus, OH	9,625	9,031	8,946	9,734	10,258	506.1	469.3	460.2	494.8	521.5
Dallas-Fort Worth-Arlington, TX	29,430	32,002	31,697	30,684	30,549	458.0	486.2	473.0	450.5	448.5
Denver-Aurora-Lakewood, CO	14,320	12,710	12,764	12,131	13,346	563.0	488.9	482.5	449.7	494.8
Detroit-Warren-Dearborn, MI	27,751	26,237	24,229	22,567	21,012	645.9	612.2	564.5	525.4	489.2
Hartford-West Hartford-East Hartford, CT	4,616	4,837	4,562	4,311	4,713	380.7	398.7	375.7	354.8	387.8
Houston-The Woodlands-Sugar Land, TX	27,462	26,508	26,807	29,120	30,554	463.9	437.4	434.0	461.3	484.0
Indianapolis-Carmel-Anderson, IN	8,797	11,117	12,714	11,835	11,952	466.0	582.1	659.1	605.7	611.7
Jacksonville, FL	7,093	7,264	6,813	7,138	7,391	527.1	534.0	494.5	511.8	530.0
Kansas City, MO-KS	9,372	10,038	10,152	9,513	9,866	466.4	495.3	498.0	463.0	480.2
Las Vegas-Henderson-Paradise, NV	7,614	8,337	8,587	9,286	9,485	390.2	423.2	429.2	457.9	467.7
Los Angeles-Long Beach-Anaheim, CA	56,033	58,552	60,231	59,386	64,263	436.8	452.3	461.4	452.2	489.4
Louisville/Jefferson County, KY-IN	6,157	6,483	6,658	6,384	6,751	498.3	520.6	532.1	505.8	534.8
Memphis, TN-MS-AR	12,486	11,720	12,744	10,763	10,554	942.5	878.3	949.8	802.2	786.6
Miami-Fort Lauderdale-West Palm Beach, FL	19,095	19,561	20,933	22,821	24,599	343.1	345.0	363.2	391.6	422.1
Milwaukee-Waukesha-West Allis, WI	11,512	11,712	10,929	10,754	10,303	739.9	749.7	697.5	685.1	656.4
Minneapolis-St. Paul-Bloomington, MN-WI	10,975	12,143	12,144	12,227	13,589	327.7	358.5	354.9	353.5	392.8
Nashville-Davidson-Murfreesboro-Franklin, TN	6,026	6,990	7,151	7,356	7,878	360.6	411.5	414.1	418.5	448.1
New Orleans-Metairie, LA	7,050	8,124	7,118	8,134	8,595	592.5	669.8	580.1	655.5	692.6
New York-Newark-Jersey City, NY-NJ-PA	92,464	95,088	92,763	89,211	93,515	472.5	483.0	467.7	447.2	468.8
Oklahoma City, OK	4,704	5,087	5,640	6,190	7,293	375.4	398.0	435.0	469.1	552.6
Orlando-Kissimmee-Sanford, FL	9,491	9,545	9,928	10,230	11,001	444.7	439.6	446.5	451.1	485.1
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	33,050	34,799	35,513	34,741	33,376	554.0	580.7	590.0	575.7	553.1
Phoenix-Mesa-Scottsdale, AZ	16,519	17,746	20,358	20,164	21,576	394.0	416.3	470.2	458.4	490.5
Pittsburgh, PA	7,096	8,436	8,994	8,605	8,059	301.2	357.5	381.0	364.5	341.4
Portland-Vancouver-Hillsboro, OR-WA	7,415	8,509	7,797	8,536	9,283	333.1	376.1	340.5	368.8	401.1
Providence-Warwick, RI-MA	4,759	5,559	5,941	5,828	5,695	297.3	347.4	371.0	363.3	355.0
Raleigh, NC	5,122	5,693	5,373	4,966	5,126	453.1	489.3	452.1	408.9	422.1
Richmond, VA	6,911	7,698	7,224	6,817	7,817	572.1	631.5	586.4	547.2	627.5
Riverside-San Bernardino-Ontario, CA	12,263	20,749	20,994	19,819	19,560	290.3	482.0	482.6	452.4	446.5
Sacramento-Roseville-Arden-Arcade, CA	8,084	10,866	9,852	9,771	9,674	376.2	499.3	448.5	441.0	436.6
Salt Lake City, UT	3,653	3,767	4,041	3,947	4,423	335.8	339.9	359.6	346.1	387.8
San Antonio-New Braunfels, TX	12,430	13,066	13,023	13,335	11,573	580.2	595.3	582.9	585.5	508.1
San Diego-Carlsbad, CA	15,341	15,346	16,524	14,706	15,754	495.6	488.7	520.1	458.0	490.6
San Francisco-Oakland-Hayward, CA	17,686	18,745	17,171	18,254	20,377	407.9	426.9	385.4	404.2	451.2
San Jose-Sunnyvale-Santa Clara, CA	5,691	5,965	4,676	6,717	6,278	309.8	319.8	246.8	349.9	327.0
Seattle-Tacoma-Bellevue, WA	11,510	12,329	12,965	12,971	13,861	334.6	352.3	365.0	359.3	384.0
St. Louis, MO-IL	14,660	15,517	14,843	14,783	14,711	525.9	555.7	530.9	527.8	525.2
Tampa-St. Petersburg-Clearwater, FL	12,158	12,595	12,274	12,752	12,952	436.8	445.9	431.7	444.2	451.2
Virginia Beach-Norfolk-Newport News, VA-NC	11,387	13,674	12,409	11,852	12,192	679.1	811.5	730.0	694.2	714.1
Washington-Arlington-Alexandria, DC-VA-MD-WV	20,027	22,839	23,872	23,531	18,342	355.3	396.6	407.3	395.5	308.3
SELECTED MSAs TOTAL	**755,077**	**811,856**	**811,879**	**792,177**	**820,371**	**450.9**	**479.2**	**474.2**	**458.3**	**474.6**

* MSAs were selected on the basis of the largest population in the 2010 U.S. Census.

Table 7. Chlamydia Among Women — Reported Cases and Rates of Reported Cases in Selected Metropolitan Statistical Areas (MSAs)* in Alphabetical Order, United States, 2010–2014

MSAs	Cases					Rates per 100,000 Population				
	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014
Atlanta-Sandy Springs-Roswell, GA	15,556	19,507	18,298	11,221	17,564	573.1	707.7	652.7	395.0	618.3
Austin-Round Rock, TX	6,212	6,644	6,909	6,691	7,513	725.5	746.6	755.2	712.3	799.8
Baltimore-Columbia-Towson, MD	10,744	10,668	9,933	9,848	9,780	764.4	754.3	696.7	686.9	682.1
Birmingham-Hoover, AL	4,525	4,834	4,866	4,486	4,300	775.0	824.1	826.1	759.2	727.7
Boston-Cambridge-Newton, MA-NH	9,937	10,747	11,234	10,791	9,243	422.9	454.1	469.9	447.5	383.3
Buffalo-Cheektowaga-Niagara Falls, NY	4,386	4,370	4,317	4,024	4,077	746.5	745.7	737.4	688.0	697.1
Charlotte-Concord-Gastonia, NC-SC	7,101	10,024	8,731	8,605	8,633	624.2	864.7	740.1	717.0	719.3
Chicago-Naperville-Elgin, IL-IN-WI	33,360	35,360	36,701	34,216	35,696	689.5	728.0	754.3	702.5	732.9
Cincinnati, OH-KY-IN	7,740	7,763	7,750	7,527	7,724	716.1	715.9	713.0	690.0	708.1
Cleveland-Elyria, OH	8,556	9,065	8,877	8,550	7,914	793.1	844.7	829.5	799.4	739.9
Columbus, OH	6,947	6,266	6,280	6,749	6,895	717.8	640.2	635.3	674.7	689.3
Dallas-Fort Worth-Arlington, TX	22,979	24,221	24,018	22,744	22,213	705.4	726.5	707.6	658.7	643.3
Denver-Aurora-Lakewood, CO	10,458	9,143	9,117	8,447	9,020	817.7	700.4	686.4	624.1	666.4
Detroit-Warren-Dearborn, MI	20,530	19,161	17,460	16,152	14,822	927.2	867.8	789.8	730.5	670.4
Hartford-West Hartford-East Hartford, CT	3,324	3,470	3,301	3,109	3,349	534.2	557.6	529.8	499.0	537.5
Houston-The Woodlands-Sugar Land, TX	21,875	20,956	20,858	22,027	22,832	735.0	688.2	672.3	695.0	720.4
Indianapolis-Carmel-Anderson, IN	5,976	7,579	8,899	8,149	8,398	619.1	776.3	902.5	816.1	841.0
Jacksonville, FL	5,191	5,213	4,812	5,131	5,238	752.4	746.9	680.7	717.4	732.4
Kansas City, MO-KS	6,800	7,278	7,295	6,795	6,991	662.8	703.8	701.5	649.2	667.9
Las Vegas-Henderson-Paradise, NV	5,537	5,777	5,942	6,571	6,486	571.4	590.2	597.1	650.5	642.0
Los Angeles-Long Beach-Anaheim, CA	37,486	38,802	39,470	38,456	40,401	576.7	592.0	597.1	578.5	607.7
Louisville/Jefferson County, KY-IN	4,545	4,745	4,884	4,574	4,827	718.4	744.1	762.7	708.1	747.2
Memphis, TN-MS-AR	9,542	8,767	9,367	7,717	7,758	1,385.5	1,263.3	1,342.7	1,105.5	1,111.3
Miami-Fort Lauderdale-West Palm Beach, FL	13,566	13,815	14,692	15,645	16,473	472.5	473.5	495.4	521.9	549.5
Milwaukee-Waukesha-West Allis, WI	8,376	8,397	7,760	7,463	7,183	1,048.2	1,047.4	964.7	926.6	891.8
Minneapolis-St. Paul-Bloomington, MN-WI	7,788	8,371	8,326	8,293	8,957	459.4	488.7	481.1	474.2	512.2
Nashville-Davidson-Murfreesboro-Franklin, TN	4,250	4,942	4,928	5,084	5,278	497.5	568.7	557.8	565.0	586.6
New Orleans-Metairie, LA	5,134	6,056	5,326	6,062	6,301	840.7	972.3	843.9	948.7	986.1
New York-Newark-Jersey City, NY-NJ-PA	64,520	65,988	63,588	60,539	62,097	636.7	648.2	620.5	587.7	602.8
Oklahoma City, OK	3,292	3,518	3,951	4,430	5,255	517.9	543.3	601.6	662.5	785.8
Orlando-Kissimmee-Sanford, FL	6,777	6,993	7,373	7,503	8,021	621.9	631.1	649.6	648.3	693.1
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	22,863	23,928	24,166	23,532	22,317	740.7	772.0	776.5	754.4	715.4
Phoenix-Mesa-Scottsdale, AZ	11,892	12,696	14,396	14,206	14,841	564.3	592.8	661.6	642.4	671.1
Pittsburgh, PA	5,146	5,963	6,325	6,046	5,509	422.5	489.5	519.7	497.4	453.2
Portland-Vancouver-Hillsboro, OR-WA	5,091	5,824	5,359	5,809	6,158	451.8	508.8	462.8	496.1	525.9
Providence-Warwick, RI-MA	3,433	4,022	4,256	4,124	3,945	415.1	486.9	515.3	498.7	477.1
Raleigh, NC	3,525	3,951	3,691	3,490	3,502	609.5	663.4	606.8	561.5	563.5
Richmond, VA	5,161	5,599	5,083	4,792	5,311	826.7	889.1	798.4	744.7	825.4
Riverside-San Bernardino-Ontario, CA	8,810	15,241	15,296	14,536	13,988	414.8	704.9	700.5	661.1	636.2
Sacramento-Roseville-Arden-Arcade, CA	5,754	7,874	7,122	6,915	6,686	525.2	709.9	635.9	611.8	591.5
Salt Lake City, UT	2,386	2,517	2,679	2,541	2,873	441.3	457.0	479.6	448.0	506.6
San Antonio-New Braunfels, TX	8,972	9,286	9,436	9,576	8,158	823.1	832.0	832.1	829.5	706.7
San Diego-Carlsbad, CA	10,538	10,395	11,102	9,684	10,211	683.6	664.9	702.5	606.3	639.3
San Francisco-Oakland-Hayward, CA	10,940	11,733	10,391	10,845	11,509	497.8	527.7	460.5	474.3	503.4
San Jose-Sunnyvale-Santa Clara, CA	3,951	4,187	3,260	4,530	4,100	431.6	450.7	345.9	474.6	429.6
Seattle-Tacoma-Bellevue, WA	8,000	8,259	8,460	8,411	8,751	463.0	470.9	474.8	465.4	484.2
St. Louis, MO-IL	10,468	11,077	10,351	10,364	10,271	727.9	769.0	717.8	717.6	711.2
Tampa-St. Petersburg-Clearwater, FL	8,527	8,913	8,738	8,948	9,066	593.9	612.5	596.5	604.2	612.1
Virginia Beach-Norfolk-Newport News, VA-NC	8,106	9,798	8,771	8,259	8,425	948.5	1,141.0	1,015.2	952.5	971.6
Washington-Arlington-Alexandria, DC-VA-MD-WV	14,263	15,946	16,349	15,768	12,501	493.1	540.4	544.5	518.1	410.7
SELECTED MSAs TOTAL	**540,836**	**575,649**	**570,494**	**549,975**	**559,361**	**632.3**	**665.7**	**653.1**	**623.8**	**634.5**

* MSAs were selected on the basis of the largest population in the 2010 U.S. Census.
NOTE: Cases reported with unknown sex are not included in this table.

Table 8. Chlamydia Among Men — Reported Cases and Rates of Reported Cases in Selected Metropolitan Statistical Areas (MSAs)* in Alphabetical Order, United States, 2010–2014

MSAs	Cases					Rates per 100,000 Population				
	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014
Atlanta-Sandy Springs-Roswell, GA	6,482	7,563	7,917	5,061	7,979	252.0	288.6	298.3	188.7	297.5
Austin-Round Rock, TX	2,290	2,710	2,890	2,592	3,372	266.2	303.2	314.3	274.7	357.3
Baltimore-Columbia-Towson, MD	3,231	3,723	3,608	3,889	4,294	247.6	283.2	271.8	290.9	321.2
Birmingham-Hoover, AL	1,545	1,852	1,985	2,031	1,990	283.9	339.4	362.5	369.7	362.2
Boston-Cambridge-Newton, MA-NH	4,334	4,946	5,086	5,328	4,988	196.7	222.4	226.0	234.4	219.5
Buffalo-Cheektowaga-Niagara Falls, NY	1,552	1,595	1,693	1,700	1,764	283.2	291.1	308.5	309.5	321.2
Charlotte-Concord-Gastonia, NC-SC	1,948	3,191	2,794	2,804	3,125	180.5	290.5	250.2	247.0	275.3
Chicago-Naperville-Elgin, IL-IN-WI	12,250	14,110	14,518	13,553	15,679	265.0	303.6	311.8	290.4	336.0
Cincinnati, OH-KY-IN	2,017	2,279	2,482	2,676	2,787	195.1	219.5	238.3	255.7	266.3
Cleveland-Elyria, OH	3,016	3,283	3,462	3,576	3,449	302.1	329.9	348.5	359.4	346.6
Columbus, OH	2,646	2,762	2,666	2,985	3,363	283.2	292.2	279.0	308.7	347.8
Dallas-Fort Worth-Arlington, TX	6,445	7,778	7,669	7,916	8,313	203.4	239.5	231.9	235.7	247.6
Denver-Aurora-Lakewood, CO	3,862	3,564	3,647	3,684	4,326	305.4	275.4	276.9	274.1	321.9
Detroit-Warren-Dearborn, MI	7,134	7,011	6,718	6,350	6,153	342.6	337.4	322.8	304.7	295.3
Hartford-West Hartford-East Hartford, CT	1,292	1,367	1,245	1,181	1,333	219.0	231.3	210.5	199.4	225.1
Houston-The Woodlands-Sugar Land, TX	5,550	5,550	5,944	7,078	7,700	188.5	184.1	193.3	225.1	244.9
Indianapolis-Carmel-Anderson, IN	2,814	3,513	3,802	3,681	3,544	305.0	376.3	403.2	385.3	370.9
Jacksonville, FL	1,893	2,047	2,001	1,989	2,138	288.7	309.1	298.2	292.7	314.7
Kansas City, MO-KS	2,572	2,760	2,857	2,718	2,875	261.5	278.1	286.1	269.7	285.3
Las Vegas-Henderson-Paradise, NV	2,076	2,558	2,644	2,708	2,986	211.4	258.1	262.9	266.1	293.4
Los Angeles-Long Beach-Anaheim, CA	18,343	19,577	20,633	20,831	23,766	289.9	306.3	320.3	321.3	366.6
Louisville/Jefferson County, KY-IN	1,601	1,710	1,744	1,781	1,896	265.5	281.4	285.4	289.0	307.7
Memphis, TN-MS-AR	2,938	2,953	3,377	3,046	2,795	461.8	461.1	524.3	473.2	434.2
Miami-Fort Lauderdale-West Palm Beach, FL	5,523	5,721	6,238	7,134	8,086	205.0	207.8	223.0	252.0	285.7
Milwaukee-Waukesha-West Allis, WI	3,134	3,312	3,169	3,284	3,111	414.1	435.5	415.5	429.7	407.1
Minneapolis-St. Paul-Bloomington, MN-WI	3,187	3,772	3,813	3,933	4,623	192.7	225.3	225.4	229.9	270.3
Nashville-Davidson-Murfreesboro-Franklin, TN	1,767	2,048	2,185	2,271	2,598	216.4	246.8	259.1	264.6	302.8
New Orleans-Metairie, LA	1,714	2,043	1,792	2,072	2,294	295.9	346.3	300.7	344.2	381.1
New York-Newark-Jersey City, NY-NJ-PA	27,844	28,877	29,065	28,546	31,310	295.2	303.7	303.3	295.8	324.5
Oklahoma City, OK	1,410	1,457	1,688	1,760	2,036	228.4	231.1	263.8	270.4	312.8
Orlando-Kissimmee-Sanford, FL	2,705	2,539	2,555	2,708	2,964	258.9	238.8	234.7	243.9	266.9
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	10,146	10,817	11,314	11,178	11,010	352.4	373.9	389.2	383.4	377.7
Phoenix-Mesa-Scottsdale, AZ	4,626	5,047	5,960	5,957	6,735	221.8	237.9	276.8	272.3	307.9
Pittsburgh, PA	1,947	2,471	2,668	2,550	2,541	171.1	216.5	233.3	222.6	221.8
Portland-Vancouver-Hillsboro, OR-WA	2,323	2,685	2,437	2,723	3,124	211.4	240.2	215.3	238.1	273.2
Providence-Warwick, RI-MA	1,325	1,536	1,683	1,702	1,744	171.2	198.4	217.1	218.9	224.3
Raleigh, NC	1,577	1,723	1,673	1,474	1,622	285.6	303.4	288.3	248.6	273.5
Richmond, VA	1,727	2,053	2,129	2,011	2,503	295.8	348.4	357.6	333.9	415.6
Riverside-San Bernardino-Ontario, CA	3,437	5,412	5,683	5,271	5,542	163.6	252.6	262.3	241.5	254.0
Sacramento-Roseville-Arden-Arcade, CA	2,287	2,960	2,712	2,846	2,976	217.1	277.4	251.9	262.2	274.2
Salt Lake City, UT	1,267	1,250	1,362	1,406	1,550	231.5	224.2	241.0	245.2	270.4
San Antonio-New Braunfels, TX	3,458	3,780	3,587	3,757	3,412	328.6	350.4	326.1	334.5	303.8
San Diego-Carlsbad, CA	4,785	4,925	5,418	5,013	5,508	308.0	312.3	339.3	310.6	341.2
San Francisco-Oakland-Hayward, CA	6,645	6,948	6,739	7,370	8,823	310.8	320.5	306.5	330.5	395.7
San Jose-Sunnyvale-Santa Clara, CA	1,649	1,667	1,353	2,186	2,163	179.0	178.0	142.1	226.5	224.1
Seattle-Tacoma-Bellevue, WA	3,509	4,070	4,505	4,560	5,110	205.0	233.1	254.5	253.0	283.5
St. Louis, MO-IL	4,190	4,436	4,474	4,411	4,429	310.5	328.1	330.5	325.1	326.4
Tampa-St. Petersburg-Clearwater, FL	3,601	3,657	3,532	3,752	3,835	267.2	267.0	256.3	270.0	276.0
Virginia Beach-Norfolk-Newport News, VA-NC	3,275	3,857	3,631	3,584	3,748	398.3	466.8	434.3	426.5	446.1
Washington-Arlington-Alexandria, DC-VA-MD-WV	5,720	6,867	7,461	7,725	5,813	208.5	244.6	261.1	265.8	200.0
SELECTED MSAs TOTAL	**212,609**	**234,332**	**240,208**	**240,342**	**259,825**	**259.6**	**282.5**	**286.5**	**283.8**	**306.8**

* MSAs were selected on the basis of the largest population in the 2010 U.S. Census.
NOTE: Cases reported with unknown sex are not included in this table.

Table 9. Chlamydia — Reported Cases and Rates of Reported Cases in Counties and Independent Cities* Ranked by Number of Reported Cases, United States, 2014

Rank†	County/Independent City	Cases	Rate per 100,000 Population	Cumulative Percentage
1	Los Angeles County, CA	54,881	547.9	3
2	Cook County, IL	37,371	713.1	6
3	Harris County, TX	24,785	571.5	8
4	Maricopa County, AZ	20,219	504.3	9
5	Philadelphia County, PA	18,935	1,219.1	10
6	Kings County, NY	17,785	686.1	12
7	Bronx County, NY	16,168	1,139.6	13
8	San Diego County, CA	15,754	490.6	14
9	Dallas County, TX	14,945	602.5	15
10	Wayne County, MI	14,278	804.3	16
11	New York County, NY	12,551	771.8	17
12	Queens County, NY	12,063	525.4	18
13	San Bernardino County, CA	10,753	514.9	18
14	Miami-Dade County, FL	10,725	409.8	19
15	Bexar County, TX	10,335	568.6	20
16	Marion County, IN	9,512	1,024.7	20
17	Clark County, NV	9,485	467.7	21
18	Orange County, CA	9,382	301.2	22
19	Milwaukee County, WI	9,290	971.7	22
20	Cuyahoga County, OH	9,072	718.2	23
21	Broward County, FL	9,045	491.9	24
22	Riverside County, CA	8,807	384.2	24
23	Tarrant County, TX	8,652	452.6	25
24	Franklin County, OH	8,171	674.0	25
25	Shelby County, TN	8,074	859.4	26
26	Sacramento County, CA	7,736	529.1	26
27	Hillsborough County, FL	7,465	578.0	27
28	King County, WA	7,424	363.1	27
29	Baltimore (City), MD	7,345	1,180.7	28
30	Travis County, TX	7,322	653.2	29
31	Alameda County, CA	7,214	456.9	29
32	Orange County, FL	7,213	588.7	30
33	Fulton County, GA	6,575	668.0	30
34	Hamilton County, OH	6,526	811.2	30
35	Hennepin County, MN	6,426	536.0	31
36	Kern County, CA	6,345	734.3	31
37	Mecklenburg County, NC	6,313	637.0	32
38	Santa Clara County, CA	6,133	329.4	32
39	Prince George's County, MD	6,130	688.7	33
40	San Francisco County, CA	6,041	721.4	33
41	Denver County, CO	5,919	911.3	33
42	Duval County, FL	5,770	651.3	34
43	Fresno County, CA	5,730	599.8	34
44	Allegheny County, PA	5,710	463.7	35
45	Pima County, AZ	5,615	563.4	35
46	Essex County, NJ	5,542	701.9	35
47	St. Louis County, MO	5,360	535.2	36
48	Jefferson County, KY	5,200	687.1	36
49	Jackson County, MO	5,071	745.7	36
50	Jefferson County, AL	5,040	764.2	37
51	Erie County, NY	5,004	544.0	37
52	Oklahoma County, OK	4,994	661.2	38
53	Honolulu County, HI	4,994	507.8	38
54	El Paso County, TX	4,987	602.5	38
55	Palm Beach County, FL	4,829	351.9	39
56	DeKalb County, GA	4,583	642.5	39
57	Pierce County, WA	4,415	538.6	39
58	Wake County, NC	4,383	449.9	39
59	Orleans Parish, LA	4,296	1,134.4	40
60	Davidson County, TN	4,291	651.5	40
61	Salt Lake County, UT	4,280	396.4	40
62	Contra Costa County, CA	4,250	388.4	41
63	Multnomah County, OR	4,216	550.3	41
64	Hartford County, CT	4,154	462.4	41
65	Monroe County, NY	4,140	552.3	42
66	Bernalillo County, NM	4,074	604.3	42
67	Tulsa County, OK	4,070	653.9	42
68	St. Louis (City), MO	3,996	1,255.0	42
69	New Haven County, CT	3,963	459.6	43
70	Douglas County, NE	3,944	734.1	43

* Accounting for 43% of reported chlamydia cases.

† Counties and independent cities were ranked in descending order by number of cases reported then by rate in 2014.

Table 10. Chlamydia — Reported Cases and Rates of Reported Cases by Age Group and Sex, United States, 2010–2014

Age Group	Cases				Rates*			
	Total	Male	Female	Unknown Sex	Total	Male	Female	
0–4	964	327	619	18	4.8	3.2	6.3	2010
5–9	188	26	158	4	0.9	0.3	1.6	
10–14	14,531	1,590	12,860	81	70.3	15.0	127.4	
15–19	441,342	85,570	354,252	1,520	2,002.4	757.0	3,299.5	
20–24	488,996	131,686	355,994	1,316	2,265.3	1,195.6	3,367.4	
25–29	197,525	66,470	130,561	494	936.1	625.0	1,247.4	
30–34	83,408	31,230	51,925	253	417.8	312.4	521.0	
35–39	38,384	15,861	22,421	102	190.2	157.9	221.2	
40–44	19,614	9,594	9,931	89	93.9	92.3	94.6	
45–54	16,106	8,635	7,423	48	35.8	39.0	32.5	
55–64	3,523	1,834	1,674	15	9.7	10.4	8.9	
65+	954	464	481	9	2.4	2.7	2.1	
Unknown Age	2,358	636	1,503	219				
TOTAL	**1,307,893**	**353,923**	**949,802**	**4,168**	**423.6**	**233.2**	**605.1**	
0–4	747	284	458	5	3.7	2.8	4.6	2011
5–9	143	24	118	1	0.7	0.2	1.2	
10–14	15,405	1,743	13,588	74	74.4	16.5	134.3	
15–19	459,029	90,764	366,818	1,447	2,120.8	816.3	3,485.2	
20–24	542,947	147,948	393,534	1,465	2,450.8	1,307.8	3,630.0	
25–29	214,534	73,357	140,628	549	1,008.2	681.7	1,337.0	
30–34	91,787	34,971	56,562	254	447.5	340.1	553.0	
35–39	40,734	16,911	23,711	112	207.9	173.2	241.1	
40–44	21,654	10,460	11,120	74	102.9	100.0	105.2	
45–54	18,136	9,910	8,182	44	40.6	45.0	36.0	
55–64	4,210	2,300	1,903	7	11.1	12.5	9.7	
65+	1,064	569	486	9	2.6	3.2	2.1	
Unknown Age	2,401	729	1,444	228				
TOTAL	**1,412,791**	**389,970**	**1,018,552**	**4,269**	**453.4**	**254.4**	**643.4**	
0–4	774	272	495	7	3.9	2.7	5.1	2012
5–9	151	17	134	0	0.7	0.2	1.3	
10–14	14,355	1,655	12,673	27	69.5	15.7	125.5	
15–19	433,239	86,150	346,430	659	2,028.2	785.8	3,331.7	
20–24	554,173	152,772	400,629	772	2,453.9	1,322.8	3,630.9	
25–29	224,014	77,666	146,037	311	1,046.9	716.2	1,383.8	
30–34	97,736	38,011	59,594	131	467.4	362.2	572.1	
35–39	43,660	18,274	25,313	73	224.0	188.1	259.0	
40–44	23,882	11,596	12,245	41	113.6	110.9	115.9	
45–54	20,321	11,332	8,961	28	45.9	52.0	39.9	
55–64	4,950	2,783	2,161	6	12.8	15.0	10.8	
65+	1,134	602	525	7	2.6	3.2	2.2	
Unknown Age	4,587	1,427	3,075	85				
TOTAL	**1,422,976**	**402,557**	**1,018,272**	**2,147**	**453.3**	**260.6**	**638.7**	
0–4	681	266	402	13	3.4	2.6	4.1	2013
5–9	145	20	123	2	0.7	0.2	1.2	
10–14	12,585	1,554	11,001	30	60.9	14.7	108.9	
15–19	395,612	78,404	316,438	770	1,869.7	722.9	3,068.4	
20–24	553,658	153,102	399,545	1,011	2,428.8	1,310.9	3,594.2	
25–29	233,429	82,190	150,733	506	1,081.7	749.9	1,419.3	
30–34	103,675	41,017	62,414	244	487.6	384.0	589.8	
35–39	46,991	20,157	26,720	114	239.7	206.0	272.1	
40–44	24,774	12,200	12,501	73	118.8	117.8	119.2	
45–54	21,511	12,180	9,299	32	49.1	56.5	41.9	
55–64	5,424	3,154	2,259	11	13.8	16.6	11.1	
65+	1,377	750	616	11	3.1	3.8	2.5	
Unknown Age	2,044	658	1,297	89				
TOTAL	**1,401,906**	**405,652**	**993,348**	**2,906**	**443.5**	**260.6**	**619.0**	
0–4	603	200	388	15	3.0	2.0	4.0	2014
5–9	181	26	152	3	0.9	0.2	1.5	
10–14	11,406	1,342	10,041	23	55.2	12.7	99.4	
15–19	381,717	77,908	303,294	515	1,804.0	718.3	2,941.0	
20–24	566,385	159,804	405,876	705	2,484.6	1,368.3	3,651.1	
25–29	253,825	91,729	161,793	303	1,176.2	837.0	1,523.4	
30–34	113,208	45,990	67,060	158	532.4	430.6	633.7	
35–39	52,536	22,894	29,545	97	268.0	234.0	300.9	
40–44	27,426	13,711	13,662	53	131.5	132.3	130.3	
45–54	24,773	14,318	10,424	31	56.6	66.4	47.0	
55–64	6,527	3,911	2,603	13	16.6	20.6	12.8	
65+	1,449	871	570	8	3.2	4.4	2.3	
Unknown Age	1,753	621	1,033	99				
TOTAL	**1,441,789**	**433,325**	**1,006,441**	**2,023**	**456.1**	**278.4**	**627.2**	

* No population data are available for unknown sex and age; therefore, rates are not calculated.

NOTE: This table should be used only for age comparisons. Cases in the 0–4 age group may include cases due to perinatal transmission.

Table 11A. Chlamydia — Reported Cases by Race/Ethnicity, Age Group, and Sex, United States*, 2014

Age Group	American Indians/ Alaska Natives			Asians			Blacks, Non-Hispanic		
	Total†	Male	Female	Total†	Male	Female	Total†	Male	Female
0–4	4	2	2	8	2	6	130	46	84
5–9	2	0	2	1	0	1	47	9	38
10–14	166	18	148	49	1	47	4,573	651	3,916
15–19	3,754	675	3,078	2,420	342	2,076	124,318	30,538	93,695
20–24	5,217	1,174	4,041	6,110	1,451	4,654	164,078	51,501	112,497
25–29	2,717	656	2,061	3,891	1,273	2,610	68,020	27,052	40,939
30–34	1,375	331	1,042	2,103	773	1,328	27,794	12,666	15,116
35–39	582	171	411	1,069	410	658	12,114	6,229	5,877
40–44	296	93	203	674	314	357	5,763	3,423	2,332
45–54	191	60	131	609	287	322	5,071	3,223	1,844
55–64	48	15	33	165	69	96	1,358	821	536
65+	8	5	3	28	13	15	224	142	82
Unknown Age	7	4	3	26	7	19	226	94	129
TOTAL	**14,367**	**3,204**	**11,158**	**17,153**	**4,942**	**12,189**	**413,716**	**136,395**	**277,085**

Age Group	Native Hawaiians/ Other Pacific Islanders			Whites, Non-Hispanic			Multirace		
	Total†	Male	Female	Total†	Male	Female	Total†	Male	Female
0–4	3	1	2	108	31	77	8	5	3
5–9	0	0	0	31	3	26	0	0	0
10–14	11	0	11	1,747	95	1,652	68	0	68
15–19	698	94	604	83,923	12,892	70,995	2,293	378	1,914
20–24	1,244	264	980	140,813	37,474	103,275	2,756	742	2,012
25–29	660	195	464	62,605	22,473	40,109	1,227	494	732
30–34	312	86	226	26,710	11,060	15,641	517	285	231
35–39	136	33	103	11,635	5,239	6,387	227	150	77
40–44	53	24	29	6,127	3,284	2,837	130	99	29
45–54	51	27	24	6,305	4,237	2,067	132	108	24
55–64	9	5	4	1,663	1,248	414	32	22	10
65+	1	1	0	345	258	87	3	0	3
Unknown Age	5	0	5	210	74	135	6	1	5
TOTAL	**3,183**	**730**	**2,452**	**342,222**	**98,368**	**243,702**	**7,399**	**2,284**	**5,108**

Age Group	Hispanics			Other/Unknown		
	Total†	Male	Female	Total†	Male	Female
0–4	52	14	36	241	81	149
5–9	28	1	26	59	9	50
10–14	1,405	145	1,259	2,753	351	2,387
15–19	49,005	9,127	39,845	96,431	19,932	76,183
20–24	75,538	19,172	56,318	144,494	40,593	103,446
25–29	37,674	12,607	25,043	66,725	23,180	43,347
30–34	18,309	6,670	11,620	31,766	12,320	19,340
35–39	8,876	3,383	5,481	15,850	6,371	9,415
40–44	4,383	1,871	2,507	8,920	4,045	4,847
45–54	3,257	1,654	1,601	8,240	4,168	4,048
55–64	619	332	286	2,354	1,241	1,104
65+	116	63	53	642	348	287
Unknown Age	201	63	131	941	333	530
TOTAL	**199,463**	**55,102**	**144,206**	**379,416**	**112,972**	**265,133**

* Includes 48 states reporting race/ethnicity data in the Office of Management and Budget compliant formats in 2014.

† Total includes cases reported with unknown sex.

NOTE: These tables should be used only for race/ethnicity comparisons. See Table 10 for age-specific cases and rates and Tables 3–5 for total and sex-specific cases and rates.

Cases in the 0–4 age group may include cases due to perinatal transmission.

Table 11B. Chlamydia — Rates of Reported Cases per 100,000 Population by Race/Ethnicity, Age Group, and Sex, United States*, 2014

Age Group	American Indians/ Alaska Natives			Asians			Blacks, Non-Hispanic		
	Total†	Male	Female	Total†	Male	Female	Total†	Male	Female
0–4	2.5	2.5	2.6	0.9	0.4	1.4	4.9	3.4	6.5
5–9	1.2	0.0	2.5	0.1	0.0	0.2	1.8	0.7	2.9
10–14	99.2	21.1	180.1	5.5	0.2	10.5	164.6	46.1	286.5
15–19	2,148.5	756.0	3,602.5	261.3	72.5	456.4	4,151.3	2,003.6	6,371.5
20–24	2,851.9	1,255.6	4,518.7	533.1	250.0	822.8	5,178.6	3,241.2	7,122.5
25–29	1,734.5	835.5	2,638.0	305.5	206.6	396.8	2,547.8	2,081.8	2,987.7
30–34	948.8	459.0	1,431.4	161.4	127.2	191.0	1,079.7	1,032.5	1,121.6
35–39	437.0	260.5	608.5	82.7	67.6	95.8	513.7	560.5	471.4
40–44	212.8	135.8	287.3	53.6	53.4	53.3	230.0	289.7	176.2
45–54	63.8	41.7	84.3	28.8	29.1	28.5	98.1	132.6	67.3
55–64	20.4	13.4	26.6	9.8	9.1	10.4	33.8	44.9	24.5
65+	4.2	5.8	2.8	1.8	1.9	1.7	6.4	10.3	3.9
Unknown Age									
TOTAL	**668.8**	**303.0**	**1,022.9**	**112.0**	**67.9**	**151.6**	**1,117.9**	**772.0**	**1,432.6**

Age Group	Native Hawaiians/ Other Pacific Islanders			Whites, Non-Hispanic			Multirace		
	Total†	Male	Female	Total†	Male	Female	Total†	Male	Female
0–4	7.8	5.1	10.6	1.1	0.6	1.6	0.9	1.1	0.7
5–9	0.0	0.0	0.0	0.3	0.1	0.5	0.0	0.0	0.0
10–14	29.2	0.0	60.6	16.3	1.7	31.6	10.0	0.0	20.2
15–19	1,778.8	469.3	3,144.5	741.6	221.5	1,291.6	385.0	126.0	647.2
20–24	2,619.3	1,080.5	4,249.8	1,155.6	603.5	1,728.2	561.9	310.3	800.5
25–29	1,423.1	822.6	2,046.7	529.4	375.5	686.6	321.5	273.5	364.3
30–34	730.3	393.9	1,081.8	231.2	189.7	273.3	154.2	180.8	130.0
35–39	368.6	175.4	569.6	107.8	96.4	119.1	82.5	116.0	52.8
40–44	153.1	137.8	168.6	49.2	52.5	45.7	50.8	81.7	21.5
45–54	78.2	83.1	73.2	22.0	29.7	14.3	29.0	49.8	10.1
55–64	19.5	22.2	17.0	6.1	9.4	3.0	9.7	14.0	5.8
65+	2.8	6.1	0.0	1.0	1.8	0.5	1.1	0.0	1.9
Unknown Age									
TOTAL	**625.1**	**284.5**	**970.8**	**180.6**	**105.5**	**253.3**	**128.6**	**80.9**	**174.1**

Age Group	Hispanics		
	Total†	Male	Female
0–4	1.0	0.5	1.4
5–9	0.6	0.0	1.1
10–14	30.3	6.1	55.5
15–19	1,084.1	391.6	1,820.0
20–24	1,669.7	802.6	2,637.3
25–29	873.3	549.0	1,241.2
30–34	430.7	299.6	574.0
35–39	225.3	167.2	286.0
40–44	120.8	100.9	141.2
45–54	55.8	56.3	55.3
55–64	17.2	19.2	15.3
65+	3.7	4.7	3.0
Unknown Age			
TOTAL	**380.6**	**207.1**	**559.0**

* Includes 48 states reporting race/ethnicity data in the Office of Management and Budget compliant formats in 2014.
† Total includes cases reported with unknown sex.
NOTE: These tables should be used only for race/ethnicity comparisons. See Table 10 for age-specific cases and rates and Tables 3–5 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.

Table 12. Chlamydia Among Women 15–25 Years of Age — Reported Cases and Rates of Reported Cases by Age, United States, 2010–2014

	Age	Cases	Rate per 100,000 Population
2010	15	25,432	1,231.1
	16	48,233	2,296.7
	17	73,089	3,428.0
	18	100,399	4,573.2
	19	107,099	4,774.3
	20	99,175	4,485.9
	21	84,674	3,973.3
	22	69,755	3,342.6
	23	56,264	2,734.2
	24	46,126	2,212.0
	25	37,155	1,768.4
2011	15	25,792	1,272.2
	16	48,942	2,368.5
	17	75,143	3,569.5
	18	104,501	4,902.9
	19	112,440	5,122.9
	20	107,958	4,804.7
	21	95,195	4,236.2
	22	77,799	3,605.2
	23	62,339	2,953.3
	24	50,243	2,417.5
	25	40,711	1,943.9
2012	15	24,453	1,207.2
	16	45,041	2,212.8
	17	69,465	3,346.4
	18	99,459	4,699.5
	19	108,012	5,036.6
	20	104,425	4,727.7
	21	96,456	4,266.0
	22	81,292	3,593.9
	23	65,473	3,011.7
	24	52,983	2,489.8
	25	41,911	1,999.6
2013	15	21,680	1,070.3
	16	40,528	1,994.3
	17	61,666	3,018.5
	18	90,330	4,332.6
	19	102,234	4,806.0
	20	99,556	4,617.4
	21	93,713	4,219.8
	22	81,884	3,600.6
	23	68,600	3,013.5
	24	55,792	2,548.7
	25	44,330	2,068.5
2014	15	20,096	992.1
	16	38,507	1,894.8
	17	58,940	2,885.1
	18	87,040	4,174.8
	19	98,711	4,640.4
	20	98,480	4,567.5
	21	94,204	4,241.9
	22	82,581	3,631.2
	23	71,535	3,142.5
	24	59,076	2,698.8
	25	47,696	2,225.6

NOTE: This table should be used only for age comparisons. Cases reported with unknown sex are not included in this table.

Table 13. Gonorrhea — Reported Cases and Rates of Reported Cases by State, Ranked by Rates, United States, 2014

Rank*	State	Cases	Rate per 100,000 Population
1	Louisiana	9,002	194.6
2	Mississippi	5,625	188.1
3	Alaska	1,341	182.4
4	South Carolina	8,253	172.8
5	Oklahoma	6,137	159.4
6	Alabama	7,677	158.8
7	Arkansas	4,539	153.4
8	North Carolina	14,415	146.4
9	Ohio	16,237	140.3
10	Delaware	1,279	138.2
11	Georgia	13,770	137.8
12	Texas	35,322	133.6
13	Illinois	15,970	124.0
14	Missouri	7,387	122.2
15	California	45,408	118.5
16	Arizona	7,750	117.0
17	Nevada	3,188	114.3
18	Indiana	7,289	110.9
19	Tennessee	7,199	110.8
	U.S. TOTAL†	**350,062**	**110.7**
20	New Mexico	2,246	107.7
21	Florida	20,944	107.1
22	New York	20,758	105.6
23	South Dakota	892	105.6
24	Maryland	6,108	103.0
25	Virginia	8,250	99.9
26	Pennsylvania	12,710	99.5
27	Kentucky	4,353	99.0
28	Michigan	9,688	97.9
29	North Dakota	694	95.9
30	Washington	6,221	89.2
31	Kansas	2,568	88.7
32	Nebraska	1,459	78.1
33	Minnesota	4,073	75.1
34	New Jersey	6,636	74.6
35	Hawaii	1,020	72.6
36	Wisconsin	4,078	71.0
37	Connecticut	2,333	64.9
38	Colorado	3,170	60.2
39	Oregon	2,320	59.0
40	Massachusetts	3,817	57.0
41	Rhode Island	590	56.1
42	Iowa	1,641	53.1
43	Utah	1,441	49.7
44	West Virginia	841	45.4
45	Montana	434	42.8
46	Idaho	443	27.5
47	Wyoming	116	19.9
48	Maine	237	17.8
49	New Hampshire	226	17.1
50	Vermont	84	13.4

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

† Total includes cases reported by the District of Columbia with 1,883 cases and a rate of 291.3, but excludes outlying areas (Guam with 99 cases and rate of 61.7, Puerto Rico with 454 cases and rate of 12.6, and Virgin Islands with 84 cases and rate of 80.2)

Table 14. Gonorrhea — Reported Cases and Rates of Reported Cases by State/Area and Region in Alphabetical Order, United States and Outlying Areas, 2010–2014

State/Area	Cases					Rates per 100,000 Population				
	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014
Alabama	7,933	9,132	9,270	8,377	7,677	166.0	190.1	192.2	173.3	158.8
Alaska	1,273	984	726	1,128	1,341	179.2	136.2	99.3	153.4	182.4
Arizona	3,249	4,564	5,809	6,412	7,750	50.8	70.4	88.6	96.8	117.0
Arkansas	4,769	4,687	4,307	4,007	4,539	163.6	159.5	146.0	135.4	153.4
California	26,441	27,516	33,579	38,166	45,408	71.0	73.0	88.3	99.6	118.5
Colorado	2,787	2,363	2,822	2,820	3,170	55.4	46.2	54.4	53.5	60.2
Connecticut	2,569	2,449	2,133	2,860	2,333	71.9	68.4	59.4	79.5	64.9
Delaware	1,010	827	899	1,390	1,279	112.5	91.2	98.0	150.1	138.2
District of Columbia	2,104	2,569	2,402	2,478	1,883	349.7	415.7	379.9	383.3	291.3
Florida	20,163	19,689	19,462	20,818	20,944	107.2	103.3	100.7	106.5	107.1
Georgia	15,852	16,428	15,326	14,252	13,770	163.6	167.4	154.5	142.6	137.8
Hawaii	759	685	815	718	1,020	55.8	49.8	58.5	51.1	72.6
Idaho	147	162	167	211	443	9.4	10.2	10.5	13.1	27.5
Illinois	15,777	17,037	18,149	16,464	15,970	123.0	132.4	141.0	127.8	124.0
Indiana	6,496	6,569	7,338	7,144	7,289	100.2	100.8	112.2	108.7	110.9
Iowa	1,803	1,920	2,006	1,472	1,641	59.2	62.7	65.3	47.6	53.1
Kansas	2,084	2,209	2,228	2,161	2,568	73.0	76.9	77.2	74.7	88.7
Kentucky	4,345	4,521	4,283	4,315	4,353	100.1	103.5	97.8	98.2	99.0
Louisiana	8,912	9,169	8,873	8,669	9,002	196.6	200.4	192.8	187.4	194.6
Maine	162	272	456	245	237	12.2	20.5	34.3	18.4	17.8
Maryland	7,413	6,458	5,686	5,989	6,108	128.4	110.8	96.6	101.0	103.0
Massachusetts	2,483	2,353	2,628	3,106	3,817	37.9	35.7	39.5	46.4	57.0
Michigan	13,627	12,901	12,584	10,569	9,688	137.9	130.6	127.3	106.8	97.9
Minnesota	2,119	2,284	3,082	3,873	4,073	40.0	42.7	57.3	71.5	75.1
Mississippi	6,195	5,814	6,875	5,096	5,625	208.8	195.2	230.3	170.4	188.1
Missouri	7,159	7,802	7,889	7,546	7,387	119.5	129.8	131.0	124.8	122.2
Montana	102	85	108	224	434	10.3	8.5	10.7	22.1	42.8
Nebraska	1,187	1,352	1,429	1,385	1,459	65.0	73.4	77.0	74.1	78.1
Nevada	1,728	2,000	2,264	2,714	3,188	64.0	73.4	82.1	97.3	114.3
New Hampshire	151	130	147	121	226	11.5	9.9	11.1	9.1	17.1
New Jersey	5,872	7,348	7,486	7,014	6,636	66.8	83.3	84.4	78.8	74.6
New Mexico	1,229	1,839	1,883	1,918	2,246	59.7	88.3	90.3	92.0	107.7
New York	18,320	20,706	22,571	19,919	20,758	94.5	106.4	115.3	101.4	105.6
North Carolina	14,111	17,454	14,318	13,666	14,415	148.0	180.8	146.8	138.8	146.4
North Dakota	204	251	335	492	694	30.3	36.7	47.9	68.0	95.9
Ohio	16,496	16,726	16,493	16,619	16,237	143.0	144.9	142.9	143.6	140.3
Oklahoma	4,369	4,215	4,441	5,303	6,137	116.5	111.2	116.4	137.7	159.4
Oregon	1,076	1,489	1,464	1,729	2,320	28.1	38.5	37.5	44.0	59.0
Pennsylvania	12,883	13,770	15,390	13,874	12,710	101.4	108.1	120.6	108.6	99.5
Rhode Island	291	360	507	454	590	27.6	34.2	48.3	43.2	56.1
South Carolina	7,970	8,350	7,638	7,194	8,253	172.3	178.4	161.7	150.7	172.8
South Dakota	468	602	707	784	892	57.5	73.1	84.8	92.8	105.6
Tennessee	7,121	7,667	9,098	7,376	7,199	112.2	119.7	140.9	113.5	110.8
Texas	31,788	30,930	32,473	33,835	35,322	126.4	120.5	124.6	127.9	133.6
Utah	310	277	479	951	1,441	11.2	9.8	16.8	32.8	49.7
Vermont	58	48	99	97	84	9.3	7.7	15.8	15.5	13.4
Virginia	7,402	6,518	6,885	6,952	8,250	92.5	80.5	84.1	84.2	99.9
Washington	2,864	2,737	3,238	4,369	6,221	42.6	40.1	46.9	62.7	89.2
West Virginia	579	796	831	1,063	841	31.2	42.9	44.8	57.3	45.4
Wisconsin	5,091	4,789	4,704	4,599	4,078	89.5	83.8	82.1	80.1	71.0
Wyoming	40	46	44	66	116	7.1	8.1	7.6	11.3	19.9
U.S. TOTAL	**309,341**	**321,849**	**334,826**	**333,004**	**350,062**	**100.2**	**103.3**	**106.7**	**105.3**	**110.7**
Northeast	42,789	47,436	51,417	47,690	47,391	77.4	85.4	92.2	85.2	84.7
Midwest	72,511	74,442	76,944	73,108	71,976	108.3	110.8	114.3	108.2	106.6
South	152,036	155,224	153,067	150,780	155,597	132.7	133.8	130.5	127.4	131.4
West	42,005	44,747	53,398	61,426	75,098	58.4	61.4	72.6	82.7	101.1
Guam	97	96	92	92	99	60.8	60.2	57.5	57.4	61.7
Puerto Rico	312	341	345	356	454	8.4	9.2	9.4	9.8	12.6
Virgin Islands	151	139	136	58	84	142.1	131.4	129.2	55.4	80.2
OUTLYING AREAS	**560**	**576**	**573**	**506**	**637**	**14.0**	**14.5**	**14.6**	**13.0**	**16.4**
TOTAL	**309,901**	**322,425**	**335,399**	**333,510**	**350,699**	**99.1**	**102.2**	**105.5**	**104.2**	**109.6**

Table 15. Gonorrhea Among Women — Reported Cases and Rates of Reported Cases by State/Area and Region in Alphabetical Order, United States and Outlying Areas, 2010–2014

State/Area	Cases					Rates per 100,000 Population				
	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014
Alabama	4,432	5,103	5,187	4,668	4,090	180.2	206.3	208.9	187.6	164.4
Alaska	698	515	385	589	665	204.9	148.2	109.9	168.5	190.2
Arizona	1,553	2,212	2,827	3,102	3,564	48.3	67.9	85.8	93.1	107.0
Arkansas	2,729	2,687	2,432	2,160	2,527	183.9	179.7	162.1	143.4	167.8
California	10,546	10,811	13,045	14,258	16,009	56.3	57.1	68.2	74.0	83.1
Colorado	1,514	1,285	1,362	1,243	1,318	60.4	50.4	52.7	47.4	50.3
Connecticut	1,449	1,378	1,153	1,419	1,108	79.0	75.1	62.6	77.0	60.2
Delaware	621	471	496	763	693	134.1	100.8	104.9	159.7	145.0
District of Columbia	1,073	1,209	1,006	953	858	338.0	371.1	301.8	280.1	252.2
Florida	10,240	9,999	9,570	9,718	9,228	106.5	102.7	97.0	97.3	92.4
Georgia	8,297	8,589	7,921	7,060	6,552	167.3	171.4	156.3	138.1	128.2
Hawaii	314	273	299	264	350	46.2	39.9	43.3	38.0	50.4
Idaho	68	79	63	87	196	8.7	10.0	7.9	10.8	24.3
Illinois	8,924	9,500	9,837	8,574	7,559	136.5	144.9	150.1	130.8	115.3
Indiana	3,598	3,690	4,139	3,796	3,819	109.2	111.5	124.7	113.8	114.5
Iowa	1,179	1,217	1,170	812	862	76.7	78.8	75.5	52.2	55.4
Kansas	1,235	1,360	1,339	1,222	1,464	85.9	94.1	92.3	84.2	100.8
Kentucky	2,487	2,596	2,328	2,331	2,270	112.8	117.0	104.7	104.4	101.7
Louisiana	4,824	5,263	5,080	4,927	5,049	208.5	225.3	216.2	208.6	213.8
Maine	75	122	240	119	98	11.1	18.0	35.4	17.5	14.5
Maryland	4,028	3,461	2,878	2,841	2,793	135.1	115.1	94.9	93.0	91.5
Massachusetts	1,004	1,083	1,076	1,168	1,215	29.7	31.9	31.4	33.9	35.2
Michigan	7,971	7,599	7,194	5,865	5,129	158.3	151.1	142.9	116.5	101.8
Minnesota	1,248	1,294	1,676	2,037	1,802	46.7	48.1	61.9	74.7	66.1
Mississippi	3,602	3,344	3,834	2,726	2,987	236.0	218.3	249.7	177.4	194.4
Missouri	3,951	4,195	4,209	3,944	3,620	129.3	136.8	137.1	128.0	117.5
Montana	56	51	58	127	221	11.4	10.3	11.6	25.1	43.7
Nebraska	675	823	784	694	770	73.4	88.7	84.0	73.9	82.0
Nevada	830	879	982	1,203	1,294	62.1	65.2	71.8	86.9	93.4
New Hampshire	59	59	61	52	91	8.8	8.8	9.1	7.8	13.6
New Jersey	3,115	3,916	3,798	3,484	3,082	69.0	86.6	83.6	76.5	67.7
New Mexico	610	925	857	823	961	58.6	87.9	81.4	78.3	91.4
New York	8,718	9,716	10,021	8,020	7,077	87.2	96.8	99.4	79.3	70.0
North Carolina	8,314	10,076	8,093	7,547	7,759	170.0	203.4	161.9	149.5	153.7
North Dakota	140	149	207	301	385	42.1	44.1	60.2	85.2	108.9
Ohio	10,034	10,009	9,706	9,176	8,735	169.9	169.5	164.5	155.2	147.8
Oklahoma	2,493	2,395	2,652	3,000	3,451	131.6	125.1	137.8	154.4	177.6
Oregon	477	602	528	566	786	24.7	30.8	26.8	28.5	39.6
Pennsylvania	7,268	7,687	8,360	7,206	6,164	111.6	117.7	128.0	110.3	94.4
Rhode Island	121	167	232	192	218	22.2	30.8	42.8	35.4	40.2
South Carolina	4,905	4,981	4,416	4,050	4,527	206.5	207.3	182.0	165.2	184.6
South Dakota	290	399	446	464	557	71.3	97.1	107.5	110.3	132.5
Tennessee	3,884	4,112	4,721	3,617	3,419	119.4	125.3	142.7	108.7	102.7
Texas	17,246	16,476	17,151	17,206	17,253	136.1	127.4	130.8	129.4	129.7
Utah	75	66	132	373	565	5.5	4.7	9.3	25.9	39.2
Vermont	24	24	54	46	35	7.6	7.6	17.0	14.5	11.0
Virginia	4,146	3,693	3,734	3,678	4,361	101.7	89.6	89.7	87.6	103.9
Washington	1,044	1,066	1,230	1,704	2,504	30.9	31.2	35.6	48.8	71.8
West Virginia	326	467	438	539	461	34.7	49.7	46.6	57.4	49.1
Wisconsin	3,164	2,907	2,640	2,455	2,046	110.5	101.1	91.6	84.9	70.8
Wyoming	19	25	19	39	61	6.9	9.0	6.7	13.7	21.4
U.S. TOTAL	**165,693**	**171,005**	**172,066**	**163,208**	**162,608**	**105.6**	**108.0**	**107.9**	**101.7**	**101.3**
Northeast	21,833	24,152	24,995	21,706	19,088	76.7	84.7	87.3	75.6	66.5
Midwest	42,409	43,142	43,347	39,340	36,748	124.7	126.5	126.9	114.8	107.3
South	83,647	84,922	81,937	77,784	78,278	143.2	143.6	137.1	129.0	129.8
West	17,804	18,789	21,787	24,378	28,494	49.3	51.4	59.1	65.5	76.6
Guam	45	44	46	43	47	57.4	56.0	58.4	54.4	59.5
Puerto Rico	141	140	157	120	161	7.3	7.2	8.2	6.4	8.5
Virgin Islands	96	94	92	41	54	170.3	167.3	164.2	73.4	96.7
OUTLYING AREAS	**282**	**278**	**295**	**204**	**262**	**13.6**	**13.4**	**14.4**	**10.1**	**13.0**
TOTAL	**165,975**	**171,283**	**172,361**	**163,412**	**162,870**	**104.4**	**106.8**	**106.7**	**100.6**	**100.2**

NOTE: Cases reported with unknown sex are not included in this table.

Table 16. Gonorrhea Among Men — Reported Cases and Rates of Reported Cases by State/Area and Region in Alphabetical Order, United States and Outlying Areas, 2010–2014

State/Area	Cases					Rates per 100,000 Population				
	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014
Alabama	3,430	3,825	4,034	3,680	3,563	147.8	164.2	172.5	156.9	151.9
Alaska	575	469	341	539	676	155.6	125.0	89.4	139.8	175.3
Arizona	1,696	2,350	2,981	3,310	4,186	53.4	72.9	91.5	100.5	127.0
Arkansas	2,038	1,996	1,873	1,843	2,007	142.4	138.3	129.3	126.8	138.1
California	15,773	16,598	20,431	23,849	29,310	85.2	88.5	108.0	125.1	153.7
Colorado	1,273	1,078	1,460	1,577	1,852	50.5	42.0	56.1	59.6	70.0
Connecticut	1,120	1,071	978	1,440	1,219	64.4	61.4	55.9	82.1	69.5
Delaware	389	356	403	627	586	89.4	80.9	90.7	140.0	130.8
District of Columbia	1,028	1,360	1,386	1,519	1,011	361.7	465.4	463.5	496.0	330.1
Florida	9,906	9,675	9,892	11,049	11,686	107.8	103.8	104.7	115.5	122.2
Georgia	7,421	7,684	7,301	7,075	7,137	156.9	160.0	150.5	144.9	146.2
Hawaii	445	412	516	454	669	65.3	59.7	73.5	64.0	94.3
Idaho	78	83	104	124	247	9.9	10.5	13.0	15.4	30.6
Illinois	6,824	7,513	8,283	7,872	8,386	108.5	119.0	131.1	124.4	132.6
Indiana	2,884	2,867	3,188	3,347	3,465	90.4	89.4	99.1	103.4	107.1
Iowa	624	703	836	660	779	41.4	46.3	54.8	43.0	50.8
Kansas	849	849	889	939	1,104	60.0	59.5	61.9	65.1	76.6
Kentucky	1,854	1,913	1,948	1,966	2,068	86.8	89.0	90.3	90.9	95.6
Louisiana	3,540	3,739	3,793	3,742	3,953	159.5	167.0	168.4	165.3	174.6
Maine	86	150	216	126	137	13.2	23.1	33.2	19.4	21.1
Maryland	3,377	2,992	2,806	3,145	3,304	121.0	106.1	98.4	109.4	114.9
Massachusetts	1,479	1,269	1,551	1,932	2,590	46.7	39.8	48.2	59.5	79.8
Michigan	5,634	5,281	5,372	4,694	4,551	116.2	109.0	110.8	96.6	93.7
Minnesota	871	990	1,395	1,835	2,260	33.1	37.3	52.2	68.1	83.9
Mississippi	2,593	2,470	3,039	2,370	2,637	179.9	170.8	209.7	162.9	181.3
Missouri	3,208	3,607	3,680	3,602	3,767	109.4	122.5	124.7	121.5	127.1
Montana	46	34	50	97	213	9.3	6.8	9.9	19.0	41.8
Nebraska	512	528	641	674	686	56.5	57.7	69.5	72.5	73.8
Nevada	898	1,121	1,280	1,509	1,892	65.9	81.6	92.0	107.4	134.6
New Hampshire	92	71	86	69	135	14.2	10.9	13.2	10.6	20.7
New Jersey	2,727	3,400	3,673	3,514	3,544	63.7	79.1	85.0	80.9	81.6
New Mexico	619	914	1,025	1,095	1,284	60.8	88.7	99.3	105.9	124.2
New York	9,601	10,977	12,529	11,844	13,624	102.4	116.4	132.0	124.2	142.9
North Carolina	5,712	7,300	6,180	6,113	6,652	123.0	155.2	130.0	127.3	138.6
North Dakota	64	101	127	191	309	18.8	29.2	35.7	51.6	83.5
Ohio	6,421	6,717	6,787	7,443	7,502	114.0	119.1	120.3	131.5	132.6
Oklahoma	1,873	1,708	1,789	2,303	2,685	100.9	91.0	94.7	120.7	140.8
Oregon	599	887	936	1,163	1,532	31.6	46.3	48.5	59.8	78.8
Pennsylvania	5,615	6,078	7,025	6,659	6,543	90.7	97.8	112.8	106.7	104.8
Rhode Island	170	193	275	262	372	33.4	38.0	54.1	51.4	73.0
South Carolina	3,056	3,351	3,196	3,133	3,689	135.8	147.2	139.1	134.9	158.8
South Dakota	177	202	259	320	335	43.4	48.9	61.9	75.4	78.9
Tennessee	3,235	3,555	4,368	3,758	3,778	104.6	113.9	138.7	118.7	119.3
Texas	14,524	14,448	15,286	16,410	18,035	116.5	113.4	118.1	124.8	137.2
Utah	235	211	347	578	876	16.9	14.9	24.2	39.6	60.0
Vermont	33	24	45	51	49	10.7	7.8	14.6	16.5	15.8
Virginia	3,248	2,814	3,145	3,272	3,879	82.7	70.8	78.2	80.5	95.5
Washington	1,818	1,671	2,008	2,665	3,717	54.3	49.0	58.3	76.5	106.7
West Virginia	253	329	393	524	380	27.7	36.0	42.9	57.2	41.5
Wisconsin	1,926	1,880	2,064	2,140	2,027	68.2	66.3	72.6	75.0	71.1
Wyoming	21	21	25	27	55	7.3	7.2	8.5	9.1	18.5
U.S. TOTAL	**142,470**	**149,835**	**162,235**	**169,130**	**186,943**	**93.9**	**97.7**	**105.0**	**108.7**	**120.1**
Northeast	20,923	23,233	26,378	25,897	28,213	77.9	86.1	97.2	95.1	103.6
Midwest	29,994	31,238	33,521	33,717	35,171	91.1	94.5	101.1	101.3	105.6
South	67,477	69,515	70,832	72,529	77,050	120.2	122.2	123.2	124.9	132.7
West	24,076	25,849	31,504	36,987	46,509	67.2	71.1	85.9	99.9	125.6
Guam	52	52	46	49	52	64.2	64.2	56.7	60.2	63.9
Puerto Rico	171	201	188	236	293	9.6	11.3	10.7	13.6	16.9
Virgin Islands	55	45	44	17	30	110.2	90.7	89.3	34.8	61.3
OUTLYING AREAS	**278**	**298**	**278**	**302**	**375**	**14.5**	**15.6**	**14.7**	**16.2**	**20.2**
TOTAL	**142,748**	**150,133**	**162,513**	**169,432**	**187,318**	**92.9**	**96.7**	**103.9**	**107.6**	**118.9**

NOTE: Cases reported with unknown sex are not included in this table.

Table 17. Gonorrhea — Reported Cases and Rates of Reported Cases in Selected Metropolitan Statistical Areas (MSAs)* in Alphabetical Order, United States, 2010–2014

MSAs	Cases					Rates per 100,000 Population				
	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014
Atlanta-Sandy Springs-Roswell, GA	8,351	8,577	8,299	5,452	7,256	158.0	159.5	152.1	98.7	131.4
Austin-Round Rock, TX	1,932	2,009	2,204	2,570	2,860	112.6	112.6	120.2	136.5	151.9
Baltimore-Columbia-Towson, MD	4,369	3,634	2,974	3,233	3,459	161.2	133.2	108.0	116.7	124.8
Birmingham-Hoover, AL	2,363	2,550	2,340	2,130	1,957	209.5	225.2	205.9	186.8	171.6
Boston-Cambridge-Newton, MA-NH	1,881	1,671	1,995	2,372	2,716	41.3	36.4	43.0	50.6	58.0
Buffalo-Cheektowaga-Niagara Falls, NY	1,227	1,543	2,172	1,232	1,342	108.1	136.1	191.5	108.6	118.3
Charlotte-Concord-Gastonia, NC-SC	3,060	3,832	3,172	3,058	3,645	138.0	169.7	138.1	130.9	156.1
Chicago-Naperville-Elgin, IL-IN-WI	12,380	13,188	14,304	12,793	12,630	130.9	138.8	150.2	134.1	132.4
Cincinnati, OH-KY-IN	3,378	3,515	3,227	3,229	3,346	159.7	165.6	151.6	151.1	156.5
Cleveland-Elyria, OH	3,608	3,930	4,203	4,155	3,802	173.7	190.0	203.7	201.2	184.1
Columbus, OH	3,354	3,038	2,859	3,220	3,260	176.3	157.9	147.1	163.7	165.7
Dallas-Fort Worth-Arlington, TX	8,771	8,743	7,842	8,354	9,195	136.5	132.8	117.0	122.7	135.0
Denver-Aurora-Lakewood, CO	2,344	1,662	2,055	1,828	2,016	92.2	63.9	77.7	67.8	74.7
Detroit-Warren-Dearborn, MI	9,160	8,924	8,062	6,564	5,311	213.2	208.2	187.8	152.8	123.7
Hartford-West Hartford-East Hartford, CT	1,126	1,036	744	1,065	894	92.9	85.4	61.3	87.6	73.6
Houston-The Woodlands-Sugar Land, TX	7,645	6,861	7,582	7,783	8,299	129.1	113.2	122.7	123.3	131.5
Indianapolis-Carmel-Anderson, IN	3,140	3,128	3,738	3,616	3,759	166.3	163.8	193.8	185.1	192.4
Jacksonville, FL	2,128	2,040	1,948	2,321	2,608	158.1	150.0	141.4	166.4	187.0
Kansas City, MO-KS	3,202	2,913	2,919	2,696	2,642	159.4	143.7	143.2	131.2	128.6
Las Vegas-Henderson-Paradise, NV	1,604	1,740	1,968	2,256	2,653	82.2	88.3	98.4	111.2	130.8
Los Angeles-Long Beach-Anaheim, CA	11,156	11,105	13,102	14,449	17,130	87.0	85.8	100.4	110.0	130.5
Louisville/Jefferson County, KY-IN	2,243	2,400	2,040	2,063	1,962	181.5	192.7	163.0	163.4	155.4
Memphis, TN-MS-AR	4,094	3,852	4,498	3,086	2,625	309.0	288.7	335.2	230.0	195.6
Miami-Fort Lauderdale-West Palm Beach, FL	5,506	5,352	5,291	5,801	6,128	98.9	94.4	91.8	99.5	105.1
Milwaukee-Waukesha-West Allis, WI	3,425	3,349	3,277	3,179	2,584	220.1	214.4	209.1	202.5	164.6
Minneapolis-St. Paul-Bloomington, MN-WI	1,670	1,889	2,534	3,188	3,341	49.9	55.8	74.0	92.2	96.6
Nashville-Davidson--Murfreesboro--Franklin, TN	1,362	1,681	1,900	1,806	1,922	81.5	99.0	110.0	102.7	109.3
New Orleans-Metairie, LA	2,022	2,099	2,198	2,448	2,667	169.9	173.1	179.1	197.3	214.9
New York-Newark-Jersey City, NY-NJ-PA	17,724	21,153	21,310	19,319	20,054	90.6	107.4	107.5	96.8	100.5
Oklahoma City, OK	1,700	1,845	1,947	2,352	2,366	135.7	144.4	150.2	178.2	179.3
Orlando-Kissimmee-Sanford, FL	2,495	2,277	2,328	2,514	2,571	116.9	104.9	104.7	110.9	113.4
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	9,694	10,123	11,026	10,557	9,618	162.5	168.9	183.2	174.9	159.4
Phoenix-Mesa-Scottsdale, AZ	2,335	3,340	4,526	4,918	5,944	55.7	78.3	104.5	111.8	135.1
Pittsburgh, PA	2,069	2,473	3,048	2,827	2,602	87.8	104.8	129.1	119.7	110.2
Portland-Vancouver-Hillsboro, OR-WA	926	1,318	1,183	1,199	1,499	41.6	58.3	51.7	51.8	64.8
Providence-Warwick, RI-MA	382	475	643	593	913	23.9	29.7	40.2	37.0	56.9
Raleigh, NC	1,388	1,606	1,532	1,384	1,408	122.8	138.0	128.9	114.0	115.9
Richmond, VA	1,701	1,419	1,671	1,658	2,173	140.8	116.4	135.6	133.1	174.4
Riverside-San Bernardino-Ontario, CA	1,924	2,330	3,031	3,273	4,292	45.5	54.1	69.7	74.7	98.0
Sacramento--Roseville--Arden-Arcade, CA	1,676	1,913	2,324	2,597	2,616	78.0	87.9	105.8	117.2	118.1
Salt Lake City, UT	202	197	342	690	1,026	18.6	17.8	30.4	60.5	90.0
San Antonio-New Braunfels, TX	3,729	3,731	3,672	3,352	3,155	174.0	170.0	164.4	147.2	138.5
San Diego-Carlsbad, CA	2,021	2,173	2,620	2,825	3,420	65.3	69.2	82.5	88.0	106.5
San Francisco-Oakland-Hayward, CA	4,867	5,009	5,263	5,681	7,110	112.3	114.1	118.1	125.8	157.4
San Jose-Sunnyvale-Santa Clara, CA	586	680	1,020	1,145	1,552	31.9	36.5	53.8	59.6	80.8
Seattle-Tacoma-Bellevue, WA	2,189	1,971	2,323	2,990	3,931	63.6	56.3	65.4	82.8	108.9
St. Louis, MO-IL	4,136	5,014	4,810	4,492	4,346	148.4	179.6	172.0	160.4	155.2
Tampa-St. Petersburg-Clearwater, FL	3,516	3,655	3,422	3,660	3,455	126.3	129.4	120.4	127.5	120.4
Virginia Beach-Norfolk-Newport News, VA-NC	3,431	2,813	2,630	2,581	3,206	204.6	166.9	154.7	151.2	187.8
Washington-Arlington-Alexandria, DC-VA-MD-WV	5,250	5,503	5,369	5,616	2,974	93.1	95.6	91.6	94.4	50.0
SELECTED MSAs TOTAL	**190,442**	**197,279**	**205,487**	**202,170**	**212,240**	**113.7**	**116.4**	**120.0**	**117.0**	**122.8**

* MSAs were selected on the basis of the largest population in the 2010 U.S. Census.
NOTE: Cases reported with unknown sex are not included in this table.

Table 18. Gonorrhea Among Women — Reported Cases and Rates of Reported Cases in Selected Metropolitan Statistical Areas (MSAs)* in Alphabetical Order, United States, 2010–2014

MSAs	Cases					Rates per 100,000 Population				
	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014
Atlanta-Sandy Springs-Roswell, GA	3,964	4,141	3,907	2,458	3,030	146.0	150.2	139.4	86.5	106.7
Austin-Round Rock, TX	910	935	993	1,078	1,213	106.3	105.1	108.5	114.8	129.1
Baltimore-Columbia-Towson, MD	2,397	1,941	1,527	1,542	1,608	170.5	137.2	107.1	107.5	112.2
Birmingham-Hoover, AL	1,323	1,417	1,280	1,099	970	226.6	241.6	217.3	186.0	164.2
Boston-Cambridge-Newton, MA-NH	708	730	738	828	844	30.1	30.8	30.9	34.3	35.0
Buffalo-Cheektowaga-Niagara Falls, NY	669	828	1,173	594	664	113.9	141.3	200.4	101.6	113.5
Charlotte-Concord-Gastonia, NC-SC	1,754	2,117	1,778	1,700	1,962	154.2	182.6	150.7	141.7	163.5
Chicago-Naperville-Elgin, IL-IN-WI	6,741	7,015	7,464	6,374	5,662	139.3	144.4	153.4	130.9	116.2
Cincinnati, OH-KY-IN	2,331	2,264	2,051	1,932	1,913	215.7	208.8	188.7	177.1	175.4
Cleveland-Elyria, OH	2,082	2,371	2,426	2,328	2,021	193.0	220.9	226.7	217.6	188.9
Columbus, OH	1,919	1,561	1,514	1,500	1,473	198.3	159.5	153.2	150.0	147.3
Dallas-Fort Worth-Arlington, TX	4,791	4,653	4,157	3,921	4,153	147.1	139.6	122.5	113.6	120.3
Denver-Aurora-Lakewood, CO	1,261	885	965	724	780	98.6	67.8	72.7	53.5	57.6
Detroit-Warren-Dearborn, MI	5,217	5,114	4,406	3,614	2,698	235.6	231.6	199.3	163.5	122.0
Hartford-West Hartford-East Hartford, CT	633	596	422	543	425	101.7	95.8	67.7	87.2	68.2
Houston-The Woodlands-Sugar Land, TX	4,170	3,803	4,039	4,033	4,151	140.1	124.9	130.2	127.2	131.0
Indianapolis-Carmel-Anderson, IN	1,638	1,674	1,957	1,761	1,828	169.7	171.5	198.5	176.4	183.1
Jacksonville, FL	1,152	1,121	983	1,121	1,288	167.0	160.6	139.1	156.7	180.1
Kansas City, MO-KS	1,804	1,592	1,585	1,424	1,361	175.8	153.9	152.4	136.0	130.0
Las Vegas-Henderson-Paradise, NV	779	742	847	1,015	1,039	80.4	75.8	85.1	100.5	102.8
Los Angeles-Long Beach-Anaheim, CA	3,947	3,944	4,359	4,578	5,029	60.7	60.2	65.9	68.9	75.6
Louisville/Jefferson County, KY-IN	1,246	1,375	1,096	1,079	992	196.9	215.6	171.2	167.0	153.6
Memphis, TN-MS-AR	2,288	2,192	2,418	1,550	1,371	332.2	315.9	346.6	222.0	196.4
Miami-Fort Lauderdale-West Palm Beach, FL	2,480	2,361	2,198	2,225	2,123	86.4	80.9	74.1	74.2	70.8
Milwaukee-Waukesha-West Allis, WI	2,070	1,980	1,814	1,655	1,298	259.0	247.0	225.5	205.5	161.2
Minneapolis-St. Paul-Bloomington, MN-WI	953	1,035	1,322	1,641	1,388	56.2	60.4	76.4	93.8	79.4
Nashville-Davidson--Murfreesboro--Franklin, TN	642	776	858	838	790	75.2	89.3	97.1	93.1	87.8
New Orleans-Metairie, LA	1,027	1,131	1,186	1,317	1,339	168.2	181.6	187.9	206.1	209.6
New York-Newark-Jersey City, NY-NJ-PA	8,248	9,826	9,157	7,615	6,544	81.4	96.5	89.3	73.9	63.5
Oklahoma City, OK	962	1,034	1,081	1,305	1,310	151.3	159.7	164.6	195.1	195.9
Orlando-Kissimmee-Sanford, FL	1,171	1,090	1,087	1,114	1,109	107.5	98.4	95.8	96.3	95.8
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	5,125	5,361	5,581	5,052	4,461	166.0	173.0	179.3	162.0	143.0
Phoenix-Mesa-Scottsdale, AZ	1,071	1,568	2,118	2,318	2,658	50.8	73.2	97.3	104.8	120.2
Pittsburgh, PA	1,274	1,501	1,857	1,715	1,415	104.6	123.2	152.6	141.1	116.4
Portland-Vancouver-Hillsboro, OR-WA	371	482	393	325	382	32.9	42.1	33.9	27.8	32.6
Providence-Warwick, RI-MA	159	232	294	261	325	19.2	28.1	35.6	31.6	39.3
Raleigh, NC	738	868	807	677	638	127.6	145.7	132.7	108.9	102.7
Richmond, VA	967	797	908	957	1,194	154.9	126.6	142.6	148.7	185.6
Riverside-San Bernardino-Ontario, CA	976	1,196	1,562	1,576	1,966	46.0	55.3	71.5	71.7	89.4
Sacramento--Roseville--Arden-Arcade, CA	907	990	1,212	1,323	1,246	82.8	89.3	108.2	117.0	110.2
Salt Lake City, UT	40	41	88	263	376	7.4	7.4	15.8	46.4	66.3
San Antonio-New Braunfels, TX	1,886	1,835	1,865	1,624	1,445	173.0	164.4	164.5	140.7	125.2
San Diego-Carlsbad, CA	535	609	847	827	1,038	34.7	39.0	53.6	51.8	65.0
San Francisco-Oakland-Hayward, CA	1,710	1,531	1,493	1,491	1,836	77.8	68.9	66.2	65.2	80.3
San Jose-Sunnyvale-Santa Clara, CA	249	243	372	446	557	27.2	26.2	39.5	46.7	58.4
Seattle-Tacoma-Bellevue, WA	686	649	732	988	1,412	39.7	37.0	41.1	54.7	78.1
St. Louis, MO-IL	2,187	2,699	2,467	2,313	2,087	152.1	187.4	171.1	160.2	144.5
Tampa-St. Petersburg-Clearwater, FL	1,834	1,887	1,701	1,774	1,619	127.7	129.7	116.1	119.8	109.3
Virginia Beach-Norfolk-Newport News, VA-NC	1,856	1,563	1,402	1,341	1,711	217.2	182.0	162.3	154.7	197.3
Washington-Arlington-Alexandria, DC-VA-MD-WV	2,685	2,709	2,355	2,278	1,163	92.8	91.8	78.4	74.8	38.2
SELECTED MSAs TOTAL	**96,533**	**99,005**	**98,842**	**92,055**	**89,905**	**112.9**	**114.5**	**113.1**	**104.4**	**102.0**

* MSAs were selected on the basis of the largest population in the 2010 U.S. Census.
NOTE: Cases reported with unknown sex are not included in this table.

Table 19. Gonorrhea Among Men — Reported Cases and Rates of Reported Cases in Selected Metropolitan Statistical Areas (MSAs)* in Alphabetical Order, United States, 2010–2014

MSAs	Cases					Rates per 100,000 Population				
	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014
Atlanta-Sandy Springs-Roswell, GA	4,310	4,343	4,329	2,952	4,177	167.5	165.7	163.1	110.1	155.7
Austin-Round Rock, TX	1,022	1,073	1,196	1,295	1,635	118.8	120.1	130.1	137.2	173.3
Baltimore-Columbia-Towson, MD	1,968	1,690	1,447	1,690	1,840	150.8	128.5	109.0	126.4	137.6
Birmingham-Hoover, AL	1,024	1,094	1,057	1,029	979	188.2	200.5	193.0	187.3	178.2
Boston-Cambridge-Newton, MA-NH	1,173	940	1,257	1,541	1,870	53.2	42.3	55.9	67.8	82.3
Buffalo-Cheektowaga-Niagara Falls, NY	558	715	999	638	678	101.8	130.5	182.1	116.2	123.4
Charlotte-Concord-Gastonia, NC-SC	1,299	1,704	1,384	1,356	1,683	120.3	155.1	123.9	119.4	148.3
Chicago-Naperville-Elgin, IL-IN-WI	5,610	6,150	6,819	6,407	6,947	121.4	132.3	146.4	137.3	148.9
Cincinnati, OH-KY-IN	1,041	1,250	1,176	1,297	1,431	100.7	120.4	112.9	123.9	136.7
Cleveland-Elyria, OH	1,517	1,559	1,777	1,827	1,781	151.9	156.7	178.9	183.6	179.0
Columbus, OH	1,432	1,477	1,345	1,720	1,787	153.3	156.2	140.8	177.9	184.8
Dallas-Fort Worth-Arlington, TX	3,977	4,089	3,682	4,426	5,033	125.5	125.9	111.4	131.8	149.9
Denver-Aurora-Lakewood, CO	1,083	777	1,090	1,104	1,236	85.6	60.0	82.8	82.1	92.0
Detroit-Warren-Dearborn, MI	3,924	3,794	3,642	2,942	2,606	188.5	182.6	175.0	141.2	125.0
Hartford-West Hartford-East Hartford, CT	493	440	322	522	466	83.5	74.5	54.5	88.1	78.7
Houston-The Woodlands-Sugar Land, TX	3,462	3,055	3,543	3,749	4,146	117.6	101.3	115.2	119.3	131.9
Indianapolis-Carmel-Anderson, IN	1,499	1,447	1,772	1,854	1,927	162.5	155.0	187.9	194.0	201.7
Jacksonville, FL	973	919	965	1,198	1,316	148.4	138.8	143.8	176.3	193.7
Kansas City, MO-KS	1,398	1,321	1,334	1,272	1,281	142.2	133.1	133.6	126.2	127.1
Las Vegas-Henderson-Paradise, NV	825	998	1,119	1,239	1,612	84.0	100.7	111.3	121.8	158.4
Los Angeles-Long Beach-Anaheim, CA	7,156	7,124	8,712	9,849	12,071	113.1	111.5	135.2	151.9	186.2
Louisville/Jefferson County, KY-IN	995	1,020	940	969	961	165.0	167.9	153.8	157.2	155.9
Memphis, TN-MS-AR	1,805	1,660	2,080	1,536	1,254	283.7	259.2	323.0	238.6	194.8
Miami-Fort Lauderdale-West Palm Beach, FL	3,024	2,987	3,093	3,564	3,999	112.3	108.5	110.6	125.9	141.3
Milwaukee-Waukesha-West Allis, WI	1,354	1,368	1,463	1,521	1,281	178.9	179.9	191.8	199.0	167.6
Minneapolis-St. Paul-Bloomington, MN-WI	717	854	1,209	1,546	1,942	43.4	51.0	71.5	90.4	113.5
Nashville-Davidson--Murfreesboro--Franklin, TN	719	905	1,034	968	1,130	88.0	109.1	122.6	112.8	131.7
New Orleans-Metairie, LA	937	962	1,012	1,131	1,328	161.8	163.0	169.8	187.9	220.6
New York-Newark-Jersey City, NY-NJ-PA	9,451	11,291	12,124	11,639	13,448	100.2	118.7	126.5	120.6	139.4
Oklahoma City, OK	736	775	866	1,047	1,056	119.2	122.9	135.3	160.8	162.2
Orlando-Kissimmee-Sanford, FL	1,320	1,186	1,241	1,399	1,461	126.4	111.5	114.0	126.0	131.6
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	4,565	4,756	5,439	5,501	5,152	158.6	164.4	187.1	188.7	176.7
Phoenix-Mesa-Scottsdale, AZ	1,264	1,770	2,407	2,600	3,286	60.6	83.4	111.8	118.9	150.2
Pittsburgh, PA	795	971	1,191	1,110	1,187	69.8	85.1	104.1	96.9	103.6
Portland-Vancouver-Hillsboro, OR-WA	555	836	790	874	1,116	50.5	74.8	69.8	76.4	97.6
Providence-Warwick, RI-MA	223	243	349	331	587	28.8	31.4	45.0	42.6	75.5
Raleigh, NC	648	735	724	707	770	117.4	129.4	124.8	119.2	129.9
Richmond, VA	732	617	761	701	978	125.4	104.7	127.8	116.4	162.4
Riverside-San Bernardino-Ontario, CA	944	1,126	1,467	1,695	2,321	44.9	52.5	67.7	77.7	106.4
Sacramento--Roseville--Arden-Arcade, CA	756	917	1,104	1,271	1,362	71.8	85.9	102.6	117.1	125.5
Salt Lake City, UT	162	156	254	427	650	29.6	28.0	44.9	74.5	113.4
San Antonio-New Braunfels, TX	1,843	1,896	1,807	1,728	1,710	175.1	175.8	164.3	153.9	152.3
San Diego-Carlsbad, CA	1,482	1,552	1,766	1,995	2,354	95.4	98.4	110.6	123.6	145.8
San Francisco-Oakland-Hayward, CA	3,127	3,454	3,746	4,167	5,261	146.3	159.4	170.4	186.9	235.9
San Jose-Sunnyvale-Santa Clara, CA	333	430	626	699	995	36.1	45.9	65.8	72.4	103.1
Seattle-Tacoma-Bellevue, WA	1,501	1,322	1,591	2,002	2,519	87.7	75.7	89.9	111.1	139.7
St. Louis, MO-IL	1,949	2,315	2,340	2,178	2,256	144.4	171.2	172.8	160.5	166.3
Tampa-St. Petersburg-Clearwater, FL	1,678	1,761	1,721	1,871	1,823	124.5	128.6	124.9	134.6	131.2
Virginia Beach-Norfolk-Newport News, VA-NC	1,572	1,248	1,226	1,239	1,489	191.2	151.0	146.7	147.5	177.2
Washington-Arlington-Alexandria, DC-VA-MD-WV	2,558	2,791	3,001	3,330	1,811	93.2	99.4	105.0	114.6	62.3
SELECTED MSAs TOTAL	**93,489**	**97,863**	**106,339**	**109,653**	**121,989**	**114.1**	**118.0**	**126.8**	**129.5**	**144.1**

* MSAs were selected on the basis of the largest population in the 2010 U.S. Census.
NOTE: Cases reported with unknown sex are not included in this table.

Table 20. Gonorrhea — Reported Cases and Rates of Reported Cases in Counties and Independent Cities* Ranked by Number of Reported Cases, United States, 2014

Rank†	County/Independent City	Cases	Rate per 100,000 Population	Cumulative Percentage
1	Los Angeles County, CA	15,316	152.9	4
2	Cook County, IL	10,387	198.2	7
3	Harris County, TX	7,126	164.3	9
4	Philadelphia County, PA	5,961	383.8	11
5	Maricopa County, AZ	5,642	140.7	12
6	Dallas County, TX	5,034	203.0	14
7	New York County, NY	4,550	279.8	15
8	Wayne County, MI	4,140	233.2	16
9	Kings County, NY	4,091	157.8	17
10	San Diego County, CA	3,420	106.5	18
11	Marion County, IN	3,374	363.5	19
12	San Francisco County, CA	3,328	397.4	20
13	Cuyahoga County, OH	3,213	254.4	21
14	Bronx County, NY	3,093	218.0	22
15	Bexar County, TX	2,919	160.6	23
16	Franklin County, OH	2,897	239.0	24
17	Tarrant County, TX	2,673	139.8	24
18	Clark County, NV	2,653	130.8	25
19	San Bernardino County, CA	2,607	124.8	26
20	Broward County, FL	2,585	140.6	27
21	Fulton County, GA	2,560	260.1	27
22	Milwaukee County, WI	2,477	259.1	28
23	Miami-Dade County, FL	2,427	92.7	29
24	Hamilton County, OH	2,309	287.0	29
25	Alameda County, CA	2,306	146.1	30
26	Mecklenburg County, NC	2,284	230.5	31
27	King County, WA	2,233	109.2	31
28	Duval County, FL	2,229	251.6	32
29	Sacramento County, CA	2,227	152.3	33
30	Travis County, TX	2,206	196.8	33
31	Baltimore (City), MD	2,194	352.7	34
32	Queens County, NY	2,169	94.5	35
33	Shelby County, TN	2,155	229.4	35
34	Allegheny County, PA	2,084	169.2	36
35	Hennepin County, MN	1,997	166.6	36
36	Orange County, FL	1,893	154.5	37
37	Oklahoma County, OK	1,853	245.4	37
38	Hillsborough County, FL	1,844	142.8	38
39	Orange County, CA	1,814	58.2	38
40	Jackson County, MO	1,757	258.4	39
41	St. Louis County, MO	1,729	172.7	39
42	Riverside County, CA	1,685	73.5	40
43	Tulsa County, OK	1,665	267.5	40
44	Jefferson County, KY	1,665	220.0	41
45	Jefferson County, AL	1,660	251.7	41
46	Orleans Parish, LA	1,607	424.3	42
47	St. Louis (City), MO	1,548	486.2	42
48	Kern County, CA	1,548	179.1	43
49	Santa Clara County, CA	1,530	82.2	43
50	Fresno County, CA	1,519	159.0	44
51	Essex County, NJ	1,513	191.6	44
52	DeKalb County, GA	1,402	196.5	44
53	Pinellas County, FL	1,329	143.0	45
54	Pierce County, WA	1,288	157.1	45
55	Davidson County, TN	1,284	195.0	45
56	Prince George's County, MD	1,276	143.4	46
57	Guilford County, NC	1,259	248.5	46
58	Wake County, NC	1,215	124.7	47
59	Pulaski County, AR	1,192	304.6	47
60	Monroe County, NY	1,158	154.5	47
61	Erie County, NY	1,155	125.6	48
62	Palm Beach County, FL	1,116	81.3	48
63	Suffolk County, MA	1,090	144.3	48
64	Cumberland County, NC	1,083	332.3	49
65	Denver County, CO	1,080	166.3	49
66	Bell County, TX	1,079	330.1	49
67	Pima County, AZ	1,057	106.1	49
68	Douglas County, NE	1,052	195.8	50
69	Sedgwick County, KS	1,037	205.2	50
70	Contra Costa County, CA	1,028	93.9	50

* Accounting for 50% of reported gonorrhea cases.

† Counties and independent cities were ranked in descending order by number of cases reported then by rate in 2014.

Table 21. Gonorrhea — Reported Cases and Rates of Reported Cases by Age Group and Sex, United States, 2010–2014

Age Group	Cases				Rates*			
	Total	Male	Female	Unknown Sex	Total	Male	Female	
0–4	247	70	167	10	1.2	0.7	1.7	2010
5–9	64	10	53	1	0.3	0.1	0.5	
10–14	3,016	486	2,498	32	14.6	4.6	24.7	
15–19	88,250	28,002	59,867	381	400.4	247.7	557.6	
20–24	105,619	46,708	58,574	337	489.3	424.1	554.1	
25–29	50,890	26,818	23,907	165	241.2	252.2	228.4	
30–34	25,401	14,809	10,510	82	127.2	148.1	105.5	
35–39	13,769	8,812	4,907	50	68.2	87.8	48.4	
40–44	9,262	6,745	2,495	22	44.3	64.9	23.8	
45–54	9,555	7,490	2,043	22	21.2	33.8	8.9	
55–64	2,194	1,852	338	4	6.0	10.5	1.8	
65+	520	411	105	4	1.3	2.4	0.5	
Unknown Age	554	257	229	68				
TOTAL	**309,341**	**142,470**	**165,693**	**1,178**	**100.2**	**93.9**	**105.6**	
0–4	182	43	136	3	0.9	0.4	1.4	2011
5–9	82	15	66	1	0.4	0.1	0.7	
10–14	3,223	548	2,648	27	15.6	5.2	26.2	
15–19	88,139	28,102	59,747	290	407.2	252.7	567.7	
20–24	111,730	49,633	61,756	341	504.3	438.7	569.6	
25–29	53,245	28,288	24,821	136	250.2	262.9	236.0	
30–34	27,157	16,044	11,044	69	132.4	156.0	108.0	
35–39	14,109	8,972	5,096	41	72.0	91.9	51.8	
40–44	9,686	6,955	2,708	23	46.1	66.5	25.6	
45–54	10,473	8,222	2,222	29	23.4	37.3	9.8	
55–64	2,747	2,270	471	6	7.2	12.4	2.4	
65+	587	485	99	3	1.4	2.7	0.4	
Unknown Age	489	258	191	40				
TOTAL	**321,849**	**149,835**	**171,005**	**1,009**	**103.3**	**97.7**	**108.0**	
0–4	198	72	122	4	1.0	0.7	1.2	2012
5–9	68	16	52	0	0.3	0.2	0.5	
10–14	3,136	573	2,559	4	15.2	5.4	25.3	
15–19	81,548	26,578	54,852	118	381.8	242.4	527.5	
20–24	115,224	52,351	62,711	162	510.2	453.3	568.4	
25–29	58,441	31,631	26,722	88	273.1	291.7	253.2	
30–34	31,420	18,936	12,436	48	150.3	180.4	119.4	
35–39	16,193	10,493	5,670	30	83.1	108.0	58.0	
40–44	10,965	7,858	3,089	18	52.1	75.1	29.2	
45–54	12,383	9,773	2,594	16	28.0	44.8	11.5	
55–64	3,230	2,642	586	2	8.4	14.2	2.9	
65+	644	537	105	2	1.5	2.9	0.4	
Unknown Age	1,376	775	568	33				
TOTAL	**334,826**	**162,235**	**172,066**	**525**	**106.7**	**105.0**	**107.9**	
0–4	172	60	111	1	0.9	0.6	1.1	2013
5–9	75	11	64	0	0.4	0.1	0.6	
10–14	2,637	508	2,122	7	12.8	4.8	21.0	
15–19	72,092	24,212	47,749	131	340.7	223.2	463.0	
20–24	113,035	53,055	59,760	220	495.9	454.3	537.6	
25–29	62,102	34,718	27,266	118	287.8	316.8	256.7	
30–34	34,065	20,855	13,143	67	160.2	195.2	124.2	
35–39	18,034	11,850	6,145	39	92.0	121.1	62.6	
40–44	11,817	8,590	3,192	35	56.7	82.9	30.4	
45–54	13,823	11,087	2,714	22	31.6	51.4	12.2	
55–64	3,802	3,176	621	5	9.7	16.8	3.1	
65+	825	696	128	1	1.8	3.6	0.5	
Unknown Age	525	312	193	20				
TOTAL	**333,004**	**169,130**	**163,208**	**666**	**105.3**	**108.7**	**101.7**	
0–4	154	47	105	2	0.8	0.5	1.1	2014
5–9	53	7	46	0	0.3	0.1	0.5	
10–14	2,450	440	2,005	5	11.9	4.2	19.9	
15–19	68,468	23,981	44,399	88	323.6	221.1	430.5	
20–24	116,200	56,714	59,329	157	509.8	485.6	533.7	
25–29	69,587	40,602	28,899	86	322.5	370.5	272.1	
30–34	38,393	24,349	13,988	56	180.6	228.0	132.2	
35–39	20,803	14,129	6,654	20	106.1	144.4	67.8	
40–44	12,687	9,349	3,320	18	60.9	90.2	31.7	
45–54	15,322	12,388	2,917	17	35.0	57.4	13.1	
55–64	4,549	3,859	680	10	11.6	20.4	3.3	
65+	911	790	121	0	2.0	4.0	0.5	
Unknown Age	485	288	145	52				
TOTAL	**350,062**	**186,943**	**162,608**	**511**	**110.7**	**120.1**	**101.3**	

* No population data are available for unknown sex and age; therefore, rates are not calculated.
NOTE: This table should be used only for age comparisons.
Cases in the 0–4 age group may include cases due to perinatal transmission.

Table 22A. Gonorrhea — Reported Cases by Race/Ethnicity, Age Group, and Sex, United States*, 2014

Age Group	American Indians/ Alaska Natives			Asians			Blacks, Non-Hispanic		
	Total†	Male	Female	Total†	Male	Female	Total†	Male	Female
0–4	2	1	1	0	0	0	56	19	37
5–9	1	0	1	0	0	0	23	3	20
10–14	25	3	22	6	1	5	1,264	217	1,046
15–19	576	162	414	263	122	141	35,115	12,437	22,661
20–24	1,112	377	735	768	461	305	55,003	26,542	28,429
25–29	753	312	441	717	530	186	28,434	16,784	11,627
30–34	472	176	296	473	343	130	13,505	8,869	4,633
35–39	214	99	115	298	236	62	6,872	4,824	2,045
40–44	121	56	64	176	140	36	3,758	2,899	859
45–54	121	73	48	186	153	33	4,386	3,735	649
55–64	14	9	5	50	39	11	1,349	1,196	150
65+	9	8	1	12	9	3	209	191	18
Unknown Age	4	3	1	2	2	0	66	43	21
TOTAL	**3,424**	**1,279**	**2,144**	**2,951**	**2,036**	**912**	**150,040**	**77,759**	**72,195**

Age Group	Native Hawaiians/ Other Pacific Islanders			Whites, Non-Hispanic			Multirace		
	Total†	Male	Female	Total†	Male	Female	Total†	Male	Female
0–4	0	0	0	19	6	13	1	0	1
5–9	0	0	0	8	3	5	1	0	1
10–14	2	0	2	258	29	229	21	1	20
15–19	82	22	60	9,327	2,650	6,670	552	143	409
20–24	172	84	87	20,934	9,647	11,274	842	391	449
25–29	109	62	47	16,029	8,707	7,317	590	396	193
30–34	68	39	29	9,942	5,982	3,957	339	254	85
35–39	37	17	20	5,487	3,569	1,914	152	123	29
40–44	20	12	7	3,673	2,638	1,032	113	95	18
45–54	21	15	6	5,025	4,096	928	118	110	8
55–64	6	4	2	1,478	1,261	216	17	16	1
65+	2	2	0	303	267	36	3	2	1
Unknown Age	1	1	0	51	26	25	1	0	1
TOTAL	**520**	**258**	**260**	**72,534**	**38,881**	**33,616**	**2,750**	**1,531**	**1,216**

Age Group	Hispanics			Other/Unknown		
	Total†	Male	Female	Total†	Male	Female
0–4	14	5	9	43	11	30
5–9	5	0	5	13	1	12
10–14	216	50	166	514	116	394
15–19	6,542	2,517	4,018	12,892	4,928	7,911
20–24	12,232	6,644	5,575	20,160	10,369	9,705
25–29	8,343	5,259	3,072	11,950	7,074	4,836
30–34	4,960	3,341	1,610	7,264	4,468	2,759
35–39	2,726	1,931	793	4,200	2,809	1,381
40–44	1,519	1,142	375	2,827	2,025	792
45–54	1,437	1,165	271	3,393	2,553	827
55–64	290	251	39	1,156	925	226
65+	61	45	16	269	225	44
Unknown Age	50	29	21	269	158	63
TOTAL	**38,395**	**22,379**	**15,970**	**64,950**	**35,662**	**28,980**

* Includes 48 states reporting race/ethnicity data in the Office of Management and Budget compliant formats in 2014.

† Total includes cases reported with unknown sex.

NOTE: These tables should be used only for race/ethnicity comparisons. See Table 21 for age-specific cases and rates and Tables 14–16 for total and sex-specific cases and rates.

Cases in the 0–4 age group may include cases due to perinatal transmission.

Table 22B. Gonorrhea — Rates of Reported Cases per 100,000 Population by Race/Ethnicity, Age Group, and Sex, United States*, 2014

Age Group	American Indians/ Alaska Natives			Asians			Blacks, Non-Hispanic		
	Total†	Male	Female	Total†	Male	Female	Total†	Male	Female
0–4	1.3	1.3	1.3	0.0	0.0	0.0	2.1	1.4	2.8
5–9	0.6	0.0	1.2	0.0	0.0	0.0	0.9	0.2	1.5
10–14	14.9	3.5	26.8	0.7	0.2	1.1	45.5	15.4	76.5
15–19	329.7	181.4	484.6	28.4	25.9	31.0	1,172.6	816.0	1,541.0
20–24	607.9	403.2	821.9	67.0	79.4	53.9	1,736.0	1,670.4	1,799.9
25–29	480.7	397.4	564.5	56.3	86.0	28.3	1,065.0	1,291.6	848.5
30–34	325.7	244.1	406.6	36.3	56.4	18.7	524.6	723.0	343.8
35–39	160.7	150.8	170.3	23.0	38.9	9.0	291.4	434.1	164.0
40–44	87.0	81.8	90.6	14.0	23.8	5.4	150.0	245.3	64.9
45–54	40.4	50.8	30.9	8.8	15.5	2.9	84.8	153.7	23.7
55–64	5.9	8.1	4.0	3.0	5.1	1.2	33.6	65.4	6.9
65+	4.7	9.3	0.9	0.8	1.3	0.3	6.0	13.8	0.9
Unknown Age									
TOTAL	**159.4**	**120.9**	**196.5**	**19.3**	**28.0**	**11.3**	**405.4**	**440.1**	**373.3**

Age Group	Native Hawaiians/ Other Pacific Islanders			Whites, Non-Hispanic			Multirace		
	Total†	Male	Female	Total†	Male	Female	Total†	Male	Female
0–4	0.0	0.0	0.0	0.2	0.1	0.3	0.1	0.0	0.2
5–9	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.3
10–14	5.3	0.0	11.0	2.4	0.5	4.4	3.1	0.3	5.9
15–19	209.0	109.8	312.4	82.4	45.5	121.3	92.7	47.7	138.3
20–24	362.2	343.8	377.3	171.8	155.4	188.7	171.7	163.5	178.6
25–29	235.0	261.5	207.3	135.5	145.5	125.3	154.6	219.2	96.0
30–34	159.2	178.6	138.8	86.1	102.6	69.2	101.1	161.1	47.8
35–39	100.3	90.3	110.6	50.8	65.7	35.7	55.3	95.1	19.9
40–44	57.8	68.9	40.7	29.5	42.1	16.6	44.1	78.4	13.4
45–54	32.2	46.2	18.3	17.5	28.8	6.4	25.9	50.8	3.4
55–64	13.0	17.8	8.5	5.4	9.5	1.6	5.1	10.2	0.6
65+	5.6	12.1	0.0	0.9	1.8	0.2	1.1	1.6	0.6
Unknown Age									
TOTAL	**102.1**	**100.5**	**102.9**	**38.3**	**41.7**	**34.9**	**47.8**	**54.3**	**41.4**

Age Group	Hispanics		
	Total†	Male	Female
0–4	0.3	0.2	0.4
5–9	0.1	0.0	0.2
10–14	4.7	2.1	7.3
15–19	144.7	108.0	183.5
20–24	270.4	278.1	261.1
25–29	193.4	229.0	152.3
30–34	116.7	150.1	79.5
35–39	69.2	95.4	41.4
40–44	41.9	61.6	21.1
45–54	24.6	39.7	9.4
55–64	8.1	14.5	2.1
65+	2.0	3.4	0.9
Unknown Age			
TOTAL	**73.3**	**84.1**	**61.9**

* Includes 48 states reporting race/ethnicity data in the Office of Management and Budget compliant formats in 2014.

† Total includes cases reported with unknown sex.

NOTE: These tables should be used only for race/ethnicity comparisons. See Table 21 for age-specific cases and rates and Tables 14–16 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.

Table 23. Gonorrhea Among Women 15–25 Years of Age — Reported Cases and Rates of Reported Cases by Age, United States, 2010–2014

	Age	Cases	Rate per 100,000 Population
2010	15	4,502	217.9
	16	8,286	394.6
	17	12,397	581.4
	18	16,743	762.6
	19	17,939	799.7
	20	16,320	738.2
	21	14,015	657.6
	22	11,087	531.3
	23	9,329	453.4
	24	7,823	375.1
	25	6,546	311.6
2011	15	4,466	220.3
	16	8,128	393.4
	17	12,308	584.7
	18	16,973	796.3
	19	17,872	814.3
	20	16,865	750.6
	21	14,559	647.9
	22	12,202	565.4
	23	9,861	467.2
	24	8,269	397.9
	25	6,804	324.9
2012	15	4,241	209.4
	16	7,316	359.4
	17	11,006	530.2
	18	15,580	736.2
	19	16,709	779.1
	20	15,849	717.5
	21	15,029	664.7
	22	12,800	565.9
	23	10,449	480.6
	24	8,584	403.4
	25	7,343	350.3
2013	15	3,776	186.4
	16	6,503	320.0
	17	9,374	458.8
	18	13,393	642.4
	19	14,703	691.2
	20	14,420	668.8
	21	13,394	603.1
	22	12,272	539.6
	23	10,819	475.3
	24	8,855	404.5
	25	7,446	347.4
2014	15	3,487	172.2
	16	6,188	304.5
	17	8,830	432.2
	18	12,196	585.0
	19	13,698	643.9
	20	13,801	640.1
	21	13,324	600.0
	22	12,031	529.0
	23	10,746	472.1
	24	9,427	430.7
	25	7,966	371.7

NOTE: This table should be used only for age comparisons. Cases reported with unknown sex are not included in this table.

Table 24. All Stages of Syphilis* — Reported Cases and Rates of Reported Cases by State/Area and Region in Alphabetical Order, United States and Outlying Areas, 2010–2014

State/Area	Cases					Rates per 100,000 Population				
	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014
Alabama	781	758	705	679	475	16.3	15.8	14.6	14.0	9.8
Alaska	15	11	34	35	45	2.1	1.5	4.6	4.8	6.1
Arizona	905	907	787	962	1,459	14.2	14.0	12.0	14.5	22.0
Arkansas	534	464	468	527	389	18.3	15.8	15.9	17.8	13.1
California	6,115	6,782	8,016	9,972	11,440	16.4	18.0	21.1	26.0	29.8
Colorado	342	367	503	475	355	6.8	7.2	9.7	9.0	6.7
Connecticut	234	189	121	133	169	6.5	5.3	3.4	3.7	4.7
Delaware	44	124	106	146	110	4.9	13.7	11.6	15.8	11.9
District of Columbia	495	552	589	609	281	82.3	89.3	93.1	94.2	43.5
Florida	4,070	4,143	4,483	5,022	6,102	21.6	21.7	23.2	25.7	31.2
Georgia	2,347	1,895	2,434	2,990	3,384	24.2	19.3	24.5	29.9	33.9
Hawaii	73	32	43	87	106	5.4	2.3	3.1	6.2	7.5
Idaho	20	42	54	42	46	1.3	2.6	3.4	2.6	2.9
Illinois	2,236	2,426	2,424	2,661	2,796	17.4	18.9	18.8	20.7	21.7
Indiana	412	468	531	543	475	6.4	7.2	8.1	8.3	7.2
Iowa	68	70	143	226	239	2.2	2.3	4.7	7.3	7.7
Kansas	110	76	129	196	200	3.9	2.6	4.5	6.8	6.9
Kentucky	311	335	390	395	447	7.2	7.7	8.9	9.0	10.2
Louisiana	2,484	2,043	1,780	2,006	2,173	54.8	44.7	38.7	43.4	47.0
Maine	41	24	22	21	23	3.1	1.8	1.7	1.6	1.7
Maryland	1,015	1,278	1,243	1,361	1,475	17.6	21.9	21.1	23.0	24.9
Massachusetts	639	770	806	990	813	9.8	11.7	12.1	14.8	12.1
Michigan	683	764	786	1,068	1,095	6.9	7.7	8.0	10.8	11.1
Minnesota	350	367	335	541	631	6.6	6.9	6.2	10.0	11.6
Mississippi	823	748	456	293	642	27.7	25.1	15.3	9.8	21.5
Missouri	512	414	426	609	771	8.5	6.9	7.1	10.1	12.8
Montana	5	9	3	8	9	0.5	0.9	0.3	0.8	0.9
Nebraska	33	36	35	95	96	1.8	2.0	1.9	5.1	5.1
Nevada	412	430	445	523	894	15.3	15.8	16.1	18.7	32.0
New Hampshire	43	33	65	79	79	3.3	2.5	4.9	6.0	6.0
New Jersey	947	971	883	968	1,172	10.8	11.0	10.0	10.9	13.2
New Mexico	151	212	234	247	283	7.3	10.2	11.2	11.8	13.6
New York	4,860	4,786	5,312	6,173	7,129	25.1	24.6	27.1	31.4	36.3
North Carolina	1,233	1,255	1,037	1,153	1,998	12.9	13.0	10.6	11.7	20.3
North Dakota	6	5	14	25	51	0.9	0.7	2.0	3.5	7.1
Ohio	1,076	954	1,141	1,096	1,229	9.3	8.3	9.9	9.5	10.6
Oklahoma	272	270	256	383	414	7.3	7.1	6.7	9.9	10.8
Oregon	173	252	424	527	582	4.5	6.5	10.9	13.4	14.8
Pennsylvania	1,007	1,125	1,349	1,485	1,524	7.9	8.8	10.6	11.6	11.9
Rhode Island	79	84	93	94	160	7.5	8.0	8.9	8.9	15.2
South Carolina	580	639	624	753	750	12.5	13.7	13.2	15.8	15.7
South Dakota	12	14	29	61	95	1.5	1.7	3.5	7.2	11.2
Tennessee	1,193	1,025	1,068	980	977	18.8	16.0	16.5	15.1	15.0
Texas	6,413	6,161	7,057	7,044	7,804	25.5	24.0	27.1	26.6	29.5
Utah	133	64	101	172	149	4.8	2.3	3.5	5.9	5.1
Vermont	4	10	12	10	12	0.6	1.6	1.9	1.6	1.9
Virginia	800	726	906	1,001	702	10.0	9.0	11.1	12.1	8.5
Washington	535	712	709	711	854	8.0	10.4	10.3	10.2	12.3
West Virginia	26	9	24	39	55	1.4	0.5	1.3	2.1	3.0
Wisconsin	186	203	268	257	285	3.3	3.6	4.7	4.5	5.0
Wyoming	6	6	12	9	6	1.1	1.1	2.1	1.5	1.0
U.S. TOTAL	**45,844**	**46,040**	**49,915**	**56,482**	**63,450**	**14.8**	**14.8**	**15.9**	**17.9**	**20.1**
Northeast	7,854	7,992	8,663	9,953	11,081	14.2	14.4	15.5	17.8	19.8
Midwest	5,684	5,797	6,261	7,378	7,963	8.5	8.6	9.3	10.9	11.8
South	23,421	22,425	23,626	25,381	28,178	20.4	19.3	20.1	21.4	23.8
West	8,885	9,826	11,365	13,770	16,228	12.3	13.5	15.4	18.5	21.9
Guam	11	26	27	24	13	6.9	16.3	16.9	15.0	8.1
Puerto Rico	723	671	704	811	960	19.4	18.1	19.2	22.4	26.6
Virgin Islands	4	7	2	9	6	3.8	6.6	1.9	8.6	5.7
OUTLYING AREAS	**738**	**704**	**733**	**844**	**979**	**18.5**	**17.7**	**18.6**	**21.8**	**25.2**
TOTAL	**46,582**	**46,744**	**50,648**	**57,326**	**64,429**	**14.9**	**14.8**	**15.9**	**17.9**	**20.1**

* See Section A1.9 in the Appendix for definition.

Table 25. All Stages of Syphilis* — Reported Cases and Rates of Reported Cases in Selected Metropolitan Statistical Areas (MSAs)† in Alphabetical Order, United States, 2010–2014

MSAs	Cases					Rates per 100,000 Population				
	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014
Atlanta-Sandy Springs-Roswell, GA	1,916	1,549	1,822	2,257	2,668	36.2	28.8	33.4	40.9	48.3
Austin-Round Rock, TX	362	425	478	500	680	21.1	23.8	26.1	26.6	36.1
Baltimore-Columbia-Towson, MD	531	710	726	732	815	19.6	26.0	26.4	26.4	29.4
Birmingham-Hoover, AL	234	276	226	236	157	20.7	24.4	19.9	20.7	13.8
Boston-Cambridge-Newton, MA-NH	544	607	570	758	596	11.9	13.2	12.3	16.2	12.7
Buffalo-Cheektowaga-Niagara Falls, NY	43	48	70	115	130	3.8	4.2	6.2	10.1	11.5
Charlotte-Concord-Gastonia, NC-SC	314	372	310	360	530	14.2	16.5	13.5	15.4	22.7
Chicago-Naperville-Elgin, IL-IN-WI	2,085	2,266	2,269	2,499	2,559	22.0	23.8	23.8	26.2	26.8
Cincinnati, OH-KY-IN	483	436	529	437	381	22.8	20.5	24.9	20.4	17.8
Cleveland-Elyria, OH	182	151	140	111	199	8.8	7.3	6.8	5.4	9.6
Columbus, OH	248	237	316	342	441	13.0	12.3	16.3	17.4	22.4
Dallas-Fort Worth-Arlington, TX	1,958	1,816	2,141	2,093	2,231	30.5	27.6	32.0	30.7	32.8
Denver-Aurora-Lakewood, CO	293	319	434	382	298	11.5	12.3	16.4	14.2	11.0
Detroit-Warren-Dearborn, MI	459	522	607	830	791	10.7	12.2	14.1	19.3	18.4
Hartford-West Hartford-East Hartford, CT	85	55	21	43	52	7.0	4.5	1.7	3.5	4.3
Houston-The Woodlands-Sugar Land, TX	1,891	1,870	2,246	1,891	2,316	31.9	30.9	36.4	30.0	36.7
Indianapolis-Carmel-Anderson, IN	236	270	336	340	285	12.5	14.1	17.4	17.4	14.6
Jacksonville, FL	228	188	177	189	269	16.9	13.8	12.8	13.6	19.3
Kansas City, MO-KS	145	141	164	320	406	7.2	7.0	8.0	15.6	19.8
Las Vegas-Henderson-Paradise, NV	389	402	403	438	830	19.9	20.4	20.1	21.6	40.9
Los Angeles-Long Beach-Anaheim, CA	3,003	3,247	3,540	4,537	4,737	23.4	25.1	27.1	34.6	36.1
Louisville/Jefferson County, KY-IN	196	186	201	210	239	15.9	14.9	16.1	16.6	18.9
Memphis, TN-MS-AR	760	587	591	578	475	57.4	44.0	44.0	43.1	35.4
Miami-Fort Lauderdale-West Palm Beach, FL	2,259	2,315	2,591	2,740	3,313	40.6	40.8	45.0	47.0	56.8
Milwaukee-Waukesha-West Allis, WI	121	117	159	153	184	7.8	7.5	10.1	9.7	11.7
Minneapolis-St. Paul-Bloomington, MN-WI	309	326	313	487	585	9.2	9.6	9.1	14.1	16.9
Nashville-Davidson--Murfreesboro--Franklin, TN	267	229	271	239	305	16.0	13.5	15.7	13.6	17.4
New Orleans-Metairie, LA	688	668	547	634	723	57.8	55.1	44.6	51.1	58.3
New York-Newark-Jersey City, NY-NJ-PA	5,379	5,303	5,670	6,506	7,476	27.5	26.9	28.6	32.6	37.5
Oklahoma City, OK	148	114	148	213	231	11.8	8.9	11.4	16.1	17.5
Orlando-Kissimmee-Sanford, FL	391	485	499	631	782	18.3	22.3	22.4	27.8	34.5
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	930	1,029	1,119	1,333	1,273	15.6	17.2	18.6	22.1	21.1
Phoenix-Mesa-Scottsdale, AZ	645	676	624	713	1,065	15.4	15.9	14.4	16.2	24.2
Pittsburgh, PA	72	92	128	95	154	3.1	3.9	5.4	4.0	6.5
Portland-Vancouver-Hillsboro, OR-WA	153	220	410	475	470	6.9	9.7	17.9	20.5	20.3
Providence-Warwick, RI-MA	95	111	125	138	204	5.9	6.9	7.8	8.6	12.7
Raleigh, NC	154	151	150	179	315	13.6	13.0	12.6	14.7	25.9
Richmond, VA	210	154	194	204	145	17.4	12.6	15.7	16.4	11.6
Riverside-San Bernardino-Ontario, CA	428	527	775	803	950	10.1	12.2	17.8	18.3	21.7
Sacramento--Roseville--Arden-Arcade, CA	183	258	249	289	371	8.5	11.9	11.3	13.0	16.7
Salt Lake City, UT	94	48	74	136	109	8.6	4.3	6.6	11.9	9.6
San Antonio-New Braunfels, TX	730	736	983	1,167	1,017	34.1	33.5	44.0	51.2	44.7
San Diego-Carlsbad, CA	607	609	717	791	986	19.6	19.4	22.6	24.6	30.7
San Francisco-Oakland-Hayward, CA	1,150	1,271	1,595	1,892	2,106	26.5	28.9	35.8	41.9	46.6
San Jose-Sunnyvale-Santa Clara, CA	183	159	233	276	304	10.0	8.5	12.3	14.4	15.8
Seattle-Tacoma-Bellevue, WA	439	589	559	539	590	12.8	16.8	15.7	14.9	16.3
St. Louis, MO-IL	403	271	280	338	412	14.5	9.7	10.0	12.1	14.7
Tampa-St. Petersburg-Clearwater, FL	503	516	582	632	806	18.1	18.3	20.5	22.0	28.1
Virginia Beach-Norfolk-Newport News, VA-NC	237	212	296	302	220	14.1	12.6	17.4	17.7	12.9
Washington-Arlington-Alexandria, DC-VA-MD-WV	1,191	1,316	1,374	1,543	811	21.1	22.9	23.4	25.9	13.6
SELECTED MSAs TOTAL	**34,554**	**35,182**	**38,982**	**43,646**	**47,992**	**20.6**	**20.8**	**22.8**	**25.3**	**27.8**

* See Section A1.9 in the Appendix for definition.

† MSAs were selected on the basis of the largest population in the 2010 U.S. Census.

Table 26. Primary and Secondary Syphilis — Reported Cases and Rates of Reported Cases by State, Ranked by Rates, United States, 2014

Rank*	State	Cases	Rate per 100,000 Population
1	Nevada	357	12.8
2	Louisiana	575	12.4
3	Georgia	1,234	12.3
4	California	3,835	10.0
5	Florida	1,740	8.9
6	New York	1,727	8.8
7	Arizona	577	8.7
8	Maryland	449	7.6
9	North Carolina	733	7.4
10	Oregon	272	6.9
11	Rhode Island	71	6.8
12	Illinois	863	6.7
	U.S. TOTAL†	**19,999**	**6.3**
13	Mississippi	189	6.3
14	South Dakota	53	6.3
15	Texas	1,636	6.2
16	New Mexico	126	6.0
17	Missouri	352	5.8
18	South Carolina	250	5.2
19	Delaware	47	5.1
20	Washington	344	4.9
21	Ohio	568	4.9
22	Hawaii	68	4.8
23	Minnesota	257	4.7
24	Massachusetts	301	4.5
25	Michigan	421	4.3
26	Pennsylvania	532	4.2
27	Arkansas	121	4.1
28	Oklahoma	151	3.9
29	Tennessee	237	3.6
30	Kentucky	158	3.6
31	Colorado	186	3.5
32	Virginia	289	3.5
33	New Jersey	297	3.3
34	Alabama	161	3.3
35	New Hampshire	36	2.7
36	Nebraska	50	2.7
37	Indiana	168	2.6
38	Connecticut	86	2.4
39	Iowa	72	2.3
40	Kansas	60	2.1
41	Alaska	15	2.0
42	North Dakota	13	1.8
43	Utah	47	1.6
44	West Virginia	28	1.5
45	Wisconsin	86	1.5
46	Maine	16	1.2
47	Vermont	5	0.8
48	Montana	8	0.8
49	Idaho	12	0.7
50	Wyoming	4	0.7

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

† Total includes cases reported by the District of Columbia with 116 cases and a rate of 17.9, but excludes outlying areas (Guam with 7 cases and rate of 4.4, Puerto Rico with 484 cases and rate of 13.4, and Virgin Islands with 2 cases and rate of 1.9).

Table 27. Primary and Secondary Syphilis — Reported Cases and Rates of Reported Cases by State/Area and Region in Alphabetical Order, United States and Outlying Areas, 2010–2014

State/Area	Cases					Rates per 100,000 Population				
	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014
Alabama	260	228	216	183	161	5.4	4.7	4.5	3.8	3.3
Alaska	3	5	11	23	15	0.4	0.7	1.5	3.1	2.0
Arizona	230	274	202	287	577	3.6	4.2	3.1	4.3	8.7
Arkansas	205	182	173	177	121	7.0	6.2	5.9	6.0	4.1
California	2,065	2,443	2,953	3,532	3,835	5.5	6.5	7.8	9.2	10.0
Colorado	138	133	208	163	186	2.7	2.6	4.0	3.1	3.5
Connecticut	98	65	55	56	86	2.7	1.8	1.5	1.6	2.4
Delaware	9	27	38	52	47	1.0	3.0	4.1	5.6	5.1
District of Columbia	134	165	165	168	116	22.3	26.7	26.1	26.0	17.9
Florida	1,184	1,257	1,369	1,513	1,740	6.3	6.6	7.1	7.7	8.9
Georgia	795	678	937	1,017	1,234	8.2	6.9	9.4	10.2	12.3
Hawaii	35	14	23	46	68	2.6	1.0	1.7	3.3	4.8
Idaho	6	13	26	15	12	0.4	0.8	1.6	0.9	0.7
Illinois	908	881	804	798	863	7.1	6.8	6.2	6.2	6.7
Indiana	175	173	224	215	168	2.7	2.7	3.4	3.3	2.6
Iowa	19	20	70	106	72	0.6	0.7	2.3	3.4	2.3
Kansas	19	24	24	51	60	0.7	0.8	0.8	1.8	2.1
Kentucky	139	129	150	122	158	3.2	3.0	3.4	2.8	3.6
Louisiana	546	447	339	423	575	12.0	9.8	7.4	9.1	12.4
Maine	32	12	17	10	16	2.4	0.9	1.3	0.8	1.2
Maryland	328	452	431	456	449	5.7	7.8	7.3	7.7	7.6
Massachusetts	285	266	316	360	301	4.4	4.0	4.8	5.4	4.5
Michigan	235	286	295	487	421	2.4	2.9	3.0	4.9	4.3
Minnesota	149	139	118	193	257	2.8	2.6	2.2	3.6	4.7
Mississippi	228	191	150	78	189	7.7	6.4	5.0	2.6	6.3
Missouri	152	136	157	251	352	2.5	2.3	2.6	4.2	5.8
Montana	3	7	2	5	8	0.3	0.7	0.2	0.5	0.8
Nebraska	12	10	8	41	50	0.7	0.5	0.4	2.2	2.7
Nevada	130	136	113	205	357	4.8	5.0	4.1	7.3	12.8
New Hampshire	22	18	36	28	36	1.7	1.4	2.7	2.1	2.7
New Jersey	244	232	229	233	297	2.8	2.6	2.6	2.6	3.3
New Mexico	53	71	101	78	126	2.6	3.4	4.8	3.7	6.0
New York	1,098	1,083	1,224	1,459	1,727	5.7	5.6	6.3	7.4	8.8
North Carolina	396	431	347	404	733	4.2	4.5	3.6	4.1	7.4
North Dakota	3	1	4	12	13	0.4	0.1	0.6	1.7	1.8
Ohio	528	440	425	436	568	4.6	3.8	3.7	3.8	4.9
Oklahoma	92	84	83	118	151	2.5	2.2	2.2	3.1	3.9
Oregon	71	97	212	267	272	1.9	2.5	5.4	6.8	6.9
Pennsylvania	369	373	494	471	532	2.9	2.9	3.9	3.7	4.2
Rhode Island	41	46	44	45	71	3.9	4.4	4.2	4.3	6.8
South Carolina	155	221	225	271	250	3.4	4.7	4.8	5.7	5.2
South Dakota	4	0	18	44	53	0.5	0.0	2.2	5.2	6.3
Tennessee	277	278	266	214	237	4.4	4.3	4.1	3.3	3.6
Texas	1,230	1,169	1,627	1,475	1,636	4.9	4.6	6.2	5.6	6.2
Utah	65	14	42	74	47	2.4	0.5	1.5	2.6	1.6
Vermont	4	9	6	3	5	0.6	1.4	1.0	0.5	0.8
Virginia	279	213	285	315	289	3.5	2.6	3.5	3.8	3.5
Washington	266	328	302	284	344	4.0	4.8	4.4	4.1	4.9
West Virginia	6	4	8	15	28	0.3	0.2	0.4	0.8	1.5
Wisconsin	49	65	91	95	86	0.9	1.1	1.6	1.7	1.5
Wyoming	0	0	4	1	4	0.0	0.0	0.7	0.2	0.7
U.S. TOTAL	**13,774**	**13,970**	**15,667**	**17,375**	**19,999**	**4.5**	**4.5**	**5.0**	**5.5**	**6.3**
Northeast	2,193	2,104	2,421	2,665	3,071	4.0	3.8	4.3	4.8	5.5
Midwest	2,253	2,175	2,238	2,729	2,963	3.4	3.2	3.3	4.0	4.4
South	6,263	6,156	6,809	7,001	8,114	5.5	5.3	5.8	5.9	6.9
West	3,065	3,535	4,199	4,980	5,851	4.3	4.9	5.7	6.7	7.9
Guam	1	5	6	6	7	0.6	3.1	3.8	3.7	4.4
Puerto Rico	228	254	306	385	484	6.1	6.9	8.3	10.6	13.4
Virgin Islands	0	0	0	2	2	0.0	0.0	0.0	1.9	1.9
OUTLYING AREAS	**229**	**259**	**312**	**393**	**493**	**5.7**	**6.5**	**7.9**	**10.1**	**12.7**
TOTAL	**14,003**	**14,229**	**15,979**	**17,768**	**20,492**	**4.5**	**4.5**	**5.0**	**5.6**	**6.4**

Table 28. Primary and Secondary Syphilis Among Women — Reported Cases and Rates of Reported Cases by State/Area and Region in Alphabetical Order, United States and Outlying Areas, 2010–2014

State/Area	Cases					Rates per 100,000 Population				
	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014
Alabama	75	54	38	22	17	3.0	2.2	1.5	0.9	0.7
Alaska	0	1	1	2	1	0.0	0.3	0.3	0.6	0.3
Arizona	20	15	16	27	50	0.6	0.5	0.5	0.8	1.5
Arkansas	82	76	49	44	23	5.5	5.1	3.3	2.9	1.5
California	74	103	116	210	318	0.4	0.5	0.6	1.1	1.7
Colorado	2	4	3	4	6	0.1	0.2	0.1	0.2	0.2
Connecticut	5	5	9	8	7	0.3	0.3	0.5	0.4	0.4
Delaware	1	1	2	3	2	0.2	0.2	0.4	0.6	0.4
District of Columbia	2	7	6	19	5	0.6	2.1	1.8	5.6	1.5
Florida	147	134	134	137	137	1.5	1.4	1.4	1.4	1.4
Georgia	82	58	66	87	96	1.7	1.2	1.3	1.7	1.9
Hawaii	7	0	2	0	2	1.0	0.0	0.3	0.0	0.3
Idaho	0	1	2	0	0	0.0	0.1	0.3	0.0	0.0
Illinois	108	81	73	66	81	1.7	1.2	1.1	1.0	1.2
Indiana	20	13	22	18	11	0.6	0.4	0.7	0.5	0.3
Iowa	3	5	7	10	6	0.2	0.3	0.5	0.6	0.4
Kansas	1	0	2	4	14	0.1	0.0	0.1	0.3	1.0
Kentucky	8	19	13	17	22	0.4	0.9	0.6	0.8	1.0
Louisiana	251	179	127	115	132	10.8	7.7	5.4	4.9	5.6
Maine	0	0	2	1	3	0.0	0.0	0.3	0.1	0.4
Maryland	26	49	45	61	49	0.9	1.6	1.5	2.0	1.6
Massachusetts	16	23	15	17	23	0.5	0.7	0.4	0.5	0.7
Michigan	23	26	30	29	31	0.5	0.5	0.6	0.6	0.6
Minnesota	9	5	7	12	21	0.3	0.2	0.3	0.4	0.8
Mississippi	69	45	34	19	17	4.5	2.9	2.2	1.2	1.1
Missouri	3	6	12	19	34	0.1	0.2	0.4	0.6	1.1
Montana	0	1	0	1	2	0.0	0.2	0.0	0.2	0.4
Nebraska	3	1	1	4	4	0.3	0.1	0.1	0.4	0.4
Nevada	7	7	4	14	23	0.5	0.5	0.3	1.0	1.7
New Hampshire	1	1	0	1	4	0.1	0.1	0.0	0.1	0.6
New Jersey	16	13	19	13	16	0.4	0.3	0.4	0.3	0.4
New Mexico	3	2	9	20	14	0.3	0.2	0.9	1.9	1.3
New York	47	37	45	44	49	0.5	0.4	0.4	0.4	0.5
North Carolina	55	31	37	36	68	1.1	0.6	0.7	0.7	1.3
North Dakota	1	0	0	1	5	0.3	0.0	0.0	0.3	1.4
Ohio	132	107	85	63	76	2.2	1.8	1.4	1.1	1.3
Oklahoma	16	12	6	13	15	0.8	0.6	0.3	0.7	0.8
Oregon	1	0	6	12	22	0.1	0.0	0.3	0.6	1.1
Pennsylvania	36	34	34	26	47	0.6	0.5	0.5	0.4	0.7
Rhode Island	2	3	1	1	5	0.4	0.6	0.2	0.2	0.9
South Carolina	9	24	34	39	23	0.4	1.0	1.4	1.6	0.9
South Dakota	0	0	1	15	34	0.0	0.0	0.2	3.6	8.1
Tennessee	49	34	31	22	34	1.5	1.0	0.9	0.7	1.0
Texas	333	255	269	179	242	2.6	2.0	2.1	1.3	1.8
Utah	2	0	0	2	1	0.1	0.0	0.0	0.1	0.1
Vermont	2	0	0	0	0	0.6	0.0	0.0	0.0	0.0
Virginia	20	18	21	17	17	0.5	0.4	0.5	0.4	0.4
Washington	5	6	9	13	18	0.1	0.2	0.3	0.4	0.5
West Virginia	0	0	2	4	6	0.0	0.0	0.2	0.4	0.6
Wisconsin	6	5	11	9	7	0.2	0.2	0.4	0.3	0.2
Wyoming	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
U.S. TOTAL	**1,780**	**1,501**	**1,458**	**1,500**	**1,840**	**1.1**	**0.9**	**0.9**	**0.9**	**1.1**
Northeast	125	116	125	111	154	0.4	0.4	0.4	0.4	0.5
Midwest	309	249	251	250	324	0.9	0.7	0.7	0.7	0.9
South	1,225	996	914	834	905	2.1	1.7	1.5	1.4	1.5
West	121	140	168	305	457	0.3	0.4	0.5	0.8	1.2
Guam	1	2	1	5	2	1.3	2.5	1.3	6.3	2.5
Puerto Rico	18	17	20	35	30	0.9	0.9	1.0	1.9	1.6
Virgin Islands	0	0	0	1	1	0.0	0.0	0.0	1.8	1.8
OUTLYING AREAS	**19**	**19**	**21**	**41**	**33**	**0.9**	**0.9**	**1.0**	**2.0**	**1.6**
TOTAL	**1,799**	**1,520**	**1,479**	**1,541**	**1,873**	**1.1**	**0.9**	**0.9**	**0.9**	**1.2**

NOTE: Cases reported with unknown sex are not included in this table.

Table 29. Primary and Secondary Syphilis Among Men — Reported Cases and Rates of Reported Cases by State/Area and Region in Alphabetical Order, United States and Outlying Areas, 2010–2014

State/Area	Cases					Rates per 100,000 Population				
	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014
Alabama	185	174	178	161	144	8.0	7.5	7.6	6.9	6.1
Alaska	3	4	10	21	14	0.8	1.1	2.6	5.4	3.6
Arizona	210	257	186	260	527	6.6	8.0	5.7	7.9	16.0
Arkansas	123	106	124	133	98	8.6	7.3	8.6	9.1	6.7
California	1,990	2,327	2,823	3,319	3,515	10.7	12.4	14.9	17.4	18.4
Colorado	136	129	205	159	180	5.4	5.0	7.9	6.0	6.8
Connecticut	93	60	46	48	79	5.3	3.4	2.6	2.7	4.5
Delaware	8	26	36	49	45	1.8	5.9	8.1	10.9	10.0
District of Columbia	132	158	159	149	106	46.4	54.1	53.2	48.7	34.6
Florida	1,037	1,123	1,235	1,376	1,602	11.3	12.0	13.1	14.4	16.8
Georgia	713	620	870	930	1,138	15.1	12.9	17.9	19.1	23.3
Hawaii	28	14	21	46	66	4.1	2.0	3.0	6.5	9.3
Idaho	6	12	24	15	12	0.8	1.5	3.0	1.9	1.5
Illinois	800	800	731	731	782	12.7	12.7	11.6	11.6	12.4
Indiana	155	160	202	197	157	4.9	5.0	6.3	6.1	4.9
Iowa	16	15	63	96	66	1.1	1.0	4.1	6.3	4.3
Kansas	18	24	22	47	46	1.3	1.7	1.5	3.3	3.2
Kentucky	131	110	137	105	136	6.1	5.1	6.3	4.9	6.3
Louisiana	284	268	212	308	443	12.8	12.0	9.4	13.6	19.6
Maine	32	12	15	9	13	4.9	1.8	2.3	1.4	2.0
Maryland	302	403	386	395	400	10.8	14.3	13.5	13.7	13.9
Massachusetts	269	243	301	343	277	8.5	7.6	9.3	10.6	8.5
Michigan	212	260	265	458	390	4.4	5.4	5.5	9.4	8.0
Minnesota	140	134	111	178	235	5.3	5.0	4.2	6.6	8.7
Mississippi	159	146	116	59	172	11.0	10.1	8.0	4.1	11.8
Missouri	149	130	145	232	318	5.1	4.4	4.9	7.8	10.7
Montana	3	6	2	4	6	0.6	1.2	0.4	0.8	1.2
Nebraska	9	9	7	37	46	1.0	1.0	0.8	4.0	4.9
Nevada	123	129	109	191	334	9.0	9.4	7.8	13.6	23.8
New Hampshire	21	17	36	27	32	3.2	2.6	5.5	4.1	4.9
New Jersey	228	219	210	220	281	5.3	5.1	4.9	5.1	6.5
New Mexico	50	69	92	58	112	4.9	6.7	8.9	5.6	10.8
New York	1,051	1,045	1,175	1,408	1,675	11.2	11.1	12.4	14.8	17.6
North Carolina	341	400	310	368	665	7.3	8.5	6.5	7.7	13.9
North Dakota	2	1	4	11	8	0.6	0.3	1.1	3.0	2.2
Ohio	396	333	340	373	492	7.0	5.9	6.0	6.6	8.7
Oklahoma	76	72	77	105	136	4.1	3.8	4.1	5.5	7.1
Oregon	70	97	206	255	250	3.7	5.1	10.7	13.1	12.9
Pennsylvania	333	339	460	445	485	5.4	5.5	7.4	7.1	7.8
Rhode Island	39	43	43	44	66	7.7	8.5	8.5	8.6	13.0
South Carolina	146	197	191	232	227	6.5	8.7	8.3	10.0	9.8
South Dakota	4	0	17	29	19	1.0	0.0	4.1	6.8	4.5
Tennessee	228	244	235	192	203	7.4	7.8	7.5	6.1	6.4
Texas	896	914	1,358	1,296	1,394	7.2	7.2	10.5	9.9	10.6
Utah	63	14	42	72	46	4.5	1.0	2.9	4.9	3.2
Vermont	2	9	6	3	5	0.6	2.9	1.9	1.0	1.6
Virginia	259	195	264	298	272	6.6	4.9	6.6	7.3	6.7
Washington	261	322	293	271	326	7.8	9.4	8.5	7.8	9.4
West Virginia	6	4	6	11	22	0.7	0.4	0.7	1.2	2.4
Wisconsin	43	60	80	86	79	1.5	2.1	2.8	3.0	2.8
Wyoming	0	0	4	1	4	0.0	0.0	1.4	0.3	1.3
U.S. TOTAL	**11,981**	**12,453**	**14,190**	**15,861**	**18,146**	**7.9**	**8.1**	**9.2**	**10.2**	**11.7**
Northeast	2,068	1,987	2,292	2,547	2,913	7.7	7.4	8.4	9.3	10.7
Midwest	1,944	1,926	1,987	2,475	2,638	5.9	5.8	6.0	7.4	7.9
South	5,026	5,160	5,894	6,167	7,203	9.0	9.1	10.2	10.6	12.4
West	2,943	3,380	4,017	4,672	5,392	8.2	9.3	10.9	12.6	14.6
Guam	0	3	5	1	5	0.0	3.7	6.2	1.2	6.1
Puerto Rico	210	237	286	350	454	11.8	13.4	16.3	20.2	26.3
Virgin Islands	0	0	0	1	1	0.0	0.0	0.0	2.0	2.0
OUTLYING AREAS	**210**	**240**	**291**	**352**	**460**	**11.0**	**12.6**	**15.4**	**18.9**	**24.7**
TOTAL	**12,191**	**12,693**	**14,481**	**16,213**	**18,606**	**7.9**	**8.2**	**9.3**	**10.3**	**11.8**

NOTE: Cases reported with unknown sex are not included in this table.

Table 30. Primary and Secondary Syphilis — Reported Cases and Rates of Reported Cases in Selected Metropolitan Statistical Areas (MSAs)* in Alphabetical Order, United States, 2010–2014

MSAs	Cases					Rates per 100,000 Population				
	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014
Atlanta-Sandy Springs-Roswell, GA	651	581	745	789	996	12.3	10.8	13.7	14.3	18.0
Austin-Round Rock, TX	107	114	154	145	227	6.2	6.4	8.4	7.7	12.1
Baltimore-Columbia-Towson, MD	212	308	307	288	282	7.8	11.3	11.2	10.4	10.2
Birmingham-Hoover, AL	82	89	73	69	58	7.3	7.9	6.4	6.1	5.1
Boston-Cambridge-Newton, MA-NH	240	191	204	268	227	5.3	4.2	4.4	5.7	4.8
Buffalo-Cheektowaga-Niagara Falls, NY	11	14	27	38	49	1.0	1.2	2.4	3.4	4.3
Charlotte-Concord-Gastonia, NC-SC	116	152	116	134	220	5.2	6.7	5.1	5.7	9.4
Chicago-Naperville-Elgin, IL-IN-WI	881	853	759	763	811	9.3	9.0	8.0	8.0	8.5
Cincinnati, OH-KY-IN	272	228	166	166	153	12.9	10.7	7.8	7.8	7.2
Cleveland-Elyria, OH	82	55	44	32	80	3.9	2.7	2.1	1.5	3.9
Columbus, OH	123	122	159	167	250	6.5	6.3	8.2	8.5	12.7
Dallas-Fort Worth-Arlington, TX	342	317	391	445	508	5.3	4.8	5.8	6.5	7.5
Denver-Aurora-Lakewood, CO	120	116	183	135	153	4.7	4.5	6.9	5.0	5.7
Detroit-Warren-Dearborn, MI	146	203	235	394	317	3.4	4.7	5.5	9.2	7.4
Hartford-West Hartford-East Hartford, CT	32	15	9	14	26	2.6	1.2	0.7	1.2	2.1
Houston-The Woodlands-Sugar Land, TX	330	322	537	363	414	5.6	5.3	8.7	5.7	6.6
Indianapolis-Carmel-Anderson, IN	109	91	150	146	109	5.8	4.8	7.8	7.5	5.6
Jacksonville, FL	49	47	44	40	69	3.6	3.5	3.2	2.9	4.9
Kansas City, MO-KS	43	57	65	155	220	2.1	2.8	3.2	7.5	10.7
Las Vegas-Henderson-Paradise, NV	125	126	97	164	318	6.4	6.4	4.8	8.1	15.7
Los Angeles-Long Beach-Anaheim, CA	766	876	1,049	1,299	1,407	6.0	6.8	8.0	9.9	10.7
Louisville/Jefferson County, KY-IN	104	92	81	71	83	8.4	7.4	6.5	5.6	6.6
Memphis, TN-MS-AR	166	120	110	105	94	12.5	9.0	8.2	7.8	7.0
Miami-Fort Lauderdale-West Palm Beach, FL	652	630	705	762	821	11.7	11.1	12.2	13.1	14.1
Milwaukee-Waukesha-West Allis, WI	29	35	43	54	52	1.9	2.2	2.7	3.4	3.3
Minneapolis-St. Paul-Bloomington, MN-WI	140	127	116	181	243	4.2	3.7	3.4	5.2	7.0
Nashville-Davidson--Murfreesboro--Franklin, TN	76	85	88	57	74	4.5	5.0	5.1	3.2	4.2
New Orleans-Metairie, LA	93	101	66	103	221	7.8	8.3	5.4	8.3	17.8
New York-Newark-Jersey City, NY-NJ-PA	1,228	1,169	1,315	1,491	1,721	6.3	5.9	6.6	7.5	8.6
Oklahoma City, OK	55	39	54	78	91	4.4	3.1	4.2	5.9	6.9
Orlando-Kissimmee-Sanford, FL	103	174	168	201	239	4.8	8.0	7.6	8.9	10.5
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	307	302	369	396	446	5.1	5.0	6.1	6.6	7.4
Phoenix-Mesa-Scottsdale, AZ	161	213	162	219	416	3.8	5.0	3.7	5.0	9.5
Pittsburgh, PA	36	49	61	39	78	1.5	2.1	2.6	1.7	3.3
Portland-Vancouver-Hillsboro, OR-WA	66	90	209	240	206	3.0	4.0	9.1	10.4	8.9
Providence-Warwick, RI-MA	47	55	58	65	93	2.9	3.4	3.6	4.1	5.8
Raleigh, NC	44	47	56	70	129	3.9	4.0	4.7	5.8	10.6
Richmond, VA	88	50	64	70	68	7.3	4.1	5.2	5.6	5.5
Riverside-San Bernardino-Ontario, CA	157	182	166	203	288	3.7	4.2	3.8	4.6	6.6
Sacramento--Roseville--Arden-Arcade, CA	57	131	151	147	162	2.7	6.0	6.9	6.6	7.3
Salt Lake City, UT	54	9	34	65	39	5.0	0.8	3.0	5.7	3.4
San Antonio-New Braunfels, TX	183	188	329	310	247	8.5	8.6	14.7	13.6	10.8
San Diego-Carlsbad, CA	274	293	331	333	371	8.9	9.3	10.4	10.4	11.6
San Francisco-Oakland-Hayward, CA	543	626	744	814	767	12.5	14.3	16.7	18.0	17.0
San Jose-Sunnyvale-Santa Clara, CA	91	68	105	146	120	5.0	3.6	5.5	7.6	6.3
Seattle-Tacoma-Bellevue, WA	236	276	248	211	235	6.9	7.9	7.0	5.8	6.5
St. Louis, MO-IL	118	92	95	108	153	4.2	3.3	3.4	3.9	5.5
Tampa-St. Petersburg-Clearwater, FL	183	199	230	226	320	6.6	7.0	8.1	7.9	11.1
Virginia Beach-Norfolk-Newport News, VA-NC	92	64	106	102	85	5.5	3.8	6.2	6.0	5.0
Washington-Arlington-Alexandria, DC-VA-MD-WV	311	360	358	418	226	5.5	6.3	6.1	7.0	3.8
SELECTED MSAs TOTAL	**10,533**	**10,743**	**12,136**	**13,299**	**14,982**	**6.3**	**6.3**	**7.1**	**7.7**	**8.7**

* MSAs were selected on the basis of the largest population in the 2010 U.S. Census.

Table 31. Primary and Secondary Syphilis Among Women — Reported Cases and Rates of Reported Cases in Selected Metropolitan Statistical Areas (MSAs)* in Alphabetical Order, United States, 2010–2014

MSAs	Cases					Rates per 100,000 Population				
	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014
Atlanta-Sandy Springs-Roswell, GA	44	40	33	52	58	1.6	1.5	1.2	1.8	2.0
Austin-Round Rock, TX	18	12	8	6	14	2.1	1.3	0.9	0.6	1.5
Baltimore-Columbia-Towson, MD	19	39	39	46	42	1.4	2.8	2.7	3.2	2.9
Birmingham-Hoover, AL	21	10	7	5	5	3.6	1.7	1.2	0.8	0.8
Boston-Cambridge-Newton, MA-NH	12	14	5	10	14	0.5	0.6	0.2	0.4	0.6
Buffalo-Cheektowaga-Niagara Falls, NY	0	2	1	2	1	0.0	0.3	0.2	0.3	0.2
Charlotte-Concord-Gastonia, NC-SC	6	14	15	6	6	0.5	1.2	1.3	0.5	0.5
Chicago-Naperville-Elgin, IL-IN-WI	107	77	77	65	76	2.2	1.6	1.6	1.3	1.6
Cincinnati, OH-KY-IN	107	99	63	31	33	9.9	9.1	5.8	2.8	3.0
Cleveland-Elyria, OH	6	3	5	2	5	0.6	0.3	0.5	0.2	0.5
Columbus, OH	13	10	14	18	34	1.3	1.0	1.4	1.8	3.4
Dallas-Fort Worth-Arlington, TX	103	63	56	41	63	3.2	1.9	1.6	1.2	1.8
Denver-Aurora-Lakewood, CO	0	1	3	3	4	0.0	0.1	0.2	0.2	0.3
Detroit-Warren-Dearborn, MI	9	20	27	25	23	0.4	0.9	1.2	1.1	1.0
Hartford-West Hartford-East Hartford, CT	3	2	3	0	2	0.5	0.3	0.5	0.0	0.3
Houston-The Woodlands-Sugar Land, TX	77	69	97	59	64	2.6	2.3	3.1	1.9	2.0
Indianapolis-Carmel-Anderson, IN	12	5	10	9	5	1.2	0.5	1.0	0.9	0.5
Jacksonville, FL	11	11	4	5	9	1.6	1.6	0.6	0.7	1.3
Kansas City, MO-KS	1	4	1	9	23	0.1	0.4	0.1	0.9	2.2
Las Vegas-Henderson-Paradise, NV	6	4	2	6	17	0.6	0.4	0.2	0.6	1.7
Los Angeles-Long Beach-Anaheim, CA	17	16	26	50	67	0.3	0.2	0.4	0.8	1.0
Louisville/Jefferson County, KY-IN	4	7	9	11	14	0.6	1.1	1.4	1.7	2.2
Memphis, TN-MS-AR	33	22	22	17	22	4.8	3.2	3.2	2.4	3.2
Miami-Fort Lauderdale-West Palm Beach, FL	55	47	63	65	44	1.9	1.6	2.1	2.2	1.5
Milwaukee-Waukesha-West Allis, WI	5	5	5	5	6	0.6	0.6	0.6	0.6	0.7
Minneapolis-St. Paul-Bloomington, MN-WI	5	5	7	9	19	0.3	0.3	0.4	0.5	1.1
Nashville-Davidson--Murfreesboro--Franklin, TN	11	3	1	4	5	1.3	0.3	0.1	0.4	0.6
New Orleans-Metairie, LA	31	17	9	10	18	5.1	2.7	1.4	1.6	2.8
New York-Newark-Jersey City, NY-NJ-PA	53	39	57	46	52	0.5	0.4	0.6	0.4	0.5
Oklahoma City, OK	12	6	1	5	7	1.9	0.9	0.2	0.7	1.0
Orlando-Kissimmee-Sanford, FL	7	10	15	9	8	0.6	0.9	1.3	0.8	0.7
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	33	28	30	24	39	1.1	0.9	1.0	0.8	1.3
Phoenix-Mesa-Scottsdale, AZ	12	9	14	22	42	0.6	0.4	0.6	1.0	1.9
Pittsburgh, PA	2	4	5	2	6	0.2	0.3	0.4	0.2	0.5
Portland-Vancouver-Hillsboro, OR-WA	2	0	9	9	9	0.2	0.0	0.8	0.8	0.8
Providence-Warwick, RI-MA	3	3	1	3	8	0.4	0.4	0.1	0.4	1.0
Raleigh, NC	5	1	5	9	6	0.9	0.2	0.8	1.4	1.0
Richmond, VA	6	10	10	4	2	1.0	1.6	1.6	0.6	0.3
Riverside-San Bernardino-Ontario, CA	1	8	3	7	15	0.0	0.4	0.1	0.3	0.7
Sacramento--Roseville--Arden-Arcade, CA	12	7	5	10	11	1.1	0.6	0.4	0.9	1.0
Salt Lake City, UT	0	0	0	1	1	0.0	0.0	0.0	0.2	0.2
San Antonio-New Braunfels, TX	28	39	59	44	47	2.6	3.5	5.2	3.8	4.1
San Diego-Carlsbad, CA	3	13	12	10	20	0.2	0.8	0.8	0.6	1.3
San Francisco-Oakland-Hayward, CA	20	27	28	40	34	0.9	1.2	1.2	1.7	1.5
San Jose-Sunnyvale-Santa Clara, CA	3	4	3	9	12	0.3	0.4	0.3	0.9	1.3
Seattle-Tacoma-Bellevue, WA	2	3	6	10	10	0.1	0.2	0.3	0.6	0.6
St. Louis, MO-IL	3	3	9	6	17	0.2	0.2	0.6	0.4	1.2
Tampa-St. Petersburg-Clearwater, FL	33	26	29	31	41	2.3	1.8	2.0	2.1	2.8
Virginia Beach-Norfolk-Newport News, VA-NC	3	7	5	5	8	0.4	0.8	0.6	0.6	0.9
Washington-Arlington-Alexandria, DC-VA-MD-WV	13	16	15	35	7	0.4	0.5	0.5	1.2	0.2
SELECTED MSAs TOTAL	**992**	**884**	**933**	**912**	**1,095**	**1.2**	**1.0**	**1.1**	**1.0**	**1.2**

* MSAs were selected on the basis of the largest population in the 2010 U.S. Census.
NOTE: Cases reported with unknown sex are not included in this table.

Table 32. Primary and Secondary Syphilis Among Men — Reported Cases and Rates of Reported Cases in Selected Metropolitan Statistical Areas (MSAs)* in Alphabetical Order, United States, 2010–2014

MSAs	Cases					Rates per 100,000 Population				
	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014
Atlanta-Sandy Springs-Roswell, GA	607	541	712	737	938	23.6	20.6	26.8	27.5	35.0
Austin-Round Rock, TX	89	102	146	139	213	10.3	11.4	15.9	14.7	22.6
Baltimore-Columbia-Towson, MD	193	269	268	242	240	14.8	20.5	20.2	18.1	18.0
Birmingham-Hoover, AL	61	79	66	64	53	11.2	14.5	12.1	11.6	9.6
Boston-Cambridge-Newton, MA-NH	228	177	199	258	213	10.4	8.0	8.8	11.4	9.4
Buffalo-Cheektowaga-Niagara Falls, NY	11	12	26	36	48	2.0	2.2	4.7	6.6	8.7
Charlotte-Concord-Gastonia, NC-SC	110	138	101	128	214	10.2	12.6	9.0	11.3	18.9
Chicago-Naperville-Elgin, IL-IN-WI	774	776	682	697	735	16.7	16.7	14.6	14.9	15.7
Cincinnati, OH-KY-IN	165	129	103	135	120	16.0	12.4	9.9	12.9	11.5
Cleveland-Elyria, OH	76	52	39	30	75	7.6	5.2	3.9	3.0	7.5
Columbus, OH	110	112	145	149	216	11.8	11.8	15.2	15.4	22.3
Dallas-Fort Worth-Arlington, TX	239	254	335	404	445	7.5	7.8	10.1	12.0	13.3
Denver-Aurora-Lakewood, CO	120	115	180	132	149	9.5	8.9	13.7	9.8	11.1
Detroit-Warren-Dearborn, MI	137	183	208	369	294	6.6	8.8	10.0	17.7	14.1
Hartford-West Hartford-East Hartford, CT	29	13	6	14	24	4.9	2.2	1.0	2.4	4.1
Houston-The Woodlands-Sugar Land, TX	253	253	440	304	350	8.6	8.4	14.3	9.7	11.1
Indianapolis-Carmel-Anderson, IN	97	86	140	137	104	10.5	9.2	14.8	14.3	10.9
Jacksonville, FL	38	36	40	35	60	5.8	5.4	6.0	5.2	8.8
Kansas City, MO-KS	42	53	64	146	197	4.3	5.3	6.4	14.5	19.5
Las Vegas-Henderson-Paradise, NV	119	122	95	158	301	12.1	12.3	9.4	15.5	29.6
Los Angeles-Long Beach-Anaheim, CA	749	858	1,019	1,248	1,340	11.8	13.4	15.8	19.2	20.7
Louisville/Jefferson County, KY-IN	100	85	72	60	69	16.6	14.0	11.8	9.7	11.2
Memphis, TN-MS-AR	133	98	88	88	72	20.9	15.3	13.7	13.7	11.2
Miami-Fort Lauderdale-West Palm Beach, FL	597	583	642	697	777	22.2	21.2	23.0	24.6	27.5
Milwaukee-Waukesha-West Allis, WI	24	30	38	49	46	3.2	3.9	5.0	6.4	6.0
Minneapolis-St. Paul-Bloomington, MN-WI	135	122	109	169	223	8.2	7.3	6.4	9.9	13.0
Nashville-Davidson--Murfreesboro--Franklin, TN	65	82	87	53	69	8.0	9.9	10.3	6.2	8.0
New Orleans-Metairie, LA	55	84	57	93	203	9.5	14.2	9.6	15.4	33.7
New York-Newark-Jersey City, NY-NJ-PA	1,175	1,129	1,254	1,438	1,666	12.5	11.9	13.1	14.9	17.3
Oklahoma City, OK	43	33	53	73	84	7.0	5.2	8.3	11.2	12.9
Orlando-Kissimmee-Sanford, FL	96	164	153	192	231	9.2	15.4	14.1	17.3	20.8
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	274	274	339	372	407	9.5	9.5	11.7	12.8	14.0
Phoenix-Mesa-Scottsdale, AZ	149	202	148	197	374	7.1	9.5	6.9	9.0	17.1
Pittsburgh, PA	34	45	56	37	72	3.0	3.9	4.9	3.2	6.3
Portland-Vancouver-Hillsboro, OR-WA	64	90	200	231	197	5.8	8.0	17.7	20.2	17.2
Providence-Warwick, RI-MA	44	52	57	62	84	5.7	6.7	7.4	8.0	10.8
Raleigh, NC	39	46	51	61	123	7.1	8.1	8.8	10.3	20.7
Richmond, VA	82	40	54	66	66	14.0	6.8	9.1	11.0	11.0
Riverside-San Bernardino-Ontario, CA	156	171	163	196	273	7.4	8.0	7.5	9.0	12.5
Sacramento--Roseville--Arden-Arcade, CA	45	122	144	137	151	4.3	11.4	13.4	12.6	13.9
Salt Lake City, UT	54	9	34	64	38	9.9	1.6	6.0	11.2	6.6
San Antonio-New Braunfels, TX	155	149	270	266	200	14.7	13.8	24.5	23.7	17.8
San Diego-Carlsbad, CA	271	279	318	323	351	17.4	17.7	19.9	20.0	21.7
San Francisco-Oakland-Hayward, CA	523	596	713	773	731	24.5	27.5	32.4	34.7	32.8
San Jose-Sunnyvale-Santa Clara, CA	88	64	102	137	108	9.5	6.8	10.7	14.2	11.2
Seattle-Tacoma-Bellevue, WA	234	273	242	201	225	13.7	15.6	13.7	11.2	12.5
St. Louis, MO-IL	115	89	86	102	136	8.5	6.6	6.4	7.5	10.0
Tampa-St. Petersburg-Clearwater, FL	150	173	201	195	278	11.1	12.6	14.6	14.0	20.0
Virginia Beach-Norfolk-Newport News, VA-NC	89	57	101	97	77	10.8	6.9	12.1	11.5	9.2
Washington-Arlington-Alexandria, DC-VA-MD-WV	298	344	343	383	219	10.9	12.3	12.0	13.2	7.5
SELECTED MSAs TOTAL	**9,534**	**9,845**	**11,189**	**12,374**	**13,879**	**11.6**	**11.9**	**13.3**	**14.6**	**16.4**

* MSAs were selected on the basis of the largest population in the 2010 U.S. Census.
NOTE: Cases reported with unknown sex are not included in this table.

Table 33. Primary and Secondary Syphilis — Reported Cases and Rates of Reported Cases in Counties and Independent Cities* Ranked by Number of Reported Cases, United States, 2014

Rank†	County/Independent City	Cases	Rate per 100,000 Population	Cumulative Percentage
1	Los Angeles County, CA	1,204	12.0	6
2	Cook County, IL	724	13.8	9
3	New York County, NY	497	30.6	12
4	San Francisco County, CA	470	56.1	14
5	Miami-Dade County, FL	434	16.6	16
6	Fulton County, GA	429	43.6	18
7	Maricopa County, AZ	412	10.3	20
8	San Diego County, CA	371	11.6	22
9	Harris County, TX	366	8.4	24
10	Kings County, NY	348	13.4	26
11	Broward County, FL	323	17.6	27
12	Clark County, NV	318	15.7	29
13	Philadelphia County, PA	308	19.8	31
14	Dallas County, TX	299	12.1	32
15	Bronx County, NY	283	19.9	33
16	DeKalb County, GA	242	33.9	35
17	Franklin County, OH	232	19.1	36
18	Bexar County, TX	227	12.5	37
19	Hillsborough County, FL	218	16.9	38
20	Wayne County, MI	213	12.0	39
21	Orange County, CA	203	6.5	40
22	Travis County, TX	193	17.2	41
23	Baltimore (City), MD	192	30.9	42
24	Riverside County, CA	188	8.2	43
25	Orange County, FL	186	15.2	44
26	Queens County, NY	185	8.1	45
27	Mecklenburg County, NC	181	18.3	46
28	King County, WA	176	8.6	47
29	Jackson County, MO	173	25.4	47
30	Hennepin County, MN	167	13.9	48
31	Tarrant County, TX	164	8.6	49
32	Orleans Parish, LA	148	39.1	50
33	Alameda County, CA	145	9.2	51
34	Pima County, AZ	144	14.4	51
35	Multnomah County, OR	140	18.3	52
36	Kern County, CA	140	16.2	53
37	Sacramento County, CA	137	9.4	53
38	Hamilton County, OH	121	15.0	54
39	Santa Clara County, CA	119	6.4	55
40	Fresno County, CA	118	12.4	55
41	Wake County, NC	115	11.8	56
42	Prince George's County, MD	111	12.5	56
43	San Bernardino County, CA	100	4.8	57
44	Gwinnett County, GA	96	11.2	57
45	Marion County, IN	96	10.3	58
46	Denver County, CO	90	13.9	58
47	San Joaquin County, CA	88	12.5	59
48	Suffolk County, MA	86	11.4	59
49	Cobb County, GA	84	11.7	60
50	Contra Costa County, CA	83	7.6	60
51	St. Louis (City), MO	82	25.8	60
52	Clayton County, GA	80	30.3	61
53	Pinellas County, FL	79	8.5	61
54	Shelby County, TN	78	8.3	62
55	Oklahoma County, OK	77	10.2	62
56	Richland County, SC	76	19.0	62
57	Jefferson County, KY	74	9.8	63
58	Caddo Parish, LA	73	28.6	63
59	East Baton Rouge Parish, LA	73	16.4	63
60	Hudson County, NJ	72	10.9	64
61	Oakland County, MI	72	5.8	64
62	Cuyahoga County, OH	72	5.7	64
63	Allegheny County, PA	68	5.5	65
64	Middlesex County, MA	67	4.3	65
65	Bernalillo County, NM	66	9.8	65
66	Stanislaus County, CA	65	12.4	66
67	Duval County, FL	65	7.3	66
68	Palm Beach County, FL	64	4.7	66
69	Cumberland County, NC	59	18.1	67
70	Davidson County, TN	58	8.8	67

* Accounting for 67% of reported primary and secondary syphilis cases.

† Counties and independent cities were ranked in descending order by number of cases reported then by rate in 2014.

Table 34. Primary and Secondary Syphilis Among Men and Women — Reported Cases and Rates of Reported Cases per 100,000 population, and Male-To-Female Rate Ratios in the Counties and Independent Cities Ranked in the Top 30 for Cases in 2014, United States, 2013–2014

	Male				Female				Male-to-Female Rate Ratio	
	2013		2014		2013		2014			
County/Independent City*	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates	2013	2014
Maricopa County, AZ	191	9.6	371	18.7	21	1.0	41	2.0	9.6	9.4
Los Angeles County, CA	1,055	21.3	1,151	23.3	40	0.8	53	1.0	26.6	23.3
Orange County, CA	193	12.5	189	12.3	10	0.6	14	0.9	20.8	13.7
Riverside County, CA	126	11.0	182	15.9	2	0.2	6	0.5	55.0	31.8
San Diego County, CA	323	20.0	351	21.7	10	0.6	20	1.3	33.3	16.7
San Francisco County, CA	489	115	464	109	13	3.2	4	1.0	35.8	109
Broward County, FL	242	27.1	310	34.7	23	2.4	13	1.4	11.3	24.8
Hillsborough County, FL	137	21.8	187	29.7	26	3.9	30	4.5	5.6	6.6
Miami-Dade County, FL	382	30.0	410	32.2	31	2.3	24	1.8	13.0	17.9
Orange County, FL	141	23.4	180	29.8	6	1.0	6	1.0	23.4	29.8
DeKalb County, GA	186	54.6	229	67.2	12	3.2	13	3.5	17.1	19.2
Fulton County, GA	358	74.7	408	85.2	21	4.2	21	4.2	17.8	20.3
Cook County, IL	635	25.0	654	25.7	58	2.1	70	2.6	11.9	9.9
Baltimore (City), MD	177	60.3	162	55.2	34	10.3	30	9.1	5.9	6.1
Wayne County, MI	267	31.3	194	22.7	19	2.1	19	2.1	14.9	10.8
Hennepin County, MN	125	21.2	152	25.8	6	1.0	14	2.3	21.2	11.2
Jackson County, MO	105	31.9	157	47.7	7	2.0	16	4.6	16.0	10.4
Clark County, NV	158	15.5	301	29.6	6	0.6	17	1.7	25.8	17.4
Bronx County, NY	226	33.8	270	40.4	8	1.1	11	1.5	30.7	26.9
Kings County, NY	278	22.6	339	27.6	5	0.4	9	0.7	56.5	39.4
New York County, NY	477	62.1	491	63.9	7	0.8	6	0.7	77.6	91.3
Queens County, NY	139	12.5	179	16.1	6	0.5	6	0.5	25.0	32.2
Mecklenburg County, NC	103	21.6	178	37.3	5	1.0	3	0.6	21.6	62.2
Franklin County, OH	141	23.9	201	34.0	15	2.4	31	5.0	10.0	6.8
Philadelphia County, PA	262	35.7	279	38.0	16	2.0	29	3.5	17.9	10.9
Bexar County, TX	251	28.0	182	20.3	42	4.6	45	4.9	6.1	4.1
Dallas County, TX	222	18.1	267	21.8	22	1.8	32	2.6	10.1	8.4
Harris County, TX	269	12.4	311	14.4	50	2.3	55	2.5	5.4	5.8
Travis County, TX	122	21.6	183	32.3	6	1.1	10	1.8	19.6	17.9
King County, WA	165	16.2	168	16.4	6	0.6	8	0.8	27.0	20.5

* Counties and independent cities are in alphabetical order by state.

Table 35. Primary and Secondary Syphilis — Reported Cases and Rates of Reported Cases by Age Group and Sex, United States, 2010–2014

	Age Group	Cases				Rates*		
		Total	Male	Female	Unknown Sex	Total	Male	Female
2010	0–4	1	0	1	0	0.0	0.0	0.0
	5–9	0	0	0	0	0.0	0.0	0.0
	10–14	18	7	11	0	0.1	0.1	0.1
	15–19	932	617	313	2	4.2	5.5	2.9
	20–24	2,907	2,429	474	4	13.5	22.1	4.5
	25–29	2,455	2,131	322	2	11.6	20.0	3.1
	30–34	1,794	1,597	197	0	9.0	16.0	2.0
	35–39	1,454	1,313	140	1	7.2	13.1	1.4
	40–44	1,553	1,448	104	1	7.4	13.9	1.0
	45–54	2,056	1,877	176	3	4.6	8.5	0.8
	55–64	493	457	36	0	1.4	2.6	0.2
	65+	107	102	5	0	0.3	0.6	0.0
	Unknown Age	4	3	1	0			
	TOTAL	**13,774**	**11,981**	**1,780**	**13**	**4.5**	**7.9**	**1.1**
2011	0–4	9	5	4	0	0.0	0.0	0.0
	5–9	1	1	0	0	0.0	0.0	0.0
	10–14	15	6	9	0	0.1	0.1	0.1
	15–19	864	606	258	0	4.0	5.5	2.5
	20–24	2,987	2,582	403	2	13.5	22.8	3.7
	25–29	2,546	2,277	268	1	12.0	21.2	2.5
	30–34	1,846	1,657	187	2	9.0	16.1	1.8
	35–39	1,382	1,265	115	2	7.1	13.0	1.2
	40–44	1,503	1,408	91	4	7.1	13.5	0.9
	45–54	2,123	1,999	120	4	4.7	9.1	0.5
	55–64	554	510	43	1	1.5	2.8	0.2
	65+	138	135	3	0	0.3	0.8	0.0
	Unknown Age	2	2	0	0			
	TOTAL	**13,970**	**12,453**	**1,501**	**16**	**4.5**	**8.1**	**0.9**
2012	0–4	1	1	0	0	0.0	0.0	0.0
	5–9	0	0	0	0	0.0	0.0	0.0
	10–14	9	5	4	0	0.0	0.0	0.0
	15–19	880	640	238	2	4.1	5.8	2.3
	20–24	3,280	2,859	418	3	14.5	24.8	3.8
	25–29	2,911	2,641	266	4	13.6	24.4	2.5
	30–34	2,209	2,023	182	4	10.6	19.3	1.7
	35–39	1,563	1,443	120	0	8.0	14.9	1.2
	40–44	1,618	1,544	70	4	7.7	14.8	0.7
	45–54	2,439	2,310	128	1	5.5	10.6	0.6
	55–64	614	586	27	1	1.6	3.2	0.1
	65+	123	121	2	0	0.3	0.6	0.0
	Unknown Age	20	17	3	0			
	TOTAL	**15,667**	**14,190**	**1,458**	**19**	**5.0**	**9.2**	**0.9**
2013	0–4	5	2	3	0	0.0	0.0	0.0
	5–9	0	0	0	0	0.0	0.0	0.0
	10–14	23	14	9	0	0.1	0.1	0.1
	15–19	900	700	200	0	4.3	6.5	1.9
	20–24	3,642	3,204	435	3	16.0	27.4	3.9
	25–29	3,329	3,037	286	6	15.4	27.7	2.7
	30–34	2,447	2,272	172	3	11.5	21.3	1.6
	35–39	1,800	1,674	125	1	9.2	17.1	1.3
	40–44	1,693	1,587	105	1	8.1	15.3	1.0
	45–54	2,614	2,495	119	0	6.0	11.6	0.5
	55–64	750	716	34	0	1.9	3.8	0.2
	65+	162	152	10	0	0.4	0.8	0.0
	Unknown Age	10	8	2	0			
	TOTAL	**17,375**	**15,861**	**1,500**	**14**	**5.5**	**10.2**	**0.9**
2014	0–4	0	0	0	0	0.0	0.0	0.0
	5–9	0	0	0	0	0.0	0.0	0.0
	10–14	12	4	8	0	0.1	0.0	0.1
	15–19	1,023	761	262	0	4.8	7.0	2.5
	20–24	4,137	3,632	503	2	18.1	31.1	4.5
	25–29	4,092	3,727	361	4	19.0	34.0	3.4
	30–34	2,887	2,635	248	4	13.6	24.7	2.3
	35–39	2,045	1,868	177	0	10.4	19.1	1.8
	40–44	1,758	1,654	103	1	8.4	16.0	1.0
	45–54	2,966	2,830	135	1	6.8	13.1	0.6
	55–64	897	860	36	1	2.3	4.5	0.2
	65+	176	169	7	0	0.4	0.9	0.0
	Unknown Age	6	6	0	0			
	TOTAL	**19,999**	**18,146**	**1,840**	**13**	**6.3**	**11.7**	**1.1**

* No population data are available for unknown sex and age; therefore, rates are not calculated.
NOTE: This table should be used only for age comparisons.
Cases in the 0–4 and 5–9 age groups may include cases due to congenital transmission.

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Table 36A. Primary and Secondary Syphilis — Reported Cases by Race/Ethnicity, Age Group, and Sex, United States*, 2014

Age Group	American Indians/ Alaska Natives			Asians			Blacks, Non-Hispanic		
	Total†	Male	Female	Total†	Male	Female	Total†	Male	Female
0–4	0	0	0	0	0	0	0	0	0
5–9	0	0	0	0	0	0	0	0	0
10–14	0	0	0	0	0	0	7	2	5
15–19	20	8	12	8	8	0	532	375	157
20–24	32	23	9	84	82	2	2,066	1,756	309
25–29	35	25	10	101	98	3	1,798	1,628	169
30–34	29	24	5	67	66	1	1,036	918	116
35–39	22	12	10	59	56	3	579	512	67
40–44	14	12	2	48	46	2	431	394	37
45–54	15	9	6	51	49	2	584	531	53
55–64	1	1	0	10	9	1	189	177	12
65+	0	0	0	2	2	0	28	28	0
Unknown Age	0	0	0	0	0	0	3	3	0
TOTAL	**168**	**114**	**54**	**430**	**416**	**14**	**7,253**	**6,324**	**925**

Age Group	Native Hawaiians/ Other Pacific Islanders			Whites, Non-Hispanic			Multirace		
	Total†	Male	Female	Total†	Male	Female	Total†	Male	Female
0–4	0	0	0	0	0	0	0	0	0
5–9	0	0	0	0	0	0	0	0	0
10–14	0	0	0	0	0	0	1	0	1
15–19	2	2	0	158	115	43	11	10	1
20–24	11	11	0	904	811	93	56	53	3
25–29	6	5	1	1,052	958	94	53	50	3
30–34	7	7	0	934	865	69	56	52	4
35–39	2	2	0	742	688	54	43	41	2
40–44	2	2	0	771	733	38	29	29	0
45–54	2	2	0	1,584	1,537	47	31	30	1
55–64	1	0	1	542	530	11	12	11	1
65+	0	0	0	111	106	5	0	0	0
Unknown Age	0	0	0	2	2	0	0	0	0
TOTAL	**33**	**31**	**2**	**6,800**	**6,345**	**454**	**292**	**276**	**16**

Age Group	Hispanics			Other/Unknown		
	Total†	Male	Female	Total†	Male	Female
0–4	0	0	0	0	0	0
5–9	0	0	0	0	0	0
10–14	3	2	1	1	0	1
15–19	240	202	38	45	36	9
20–24	844	772	72	126	110	15
25–29	853	787	65	163	149	14
30–34	607	565	42	127	117	10
35–39	495	465	30	91	81	10
40–44	386	365	20	63	59	4
45–54	495	477	18	171	163	8
55–64	92	84	8	41	40	1
65+	17	15	2	14	14	0
Unknown Age	0	0	0	1	1	0
TOTAL	**4,032**	**3,734**	**296**	**843**	**770**	**72**

* Includes 49 states reporting race/ethnicity data in the Office of Management and Budget compliant formats in 2014.

† Total includes cases reported with unknown sex.

NOTE: These tables should be used only for race/ethnicity comparisons. See Table 35 for age-specific cases and rates and Tables 27–29 for total and sex-specific cases and rates.

Cases in the 0–4 and 5–9 age groups may include cases due to congenital transmission.

Table 36B. Primary and Secondary Syphilis — Rates of Reported Cases per 100,000 Population by Race/Ethnicity, Age Group, and Sex, United States*, 2014

Age Group	American Indians/ Alaska Natives			Asians			Blacks, Non-Hispanic		
	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	0.2	0.1	0.4
15–19	11.1	8.7	13.7	0.8	1.7	0.0	17.1	23.7	10.3
20–24	17.1	24.0	9.8	7.2	13.8	0.3	62.7	106.3	18.8
25–29	21.9	31.1	12.5	7.8	15.7	0.4	65.2	121.3	11.9
30–34	19.5	32.5	6.7	5.1	10.7	0.1	39.0	72.4	8.3
35–39	16.1	17.8	14.4	4.5	9.1	0.4	23.7	44.4	5.2
40–44	9.8	17.0	2.8	3.8	7.7	0.3	16.6	32.1	2.7
45–54	4.9	6.1	3.8	2.4	4.9	0.2	10.9	21.1	1.9
55–64	0.4	0.9	0.0	0.6	1.2	0.1	4.5	9.3	0.5
65+	0.0	0.0	0.0	0.1	0.3	0.0	0.8	1.9	0.0
Unknown Age									
TOTAL	**7.6**	**10.5**	**4.8**	**2.8**	**5.6**	**0.2**	**18.9**	**34.5**	**4.6**

Age Group	Native Hawaiians/ Other Pacific Islanders			Whites, Non-Hispanic			Multirace		
	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	0.1	0.0	0.3
15–19	5.1	9.9	0.0	1.3	1.9	0.7	1.8	3.2	0.3
20–24	23.1	44.8	0.0	7.1	12.5	1.5	11.0	21.4	1.2
25–29	12.9	21.0	4.4	8.6	15.4	1.6	13.5	26.9	1.5
30–34	16.3	31.9	0.0	7.8	14.3	1.2	16.2	32.1	2.2
35–39	5.4	10.6	0.0	6.6	12.2	1.0	15.2	30.8	1.3
40–44	5.7	11.4	0.0	5.9	11.3	0.6	11.0	23.2	0.0
45–54	3.1	6.1	0.0	5.3	10.4	0.3	6.6	13.4	0.4
55–64	2.2	0.0	4.2	1.9	3.8	0.1	3.5	6.8	0.6
65+	0.0	0.0	0.0	0.3	0.7	0.0	0.0	0.0	0.0
Unknown Age									
TOTAL	**6.5**	**12.0**	**0.8**	**3.5**	**6.5**	**0.5**	**4.9**	**9.5**	**0.5**

Age Group	Hispanics		
	Total†	Male	Female
0–4	0.0	0.0	0.0
5–9	0.0	0.0	0.0
10–14	0.1	0.1	0.0
15–19	5.3	8.6	1.7
20–24	18.5	32.0	3.3
25–29	19.6	34.0	3.2
30–34	14.2	25.2	2.1
35–39	12.5	22.8	1.6
40–44	10.6	19.5	1.1
45–54	8.4	16.1	0.6
55–64	2.5	4.8	0.4
65+	0.5	1.1	0.1
Unknown Age			
TOTAL	**7.6**	**13.9**	**1.1**

* Includes 49 states reporting race/ethnicity data in the Office of Management and Budget compliant formats in 2014.

† Total includes cases reported with unknown sex.

NOTE: These tables should be used only for race/ethnicity comparisons. See Table 35 for age-specific cases and rates and Tables 27–29 for total and sex-specific cases and rates.

Cases in the 0–4 and 5–9 age groups may include cases due to congenital transmission.

No population data exist for unknown sex, unknown age, or unknown race; therefore rates are not calculated.

Table 37. Early Latent Syphilis — Reported Cases and Rates of Reported Cases by State/Area and Region in Alphabetical Order, United States and Outlying Areas, 2010–2014

State/Area	Cases					Rates per 100,000 Population				
	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014
Alabama	277	268	237	202	144	5.8	5.6	4.9	4.2	3.0
Alaska	5	3	8	8	25	0.7	0.4	1.1	1.1	3.4
Arizona	166	187	147	207	311	2.6	2.9	2.2	3.1	4.7
Arkansas	202	167	152	163	152	6.9	5.7	5.2	5.5	5.1
California	1,788	2,030	2,519	2,844	3,396	4.8	5.4	6.6	7.4	8.9
Colorado	129	154	194	195	164	2.6	3.0	3.7	3.7	3.1
Connecticut	51	57	52	55	62	1.4	1.6	1.4	1.5	1.7
Delaware	14	49	38	30	33	1.6	5.4	4.1	3.2	3.6
District of Columbia	239	222	244	243	142	39.7	35.9	38.6	37.6	22.0
Florida	1,294	1,212	1,384	1,540	1,886	6.9	6.4	7.2	7.9	9.6
Georgia	636	436	639	863	1,078	6.6	4.4	6.4	8.6	10.8
Hawaii	15	5	9	22	25	1.1	0.4	0.6	1.6	1.8
Idaho	4	11	21	6	12	0.3	0.7	1.3	0.4	0.7
Illinois	502	581	690	809	819	3.9	4.5	5.4	6.3	6.4
Indiana	103	95	148	157	129	1.6	1.5	2.3	2.4	2.0
Iowa	4	11	15	63	82	0.1	0.4	0.5	2.0	2.7
Kansas	63	34	54	84	92	2.2	1.2	1.9	2.9	3.2
Kentucky	88	109	139	167	169	2.0	2.5	3.2	3.8	3.8
Louisiana	742	488	343	276	372	16.4	10.7	7.5	6.0	8.0
Maine	6	8	2	6	7	0.5	0.6	0.2	0.5	0.5
Maryland	279	332	361	387	529	4.8	5.7	6.1	6.5	8.9
Massachusetts	195	233	231	350	282	3.0	3.5	3.5	5.2	4.2
Michigan	121	132	150	204	243	1.2	1.3	1.5	2.1	2.5
Minnesota	73	121	96	139	159	1.4	2.3	1.8	2.6	2.9
Mississippi	386	313	253	184	336	13.0	10.5	8.5	6.2	11.2
Missouri	133	124	135	220	240	2.2	2.1	2.2	3.6	4.0
Montana	2	1	0	2	1	0.2	0.1	0.0	0.2	0.1
Nebraska	1	3	8	14	19	0.1	0.2	0.4	0.7	1.0
Nevada	178	166	214	232	389	6.6	6.1	7.8	8.3	13.9
New Hampshire	5	5	9	21	22	0.4	0.4	0.7	1.6	1.7
New Jersey	386	452	410	539	612	4.4	5.1	4.6	6.1	6.9
New Mexico	41	56	68	67	76	2.0	2.7	3.3	3.2	3.6
New York	1,358	1,254	1,413	1,945	2,307	7.0	6.4	7.2	9.9	11.7
North Carolina	328	333	244	236	468	3.4	3.4	2.5	2.4	4.8
North Dakota	0	1	0	2	22	0.0	0.1	0.0	0.3	3.0
Ohio	189	160	171	211	265	1.6	1.4	1.5	1.8	2.3
Oklahoma	149	145	146	237	198	4.0	3.8	3.8	6.2	5.1
Oregon	33	63	94	127	149	0.9	1.6	2.4	3.2	3.8
Pennsylvania	355	412	484	581	641	2.8	3.2	3.8	4.5	5.0
Rhode Island	20	20	24	22	49	1.9	1.9	2.3	2.1	4.7
South Carolina	344	345	336	415	467	7.4	7.4	7.1	8.7	9.8
South Dakota	0	0	3	5	23	0.0	0.0	0.4	0.6	2.7
Tennessee	363	256	255	267	236	5.7	4.0	3.9	4.1	3.6
Texas	1,874	1,581	1,767	1,902	1,984	7.5	6.2	6.8	7.2	7.5
Utah	20	8	8	47	41	0.7	0.3	0.3	1.6	1.4
Vermont	0	1	6	2	7	0.0	0.2	1.0	0.3	1.1
Virginia	275	289	303	354	274	3.4	3.6	3.7	4.3	3.3
Washington	109	146	181	204	198	1.6	2.1	2.6	2.9	2.8
West Virginia	4	0	10	10	23	0.2	0.0	0.5	0.5	1.2
Wisconsin	52	57	86	62	91	0.9	1.0	1.5	1.1	1.6
Wyoming	3	0	2	1	1	0.5	0.0	0.3	0.2	0.2
U.S. TOTAL	**13,604**	**13,136**	**14,503**	**16,929**	**19,452**	**4.4**	**4.2**	**4.6**	**5.4**	**6.2**
Northeast	2,376	2,442	2,631	3,521	3,989	4.3	4.4	4.7	6.3	7.1
Midwest	1,241	1,319	1,556	1,970	2,184	1.9	2.0	2.3	2.9	3.2
South	7,494	6,545	6,851	7,476	8,491	6.5	5.6	5.8	6.3	7.2
West	2,493	2,830	3,465	3,962	4,788	3.5	3.9	4.7	5.3	6.4
Guam	0	4	1	3	1	0.0	2.5	0.6	1.9	0.6
Puerto Rico	191	211	222	270	375	5.1	5.7	6.1	7.5	10.4
Virgin Islands	3	0	0	2	0	2.8	0.0	0.0	1.9	0.0
OUTLYING AREAS	**194**	**215**	**223**	**275**	**376**	**4.9**	**5.4**	**5.7**	**7.1**	**9.7**
TOTAL	**13,798**	**13,351**	**14,726**	**17,204**	**19,828**	**4.4**	**4.2**	**4.6**	**5.4**	**6.2**

Table 38. Early Latent Syphilis — Reported Cases and Rates of Reported Cases in Selected Metropolitan Statistical Areas (MSAs)* in Alphabetical Order, United States, 2010–2014

MSAs	Cases					Rates per 100,000 Population				
	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014
Atlanta-Sandy Springs-Roswell, GA	529	352	491	672	863	10.0	6.5	9.0	12.2	15.6
Austin-Round Rock, TX	137	137	170	220	207	8.0	7.7	9.3	11.7	11.0
Baltimore-Columbia-Towson, MD	148	198	206	216	296	5.5	7.3	7.5	7.8	10.7
Birmingham-Hoover, AL	67	90	74	71	46	5.9	7.9	6.5	6.2	4.0
Boston-Cambridge-Newton, MA-NH	161	176	158	278	208	3.5	3.8	3.4	5.9	4.4
Buffalo-Cheektowaga-Niagara Falls, NY	0	7	11	15	19	0.0	0.6	1.0	1.3	1.7
Charlotte-Concord-Gastonia, NC-SC	101	103	70	74	129	4.6	4.6	3.0	3.2	5.5
Chicago-Naperville-Elgin, IL-IN-WI	476	531	630	751	734	5.0	5.6	6.6	7.9	7.7
Cincinnati, OH-KY-IN	87	67	78	70	98	4.1	3.2	3.7	3.3	4.6
Cleveland-Elyria, OH	20	25	13	14	31	1.0	1.2	0.6	0.7	1.5
Columbus, OH	42	37	49	71	82	2.2	1.9	2.5	3.6	4.2
Dallas-Fort Worth-Arlington, TX	647	500	604	550	644	10.1	7.6	9.0	8.1	9.5
Denver-Aurora-Lakewood, CO	109	139	177	166	145	4.3	5.3	6.7	6.2	5.4
Detroit-Warren-Dearborn, MI	76	82	113	152	163	1.8	1.9	2.6	3.5	3.8
Hartford-West Hartford-East Hartford, CT	18	18	9	19	16	1.5	1.5	0.7	1.6	1.3
Houston-The Woodlands-Sugar Land, TX	370	351	419	348	444	6.2	5.8	6.8	5.5	7.0
Indianapolis-Carmel-Anderson, IN	70	66	102	104	91	3.7	3.5	5.3	5.3	4.7
Jacksonville, FL	91	50	57	73	69	6.8	3.7	4.1	5.2	4.9
Kansas City, MO-KS	59	40	61	111	132	2.9	2.0	3.0	5.4	6.4
Las Vegas-Henderson-Paradise, NV	174	162	207	218	375	8.9	8.2	10.3	10.8	18.5
Los Angeles-Long Beach-Anaheim, CA	991	1,132	1,393	1,520	1,619	7.7	8.7	10.7	11.6	12.3
Louisville/Jefferson County, KY-IN	46	41	72	85	82	3.7	3.3	5.8	6.7	6.5
Memphis, TN-MS-AR	257	180	188	188	143	19.4	13.5	14.0	14.0	10.7
Miami-Fort Lauderdale-West Palm Beach, FL	749	682	831	885	1,094	13.5	12.0	14.4	15.2	18.8
Milwaukee-Waukesha-West Allis, WI	35	33	57	43	69	2.2	2.1	3.6	2.7	4.4
Minneapolis-St. Paul-Bloomington, MN-WI	68	112	91	131	155	2.0	3.3	2.7	3.8	4.5
Nashville-Davidson--Murfreesboro--Franklin, TN	72	37	50	62	83	4.3	2.2	2.9	3.5	4.7
New Orleans-Metairie, LA	195	109	90	81	122	16.4	9.0	7.3	6.5	9.8
New York-Newark-Jersey City, NY-NJ-PA	1,605	1,569	1,668	2,299	2,681	8.2	8.0	8.4	11.5	13.4
Oklahoma City, OK	76	65	79	124	107	6.1	5.1	6.1	9.4	8.1
Orlando-Kissimmee-Sanford, FL	138	142	136	175	180	6.5	6.5	6.1	7.7	7.9
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	348	398	408	497	512	5.8	6.6	6.8	8.2	8.5
Phoenix-Mesa-Scottsdale, AZ	126	153	120	150	240	3.0	3.6	2.8	3.4	5.5
Pittsburgh, PA	27	30	46	45	63	1.1	1.3	1.9	1.9	2.7
Portland-Vancouver-Hillsboro, OR-WA	33	58	101	117	124	1.5	2.6	4.4	5.1	5.4
Providence-Warwick, RI-MA	26	26	35	28	64	1.6	1.6	2.2	1.7	4.0
Raleigh, NC	44	35	31	41	77	3.9	3.0	2.6	3.4	6.3
Richmond, VA	76	68	78	75	68	6.3	5.6	6.3	6.0	5.5
Riverside-San Bernardino-Ontario, CA	86	144	138	159	223	2.0	3.3	3.2	3.6	5.1
Sacramento--Roseville--Arden-Arcade, CA	43	51	38	33	74	2.0	2.3	1.7	1.5	3.3
Salt Lake City, UT	12	7	7	37	31	1.1	0.6	0.6	3.2	2.7
San Antonio-New Braunfels, TX	305	252	269	381	308	14.2	11.5	12.0	16.7	13.5
San Diego-Carlsbad, CA	177	162	236	211	299	5.7	5.2	7.4	6.6	9.3
San Francisco-Oakland-Hayward, CA	373	396	528	656	839	8.6	9.0	11.9	14.5	18.6
San Jose-Sunnyvale-Santa Clara, CA	29	35	44	60	58	1.6	1.9	2.3	3.1	3.0
Seattle-Tacoma-Bellevue, WA	91	134	142	167	143	2.6	3.8	4.0	4.6	4.0
St. Louis, MO-IL	106	84	89	125	139	3.8	3.0	3.2	4.5	5.0
Tampa-St. Petersburg-Clearwater, FL	117	139	176	176	227	4.2	4.9	6.2	6.1	7.9
Virginia Beach-Norfolk-Newport News, VA-NC	84	108	90	112	90	5.0	6.4	5.3	6.6	5.3
Washington-Arlington-Alexandria, DC-VA-MD-WV	441	403	497	520	286	7.8	7.0	8.5	8.7	4.8
SELECTED MSAs TOTAL	**10,158**	**9,916**	**11,427**	**13,376**	**14,992**	**6.1**	**5.9**	**6.7**	**7.7**	**8.7**

* MSAs were selected on the basis of the largest population in the 2010 U.S. Census.

Table 39. Late and Late Latent Syphilis* — Reported Cases and Rates of Reported Cases by State/Area and Region in Alphabetical Order, United States and Outlying Areas, 2010–2014

State/Area	Cases					Rates per 100,000 Population				
	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014
Alabama	235	252	248	292	167	4.9	5.2	5.1	6.0	3.5
Alaska	7	3	14	3	5	1.0	0.4	1.9	0.4	0.7
Arizona	493	431	424	455	558	7.7	6.6	6.5	6.9	8.4
Arkansas	116	100	132	175	110	4.0	3.4	4.5	5.9	3.7
California	2,223	2,269	2,509	3,539	4,110	6.0	6.0	6.6	9.2	10.7
Colorado	75	80	101	117	5	1.5	1.6	1.9	2.2	0.1
Connecticut	83	67	14	22	21	2.3	1.9	0.4	0.6	0.6
Delaware	19	48	29	63	30	2.1	5.3	3.2	6.8	3.2
District of Columbia	121	164	180	196	23	20.1	26.5	28.5	30.3	3.6
Florida	1,572	1,641	1,693	1,934	2,429	8.4	8.6	8.8	9.9	12.4
Georgia	898	771	842	1,090	1,055	9.3	7.9	8.5	10.9	10.6
Hawaii	23	13	11	19	13	1.7	0.9	0.8	1.4	0.9
Idaho	9	18	6	21	22	0.6	1.1	0.4	1.3	1.4
Illinois	799	946	902	1,031	1,087	6.2	7.4	7.0	8.0	8.4
Indiana	134	200	159	171	170	2.1	3.1	2.4	2.6	2.6
Iowa	45	39	58	57	84	1.5	1.3	1.9	1.8	2.7
Kansas	28	18	51	61	48	1.0	0.6	1.8	2.1	1.7
Kentucky	84	95	99	102	117	1.9	2.2	2.3	2.3	2.7
Louisiana	1,163	1,090	1,065	1,267	1,180	25.7	23.8	23.1	27.4	25.5
Maine	3	4	3	5	0	0.2	0.3	0.2	0.4	0.0
Maryland	386	470	439	504	481	6.7	8.1	7.5	8.5	8.1
Massachusetts	158	271	258	276	227	2.4	4.1	3.9	4.1	3.4
Michigan	322	338	334	368	416	3.3	3.4	3.4	3.7	4.2
Minnesota	128	107	120	209	215	2.4	2.0	2.2	3.9	4.0
Mississippi	200	238	53	31	116	6.7	8.0	1.8	1.0	3.9
Missouri	225	153	133	135	178	3.8	2.5	2.2	2.2	2.9
Montana	0	1	1	1	0	0.0	0.1	0.1	0.1	0.0
Nebraska	20	23	18	40	26	1.1	1.2	1.0	2.1	1.4
Nevada	99	125	117	84	142	3.7	4.6	4.2	3.0	5.1
New Hampshire	16	10	19	30	21	1.2	0.8	1.4	2.3	1.6
New Jersey	314	282	243	196	263	3.6	3.2	2.7	2.2	3.0
New Mexico	57	85	64	100	80	2.8	4.1	3.1	4.8	3.8
New York	2,387	2,436	2,667	2,758	3,073	12.3	12.5	13.6	14.0	15.6
North Carolina	499	485	444	509	791	5.2	5.0	4.6	5.2	8.0
North Dakota	3	3	10	11	16	0.4	0.4	1.4	1.5	2.2
Ohio	349	341	526	431	381	3.0	3.0	4.6	3.7	3.3
Oklahoma	31	39	27	28	59	0.8	1.0	0.7	0.7	1.5
Oregon	69	92	117	133	159	1.8	2.4	3.0	3.4	4.0
Pennsylvania	280	335	365	431	346	2.2	2.6	2.9	3.4	2.7
Rhode Island	18	18	25	27	40	1.7	1.7	2.4	2.6	3.8
South Carolina	80	73	56	66	28	1.7	1.6	1.2	1.4	0.6
South Dakota	8	14	8	12	16	1.0	1.7	1.0	1.4	1.9
Tennessee	542	483	545	497	502	8.5	7.5	8.4	7.7	7.7
Texas	3,204	3,312	3,585	3,593	4,110	12.7	12.9	13.8	13.6	15.5
Utah	47	42	51	51	61	1.7	1.5	1.8	1.8	2.1
Vermont	0	0	0	5	0	0.0	0.0	0.0	0.8	0.0
Virginia	245	224	317	329	137	3.1	2.8	3.9	4.0	1.7
Washington	159	236	226	223	310	2.4	3.5	3.3	3.2	4.4
West Virginia	16	5	6	14	4	0.9	0.3	0.3	0.8	0.2
Wisconsin	84	80	91	100	108	1.5	1.4	1.6	1.7	1.9
Wyoming	3	6	6	7	1	0.5	1.1	1.0	1.2	0.2
U.S. TOTAL	**18,079**	**18,576**	**19,411**	**21,819**	**23,541**	**5.9**	**6.0**	**6.2**	**6.9**	**7.4**
Northeast	3,259	3,423	3,594	3,750	3,991	5.9	6.2	6.4	6.7	7.1
Midwest	2,145	2,262	2,410	2,626	2,745	3.2	3.4	3.6	3.9	4.1
South	9,411	9,490	9,760	10,690	11,339	8.2	8.2	8.3	9.0	9.6
West	3,264	3,401	3,647	4,753	5,466	4.5	4.7	5.0	6.4	7.4
Guam	10	17	20	14	5	6.3	10.7	12.5	8.7	3.1
Puerto Rico	302	204	175	154	101	8.1	5.5	4.8	4.3	2.8
Virgin Islands	1	7	2	5	4	0.9	6.6	1.9	4.8	3.8
OUTLYING AREAS	**313**	**228**	**197**	**173**	**110**	**7.8**	**5.7**	**5.0**	**4.5**	**2.8**
TOTAL	**18,392**	**18,804**	**19,608**	**21,992**	**23,651**	**5.9**	**6.0**	**6.2**	**6.9**	**7.4**

* Late and late latent syphilis includes late latent syphilis, latent syphilis of unknown duration, neurosyphilis, late syphilis with clinical manifestations other than neurosyphilis, and late syphilis with clinical manifestations (including late benign syphilis and cardiovascular syphilis).

Table 40. Late and Late Latent Syphilis* — Reported Cases and Rates of Reported Cases in Selected Metropolitan Statistical Areas (MSAs)† in Alphabetical Order, United States, 2010–2014

MSAs	Cases					Rates per 100,000 Population				
	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014
Atlanta-Sandy Springs-Roswell, GA	723	611	573	782	804	13.7	11.4	10.5	14.2	14.6
Austin-Round Rock, TX	118	168	154	134	246	6.9	9.4	8.4	7.1	13.1
Baltimore-Columbia-Towson, MD	162	196	203	218	225	6.0	7.2	7.4	7.9	8.1
Birmingham-Hoover, AL	84	95	79	96	53	7.4	8.4	7.0	8.4	4.6
Boston-Cambridge-Newton, MA-NH	142	240	207	211	158	3.1	5.2	4.5	4.5	3.4
Buffalo-Cheektowaga-Niagara Falls, NY	32	27	32	62	62	2.8	2.4	2.8	5.5	5.5
Charlotte-Concord-Gastonia, NC-SC	97	116	122	151	180	4.4	5.1	5.3	6.5	7.7
Chicago-Naperville-Elgin, IL-IN-WI	703	866	853	963	988	7.4	9.1	9.0	10.1	10.4
Cincinnati, OH-KY-IN	117	131	275	191	124	5.5	6.2	12.9	8.9	5.8
Cleveland-Elyria, OH	79	70	82	64	88	3.8	3.4	4.0	3.1	4.3
Columbus, OH	82	76	101	98	101	4.3	3.9	5.2	5.0	5.1
Dallas-Fort Worth-Arlington, TX	944	982	1,132	1,081	1,065	14.7	14.9	16.9	15.9	15.6
Denver-Aurora-Lakewood, CO	64	64	74	81	0	2.5	2.5	2.8	3.0	0.0
Detroit-Warren-Dearborn, MI	232	229	252	277	299	5.4	5.3	5.9	6.4	7.0
Hartford-West Hartford-East Hartford, CT	34	22	3	10	10	2.8	1.8	0.2	0.8	0.8
Houston-The Woodlands-Sugar Land, TX	1,149	1,166	1,265	1,154	1,430	19.4	19.2	20.5	18.3	22.7
Indianapolis-Carmel-Anderson, IN	57	113	84	90	83	3.0	5.9	4.4	4.6	4.2
Jacksonville, FL	87	89	73	75	128	6.5	6.5	5.3	5.4	9.2
Kansas City, MO-KS	43	44	38	54	54	2.1	2.2	1.9	2.6	2.6
Las Vegas-Henderson-Paradise, NV	85	111	98	54	133	4.4	5.6	4.9	2.7	6.6
Los Angeles-Long Beach-Anaheim, CA	1,238	1,222	1,091	1,705	1,678	9.7	9.4	8.4	13.0	12.8
Louisville/Jefferson County, KY-IN	46	51	48	52	70	3.7	4.1	3.8	4.1	5.5
Memphis, TN-MS-AR	326	279	291	283	236	24.6	20.9	21.7	21.1	17.6
Miami-Fort Lauderdale-West Palm Beach, FL	853	984	1,032	1,075	1,370	15.3	17.4	17.9	18.4	23.5
Milwaukee-Waukesha-West Allis, WI	57	49	59	56	63	3.7	3.1	3.8	3.6	4.0
Minneapolis-St. Paul-Bloomington, MN-WI	101	87	105	175	187	3.0	2.6	3.1	5.1	5.4
Nashville-Davidson--Murfreesboro--Franklin, TN	119	107	133	120	148	7.1	6.3	7.7	6.8	8.4
New Orleans-Metairie, LA	392	457	386	442	370	32.9	37.7	31.5	35.6	29.8
New York-Newark-Jersey City, NY-NJ-PA	2,526	2,550	2,679	2,707	3,052	12.9	13.0	13.5	13.6	15.3
Oklahoma City, OK	17	10	15	11	31	1.4	0.8	1.2	0.8	2.3
Orlando-Kissimmee-Sanford, FL	149	166	192	250	362	7.0	7.6	8.6	11.0	16.0
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	271	325	338	439	311	4.5	5.4	5.6	7.3	5.2
Phoenix-Mesa-Scottsdale, AZ	345	299	332	335	397	8.2	7.0	7.7	7.6	9.0
Pittsburgh, PA	9	13	21	11	13	0.4	0.6	0.9	0.5	0.6
Portland-Vancouver-Hillsboro, OR-WA	54	72	99	118	140	2.4	3.2	4.3	5.1	6.0
Providence-Warwick, RI-MA	22	30	32	45	47	1.4	1.9	2.0	2.8	2.9
Raleigh, NC	65	68	63	68	109	5.7	5.8	5.3	5.6	9.0
Richmond, VA	46	36	51	58	9	3.8	3.0	4.1	4.7	0.7
Riverside-San Bernardino-Ontario, CA	185	201	465	433	432	4.4	4.7	10.7	9.9	9.9
Sacramento--Roseville--Arden-Arcade, CA	81	69	59	107	134	3.8	3.2	2.7	4.8	6.0
Salt Lake City, UT	28	32	33	34	39	2.6	2.9	2.9	3.0	3.4
San Antonio-New Braunfels, TX	232	286	366	457	448	10.8	13.0	16.4	20.1	19.7
San Diego-Carlsbad, CA	148	154	144	245	310	4.8	4.9	4.5	7.6	9.7
San Francisco-Oakland-Hayward, CA	230	244	321	421	497	5.3	5.6	7.2	9.3	11.0
San Jose-Sunnyvale-Santa Clara, CA	62	54	84	69	125	3.4	2.9	4.4	3.6	6.5
Seattle-Tacoma-Bellevue, WA	112	177	169	161	211	3.3	5.1	4.8	4.5	5.8
St. Louis, MO-IL	177	94	95	104	119	6.3	3.4	3.4	3.7	4.2
Tampa-St. Petersburg-Clearwater, FL	195	175	171	227	254	7.0	6.2	6.0	7.9	8.8
Virginia Beach-Norfolk-Newport News, VA-NC	60	40	100	86	45	3.6	2.4	5.9	5.0	2.6
Washington-Arlington-Alexandria, DC-VA-MD-WV	425	536	517	599	295	7.5	9.3	8.8	10.1	5.0
SELECTED MSAs TOTAL	**13,605**	**14,283**	**15,191**	**16,739**	**17,733**	**8.1**	**8.4**	**8.9**	**9.7**	**10.3**

* Late and late latent syphilis includes late latent syphilis, latent syphilis of unknown duration, neurosyphilis, late syphilis with clinical manifestations other than neurosyphilis, and late syphilis with clinical manifestations (including late benign syphilis and cardiovascular syphilis).

† MSAs were selected on the basis of the largest population in the 2010 U.S. Census.

Table 41. Congenital Syphilis — Reported Cases and Rates of Reported Cases by State, Ranked by Rates, United States, 2014

Rank*	State†	Cases	Rate per 100,000 Live Births
1	Louisiana	46	73.4
2	South Dakota	3	24.8
3	Florida	47	22.1
4	Maryland	16	22.0
5	California	99	19.7
6	Texas	74	19.3
7	Nevada	6	17.2
8	Illinois	27	17.0
9	Arkansas	6	15.6
10	Arizona	13	15.0
11	Michigan	15	13.3
12	Georgia	17	13.0
	U.S. TOTAL‡	**458**	**11.6**
13	Oklahoma	6	11.4
14	Ohio	15	10.8
15	Indiana	8	9.6
16	New York	22	9.1
	HP 2020 TARGET		**9.1**
17	South Carolina	5	8.7
18	Kentucky	3	5.4
19	Alabama	3	5.1
20	North Carolina	6	5.0
21	Oregon	2	4.4
22	Massachusetts	3	4.1
23	Nebraska	1	3.9
24	New Mexico	1	3.7
25	Pennsylvania	5	3.5
26	Mississippi	1	2.6
27	Iowa	1	2.6
28	Tennessee	2	2.5
29	Washington	2	2.3
30	Virginia	2	1.9
31	Missouri	1	1.3
	Alaska	0	0.0
	Colorado	0	0.0
	Connecticut	0	0.0
	Delaware	0	0.0
	Hawaii	0	0.0
	Idaho	0	0.0
	Kansas	0	0.0
	Maine	0	0.0
	Minnesota	0	0.0
	Montana	0	0.0
	New Hampshire	0	0.0
	New Jersey	0	0.0
	North Dakota	0	0.0
	Rhode Island	0	0.0
	Utah	0	0.0
	Vermont	0	0.0
	West Virginia	0	0.0
	Wisconsin	0	0.0
	Wyoming	0	0.0

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

† Mother's state of residence was used to assign case.

‡ Total includes cases reported by the District of Columbia, with 0 cases, but excludes outlying areas (Guam with 0 cases, Puerto Rico with 0 cases, and Virgin Islands with 0 cases).

Table 42. Congenital Syphilis — Reported Cases and Rates of Reported Cases by Year of Birth, by State/Area and Region in Alphabetical Order, United States and Outlying Areas, 2010–2014

State/Area*	Cases					Rates per 100,000 Live Births				
	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014
Alabama	9	10	4	2	3	15.0	16.8	6.8	3.4	5.1
Alaska	0	0	1	1	0	0.0	0.0	8.9	8.9	0.0
Arizona	16	15	14	13	13	18.3	17.5	16.2	15.0	15.0
Arkansas	11	15	11	12	6	28.5	38.7	28.7	31.3	15.6
California	39	40	35	57	99	7.6	8.0	6.9	11.3	19.7
Colorado	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Connecticut	2	0	0	0	0	5.3	0.0	0.0	0.0	0.0
Delaware	2	0	1	1	0	17.6	0.0	9.1	9.1	0.0
District of Columbia	1	1	0	2	0	10.9	10.8	0.0	21.3	0.0
Florida	20	33	37	35	47	9.3	15.5	17.4	16.4	22.1
Georgia	18	10	16	20	17	13.4	7.6	12.3	15.4	13.0
Hawaii	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Idaho	1	0	1	0	0	4.3	0.0	4.4	0.0	0.0
Illinois	27	18	28	23	27	16.3	11.2	17.6	14.5	17.0
Indiana	0	0	0	0	8	0.0	0.0	0.0	0.0	9.6
Iowa	0	0	0	0	1	0.0	0.0	0.0	0.0	2.6
Kansas	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Kentucky	0	2	2	4	3	0.0	3.6	3.6	7.2	5.4
Louisiana	33	18	33	40	46	52.9	29.1	52.7	63.9	73.4
Maine	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Maryland	22	24	12	14	16	29.8	32.8	16.5	19.2	22.0
Massachusetts	1	0	1	4	3	1.4	0.0	1.4	5.5	4.1
Michigan	5	8	7	9	15	4.4	7.0	6.2	8.0	13.3
Minnesota	0	0	1	0	0	0.0	0.0	1.5	0.0	0.0
Mississippi	9	6	0	0	1	22.5	15.1	0.0	0.0	2.6
Missouri	2	1	1	3	1	2.6	1.3	1.3	4.0	1.3
Montana	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Nebraska	0	0	1	0	1	0.0	0.0	3.9	0.0	3.9
Nevada	5	3	1	2	6	13.9	8.5	2.9	5.7	17.2
New Hampshire	0	0	1	0	0	0.0	0.0	8.1	0.0	0.0
New Jersey	3	5	1	0	0	2.8	4.7	1.0	0.0	0.0
New Mexico	0	0	1	2	1	0.0	0.0	3.7	7.4	3.7
New York	17	13	8	11	22	7.0	5.4	3.3	4.6	9.1
North Carolina	10	6	2	4	6	8.2	5.0	1.7	3.3	5.0
North Dakota	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Ohio	10	13	19	18	15	7.2	9.4	13.7	13.0	10.8
Oklahoma	0	2	0	0	6	0.0	3.8	0.0	0.0	11.4
Oregon	0	0	1	0	2	0.0	0.0	2.2	0.0	4.4
Pennsylvania	3	5	6	2	5	2.1	3.5	4.2	1.4	3.5
Rhode Island	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
South Carolina	1	0	7	1	5	1.7	0.0	12.2	1.7	8.7
South Dakota	0	0	0	0	3	0.0	0.0	0.0	0.0	24.8
Tennessee	11	8	2	2	2	13.8	10.1	2.5	2.5	2.5
Texas	105	99	78	74	74	27.2	26.2	20.4	19.3	19.3
Utah	1	0	0	0	0	1.9	0.0	0.0	0.0	0.0
Vermont	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Virginia	1	0	1	3	2	1.0	0.0	1.0	2.9	1.9
Washington	1	2	0	0	2	1.2	2.3	0.0	0.0	2.3
West Virginia	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Wisconsin	1	1	0	0	0	1.5	1.5	0.0	0.0	0.0
Wyoming	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
U.S. TOTAL	**387**	**358**	**334**	**359**	**458**	**9.7**	**9.1**	**8.4**	**9.1**	**11.6**
Northeast	26	23	17	17	30	4.0	3.6	2.7	2.7	4.7
Midwest	45	41	57	53	71	5.3	4.9	6.8	6.4	8.5
South	253	234	206	214	234	16.6	15.5	13.7	14.2	15.5
West	63	60	54	75	123	6.4	6.2	5.5	7.7	12.6
Guam	0	0	0	1	0	0.0	0.0	0.0	27.9	0.0
Puerto Rico	2	2	1	2	0	4.7	4.9	2.6	5.1	0.0
Virgin Islands	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
OUTLYING AREAS	**2**	**2**	**1**	**3**	**0**	**4.2**	**4.4**	**2.3**	**6.8**	**0.0**
TOTAL	**389**	**360**	**335**	**362**	**458**	**9.6**	**9.0**	**8.4**	**9.1**	**11.5**

* Mother's state of residence was used to assign case.

Table 43. Congenital Syphilis — Reported Cases and Rates of Reported Cases per 100,000 Live Births by Year of Birth and Race/Ethnicity of Mother, United States, 2010–2014

Year of Birth	Whites, Non-Hispanic		Blacks, Non-Hispanic		Hispanics	
	Cases	Rate	Cases	Rate	Cases	Rate
2010	63	2.9	216	36.3	91	9.6
2011	50	2.3	211	35.9	73	8.0
2012	50	2.3	189	32.1	80	8.8
2013	61	2.8	185	31.4	92	10.1
2014	80	3.7	225	38.2	110	12.1

Year of Birth	Asians/Pacific Islanders		American Indians/Alaska Natives		Multirace	
	Cases	Rate	Cases	Rate	Cases	Rate
2010	9	3.8	1	2.5	2	NA
2011	14	5.7	2	5.0	0	NA
2012	6	2.3	2	5.1	0	NA
2013	9	3.4	5	12.7	1	NA
2014	18	6.9	5	12.7	7	NA

Year of Birth	Other		Unknown		Total	
	Cases	Rate	Cases	Rate	Cases	Rate
2010	1	NA	4	NA	387	9.7
2011	3	NA	5	NA	358	9.1
2012	3	NA	4	NA	334	8.4
2013	2	NA	4	NA	359	9.1
2014	2	NA	11	NA	458	11.6

NA = Not applicable.

Table 44. Chancroid — Reported Cases and Rates of Reported Cases by State/Area in Alphabetical Order, United States and Outlying Areas, 2010–2014

State/Area	Cases					Rates per 100,000 Population				
	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014
Alabama	1	0	1	1	0	0.0	0.0	0.0	0.0	0.0
Alaska	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Arizona	0	1	0	0	0	0.0	0.0	0.0	0.0	0.0
Arkansas	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
California	5	1	7	6	4	0.0	0.0	0.0	0.0	0.0
Colorado	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Connecticut	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Delaware	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
District of Columbia	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Florida	1	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Georgia	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Hawaii	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Idaho	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Illinois	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Indiana	0	0	1	0	0	0.0	0.0	0.0	0.0	0.0
Iowa	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Kansas	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Kentucky	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Louisiana	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Maine	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Maryland	0	0	1	0	0	0.0	0.0	0.0	0.0	0.0
Massachusetts	1	2	1	2	1	0.0	0.0	0.0	0.0	0.0
Michigan	0	1	2	0	0	0.0	0.0	0.0	0.0	0.0
Minnesota	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Mississippi	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Missouri	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Montana	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Nebraska	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Nevada	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
New Hampshire	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
New Jersey	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
New Mexico	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
New York	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
North Carolina	1	0	1	0	0	0.0	0.0	0.0	0.0	0.0
North Dakota	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Ohio	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Oklahoma	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Oregon	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Pennsylvania	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Rhode Island	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
South Carolina	1	2	0	0	0	0.0	0.0	0.0	0.0	0.0
South Dakota	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Tennessee	1	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Texas	12	1	0	1	1	0.0	0.0	0.0	0.0	0.0
Utah	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Vermont	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Virginia	0	0	1	0	0	0.0	0.0	0.0	0.0	0.0
Washington	1	0	0	0	0	0.0	0.0	0.0	0.0	0.0
West Virginia	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Wisconsin	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Wyoming	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
U.S. TOTAL	**24**	**8**	**15**	**10**	**6**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Guam	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Puerto Rico	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Virgin Islands	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
OUTLYING AREAS	**0**	**0**	**0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TOTAL	**24**	**8**	**15**	**10**	**6**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Table 45. Selected STDs and Complications — Initial Visits to Physicians' Offices, National Disease and Therapeutic Index, United States, 1966–2013

Year	Genital Herpes	Genital Warts	Vaginal Trichomoniasis*	Other Vaginitis*	Pelvic Inflammatory Disease†
1966	19,000	56,000	579,000	1,155,000	NA
1967	15,000	72,000	515,000	1,277,000	NA
1968	16,000	87,000	463,000	1,460,000	NA
1969	15,000	61,000	421,000	1,390,000	NA
1970	17,000	119,000	529,000	1,500,000	NA
1971	49,000	128,000	484,000	1,281,000	NA
1972	26,000	165,000	574,000	1,810,000	NA
1973	51,000	198,000	466,000	1,858,000	NA
1974	75,000	202,000	427,000	1,907,000	NA
1975	36,000	181,000	500,000	1,919,000	NA
1976	57,000	217,000	473,000	1,690,000	NA
1977	116,000	221,000	324,000	1,713,000	NA
1978	76,000	269,000	329,000	2,149,000	NA
1979	83,000	200,000	363,000	1,662,000	NA
1980	57,000	218,000	358,000	1,670,000	423,000
1981	133,000	191,000	369,000	1,742,000	283,000
1982	134,000	256,000	268,000	1,859,000	374,000
1983	106,000	203,000	424,000	1,932,000	424,000
1984	157,000	224,000	381,000	2,450,000	381,000
1985	124,000	263,000	291,000	2,728,000	425,000
1986	136,000	275,000	338,000	3,118,000	457,000
1987	102,000	351,000	293,000	3,087,000	403,000
1988	163,000	290,000	191,000	3,583,000	431,000
1989	148,000	220,000	165,000	3,374,000	413,000
1990	172,000	275,000	213,000	4,474,000	358,000
1991	235,000	282,000	198,000	3,822,000	377,000
1992	139,000	218,000	182,000	3,428,000	335,000
1993	172,000	167,000	207,000	3,755,000	407,000
1994	142,000	239,000	199,000	4,123,000	332,000
1995	160,000	253,000	141,000	3,927,000	262,000
1996	208,000	191,000	245,000	3,472,000	286,000
1997	176,000	145,000	176,000	3,100,000	260,000
1998	188,000	211,000	164,000	3,200,000	233,000
1999	224,000	240,000	171,000	3,077,000	250,000
2000	179,000	220,000	222,000	3,470,000	254,000
2001	157,000	233,000	210,000	3,365,000	244,000
2002	216,000	266,000	150,000	3,315,000	197,000
2003	203,000	264,000	179,000	3,516,000	123,000
2004	269,000	316,000	221,000	3,602,000	132,000
2005	266,000	357,000	165,000	4,071,000	176,000
2006	371,000	422,000	200,000	3,891,000	106,000
2007	317,000	312,000	205,000	3,723,000	146,000
2008	292,000	385,000	204,000	3,571,000	104,000
2009	306,000	357,000	216,000	3,063,000	100,000
2010	232,000	376,000	149,000	3,192,000	113,000
2011	227,000	453,000	168,000	3,102,000	90,000
2012	228,000	353,000	219,000	3,452,000	106,000
2013	306,000	404,000	225,000	3,278,000	88,000

* Women only.
† Women aged 15-44 years only.
NA = Not available.
NOTE: Standard errors for estimates under 100,000 are not available. The relative standard errors for estimates 100,000–299,999 are from 19% to 23%; 300,000–599,999 are from 16% to 19%; 600,000–999,999 are from 13% to 16%; and 1,000,000–5,000,000 are from 7% to 13%.
SOURCE: National Disease and Therapeutic Index, IMS Health, Integrated Promotional Services. IMS Health Report, 1966–2013. The 2014 data were not obtained in time to include them in this report. See Section A2.5 in the Appendix for more information.

APPENDIX

APPENDIX

A. Interpreting STD Surveillance Data

Sexually Transmitted Disease Surveillance 2014 presents surveillance information derived from the official statistics for the reported occurrence of nationally notifiable sexually transmitted diseases (STDs) in the United States, test positivity and prevalence data from numerous prevalence monitoring initiatives, sentinel surveillance, and national health care services surveys.

A1. Nationally Notifiable STD Surveillance

Nationally notifiable STD surveillance data are collected and compiled from reports sent by the STD control programs and health departments in all 50 states, the District of Columbia, selected cities, U.S. dependencies and possessions, and independent nations in free association with the United States to the Division of STD Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention, Centers for Disease Control and Prevention (CDC). Included among the dependencies, possessions, and independent nations are Guam, Puerto Rico, and the Virgin Islands. These entities are identified as "outlying areas" of the United States in selected figures and tables.

A1.1 Reporting Formats

STD morbidity data presented in this report are compiled from a combination of data reported on standardized hard copy reporting forms and electronic data received through the National Electronic Telecommunications System for Surveillance (NETSS).

Summary Report Forms

The following hard copy forms were used to report national STD morbidity data:

1. 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 syphilis and early latent syphilis by county and state.
2. 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 (including San Juan, Puerto Rico), and outlying areas of the United States.

   Note: Chlamydial infection became a nationally notifiable condition in 1996, and the form was modified to support reporting of chlamydia that year. Congenital syphilis was dropped from this aggregate form in 1995 and replaced by the case-specific CDC 73.126 form described later in this section.
3. 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 (public versus private) for all 50 states, seven large cities (Baltimore, Chicago, New York City, Los Angeles, Philadelphia, San Francisco, and the District of Columbia), and outlying areas of the United States.

   Note: Chlamydial infection became a nationally notifiable condition in 1996, and the form was modified to support reporting of chlamydia that year.
4. FORM CDC 73.126: *Congenital Syphilis (CS) Case Investigation and Reporting*. This case-specific hard copy form was first used in 1983 and continued to be used through 2014 to report detailed case-specific data for congenital syphilis in some areas.

National Electronic Telecommunications System for Surveillance (NETSS)

Notifiable STD data reported electronically through NETSS make up the nationally notifiable disease information published in CDC's *Morbidity and Mortality Weekly Report*.

As of December 31, 2003, all 50 states and the District of Columbia had converted from summary hard copy reporting to electronic submission of line-listed (i.e., case-specific) STD data through NETSS (41 reporting areas submitted congenital syphilis surveillance data through NETSS in 2014). Puerto Rico converted to electronic reporting in 2006 for all STDs excluding congenital syphilis. Guam and the Virgin Islands continue to report STD data through summary hard copy forms.

Surveillance data and updates sent to CDC through NETSS and on hard copy forms through June 10, 2015, are included in this report. Data received after this date will appear in subsequent STD surveillance reports. The data presented in the figures and tables in this report supersede those in all earlier publications.

A1.2 Population Denominators and Rate Calculations

2000–2014 Rates and Population (Excluding OMB-compliant Race)

CDC's National Center for Health Statistics (NCHS) released bridged-race population counts for the 2000–2013 U.S. resident populations that are based on counts from the 2000 and 2010 U.S. Censuses. These estimates resulted from bridging the 31 race categories first used in the 2000 census, as specified in the 1997 Office of Management and Budget (OMB) standards, to the five race/ethnicity groups specified in the 1977 OMB standards. This report uses the first published population estimate for a given year. The latest available year for population estimates at the time this report was written was 2013. Thus 2013 population estimates were used to calculate 2014 rates. Once published, the 2014 population estimates will be used to calculate rates in the upcoming 2015 STD Surveillance Report.

2000-2014 Rates and Population (including OMB-compliant Race)

For those figures and tables presenting race using the 1997 OMB race standards, non-bridged-race data provided directly by the U.S. Census Bureau were used to calculate race. The latest available year for population estimates at the time this report was written was 2013. Thus, 2013 population estimates were used to calculate 2014 rates. Once published, the 2014 population estimates will be used to calculate rates in the upcoming 2015 STD Surveillance Report.

Population estimates for Puerto Rico were obtained from the U.S. Census Bureau Web site at http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml

Population estimates for Guam and the Virgin Islands were obtained from the U.S. Census Bureau International Programs Web site at http://www.census.gov/population/international/data/idb/informationGateway.php

The 2014 rates by age and sex for Guam and the Virgin Islands were calculated using 2010 population estimates available at: http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml.

Because of the use of the updated population data, rates for 2000–2013 may be different from those presented in previous STD surveillance reports.

Several figures throughout this report depict state-specific rates of reported cases of STDs. Rates were grouped and displayed by quartiles in Figures 3, 4, 15, 16, 35, A, B, C, H, and I. Rates were grouped and displayed in 4 categories – zero cases and tertiles – in Figure 36 and Figure D.

1990–1999 Rates and Population

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

1981–1989 Rates and Population

Rates were calculated by using U.S. Census Bureau population estimates for 1981 through 1989.[1,2]

1941–1980 Rates and Population

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

1941–2014 Congenital Syphilis Rates and Live Births

The congenital syphilis data in Table 1 of this report represent the number of congenital syphilis cases per 100,000 live births for all years during 1941–2014. 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 1941 through 2014, 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.[3] Congenital syphilis rates for 1989 through 2012 were calculated by using live birth data based on information coded by the states and provided to the NCHS through the Vital Statistics Cooperative Program. Rates for 2013 and 2014 were calculated by using live birth data for 2012.

A1.3 Reporting Practices

Although most state and local STD programs generally adhere to the national notifiable STD case definitions collaboratively developed by the Council of State and Territorial Epidemiologists and CDC, 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 should be minimally affected by these differences.

A1.4 Reporting of Surveillance Data by Metropolitan Statistical Area

Sexually Transmitted Disease Surveillance 2014 continues the presentation of STD incidence data and rates for the 50 metropolitan statistical areas (MSAs) with the largest populations according to 2010 census data. STD surveillance reports published before 2005 presented data by selected cities; these data were derived from county data, which were used to estimate city-specific disease rates. Because county data were used to estimate city-specific morbidity and because current STD project areas' reporting practices do not support direct identification of city-specific morbidity reports, MSAs were chosen as a geographic unit smaller than a state or territory for presentation of STD morbidity data.

MSAs are defined by the OMB to provide nationally consistent definitions for collecting, tabulating, and publishing federal statistics for a set of geographic areas.[4] An MSA is associated with at least one urbanized area that has a population of at least 50,000. The MSA comprises the central county or counties containing the central county, plus adjacent, outlying counties that have a high degree of social and economic integration with the central county as measured through commuting. The title of an MSA includes the name of the principal city with the largest 2010 census population. If there are multiple principal cities, the names of the second largest and third largest principal cities appear in the title in order of descending population size.

The MSA concept has been used as a statistical representation of the social and economic links between urban cores and outlying, integrated areas. However, MSAs do not equate to an urban-rural classification; all counties included in MSAs and many other counties contain both urban and rural territory and populations. STD programs that treat all parts of an MSA as if they were as urban as the densely settled core ignore the rural conditions that may exist in some parts of the area. In short, MSAs are not intended to be a general purpose geographic framework for nonstatistical activities or for use in program funding formulas.

For more information on the MSA definitions used in this report, go to: http://www.census.gov/population/metro/data/metrodef.html.

A1.5 Reporting of Data for Race/Ethnicity

In April 2008, the NETSS record layout was updated to conform to the OMB's current government-wide standard for race/ethnicity data.[5] The OMB standards were first issued in 1997. Beginning with publication of *Sexually Transmitted Disease Surveillance 2012,* the race/ethnicity data are presented according to the current standard categories: American Indian or Alaska Native, Asian, black or African American, Hispanic or Latino, Native Hawaiian/Other Pacific Islander, white and multirace. As of reporting year 2014, 3 jurisdictions (Alaska, Michigan, and the District of Columbia) were not compliant with the current OMB race/ethnicity standards when reporting chlamydia and gonorrhea. Only two jurisdictions (Alaska and the District of Columbia) were not compliant with the current OMB race/ethnicity standards when reporting primary and secondary syphilis.

For chlamydia and gonorrhea figures showing trends for 2010–2014, data are included for all jurisdictions except eight not consistently reporting race/ethnicity data according to the current standard categories for the five consecutive years (Alaska, Maryland, Michigan, New Jersey, New York, North Carolina, Utah, and the District of Columbia). For primary and secondary syphilis figures showing trends for 2010–2014, data are presented for 44 states excluding seven not consistently reporting race/ethnicity data according to the current standard categories for the five consecutive years (Alaska, Maryland, New Jersey, New York, North Carolina, Utah, and the District of Columbia).

A1.6 Management of Unknown, Missing, or Invalid Data for Age Group, Race/Ethnicity, and Sex

The percentage of unknown, missing, or invalid data for age group, race/ethnicity, and sex varies from year to year, state to state, and by disease for reported STDs (Table A1).

Prior to the publication of *Sexually Transmitted Disease Surveillance 2010*, when the percentage of unknown, missing, or invalid values for age group, race/ethnicity, and sex exceeded 50% for any state, the state's incidence and population data were excluded from the tables that presented data stratified by one or more of these variables. For the states for which 50% or more of their data were valid for age group, race/ethnicity, and sex, the values for unknown, missing, or invalid data were redistributed on the basis of the state's distribution of known age group, race/ethnicity, and sex data. Beginning with the publication of *Sexually Transmitted Disease Surveillance 2010,*

redistribution methodology is not applied to any of the data. The counts presented in this report are summations of all valid data reported in reporting year 2014.

As a result, rate data that are stratified by one or more of these variables reflect rates based on reported data only.

A1.7 Classification of STD Morbidity 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 (NJTP), school-based clinics, mental health providers, the military, the Indian Health Service, and other unspecified sources.

Analysis of the data reported electronically after 1996 confirmed that the new STD clinic source of report data corresponded to the earlier public source category. Therefore, source of case report data during 1984–2014 are presented as STD clinic or non-STD clinic only (Table A2).

A1.8 Interpreting Chlamydia Case Reporting

Trends in rates of reported cases of chlamydia are influenced by changes in incidence of infection, as well as changes in diagnostic, screening, and reporting practices. As chlamydial infections are usually asymptomatic, the number of infections identified and reported can increase as more people are screened even when incidence is flat or decreasing. Expanded use of more sensitive diagnostics tests (e.g., nucleic acid amplification tests) can also increase the number of infections identified and reported independent of increases in incidence. 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 case rates prior to 2000 reflect incomplete reporting. Additionally, increasing use of electronic laboratory reporting has likely increased the proportion of diagnosed cases that are reported. Consequently, an increasing chlamydia case rate may reflect increases in incidence of infection, screening coverage, and use of more sensitive tests, as well as more complete reporting. Likewise, decreases in chlamydia case rates may suggest decreases in incidence of infection or screening coverage.

A1.9 Syphilis Morbidity Reporting

The category of "total syphilis" or "all stages of syphilis" includes primary syphilis, secondary syphilis, early latent syphilis, late latent syphilis, and late syphilis with clinical manifestations (including late benign syphilis and cardiovascular syphilis), and congenital syphilis.

Although neurosyphilis can occur at almost any stage of syphilis, during 1996–2005, it was classified and reported as one of several mutually exclusive stages of syphilis. Beginning in 2005, neurosyphilis was no longer classified or reported as a distinct stage of syphilis.

A1.10 Congenital Syphilis Morbidity Reporting

In 1988, the surveillance case definition for congenital syphilis was changed. This case definition has greater sensitivity than the former definition.[6] In addition, many state and local STD programs have greatly enhanced active case finding for congenital syphilis since 1988. For these reasons, as well as because of increasing morbidity, the number of reported cases increased dramatically during 1989–1991. All reporting areas had implemented the new case definition for reporting congenital syphilis by January 1, 1992.

In addition to changing the case definition for congenital syphilis, CDC introduced a new data collection form (CDC 73.126) in 1990 (revised February 2013). Since 1995, the data collected on this form have been used for reporting congenital syphilis cases and associated rates. This form is used to collect individual case information, which allows more thorough analysis of case characteristics. For the purpose of analyzing race/ethnicity, cases are classified by the race/ethnicity of the mother. Congenital syphilis cases were reported by state and city of residence of the mother during 1995–2014.

Congenital syphilis reporting may be delayed as a result of case investigation and validation. Cases for previous years are added to CDC's surveillance databases throughout the year. Congenital syphilis data reported after publication of the current annual STD surveillance report will appear in subsequent reports and are assigned by the case patient's year of birth.

A2. Other Sources of Surveillance Data

A2.1 National Job Training Program (NJTP)

Chlamydia and gonorrhea prevalence was calculated for men and women entering the NJTP. To increase the stability of the estimates, chlamydia or gonorrhea prevalence data are presented when valid test results for 100 or more students per year are available for the population subgroup and state. The majority of NJTP's chlamydia screening tests are conducted by a single national contract laboratory, which provides these data to CDC. Gonorrhea screening tests for male and female students in many training centers are conducted by local laboratories; these data are not available to CDC. Test results for students at centers that submit specimens to the national contract laboratory are included only if the number of gonorrhea tests submitted is greater than 90% of the number of chlamydia tests submitted from the same center for the same period. Prevalence data for state-specific figures were published with permission from the NJTP. Prevalence data presented in Figures J, K, L, and M are grouped and displayed by chosen cut-off values rather than quantiles.

A2.2 STD Surveillance Network (SSuN)

In 2005, CDC established the STD Surveillance Network (SSuN) as a dynamic network comprised of state and local STD surveillance units following enhanced STD surveillance protocols. The purpose of SSuN is to improve the capacity of national, state, and local STD programs to detect, monitor, and respond rapidly to trends in STDs through enhanced collection, reporting, analysis, visualization, and interpretation of disease information.

Twelve collaborating local or state health departments contributed data through Cycle 2 of the network through June of 2013. These include Alabama Department of Public Health, Baltimore City Health Department, Chicago Department of Public Health, Colorado Department of Public Health and Environment, Connecticut Department of Public Health, County of Los Angeles Department of Public Health (in collaboration with California State Department of Public Health), Louisiana Office of Public Health, New York City Department of Health and Mental Hygiene, Philadelphia Department of Public Health, San Francisco Department of Public Health, Virginia Department of Health, and Washington State Department of Health. Cycle 3 of the network was funded in 2013 and includes Baltimore City Health Department, California State Department of Public Health, Florida Department of Health, Massachusetts Department of Public Health, Minnesota Department of Health, Multnomah County Health Department, New York City Department of Health and Mental Hygiene, Philadelphia Department of Public Health, San Francisco Department of Public Health, Utah Department of Health and the Washington State Department of Health.

The SSuN data contained in this report include demographic, behavioral, clinical, and laboratory information collected from patients at STD clinics within the jurisdictions of SSuN health state and/or local health departments. These clinics are located in San Francisco, CA (San Francisco City Clinic); Los Angeles, CA (12 STD clinics in Los Angeles County); Seattle, WA (Seattle-King County Clinic); Denver, CO (Denver Metro Health Clinic); Chicago, IL (7 public STD clinics in Cook County); New Orleans, LA (Delgado Personal Health Center); Birmingham, AL (Jefferson County STD Clinic); Richmond, VA (Richmond City, Henrico County and Chesterfield County Clinics); Baltimore, MD (Druid STD Clinic and Eastern STD Clinic); Philadelphia, PA (Philadelphia STD Clinics 1 and 5); New York City, NY (9 public STD clinics in 5 boroughs); Hartford, CT (Hartford STD Clinic); and New Haven, CT (New Haven STD Clinic).

Collaborators in SSuN jurisdictions also identified a probability sample of all gonorrhea cases reported to the health department for enhanced investigation including administration of a standardized behavioral interview. Information including number, gender and demographics of recent partners was collected directly from patients.

Gay, bisexual, and other men who have sex with men (MSM) were defined as men who either reported having sex with another man ever before STD testing (asked at all SSuN sites) or who did not report sex with men but reported that they considered themselves gay/homosexual or bisexual (asked at 10 of the 12 sites). Men who have sex with women (MSW) were defined as men who reported having sex with women only before STD testing or who did not report the sex of their sex partner, but reported that they considered themselves straight/heterosexual (asked at 10 of the 12 sites). Data from the probability sample are weighted to reflect differing sample fractions across jurisdictions and to adjust for non-response. Weighted analyses provides estimates of these characteristics representative of all reported cases in the collaborating jurisdictions.

Data points presented in this report for 2014 from the STD clinic component of SSuN (Figures 9, 24, 52, V, W, X) are based on data from six jurisdictions (Baltimore City, Los

Angeles, New York City, Philadelphia, San Francisco and Washington State) continuing collaboration across Cycles 2 & 3. For the enhanced gonorrhea component of SSuN, new protocols are being implemented in Cycle 3 and data will not be available until 2015. Figure 23 presents data collected through June of 2013 showing the proportion of cases attributable to MSM, MSW and women.

A2.3 Gonococcal Isolate Surveillance Project (GISP)

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 25–30 GISP sentinel sites and 4–5 regional laboratories in the United States. For more details on findings from GISP, go to: http://www.cdc.gov/std/GISP.

For 2014, the antimicrobial agents tested by GISP were ceftriaxone, cefixime, azithromycin, spectinomycin, ciprofloxacin, penicillin, and tetracycline.

The antimicrobial susceptibility criteria used in GISP for 2014 are as follows:

- Ceftriaxone, minimum inhibitory concentration (MIC) ≥0.5 µg/ml (decreased susceptibility)*
- Ceftriaxone, MIC ≥0.125 µg/ml (elevated MICs)*
- Cefixime, MIC ≥0.5 µg/ml (decreased susceptibility)*
- Cefixime, MIC ≥0.25 µg/ml (elevated MICs)*
- Azithromycin, MIC ≥2.0 µg/ml (decreased susceptibility)*
- Spectinomycin, MIC ≥128.0 µg/ml (resistance)
- Ciprofloxacin, MIC ≥1.0 µg/ml (resistance)
- Ciprofloxacin, MIC 0.125–0.5 µg/ml (intermediate resistance)
- Penicillin, MIC ≥2.0 µg/ml (resistance)
- Tetracycline, MIC ≥2.0 µg/ml (resistance).

The majority of these criteria are also recommended by the Clinical and Laboratory Standards Institute (CLSI).[7]

A2.4 National Health and Nutrition Examination Survey (NHANES)

The National Health and Nutrition Examination Survey (NHANES) is a series of cross-sectional surveys designed to provide national statistics on the health and nutritional status of the general household population in the United States. Data are collected through household interviews, standardized physical examinations, and the collection of biological samples in special mobile examination centers. In 1999, NHANES became a continuous survey with data released every 2 years. The sampling plan of the survey is a stratified, multistage, probability cluster design that selects a sample representative of the U.S. civilian, non-institutionalized population. For more information, see: http://www.cdc.gov/nchs/nhanes.htm.

A2.5 National Disease and Therapeutic Index (NDTI)

The information on the number of initial visits to private physicians' offices for STDs was based on analysis of data from the National Disease and Therapeutic Index (NDTI) (machine-readable files or summary statistics for 1966 through 2013; the 2014 NDTI data were not obtained in time to include them in this report). NDTI is a probability sample survey of private physicians' clinical management practices. For more information on this database, contact IMS Health, e-mail: ServiceCenter@us.imshealth.com; Telephone: (800) 523-5334.

[1] U.S. Census Bureau. United States population estimates by age, sex and race: 1980–1988. In: Current population reports [Series P-25, No. 1045]. Washington, DC: U.S. Government Printing Office; 1990.

[2] U.S. Census Bureau. United States population estimates by age, sex and race: 1989. In: Current population reports [Series P-25, No. 1057]. Washington, DC: U.S. Government Printing Office; 1990.

[3] Centers for Disease Control and Prevention. Vital statistics of the United States 1988. vol.1 - natality. Hyattsville (MD): U.S. Department of Health and Human Services; 1990.

[4] Office of Management and Budget. Standards for defining metropolitan and micropolitan statistical areas. Federal Register. 2000;65(249):82228-38.

[5] Office of Management and Budget. Revisions to the Standards for Classification of Federal Data on Race and Ethnicity. Federal Register Notice. October 30, 1997.

[6] Kaufman RE, Jones OG, Blount JH, Wiesner PJ. Questionnaire survey of reported early congenital syphilis: problems in diagnosis, prevention, and treatment. Sex Transm Dis. 1977;4:135-9.

[7] Clinical and Laboratory Standards Institute. Performance standards for antimicrobial susceptibility testing; twenty-fifth informational supplement. M100-S25, 35(3). Wayne (PA): Clinical and Laboratory Standards Institute; 2015.

* The Clinical Laboratory Standards Institute criteria for decreased susceptibility and resistance to ceftriaxone, cefixime, and azithromycin and for susceptibility to azithromycin have not been established for *N. gonorrhoeae*.

Table A1. Selected STDs — Percentage of Unknown, Missing, or Invalid Values for Selected Variables by State and by Nationally Notifiable STD, 2014

State	Primary and Secondary Syphilis				Gonorrhea			Chlamydia		
	Percentage Unknown Race/ Ethnicity	Percentage Unknown Age	Percentage Unknown Sex	Percentage Unknown Sex Partner	Percentage Unknown Race/ Ethnicity	Percentage Unknown Age	Percentage Unknown Sex	Percentage Unknown Race/ Ethnicity	Percentage Unknown Age	Percentage Unknown Sex
Alabama	7.5	0.0	0.0	30.4	25.5	0.1	0.3	30.5	0.0	0.3
Alaska	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.5	0.0	0.0
Arizona	0.7	0.0	0.0	4.3	22.7	0.0	0.0	30.9	0.0	0.0
Arkansas	0.8	0.0	0.0	14.0	10.4	0.2	0.1	14.8	0.1	0.1
California	7.6	0.1	0.1	11.8	24.9	0.6	0.2	37.1	0.5	0.2
Colorado	6.5	0.0	0.0	2.7	22.7	0.0	0.0	41.4	0.0	0.0
Connecticut	2.3	2.3	0.0	9.3	45.5	0.3	0.3	64.3	0.1	0.8
Delaware	0.0	0.0	0.0	80.9	2.6	0.0	0.0	5.2	0.0	0.0
District of Columbia	29.3	0.0	4.3	100.0	64.0	0.6	0.7	65.9	0.8	0.5
Florida	4.7	0.0	0.1	9.0	15.2	0.0	0.1	20.6	0.0	0.2
Georgia	1.7	0.0	0.0	30.2	29.9	0.1	0.6	39.1	0.1	0.7
Hawaii	5.9	0.0	0.0	16.2	38.3	0.3	0.1	48.0	0.0	0.0
Idaho	8.3	0.0	0.0	16.7	28.2	0.0	0.0	41.5	0.0	0.0
Illinois	2.4	0.0	0.0	25.5	20.4	0.0	0.2	21.4	0.0	0.2
Indiana	0.0	0.0	0.0	4.2	2.9	0.0	0.1	5.2	0.0	0.0
Iowa	0.0	0.0	0.0	6.9	5.8	0.0	0.0	8.6	0.0	0.0
Kansas	1.7	0.0	0.0	10.0	19.6	0.0	0.0	42.7	0.0	0.0
Kentucky	0.0	0.0	0.0	4.4	20.4	0.3	0.3	30.2	0.3	0.4
Louisiana	8.3	0.0	0.0	9.0	1.9	0.0	0.0	2.4	0.0	0.0
Maine	31.3	0.0	0.0	31.3	30.0	0.4	0.8	40.7	0.2	0.1
Maryland	2.4	0.0	0.0	46.8	19.1	0.1	0.2	30.4	0.2	0.1
Massachusetts	7.3	0.3	0.3	33.2	39.0	0.1	0.3	46.5	0.2	0.3
Michigan	0.0	0.0	0.0	6.9	23.5	0.3	0.1	28.2	0.2	0.1
Minnesota	1.2	0.0	0.4	6.2	19.3	0.0	0.3	26.5	0.0	0.0
Mississippi	3.2	0.0	0.0	9.0	10.9	0.0	0.0	15.3	0.1	0.0
Missouri	2.0	0.0	0.0	10.5	8.9	0.0	0.0	14.9	0.0	0.0
Montana*	12.5	0.0	0.0	12.5	5.5	0.5	0.0	6.3	0.6	0.0
Nebraska	12.0	0.0	0.0	28.0	19.5	0.0	0.2	32.9	0.0	0.4
Nevada	2.5	0.0	0.0	19.6	26.1	0.0	0.1	32.0	0.0	0.1
New Hampshire	13.9	0.0	0.0	11.1	14.6	0.0	0.0	21.3	0.0	0.1
New Jersey	5.7	0.0	0.0	25.6	32.7	0.3	0.2	48.1	0.3	0.3
New Mexico	14.3	0.0	0.0	5.6	25.3	0.0	0.0	30.1	0.0	0.1
New York	6.6	0.0	0.2	26.5	24.7	0.1	0.3	37.2	0.2	0.1
North Carolina	0.0	0.0	0.0	13.0	12.1	0.0	0.0	16.4	0.0	0.0
North Dakota	7.7	0.0	0.0	7.7	13.3	0.0	0.0	17.4	0.0	0.0
Ohio	0.2	0.0	0.0	7.6	20.2	0.1	0.0	27.0	0.1	0.0
Oklahoma	0.0	0.0	0.0	2.6	6.6	0.0	0.0	7.8	0.0	0.0
Oregon	6.6	0.0	0.0	21.7	14.9	0.0	0.1	29.5	0.1	0.1
Pennsylvania	2.4	0.0	0.0	12.4	27.6	0.0	0.0	37.4	0.0	0.1
Rhode Island	1.4	0.0	0.0	7.0	5.3	0.0	0.0	17.6	0.0	0.0
South Carolina	0.0	0.0	0.0	1.2	27.8	0.1	0.4	34.1	0.1	0.5
South Dakota	0.0	0.0	0.0	47.2	2.4	0.0	0.0	13.3	0.0	0.0
Tennessee	0.8	0.0	0.0	3.4	1.4	0.0	0.0	2.1	0.0	0.0
Texas	0.6	0.0	0.0	3.5	13.0	0.1	0.1	17.2	0.0	0.1
Utah	0.0	0.0	0.0	31.9	1.9	0.0	0.0	3.6	0.0	0.0
Vermont*	0.0	0.0	0.0	20.0	0.0	0.0	0.0	3.6	0.0	0.1
Virginia	0.0	0.0	0.0	7.6	18.1	0.0	0.1	28.7	0.1	0.1
Washington	24.7	0.0	0.0	4.4	18.8	0.0	0.0	23.1	0.1	0.0
West Virginia	0.0	0.0	0.0	7.1	12.6	0.0	0.0	22.5	0.0	0.0
Wisconsin	15.1	0.0	0.0	70.9	19.6	0.0	0.1	21.4	0.0	0.1
Wyoming*	25.0	0.0	0.0	75.0	19.0	0.0	0.0	21.8	0.0	0.1
U.S. TOTAL	**4.5**	**0.0**	**0.1**	**15.5**	**19.3**	**0.1**	**0.1**	**27.1**	**0.1**	**0.1**

* Percentages for primary and secondary syphilis are based on less than 10 cases.
NOTE: Unknown includes cases reported with unknown, missing, or invalid data values.

Table A2. Reported Cases of STDs by Reporting Source and Sex, United States, 2014

Disease	Non-STD Clinic			STD Clinic			Total		
	Male	Female	Total*	Male	Female	Total*	Male†	Female†	Total‡
Chlamydia	307,845	818,255	1,127,566	64,479	49,702	114,258	433,325	1,006,441	1,441,789
Gonorrhea	129,529	127,049	256,917	32,179	13,347	45,555	186,943	162,608	350,062
Primary Syphilis	3,806	278	4,086	1,525	80	1,606	5,680	412	6,095
Secondary Syphilis	8,811	1,102	9,916	2,803	238	3,042	12,466	1,428	13,904
Early Latent Syphilis	12,215	2,014	14,249	3,186	475	3,664	16,733	2,687	19,452
Late and Late Latent Syphilis§	11,679	4,959	16,669	2,204	608	2,814	16,872	6,634	23,541
Chancroid	4	0	4	0	0	0	4	2	6

* Total includes cases reported with unknown sex.
† Total includes cases reported with unknown reporting source.
‡ Total includes cases reported with unknown sex and reporting source.
§ Late and late latent syphilis includes late latent syphilis, latent syphilis of unknown duration, neurosyphilis, late syphilis with clinical manifestations other than neurosyphilis, and late syphilis with clinical manifestations (including late benign syphilis and cardiovascular syphilis).

B. National Objectives and Goals

B1. Healthy People 2020 Objectives

For three decades, Healthy People has provided a comprehensive set of national 10-year health promotion and disease prevention objectives aimed at improving the health of all Americans.[1] It is grounded in the principle that establishing objectives and providing benchmarks to track and monitor progress over time can motivate, guide, and focus action.

Healthy People 2020 (HP2020) continues in the tradition of its ambitious, yet achievable, 10-year agenda for improving the Nation's health. HP2020 is the result of a multiyear process that reflects input from a diverse group of individuals and organizations. HP2020 is organized into 42 topic areas, with more than 1,200 measures designed drive action that will support its four overarching goals:

- Attain high-quality, longer lives free of preventable disease, disability, injury, and premature death.
- Achieve health equity, eliminate disparities, and improve the health of all groups.
- Create social and physical environments that promote good health for all.
- Promote quality of life, healthy development, and healthy behaviors across all life stages.

The topic area, Sexually Transmitted Diseases, contains objectives and measures related to STDs. Baselines, HP2020 targets, and annual progress toward the targets are reported in Table B1. The year 2020 targets for the diseases addressed in this report are as follows: P&S syphilis (males), 6.8 cases per 100,000 population; P&S syphilis (females), 1.4 cases per 100,000 population; congenital syphilis, 9.1 cases per 100,000 live births; gonorrhea (females aged 15–44 years), 257.0 cases per 100,000 population and gonorrhea (males aged 15–44 years), 198.0 cases per 100,000 population. The majority of the STD-related HP2020 targets were set using a standard percentage improvement with a standard default of a "10 percent improvement over the baseline."

B2. Government Performance and Results Act of 1993

The Government Performance and Results Act (GPRA) of 1993 was enacted by Congress to increase confidence in the capability of the federal government to increase the effectiveness and accountability of federal programs, to improve service delivery, to provide federal agencies a uniform tool for internal management, and to help Congress make decisions.

GPRA requires each agency to have a performance plan with long-term outcomes and annual, measurable performance goals and to report on these plans annually, comparing results with annual goals. There are two GPRA goals for STD: reducing PID and eliminating congenital syphilis. Each of these goals has specific measures of progress, which are outlined in Table B2.

[1] U.S. Department of Health and Human Services. Healthy People 2020 Web site. [Accessed on 9/8/2015] http://healthypeople. gov/2020/default.aspx.

Table B1. *Healthy People 2020* (HP 2020) Sexually Transmitted Diseases Objectives

	HP2020 Objectives	Baseline Year	Baseline	2012	2013	2014	HP 2020 Target
1	**Reduce the proportion of adolescents and young adults with Chlamydia trachomatis infections**						
	a. Among females aged 15 to 24 years attending family planning clinics	2008	7.4%	N/A	N/A	N/A	6.7%
	b. Among females aged 24 years and under enrolled in a National Job Training Program	2008	12.8%	11.0%	11.7%	N/A	11.5%
	c. Among males aged 24 years and under enrolled in a National Job Training Program	2008	7.0%	7.0%	7.4%	N/A	6.3%
2	**Increase the proportion of sexually active females aged 24 years and under enrolled in Medicaid plans who are screened for genital Chlamydia infections during the measurement year**						
	a. Females aged 16 to 20 years	2008	52.7%	53.5%	53.0%	N/A	70.9%
	b. Females aged 21 to 24 years	2008	59.4%	63.6%	64.1%	N/A	80.0%
3	**Increase the proportion of sexually active females aged 24 years and under enrolled in commercial health insurance plans who are screened for genital Chlamydia infections during the measurement year**						
	a. Females aged 16 to 20 years	2008	40.1%	41.4%	42.3%	N/A	61.3%
	b. Females aged 21 to 24 years	2008	43.5%	49.2%	51.2%	N/A	74.6%
4	**Reduce the proportion of females aged 15 to 44 who have ever required treatment for pelvic inflammatory disease (PID)**	2006-2008	4.0%	N/A	N/A	N/A	3.6%
5	**Reduce gonorrhea rates**						
	a. Females aged 15 to 44 years	2008	285.0	264.7	250.6	248.8	257.0
	b. Males aged 15 to 44 years	2008	220.4	232.1	239.4	263.0	198.0
6	**Reduce sustained domestic transmission of primary and secondary syphilis**						
	a. Among females	2008	1.5	0.9	0.9	1.2	1.4
	b. Among males	2008	7.6	9.3	10.3	11.8	6.8
7	**Reduce congenital syphilis**	2008	10.1	8.4	9.1	11.6	9.1
8	**Reduce the proportion of females with human papillomavirus (HPV) Infection (DEVELOPMENTAL)**						
	a. Females with types 6 and 11	2003-2006	3.2	2.0*	N/A	N/A	N/A
	b. Females with types 16 and 18	2003-2006	6.2	6.1*	N/A	N/A	N/A
	c. Females with other types	2003-2006	40.3	38.3*	N/A	N/A	N/A
9	**Reduce the proportion of young adults with genital herpes infection due to herpes simplex type 2**	2005-2008	10.5%	8.8%**	8.3 (2011-2012)	N/A	9.5%

HP2020 Objectives	Data Source
1a	STD Surveillance System (STDSS), NCHHSTP, CDC
1b, 1c	National Job Training Program, STD Surveillance System (STDSS), NCHHSTP, CDC
2a, 2b	Healthcare Effectiveness Data and Information Set (HEDIS), National Committee for Quality Assurance (NCQA)
3a, 3b	Healthcare Effectiveness Data and Information Set (HEDIS), National Committee for Quality Assurance (NCQA)
4	2006-2010 National Survey of Family Growth (NSFG), NCHS, CDC
5a, 5b	STD Surveillance System (STDSS), NCHHSTP, CDC
6a, 6b	STD Surveillance System (STDSS), NCHHSTP, CDC
7	STD Surveillance System (STDSS), NCHHSTP, CDC
8a, 8b	NHANES, CDC, NCHS and the National Health Interview Survey (NHIS), CDC
8c	NHANES, CDC, NCHS
9	NHANES, CDC, NCHS

*2007-2010
**2009-2010 data among 20-29 year olds

Table B2. Government Performance and Results Act (GPRA) Sexually Transmitted Diseases Goals, Measures, and Target

GPRA Goals	Actual 2012	Actual 2013	Actual 2014	Target 2015
Goal 1: Reduction in PID (as measured by initial visits to physicians in women 15–44 years of age)	**106,000**	**88,000**	**98,800**	**87,208**
a. Proportion of high-risk women aged 16-20 infected with chlamydia*	12.4†	13.3	N/A	11.9
b. Proportion of high-risk women aged 21-24 infected with chlamydia*	8.9†	9.4†	N/A	8.5
c. Rate of gonorrhea/100,000 population in women aged 16-20	618.5	551.9	523.9	538.1
d. Rate of gonorrhea/100,000 population in women aged 21-24	545.3	513.8	508.1	512.8
e. Black: white ratio of gonorrhea in women 16-24	12.4	11.1	10.3	10.6
f. Proportion of sexually active females 16-20 enrolled in Medicaid who are screened for chlamydia infections	53.5	53.0	N/A	61.1
g. Proportion of sexually active females 21-24 enrolled in Medicaid who are screened for chlamydia infections	63.6	64.1	N/A	65.4
h. Proportion of sexually active females 16-20 enrolled in commercial health insurance plans who are screened for chlamydia infections	41.1	42.3	N/A	43.1
i. Proportion of sexually active females 21-24 enrolled in commercial health insurance plans who are screened for chlamydia infections	49.2	51.2	N/A	52.2
Goal 2: Elimination of Congenital Syphilis				
a. Incidence of P&S syphilis/100,000 population in women aged 15-44	2.1	2.1	2.6	1.7
b. Incidence of congenital syphilis/100,000 live births	8.4	8.7	11.5	6.7
c. Proportion of pregnant women that are screened for syphilis at least one month before delivery	85.0	85.1	N/A	84

GPRA Goals	Data Source
1	National Disease and Therapeutic Index (IMS Health)
1a, 1b	National Job Training Program
1c, 1d, 1e	STD Surveillance System (STDSS), NCHHSTP, CDC
1f, 1g, 1h, 1i	Healthcare Effectiveness Data and Information Set (HEDIS), National Committee for Quality Assurance (NCQA)
2a, 2b	STD Surveillance System (STDSS), NCHHSTP, CDC
2c	Marketscan. Thomson Reuters (Healthcare) Inc.

* Median state-specific chlamydia prevalence/positivity among states with >100 females in this age group entering the National Job Training Program.

† In FY 2013 CDC improved the calculation of these data to increase the stability of estimate over time. Data for 2010 and later years reflect this improved calculation method.

GPRA= Government Performance and Results Act; PID= pelvic inflammatory disease; P&S= primary and secondary; N/A = Not available.

C. STD Surveillance Case Definitions

C1. CASE DEFINITIONS[1] FOR NATIONALLY NOTIFIABLE INFECTIOUS DISEASES

C1.1 Chancroid (Revised 9/96)

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.

C1.2 *Chlamydia trachomatis* Infection (Revised 6/09)

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

C1.3 Gonorrhea (Effective 1/14)

Clinical description

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

[1] Centers for Disease Control and Prevention. Case definitions for infectious conditions under public health surveillance, 1997. MMWR Morb Mortal Wkly Rep. 1997;46(No. RR-10).

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 *Neisseria 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., PCR) or hybridization with a nucleic acid probe.

C1.4 Syphilis (Effective 1/14)

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

Syphilis, primary (Effective 1/14)

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

- Demonstration of *T. pallidum* in clinical specimens by darkfield microscopy, or by polymerase chain reaction (PCR) or equivalent direct molecular methods.

Case classification

Probable: a case that meets the clinical description of primary syphilis with a reactive serologic test (nontreponemal: Venereal Disease Research Laboratory [VDRL], rapid plasma reagin [RPR], or equivalent serologic methods; treponemal: fluorescent treponemal antibody absorbed [FTA-ABS], *T. pallidum* particle agglutination [TP-PA], enzyme immunoassay [EIA], chemiluminescence immunoassay [CIA], or equivalent serologic methods). These treponemal tests supersede older testing technologies, including microhemagglutination assay for antibody to *T. pallidum* [MHA-TP].

Confirmed: a case that meets the clinical description of primary syphilis that is laboratory confirmed.

Syphilis, secondary (Effective 1/14)

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, popular, 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 possibly indicating secondary syphilis, serologic tests for syphilis and a thorough sexual history and physical examination are crucial to determining if a case should be classified as secondary syphilis.

Laboratory criteria for diagnosis

- Demonstration of *T. pallidum* in clinical specimens by darkfield microscopy, or by polymerase chain reaction (PCR) or equivalent direct molecular methods.

Case classification

Probable: a case that meets the clinical description of secondary syphilis with a nontreponemal (VDRL, RPR, or equivalent serologic methods) titer ≥4 and a reactive treponemal test (FTA-ABS, TP-PA, EIA, CIA, or equivalent serologic methods).

Confirmed: a case that meets the clinical description of secondary syphilis (with at least one sign or symptom) that is laboratory confirmed.

Syphilis, early latent (Effective 1/14)

Clinical description

A subcategory of latent syphilis (a stage of infection caused by *T. pallidum* in which organisms persist in the body of the infected person without causing symptoms or signs) when initial infection has occurred within the previous 12 months.

Case classification

Probable: A person with no clinical signs or symptoms of syphilis who has one of the following:

- No past diagnosis of syphilis, and a reactive nontreponemal test (e.g., VDRL, RPR, or equivalent serologic methods), and a reactive treponemal test (e.g., FTA-ABS, TP-PA, EIA, CIA, or equivalent serologic methods), or
- A current nontreponemal test titer demonstrating fourfold or greater increase from the last nontreponemal test titer

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

There is no confirmed case classification for early latent syphilis.

Syphilis, late latent (Effective 1/14)

Clinical description

A subcategory of latent syphilis (a stage of infection caused by *T. pallidum* in which organisms persist in the body of the infected person without causing symptoms or signs)when initial infection has occurred >12 months previously.

Case classification

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

- No past diagnosis of syphilis, and a reactive nontreponemal test (e.g., VDRL, RPR, or equivalent serologic methods), and a reactive treponemal test (e.g., FTA-ABS, TP-PA, EIA, CIA, or equivalent serologic methods). or
- A past history of syphilis therapy and a current nontreponemal test titer demonstrating fourfold or greater increase from the last nontreponemal test titer.

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

There is no confirmed case classification for late latent syphilis.

Neurosyphilis (Effective 1/14)

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. If no other stage is appropriate, the case should be staged as "late, with clinical manifestations".

Neurosyphilis can apply to all stages of infection of syphilis listed, including: primary syphilis, secondary syphilis, early latent syphilis, late latent syphilis, and late syphilis with clinical manifestations.

Clinical description

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

Laboratory criteria for diagnosis

A reactive VDRL in cerebrospinal fluid (CSF) and either (1) a reactive treponemal serologic test for syphilis (e.g., FTA-ABS, TP-PA, EIA, CIA, or equivalent serologic methods) or (2) a reactive nontreponemal serologic test for syphilis (VDRL, RPR, or equivalent serologic method).

Case classification

Probable: syphilis of any stage with a negative VDRL test in CSF specimen and either (1) a reactive treponemal serologic test for syphilis (e.g., FTA-ABS, TP-PA, EIA, CIA, or equivalent serologic methods) or (2) a reactive non-treponemal serologic test for syphilis (VDRL, RPR, or equivalent serologic method), and both of the following:

- Elevated CSF protein (>50 mg/dL2) or leukocyte count (>5 white blood cells/cubic millimeter CSF) in the absence of other known causes of these abnormalities, and
- Clinical symptoms or signs consistent with neurosyphilis without other known causes for these clinical abnormalities

Confirmed: syphilis of any stage that meets the laboratory criteria for neurosyphilis

Syphilis, late with clinical manifestations (including late benign syphilis and cardiovascular syphilis) (Effective 1/14)

Clinical description

Clinical manifestations of late 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. Late syphilis usually becomes clinically manifest only after a period of 15–30 years of untreated infection. If only neurologic manifestations of syphilis (e.g., tabes dorsalis, dementia) are present and infection occurred more than 12 months ago, the case should be reported as "late syphilis".

Laboratory criteria for diagnosis

- Demonstration of *T. pallidum* in late lesions by special stains (although organisms are rarely visualized in late lesions), or equivalent methods, or by polymerase chain reaction (PCR) or equivalent direct molecular methods.

Case classification

Probable: 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 and a reactive treponemal test (e.g., FTA-ABS, TP-PA, EIA, CIA, or equivalent serologic methods), in the absence of other known causes of these abnormalities. CSF abnormalities and clinical symptoms or signs consistent with neurologic manifestations of syphilis might be present.

Confirmed: a case that meets the clinical description of late syphilis that is laboratory confirmed.

Syphilitic Stillbirth

Clinical description

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

Comment

For reporting purposes, syphilitic stillbirths should be reported as cases of congenital syphilis.

Syphilis, Congenital (Revised 9/96)

Clinical description

A condition caused by infection in utero with *Treponema pallidum*. A wide spectrum of severity exists, and only severe cases are clinically apparent at birth. An infant or child (aged <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, fluorescent antibody, or other specific stains in 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 treponemal test for syphilis and any one of the following:

- Any evidence of congenital syphilis on physical examination
- Any evidence of congenital syphilis on radiographs of long bones
- A reactive cerebrospinal fluid (CSF) venereal disease research laboratory (VDRL)
- An elevated CSF cell count or protein (without other cause)
- A reactive fluorescent treponemal antibody absorbed—19S-IgM antibody test or IgM enzyme-linked immunosorbent assay

Confirmed: a case that is laboratory confirmed

Comment

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, cell count, and protein, as well as IgM antibodies, 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. 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.

* Inadequate treatment consists of any nonpenicillin therapy or penicillin administered < 30 days before delivery.

C2. CASE DEFINITIONS[1] FOR NON-NOTIFIABLE INFECTIOUS DISEASES

C2.1 Genital Herpes (Herpes Simplex Virus) (Revised 9/96)

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.

C2.2 Genital Warts (Revised 9/96)

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.

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[1] Centers for Disease Control and Prevention. Case definitions for infectious conditions under public health surveillance, 1997. MMWR Morb Mortal Wkly Rep. 1997;46(No. RR-10).

C2.3 Granuloma Inguinale

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

C2.4 Lymphogranuloma Venereum

Clinical description

Infection with L1, L2, or, L3 serovars of *Chlamydia 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

C2.5 Mucopurulent Cervicitis (Revised 9/96)

Clinical description

Cervical inflammation that is not the result of infection with *Neisseria 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)
- 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 *Chlamydia 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.

C2.6 Nongonococcal Urethritis (Revised 9/96)

Clinical description

Urethral inflammation that is not the result of infection with *Neisseria 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 *Chlamydia 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.

C2.7 Pelvic Inflammatory Disease (Revised 9/96)

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 white blood cells/mm^3
- 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.

Contributors

We gratefully acknowledge the contributions of state STD project directors, STD program managers, state and territorial epidemiologists, and laboratory directors. The persons listed were in the positions shown as of September 15, 2015.

State/City/Outlying Area	STD Project Directors	STD Program Managers	State Epidemiologists	Laboratory Directors
Alabama	Anthony Merriweather	Anthony Merriweather	Mary McIntyre	Sharon Massingale
Alaska	Susan Jones	Donna Cecere	Joe McLaughlin	Bernard Jilly
Arizona	Roxanne Ereth	Roxanne Ereth	Kenneth Komatsu	Victor Waddell
Arkansas	Vacant	Brandi Roberts	Dirk Haselow	Glen Baker
California	Heidi Bauer	Romni Neiman	Gilberto Chavez	Paul Kimsey
Los Angeles	Michael Green	Vacant	Gilberto Chavez	Nicole Green (Acting)
San Francisco	Trang Nguyen	Nora Macias	Gilberto Chavez	Severin Gose (Acting)
Colorado	Melanie Mattson	Rebecca Jordan-Yehle	Lisa Miller	Hugh Maguire (Acting)
Connecticut	Lynn Sosa	Heidi Jenkins	Matthew Cartter	Jafar Razeq
Delaware	Catherine Mosley	Catherine Mosley	Tabatha Offutt-Powell	Sergio Huerta
District of Columbia	Michael Kharfen	Michael Kharfen	John Davies-Cole	Morris Blaylock (Acting)
Florida	Vacant	Kisha Gaines	Anna Likos	Carina Blackmore
Georgia	Michelle Allen	Michelle Allen	Cherie Drenzek	Elizabeth Franko
Hawaii	Peter Whiticar	Gerald "Luke" Hasty, Jr.	Sarah Park	A. Christian Whelen
Idaho	Rafe Hewitt	Deane Gardner	Christine Hahn	Christopher Ball
Illinois	Danny Brikshavana	Vacant	Constance Austin	Tom Johnson
Chicago	Vacant	Vacant	Constance Austin	Massimo Pacilli
Indiana	Jeremy Roseberry	Jeremy Roseberry	Pamela Pontones	Judith Lovchik
Iowa	Randy Mayer	George Walton	Patricia Quinlisk	Christopher Atchison
Kansas	Jennifer VandeVelde	Jennifer VandeVelde	Charles Hunt	Myron Gunsalus
Kentucky	Vacant	Chang Lee	Kraig Humbaugh	Paul Bachner
Louisiana	DeAnn Gruber	Vacant	Raoult Ratard	Stephen Martin
Maine	Jayson Hunt	Emer Smith	Siiri Bennett	Kenneth Pote
Maryland	Sandra Matus	Sandra Matus	David Blythe	Robert Myers
Baltimore	Glen Olthoff	Hilda Ndirangu	David Blythe	
Massachusetts	Kathleen Roosevelt	David Goudreau	Alfred DeMaria	Michael Pentella
Michigan	Karen Krzanowski	Karen Krzanowski	Corrine Miller	Sandip Shah
Minnesota	Marcie Babcock	Marcie Babcock	Ruth Lynfield	Joanne Bartkus
Mississippi	Nicholas Mosca	David Peyton	Thomas Dobbs	Daphne Ware
Missouri	Ken Palermo	Ken Palermo	George Turabelidze	Bill Whitmar
Montana	Cara Murolo	Cara Murolo	Carol Ballew	Ron Paul
Nebraska	Jeri Weberg-Bryce	Jeri Weberg-Bryce	Thomas Safranek	Peter Iwen
Nevada	Sandi Larson	Chelsi Cheatom	Daniel Mackie/ Ihsan Azzam	Yashpal Agrawal (Interim)
New Hampshire	Christine Adamski	Lindsay Pierce	Benjamin Chan	Christine Bean
New Jersey	Connie F. Calisti-Meyers	Patricia Mason	Christina Tan	Onesia Bishop
New Mexico	Andrew Gans	Janine Waters	Michael Landen	Lizia Liu
New York	Alison Muse	Margaret Carroll	Debra Blog	Jill Taylor
New York City	Susan Blank	Kate Washburn	Debra Blog	Jennifer Rakeman
North Carolina	Jacquelyn Clymore	Pete Moore	Megan Davies	Scott Zimmerman
North Dakota	Kirby Kruger	Lindsey VanderBusch	Tracy Miller	Myra Kosse
Ohio	Amanda Dennison	Vacant	Mary DiOrio	Rosemarie Gearhart
Oklahoma	Jan Fox	Kristen Eberly	Kristy Bradley	S. Terrance Dunn
Oregon	Veda Latin	Ruth Helsley	Katrina Hedberg	John Fontana
Pennsylvania	Beth Butler	Beth Butler	Kirsten Waller	James Lute (Acting)
Philadelphia	Greta Anschuetz	Melinda Salmon	Kirsten Waller	Kerry Buchs
Rhode Island	Thomas Bertrand	Jaime Comella	Utpala Bandy	Ewa King
South Carolina	Vacant	Bernard Gilliard	Linda Bell	Shahiedy Shahied
South Dakota	Amanda Gill	Amanda Gill	Lon Kightlinger	Timothy Southern
Tennessee	Brad Beasely	Vacant	Tim Jones	Richard Steece
Texas	Feipe Rocha	Shelley Lucas	Linda Gaul	Grace Kubin
Utah	Lynn Meinor	Lynn Meinor	Allyn Nakashima	Robyn Atkinson-Dunn
Vermont	Daniel Daltry	Daniel Daltry	Patsy Kelso/ Lori Cragin	Mary Celotti
Virginia	Diana Jordan	Oana Vasiliu	Laurie Forlano	Denise Toney
Washington	David Kern	David Kern	Scott Lindquist/ Cathy Wasserman	Romesh Gautom
West Virginia	Susan Hall	Ken Gould	Loretta Haddy	Sharon Lee Cibrik
Wisconsin	Vacant	Anthony Wade	Henry Anderson/ Jeffrey Davis	Charles Brokopp
Wyoming	Tai Wright	Debi Anderson	Tracy Murphy	Sarah Buss
American Samoa	Fara M. Utu	Fetaui V. Saelua	Scott Anesi	Mary Matau
Federated States of Micronesia	Vita Akapito Skilling	Mayleen Ekiek	Vita Akapito Skilling	Lisa Barrow
Government of the Marshall Islands	Julia Alfred	Adela Sibok	Edlen Anzures	Anne Chang Gum
Northern Marianas (CNMI)	John Dax Moreno	John Dax Moreno	Ginny Monteiro	Philip Dauterman
Guam	James W. Gillan	Bernadette P. Schumann	Josephine O'Mallan	Vacant
Puerto Rico	Trinidad Garcia Vargan	Raymond Perez Rivera	Brenda Rivera-Garcia	Myriam Garcia-Negron
Republic of Palau	Berrymoon Watson	Sherilynn Madraisau	Dawn Fitzgibbons	Francis Termeteet
Virgin Islands	Gritell Martinez	Jasper Lettsome	Esther Ellis	Joseph Mark