Sexually Transmitted Disease Surveillance 2012

Division of STD Prevention
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Division of STD Prevention
Atlanta, Georgia 30333

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This report was prepared by the following CDC staff:

Jim Braxton, Delicia Carey, Darlene Davis, Alison Footman, Elaine Flagg, LaZetta Grier, Alesia Harvey, Kathleen Hutchins, Sarah Kidd, Jennine Kinsey, Robert Kirkcaldy, Eloisa Llata, Rob Nelson, Fred Rivers, Mark Stenger, John Su, Elizabeth Torrone, Hillard Weinstock, the Surveillance and Data Management Branch of the Division of STD Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB 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 1993–2011
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/abc_list_p.htm#pelvic

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 2012 presents statistics and trends for sexually transmitted diseases (STDs) in the United States through 2012. 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.

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 2012. 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 before 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 current standard categories: American Indian or Alaska Native, Asian, Black or African American, Hispanic or Latino, Native Hawaiian or Other Pacific Islander, White and multirace. Beginning with this publication, *Sexually Transmitted Disease Surveillance 2012*, data on race/ ethnicity are displayed in compliance with the OMB standards.While 48 jurisdictions (47 states and the District of Columbia) collect and report data in formats compliant with these standards as of 2012, some jurisdictions only recently adopted this standard and used previous standards to report their case data to CDC in past years. Subsequently, historical trend and rate data by race/ethnicity displayed in figures and interpreted in this report for 2008–2012 include only those jurisdictions (38 states plus the District of Columbia) reporting in the current standard consistently for 2008 through 2012.

Sexually Transmitted Disease Surveillance 2012 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

Director, Division of STD Prevention
National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention
Centers for Disease Control and Prevention
1600 Clifton Road, Mailstop E-02
Atlanta, Georgia 30333

Guide to Acronyms

CDC	Centers for Disease Control and Prevention
CSF	cerebrospinal fluid
DSTDP	Division of STD Prevention
GISP	Gonococcal Isolate Surveillance Project
HEDIS	Healthcare Effectiveness Data and Information Set
HHS	U.S. Department of Health and Human Services
HMOs	health maintenance organizations
HIV	human immunodeficiency virus
HP2020	*Healthy People 2020*
HPV	human papillomavirus
HSV	herpes simplex virus
MICs	minimum inhibitory concentrations
MPC	mucopurulent cervicitis
MSA	metropolitan statistical area
MSM	men who have sex with men
MSW	men who have sex with women only
NAATs	nucleic acid amplification tests
NDTI	National Disease and Therapeutic Index
NGU	nongonococcal urethritis
NHANES	National Health and Nutrition Examination Survey
NHDS	National Hospital Discharge Survey
NJTP	National Job Training Program
OMB	Office of Management and Budget
P&S	primary and secondary
PID	pelvic inflammatory disease
QRNG	quinolone-resistant *Neisseria gonorrhoeae*
RPR	rapid plasma reagin
SSuN	STD Surveillance Network
STD	sexually transmitted disease
VDRL	Venereal Disease Research Laboratory

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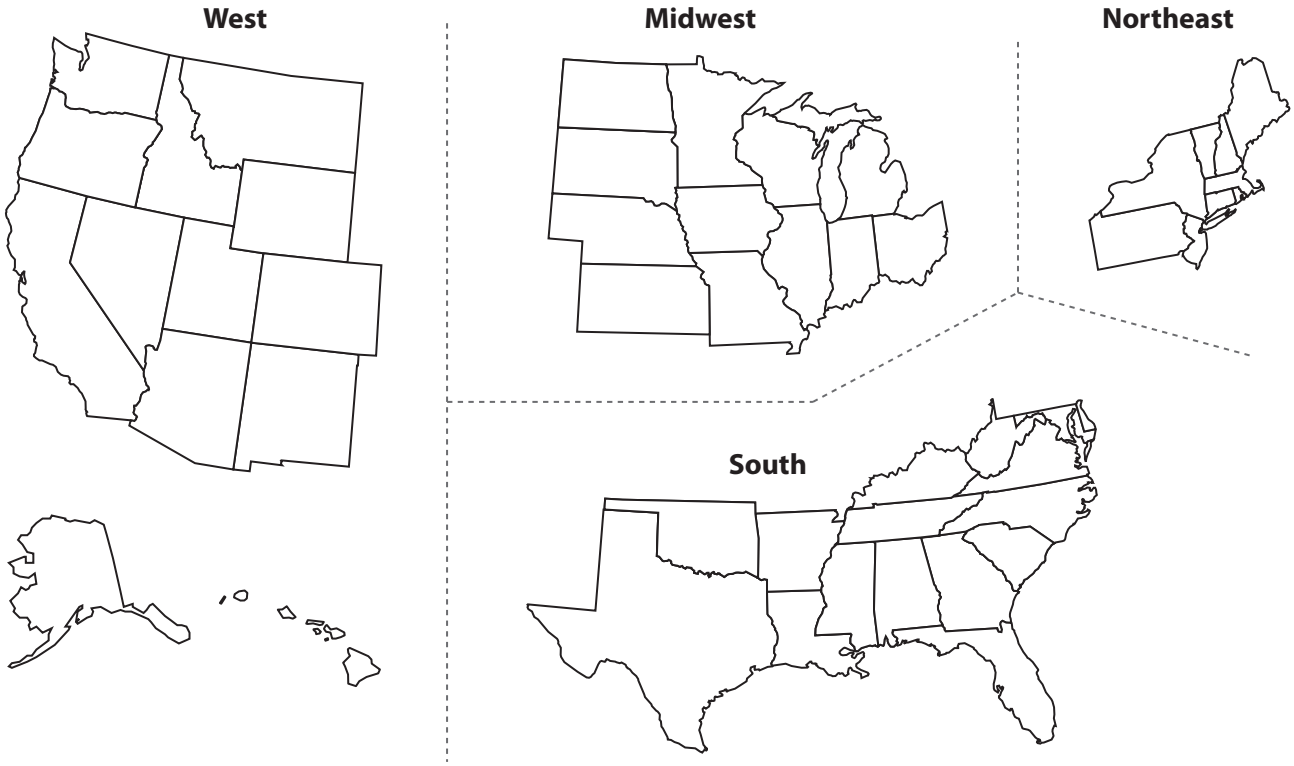

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National Overview of Sexually Transmitted Diseases (STDs), 2012

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 burdens. In addition to federal, state, and local public support for STD prevention, local community leaders can promote STD prevention education. Health 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 2012 on the three notifiable diseases for which there are federally funded control programs: chlamydia, gonorrhea, and syphilis. Several observations for 2012 are worthy of note. During the mid-1990s to 2011, chlamydia and gonorrhea positivity among women screened in correctional facilities and in family planning and prenatal care clinics participating in infertility prevention activities were sent to Centers for Disease Control and Prevention (CDC) to monitor prevalence for those conditions. As the infertility prevention program expanded, trends in prevalence have become increasingly difficult to interpret[2] and are no longer included in this report. For the first time, the data presented here by race and ethnicity are categorized according to the revised Office of Management and Budget standards. However, data for all jurisdictions by race/ethnicity using these categories are not available; consequently, absolute rates by race/ethnicity and comparisons between racial/ethnic groups may not match those provided in previous reports.

Chlamydia

In 2012, a total of 1,422,976 cases of *Chlamydia trachomatis* infection were reported to the CDC (Table 1). This is the largest number of cases ever reported to CDC for any condition. This case count corresponds to a rate of 456.7 cases per 100,000 population, an increase of only 0.7% compared with the rate in 2011, the smallest annual increase since nationwide reporting for chlamydia began. For the first time since nationwide reporting of chlamydia began, the rate in women did not increase. The rate in men increased 3.2%.

In 2012, the overall rate of chlamydial infection in the United States among women (643.3 cases per 100,000 females) was over two times the rate among men (262.6 cases per 100,000 males), reflecting the larger number of women screened for this infection (Tables 4 and 5). However, with the increased availability of urine testing, men are increasingly being tested for chlamydial infection. During 2008–2012, the chlamydia rate in men increased 25%, compared with an 11% increase in women during this period. Rates also varied among different racial and ethnic minority populations. For example, in 2012, the chlamydia rate in blacks was 6.8 times the rate in whites.

Gonorrhea

Following a 74% decline in the rate of reported gonorrhea during 1975–1997, overall gonorrhea rates plateaued for 10 years. After the decline halted for several years, gonorrhea rates decreased further to 98.1 cases per 100,000 population in 2009, the lowest rate since recording of gonorrhea rates began. Since 2009, the gonorrhea rate has increased slightly each year to 107.5 cases per 100,000 population in 2012, a 9.6% increase overall. In 2012, there were 334,826 cases of gonorrhea reported in the United States. The 4% increase between 2011 and 2012 was observed in all regions except for the South where rates are still the highest of any region in the country. In 2012, rates increased in all age groups except those aged 15–19.

Since 2001, the rates in women have been somewhat higher than rates in men (Figure 12). In 2012, the gonorrhea rate in women was 108.7 cases per 100,000 population compared with a rate of 105.8 in men. During 2011–2012 the gonorrhea rate among women increased only 0.6% (4% since 2009) while it increased 8.3% among men (17.7% since 2009). As with

chlamydia, gonorrhea rates in women were highest among those aged 15–24 years with the highest rate being in women 19 years of age (761 cases per 100,000 population, Table 23). In men, they were highest among those aged 20–24 years (Figure 16). However, the largest observed increases in 2012 were in women aged 40–44 years old and in men aged 30–34. In 2012, the gonorrhea rate in blacks was 15 times the rate in whites (Table 22B). As with chlamydia, data on gonorrhea prevalence in defined populations were available from several sources in 2012. These data showed a continuing high burden of disease in some adolescents and young adults in parts of the United States.

Antimicrobial resistance remains an important consideration in the treatment of gonorrhea. With increased resistance to the fluoroquinolones and the declining susceptibility to cefixime, dual therapy with ceftriaxone and either azithromycin or doxycycline is now the only CDC recommended treatment for gonorrhea.[3] Continued monitoring of susceptibility patterns to these antibiotics is critical. One isolate with decreased susceptibility to ceftriaxone was seen in 2012 in CDC's sentinel surveillance system, the Gonococcal Isolate Surveillance Project (GISP). No increases in Minimum Inhibitory Concentration (MIC) trends for cephalosporins were observed in 2012 (Figures 24 and 25).

Syphilis

The rate of primary and secondary (P&S) syphilis reported in the United States decreased during the 1990s, and in 2000, it was the lowest since reporting began in 1941. The low rate of syphilis and the concentration of most syphilis cases in a small number of geographic areas led to the development of the *National Plan to Eliminate Syphilis from the United States*, which was announced by the Surgeon General in 1999 and updated in 2006.[4] The overall rate of P&S syphilis in the United States declined 89.7% during 1990–2000, then increased each year from 2001 through 2009. In 2010, the overall rate decreased for the first time in 10 years. But, in 2011 this rate remained unchanged, and in 2012, the rate increased 11.1% from that in 2011. This increase was solely among men in whom rates increased 14.8% overall. (Figure 31). In 33 areas where sex of partner data were available for at least 70% of cases each year during 2007-2012, cases among men who have sex with men (MSM) increased 15% between 2011 and 2012; in men who have sex with women only, cases increased 4% (Figure 30). In the US as a whole, rates in women remained unchanged between 2011 and 2012. In 2012, a total of 15,667 cases of P&S syphilis were reported to CDC, 1,697 more cases than were reported in 2011. Approximately 75% of cases were in MSM.

The 2012 rate of congenital syphilis (7.8 cases per 100,000 live births) marks the lowest rate of congenital syphilis recorded since 1988, when the case definition was changed. The rate of congenital syphilis decreased 10% between 2011 and 2012 and 26% since 2008. There were 322 cases of congenital syphilis reported in 2012.

Significant race and ethnic disparities in STD rates persist. In 2012, the P&S syphilis rate among blacks was six times the rate among whites. (Figure 38) In some subgroups, however, these disparities are much higher. The 2012 rate among blacks aged 15–19 years was 16 times the rate for whites of that age. While rates in congenital syphilis have decreased in recent years, the rates are still 14 times higher in blacks than whites and almost 4 times higher in Hispanics than whites (Table 43).

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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 Satterwhite CL, Grier L, Patzer R, Weinstock H, Howards P, Kleinbaum D. Chlamydia positivity trends among women attending family planning clinics: United States, 2004-2008. Sex Transm Dis 2011;38 (11): 989-994.

3 Centers for Disease Control and Prevention. Update to CDC's sexually transmitted diseases treatment guidelines, 2010. Oral cephalosporins no longer a recommended treatment for gonococcal infection. MMWR Morb Mortal Wkly Rep. 2012;61(31):590-594.

4 Centers for Disease Control and Prevention. The national plan to eliminate syphilis from the United States. Atlanta: U.S. Department of Health and Human Services; 2006.

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

C. trachomatis infection is the most commonly reported 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. Based on estimates from national surveys conducted from 1999–2008, chlamydia prevalence is 6.8% among sexually active females aged 14–19 years.[1]

Chlamydial infections in women are usually asymptomatic. However, these can result in pelvic inflammatory disease (PID), which is a major cause of infertility, ectopic pregnancy, and chronic pelvic pain. Data from a randomized controlled trial of chlamydia screening in a managed care setting suggested that screening programs can lead to as much as a 60% reduction in the incidence of PID.[2] As with other inflammatory STDs, chlamydial infection might facilitate the transmission of human immunodeficiency virus (HIV) infection.[3] 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 26 years receive annual chlamydia screening.[4]

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.[5] Among sexually-active women aged 16–24 years in commercial plans, chlamydia screening increased from 23.1% in 2001 to 45.0% in 2011. During the same time period, the screening rate among sexually-active women aged 16–24 years covered by Medicaid increased from 40.4% to 58.0%.[6] Although chlamydia screening is expanding, 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.

The increase in reported chlamydial infections during the last 20 years reflects the expansion of chlamydia screening activities, the use of increasingly sensitive diagnostic tests, an increased emphasis on case reporting from providers and laboratories, and improvements in the information systems used for reporting. To supplement case report data, chlamydia positivity and prevalence among people screened in a variety of settings are monitored.

Chlamydia—United States

In 2012, a total of 1,422,976 chlamydial infections were reported to CDC in 50 states and the District of Columbia (Table 1). This case count corresponds to a rate of 456.7 cases per 100,000 population, only a 0.7% increase compared with the rate of 453.4 in 2011. During 1992–2012, the rate of reported chlamydial infection increased from 182.3 to 456.7 cases per 100,000 population (Figure 1, Table 1).

Chlamydia by Region

During 2003–2012, chlamydia rates increased in all regions (Figure 2). In 2012, rates were highest in the South (496.9 per 100,000 population), followed by the Midwest (452.1), the West (426.5), and the Northeast (417.8) (Table 3).

Chlamydia by State

In 2012, chlamydia rates by state ranged from 233.0 cases per 100,000 population in New Hampshire to 774.0 cases in Mississippi (Figure 3, Table 2); the rate in the District of Columbia was 1,101.6 cases per 100,000 (Table 3).

Chlamydia by Metropolitan Statistical Area

In 2012, the chlamydia rate per 100,000 population in the 50 most populous metropolitan statistical areas (MSAs) was similar to the rate in 2011 (481.1 and 480.9 cases, respectively) (Table 6). In 2012, 56.8% of chlamydia cases were reported by these MSAs. Among women in these MSAs, the 2012 rate of 661.8 cases per 100,000 females was similar to the 2011 rate of 667.6 cases per 100,000 females (Table 7). Among men, the 2012 rate (291.3 per 100,000 males) increased 2.6% from the 2011 rate (284.0 cases per 100,000 males) (Table 8).

Chlamydia by County

Counties in the United States with the highest chlamydia case rates per 100,000 population were located primarily in the Southeast and West, including Alaska (Figure 4). In 2012, 927 (29.5%) of 3,142 counties had rates higher than 400.0 cases per 100,000 population. Seventy counties and independent cities reported 44% of all chlamydia cases in 2012 (Table 9).

Chlamydia by Sex

During 1995–2011, chlamydia rates among females increased each year (Figure 1). In 2012, the overall rate of reported chlamydial infection among women in all 50 states and the District of Columbia (643.3 cases per 100,000 females) was similiar to the reported case rate in 2011 (643.4 cases per 100,000 females). This is the first time since nationwide reporting began in 1995 that chlamydia case rates among females did not increase.

The overall case rate among males increased 3.2% during 2011–2012 (254.4 to 262.6 cases per 100,000 males). As in previous years, the reported case rate among females was about two times the case rate among men in 2012, likely reflecting a larger number of women screened for this infection (Figure 1, Tables 4 and 5). The lower rates among men also suggest 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 2008–2012, the reported chlamydial infection rate among men increased 25.5% (from 209.3 to 262.6 cases per 100,000 males) compared with a 11.0% increase among women during the same period (from 579.4 to 643.3 cases per 100,000 females).

Chlamydia by Age

Chlamydia rates are highest among adolescents and young adults aged 15–24 years (Table 10). Among those aged 15–19 years, rates increased 8.9% during 2008–2011 (1,947.7 to 2,120.8 cases per 100,000 population) and then decreased 5.6% during 2011–2012 (2,120.8 to 2,001.7 cases per 100,000 population). Among those aged 20–24 years, rates increased 18.1% during 2008–2011 (2,075.9 to 2,450.8 cases per 100,000) and then increased slightly (2.1%) during 2011–2012 (2,450.8 to 2,501.5 cases per 100,000).

Among women, the highest age-specific rates of reported chlamydia in 2012 were among those aged 15–19 years (3,291.5 cases per 100,000 females) and 20–24 years (3,695.5 cases per 100,000 females) (Figure 5, Table 10). Within these age ranges, reported rates were highest among women aged 18 years (4,666.3 cases per 100,000 females), aged 19 years (4,921.1 cases per 100,000 females), and aged 20 years (4,647.5 cases per 100,000 females) (Table 12). After increasing steadily from 2000 to 2011, during 2011–2012, rates among women aged 15–19 years decreased 5.6% (3,485.2 to 3,291.5 cases per 100,000 females). Rates increased slightly (1.8%) among women aged 20–24 years (3,630.0 to 3,695.5 cases per 100,000 females) during 2011–2012.

Age-specific rates among men, although substantially lower than the rates among women, were highest in those aged 20–24 years (1,350.4 cases per 100,000 males) (Figure 5, Table 10). Similar to trends in women, after increasing for the last decade, during 2011–2012 reported case rates among men aged 15–19 years decreased 5.1% (816.3 to 774.8 cases per 100,000 males). During 2011–2012, reported cases among men aged 20–24 years increased slightly (1,307.8 to 1350.4 cases per 100,000 males).

Chlamydia by Race/Ethnicity

Among the 48 jurisdictions (47 states and the District of Columbia) that submitted data in the new race and ethnicity categories in 2012 according to the revised OMB standards, chlamydia rates were highest among black men and women (Figure L, Table 11B). The rate of chlamydia among blacks was almost seven times the rate among whites (1,229.4 and 179.6 cases per 100,000 population, respectively). The rate among American Indians/Alaska Natives (728.2 cases per 100,000) was 4.1 times the rate among whites. The rate among Hispanics (380.3 cases per 100,000) was 2.1 times the rate among whites. The rate among Native Hawaiians/Other Pacific Islanders (590.4 cases per 100,000) was 3.3 times the rate among whites. The rate among Asians was lower than the rate among whites (112.9 cases and 179.6 cases per 100,000, respectively).

Among the 39 jurisdictions (38 states and the District of Columbia) that submitted data in the new race and ethnicity categories from 2008–2012 according to the OMB standards, rates among blacks increased 3.7% (from 1,186.5 to 1,230.6 cases per 100,000). Among whites, rates increased 38.5% (from 134.4 to 186.2 cases per 100,000) (Figure 6).

Chlamydia by Reporting Source

Most chlamydia cases reported in 2012 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 2012, among women, only 6.9% of chlamydia cases were reported through an STD clinic (Figure 8). Most cases among women were reported from private physicians/health maintenance organizations (HMOs) (38.5%). Among men, 21.4% of chlamydia cases were reported from an STD clinic in 2012 and 27.7% were reported from private physicians/HMOs.

Chlamydia Prevalence in the Population

The National Health and Nutrition Examination Survey (NHANES) 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. From 1999–2000 to 2007–08, there was an estimated 40% reduction (95% Confidence Interval [CI]: 8%, 61%) in prevalence among persons aged 14–39 years.[7] During 2005–2008, the overall prevalence of chlamydia among persons aged 14–39 years was 1.5% (95% CI: 1.2%, 1.9%). Prevalence was highest among non-Hispanic blacks (5.9%, 95% CI: 4.5%, 7.7%) (Figure 10).

Chlamydia Positivity in Selected Populations

In 2005, the STD Surveillance Network (SSuN) was established to improve the capacity of national, state, and local STD programs to detect, monitor, and respond to trends in STDs. In 2012, a total of 42 STD clinics at 12 sites collected enhanced behavioral information on patients who presented for care to these clinics. More detailed information about SSuN methodology can be found in the STD Surveillance Network section of the Appendix, Interpreting STD Surveillance Data.

In 2012, 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 (26.4%). Among MSW and women, prevalence among those tested decreased with age. The variation in prevalence by age was not as pronounced for men who have sex with men (MSM) (Figure 9).

During the mid-1990s to 2011, chlamydia positivity among women screened in family planning and prenatal care clinics participating in infertility prevention activities were sent to CDC to monitor chlamydia prevalence. As the national infertility prevention program expanded, these data became difficult to interpret as trends were influenced by changes in screening coverage, screening criteria, and test technologies, as well as demographic changes in patients attending clinics reporting data to CDC. These issues could not be addressed with the limited variables that were collected at the national level. Chlamydia positivity data continue to be useful locally to inform clinic-based screening recommendations and to identify at-risk populations in need of prevention interventions, but are no longer collected to monitor national trends in chlamydia.

Chlamydia Among Special Populations

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

Chlamydia Summary

Chlamydia continues to be the most commonly reported nationally notifiable disease with 1,422,976 cases reported in 2012. For the first time since 1995, chlamydia case rates among females did not increase. For the first time since 2000, chlamydia case rates decreased among both males and 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] Centers for Disease Control and Prevention. CDC Grand Rounds: Chlamydia prevention: challenges and strategies for reducing disease burden and sequelae. MMWR Morb Mortal Wkly Rep. 2011;60(12):370-3.

[2] 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.

[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 Transm Infect. 1999;75:3-17.

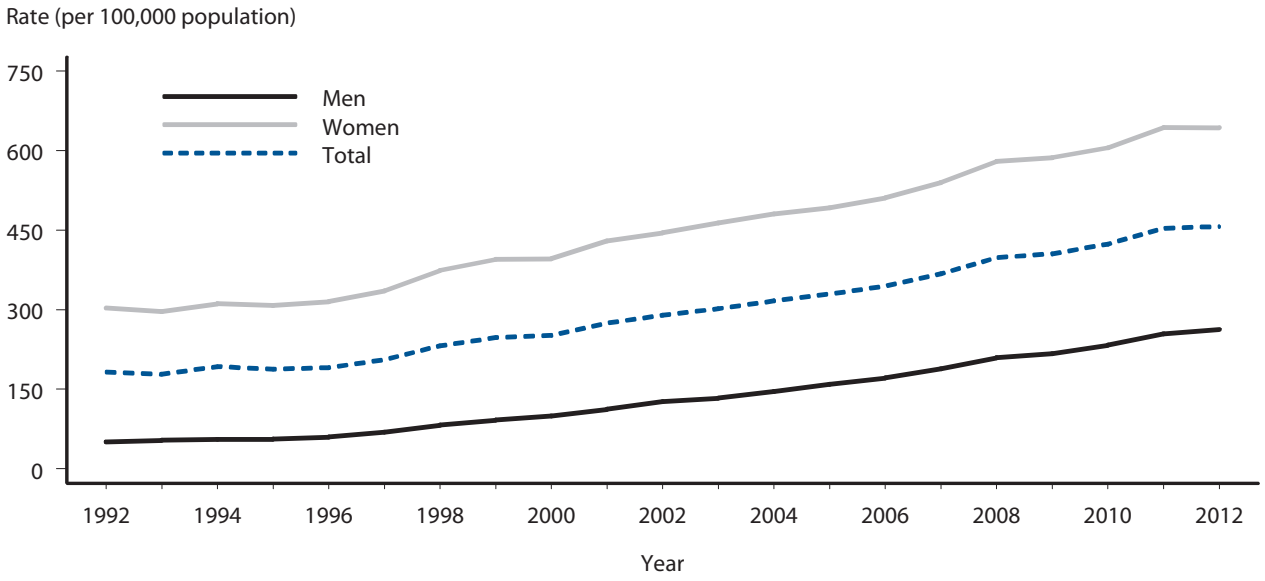
[4] Centers for Disease Control and Prevention. Sexually transmitted diseases treatment guidelines, 2010; No.59(RR-12):1-110. Erratum in: MMWR Recomm Rep. 2011;60(1):18.

[5] National Committee for Quality Assurance. HEDIS 2013: technical specifications. Washington (DC): National Committee for Quality Assurance; 2012. p. 90-93.

[6] National Committee for Quality Assurance. The state of healthcare quality 2012. Washington (DC): National Committee for Quality Assurance; 2011. p. 84-86.

[7] Datta SD, Torrone E, Kruszon-Moran D, Berman S, Johnson R, Satterwhite CL, Papp J, Weinstock H. *Chlamydia trachomatis* trends in the United States among persons 14 to 39 years of age, 1999-2008. Sex Transm Dis. 2012 Feb;39(2):92-6.

Figure 1. Chlamydia — Rates by Sex, United States, 1992 – 2012



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 by Region, United States, 2003 – 2012

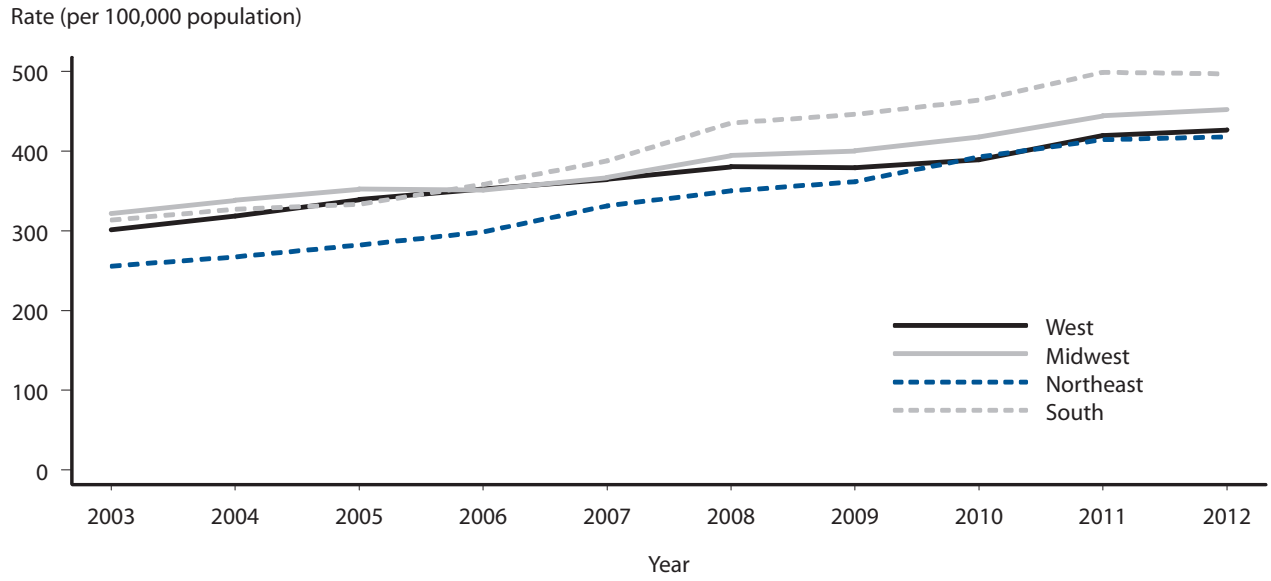
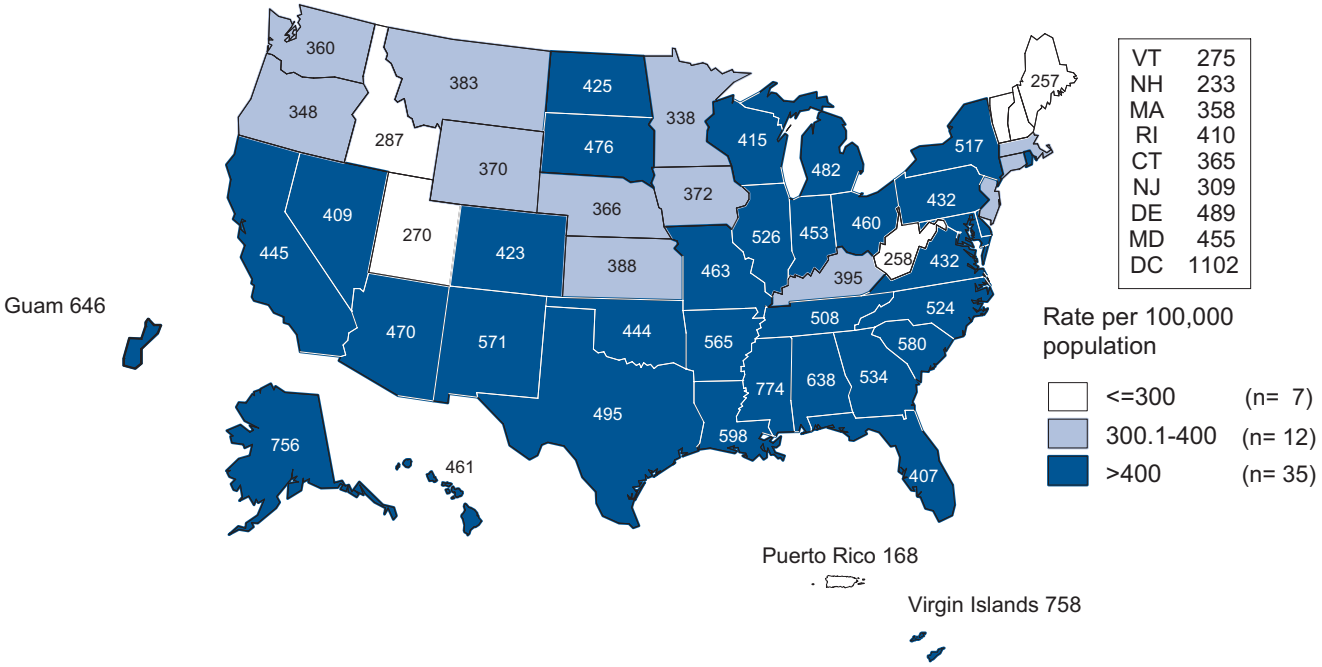


Figure 3. Chlamydia — Rates by State, United States and Outlying Areas, 2012



NOTE: The total rate of chlamydia for the United States and outlying areas (Guam, Puerto Rico, and Virgin Islands) was 453.5 per 100,000 population.

Figure 4. Chlamydia — Rates by County, United States, 2012

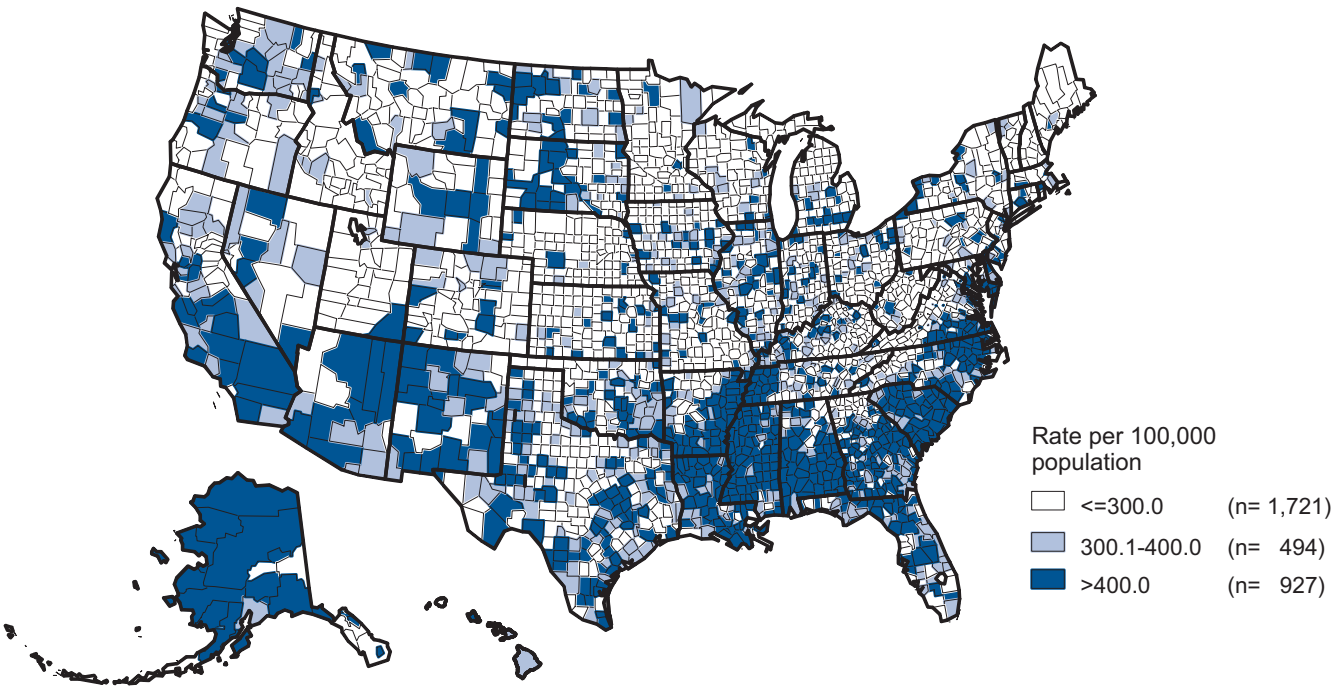


Figure 5. Chlamydia — Rates by Age and Sex, United States, 2012

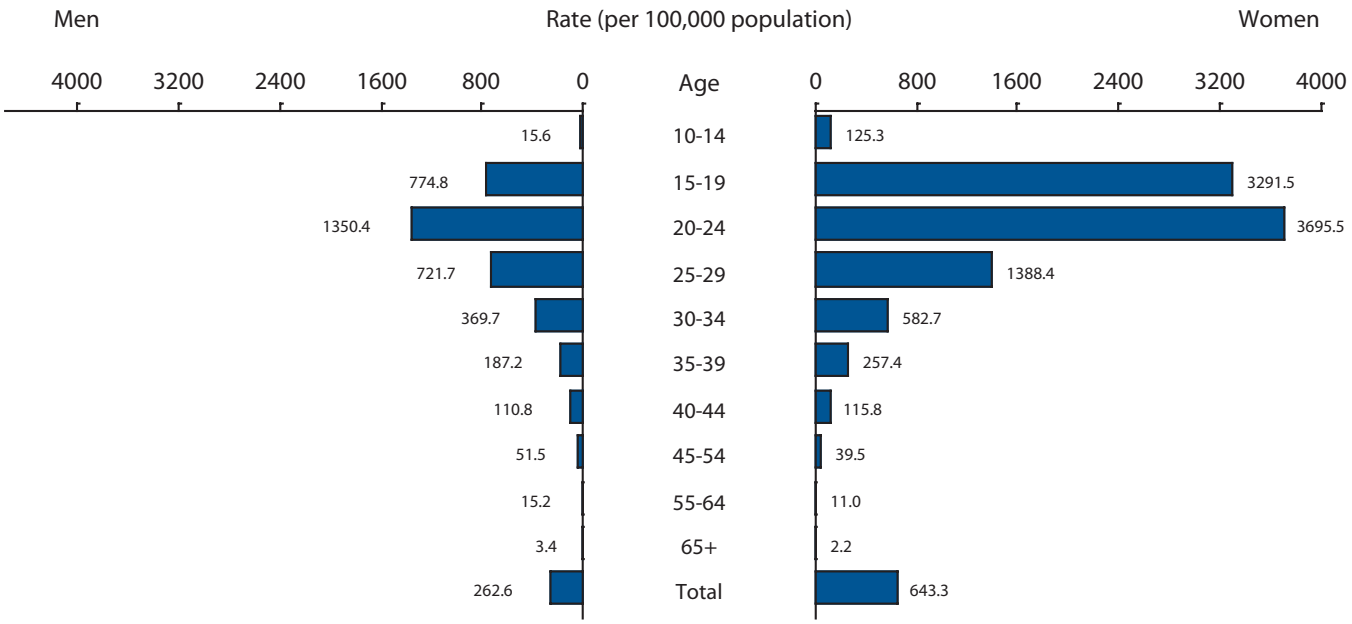
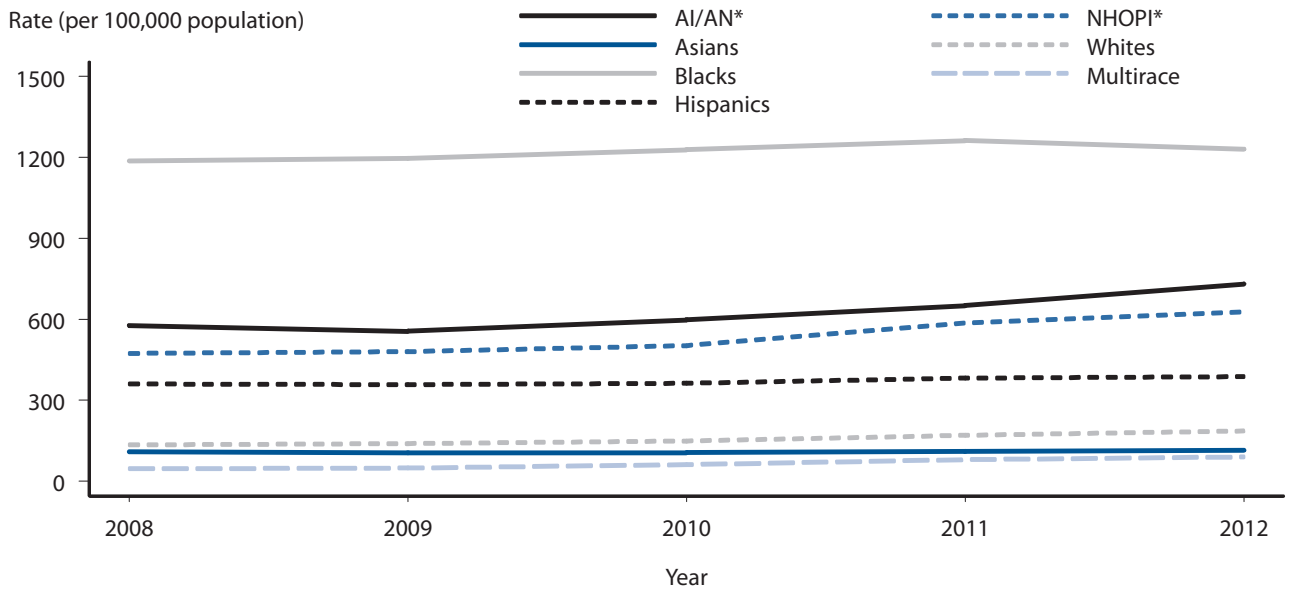


Figure 6. Chlamydia — Rates by Race/Ethnicity, United States 2008 – 2012



* AI/AN= American Indians/Alaska Natives; NHOPI= Native Hawaiian and Other Pacific Islanders.
NOTE: Includes 38 states and the District of Columbia reporting race/ethnicity data in Office of Management and Budget compliant formats during 2008–2012 (see Appendix "Interpreting STD Surveillance Data").

Figure 7. Chlamydia — Cases by Reporting Source and Sex, United States, 2003 – 2012

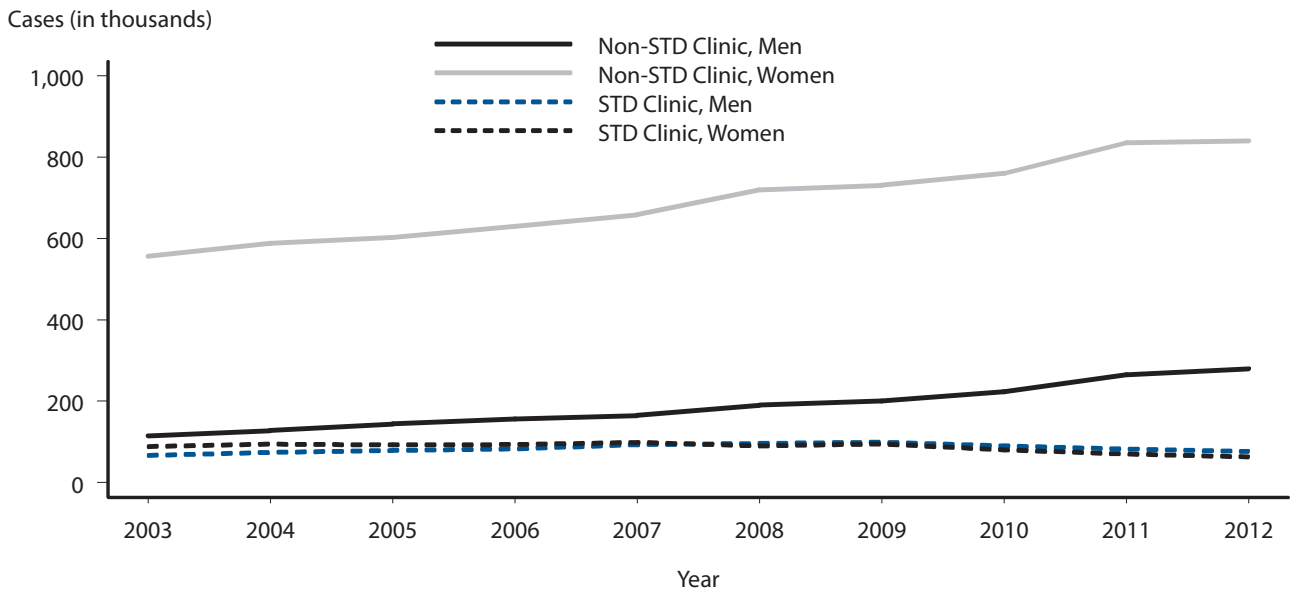
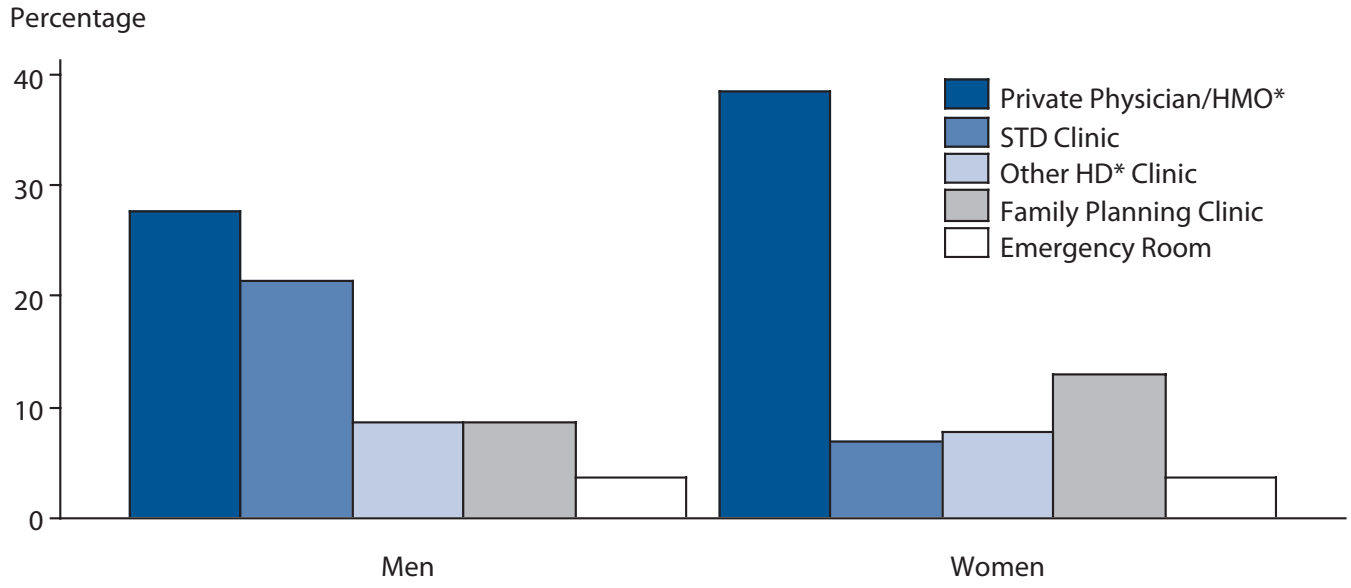
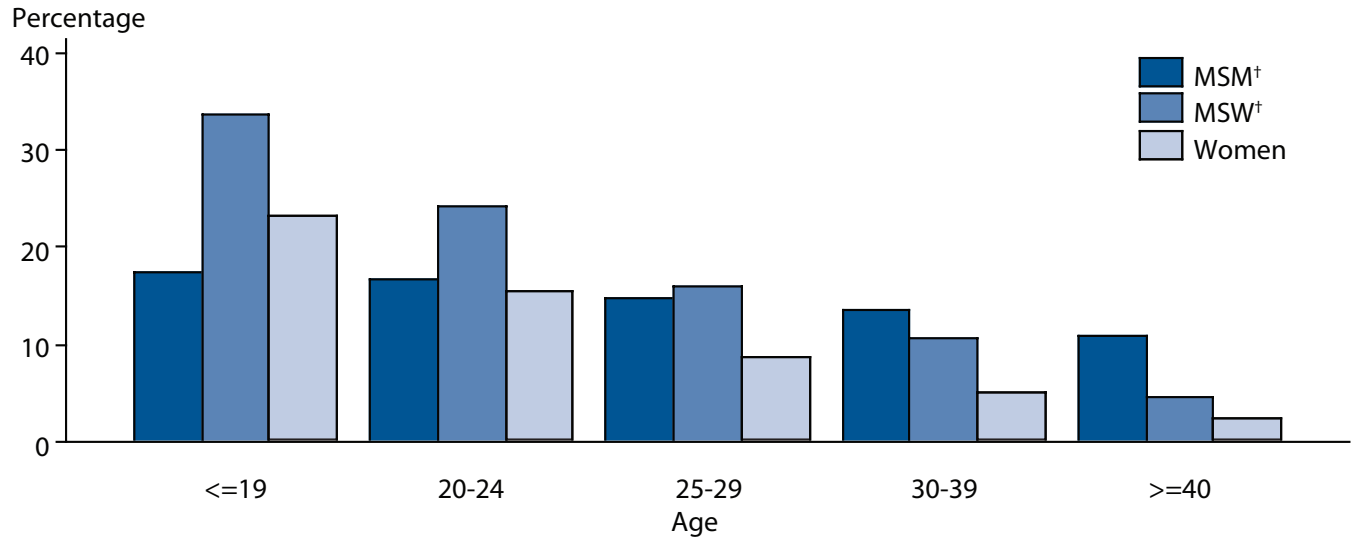


Figure 8. Chlamydia — Percentage of Reported Cases by Sex and Selected Reporting Sources, United States, 2012



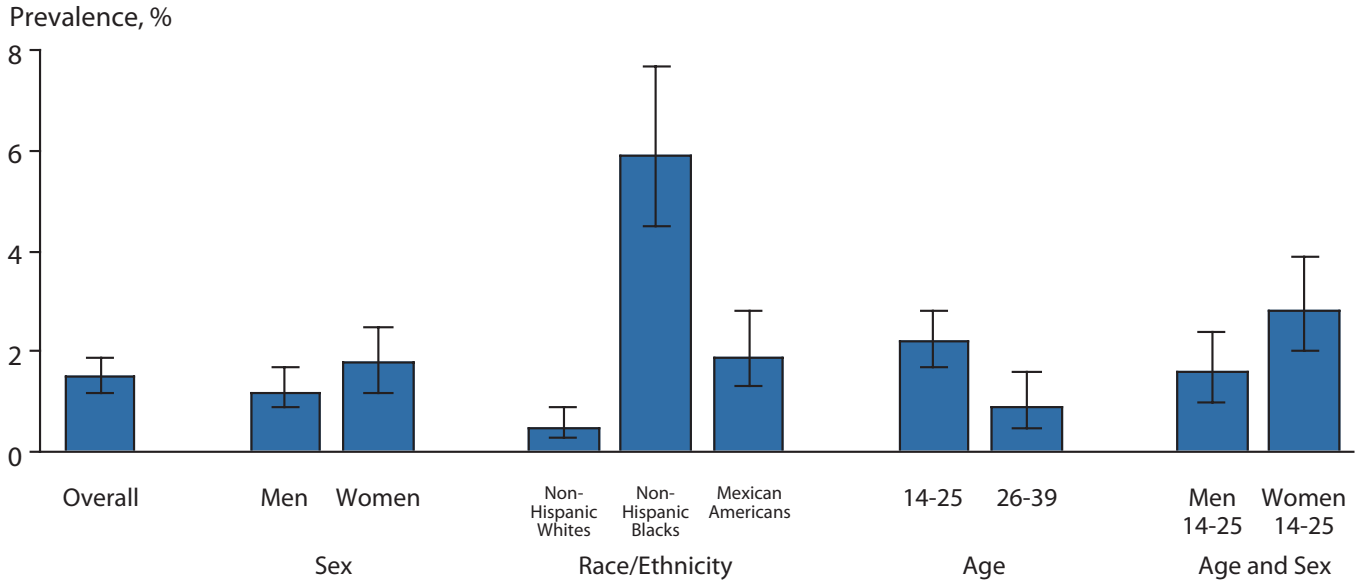
* HMO = health maintenance organization; HD = health department.
NOTE: Of all cases, 11.4% had a missing or unknown reporting source. Among cases with a known reporting source, the categories presented represent 69.8% of cases; 30.2% were reported from sources other than those shown.

Figure 9. Chlamydia — Proportion of STD Clinic Patients* Testing Positive by Age, Sex, and Sexual Behavior, STD Surveillance Network (SSuN), 2012



* Only includes patients tested for chlamydia
† MSM = men who have sex with men; MSW = men who have sex with women only.

Figure 10. Chlamydia — Prevalence Among Persons Aged 14 – 39 Years by Sex, Race/Ethnicity, or Age Group, National Health and Nutrition Examination Survey, 2005 – 2008



NOTE: Error bars indicate 95% confidence intervals.

Gonorrhea

Background

Gonorrhea is the second most commonly reported notifiable disease in the United States. Infections due to *Neisseria gonorrhoeae*, like those resulting from *C. 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] Although an individual's sexual behavior can increase the risk of acquiring gonorrhea, social determinants of health, such as socioeconomic status, may contribute to the burden of gonorrhea in a community.[2]

During 1975–1997, the national gonorrhea rate declined 74% after implementation of the national gonorrhea control program in the mid-1970s (Figure 11). After the decline halted for several years, gonorrhea rates decreased further to 98.1 cases per 100,000 population in 2009. This was the lowest rate since recording of gonorrhea rates began. Since 2009, the rate has increased slightly each year, to 100.2 in 2010, 103.3 in 2011, and to 107.5 cases per 100,000 population in 2012, with a total of 334,826 cases reported in the United States in 2012 (Figure 11 and Table 1).

The increase in gonorrhea rates during 2011–2012 was observed among both men and women (Figure 12). Gonorrhea rates increased in the Northeast, Midwest, and West, but decreased in the South (Figure 13). Rates increased among persons aged 20 years or older, but decreased among those aged 15–19 years (Figures 17 and 18).

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 and broader use of nucleic acid amplification tests [NAATs] at non-genital anatomic sites), the use of diagnostic tests with different test performance, and changes in reporting practices. As with other STDs, the reporting of gonorrhea cases to CDC is incomplete.[3] 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.

Neisseria gonorrhoeae has progressively developed resistance to each of the antibiotics used for treatment of gonorrhea. In the last decade, the development of fluoroquinolone resistance has resulted in the availability of only a single class of antibiotics that meet CDC's efficacy standards—the cephalosporins.[4,5] Most recently, declining susceptibility to cefixime resulted in a change in the CDC treatment guidelines, so that dual therapy with ceftriaxone and either azithromycin or doxycycline is now the only CDC-recommended treatment regimen for gonorrhea.[6] The emerging threat of cephalosporin resistance highlights the need for continued surveillance of *N. gonorrhoeae* antibiotic susceptibility.

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

Gonorrhea—United States

In 2012, a total of 334,826 cases of gonorrhea were reported in the United States, yielding a rate of 107.5 cases per 100,000 population (Table 1). The rate increased 4.1% since 2011; however, the rate decreased 2.9% overall during 2008–2012.

Gonorrhea by Region

In 2012, as in previous years, the South had the highest gonorrhea rate (131.9 cases per 100,000 population) among the four regions of the United States, followed by the Midwest (114.6), Northeast (92.6), and West (73.3) (Table 14). During 2011–2012, rates increased 19.4% in the West, 8.4% in the Northeast, and 3.4% in the Midwest; rates decreased 1.4% in the South (Figure 13, Table 14).

Gonorrhea by State

In 2012, gonorrhea rates per 100,000 population ranged by state from 7.7 in Wyoming to 230.8 in Mississippi; the gonorrhea rate in the District of

Columbia was 388.7 (Figure 14, Tables 13 and 14). During 2011–2012, gonorrhea rates increased in 70% (35/50) of states and decreased in 30% (15/50) of states and in the District of Columbia (Table 14).

Gonorrhea by Metropolitan Statistical Area (MSA)

The overall gonorrhea rate in the 50 most populous MSAs was 121.5 cases per 100,000 population in 2012 (Table 17), representing a 4.2% rate increase from 2011 (116.6). In 2012, 60.9% of gonorrhea cases were reported by these MSAs. The total gonorrhea rate among women in these MSAs in 2012 (114.3) was lower than rates among men (128.7) (Tables 18 and 19).

Gonorrhea by County

In 2012, 52% of reported gonorrhea cases occurred in just 70 counties or independent cities (Table 20). In 2012, 1,192 counties (37.9%) in the United States had a rate less than or equal to 19 cases per 100,000 population (Figure 15). Rates ranged from 19.1 to 100 per 100,000 population in 1,300 counties (41.4%) and more than 100 cases per 100,000 population in 650 counties (20.7%). Most counties with more than 100 cases per 100,000 population were located in the South.

Gonorrhea by Sex

Gonorrhea rates among women have been slightly higher than those among men since 2001 (Figure 12). During 2011–2012, the gonorrhea rate among women increased 0.6%, to 108.7 cases per 100,000 population, and the rate among men increased 8.3%, to 105.8 per 100,000 population (Tables 15 and 16). The magnitude of the increase among men compared to women is suggestive of either increased transmission or increased case ascertainment (e.g., through increased extra-genital screening) among men who have sex with men (MSM). However, most jurisdictions do not routinely report sex of sex partners or site of infection for gonorrhea cases, so trends in gonorrhea rates among MSM cannot be assessed.

Gonorrhea by Age

In 2012, gonorrhea rates were highest among adolescents and young adults. In 2012, the highest rates were observed among women aged 20–24 years (578.5) and 15–19 years (521.2). Among men, the rate was highest among those aged 20–24 years (462.8) (Figure 16, Table 21).

In 2012, persons aged 15–44 years accounted for 95.0% of reported gonorrhea cases with known age. During 2011–2012, gonorrhea rates increased among most age groups within this age range: the gonorrhea rate increased 3.1% among those aged 20–24 years, 9.8% among those aged 25–29 years, 15.7% among those aged 30–34 years, 14.7% among those aged 35–39 years, and 13.0% among those aged 40–44 years (Table 21). The gonorrhea rate decreased 7.5% among those aged 15–19 years.

Among women aged 15–44, the largest increase was among those aged 40–44 years (14.1%) (Figure 17). Among men aged 15–44, the largest increase was among those aged 30–34 years (18.1%) (Figure 18).

Gonorrhea by Race/Ethnicity

In 2012, among the 48 jurisdictions (47 states and the District of Columbia) that submitted data in the new race and ethnic categories according to the revised Office of Management and Budget (OMB) standards, gonorrhea rates remained highest among blacks (462.0 cases per 100,000 population) (Table 22B). The rate among blacks was 14.9 times the rate among whites (31.0 per 100,000 population). The gonorrhea rate among American Indians/Alaska Natives (124.9) was 4.0 times that of whites, the rate among Native Hawaiians/Other Pacific Islanders (87.8) was 2.8 times that of whites, the rate among Hispanics (60.4) was 1.9 times that of whites, and the rate among Asians (16.9) was 0.5 times that of whites (Table 22B).

During 2008–2012, among the 39 jurisdictions (38 states and the District of Columbia) that submitted data in the new race and ethnic categories for all five years during that period, gonorrhea rates increased among American Indians/Alaska Natives (61.8%), Native Hawaiians/Pacific Islanders (33.5%), whites (22.9%), and Asians (14.5%). During this same time period, the gonorrhea rate decreased among blacks (15.5%) (Figure 19).

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

Gonorrhea by Region and Sex

During 2011–2012, gonorrhea rates among women and among men increased in the Northeast, Midwest, and West (Tables 15 and 16). In the South, the gonorrhea rate among men increased, but the gonorrhea

rate among women decreased. In 2012, women in the South (138.5), women in the Midwest (127.1) and men in the South (124.5) had the highest gonorrhea rates.

Gonorrhea by Race/Ethnicity and Sex

Among the 48 jurisdictions (47 states and the District of Columbia) that submitted data in the new race and ethnic categories according to the revised OMB standards, gonorrhea rates were higher in women than men among American Indians/Alaska Natives, Native Hawaiians/Other Pacific Islanders, and whites in 2012 (Figure N, Table 22B). Gonorrhea rates were higher in men than women among Asians, blacks, and Hispanics. Overall, gonorrhea rates were highest among black men (467.7) and black women (456.3).

Gonorrhea by Reporting Source

The number of gonorrhea cases reported by STD clinics declined during 2003–2012 (Figure 20). In 2012, 17.3% of gonorrhea cases with known reporting source were reported by STD clinics (Table A2). This is a decrease from 2011, when 18.6% of gonorrhea cases were reported by STD clinics. In 2012, among women, private physicians or health maintenance organizations (HMOs) (30.2%) were the most common reporting source, followed by family planning clinics (11.3%), STD clinics (10.6%), other health department clinics (6.8%), and emergency rooms (5.7%) (Figure 21). Among men, STD clinics were the most common reporting source (24.5%) (Figure 21). Other common reporting sources for males were private physicians/HMOs (22.9%), other health department clinics (8.8%), emergency rooms (5.8%), and family planning clinics (5.8%).

STD Surveillance Network

The STD Surveillance Network (SSuN) is a network of 12 states and independently funded cities collecting enhanced information on a representative sample of gonorrhea cases reported to the state or city health department from all reporting sources. This project provides 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. In 2012, SSuN collaborators interviewed 6,228 gonorrhea cases representing 8.2% of total morbidity across participating jurisdictions. Additional information about SSuN methodology can be found in the STD Surveillance Network section of the Appendix, Interpreting STD Surveillance Data.

Based on these enhanced interviews, the burden of disease represented by MSM, men who have sex with women only (MSW), and women varied substantially across collaborating sites (Figure 22). San Francisco County had the highest proportion of estimated MSM cases (87.8%), while the lowest proportion of morbidity estimated to be attributed to MSM was found in Jefferson County (Birmingham), Alabama at 10.9%. Across all SSuN jurisdictions in 2012, 26.6% of gonorrhea cases were estimated to be among MSM, 29.4% among MSW, and 44.1% among women.

Gonococcal Isolate Surveillance Project

Antimicrobial resistance remains an important consideration in the treatment of gonorrhea.[4–9] 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.[10] Data are collected from selected STD clinic sentinel sites and from regional laboratories (Figure 23).

Information on the antimicrobial susceptibility criteria used in GISP can be found in the Gonococcal Isolate Surveillance Project section of the Appendix, Interpreting STD Surveillance Data. More information about GISP and additional data can be found at http://www.cdc.gov/std/GISP.

Susceptibility to Ceftriaxone

Susceptibility testing for ceftriaxone began in 1987. The percentage of GISP isolates that exhibited elevated ceftriaxone minimum inhibitory concentrations (MICs), defined as ≥0.125 µg/ml, increased from 0.1% in 2008 to 0.4% in 2011, and decreased slightly to 0.3% in 2012 (Figure 24).

One isolate with decreased susceptibility to ceftriaxone (MIC = 0.5 µg/ml) was identified in 2012. The isolate was collected in Oklahoma City, Oklahoma from a heterosexual man; the isolate exhibited penicillin resistance (MIC = 2.0 µg/ml), intermediate susceptibility to tetracycline (MIC = 1.0 µg/ml), and decreased susceptibility to cefixime (MIC = 1.0 µg/ml). Four isolates with decreased susceptibility to

ceftriaxone (MIC = 0.5 µg/ml) have been previously identified in GISP: one from San Diego, California (1987), two from Cincinnati, Ohio (1992 and 1993), and one from Philadelphia, Pennsylvania (1997).

Susceptibility to Cefixime

Susceptibility testing for cefixime began in 1992, was discontinued in 2007, and was restarted in 2009. The percentage of isolates with elevated cefixime MICs (≥0.25 µg/ml) increased from 0.1% in 2006 to 1.4% in 2010 and 2011, and declined to 1.0% in 2012 (Figure 25).

In 2012, two isolates had cefixime MICs of 0.5 µg/ml (from Chicago, Illinois and Orange County, California), and one had an MIC of 1.0 µg/ml (from Oklahoma City, Oklahoma).

Susceptibility to Cefpodoxime

Monitoring of cefpodoxime susceptibility in GISP began in 2009. Of 5,495 GISP isolates tested for cefpodoxime susceptibility in 2012, 0.8% had MICs of 0.5 µg/ml, 1.3% had MICs of 1.0 µg/ml, and 0.4% had MICs of 2.0 µg/ml.

Susceptibility to Azithromycin

Susceptibility testing for azithromycin began in 1992. The proportion of GISP isolates with azithromycin MICs of ≥2.0 µg/ml decreased from 0.5% in 2010 to 0.3% in 2012 (Figure 26). In 2012, two (0.04%) isolates had azithromycin MICs of 8.0 µg/ml, four (0.1%) isolates had MICs of 16.0 µg/ml, and one isolate, collected from a heterosexual man in Honolulu, Hawaii had an MIC ≥256 µg/ml.

Susceptibility to Spectinomycin

All isolates were susceptible to spectinomycin in 2012. A spectinomycin-resistant isolate was last identified in GISP in 1994 (West Palm Beach, Florida).

Susceptibility to Ciprofloxacin

The proportion of GISP isolates with ciprofloxacin resistance (MIC ≥1 µg/ml) peaked in 2007 at 14.8%. Following a decline in 2008 and 2009, the proportion increased from 9.6% in 2009 to 14.7% in 2012. In 2012, 27.1% of isolates from MSM and 8.7% of isolates from MSW exhibited ciprofloxacin resistance.

Other Antimicrobial Susceptibility Testing

In 2012, 33.4% of isolates collected from GISP sites were resistant to penicillin, tetracycline, ciprofloxacin, or some combination of those antimicrobials (Figure 27). Although these antimicrobials are no longer recommended for treatment of gonorrhea, the resistance phenotypes remain common. Conversely, 66.6% 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 28. The proportion of patients treated with ceftriaxone 250 mg increased from 84.0% in 2011 to 93.9% in 2012. The proportion treated with cefixime decreased from 5.3% in 2011 to 1.6% in 2012.

In 2012, 3.2% of patients were treated with azithromycin 2 grams as monotherapy, and 0.1% of patients were treated with a fluoroquinolone (ciprofloxacin or ofloxacin).

Among patients treated with ceftriaxone 250 mg or cefixime 400 mg, 83.1% were also treated with azithromycin one gram, 16.7% were also treated with doxycycline, and 0.2% did not receive a second antimicrobial.

Gonorrhea Among Special Populations

More information about gonorrhea in racial/ethnic groups, women of reproductive age, adolescents, MSM, and other populations at higher risk can be found in the Special Focus Profiles.

Gonorrhea Summary

The national gonorrhea rate declined dramatically during 1975–1997. After 1997, the gonorrhea rate fluctuated but generally trended downwards until it reached an all-time low in 2009. However, during 2009–2012 the gonorrhea rate has increased each year. High rates persist in some geographic areas, among adolescents and young adults, and in some racial/ethnic groups.

The 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] Sullivan AB, Gesink DC, Brown P, Zhou L, Kaufman JS, Fitch M, et al. Are neighborhood sociocultural factors influencing the spatial pattern of gonorrhea in North Carolina? Ann Epidemiol 2011; 21:245-252.

[3] American Social Health Association. Sexually transmitted diseases in America: how many cases and at what cost? Menlo Park (CA): Kaiser Family Foundation; 1998.

[4] 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;56:332-6.

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

[6] Centers for Disease Control and Prevention. Update to CDC's sexually transmitted diseases treatment guidelines, 2010: Oral cephalosporins no longer a recommended treatment for gonococcal infections. MMWR Morb Mortal Wkly Rep. 2012;61(31):590-594.

[7] Centers for Disease Control and Prevention. *Neisseria gonorrhoeae* with reduced susceptibility to azithromycin — San Diego County, California, 2009. MMWR Morb Mortal Wkly Rep. 2011;60:579-81.

[8] Centers for Disease Control and Prevention. Cephalosporin susceptibility among *Neisseria gonorrhoeae* isolates—United States, 2000–2010. MMWR Morb Mortal Wkly Rep. 2011;60:873-7.

[9] Kirkcaldy RD, Ballard RC, Dowell D. Gonococcal Resistance: Are Cephalosporins Next? Curr Infect Dis Rep. 2011;13: 196-204.

[10] Schwarcz S, Zenilman J, Schnell D, Knapp JS, Hook EW 3rd, Thompson S, et al. National surveillance of antimicrobial resistance in *Neisseria gonorrhoeae.* JAMA. 1990;264:1413-7.

Figure 11. Gonorrhea — Rates by Year, United States, 1941 – 2012

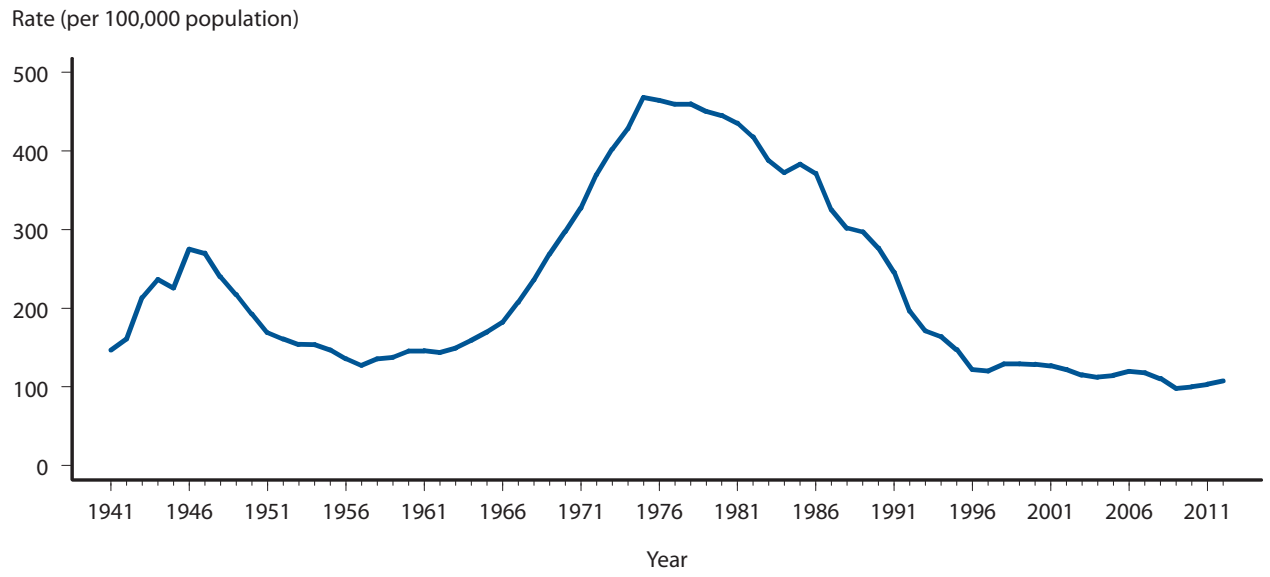


Figure 12. Gonorrhea — Rates by Sex, United States, 1992 – 2012

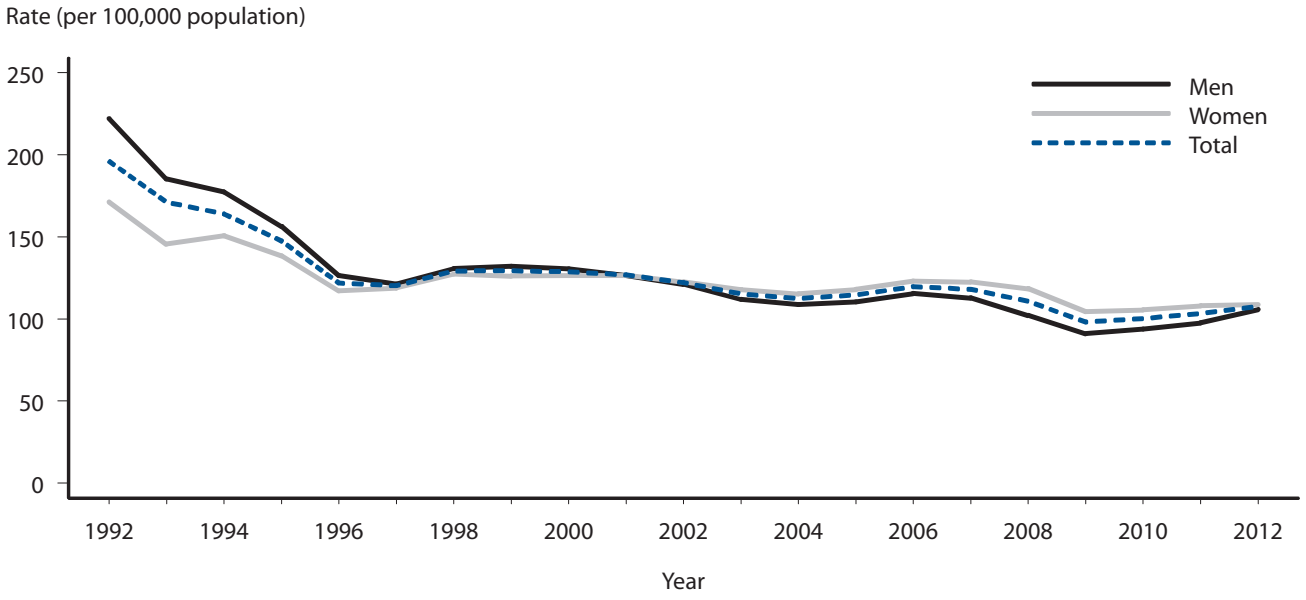


Figure 13. Gonorrhea — Rates by Region, United States, 2003 – 2012

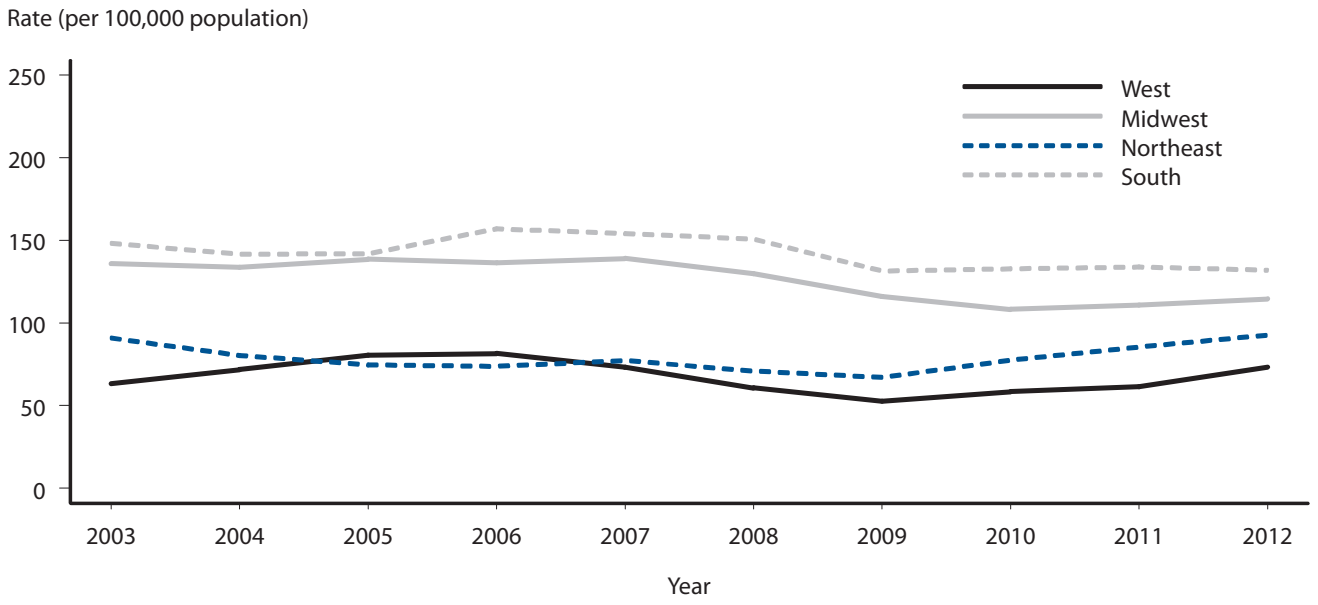
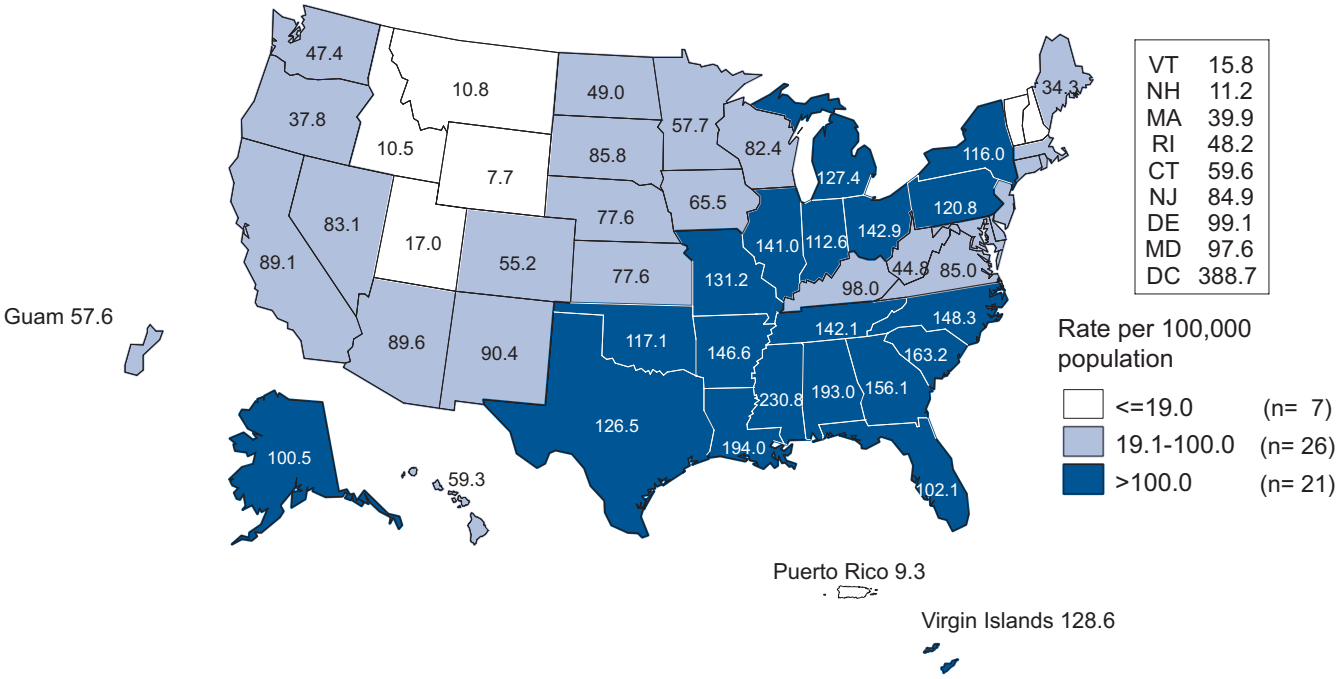


Figure 14. Gonorrhea — Rates by State, United States and Outlying Areas, 2012



NOTE: The total rate of gonorrhea for the United States and outlying areas (Guam, Puerto Rico, and Virgin Islands) was 106.3 per 100,000 population.

Figure 15. Gonorrhea — Rates by County, United States, 2012

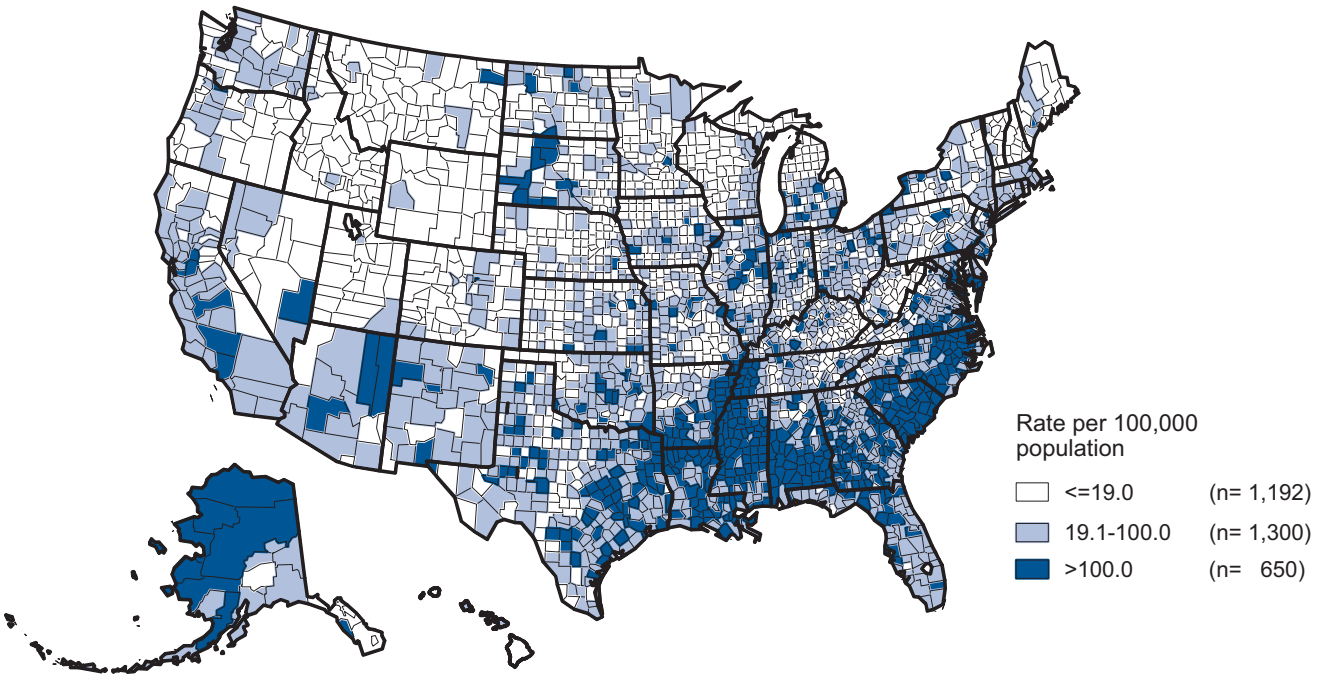


Figure 16. Gonorrhea — Rates by Age and Sex, United States, 2012

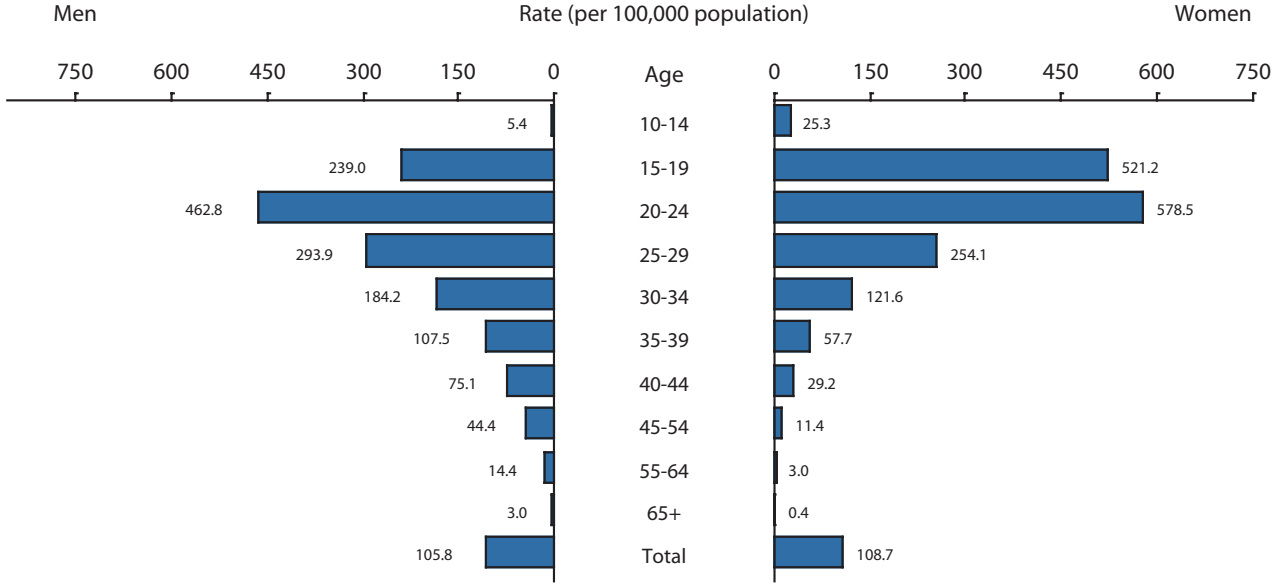


Figure 17. Gonorrhea — Rates by Age Among Women Aged 15 – 44 Years, United States, 2003 – 2012

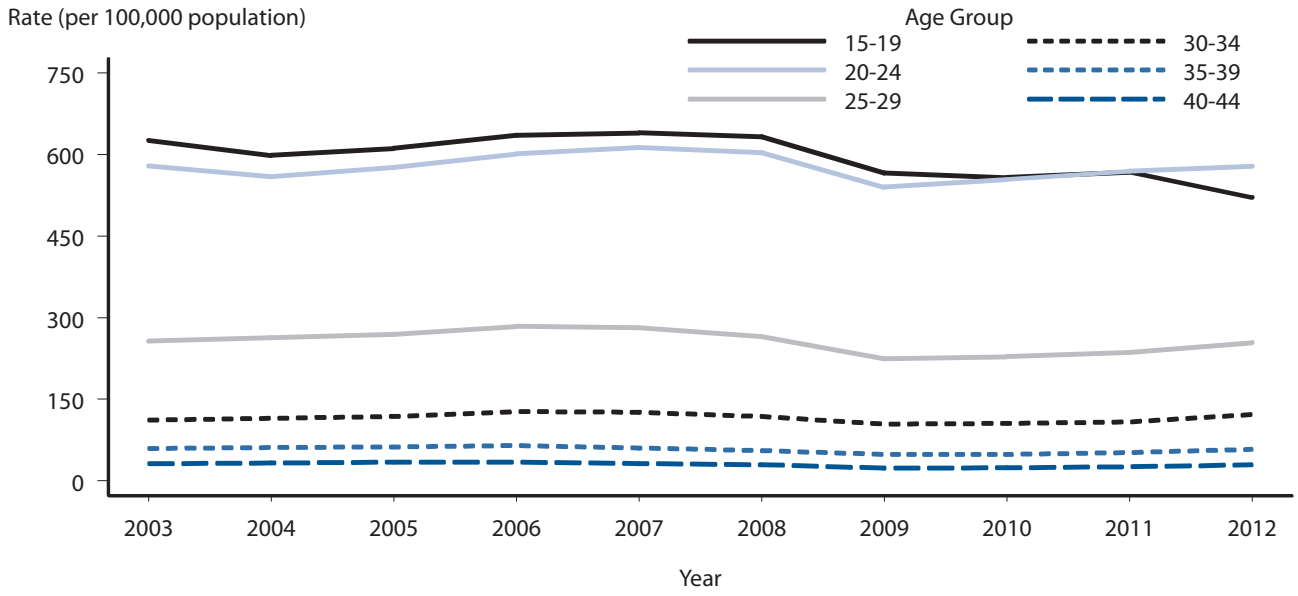


Figure 18. Gonorrhea — Rates by Age Among Men Aged 15 – 44 Years, United States, 2003 – 2012

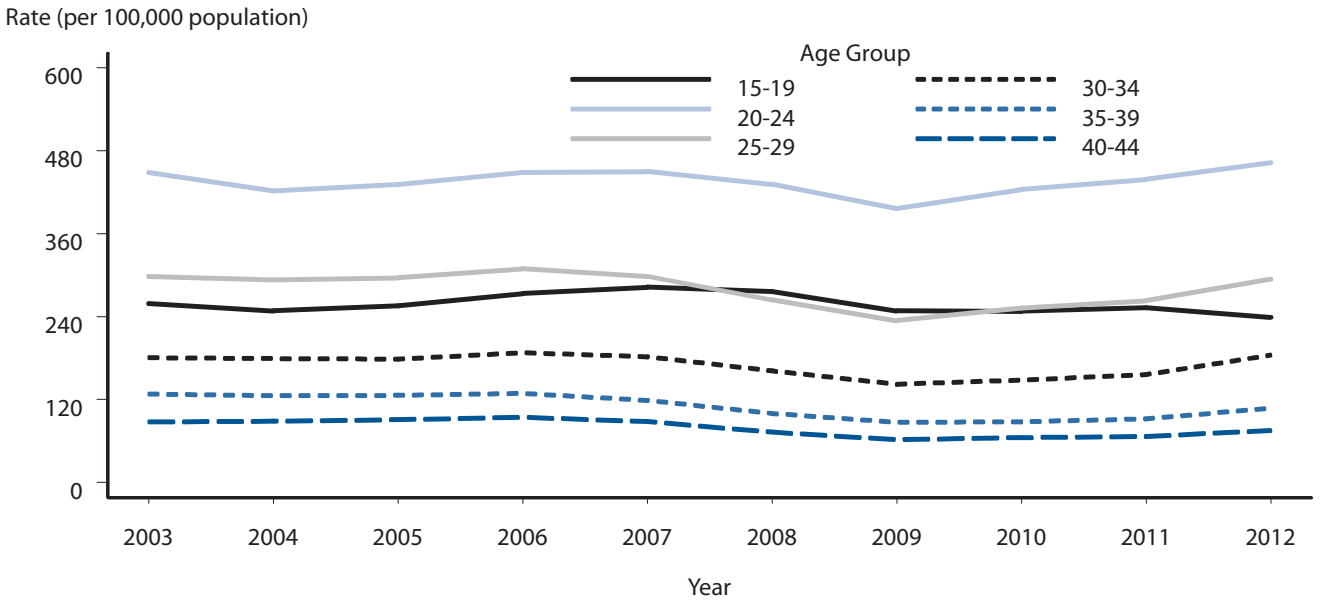
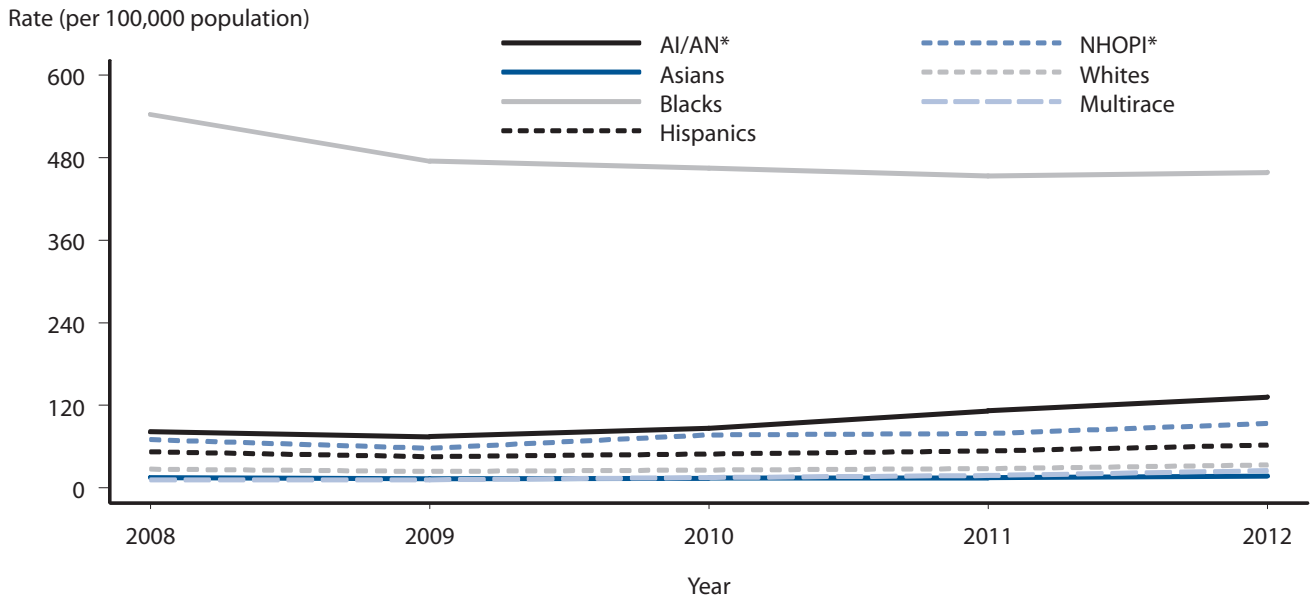


Figure 19. Gonorrhea — Rates by Race/Ethnicity, United States, 2008 – 2012



* AI/AN= American Indians/Alaska Natives; NHOPI= Native Hawaiian and Other Pacific Islanders.
NOTE: Includes 38 states and the District of Columbia reporting race/ethnicity data in Office of Management and Budget compliant formats during 2008–2012 (see Appendix "Interpreting STD Surveillance Data").

Figure 20. Gonorrhea — Cases by Reporting Source and Sex, United States, 2003 – 2012

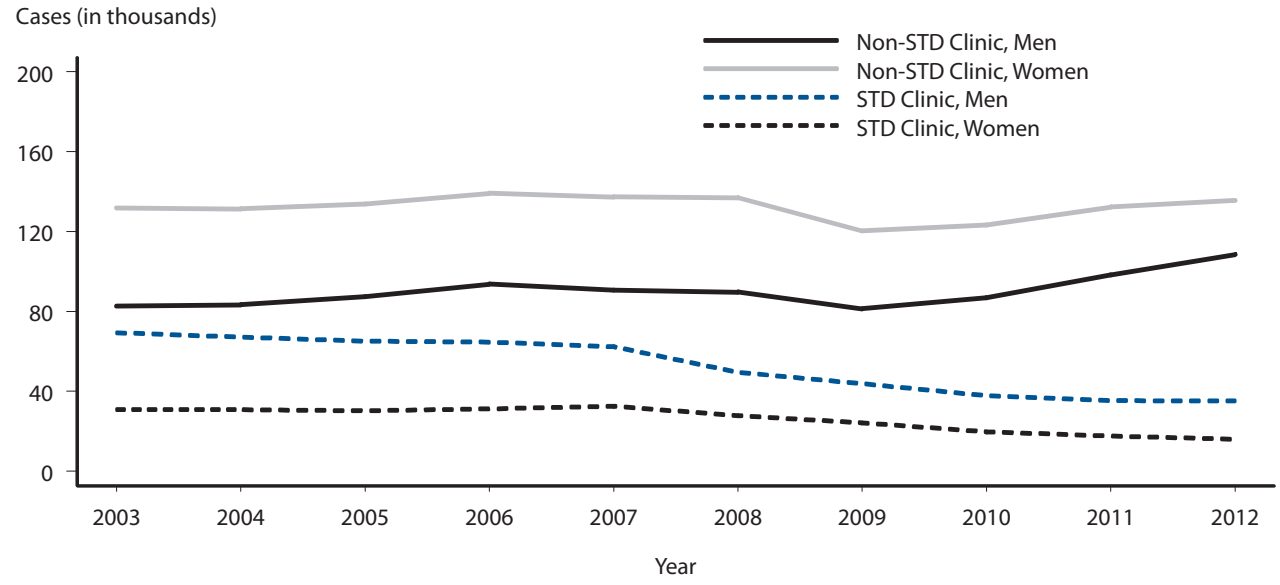
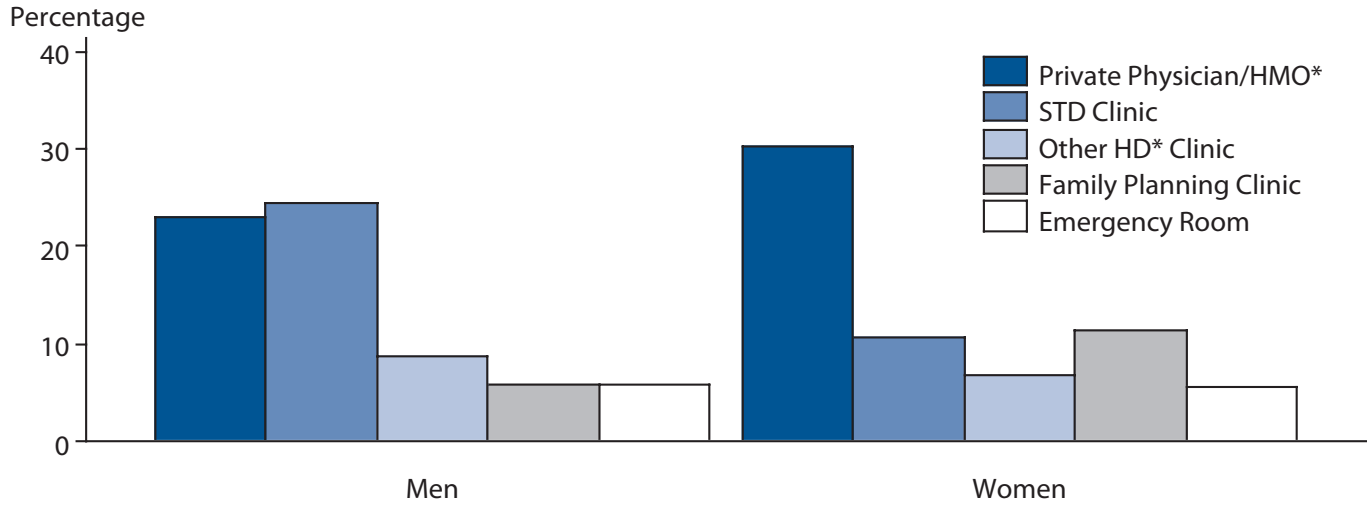
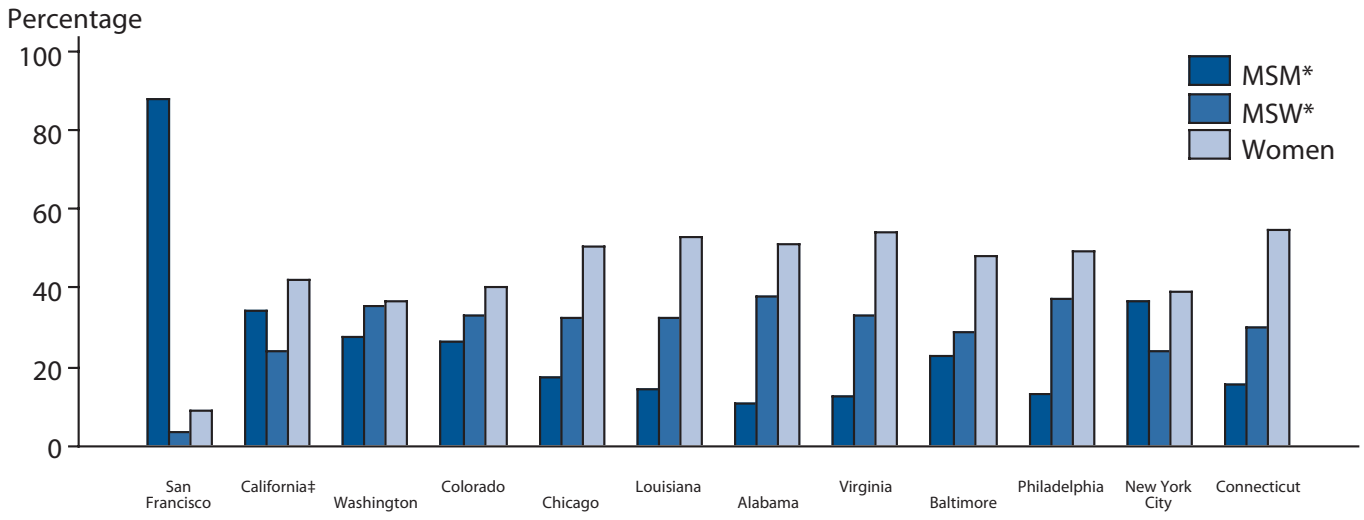


Figure 21. Gonorrhea—Percentage of Reported Cases by Sex and Selected Reporting Sources, United States, 2012



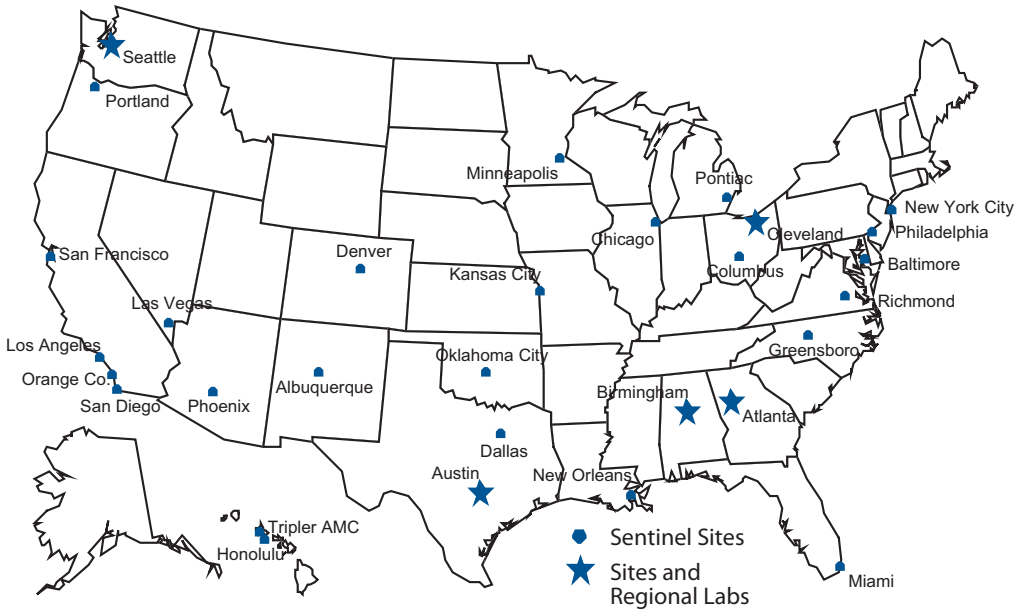
* HMO = health maintenance organization; HD = health department.
NOTE: Of all cases, 11.7% had a missing or unknown reporting source. Among cases with a known reporting source, the categories presented represent 66.2% of cases; 33.8% were reported from sources other than those shown.

Figure 22. Estimated Proportion of MSM*, MSW*, and Women Among Gonorrhea Cases† by Site, STD Surveillance Network (SSuN), 2012



* MSM = men who have sex with men; MSW = men who have sex with women only.
† Estimate based on interviews (n=6,228) conducted from a random sample of reported cases of gonorrhea in 2012; cases weighted for analysis by county and to adjust for non-response.
‡ California data excludes San Francisco County (shown separately).
NOTE: See Appendix for jurisdictions included in each project area.

Figure 23. Location of Participating Sentinel Sites and Regional Laboratories, Gonococcal Isolate Surveillance Project (GISP), United States, 2012



NOTE: Austin is a regional laboratory only.

Figure 24. Percentage of *Neisseria gonorrhoeae* Isolates with Elevated Ceftriaxone Minimum Inhibitory Concentrations (MICs) (≥0.125 µg/ml), Gonococcal Isolate Surveillance Project (GISP), 2005 – 2012

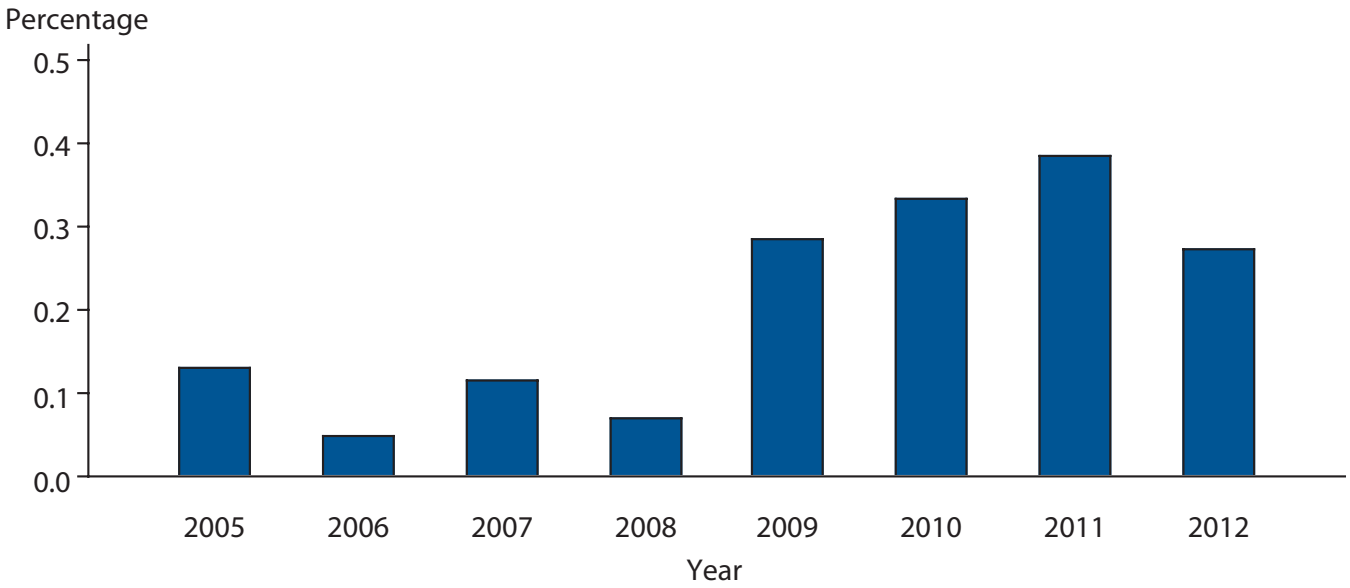
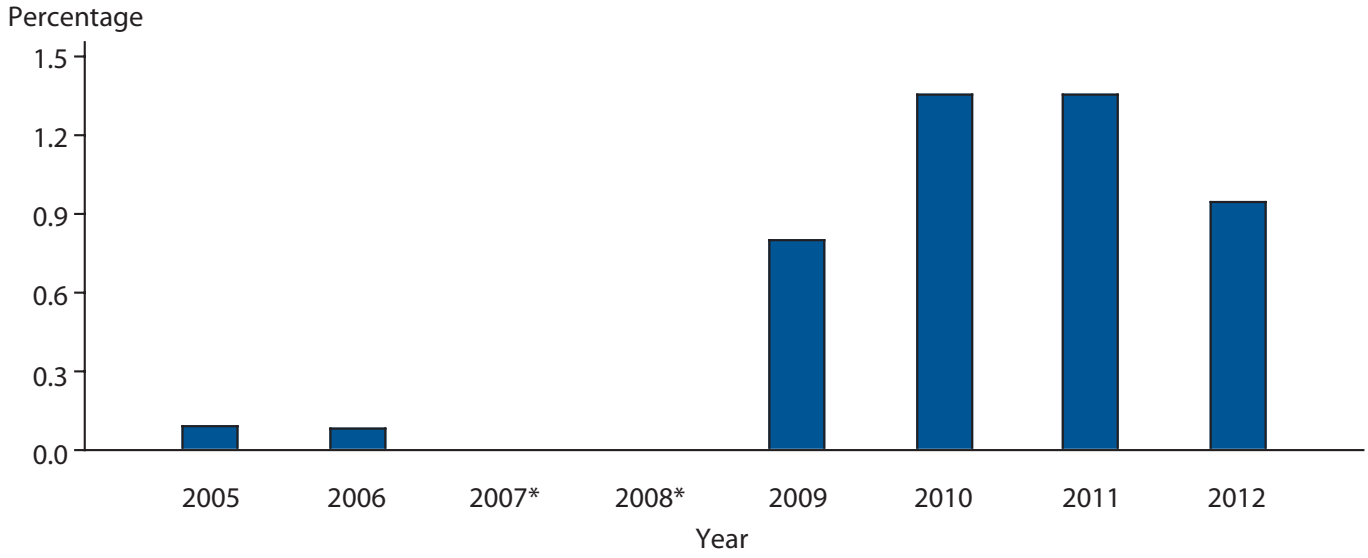


Figure 25. Percentage of *Neisseria gonorrhoeae* Isolates with Elevated Cefixime Minimum Inhibitory Concentrations (MICs) (≥0.25 µg/ml), Gonococcal Isolate Surveillance Project (GISP), 2005 – 2012



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

Figure 26. Percentage of *Neisseria gonorrhoeae* Isolates with Elevated Azithromycin Minimum Inhibitory Concentrations (MICs) (≥2.0 µg/ml), Gonococcal Isolate Surveillance Project (GISP), 2005 – 2012

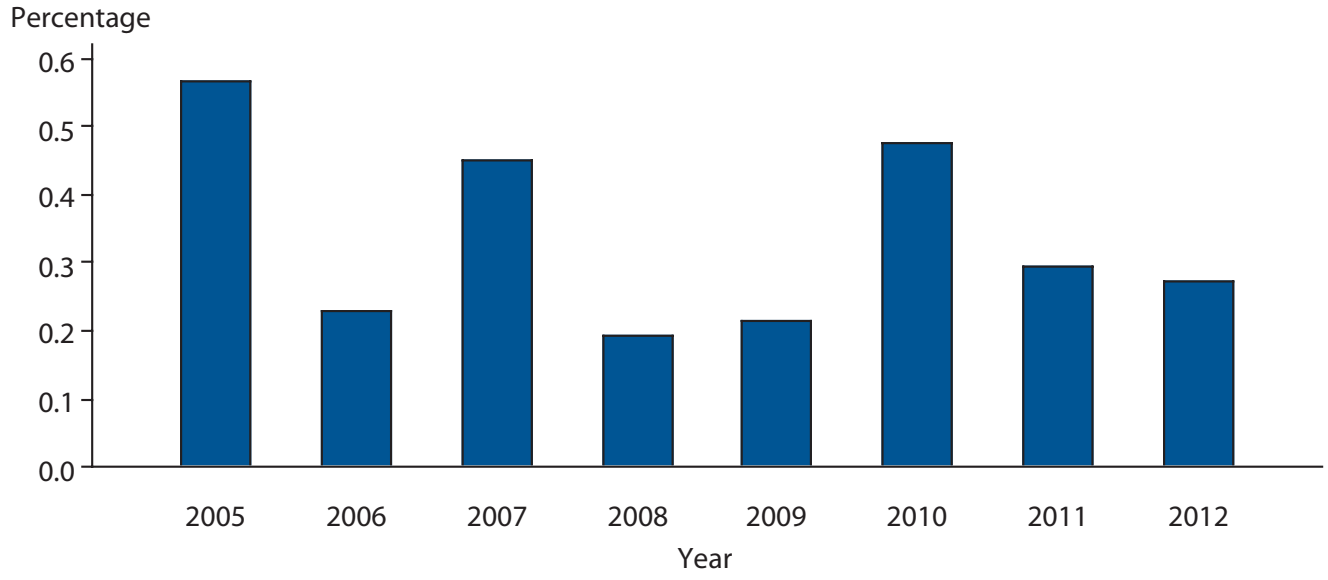
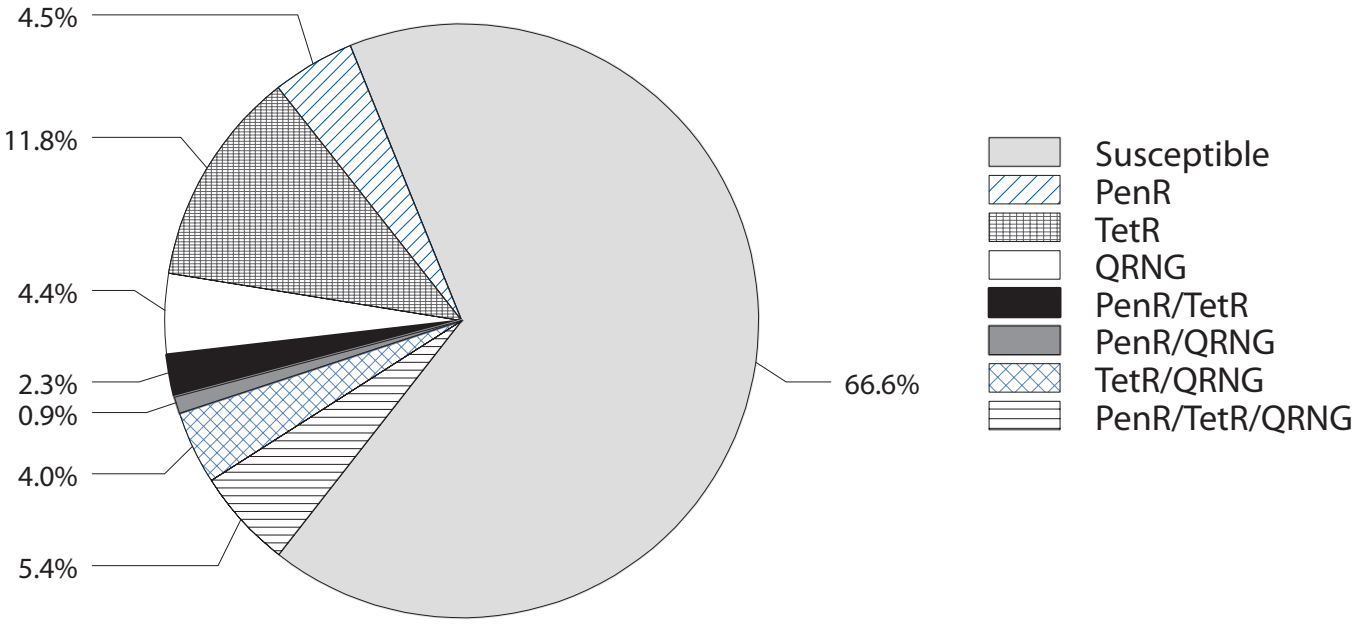
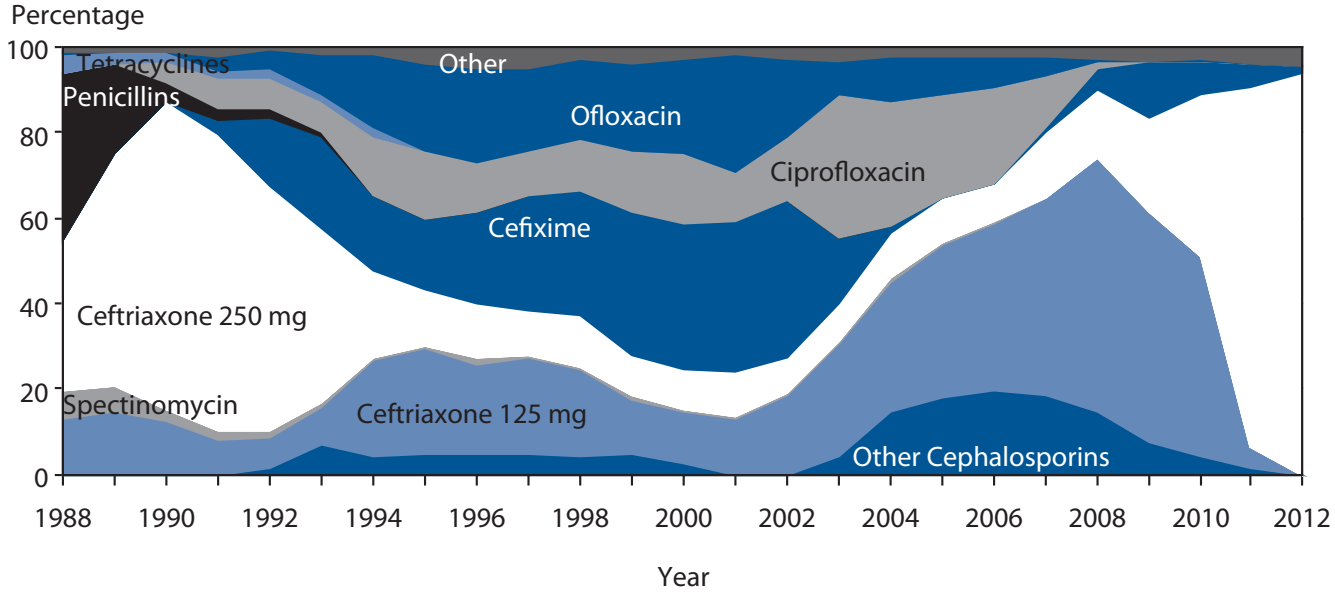


Figure 27. Penicillin, Tetracycline, and Ciprofloxacin Resistance Among *Neisseria gonorrhoeae* Isolates, Gonococcal Isolate Surveillance Project (GISP), 2012



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 28. Antimicrobial Drugs Used to Treat Gonorrhea Among Participants, Gonococcal Isolate Surveillance Project (GISP), 1988 – 2012



NOTE: For 2012, "Other" includes no therapy (1.1%), azithromycin 2g (3.2%), and other less frequently used drugs (0.1%).

Syphilis

Background

Syphilis, a genital ulcerative disease, causes significant complications if untreated and facilitates the transmission of HIV infection. Untreated early syphilis in pregnant women results in perinatal death 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.[1]

The rate of P&S syphilis reported in the United States decreased during the 1990s; in 2000, the rate was the lowest since reporting began in 1941 (Figure 29). The low rate of P&S syphilis and the concentration of the majority of syphilis cases in a small number of geographic areas in the United States led to the development of CDC's *National Plan to Eliminate Syphilis*, which was announced by the Surgeon General in October 1999 and revised in May 2006.[2]

Although the rate of P&S syphilis in the United States declined 89.7% during 1990–2000, the rate increased annually during 2001–2009 before decreasing in 2010 and remaining unchanged during 2011. During 2012, rates again increased (to 5.0 cases per 100,000 population). Overall increases in rates were observed primarily among men (increasing from 8.1 cases (in 2011) to 9.3 cases (in 2012) per 100,000 population). After persistent declines during 1992–2003, the rate among women increased from 0.8 cases (in 2004) to 1.5 cases (in 2008) per 100,000 population, declining to 0.9 cases per 100,000 population in 2011 and 2012.

Syphilis remains a major health problem with increases persisting among men who have sex with men (MSM). Cases among MSM have been characterized by high rates of HIV co-infection and high-risk sexual behaviors.[3–7] The estimated proportion of P&S syphilis cases attributable to MSM increased from 7% in 2000 to 64% in 2004.[8,9] In 2005, CDC requested that all state health departments report the sex of sex partners for persons with syphilis. Of reported male cases with P&S syphilis, sex of sex partner information in 2012 was available for 82%. In 2012, 49 states and the District of Columbia provided information about sex of sex partners. Among cases of P&S syphilis for whom sex of partner was known, MSM accounted for 75% of P&S syphilis cases.

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

During 2011–2012, the number of cases of early latent syphilis reported to CDC increased 10.4% (from 13,136 cases to 14,503 cases), and the number of cases of late and late latent syphilis increased 4.5% (from 18,576 cases to 19,411 cases) (Tables 1, 37, and 39). The total number of cases of syphilis (P&S, early latent, late, late latent, and congenital) reported to CDC increased 8.4% (from 46,040 cases to 49,903 cases) during 2011–2012 (Table 1).

P&S Syphilis—United States

P&S syphilis cases reported to CDC increased from 13,970 in 2011 to 15,667 in 2012, an increase of 12.1%. The rate of P&S syphilis in the United States increased from 4.5 to 5.0 (an 11.1% increase) during 2011– 2012 (Table 1).

P&S Syphilis by Region

The South accounted for 43.5% of P&S syphilis cases in 2012 and 44.1% in 2011. During 2011–2012, rates increased 11.3% in the South (from 5.3 to 5.9 cases per 100,000 population), 15.8% in the Northeast (from 3.8 to 4.4 cases), 3.1% in the Midwest (from 3.2 to 3.3 cases), and 18.4% in the West (from 4.9 to 5.8 cases) (Figure 33, Table 27).

P&S Syphilis by State

In 2012, the 15 states and areas (including the District of Columbia) with the highest rates of P&S syphilis accounted for 70% of all U.S. cases of P&S syphilis. The rate of P&S syphilis in 11 of these 15 states and areas (including the District of Columbia) exceeded the national rate of 5.0 cases per 100,000 population; 9 of these 15 states and areas (including the District of Columbia) were in the South (Figure 33, Table 26).

P&S Syphilis by Metropolitan Statistical Area

The rate of P&S syphilis in 2012 for the 50 most populous MSAs (7.2 cases per 100,000 population) (Table 30) exceeded the overall rate for the United States (5.0 cases) (Table 27). The rate increased in 31 of these 50 MSAs (62%) during 2011–2012.

P&S Syphilis by County

In 2012, 2,123 of 3,142 counties (67.6%) in the United States reported no cases of P&S syphilis, compared with 2,154 counties (68.5%) in 2011 (Figure 34). In 2012, half of the total number of P&S syphilis cases was reported from 26 counties and two cities (Table 33).

P&S Syphilis by Sex

The rate of P&S syphilis increased 14.8% among men (from 8.1 to 9.3 cases per 100,000 men) during 2011–2012 (Figure 31, Table 29). During this same period, the rate among women remained unchanged (0.9 cases per 100,000 women) (Figure 31, Table 28).

P&S Syphilis by Age Group

In 2012, the rate of P&S syphilis was highest among persons aged 20–24 years and 25–29 years (14.8 and 13.7 cases per 100,000 population, respectively) (Table 35).

Rates were highest among men 20–29 years, increasing 11.0% (from 22.8 to 25.3 cases) among men 20–24 years and 15.6% (from 21.2 to 24.5 cases) among men 25–29 years during 2012 (Figures 35 and 37, Table 35). This marks the fifth consecutive year that rates of P&S syphilis among men have been highest among men aged 20–29 years (Table 35). During this time period (2008–2012), rates have increased among men aged 20–24 years by 46.2% (from 17.3 to 25.3 cases) and among men aged 25–29 years by 45.0% (from 16.9 to 24.5 cases). These data indicate a shift since 2006, when the highest rates were in men aged 35–39 years.

Rates increased among women aged 20–24 years and 45–54 years (from 3.7 to 3.9 and from 0.5 to 0.6 cases per 100,000 population, respectively). Rates remained the same or decreased for women of all other age groups. Rates remained highest among women aged 20–24 years (Figures 35 and 36, Table 35).

P&S Syphilis by Race/Ethnicity

In 2012, among the 48 jurisdictions (47 states and the District of Columbia) that submitted data in the new race and ethnic categories according to the revised Office of Management and Budget (OMB) standards, rates of P&S syphilis remained highest among blacks (16.4 cases per 100,000 population) (Table 36B). The rate among blacks was 6.1 times the rate among whites (2.7 cases per 100,000 population). The rate among American Indians/Alaska Natives (2.9) was 1.1 times that of whites, the rate among Native Hawaiians/Other Pacific Islanders (8.4) was 3.1 times that of whites, the rate among Hispanics (5.7) was 2.1 times that of whites, and the rate among Asians (2.0) was 0.7 times that of whites (Table 36B).

During 2008–2012, among the 39 jurisdictions (38 states and the District of Columbia) that submitted data in the new race and ethnic categories for all five years during that period, the rate of P&S syphilis increased 40.9% among Hispanics (from 4.2 to 5.9 cases per 100,000 population), 21.4% among non-Hispanic whites (from 2.4 to 2.9 cases per 100,000 population), 17.8% among American Indians/Alaska Natives (from 2.9 to 3.4 cases per 100,000 population), 55.6% among Asians (from 1.4 to 2.1 cases per 100,000 population), 57.6% among Native Hawaiian or Other Pacific Islanders (from 5.4 to 8.5 cases per 100,000 population), and 188.9% among Multirace individuals (from 0.7 to 1.9 cases per 100,000 population) (Figure 38). The rate decreased 0.7% among non-Hispanic blacks (from 17.1 to 16.9 cases per 100,000 population). Non-Hispanic blacks, non-Hispanic whites, and Hispanics comprised 94.5% of reported cases in 2008 and 93.8% of reported cases in 2012.

P&S Syphilis by Sex and Sex Behavior

The male-to-female rate ratio for P&S syphilis rates rose steeply during 2000–2003 (from 1.5 to 5.3), and again during 2008–2012 (from 5.0 to 10.3), reflecting higher rates in men than women (Figure 31). In 2012, this ratio was almost double the ratio of 2003, and almost seven times the ratio of 2000.

In 2005, CDC began collecting information on the sex partners of patients with P&S syphilis. In 2012, this information was available for 82% of male cases. During 2007–2012, 33 areas reported sex of partner data for at least 70% of cases each year during this time period (Figure 30). During 2007–2008 in these areas, increases in cases occurred among women, men having sex with women only (MSW), and MSM. During 2008–2012 in these areas, cases among women and MSW declined 24% (from 1,364 to 1,034 cases) and 15% (from 1,884 to 1,600 cases), respectively, while cases among MSM increased 46% (from 5,872 to 8,553 cases). During 2011–2012 in these areas, cases increased very slightly among MSW (4%) and women (1%), while cases among MSM increased 15% (from 7,422 cases in 2011 to 8,553 cases in 2012)—a larger increase than in previous years. (In these areas, cases among MSM increased 6% during 2008–2009 (from 5,872 to 6,243), 10% during 2009–2010 (from 6,243 to 6,870 cases), and 8% during 2010–2011 (from 6,870 to 7,422 cases).) In 2012, among MSW with

P&S syphilis, 39.2% had primary syphilis, and 60.8% had secondary syphilis. Among women with P&S syphilis, 18.6% had primary syphilis, and 81.4% had secondary syphilis. Among MSM, 27.2% had primary syphilis, and 72.8% had secondary syphilis (Figure 39).Among women with P&S syphilis, 18.1% were white, 65.2% were black, 13.2% were Hispanic, and 2.5% were of other races/ethnicities. Among MSW, 20.4% were white, 55.9% were black, 19.2% were Hispanic, and 2.8% were of other races/ethnicities. Among MSM, 37.9% were white, 34.4% were black, 21.1% were Hispanic, and 4.5% were of other races/ethnicities (Figure 40).

P&S Syphilis by Race/Ethnicity and Sex

In 2012, among the 48 jurisdictions (47 states and the District of Columbia) that submitted data in the new race and ethnic categories according to OMB standards, rates of P&S syphilis among men were highest among non-Hispanic black men (28.9 cases per 100,000 population), followed by Native Hawaiian or Other Pacific Islander (14.9 cases per 100,000 population), Hispanic (10.4 cases per 100,000 population), American Indians/Alaska Natives (5.3 cases per 100,000 population), non-Hispanic white (5.1 cases per 100,000 population), Asian (4.0 cases per 100,000 population) and Multirace (3.8 cases per 100,000 population) men (Figure P, Table 36B).

In 2012, among the 48 jurisdictions (47 states and the District of Columbia) that submitted data in the new race and ethnic categories according to OMB standards, rates of P&S syphilis among women were highest among non-Hispanic black women (4.9 cases per 100,000 population), followed by Native Hawaiian or Other Pacific Islander (1.6 cases per 100,000 population), Hispanic (0.8 cases per 100,000 population), American Indian/Alaska Native (0.7 cases per 100,000 population), non-Hispanic white (0.3 cases per 100,000 population), Multirace (0.2 cases per 100,000 population) and Asian (0.1 cases per 100,000 population) women (Figure P, Table 36B).

P&S Syphilis by Race/Ethnicity, Age, and Sex

In 2012, among the 48 jurisdictions (47 states and the District of Columbia) that submitted data in the new race and ethnic categories according to OMB standards, the rate of P&S syphilis among non-Hispanic blacks remained highest among women aged 20–24 years (19.1 cases per 100,000 women) and among men aged 20–24 years and 25–29 years (96.7 and 89.2 cases per 100,000 men, respectively). For Hispanics, the rate was highest among women aged 20–24 years and 25–29 years (2.1 and 2.0 cases per 100,000 women, respectively), and among men aged 20–24 years and 25–29 years (24.3 and 23.2 cases per 100,000 men, respectively). For non-Hispanic whites, the rate was highest among women aged 20–24 years (1.1 cases per 100,000 women) and among men aged 25–29 years and 30–34 years (10.8 cases per 100,000 men for both groups) (Table 36B).

For Asians, the rate was highest among women aged 15–19 years and 20–24 years (0.8 cases per 100,000 women for both groups) and among men aged 25–29 years (10.3 cases per 100,000 men). For American Indians/Alaska Natives, the rate was highest among women aged 20–24 years (3.5 cases per 100,000 women) and among men aged 20–24 years (17.9 cases per 100,000 men). For Native Hawaiian or Other Pacific Islanders, the rate was highest among women aged 20–24 years (9.0 cases per 100,000 women) and among men aged 25–29 years (34.8 cases per 100,000 men). For Multirace individuals, rates were highest among women aged 35–39 years (1.5 cases per 100,000 women) and among men aged 30–34 years (11.7 cases per 100,000 men) (Table 36B).

In some age groups, particularly young men aged 20–24 years and 25–29 years, wide disparities in rates of P&S syphilis have occurred in recent years.[9,10] During 2007–2011, rates among black men aged 20–24 years increased from 54.9 to 96.2 cases per 100,000 population (75%). In 2012, rates among men aged 20–24 years and 25–29 years remained highest among blacks (96.7 cases and 89.2 cases per 100,000 population, respectively). These rates were 10.6 and 8.3 times (respectively) the rate of white men of the same age groups. The 2012 rate among Hispanic men aged 20–24 years is almost double the 2007 rate (24.3 versus 14.4 cases per 100,000 population, respectively), and is 2.7 times the rate of white men aged 20–24 years (9.1 cases per 100,000 population).

These disparities in syphilis rates among young men are of particular concern given data indicating increasing HIV incidence among young men.[11, 12]

P&S Syphilis by Reporting Source

In 1990, 25.6% of P&S syphilis cases were reported from sources other than STD clinics; this figure increased to 39.2% in 1998. During 1998–2012, the proportion of cases reported from sources other than STD clinics increased from 39.2% to 68.1% (Figure 41, Table A2). During 2003–2012, the number of

cases among males reported from non-STD clinic sources increased steadily, while the number reported from STD clinics increased slightly by comparison (Figure 41).

In 2012, patients with P&S syphilis usually sought care from private physicians or STD clinics. Similar proportions of cases among women and MSM were reported from private physicians and STD clinics, while substantially more cases among MSW were reported from STD clinics than from private physicians (Figure 42).

Congenital Syphilis—United States

After an 18% increase in the rate of congenital syphilis during 2006–2008, the rate of congenital syphilis decreased 25% during 2008–2012 (from 10.4 to 7.8 cases per 100,000 live births) (Table 42). In 2012, a total of 322 cases were reported, a decrease from 358 cases in 2011, 387 cases in 2010, and 431 cases in 2009. This recent decrease in the rate of congenital syphilis is associated with the decrease in the rate of P&S syphilis among women that has occurred since 2008 (Figure 43). The 2012 rate of congenital syphilis (7.8 cases per 100,000 live births) marks the lowest rate of congenital syphilis recorded since 1988, when the case definition was changed.

Syphilis among Special Populations

More information about syphilis and congenital syphilis in racial and ethnic minority populations, adolescents, MSM, and other populations at higher risk can be found in the Special Focus Profiles.

Syphilis Summary

In recent years, young MSM have accounted for an increasing proportion of syphilis cases in the United States.[9, 10] According to information reported from 49 states and the District of Columbia, 75% of P&S syphilis cases are among MSM. Although the majority of U.S. syphilis cases have occurred among MSM, transmission among MSW and women continues to occur in certain jurisdictions.

1 Ingraham NR. The value of penicillin alone in the prevention and treatment of congenital syphilis. Acta Derm Venereol. 1951:31(Suppl 24):60-88.

2 Centers for Disease Control and Prevention. The national plan to eliminate syphilis from the United States. Atlanta: U.S. Department of Health and Human Services; 2006.

3 Centers for Disease Control and Prevention. Resurgent bacterial sexually transmitted disease among men who have sex with men — King County, Washington, 1997–1999. MMWR Morb Mortal Wkly Rep. 1999;48:773-7.

4 Centers for Disease Control and Prevention. Outbreak of syphilis among men who have sex with men — Southern California, 2000. MMWR Morb Mortal Wkly Rep. 2001;50(7):117-20.

5 Centers for Disease Control and Prevention. Primary and secondary syphilis among men who have sex with men — New York City, 2001. MMWR Morb Mortal Wkly Rep. 2002;51:853-6.

6 Chen SY, Gibson S, Katz MH, Klausner JD, Dilley JW, Schwarcz SK, et al. Continuing increases in sexual risk behavior and sexually transmitted diseases among men who have sex with men: San Francisco, California, 1999–2001 [Letter] Am J Public Health. 2002;92:1387-8.

7 D'Souza G, Lee JH, Paffel JM. Outbreak of syphilis among men who have sex with men in Houston, Texas. Sex Transm Dis. 2003;30:872-3.

8 Centers for Disease Control and Prevention. Primary and secondary syphilis — United States, 2003–2004. MMWR Morb Mortal Wkly Rep. 2006;55:269-73.

9 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;97:1076-83.

10 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.

11 Centers for Disease Control and Prevention. Trends in HIV/AIDS diagnoses among men who have sex with men — 33 States, 2000–2006. MMWR Morb Mortal Wkly Rep. 2008; 57:681–686.

12 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 May;38(5):367-71.

Figure 29. Syphilis—Reported Cases by Stage of Infection, United States, 1941 – 2012

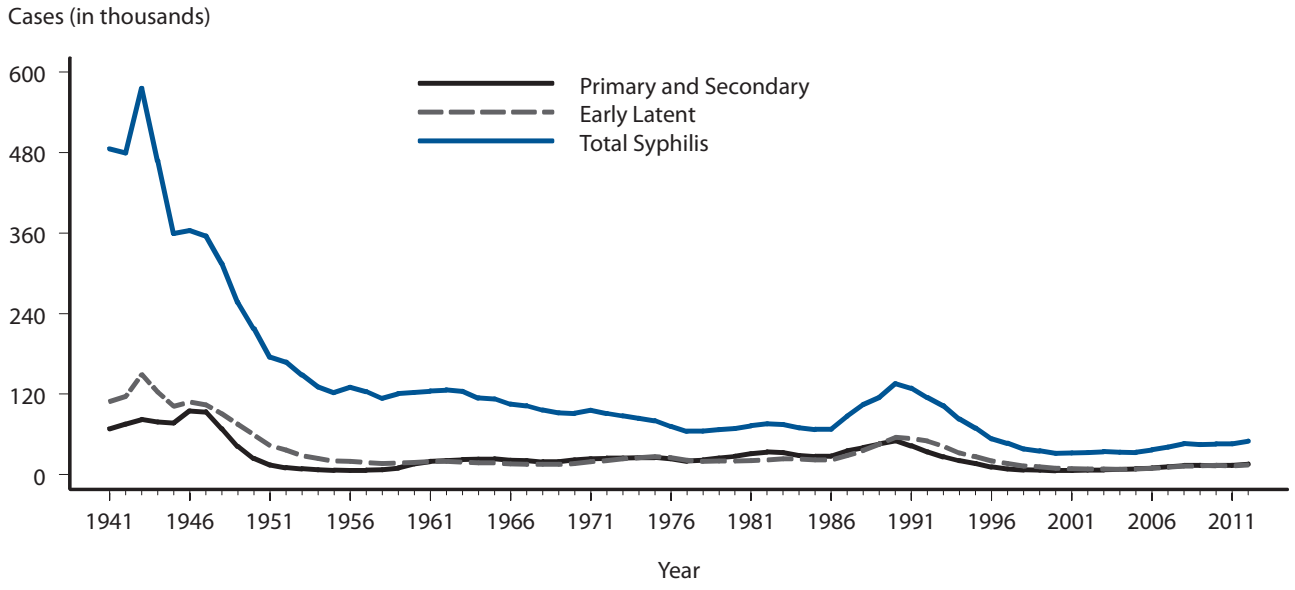
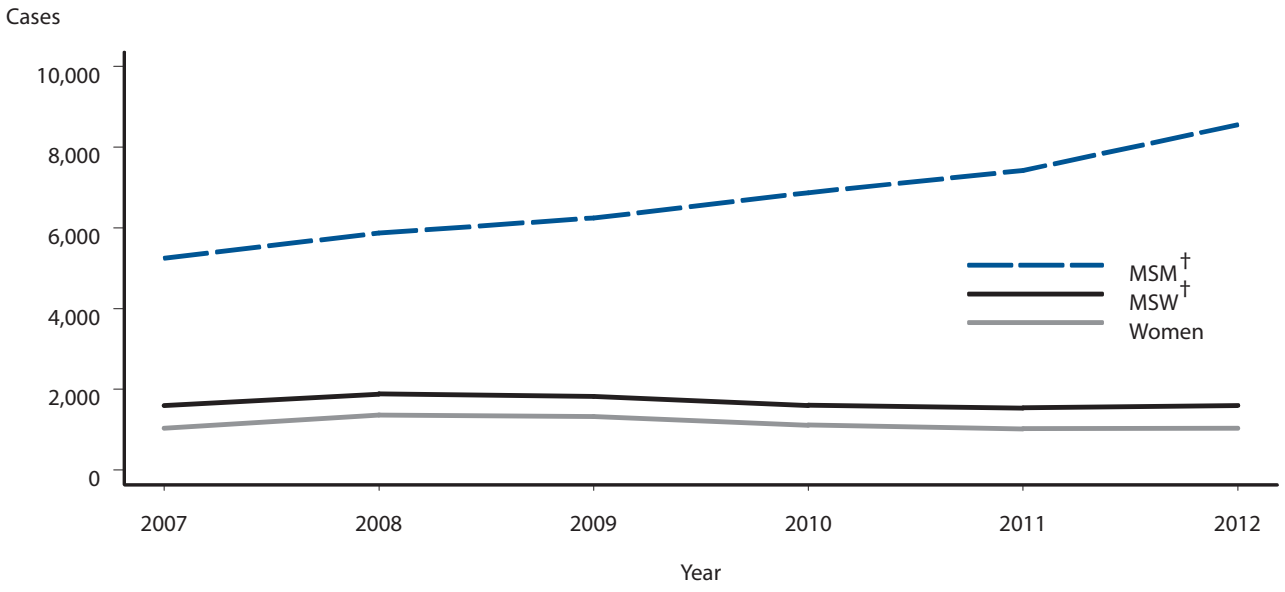


Figure 30. Primary and Secondary Syphilis — by Sex and Sexual Behavior, 33 areas*, 2007 – 2012



* 32 states and Washington, DC reported sex of partner data for ≥70% of reported cases of P&S syphilis for each year during 2007–2012.
† MSM = men who have sex with men; MSW = men who have sex with women only.

Figure 31. Primary and Secondary Syphilis — Rates by Sex and Male-to-Female Rate Ratios, United States, 1990 – 2012

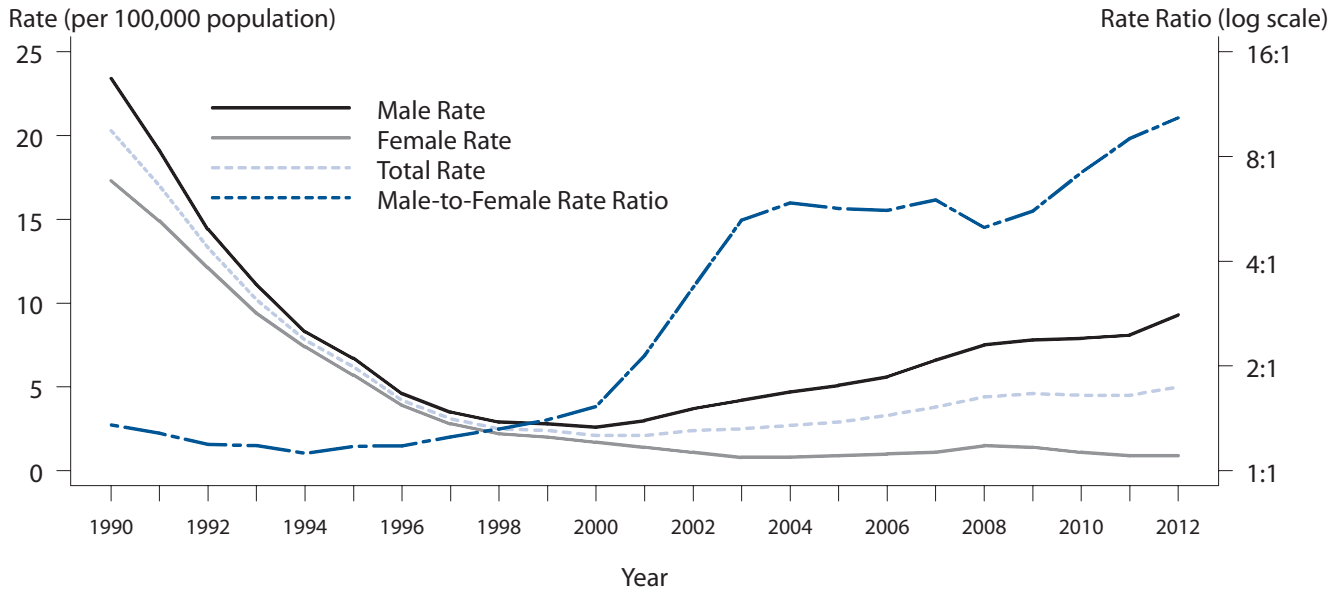


Figure 32. Primary and Secondary Syphilis—Rates by Region, United States, 2003 – 2012

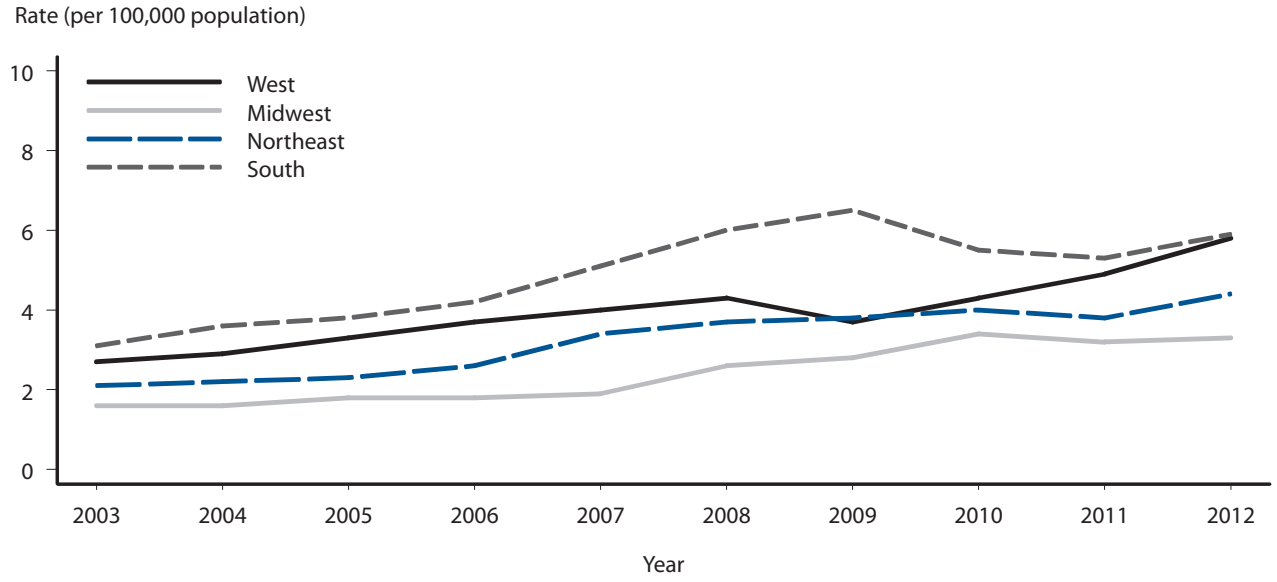
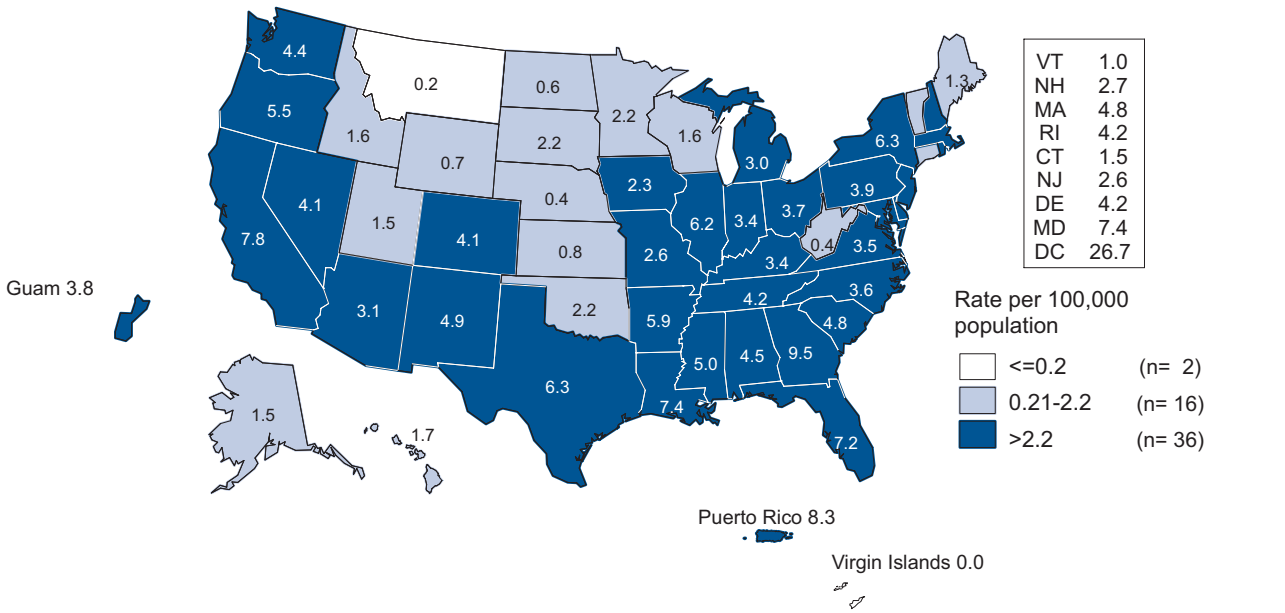
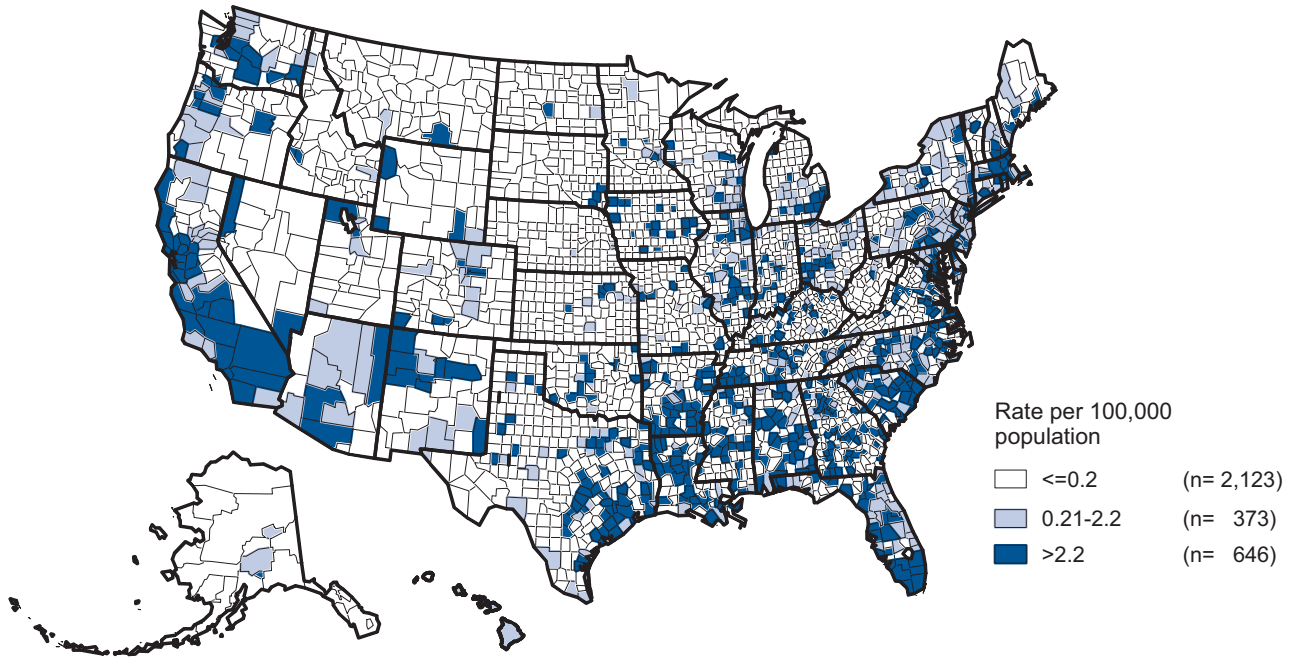


Figure 33. Primary and Secondary Syphilis—Rates by State, United States and Outlying Areas, 2012



NOTE: The total rate of primary and secondary syphilis for the United States and outlying areas (Guam, Puerto Rico, and Virgin Islands) was 5.1 per 100,000 population.

Figure 34. Primary and Secondary Syphilis—Rates by County, United States, 2012



NOTE: In 2012, 2,123 (67.6%) of 3,142 counties in the United States reported no cases of primary and secondary syphilis.

Figure 35. Primary and Secondary Syphilis—Rates by Age and Sex, United States, 2012

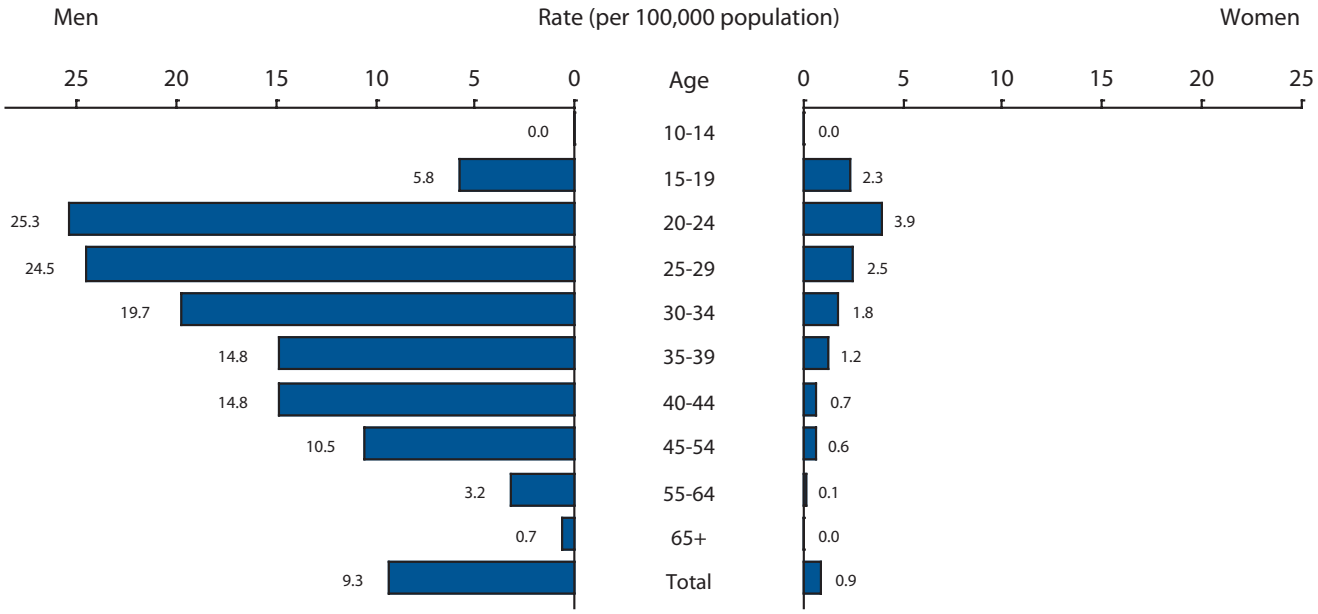


Figure 36. Primary and Secondary Syphilis — Rates by Age Among Women Aged 15 – 44 Years, United States, 2003 – 2012

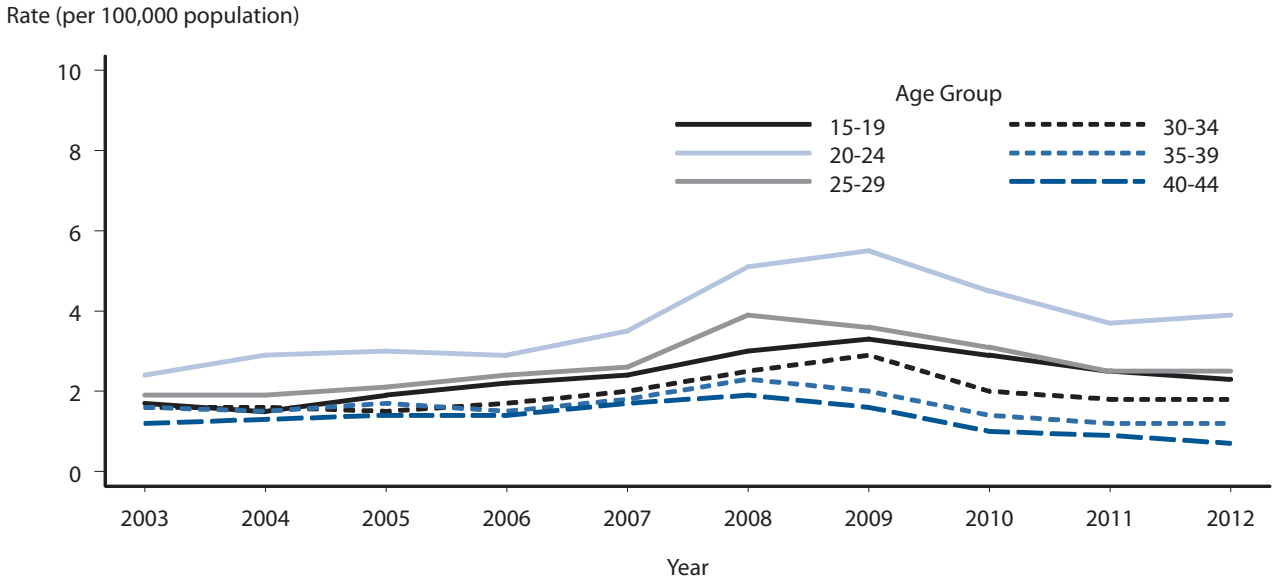


Figure 37. Primary and Secondary Syphilis — Rates by Age Among Men Aged 15 – 44 Years, United States, 2003 – 2012

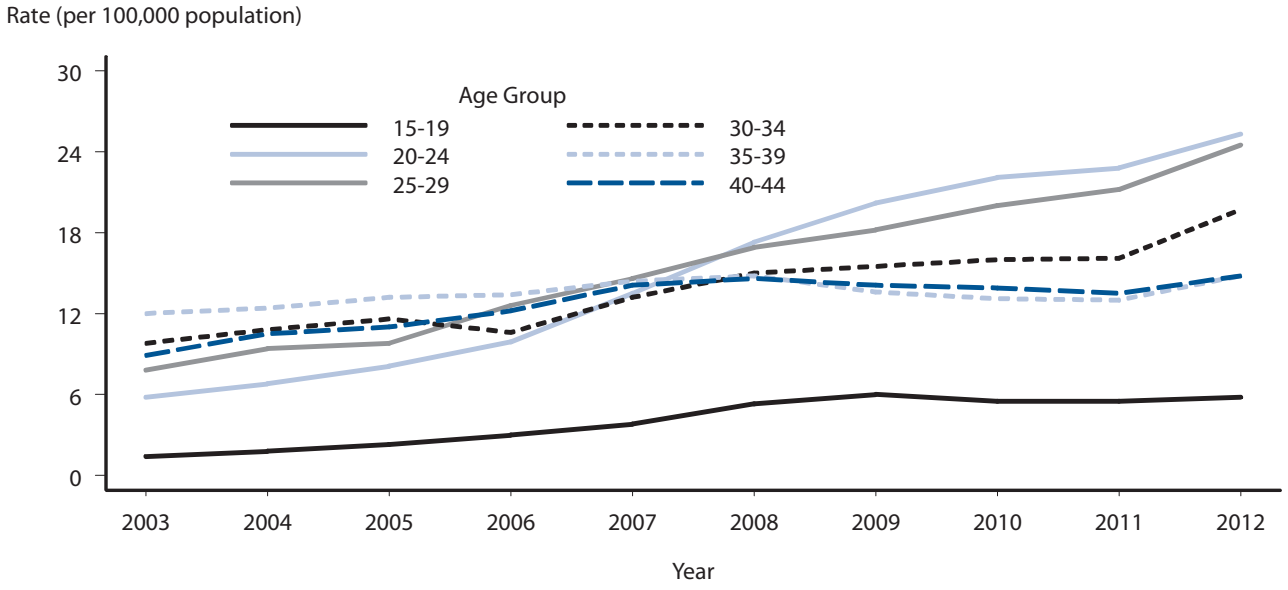
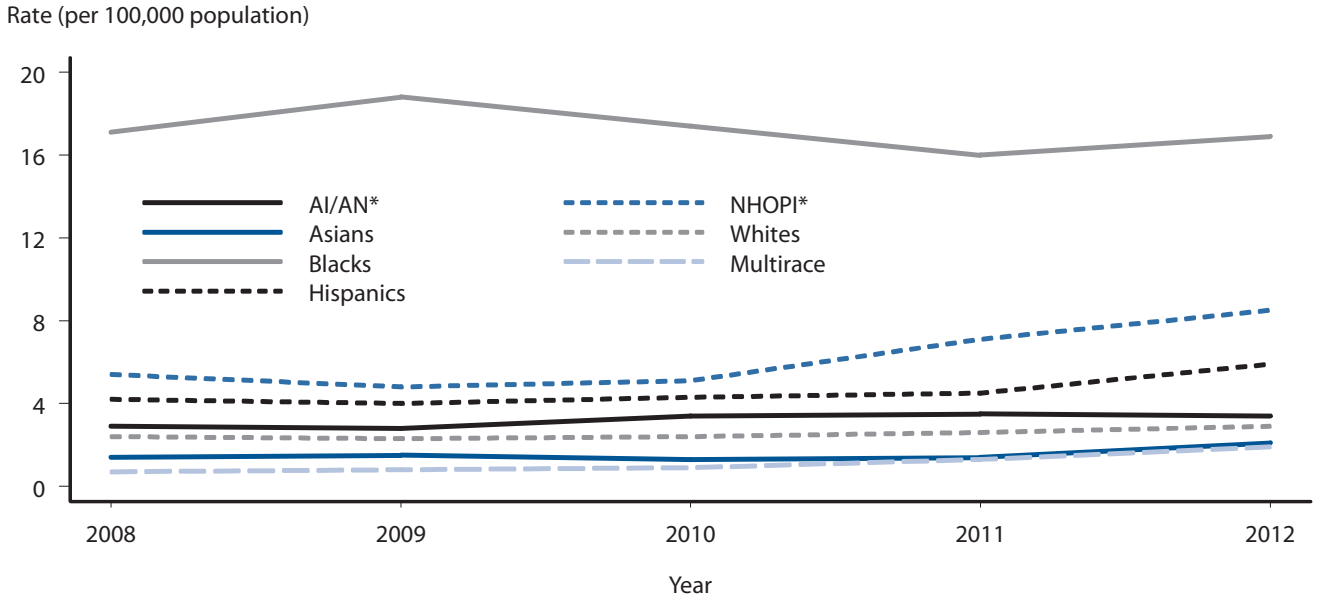
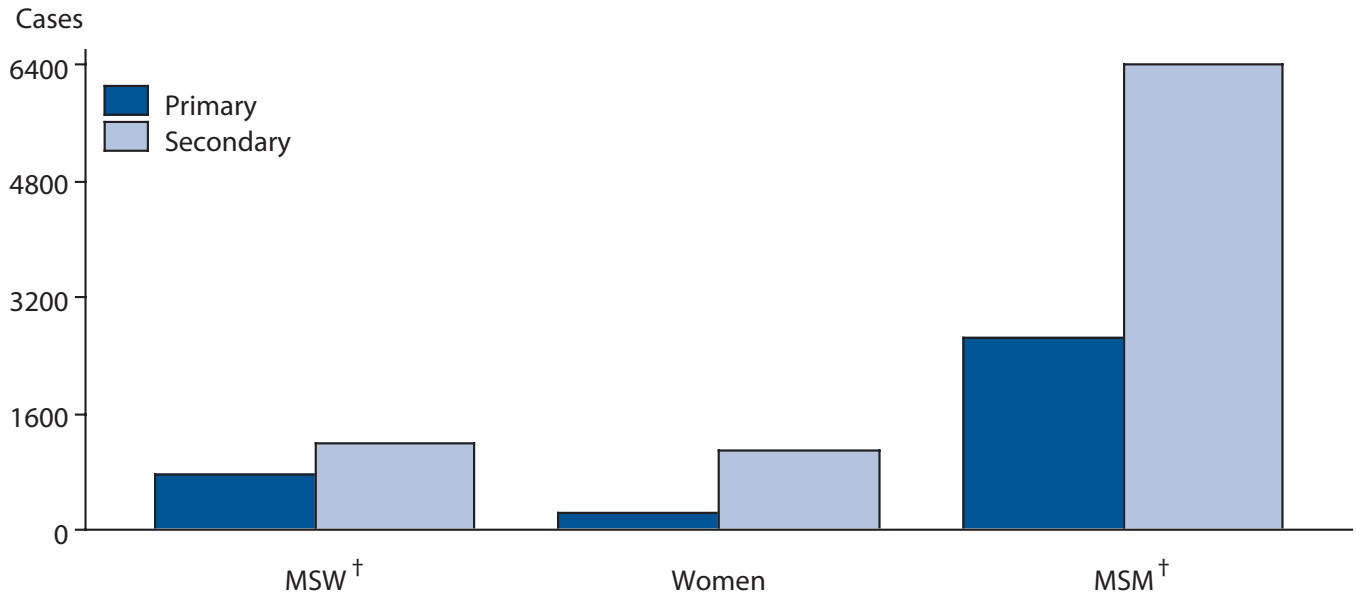


Figure 38. Primary and Secondary Syphilis — Rates by Race/Ethnicity, United States, 2008 – 2012



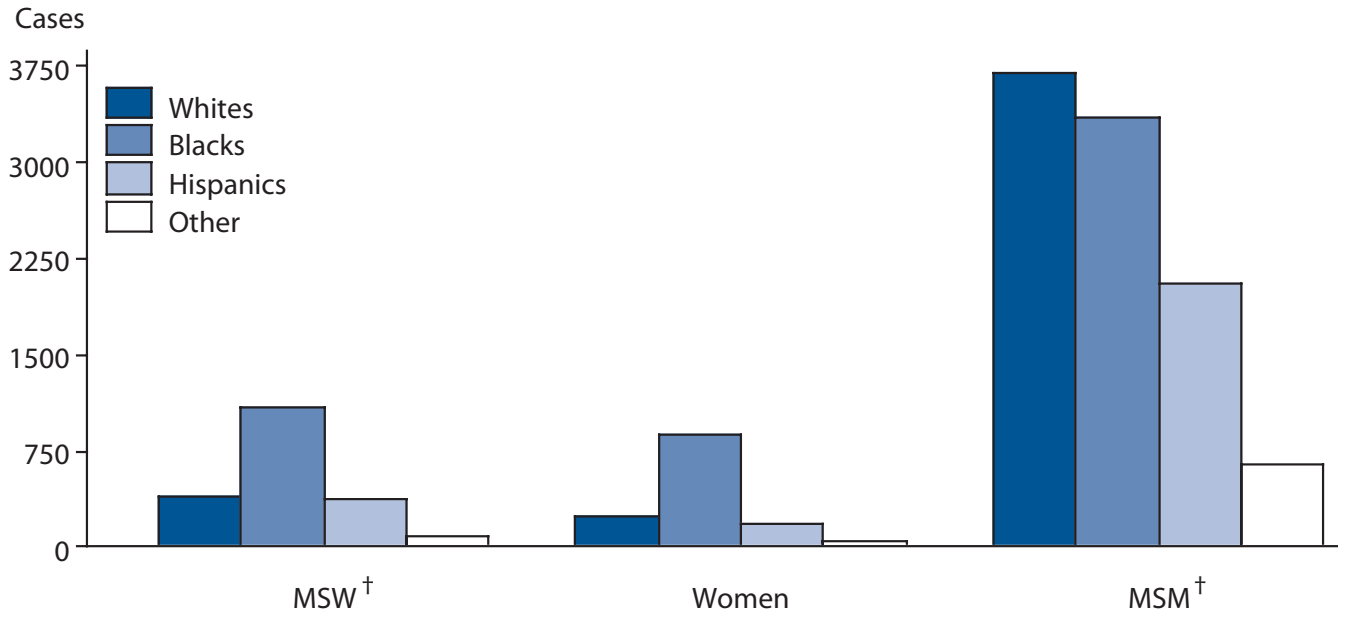
* AI/AN = American Indians/Alaska Natives; NHOPI = Native Hawaiian and Other Pacific Islanders.
NOTE: Includes 38 states and the District of Columbia reporting race/ethnicity data in Office of Management and Budget compliant formats during 2008–2012 (see Appendix "Interpreting STD Surveillance Data").

Figure 39. Primary and Secondary Syphilis — Reported Cases* by Stage, Sex, and Sexual Behavior, 2012



* Of the reported male cases of primary and secondary syphilis, 17.4% were missing sex of sex partner information.
† MSW = men who have sex with women only; MSM = men who have sex with men.

Figure 40. Primary and Secondary Syphilis—Reported Cases* by Sex, Sexual Behavior, and Race/Ethnicity, United States, 2012



* Of the reported male cases of primary and secondary syphilis, 17.4% were missing sex of sex partner information; 2.0% 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 41. Primary and Secondary Syphilis — Reported Cases by Reporting Source and Sex, United States, 2003 – 2012

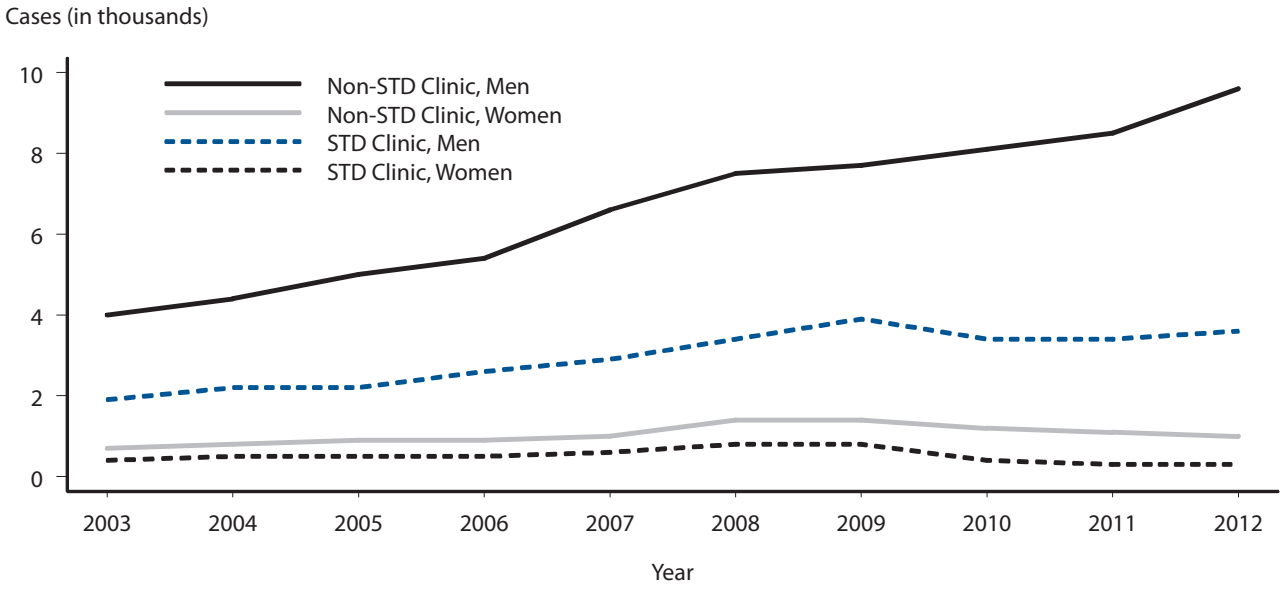
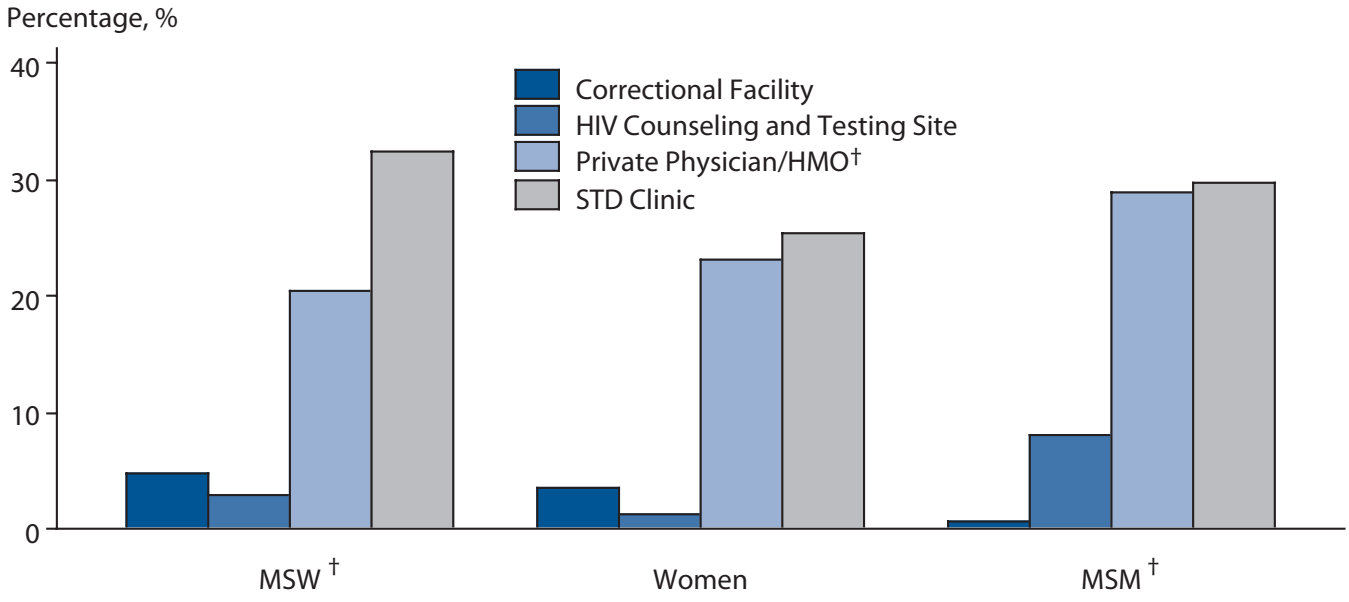


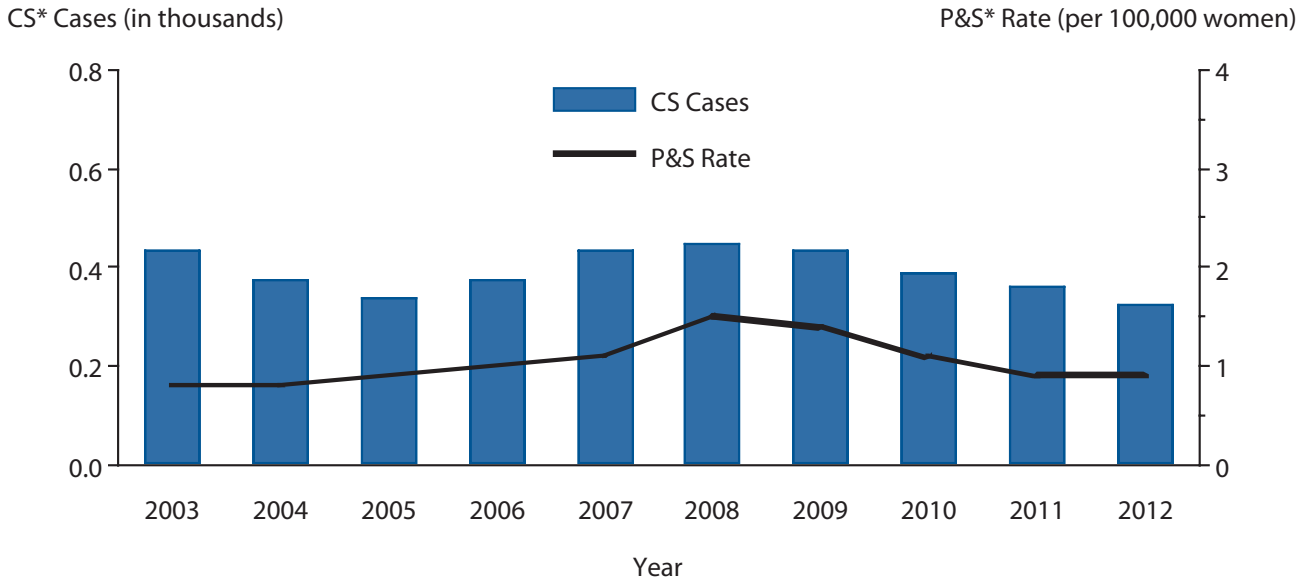
Figure 42. Primary and Secondary Syphilis — Percentage of Reported Cases* by Sex, Sexual Behavior, and Selected Reporting Sources, 2012



* Of the reported male cases of primary and secondary syphilis, 17.4% were missing sex of sex partner information, and 6.2% of reported male cases with sex of sex partner data were missing source of information data.

† HMO = health maintenance organization; MSM = men who have sex with men; MSW = men who have sex with women only.

Figure 43. Congenital Syphilis — Reported Cases Among Infants by Year of Birth and Rates of Primary and Secondary Syphilis Among Women, United States, 2003 – 2012



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

Other Sexually Transmitted Diseases

Chancroid

Reported cases of chancroid declined steadily between 1987 and 2001. Since then, the number of reported cases has fluctuated (Figure 44, Table 1). In 2012, a total of 15 cases of chancroid were reported in the United States. Only eight states reported one or more cases of chancroid in 2012 (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 substantially underdiagnosed.[1,2]

Human Papillomavirus

In June 2006, a quadrivalent HPV vaccine was licensed for use in the United States in females aged 9–26 years;[3] in October 2009, this vaccine also was licensed for use in males aged 9–26 years.[4] This vaccine provides protection against HPV types 6, 11, 16, and 18. HPV 6 and 11 are responsible for about 90% of anogenital warts,[5,6] while HPV 16 and 18 are high-risk oncogenic types that cause approximately 70% of cervical cancers worldwide.[7,8] In October 2009, a bivalent HPV vaccine that provides protection against types 16 and 18 was licensed for use in females aged 10–25 years.[9]

HPV vaccine uptake in the US is relatively low. In 2012, a national survey found that 54% of girls aged 13-17 years had received at least 1 dose of the HPV vaccine series, but only 33% had received all 3 doses in the series.[10] Vaccine uptake is very low among boys.[11]

Sentinel surveillance for cervical infection with high-risk HPV types 16, 18, 31, 33, 35, 39, 45, 51, 52, 56, 58, 59, or 68 was conducted from 2003 through 2005 in 26 STD, family planning, and primary care clinics in 6 locations (Boston, Baltimore, New Orleans, Denver, Seattle, and Los Angeles). Testing was performed using a commercially available test for high-risk HPV DNA (Hybrid Capture 2, Qiagen). Overall prevalence of high-risk HPV was 23% (95% confidence interval [CI]: 22-24). Age- and city-adjusted prevalence was 26% (95% CI: 24-29) in STD clinics, 24% (95% CI: 22-26) in family planning clinics, and 17% (95% CI: 16-20) in primary care clinics. Prevalence by age group was 35% (95% CI: 32-38) in women aged 14–19 years, 29% (95% CI: 28-30) in those aged 20–29, 13% (95% CI: 12-15) in those aged 30–39, 11% (95% CI: 9-13) in those aged 40–49, and 6% (95% CI: 4-8) in those aged 50–65.[12]

National population-based data were obtained from NHANES to examine the prevalence of both high-risk HPV and low-risk HPV in the civilian, non-institutionalized female population during 2003–2006 (Figure 45). HPV detection and typing were performed using the Research Use Only Linear Array genotyping assay (Roche Diagnostics), resulting in higher HPV prevalence than previously reported for NHANES 2003–2004 data. The overall prevalence of high- and low-risk HPV was 42.5% (95% CI: 40.3–44.7) among females aged 14–59 years.[13] HPV vaccine-preventable low-risk types 6 or 11 or high-risk types 16 or 18 were detected in 8.8% of female participants: HPV 6 in 2.8% (95% CI: 2.2–3.6), HPV 11 in 0.3% (95% CI: 0.2–0.7), HPV 16 in 4.7% (95% CI: 4.0–5.5), and HPV 18 in 1.9% (95% CI: 1.4–2.5).[14] Prevalence of quadrivalent vaccine-type HPV decreased from 11.5% (95% CI: 9.2-14.4) in 2003-2006 to 5.1% (95% CI: 3.8-6.6) in 2007-2010 among females aged 14-19 years, the age group most likely to be affected by introduction of the HPV vaccine, despite low vaccine uptake.[15]

Data from the National Disease and Therapeutic Index (NDTI) suggest that cases of genital warts (Figure 46, Table 45), as measured by initial visits to physicians' offices, may have increased during the late 1990s through 2011; although cases appear to have decreased in 2012, more years of data are needed to discern whether genital warts are declining. Prevalence of genital warts in a large US cohort of individuals with private health insurance significantly declined in 2007 to 2010 among girls aged 15-19.[16] 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.[17]

For data reported in Figure 47, enhanced behavioral and demographic information on patients who presented for care in 2012 at the 42 clinics participating in the STD Surveillance Network (SSuN) was used. Genital warts were identified by provider

diagnosis or by documentation from the physical examination. Men who have sex with men (MSM) and men who have sex with women only (MSW) were defined by self-report or by sex of reported sex partners. More detailed information about SSuN methodology can be found in the STD Surveillance Network section of the Appendix, Interpreting STD Surveillance Data. The prevalence of genital warts in 2012 is presented separately for MSM, MSW, and women by SSuN site. Prevalence was lowest in women for all sites. Among women the median prevalence of genital warts was 1.6% (range 0.5 to 2.3) across all sites compared to 4.8% (range 2.5 to 7.4) for MSM and 6.0% (range 1.9 to 9.5) for MSW.

Pelvic Inflammatory Disease

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

Herpes Simplex Virus

Case reporting data for genital herpes simplex virus (HSV) are not available. Trend data are based on estimates of initial visits to physicians' offices for this condition from the NDTI (Figure 48, Table 45).

National trend data on the seroprevalence of HSV-2 among those aged 14–49 years from NHANES 2005–2008 were compared with NHANES survey years 1988–1994 and 1999–2004. Seroprevalence decreased from 21.0% (95% CI: 19.1–23.1) in 1988–1994[18] to 17.0% (95% CI: 15.8–18.3) in 1999–2004[18] and 16.2% (95% CI: 14.6–17.9) in 2005–2008.[19] These data, along with data from NHANES survey years 1976–1980,[18] indicate that blacks had higher seroprevalence than whites for each survey period and age group (Figure 49).

Although HSV-2 seroprevalence is decreasing, most persons with HSV-2 have not received a diagnosis. During 2005–2008, the percentage of NHANES survey participants aged 20–49 years infected with HSV-2 who reported a diagnosis of genital herpes was 18.9%.[19] An overall increase in the number of visits for genital herpes over time, as suggested by NDTI data, may indicate increased recognition of infection.

Trichomoniasis

Trend data for this infection are limited to estimates of initial physician office visits from the NDTI (Figure 50, Table 45). NHANES data from 2001–2004 indicated an overall 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).[20]

[1] Schulte JM, Martich FA, Schmid GP. Chancroid in the United States, 1981–1990: evidence for underreporting of cases. MMWR Morb Mortal Wkly Rep. 1992;41(SS-3):57-61.

[2] Mertz KJ, Trees D, Levine WC, Lewis JS, Litchfield B, Pettus KS, et al. Etiology of genital ulcers and prevalence of human immunodeficiency virus coinfection in 10 US cities. J Infect Dis. 1998;178(6):1795-1798.

[3] Markowitz LE, Dunne EF, Saraiya M, Lawson HW, Chesson H, Unger ER. Quadrivalent human papillomavirus vaccine. Recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR Morb Mortal Wkly Rep. 2007;56(RR02):1-24.

[4] Centers for Disease Control and Prevention. FDA licensure of quadrivalent human papillomavirus vaccine (HPV4, Gardasil) for use in males and guidance from the Advisory Committee on Immunization Practices (ACIP). MMWR Morb Mortal Wkly Rep. 2010;59(20):630-632.

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[7] Clifford GM, Smith JS, Plummer M, Munoz N, Franceschi S. Human papillomavirus types in invasive cervical cancer worldwide: a meta-analysis. Br J Cancer. 2003;88(1):63-73.

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[9] Centers for Disease Control and Prevention. FDA licensure of bivalent human papillomavirus vaccine (HPV2, Cervarix) for use in females and updated HPV vaccination recommendations from the Advisory Committeee on Immunization Practices (ACIP). MMWR Morb Mortal Wkly Rep. 2010;59(20):626-629.

[10] Centers for Disease Control and Prevention. Human papillomavirus vaccination coverage among adolescent girls, 2007–2012, and postlicensure vaccine safety monitoring, 2006–2013 - United States. MMWR Morb Mortal Wkly Rep. 2013;62(29):591-595.

[11] Centers for Disease Control and Prevention. National and state vaccination coverage among adolescents aged 13–17 years - United States, 2011. MMWR Morb Mortal Wkly Rep. 2012;61(34):671-677.

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[19] Centers for Disease Control and Prevention. Seroprevalence of herpes simplex virus type 2 among persons aged 14 49 years - United States, 2005–2008. MMWR Morb Mortal Wkly Rep. 2010;59(15):456-459.

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Figure 44. Chancroid — Reported Cases by Year, United States, 1981 – 2012

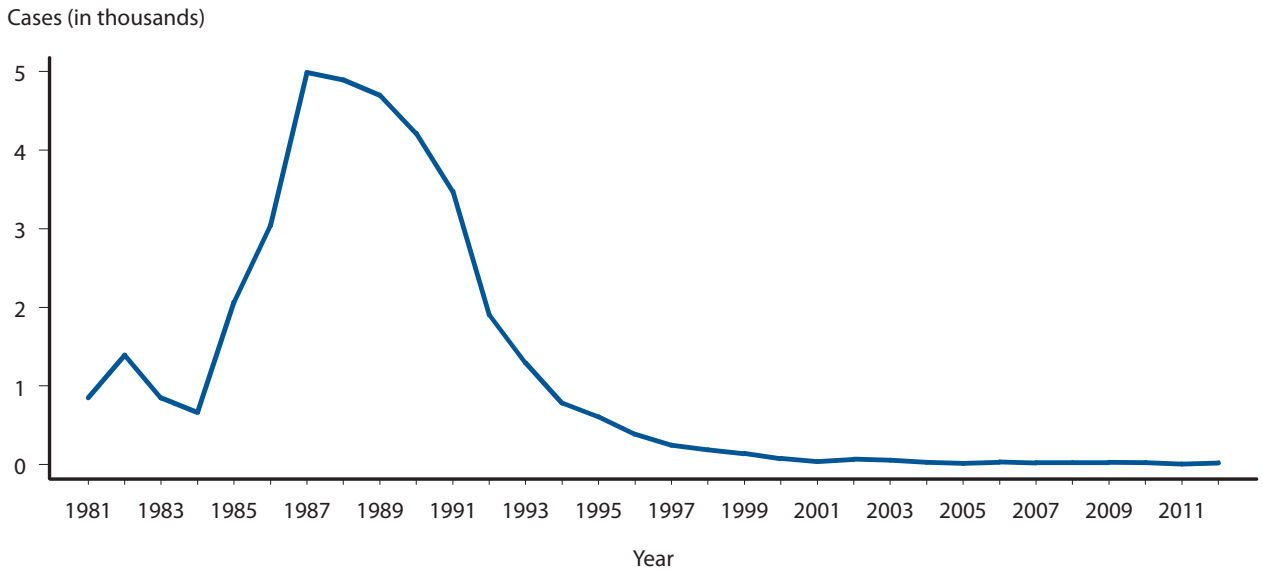
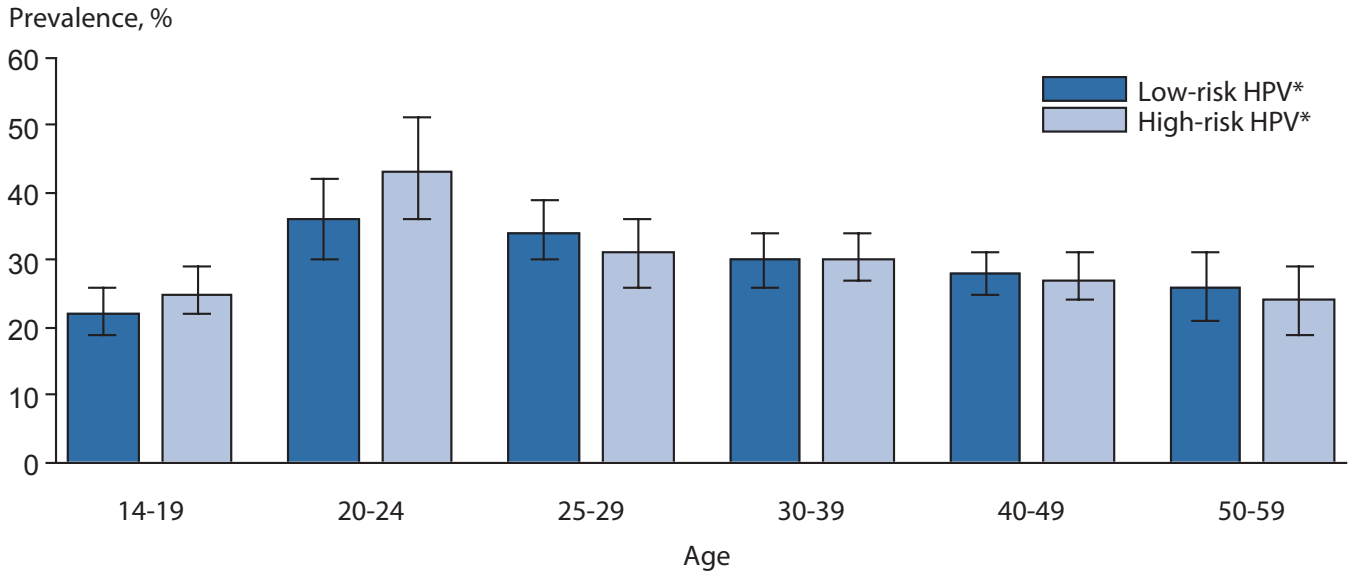
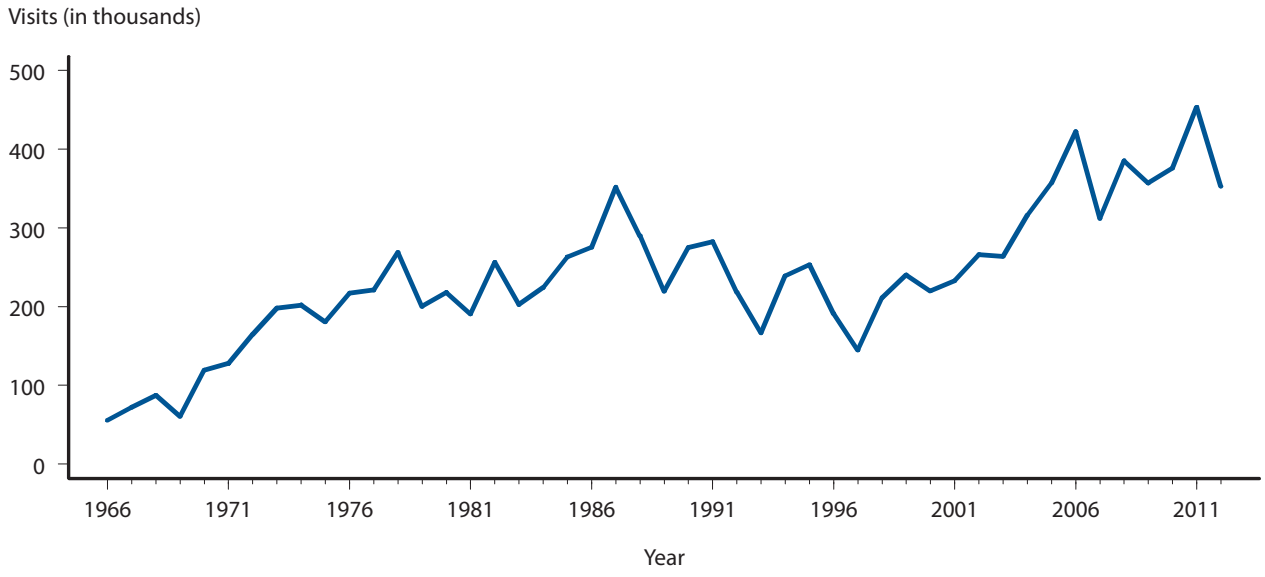


Figure 45. Human Papillomavirus — Prevalence of High-risk and Low-risk Types Among Females Aged 14 – 59 Years, National Health and Nutrition Examination Survey, 2003 – 2006



* 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 46. Genital Warts — Initial Visits to Physicians' Offices, United States, 1966 – 2012

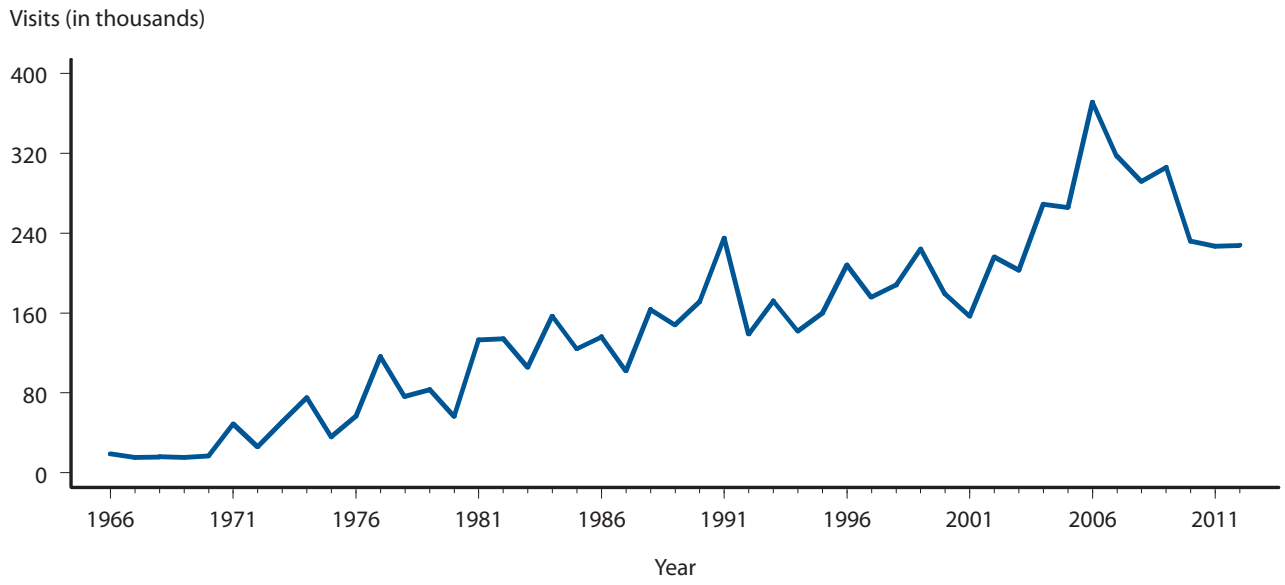


NOTE: The relative standard errors for genital warts estimates of more than 100,000 range from 18% to 30%. See Other Surveillance Data Sources in the Appendix and Table 45.
SOURCE: IMS Health, Integrated Promotional Services™. IMS Health Report, 1966 – 2012.

Figure 47. Genital Warts — Prevalence Among STD Clinic Patients by Sex, Sex of Partners, and Site, STD Surveillance Network (SSuN), 2012

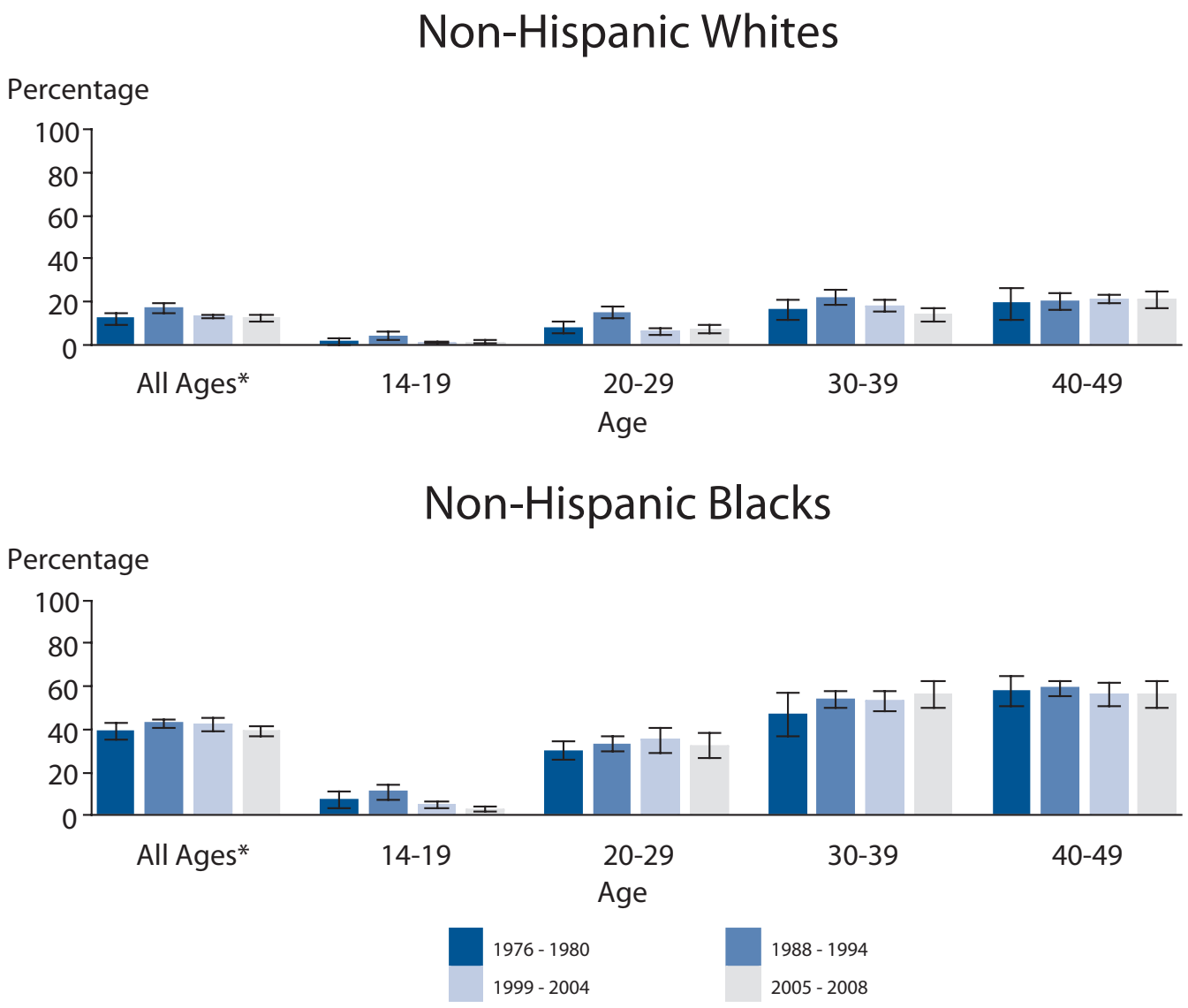
* MSM = men who have sex with men; MSW = men who have sex with women only.

Figure 48. Genital Herpes — Initial Visits to Physicians' Offices, United States, 1966 – 2012



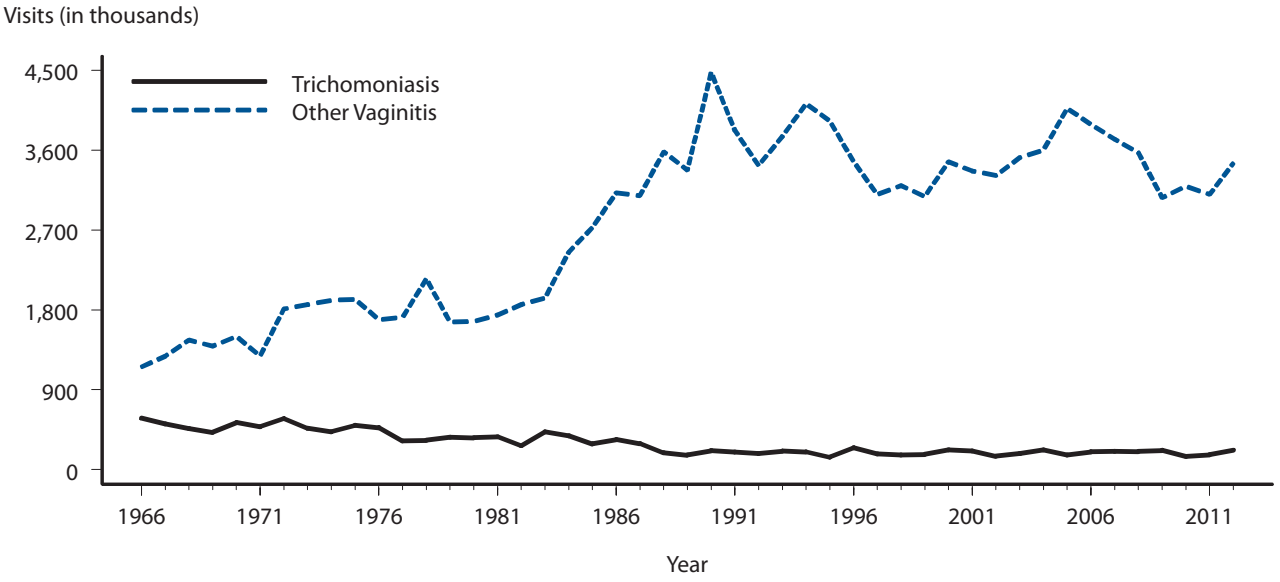
NOTE: The relative standard errors for genital herpes estimates of more than 100,000 range from 18% to 30%. See Other Surveillance Data Sources in the Appendix and Table 45.
SOURCE: IMS Health, Integrated Promotional Services™. IMS Health Report, 1966 – 2012.

Figure 49. Herpes Simplex Virus Type 2 — Seroprevalence Among Non-Hispanic Whites and Non-Hispanic Blacks by Age Group, National Health and Nutrition Examination Survey, 1976 – 1980, 1988 – 1994, 1999 – 2004, 2005 – 2008



* Age-adjusted by using the 2000 U.S. Census civilian, non-institutionalized population aged 14–49 years as the standard.
NOTE: Error bars indicate 95% confidence interval.

Figure 50. Trichomoniasis and Other Vaginal Infections—Women—Initial Visits to Physicians' Offices, United States, 1966 – 2012



NOTE: The relative standard errors for trichomoniasis estimates range from 16% to 27% and for other vaginitis estimates range from 8% to 13%. See Other Surveillance Data Sources in the Appendix and Table 45.
SOURCE: IMS Health, Integrated Promotional Services™, IMS Health Report, 1966–2012.

SPECIAL FOCUS PROFILES

SPECIAL FOCUS PROFILES

Special Focus Profiles

The Special Focus Profiles highlight trends and distribution of STDs in populations of particular interest for STD and HIV prevention programs in state and local health departments. These populations are most vulnerable to STDs and their consequences often lack adequate access to healthcare services in general. For example, in 2011 the majority of the U.S. uninsured were low income. Young adults (19-34) were the age group most likely to be uninsured. One in seven full-time workers (15.3%) was uninsured, and uninsured rates were higher among part-time workers and the unemployed. In 2011, approximately 30% of persons of Hispanic origin were uninsured, and Blacks were more likely to be uninsured than non-Hispanic whites, with 19.5% of this group lacking insurance.* They include women and infants, adolescents and young adults, racial and ethnic minorities, and MSM. The figures cited in this section are located in disease-specific sections of the National Profile, as well as throughout this section.

* U.S. Census Burea. Income poverty and health insurance coverage in the United States: 2011. [Accessed November 5, 2013]. Available at: http://aspe.hhs.gov/health/reports/2012/uninsuredintheUS/ib.shtml

STDs in Women and Infants

Public Health Impact

Women and infants bear significant long-term consequences of STDs. In addition to biological and social factors such as poverty and access to quality STD services, a woman's inability to negotiate safer sexual practices, such as condom use, can significantly affect her sexual health and subsequently the health of her unborn baby.[1,2] A woman's relationship status with her male partner, in particular, has been identified as an important predictor of her sexual health.[3] For example, 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] A number of studies have found significant associations between condom use and socio-demographic characteristics, including age, income, education, and acculturation.[5] Because it may be the behavior of her male partner, rather than the woman's own behavior, 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.[6]

Women infected with *C. trachomatis* or *N. gonorrhoeae* can develop PID, which, in turn, can lead to reproductive system 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. The symptoms associated with PID are vague so 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]

HPV infections are highly prevalent in the United States, especially among young sexually active women. Although most HPV infections in women resolve within 1 year, they are a major concern because persistent infection with specific types of the virus are causally related to cervical cancer; these types also cause Papanicolaou (Pap) smear abnormalities. Other types cause genital warts, low-grade Pap smear abnormalities, and, rarely, recurrent respiratory papillomatosis in infants born to infected mothers.[15]

Direct Impact on Pregnancy

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 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] Increases in reported cases among women since the early 1990s likely reflect expanded screening coverage (Figure 1). In 2012, there were 1,018,272 cases reported among women for a rate of 643.3 per 100,000 females. This rate is similar to the rate of 643.4 per 100,000 females in 2011.

Chlamydia rates are highest among young women, the population targeted for screening (Figure 5, Table 10). Within the young age group, rates were highest in 2012 among 19 year old females (4,921.1 per 100,000 females) although this was a slight decrease from the 2011 rate of 5,122.1 per 100,000 females (Table 12). Regionally, chlamydia case rates are highest among women in the South, with a rate of 715.4 per 100,000 females in 2012 (Table 4). Chlamydia rates exceeded gonorrhea rates among women in all states (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, gonorrhea rates 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 11). After reaching an all-time low in 2009 (104.5 cases per 100,000 females), the gonorrhea rate for women has increased slightly each year, and was 108.7 cases per 100,000 females in 2012 (Figure 12, Table 15).

The gonorrhea rate among women has been slightly higher than the rate among men since 2001 (Figure 12, Tables 15 and 16).Gonorrhea rates are highest among young women (Figure 16, Table 21). Within the young age group, rates were highest in 2012 among 19 year old females (761.3 per 100,000 females) (Table 23).

Positivity in Selected Populations

During the mid-1990s to 2011, chlamydia and gonorrhea positivity among young women screened in prenatal care clinics participating in infertility prevention activities were reported to CDC to monitor chlamydia and gonorrhea prevalence in women. As the national infertility prevention program expanded, these data became difficult to interpret as trends were influenced by changes in screening coverage, screening criteria, and test technologies, as well as demographic changes in patients attending clinics reporting data to CDC. These issues could not be addressed with the limited variables that were collected at the national level. Positivity data continue to be useful locally to inform clinic-based screening recommendations and to identify at-risk populations in need of prevention interventions, but are no longer collected to monitor national trends in chlamydia and gonorrhea.

Congenital Syphilis

Trends in congenital syphilis usually follow trends in P&S syphilis among women, with a lag of 1–2 years (Figure 43). The rate of P&S syphilis among women declined 95.4% (from 17.3 to 0.8 cases per 100,000 females) during 1990–2004 (Figure 31). The rate of congenital syphilis declined by 92.4% (from a peak of 107.6 cases to 8.2 cases per 100,000 live births) during 1991–2005 (Table 1). Rates of both female P&S and congenital syphilis increased during 2005–2008. During 2009-2012, rates of both female P&S and congenital syphilis declined (from 1.4 to 1.1 cases per 100,000 population and from 10.4 to 7.8 cases per 100,000 live births, respectively) (Tables 28 and 42). The rate of congenital syphilis was 7.8 cases per 100,000 live births in 2012, the lowest rate since 1988, when the case definition was changed (Table 42).

The highest rates of P&S syphilis among women and congenital syphilis were observed in the South (Figures C and D, Table 42).

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]

During 2001-2010, hospitalizations for acute PID overall have shown modest declines, although hospitalizations for acute PID increased by 44.3% (from 36.3 to 52.4 per 100,000) between 2009 and 2010 (Figure G). Hospitalizations for chronic PID have also shown modest declines, remaining relatively stable between 2007 and 2010 (Figure G). The National

Hospital Discharge Survey (NHDS) was discontinued in 2010. In 2011, a new survey, the National Hospital Care Survey (NHCS), was launched that integrates inpatient data formerly collected by the NHDS with emergency department, outpatient department, and ambulatory surgery center data previously collected by the National Hospital Ambulatory Medical Care Survey.

The estimated number of initial visits to physicians' offices for PID from NDTI declined during 2003–2012 (Figure F, Table 45).

Racial disparities in diagnosed PID have been observed in both ambulatory and hospitalized settings. [21] Using data from three nationally representative surveys conducted by the National Center for Health Statistics (NCHS), disease rates were two to three times higher among black women than among white women. 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

The incidence of ectopic pregnancy in the United States during the 1970's and 1980's was marked by significant increases. This surveillance who also relied on the NHDS, which collected information on discharged hospital inpatients in the United States. Since the late 1980s, the ability to ascertain the number of ectopic pregnancies occurring in the United States has been affected by changing health care practices, including technological advances that permit early, accurate diagnosis of pregnancy and ectopic pregnancy, and pharmacological and technical advances in treatment of ectopic pregnancy. Data from the NHDS suggest that hospitalizations for ectopic pregnancy have decreased from 33.0 per 100,000 in 2001 to 21.6 per 100,000 in 2010 (Figure I). However, this likely does not reflect a decrease in the actual public health burden of ectopic pregnancy given that administrative data from the middle of the decade show that the proportion of cases being treated with nonsurgical intervention is increasing.[24] In the future years, data on ectopic pregnancy will be available from NHCS.

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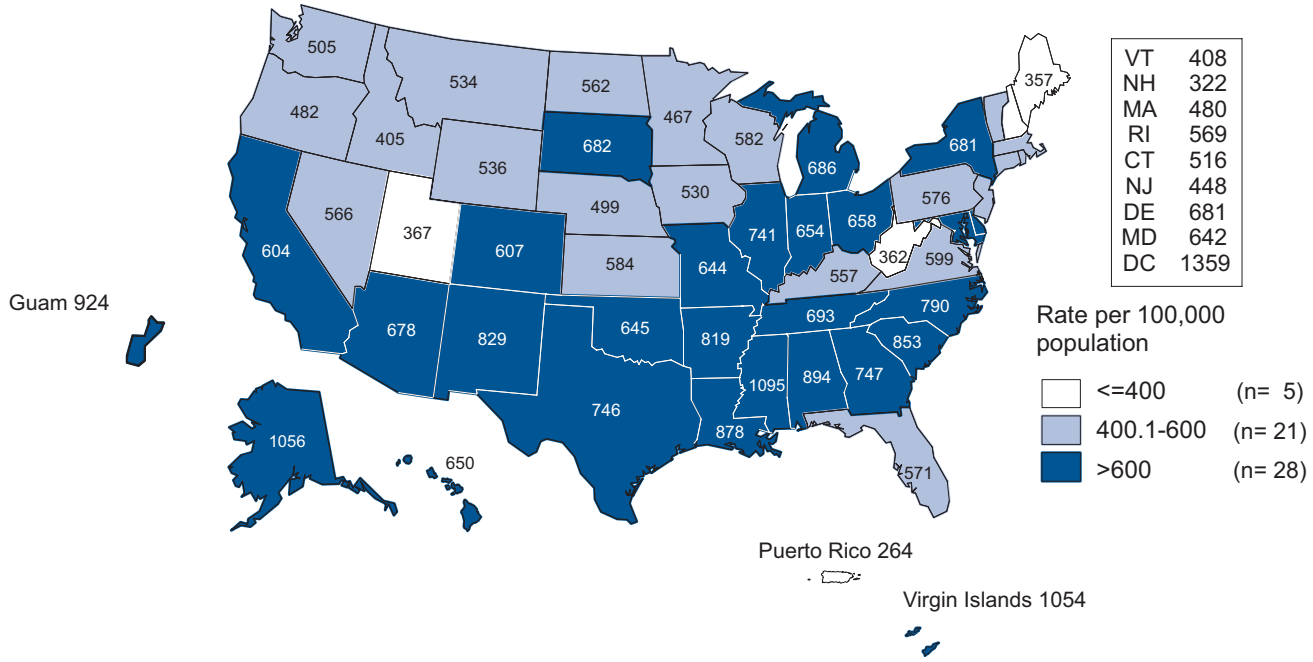
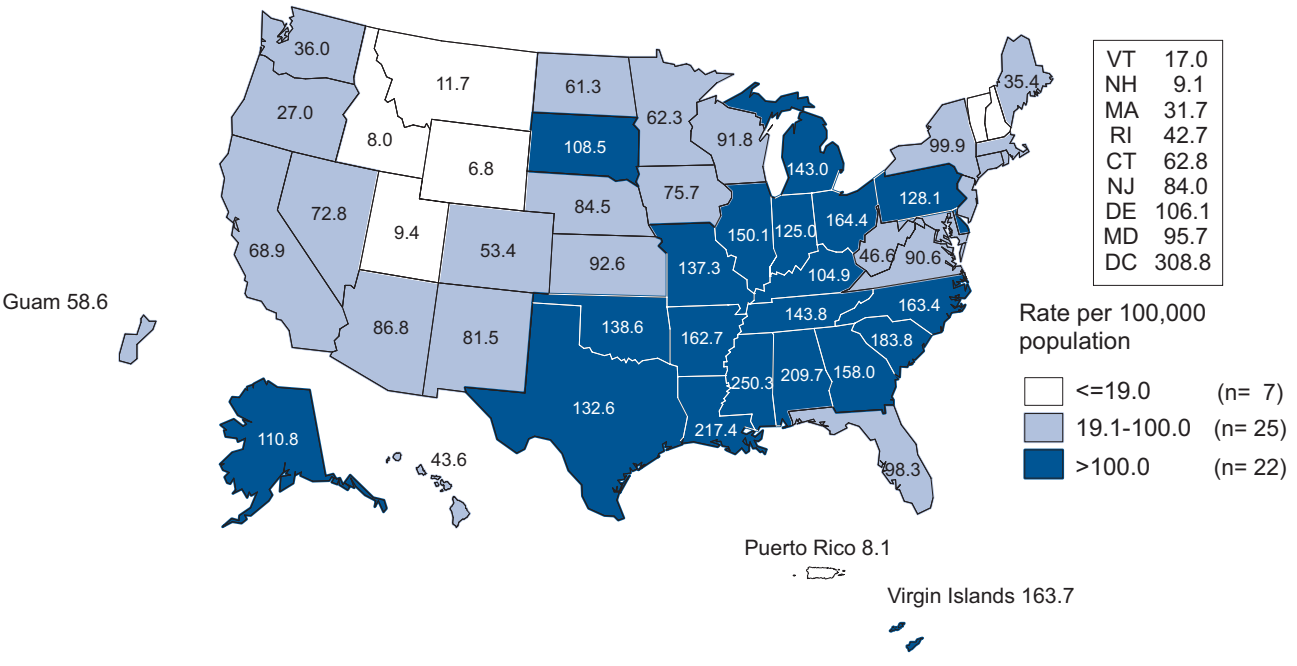
Figure A. Chlamydia — Women — Rates by State, United States and Outlying Areas, 2012



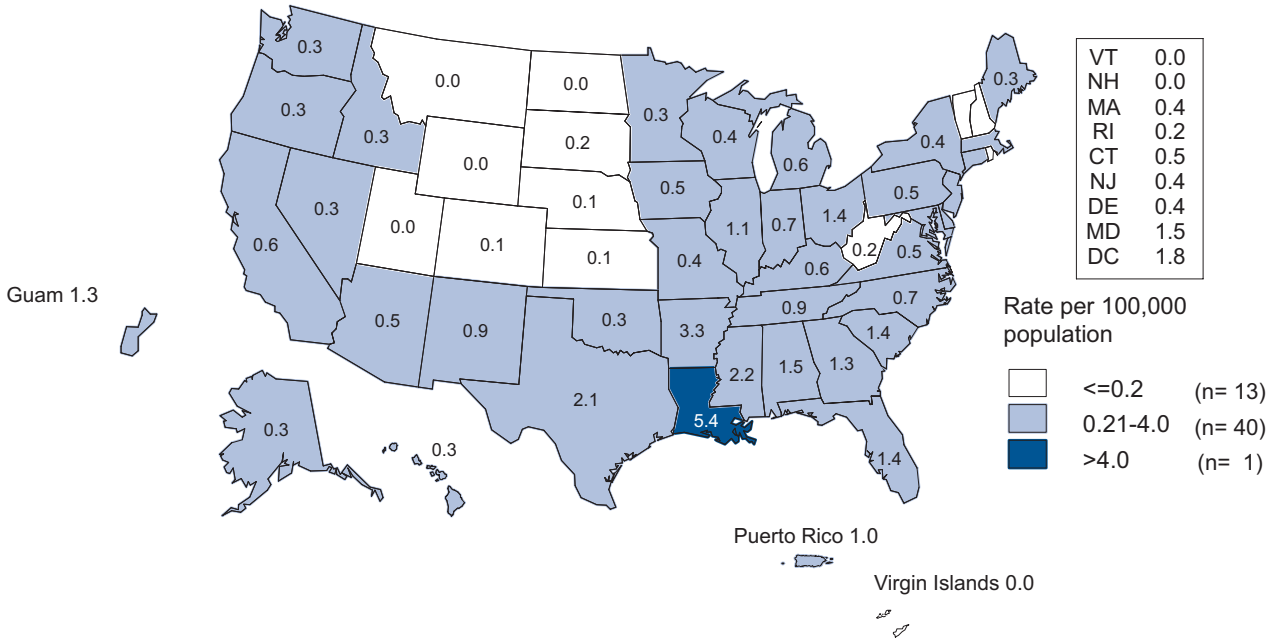
NOTE: The total chlamydial infection rate among women in the United States and outlying areas (Guam, Puerto Rico, and Virgin Islands) was 639.0 per 100,000 female population.

Figure B. Gonorrhea — Women — Rates by State, United States and Outlying Areas, 2012



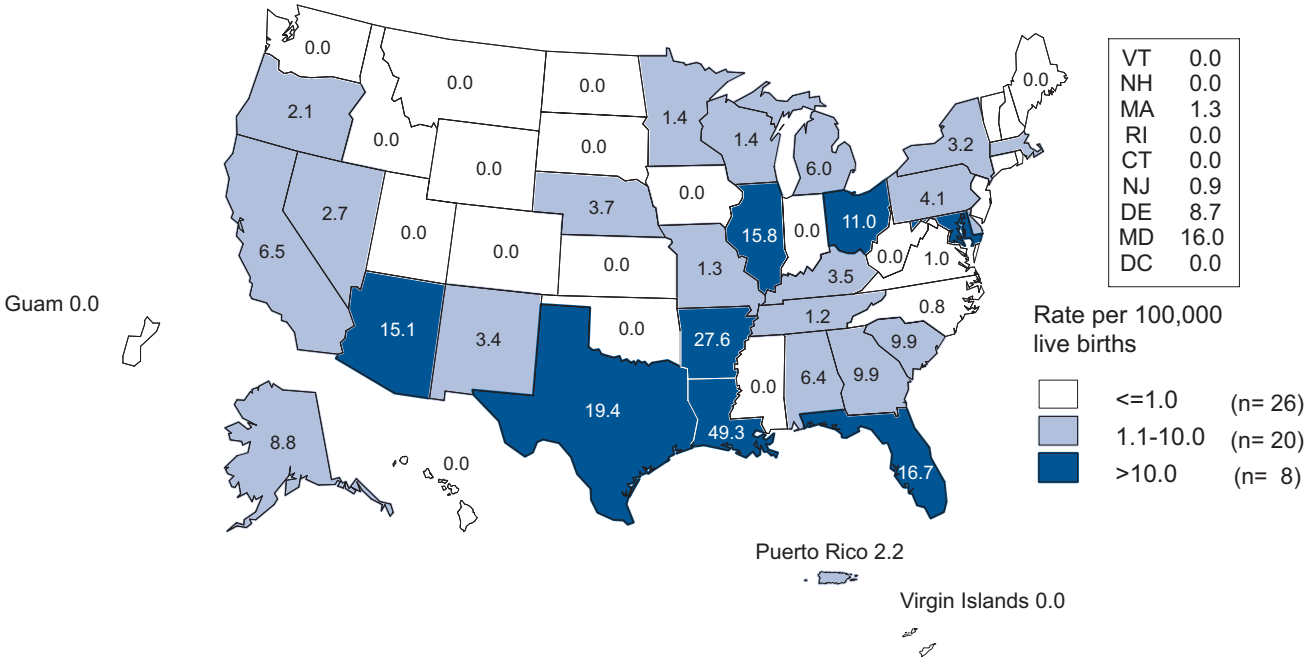
NOTE: The total gonorrhea infection rate among women in the United States and outlying areas (Guam, Puerto Rico, and Virgin Islands) was 107.5 per 100,000 female population.

Figure C. Primary and Secondary Syphilis — Women — Rates by State, United States and Outlying Areas, 2012



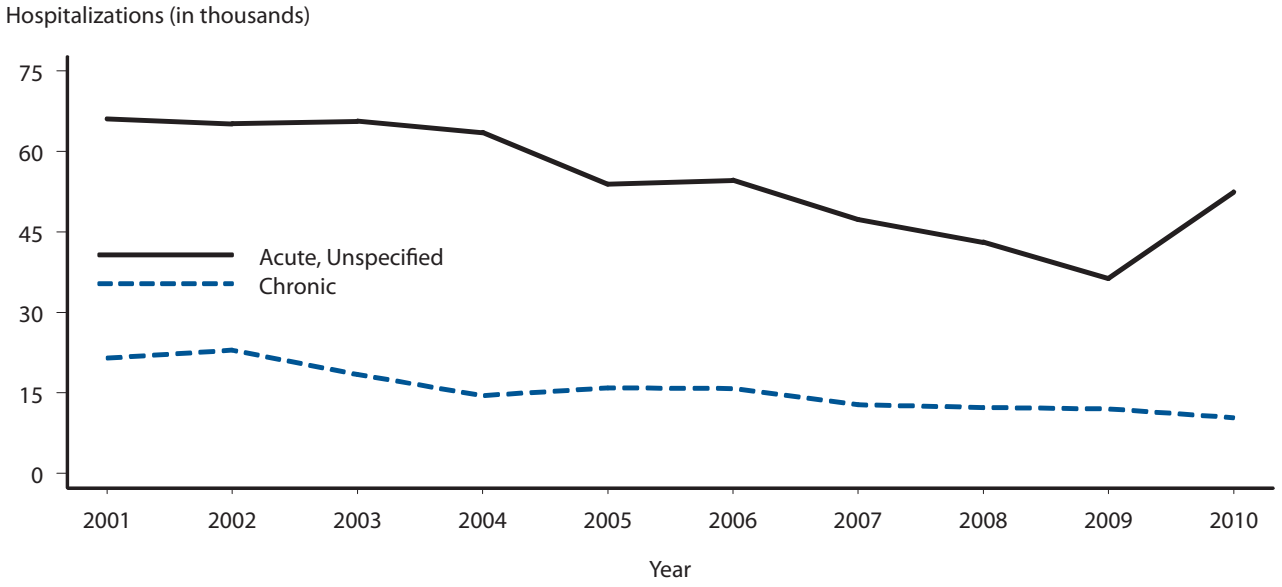
NOTE: The total rate of primary and secondary syphilis among women in the United States and outlying areas (Guam, Puerto Rico, and Virgin Islands) was 0.9 per 100,000 females.

Figure D. Congenital Syphilis — Infants — Rates by Year of Birth and State, United States and Outlying Areas, 2012



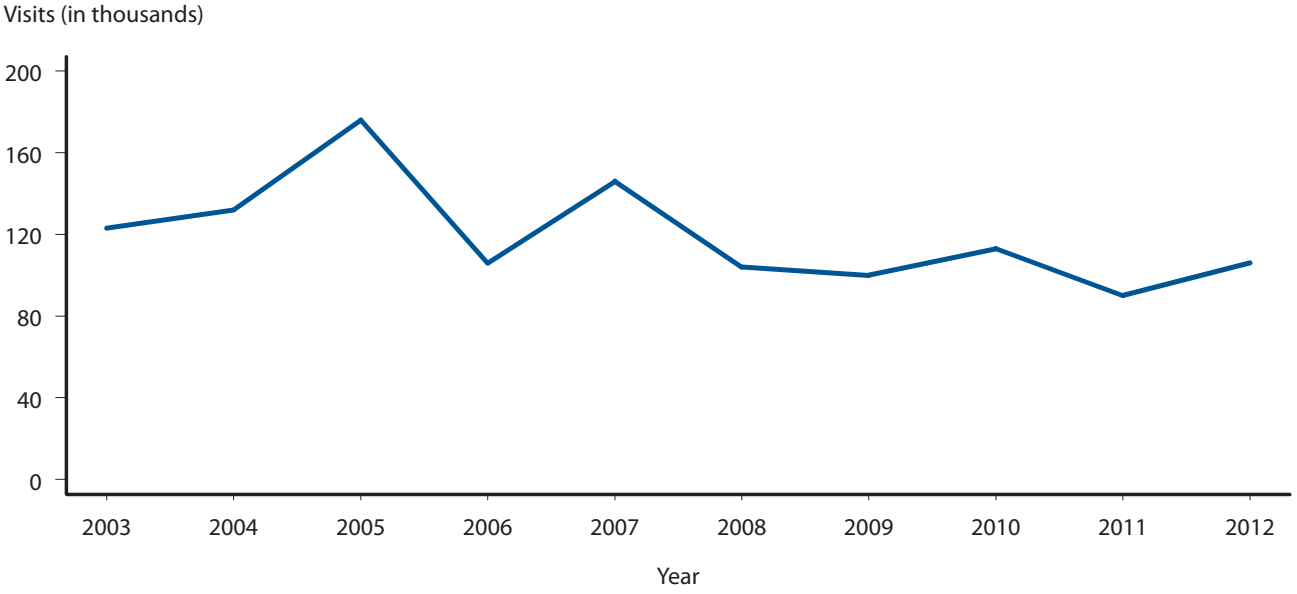
NOTE: The total rate of congenital syphilis for infants by year of birth for the United States and outlying areas (Guam, Puerto Rico, and Virgin Islands) was 7.7 per 100,000 live births.

Figure E. Pelvic Inflammatory Disease — Hospitalizations of Women Aged 15 – 44 Years, United States, 2001 – 2010



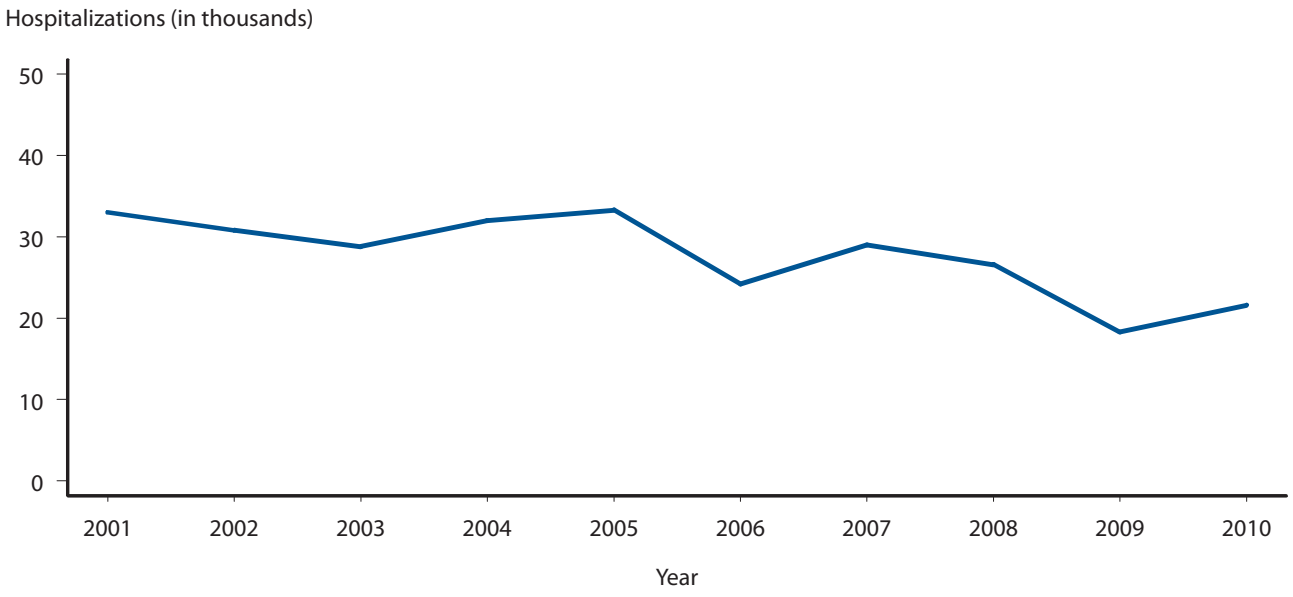
NOTE: The relative standard errors for acute and unspecified pelvic inflammatory disease (PID) cases ranges from 8%–18%. The relative standard error for chronic PID cases ranges from 12%–28%. Data only available through 2010.
SOURCE: 2010 National Hospital Discharge Survey. Atlanta: Centers for Disease Control and Prevention. Available from: http://www.cdc.gov/nchs/nhds.htm.

Figure F. Pelvic Inflammatory Disease — Initial Visits to Physicians' Offices by Women Aged 15 – 44 Years, United States, 2003 – 2012



NOTE: The relative standard errors for these estimates are 21.6%–30%. See Other Data Sources in the Appendix and Table 45.
SOURCE: IMS Health, Integrated Promotional Services™. IMS Health Report, 1966 – 2012.

Figure G. Ectopic Pregnancy—Hospitalizations of Women Aged 15 – 44 Years, United States, 2001 – 2010



NOTE: The relative standard errors for these estimates are 10% – 23%. Data only available through 2010.
SOURCE: 2010 National Hospital Discharge Survey. Atlanta: Centers for Disease Control and Prevention. Available from http://www.cdc.gov/nchs/nhds.htm.

STDs in Adolescents and Young Adults

Public Health Impact

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. The higher prevalence of STDs among adolescents also may reflect multiple barriers to accessing quality STD prevention services, including lack of health insurance or ability to pay, lack of transportation, discomfort with facilities and services designed for adults, and concerns about confidentiality. 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.[3] 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.[4,5]

Observations

Chlamydia

In 2012, 1,002,692 cases of chlamydial infection were reported among persons under 25 years of age, representing 70% of all reported chlamydia cases. Rates of reported chlamydial infection are highest among persons aged 15–19 years and 20–24 years (Figure 5). From 2008–2011, rates increased steadily among those aged 15–19 years (1,947.7 to 2,120.8 cases per 100,000 population) and then decreased 5.6% during 2011–2012 (2,120.8 to 2,001.7 cases per 100,000 population) (Table 10). Among those aged 20–24 years, rates increased 18.1% during 2008–2011 (2,075.9 to 2,450.8 cases per 100,000) and increased slightly (2.1%) during 2011–2012 (2,450.8 to 2,501.5 cases per 100,000) (Table 10).

15- to 19-Year-Old Women—In 2012, the rate among women aged 15–19 years was 3,291.5 cases per 100,000 females, a 5.6% decrease from the 2011 rate of 3,485.2 cases per 100,000 females (Figure 5, Table 10). This is the first time that chlamydia rates among 15–19 year old females have decreased since 2000.

20- to 24-Year-Old Women—In 2012, women aged 20–24 years had the highest rate of chlamydia (3,695.5 cases per 100,000 females) compared with any other age and sex group (Figure 5). Chlamydia rates for women in this age group increased slightly (1.8%) during 2011–2012 (Figure 5, Table 10).

15- to 19-Year-Old Men—Chlamydia rates for men aged 15–19 years decreased 5.1% from 816.3 cases per 100,000 males in 2011 to 774.8 cases per 100,000 males in 2012 (Figure 5, Table 10). This is the first time that chlamydia rates among 15–19 year old males have decreased.

20- to 24-Year-Old Men—In 2012, as in previous years, men aged 20–24 years had the highest rate of chlamydia among men (1,350.4 cases per 100,000 males). Chlamydia rates for men in this age group increased 3.3% during 2011–2012 (Figure 5, Table 10).

Gonorrhea

During 2011–2012, gonorrhea rates decreased 7.5% for persons aged 15–19 years and increased 3.1% for persons aged 20–24 years.

15- to 19-Year-Old Women—In 2012, women aged 15–19 years had the second highest rate of gonorrhea (521.2 cases per 100,000 females) compared with any other age or sex group (Figure 16, Table 21). During 2011–2012, the gonorrhea rate for women in this age group decreased 8.2%.

20- to 24-Year-Old Women—In 2012, women aged 20–24 years had the highest rate of gonorrhea (578.5 cases per 100,000 females) compared with any other age or sex group (Figure 16, Table 21). During 2011–2012, the gonorrhea rate for women in this age group increased 1.6%.

15- to 19-Year-Old Men—In 2012, the gonorrhea rate among men aged 15–19 years was 239.0 cases per 100,000 males (Figure 16, Table 21). During 2011–2012, the gonorrhea rate for men in this age group decreased 5.4%.

20- to 24-Year-Old Men—In 2012, as in previous years, men aged 20–24 years had the highest rate of gonorrhea (462.8 cases per 100,000 males) compared with other males (Figure 16, Table 21). During 2011–2012, the gonorrhea rate for men in this age group increased 5.5%.

Primary and Secondary Syphilis

Syphilis rates among women aged 15–19 years increased annually during 2004–2009, from 1.5 cases per 100,000 females to 3.3 cases in 2009, but decreased from 2.9 cases in 2010 to 2.3 cases in 2012. Rates among women aged 20–24 years remained stable during 2004–2006 (2.9–3.0 cases per 100,000 population), then increased during 2007–2009 (from 3.5 to 5.5 cases), before declining during 2010 and 2011 (to 4.5 and 3.7 cases, respectively); rates rose during 2012 (to 3.9 cases). Rates in women have been highest each year among those aged 20–24 years with 3.9 cases per 100,000 females in 2012 (Figures 35 and 36, Table 35).

Rates among men aged 15–19 years are much lower than the rates among men in older age groups (Figures 35 and 37, Table 35). Rates in this group increased during 2002–2009 (from 1.3 cases per 100,000 males to 6.0 cases in 2009), decreased to 5.5 cases in 2010 and 2011, and increased to 5.8 cases in 2012. However, rates among men aged 20–24 years have increased each consecutive year since 2002, from 5.2 cases per 100,000 males to 25.3 cases in 2012. Not only have men aged 20–24 years seen large increases in rates, they also have had the highest rate of P&S syphilis among men of any age group since 2008 (Table 35). These changes reflect a shift in the age distribution of P&S syphilis; rates were highest among men aged 35–39 years during 2002–2006.

Positivity in Selected Populations

During the mid-1990s to 2011, chlamydia and gonorrhea positivity among young women screened in clinics and juvenile correctional facilities participating in infertility prevention activities were reported to CDC to monitor chlamydia prevalence. As the national infertility prevention program expanded, these data became difficult to interpret as trends were influenced by changes in screening coverage, screening criteria, and test technologies, as well as demographic changes in patients attending clinics reporting data to CDC. Variables available at the national level limited the ability to address these issues. Positivity data continue to be useful locally to inform clinic-based screening recommendations and to identify at-risk populations in need of prevention interventions, but are no longer collected to monitor national trends in chlamydia and gonorrhea.

National Job Training Program

The 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.

Among women entering the program in 47 states, the District of Columbia, and Puerto Rico, the median state-specific chlamydia prevalence in 2012 was 11.0% (range: 5.5% to 19.4%) (Figure H). Among men entering the program in 47 states, the District of Columbia, and Puerto Rico, the median state-specific chlamydia prevalence was 7.0% (range: 0.6% to 13.5%) (Figure I).

Among women entering the program in 45 states, the District of Columbia, and Puerto Rico, the median state-specific gonorrhea prevalence in 2012 was 1.3% (range: 0.0% to 4.8%) (Figure J). Among men entering the program in 41 states, the District of Columbia, and Puerto Rico, the median state-specific gonorrhea prevalence was 0.7% (range: 0.0% to 2.8%) (Figure K).

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

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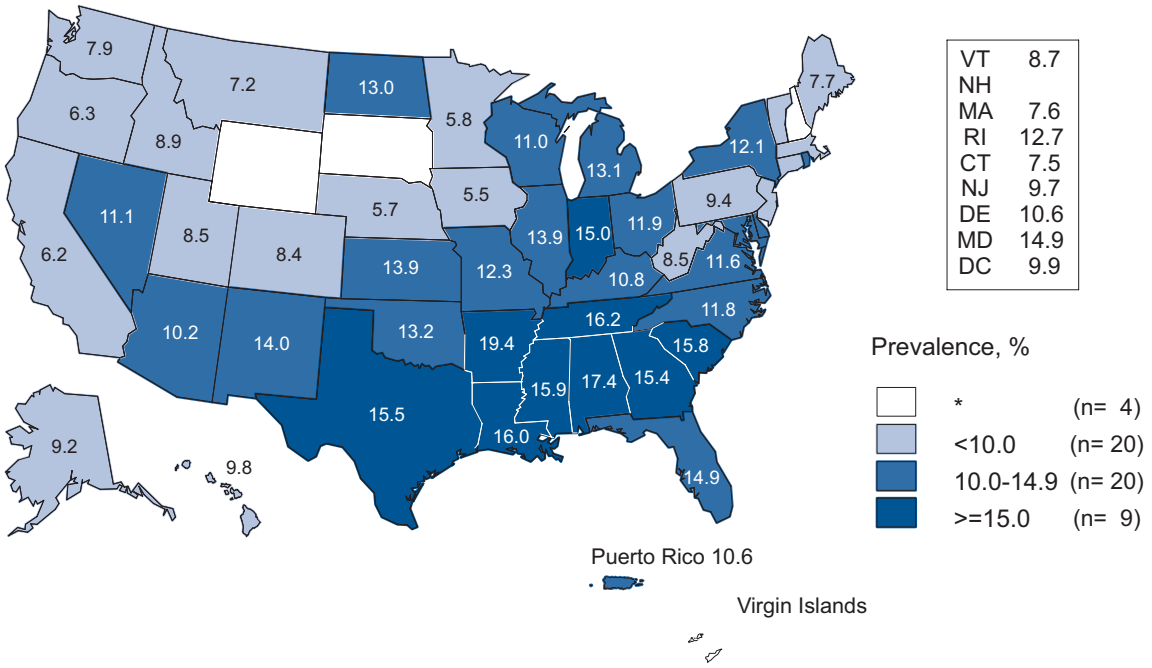
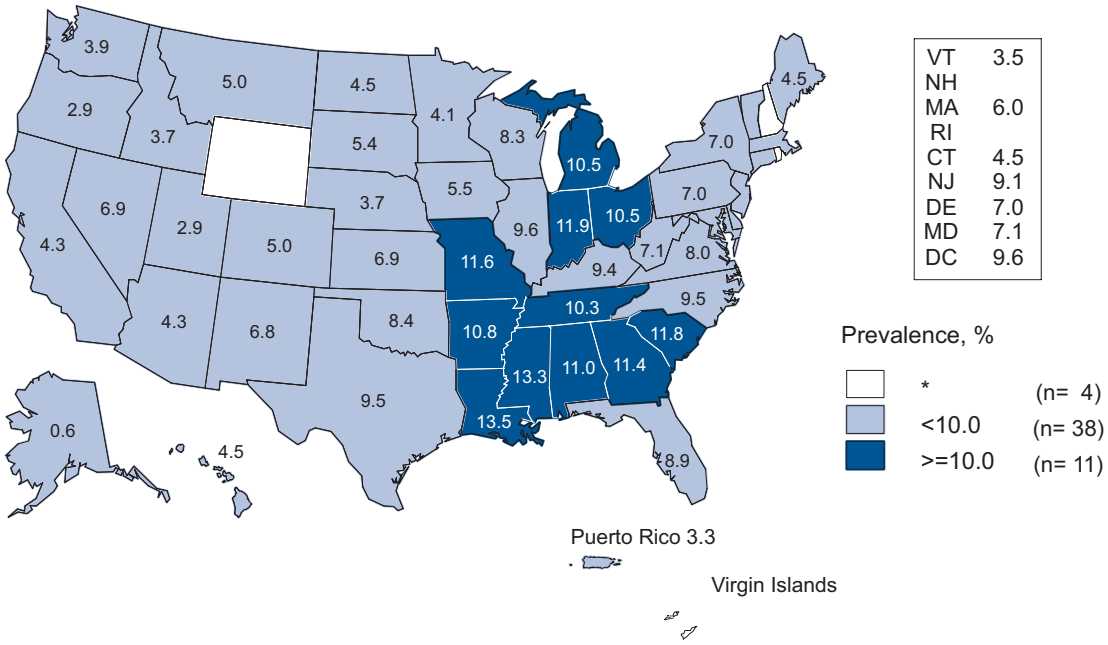
Figure H. Chlamydia—Prevalence Among Women Aged 16 – 24 Years Entering the National Job Training Program, by State of Residence, United States and Outlying Areas, 2012



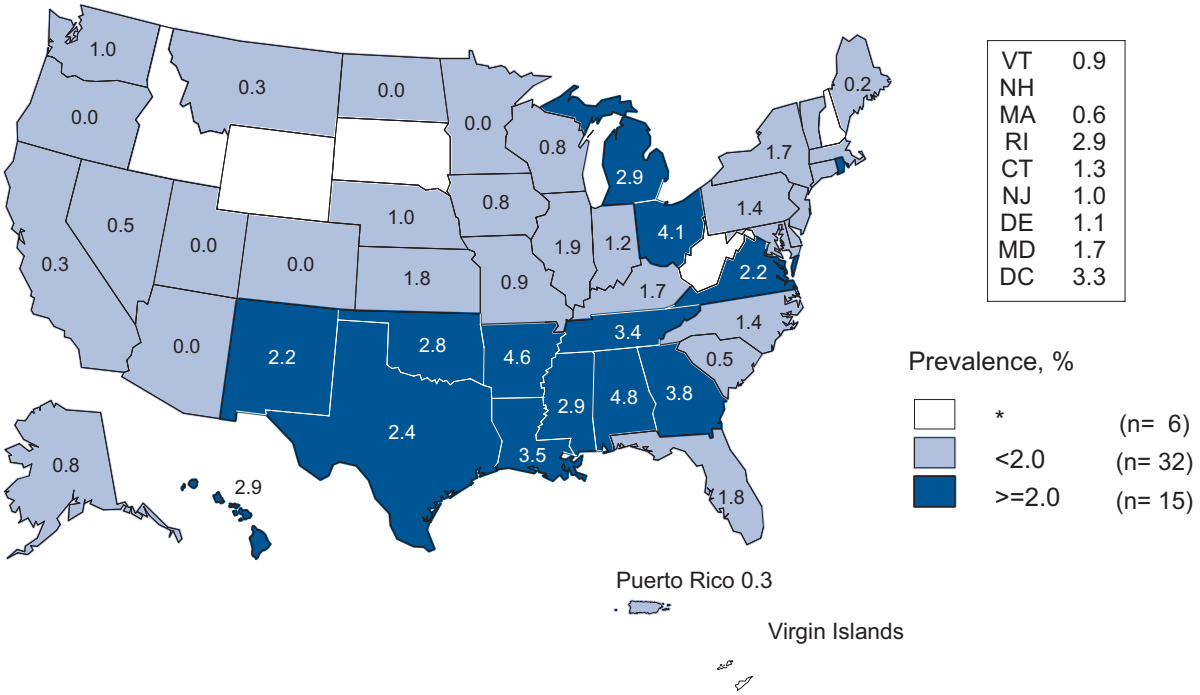
* Fewer than 100 women who resided in these states/areas and entered the National Job Training Program were screened for chlamydia in 2012.

Figure I. Chlamydia — Prevalence Among Men Aged 16 – 24 Years Entering the National Job Training Program, by State of Residence, United States and Outlying Areas, 2012



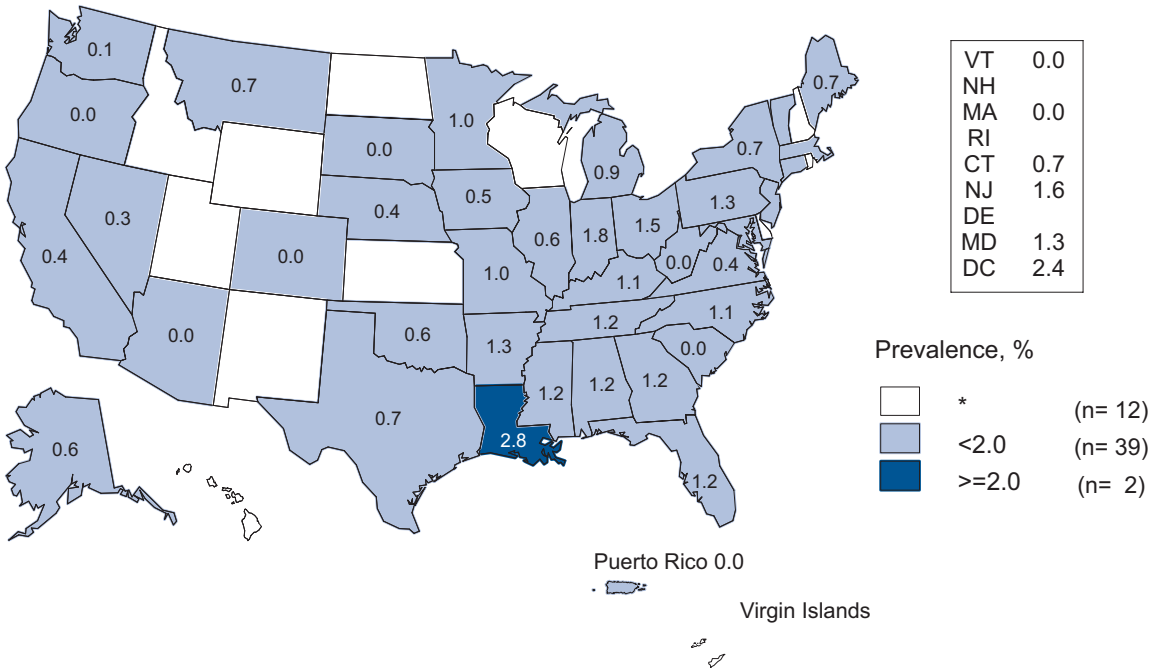
* Fewer than 100 men who resided in these states/areas and entered the National Job Training Program were screened for chlamydia in 2012.

Figure J. Gonorrhea — Prevalence Among Women Aged 16 – 24 Years Entering the National Job Training Program, by State of Residence, United States and Outlying Areas, 2012



* Fewer than 100 women who resided in these states/areas and entered the National Job Training Program were screened for gonorrhea in 2012.
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 K. Gonorrhea — Prevalence Among Men Aged 16 – 24 Years Entering the National Job Training Program, by State of Residence, United States and Outlying Areas, 2012



* Fewer than 100 men who resided in these states/areas and entered the National Job Training Program were screened for gonorrhea in 2012.
NOTE: Many training centers use local laboratories to test male 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 number of gonorrhea tests submitted was greater than 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. Race and ethnicity in the United States are population characteristics that also correlate with other fundamental determinants of health status.[1,2]

Social and economic conditions, such as high rates of poverty, income inequality, unemployment, low educational attainment and geographic isolation can make it more difficult for individuals to protect their sexual health.[3] People who struggle financially are often experiencing life circumstances that increase their risk for STDs.[4] Those who cannot afford basic necessities may have trouble accessing and affording quality sexual health services.[5] As an example, in 2010, the poverty rates, unemployment rates, and high school drop-out rates for blacks, American Indians/Alaska Natives, and Hispanics were considerably higher than for whites, differences commensurate with observed disparities in STD burden.[6–9] Many people of Hispanic ethnicity face additional barriers arising from immigration or undocumented citizenship status.[10] 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.[11,12]

In communities where STD prevalence is higher, 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.[13] 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 Interpreting STD Surveillance Data in the Appendix). In many state and local health jurisdictions, reporting from public sources (e.g., STD clinics) is thought to be more complete than reporting from private sources. Because minority populations may use public clinics more than whites, differences in rates between minorities and whites may be increased by this reporting bias.[14] However, prevalence data from population-based surveys, such as NHANES and the National Longitudinal Study of Adolescent Health, confirm the existence of marked STD disparities in some minority populations.[15,16]

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. For the first time, data on race and Hispanic ethnicity are displayed in this report in compliance with the 1997 Office of Management and Budget (OMB) standards.[17] While 48 jurisdictions (47 states and the District of Columbia) collect and report data in formats compliant with these standards as of 2012, some jurisdictions only recently adopted this standard and used previous standards to report their case data to CDC in past years. The completeness of data available in current OMB standards continues to improve. However, historical trend and rate data by race and Hispanic ethnicity displayed in figures and interpreted in this report for 2008–2012 include only those jurisdictions (38 states plus the District of Columbia) reporting in the current standard consistently for 2008 through 2012. Please refer to Interpreting STD Surveillance Data in the Appendix for a complete listing of these jurisdictions.

Completeness of Race/Ethnicity Data

Many cases are reported with race and/or ethnicity missing. Rate data presented in this report are not adjusted for missing race or ethnicity.

Chlamydia—In 2012, 25.8% of chlamydia case reports were missing race or ethnicity data, ranging by state from 0.0% to 57.0% (Table A1).

Gonorrhea—In 2012, 19.2% of gonorrhea case reports were missing information on race or ethnicity, ranging by state from 0.0% to 43.3% (Table A1).

Syphilis—In 2012, 2.6% of P&S syphilis case reports were missing information on race or ethnicity, ranging from 0.0% to 21.9% among states with 10 or more cases of P&S syphilis (Table A1).

Observations

Chlamydia

Among the 39 jurisdictions (38 states and the District of Columbia) that submitted data on race and Hispanic ethnicity from 2008–2012 according to the revised OMB standards, chlamydia case rates increased during 2008–2012 among all racial and ethnic groups (Figure 6). During 2008–2012, chlamydia rates increased by 3.7% among blacks, 26.7% among American Indians/Alaska Natives, 7.6% among Hispanics, 5.1% among Asians, 32.4% among Native Hawaiians/Other Pacific Islanders, and 38.5% among whites.

In 2012, 48 jurisdictions (47 states and the District of Columbia) submitted data on race and Hispanic ethnicity in 2012 according to the revised OMB standards. The following data pertain to those jurisdictions:

Blacks—In 2012, the overall rate among blacks in the United States was 1,229.4 cases per 100,000 population (Table 11B). The rate of chlamydia among black women was over six times the rate among white women (1,613.6 and 260.5 per 100,000 females, respectively) (Table 11B and Figure L). The chlamydia rate among black men was over eight times the rate among white men (809.2 and 95.9 cases per 100,000 males, respectively).

Chlamydia rates were highest for blacks aged 15–19 and 20–24 years in 2012 (Table 11B). The chlamydia rate among black females aged 15–19 years was 7,719.1 cases per 100,000 females, which was over five times the rate among white females in the same age group (1,458.3 per 100,000 females). The rate among black women aged 20–24 years was 4.4 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 9.9 times the rate among whites (Table 11B). The chlamydia rate among black men aged 20–24 years was six times the rate among white men of the same age group (3,556.0 and 590.6 cases per 100,000 males, respectively).

American Indians/Alaska Natives— In 2012, the chlamydia rate among American Indians/Alaska Natives was 728.2 cases per 100,000 population (Table 11B). Overall, the rate of chlamydia among American Indians/Alaska Natives in the United States was 4.1 times the rate among whites.

Native Hawaiians/Other Pacific Islanders— In 2012, the chlamydia rate among Native Hawaiians/Other Pacific Islanders was 590.4 cases per 100,000 population (Table 11B). The overall rate among Native Hawaiians/Other Pacific Islanders was 3.3 times the rate among whites and 5.2 times the rate among Asians.

Asians— In 2012, the chlamydia rate among Asians was 112.9 cases per 100,000 population (Table 11B). The overall rate among whites is 1.6 times the rate among Asians.

Hispanics— In 2012, the chlamydia rate among Hispanics was 380.3 cases per 100,000 population (Table 11B) which is over two times the rate among whites.

Gonorrhea

During 2008–2012, among the 39 jurisdictions (38 states and the District of Columbia) that submitted data in the new race and ethnic categories for all five years during that period, gonorrhea rates increased 61.8% among American Indians/Alaska Natives (81.6 to 132.0), 33.5% among Native Hawaiians/Other Pacific Islanders (70.0 to 93.4), 22.9% among whites (27.1 to 33.3), 18.9% among Hispanics (52.3 to 62.2), and 14.5% among Asians (15.0 to 17.2) (Figure 19). The gonorrhea rate decreased 15.5% among blacks (542.7 to 458.7)

In 2012, 48 jurisdictions (47 states and the District of Columbia) submitted data in the new race and ethnic categories according to the revised OMB standards. The following data pertain to those jurisdictions:

Blacks—In 2012, 63% 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 2012 was 462.0 cases per 100,000 population, which was 14.9 times the rate among whites (31.0 per 100,000) (Table 22B). This disparity has decreased slightly in recent years (Figure M). This disparity was larger for black men (16.2 times) than for black women (13.8 times) (Figure N, Table 22B).

As in previous years, the disparity in gonorrhea rates for blacks in 2012 was larger in the Midwest and Northeast than in the West or the South (Figure O).

Considering all racial/ethnic and age categories, gonorrhea rates were highest for blacks aged 20–24 and 15–19 years in 2012 (Table 22B). Black women aged 20–24 had a gonorrhea rate of 2,172.6 cases per 100,000 women. This rate was was 11.1 times the rate among white women in the same age group (194.9 per 100,000). Black women aged 15–19 years had a gonorrhea rate of 2,032.2 cases per 100,000 women, which was 15.1 times the rate among white women in the same age group (134.5).

Black men aged 20–24 years had a gonorrhea rate of 1,903.7 cases per 100,000 men, which was 16.4 times the rate among white men in the same age group (115.9 per 100,000). Black men aged 15–19 years had a gonorrhea rate of 1,012.3 cases per 100,000 men, which was 26.2 times the rate among white men in the same age group (38.7 per 100,000).

American Indians/Alaska Natives—In 2012, the gonorrhea rate among American Indians/Alaska Natives was 124.9 cases per 100,000 population, which was 4.0 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 (4.8 times) than for American Indian/Alaska Native men (3.1 times) (Figure N, Table 22 B). The disparity in gonorrhea rates for American Indians/Alaska Natives in 2012 was larger in the Midwest than in the West, Northeast, and South (Figure O).

Native Hawaiians/Other Pacific Islanders—In 2012, the gonorrhea rate among Native Hawaiians/Other Pacific Islanders was 87.8 cases per 100,00 population, which was 2.8 times the rate among whites (Table 22B). The disparity between gonorrhea rates for Native Hawaiians/Other Pacific Islanders and whites was the same for Native Hawaiian/Other Pacific Islander women and Native Hawaiian/Other Pacific Islander men (2.8 times) (Figure N, Table 22B). The disparity in gonorrhea rates for Native Hawaiian/Other Pacific Islanders in 2012 was lower in the West than in the Midwest, Northeast, and South (Figure O).

Asians—In 2012, the gonorrhea rate among Asians was 16.9 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 N, Table 22B). In 2012, rates among Asians were lower than rates among whites in all four regions of the United States (Figure O).

Hispanics—In 2012, the gonorrhea rate among Hispanics was 60.4 cases per 100,000 population, which was 1.9 times the rate among whites (Table 22B). This disparity was larger for Hispanic men (2.2 times) than for Hispanic women (1.8 times) (Figure N, Table 22B). The disparity in gonorrhea rates for Hispanics was highest in the Northeast and lowest in the West and Midwest (Figure O).

Primary and Secondary Syphilis

The syphilis epidemic in the late 1980s occurred primarily among men who have sex with women only (MSW), women, and minority populations.[18,19] While the rate of P&S syphilis declined among all racial and ethnic groups during the 1990s, rates again began increasing in the early 2000s among men who have sex with men (MSM) in their 30s and 40s of varied racial and ethnic groups.[19] Among the 39 jurisdictions (38 states and the District of Columbia) that submitted data on race and Hispanic ethnicity from 2008–2012 according to the revised OMB standards, rates increased among non-Hispanic whites, Hispanics, Asians, American Indians/Alaska Natives, Native Hawaiian or Other Pacific Islanders, and Multirace individuals, and decreased slightly among non-Hispanic blacks (Figure 38).

In 2012, 48 jurisdictions (47 states and the District of Columbia) submitted data on race and Hispanic ethnicity in 2012 according to the revised OMB standards. The following data pertain to those jurisdictions:

Blacks — In 2012, 39.7% of all cases reported to CDC were among blacks. The overall 2012 rate for blacks was 6.1 times the rate for whites. In 2012, the rate of P&S syphilis among black men was 5.7 times the rate among white men; the rate among black women was 16 times the rate among white women (Table 36B).

In 2012, rates among both men and women aged 20–24 years remained highest among blacks (96.7 cases and 19.1 cases per 100,000 population, respectively). The 2012 rate among black men aged 15–19 years was 14 times the rate for white men and 4 times the rate for Hispanic men of the same age, and 2012 rates for black women aged 15–19 years were 23 times and 8 times the rate for white and Hispanic women of the same ages, respectively (Table 36B).

American Indians/Alaska Natives — In 2012, 0.4% of all cases reported to CDC were among American Indians/Alaska Natives. The 2012 rate of P&S syphilis for American Indians/Alaska Natives was 2.9 cases per 100,000 population, slightly higher than the rate for whites (Table 36B).

Native Hawaiians or Other Pacific Islanders — In 2012, 0.3% of all cases reported to CDC were among Native Hawaiians or Other Pacific Islanders. The 2012 rate of P&S syphilis for Native Hawaiians or Other Pacific Islanders was 8.4 cases per 100,000 population, which is 3.1 times the rate for whites (Table 36B).

Asians — In 2012, 1.9% of all cases reported to CDC were among Asians. The 2012 rate of P&S syphilis for Asians was 2.0 cases per 100,000 population, which was 0.7 times the rate for whites (Table 36B).

Hispanics— In 2012, 19.5% of all cases reported to CDC were among Hispanics (an increase from 16.7% of all cases in 2011). The 2012 rate of P&S syphilis for Hispanics was 5.7 cases per 100,000 population, which was 2.3 times the rate for whites (Table 36B).

Congenital Syphilis

Race/ethnicity for cases of congenital syphilis is based on the mother's race/ethnicity. In 2012, the rate of congenital syphilis was 29.6 cases per 100,000 live births among blacks and 7.9 cases per 100,000 live births among Hispanics. These rates were 14.1 and 3.8 times, respectively, the rate among whites (2.1 cases per 100,000 live births) (Table 43, Figure S).

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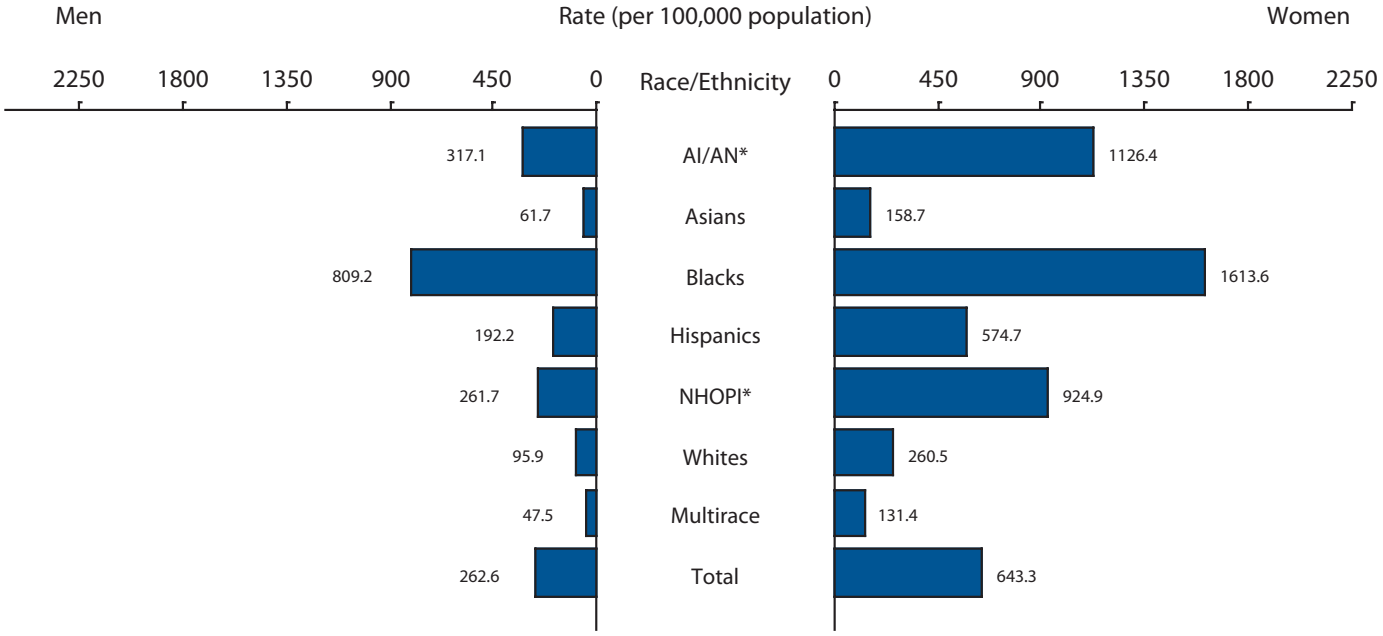
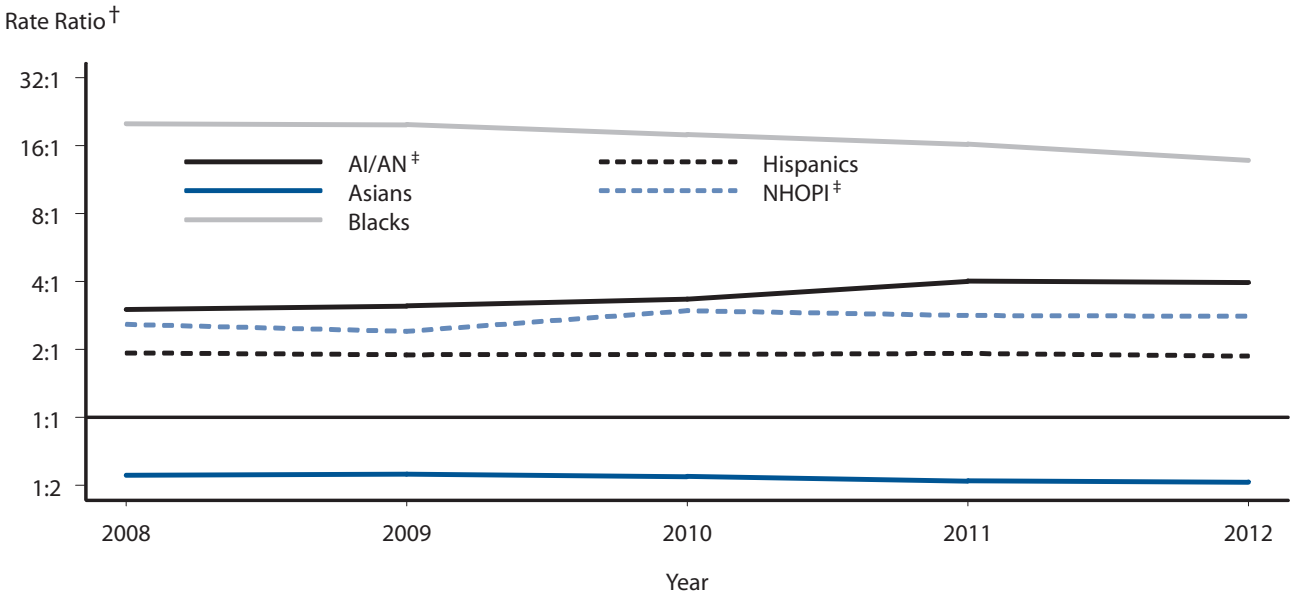
Figure L. Chlamydia — Rates by Race/Ethnicity and Sex, 2012



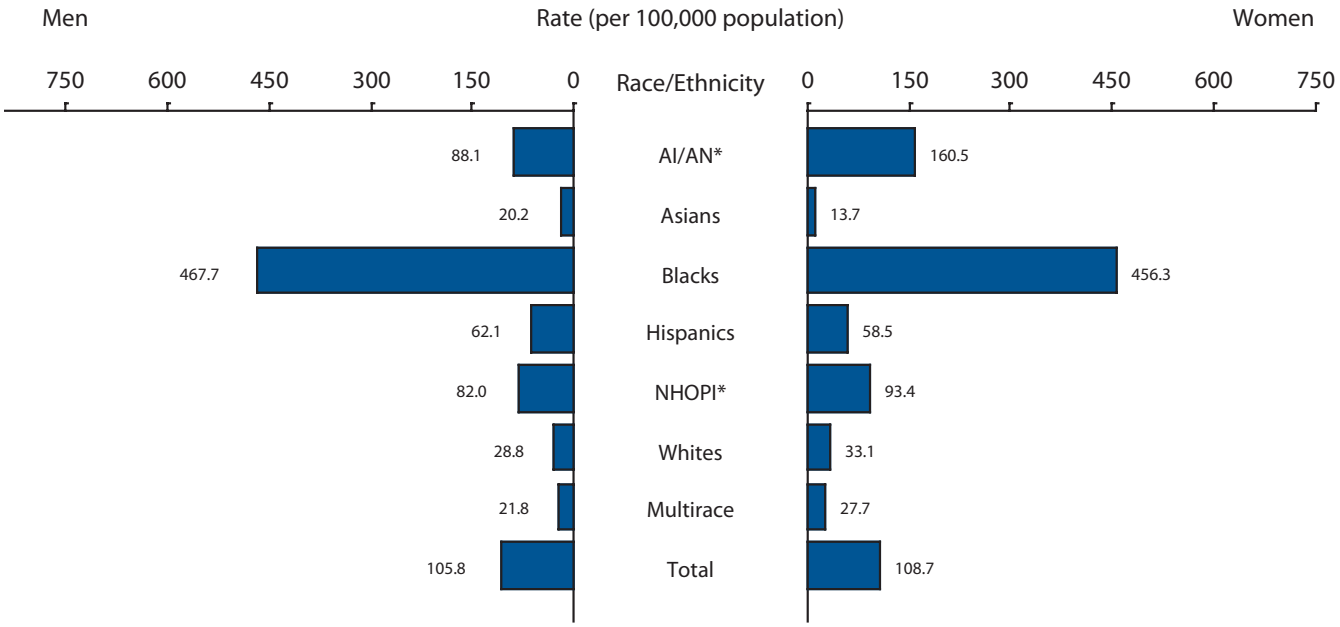
* AI/AN = American Indians/Alaska Natives; NHOPI = Native Hawaiian and Other Pacific Islanders.
NOTE: Includes 47 states and the District of Columbia reporting race/ethnicity data in Office of Management and Budget compliant formats in 2012 (see Appendix "Interpreting STD Surveillance Data").

Figure M. Gonorrhea — Rate Ratios* by Race/Ethnicity, United States, 2008 – 2012



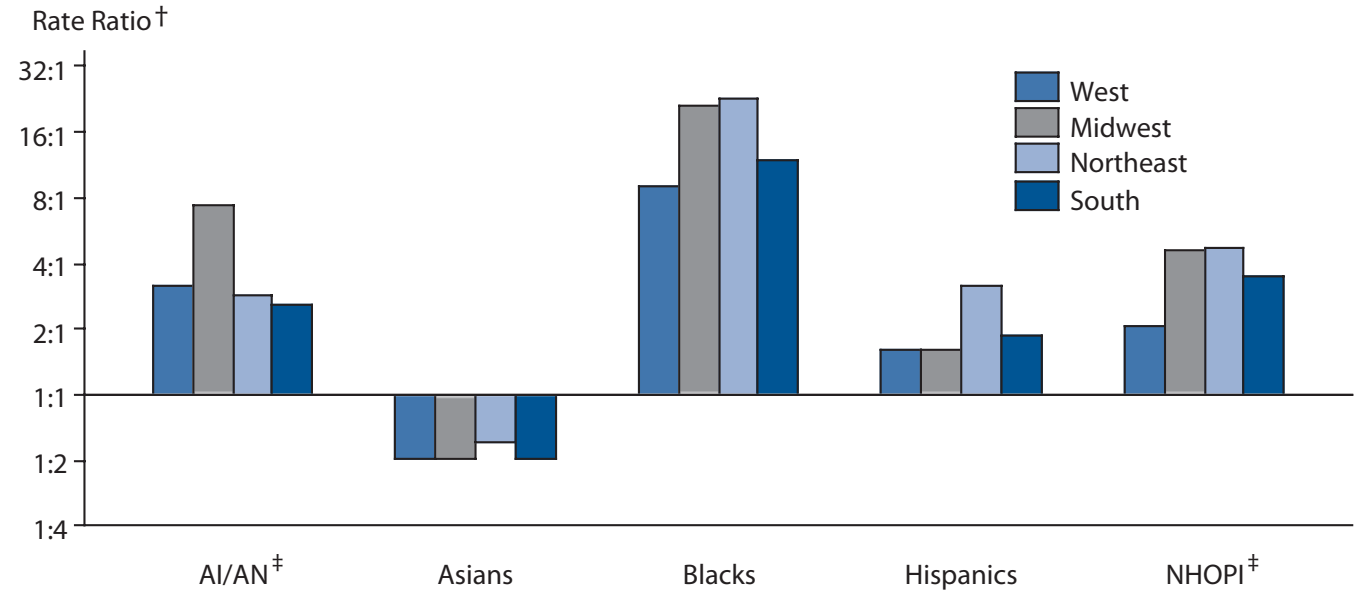
* Rate ratios are calculated as the gonorrhea rate per 100,000 population for a given racial or ethnic minority population divided by the gonorrhea rate per 100,000 population for non-Hispanic whites. Any population with a lower rate of gonorrhea than the non-Hispanic white population will have a rate ratio of less than 1:1.
† Y-axis is log scale.
‡ AI/AN = American Indians/Alaska Natives; NHOPI = Native Hawaiian and Other Pacific Islanders.
NOTE: Includes 38 states and the District of Columbia reporting race/ethnicity data in Office of Management and Budget compliant formats during 2008–2012 (see Appendix "Interpreting STD Surveillance Data").

Figure N. Gonorrhea — Rates by Race/Ethnicity and Sex, United States, 2012



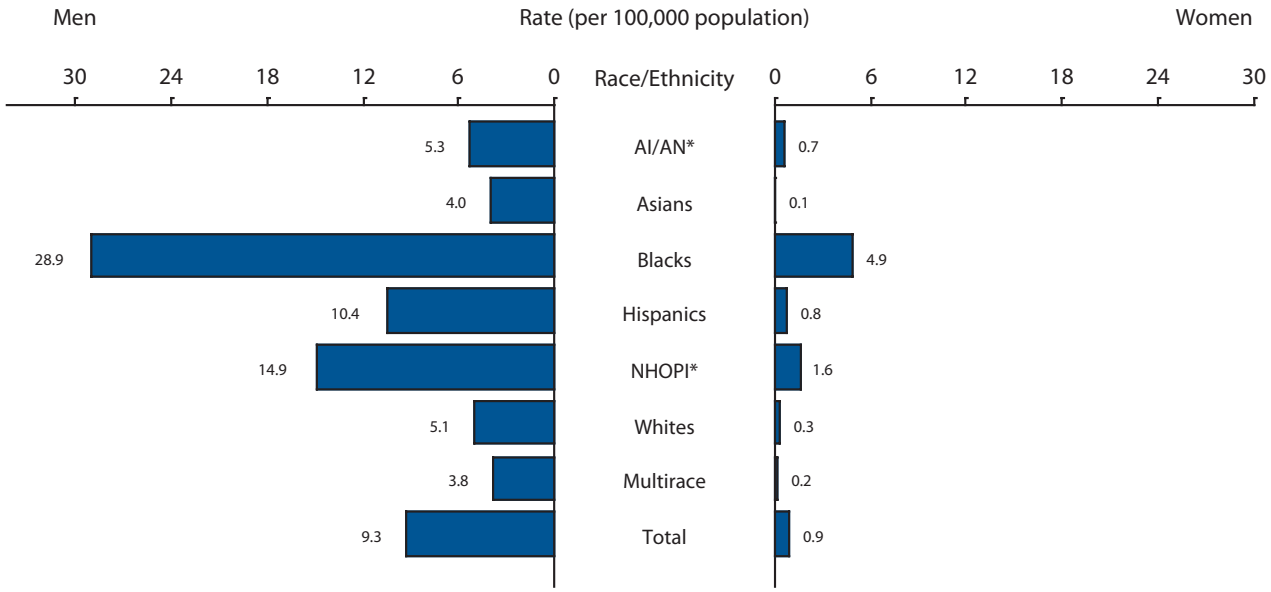
* AI/AN = American Indians/Alaska Natives; NHOPI = Native Hawaiian and Other Pacific Islanders.
NOTE: Includes 47 states and the District of Columbia reporting race/ethnicity data in Office of Management and Budget compliant formats in 2012 (see Appendix "Interpreting STD Surveillance Data").

Figure O. Gonorrhea — Rate Ratios by Race/Ethnicity and Region, United States, 2012



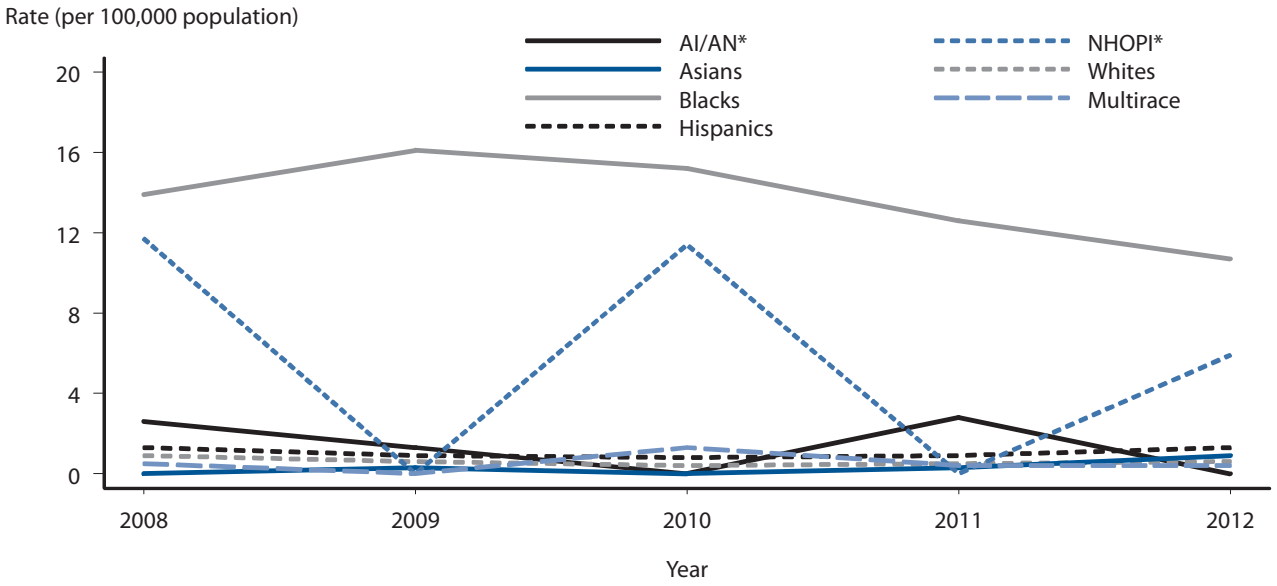
* Rate ratios are calculated as the gonorrhea rate per 100,000 population for a given racial or ethnic minority population divided by the gonorrhea rate per 100,000 population for non-Hispanic whites. Any population with a lower rate of gonorrhea than the non-Hispanic white population will have a rate ratio of less than 1:1.
† Y-axis is log scale.
‡ AI/AN = American Indians/Alaska Natives; NHOPI = Native Hawaiian and Other Pacific Islanders.
NOTE: Includes 47 states and the District of Columbia reporting race/ethnicity data in Office of Management and Budget compliant formats in 2012 (see Appendix "Interpreting STD Surveillance Data").

Figure P. Primary and Secondary Syphilis — Rates by Race/Ethnicity and Sex, United States, 2012



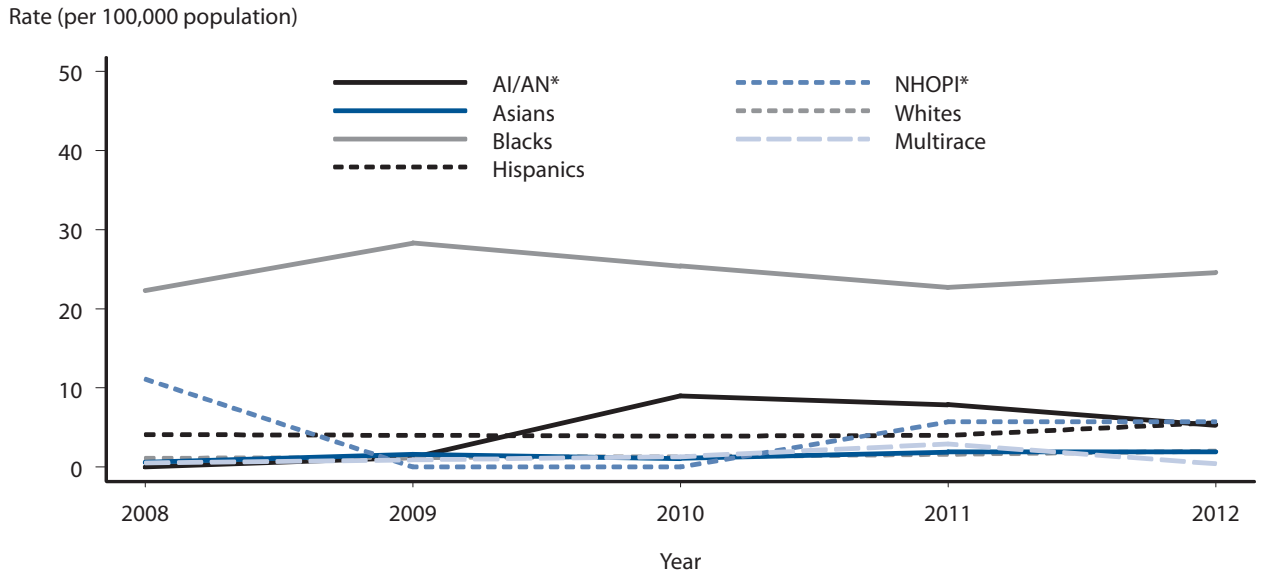
* AI/AN = American Indians/Alaska Natives; NHOPI = Native Hawaiian and Other Pacific Islanders.
NOTE: Includes 47 states and the District of Columbia reporting race/ethnicity data in Office of Management and Budget compliant formats in 2012 (see Appendix "Interpreting STD Surveillance Data").

Figure Q. Primary and Secondary Syphilis — Rates Among Females Aged 15 – 19 Years by Race/Ethnicity, United States, 2008 – 2012



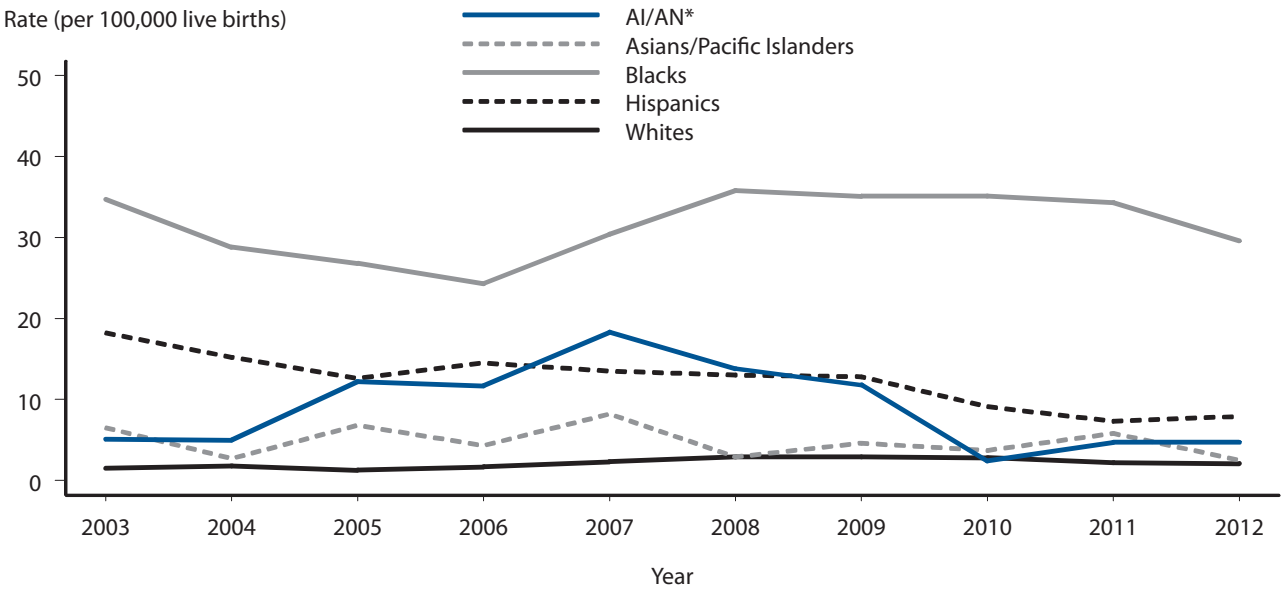
* AI/AN= American Indians/Alaska Natives; NHOPI= Native Hawaiian and Other Pacific Islanders.
NOTE: Includes 38 states and the District of Columbia reporting race/ethnicity data in Office of Management and Budget compliant formats during 2008–2012 (see Appendix "Interpreting STD Surveillance Data").

Figure R. Primary and Secondary Syphilis — Rates Among Males Aged 15 – 19 Years by Race/Ethnicity, United States, 2008 – 2012



* AI/AN= American Indians/Alaska Natives; NHOPI= Native Hawaiian and Other Pacific Islanders.
NOTE: Includes 38 states and the District of Columbia reporting race/ethnicity data in Office of Management and Budget compliant formats during 2008–2012 (see Appendix "Interpreting STD Surveillance Data").

Figure S. Congenital Syphilis — Infants — Rates by Year of Birth and Mother's Race/Ethnicity, United States, 2003 – 2012



* 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

Compared to women and men who have sex with women only, MSM are at increased risk for STDs.[1–4] Because STDs and the behaviors associated with acquiring them increase the likelihood of acquiring and transmitting HIV infection,[5] STDs among MSM may be associated with an increase in HIV diagnoses.[6]

Although a number of individual-level risk behaviors (e.g., higher numbers of lifetime sex partners, higher rates of partner change and partner acquisition rates, and unprotected sex) significantly contribute to the ongoing disparities in the sexual health of MSM, other interpersonal and societal-level factors have also been associated with higher rates of sexually transmitted infections, including HIV among MSM.[7] MSM who have lower economic status are particularly vulnerable to poorer health outcomes, especially if they belong to racial and ethnic minority populations.[8,9] For example, studies show that for black MSM, factors such as emotional and social support can drive sexual risk-taking and, in addition, broader societal factors such as power, privilege, and position in society also play a significant role.[10] 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.[11]

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. Furthermore, testing strategies are often suboptimal for detecting STDs in MSM. Testing for gonorrhea and chlamydia in MSM largely focuses on detecting urethral infections, which are more likely to be symptomatic than pharyngeal or rectal infections.[12] Data from enhanced 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, 2012

In 2005, SSuN was established 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.[13] SSuN currently includes 12 collaborating local and state health departments. In 2012, a total of 42 STD clinics at these 12 sites collected enhanced behavioral and demographic information on patients who presented for care to these clinics.[14] For data reported in this section, MSM were defined as men who either reported having a male sex partner 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. More detailed information about SSuN methodology can be found in the STD Surveillance Network section of the Appendix, Interpreting STD Surveillance Data.

Gonorrhea and Chlamydial Infection

In 2012, the proportion of MSM who tested positive for gonorrhea and chlamydia at STD clinics varied by SSuN site (Figure T). A larger proportion of MSM who visited SSuN STD clinics tested positive for gonorrhea than tested positive for chlamydia in all cities except Seattle, Birmingham, and Hartford/New Haven (where the proportion for chlamydia was higher).

Across the participating sites, about the same number of MSM were tested for gonorrhea (22,007) and chlamydia (21,767). The median site-specific gonorrhea prevalence was 16.4% (range by site: 9.84%–30.4%). The median site-specific chlamydia prevalence was 12.0% (range by site: 6.4%–22.2%). 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 P&S Syphilis and HIV

In 2012, the proportion of MSM who presented to SSuN clinics with P&S syphilis infection who also were infected with HIV ranged from 18.5% in Los Angeles to 66.7% in Birmingham (Figure U). The median site-specific proportion co-infected with HIV was 44.8%. P&S syphilis was identified by provider diagnosis and HIV was identified by laboratory report, self-report, or provider diagnosis.

HIV status and STDs

When comparing the prevalence of STDs by HIV status in MSM visiting SSuN STD clinics, the prevalence was lower among HIV-negative MSM status than among HIV-positive MSM (Figure V). The prevalence of P&S syphilis was 2.5% among HIV-negative MSM and 9.8% among HIV-positive MSM. Urethral gonorrhea positivity was 10.1% in MSM who were HIV-negative and 15.0% in HIV-positive MSM. Pharyngeal gonorrhea positivity was 7.4% in MSM who were HIV-negative and 10.0% in HIV-positive MSM; rectal gonorrhea positivity was 8.9% in MSM who were HIV-negative and 16.4% in HIV-positive MSM. Urethral chlamydia was 7.1% in MSM who were HIV-negative and 7.6% in HIV-positive MSM; rectal chlamydia positivity was 11.4% in MSM who were HIV-negative and 22.2% in HIV-positive MSM.

Nationally Notifiable Syphilis Surveillance Data

Primary and secondary syphilis among MSM has been increasing at least since 2000. [3, 15] In 33 areas reporting sex of partner data for P&S syphilis cases among MSM increased 15% during 2011 – 2012, a larger increase in previous years. In 2012, MSM accounted for 75% of all P&S syphilis cases in 49 states and the District of Columbia that provided information about sex of sex partners. MSM accounted for more cases than MSW or women in all racial and ethnic groups (Figure 40). More information about syphilis can be found in the Syphilis section of the National Profile.

Gonococcal Isolate Surveillance Project

GISP is a national sentinel surveillance system designed to monitor trends in antimicrobial susceptibilities of *N. gonorrhoeae* strains in the United States.[16] GISP has demonstrated that gonococcal isolates from MSM are more likely to exhibit antimicrobial resistance than isolates from MSW.[4] Overall, the proportion of isolates from MSM in selected STD clinics from GISP sentinel sites has increased steadily, from 4.6% in 1990 to 33.1% in 2012 (Figure W). 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. The proportion of isolates from MSM varies geographically, with the largest proportion reported from the West Coast (Figure X).

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

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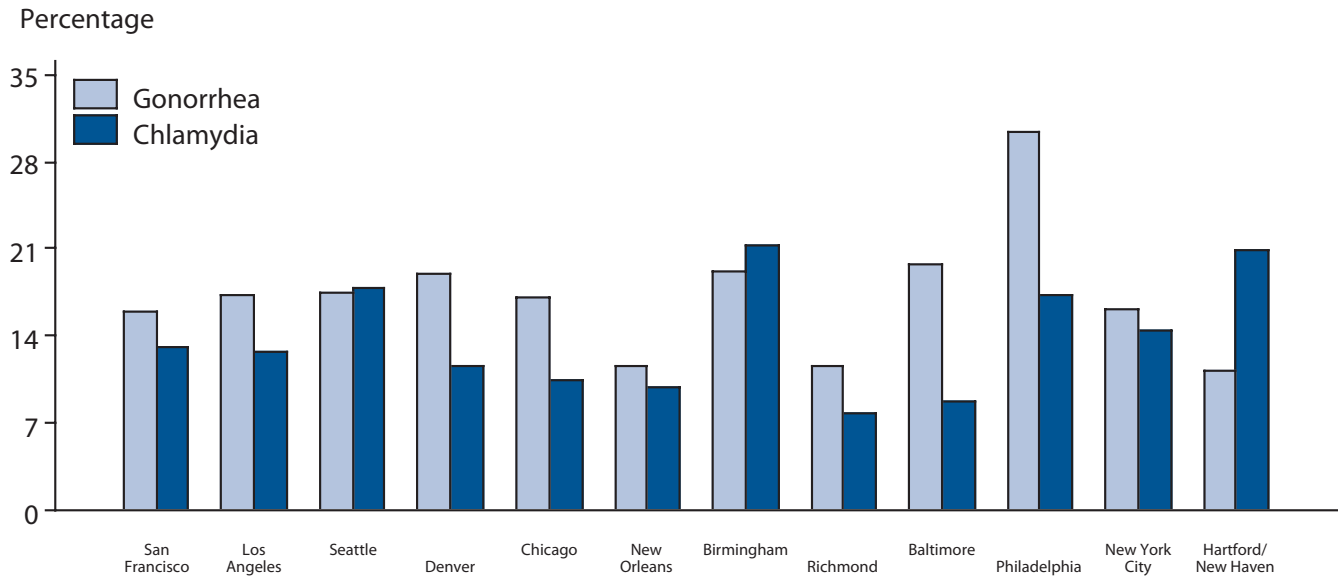
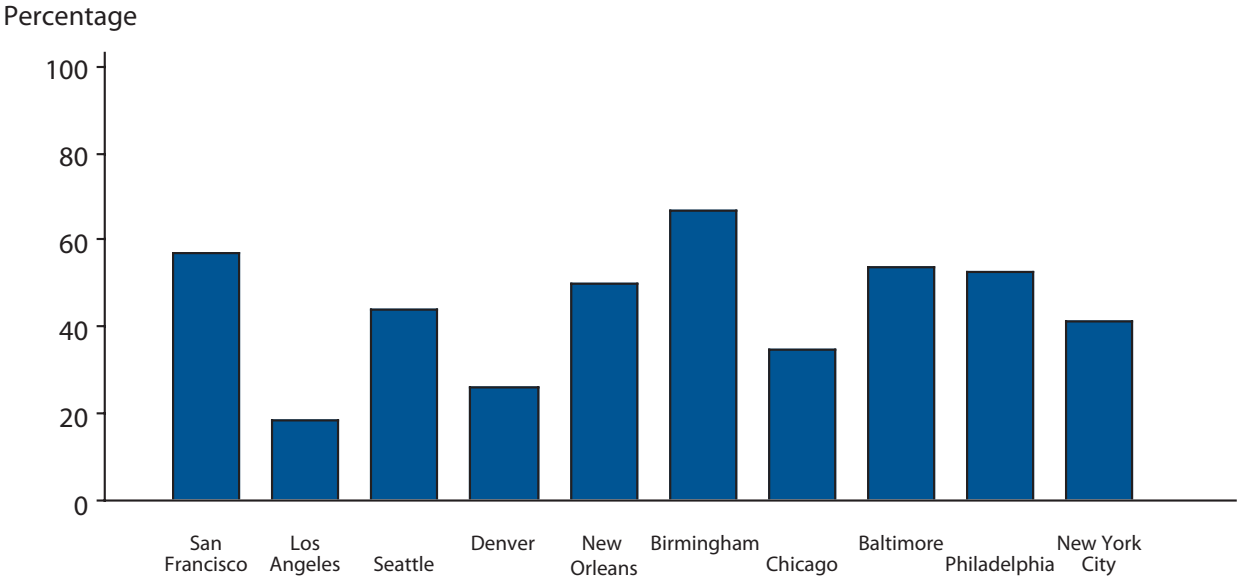
Figure T. Gonorrhea and Chlamydia—Proportion of MSM* Attending STD Clinics Testing Positive for Gonorrhea and Chlamydia, STD Surveillance Network (SSuN), 2012



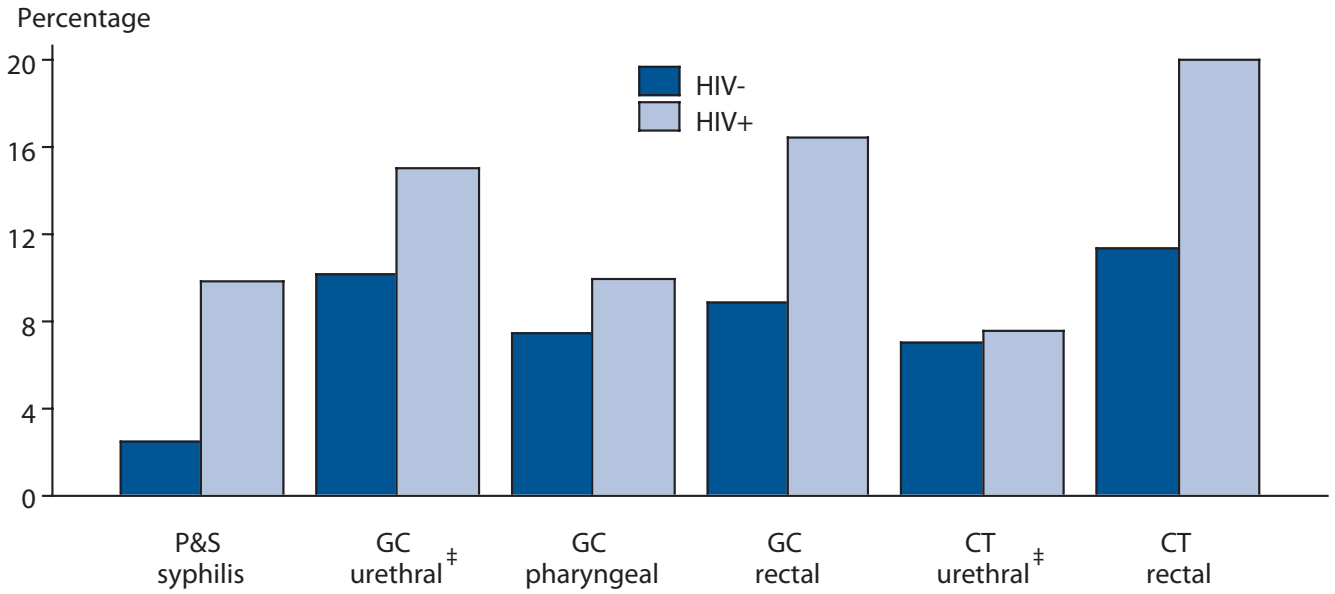
* Among men who have sex with men who were tested for gonorrhea and/or chlamydia

Figure U. 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), 2012



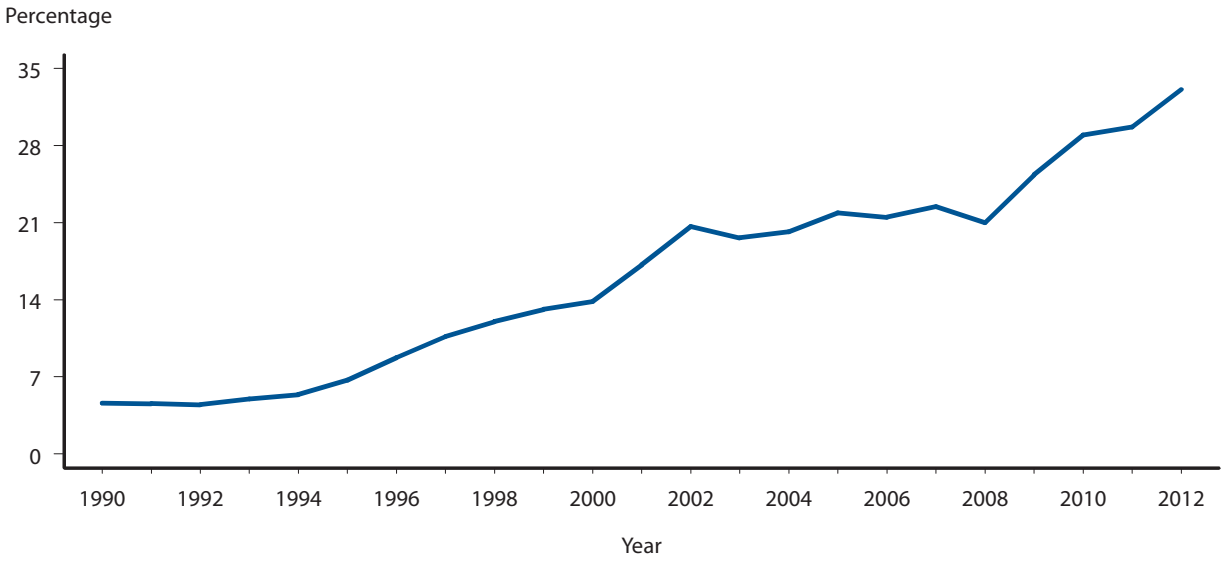
* MSM = men who have sex with men.
NOTE: Includes sites that reported data on at least 25 MSM with primary and secondary syphilis in 2012.

Figure V. Proportion of MSM* Attending STD Clinics with Primary and Secondary Syphilis, Gonorrhea or Chlamydia by HIV Status†, STD Surveillance Network (SSuN), 2012



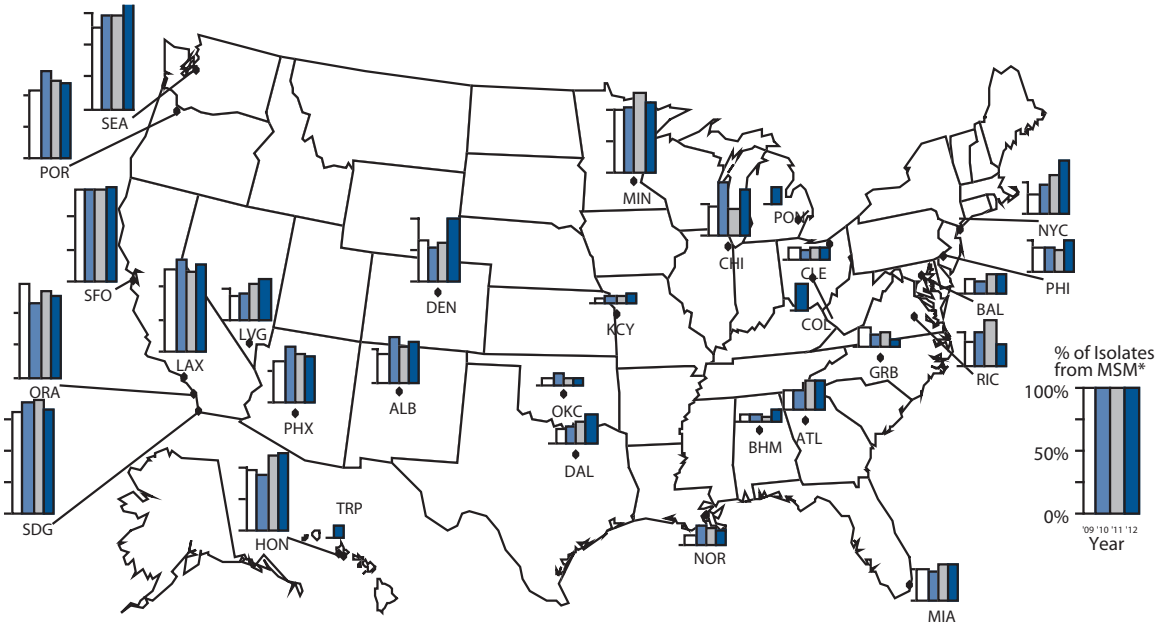
* MSM = men who have sex with men.
† Excludes all persons for whom there was no laboratory documentation or self-report of HIV status.
‡ GC urethral and CT urethral include results from both urethral and urine specimens.

Figure W. Percentage of Urethral *Neisseria gonorrhoeae* Isolates Obtained from MSM* Attending STD Clinics, Gonococcal Isolate Surveillance Project (GISP), 1990 – 2012



* MSM = men who have sex with men.

Figure X. Percentage of Urethral *Neisseria gonorrhoeae* Isolates Obtained from MSM* Attending STD Clinics, by Site, Gonococcal Isolate Surveillance Project (GISP), 2009 – 2012



* MSM = men who have sex with men.

NOTE: Participating sites include ALB = Albuquerque, NM; ATL = Atlanta, GA; BAL = Baltimore, MD; BHM = Birmingham, AL; CHI = Chicago, IL; CLE = Cleveland, OH; COL= Columbus, OH; DAL = Dallas, TX; DEN = Denver, CO; GRB = Greensboro, NC; HON = Honolulu, HI; KCY = Kansas City, MO; LAX = Los Angeles, CA; LVG = Las Vegas, NV; MIA = Miami, FL; MIN = Minneapolis, MN; NOR = New Orleans, LA; NYC = New York City, NY; OKC = Oklahoma City, OK; ORA = Orange County, CA; PHI = Philadelphia, PA; PHX = Phoenix, AZ; PON = Pontiac, MI; POR = Portland, OR; RIC = Richmond, VA; SDG = San Diego, CA; SEA = Seattle, WA; SFO = San Francisco, CA; and TRP = Tripler Army Medical Center, HI.

TABLES

TABLES

Table 1. Cases of Sexually Transmitted Diseases Reported by State Health Departments and Rates per 100,000 Population, United States, 1941–2012

	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	130,687	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	19,799	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. Cases of Sexually Transmitted Diseases Reported by State Health Departments and Rates per 100,000 Population, United States, 1941–2012 (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	9.4	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	8.7	1,412,791	453.4	321,849	103.3	8	0.0
2012	49,903	16.0	15,667	5.0	14,503	4.7	19,411	6.2	322	7.8	1,422,976	456.7	334,826	107.5	15	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, and late syphilis with clinical manifestations other than neurosyphilis.

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

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 May 29, 2013 (see Appendix). The number of cases and the rates shown here supersede those published in previous reports. For more information regarding reporting, see Appendix, Interpreting STD Surveillance Data. 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 by State, Ranked by Rates, United States, 2012

Rank*	State	Cases	Rate per 100,000 Population
1	Mississippi	23,054	774.0
2	Alaska	5,462	755.8
3	Alabama	30,621	637.6
4	Louisiana	27,353	597.9
5	South Carolina	27,149	580.2
6	New Mexico	11,898	571.4
7	Arkansas	16,611	565.4
8	Georgia	52,418	534.0
9	Illinois	67,701	526.1
10	North Carolina	50,596	524.0
11	New York	100,546	516.5
12	Tennessee	32,525	507.9
13	Texas	127,036	494.8
14	Delaware	4,438	489.2
15	Michigan	47,566	481.6
16	South Dakota	3,924	476.2
17	Arizona	30,444	469.6
18	Missouri	27,835	463.1
19	Hawaii	6,340	461.2
20	Ohio	53,141	460.3
	U.S. TOTAL†	**1,422,976**	**456.7**
21	Maryland	26,534	455.3
22	Indiana	29,505	452.7
23	California	167,695	444.9
24	Oklahoma	16,843	444.2
25	Virginia	34,963	431.8
26	Pennsylvania	54,993	431.6
27	North Dakota	2,908	425.2
28	Colorado	21,631	422.7
29	Wisconsin	23,726	415.4
30	Rhode Island	4,313	410.3
31	Nevada	11,137	408.9
32	Florida	77,644	407.4
33	Kentucky	17,273	395.3
34	Kansas	11,135	387.8
35	Montana	3,827	383.4
36	Iowa	11,377	371.5
37	Wyoming	2,102	370.0
38	Nebraska	6,748	366.2
39	Connecticut	13,065	364.9
40	Washington	24,596	360.1
41	Massachusetts	23,550	357.5
42	Oregon	13,454	347.5
43	Minnesota	18,056	337.8
44	New Jersey	27,271	309.2
45	Idaho	4,550	287.1
46	Vermont	1,724	275.2
47	Utah	7,615	270.3
48	West Virginia	4,790	258.2
49	Maine	3,413	257.0
50	New Hampshire	3,072	233.0

* 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 6,808 cases and a rate of 1,101.6, but excludes outlying areas (Guam with 1,031 cases and rate of 646.0, Puerto Rico with 6,227 cases and rate of 168.0, and Virgin Islands with 802 cases and rate of 758.1).

Table 3. Chlamydia—Reported Cases and Rates by State/Area and Region in Alphabetical Order, United States and Outlying Areas, 2008–2012

State/Area	Cases					Rates per 100,000 Population				
	2008	2009	2010	2011	2012	2008	2009	2010	2011	2012
Alabama	24,760	25,929	27,041	29,626	30,621	531.1	550.7	565.7	616.9	637.6
Alaska	4,861	5,166	6,019	5,739	5,462	708.3	739.6	847.5	794.1	755.8
Arizona	24,769	26,002	26,861	29,251	30,444	381.1	394.2	420.2	451.2	469.6
Arkansas	14,136	14,354	15,424	16,052	16,611	495.1	496.8	529.0	546.4	565.4
California	148,798	146,796	150,443	166,773	167,695	404.8	397.2	403.8	442.5	444.9
Colorado	19,180	19,998	19,447	21,811	21,631	388.3	398.0	386.7	426.3	422.7
Connecticut	12,519	12,127	12,649	13,649	13,065	357.6	344.7	353.9	381.2	364.9
Delaware	3,868	4,718	4,464	4,508	4,438	443.0	533.0	497.1	496.9	489.2
District of Columbia	6,924	6,549	5,589	6,585	6,808	1,169.9	1,092.1	928.8	1,065.5	1,101.6
Florida	71,017	72,931	74,744	76,033	77,644	387.5	393.4	397.5	399.0	407.4
Georgia	42,629	39,828	45,147	54,403	52,418	440.1	405.2	466.0	554.3	534.0
Hawaii	5,982	6,026	6,015	6,001	6,340	464.4	465.3	442.2	436.5	461.2
Idaho	4,194	3,842	4,208	4,699	4,550	275.2	248.5	268.4	296.5	287.1
Illinois	59,169	60,542	60,672	64,939	67,701	458.6	468.9	472.9	504.6	526.1
Indiana	22,154	21,732	22,825	27,801	29,505	347.4	338.3	352.0	426.6	452.7
Iowa	9,372	9,406	10,542	10,705	11,377	312.1	312.7	346.1	349.6	371.5
Kansas	9,208	10,510	9,601	10,598	11,135	328.6	372.9	336.5	369.1	387.8
Kentucky	12,163	13,293	16,376	16,629	17,273	284.9	308.1	377.4	380.6	395.3
Louisiana	22,659	27,628	29,151	31,614	27,353	513.7	615.0	643.0	691.0	597.9
Maine	2,608	2,431	2,586	3,094	3,413	198.1	184.4	194.7	232.9	257.0
Maryland	24,669	23,747	26,192	27,212	26,534	437.9	416.7	453.7	466.9	455.3
Massachusetts	17,503	19,315	21,080	22,764	23,550	269.4	292.9	321.9	345.6	357.5
Michigan	44,923	45,714	49,478	49,568	47,566	449.1	458.5	500.6	501.9	481.6
Minnesota	14,351	14,197	15,294	16,902	18,056	274.9	269.6	288.4	316.2	337.8
Mississippi	21,253	23,589	21,417	21,216	23,054	723.2	799.1	721.8	712.3	774.0
Missouri	24,817	25,868	26,049	27,887	27,835	419.8	432.0	435.0	464.0	463.1
Montana	3,101	2,988	3,082	3,406	3,827	320.5	306.5	311.5	341.2	383.4
Nebraska	5,573	5,443	5,114	6,780	6,748	312.5	303.0	280.0	368.0	366.2
Nevada	9,670	10,045	9,666	10,507	11,137	371.9	380.0	357.9	385.8	408.9
New Hampshire	2,109	2,102	2,462	3,010	3,072	160.3	158.7	187.0	228.3	233.0
New Jersey	22,405	23,974	26,142	26,209	27,271	258.0	275.3	297.3	297.1	309.2
New Mexico	9,262	9,493	11,706	11,374	11,898	466.8	472.4	568.5	546.2	571.4
New York	88,359	92,069	99,920	102,763	100,546	453.3	471.1	515.6	527.9	516.5
North Carolina	37,516	41,045	42,048	54,819	50,596	406.8	437.5	441.0	567.7	524.0
North Dakota	1,921	1,957	2,404	2,445	2,908	299.5	302.5	357.4	357.5	425.2
Ohio	47,117	48,239	51,150	52,653	53,141	410.2	417.9	443.4	456.1	460.3
Oklahoma	14,803	15,023	14,302	14,596	16,843	406.4	407.5	381.2	385.0	444.2
Oregon	10,744	11,497	12,352	13,643	13,454	283.5	300.5	322.4	352.4	347.5
Pennsylvania	42,233	43,068	47,518	52,884	54,993	339.3	341.7	374.1	415.0	431.6
Rhode Island	3,317	3,615	3,480	4,146	4,313	315.7	343.2	330.6	394.4	410.3
South Carolina	26,323	26,654	26,525	28,932	27,149	587.6	584.4	573.5	618.3	580.2
South Dakota	2,956	3,015	3,192	3,409	3,924	367.6	371.1	392.1	413.7	476.2
Tennessee	28,038	29,711	28,327	31,105	32,525	451.1	471.9	446.4	485.8	507.9
Texas	100,870	105,910	119,872	124,882	127,036	414.6	427.4	476.7	486.4	494.8
Utah	6,021	6,145	6,690	7,086	7,615	220.0	220.7	242.1	251.5	270.3
Vermont	1,190	1,186	1,257	1,483	1,724	191.5	190.7	200.9	236.7	275.2
Virginia	31,218	30,903	30,797	36,314	34,963	401.8	392.0	384.9	448.5	431.8
Washington	21,402	21,387	21,348	23,280	24,596	326.8	320.9	317.5	340.8	360.1
West Virginia	3,316	3,604	3,876	4,295	4,790	182.8	198.0	209.2	231.5	258.2
Wisconsin	20,996	20,906	23,236	24,619	23,726	373.1	369.7	408.6	431.0	415.4
Wyoming	1,577	1,963	2,113	2,092	2,102	296.1	360.7	374.9	368.2	370.0
U.S. TOTAL	**1,210,523**	**1,244,180**	**1,307,893**	**1,412,791**	**1,422,976**	**398.1**	**405.3**	**423.6**	**453.4**	**456.7**
Northeast	192,243	199,887	217,094	230,002	231,947	350.0	361.6	392.5	414.3	417.8
Midwest	262,557	267,529	279,557	298,306	303,622	394.5	400.3	417.7	444.2	452.1
South	486,162	505,416	531,292	578,821	576,656	435.2	446.0	463.8	498.8	496.9
West	269,561	271,348	279,950	305,662	310,751	380.4	379.1	389.1	419.5	426.5
Guam	687	620	899	1,071	1,031	390.4	347.5	563.9	671.1	646.0
Puerto Rico	6,874	7,302	5,960	5,634	6,227	173.8	184.1	160.0	152.0	168.0
Virgin Islands	587	488	609	820	802	534.4	444.4	573.1	775.2	758.1
OUTLYING AREAS	**8,148**	**8,410**	**7,468**	**7,525**	**8,060**	**192.2**	**197.6**	**187.1**	**189.4**	**202.9**
TOTAL	**1,218,671**	**1,252,590**	**1,315,361**	**1,420,316**	**1,431,036**	**395.3**	**402.4**	**420.6**	**450.1**	**453.5**

Table 4. Chlamydia—Women—Reported Cases and Rates by State/Area and Region in Alphabetical Order, United States and Outlying Areas, 2008–2012

State/Area	Cases					Rates per 100,000 Population				
	2008	2009	2010	2011	2012	2008	2009	2010	2011	2012
Alabama	18,744	19,413	20,030	21,217	22,099	779.8	799.8	814.4	857.9	893.5
Alaska	3,253	3,364	3,960	3,801	3,670	989.7	1,000.5	1,162.6	1,093.7	1,056.0
Arizona	18,358	19,097	19,529	21,196	22,087	566.0	580.6	607.2	650.5	677.8
Arkansas	10,643	10,689	11,303	11,921	12,247	730.6	725.2	761.5	797.3	819.1
California	104,201	101,716	102,645	114,657	114,396	567.3	551.1	547.8	605.3	603.9
Colorado	13,825	14,765	14,188	15,751	15,476	564.7	592.1	565.6	617.8	607.0
Connecticut	9,239	8,937	9,223	9,824	9,464	515.0	496.3	502.8	535.1	515.5
Delaware	2,789	3,573	3,296	3,191	3,181	620.1	784.5	711.9	682.9	680.7
District of Columbia	4,438	4,153	3,782	4,357	4,426	1,422.7	1,311.8	1,191.2	1,337.4	1,358.6
Florida	52,206	52,747	53,318	54,262	55,628	560.0	560.3	554.7	557.3	571.4
Georgia	31,515	29,074	32,863	39,829	37,456	640.4	582.2	662.8	794.6	747.3
Hawaii	4,422	4,399	4,340	4,314	4,452	692.4	686.5	639.1	629.8	649.9
Idaho	3,048	2,768	3,014	3,345	3,206	402.5	359.5	385.3	422.7	405.1
Illinois	43,112	44,560	44,598	46,728	48,575	659.0	680.2	682.1	712.9	741.0
Indiana	16,513	16,150	16,344	20,065	21,633	510.6	495.6	496.2	606.2	653.6
Iowa	6,882	6,785	7,612	7,647	8,194	452.9	445.7	494.9	495.0	530.4
Kansas	7,401	8,209	7,449	8,158	8,440	524.8	578.5	518.1	564.4	583.9
Kentucky	8,622	9,621	11,859	11,990	12,366	395.3	438.0	538.0	540.2	557.2
Louisiana	17,260	20,719	20,564	23,390	20,507	760.4	898.1	888.6	1,001.1	877.7
Maine	1,847	1,705	1,814	2,149	2,420	274.0	252.7	267.4	316.9	356.9
Maryland	19,337	18,782	19,827	20,004	19,295	665.4	639.8	664.9	665.1	641.5
Massachusetts	12,646	13,786	14,753	15,744	16,319	378.1	406.8	436.4	463.3	480.3
Michigan	33,719	33,860	36,431	36,367	34,510	663.8	668.3	723.5	723.0	686.1
Minnesota	10,266	10,204	10,965	11,827	12,568	391.8	385.7	410.4	439.7	467.2
Mississippi	16,323	17,829	15,958	15,697	16,771	1,077.6	1,172.2	1,045.7	1,024.6	1,094.7
Missouri	18,116	18,825	18,867	20,097	19,745	599.1	614.9	617.5	655.4	643.9
Montana	2,227	2,134	2,194	2,390	2,655	461.1	438.2	445.3	480.9	534.2
Nebraska	4,123	3,884	3,561	4,783	4,628	458.5	429.2	387.0	515.7	499.0
Nevada	7,131	7,112	6,897	7,215	7,628	559.0	548.3	515.9	534.9	565.6
New Hampshire	1,548	1,542	1,808	2,184	2,150	232.2	229.6	271.0	327.3	322.2
New Jersey	18,001	18,757	20,128	19,886	20,231	406.3	422.5	446.1	439.9	447.5
New Mexico	6,986	6,987	8,718	8,309	8,724	694.4	688.3	836.9	789.7	829.2
New York	61,280	63,882	68,693	70,466	68,337	611.1	636.1	686.9	702.3	681.1
North Carolina	30,693	33,002	33,836	42,992	39,140	652.3	688.9	691.9	868.1	790.3
North Dakota	1,291	1,297	1,577	1,603	1,898	404.0	403.0	474.0	474.7	562.1
Ohio	35,021	36,724	38,636	38,914	38,879	595.4	621.5	654.4	658.9	658.3
Oklahoma	11,117	11,101	10,297	10,349	12,341	603.0	595.2	543.6	540.8	644.9
Oregon	7,433	8,136	8,565	9,489	9,425	389.7	421.9	442.6	485.3	482.0
Pennsylvania	30,509	30,335	33,175	36,463	37,569	477.6	469.1	509.4	558.5	575.5
Rhode Island	2,400	2,603	2,478	2,984	3,091	442.7	480.5	455.4	549.5	569.2
South Carolina	20,492	21,124	20,842	22,278	20,497	891.5	902.7	877.5	927.2	853.1
South Dakota	2,185	2,214	2,300	2,491	2,801	541.7	544.7	565.4	606.2	681.7
Tennessee	20,479	21,655	20,559	22,200	22,732	642.8	671.1	632.1	676.3	692.5
Texas	79,002	82,551	92,847	95,326	96,405	648.4	665.5	732.6	737.1	745.5
Utah	3,982	4,019	4,473	4,821	5,149	293.8	290.5	325.2	343.9	367.3
Vermont	896	889	910	1,106	1,296	284.0	281.6	286.6	348.3	408.1
Virginia	23,172	22,390	22,348	26,283	24,670	586.3	558.7	548.4	637.9	598.7
Washington	15,581	15,741	15,634	16,641	17,271	475.1	472.0	463.3	486.5	504.9
West Virginia	2,490	2,684	2,832	3,092	3,405	269.0	289.3	301.5	328.8	362.1
Wisconsin	15,229	15,038	16,657	17,402	16,727	538.1	528.4	581.5	605.1	581.7
Wyoming	1,011	1,187	1,305	1,357	1,492	385.2	444.2	472.5	487.4	535.9
U.S. TOTAL	**893,004**	**912,718**	**949,802**	**1,018,552**	**1,018,272**	**579.4**	**586.7**	**605.1**	**643.4**	**643.3**
Northeast	138,366	142,436	152,982	160,806	160,877	490.9	502.6	537.8	563.8	564.0
Midwest	193,858	197,750	204,997	216,082	218,598	574.2	583.1	602.9	633.7	641.1
South	369,322	381,107	396,361	428,378	423,166	649.8	661.6	678.5	724.2	715.4
West	191,458	191,425	195,462	213,286	215,631	541.5	536.2	541.5	583.9	590.3
Guam	574	512	664	783	726	664.1	583.9	846.8	996.9	924.3
Puerto Rico	5,834	6,336	4,878	4,528	5,102	283.7	307.0	251.4	234.3	264.0
Virgin Islands	448	435	427	591	592	775.2	752.2	757.7	1,051.7	1,053.5
OUTLYING AREAS	**6,856**	**7,283**	**5,969**	**5,902**	**6,420**	**311.5**	**329.6**	**287.6**	**285.5**	**310.6**
TOTAL	**899,860**	**920,001**	**955,771**	**1,024,454**	**1,024,692**	**575.6**	**583.1**	**601.0**	**638.8**	**639.0**

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

Table 5. Chlamydia—Men—Reported Cases and Rates by State/Area and Region in Alphabetical Order, United States and Outlying Areas, 2008–2012

State/Area	Cases					Rates per 100,000 Population				
	2008	2009	2010	2011	2012	2008	2009	2010	2011	2012
Alabama	6,007	6,508	6,877	7,648	8,295	266.0	285.2	296.4	328.3	356.1
Alaska	1,608	1,802	2,058	1,938	1,792	449.7	497.5	556.8	516.5	477.6
Arizona	6,401	6,904	7,331	8,052	8,354	196.5	208.8	230.8	249.8	259.1
Arkansas	3,491	3,664	4,112	4,125	4,360	249.6	258.8	287.2	285.9	302.2
California	44,060	44,592	47,239	51,554	52,983	239.6	241.0	255.1	275.0	282.6
Colorado	5,319	5,228	5,259	6,057	6,155	213.5	206.6	208.6	235.9	239.8
Connecticut	3,264	3,190	3,426	3,825	3,524	191.2	185.7	196.9	219.2	202.0
Delaware	1,079	1,145	1,168	1,317	1,257	254.9	266.5	268.5	299.4	285.8
District of Columbia	2,438	2,390	1,789	2,225	2,345	871.1	844.3	629.4	761.4	802.5
Florida	18,593	20,069	21,362	21,685	22,009	206.5	220.0	232.5	232.6	236.1
Georgia	10,690	10,513	11,965	13,978	14,521	224.3	217.4	253.0	291.0	302.3
Hawaii	1,560	1,626	1,675	1,687	1,888	240.2	248.5	245.9	244.6	273.7
Idaho	1,133	1,051	1,183	1,347	1,344	147.8	135.5	150.6	169.7	169.3
Illinois	16,052	15,964	15,957	18,083	18,977	252.4	251.0	253.6	286.4	300.5
Indiana	5,572	5,502	6,451	7,681	7,850	177.3	173.9	202.2	239.5	244.8
Iowa	2,490	2,621	2,930	3,058	3,183	167.9	176.4	194.3	201.5	209.8
Kansas	1,807	2,301	2,152	2,440	2,695	129.8	164.4	152.0	171.1	189.0
Kentucky	3,508	3,647	4,488	4,577	4,851	168.0	172.2	210.2	212.9	225.6
Louisiana	5,226	6,841	6,658	7,568	6,846	244.1	313.1	300.0	338.1	305.8
Maine	761	726	768	944	990	118.5	112.8	118.1	145.2	152.3
Maryland	5,307	4,885	6,336	7,197	7,193	194.6	176.7	227.0	255.2	255.0
Massachusetts	4,839	5,490	6,302	7,000	7,193	153.5	171.3	199.0	219.5	225.5
Michigan	11,007	11,675	12,926	13,095	12,962	223.5	238.1	266.6	270.2	267.5
Minnesota	4,085	3,993	4,329	5,075	5,430	157.1	152.4	164.5	191.2	204.5
Mississippi	4,930	5,760	5,459	5,519	6,281	346.2	402.5	378.8	381.5	434.2
Missouri	6,701	7,043	7,182	7,790	8,090	232.0	240.7	244.8	264.6	274.8
Montana	865	851	888	1,016	1,172	178.5	174.4	178.8	202.7	233.8
Nebraska	1,441	1,549	1,548	1,987	2,093	163.0	173.7	170.8	217.1	228.7
Nevada	2,539	2,931	2,768	3,290	3,508	191.7	217.7	203.0	239.3	255.2
New Hampshire	561	560	654	826	922	86.4	85.8	100.7	126.9	141.7
New Jersey	4,390	5,200	5,874	6,231	6,958	103.3	121.8	137.3	144.9	161.8
New Mexico	2,272	2,500	2,986	3,054	3,170	232.2	251.3	293.5	296.5	307.7
New York	27,056	28,171	31,224	32,126	32,147	285.9	296.6	333.0	340.6	340.8
North Carolina	6,656	7,798	8,030	11,585	11,354	147.4	169.9	172.9	246.3	241.4
North Dakota	629	654	822	841	1,010	195.4	201.2	241.9	242.9	291.7
Ohio	10,847	10,978	12,320	13,731	14,262	193.6	194.9	218.7	243.5	252.9
Oklahoma	3,606	3,879	3,997	3,851	4,498	200.5	212.9	215.2	205.1	239.5
Oregon	3,311	3,361	3,786	4,154	4,028	175.9	177.2	199.7	216.7	210.2
Pennsylvania	11,722	12,700	14,297	16,364	17,388	193.4	206.9	231.0	263.3	279.8
Rhode Island	915	1,012	1,002	1,162	1,222	179.9	197.9	197.1	228.6	240.4
South Carolina	5,723	5,418	5,653	6,585	6,588	262.4	243.9	251.2	289.2	289.4
South Dakota	767	788	883	914	1,123	191.3	194.1	216.8	221.2	271.8
Tennessee	7,559	8,055	7,748	8,905	9,754	249.5	262.4	250.5	285.3	312.5
Texas	21,812	23,302	26,966	29,533	30,532	179.6	188.3	216.2	231.8	239.6
Utah	2,039	2,126	2,215	2,265	2,466	147.6	151.8	159.5	160.0	174.2
Vermont	294	297	347	377	428	96.2	97.1	112.6	122.1	138.6
Virginia	7,985	8,442	8,397	9,929	10,247	209.2	217.9	213.9	249.7	257.7
Washington	5,767	5,645	5,711	6,639	7,325	176.4	169.6	170.5	194.7	214.8
West Virginia	825	920	1,044	1,203	1,385	92.8	103.1	114.3	131.5	151.4
Wisconsin	5,707	5,740	6,573	7,203	6,999	204.0	204.3	232.9	254.0	246.8
Wyoming	563	776	808	734	610	208.4	280.1	281.1	253.3	210.5
U.S. TOTAL	**313,779**	**328,783**	**353,923**	**389,970**	**402,557**	**209.3**	**217.1**	**233.2**	**254.4**	**262.6**
Northeast	53,802	57,346	63,894	68,855	70,772	201.2	212.8	237.8	255.0	262.1
Midwest	67,105	68,808	74,073	81,898	84,674	204.6	209.0	225.0	247.7	256.1
South	115,435	123,236	132,049	147,430	152,316	210.3	221.2	235.2	259.1	267.7
West	77,437	79,393	83,907	91,787	94,795	218.1	221.3	234.1	252.6	260.9
Guam	113	108	235	288	305	126.2	119.0	290.1	355.3	376.3
Puerto Rico	1,034	957	1,076	1,106	1,125	54.5	50.3	60.3	62.3	63.4
Virgin Islands	139	53	182	229	210	267.1	102.0	364.7	461.8	423.5
OUTLYING AREAS	**1,286**	**1,118**	**1,493**	**1,623**	**1,640**	**63.1**	**54.6**	**77.9**	**85.2**	**86.1**
TOTAL	**315,065**	**329,901**	**355,416**	**391,593**	**404,197**	**207.3**	**214.9**	**231.2**	**252.3**	**260.4**

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

Table 6. Chlamydia—Reported Cases and Rates in Selected Metropolitan Statistical Areas (MSAs)* in Alphabetical Order, United States, 2008–2012

MSAs	Cases					Rates per 100,000 Population				
	2008	2009	2010	2011	2012	2008	2009	2010	2011	2012
Atlanta-Sandy Springs-Marietta, GA	20,722	20,292	22,144	27,308	26,401	385.4	370.6	420.3	509.6	492.6
Austin-Round Rock, TX	8,413	8,456	8,511	9,360	9,810	509.1	495.9	495.9	524.8	550.0
Baltimore-Towson, MD	13,537	12,883	13,988	14,399	13,578	507.6	478.8	516.1	527.6	497.5
Birmingham-Hoover, AL	6,690	6,120	6,126	6,834	6,868	598.6	541.1	543.1	603.6	606.6
Boston-Cambridge-Quincy, MA-NH	11,854	13,285	14,291	15,703	16,339	262.1	289.5	313.9	342.0	355.9
Buffalo-Cheektowaga-Tonawanda, NY	5,561	5,769	5,938	5,965	6,010	494.6	513.3	522.9	526.0	530.0
Charlotte-Gastonia-Concord, NC-SC	7,046	8,869	7,458	11,452	9,790	414.0	508.1	424.2	637.8	545.3
Chicago-Naperville-Joliet, IL-IN-WI	45,803	46,505	45,726	49,590	51,329	478.6	485.4	483.3	521.7	540.0
Cincinnati-Middletown, OH-KY-IN	10,016	8,872	9,805	10,059	10,256	464.8	408.5	460.3	470.5	479.7
Cleveland-Elyria-Mentor, OH	8,731	10,439	11,608	12,348	12,339	418.1	499.2	558.8	597.0	596.6
Columbus, OH	8,314	9,015	9,545	8,953	8,847	468.9	500.3	519.7	481.7	476.0
Dallas-Fort Worth-Arlington, TX	26,090	27,142	29,314	31,871	31,553	414.1	421.0	460.1	488.3	483.5
Denver-Aurora, CO	10,996	11,803	14,320	12,710	12,764	438.7	462.5	563.0	488.9	491.0
Detroit-Warren-Livonia, MI	24,987	25,347	27,751	26,237	24,229	564.7	575.6	645.9	612.2	565.3
Hartford-West Hartford-East Hartford, CT	4,781	4,467	4,616	4,837	4,562	401.6	373.5	380.7	398.7	376.0
Houston-Baytown-Sugar Land, TX	21,100	21,032	27,522	26,543	26,869	368.4	358.4	462.8	436.1	441.4
Indianapolis, IN	8,814	7,716	8,274	10,559	12,175	513.8	442.5	471.1	593.7	684.5
Jacksonville, FL	7,318	6,745	7,093	7,264	6,813	557.3	507.9	527.1	534.0	500.9
Kansas City, MO-KS	9,559	9,892	9,443	10,133	10,232	477.5	478.4	464.0	493.6	498.5
Las Vegas-Paradise, NV	7,753	8,177	7,614	8,337	8,587	415.5	429.7	390.2	423.2	435.9
Los Angeles-Long Beach-Santa Ana, CA	55,276	54,892	56,033	58,552	60,231	429.4	426.4	436.8	452.3	465.3
Louisville, KY-IN	4,953	5,294	6,344	6,691	6,886	397.9	420.6	494.2	516.7	531.8
Memphis, TN-MS-AR	11,896	13,368	12,463	11,685	12,719	925.2	1,024.4	947.0	881.5	959.5
Miami-Fort Lauderdale-Miami Beach, FL	18,128	19,101	19,095	19,561	20,933	334.8	344.3	343.1	345.0	369.2
Milwaukee-Waukesha-West Allis, WI	1,441	10,588	11,512	11,712	10,929	93.0	678.9	739.9	749.7	699.6
Minneapolis-St. Paul-Bloomington, MN-WI	10,093	9,925	10,870	12,027	12,013	312.5	303.5	331.4	362.4	362.0
Nashville-Davidson-Murfreesboro, TN	5,574	5,816	5,705	6,713	6,835	359.4	367.6	358.8	415.1	422.7
New Orleans-Metairie-Kenner, LA	5,109	6,701	6,947	7,998	7,010	450.5	563.1	594.9	671.5	588.5
New York-Newark-Edison, NY-NJ-PA	80,306	83,904	90,704	93,295	90,855	422.5	440.0	480.0	490.6	477.8
Oklahoma City, OK	5,650	5,475	4,704	5,087	5,640	468.4	446.1	375.4	398.0	441.3
Orlando, FL	8,287	9,199	9,491	9,545	9,928	403.3	441.7	444.7	439.6	457.2
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	28,749	30,449	33,050	34,799	35,513	492.4	510.2	554.0	580.7	592.6
Phoenix-Mesa-Scottsdale, AZ	14,314	15,615	16,519	17,746	20,358	334.3	357.8	394.0	416.3	477.5
Pittsburgh, PA	6,920	6,597	7,096	8,436	8,994	294.3	280.1	301.2	357.5	381.1
Portland-Vancouver-Beaverton, OR-WA	6,499	7,215	7,415	8,509	7,797	294.4	321.8	333.1	376.1	344.6
Providence-New Bedford-Fall River, RI-MA	4,551	4,865	4,759	5,559	5,941	285.0	303.9	297.3	347.4	371.3
Richmond, VA	6,783	6,681	7,065	7,845	7,384	553.4	539.6	561.5	618.0	581.7
Riverside-San Bernardino-Ontario, CA	13,557	16,934	12,263	20,749	20,994	329.4	408.7	290.3	482.0	487.7
Rochester, NY	5,294	5,767	6,575	5,842	5,827	511.9	556.9	623.6	553.6	552.2
Sacramento-Arden-Arcade-Roseville, CA	8,395	6,320	8,084	10,866	9,852	397.9	297.1	376.2	499.3	452.7
Salt Lake City, UT	3,562	3,424	3,717	3,821	4,104	319.3	302.9	330.6	333.4	358.1
San Antonio, TX	9,734	11,555	12,430	13,066	13,023	479.2	557.6	580.2	595.3	593.3
San Diego-Carlsbad-San Marcos, CA	14,373	14,169	15,341	15,346	16,524	478.9	464.0	495.6	488.7	526.2
San Francisco-Oakland-Fremont, CA	17,555	16,642	17,686	18,745	17,171	410.7	385.4	407.9	426.9	391.0
San Jose-Sunnyvale-Santa Clara, CA	5,796	5,537	5,691	5,965	4,676	318.6	301.0	309.8	319.8	250.7
Seattle-Tacoma-Bellevue, WA	11,532	11,533	11,510	12,329	12,965	344.8	338.4	334.6	352.3	370.4
St. Louis, MO-IL	14,092	14,546	14,691	15,556	14,905	500.3	514.2	522.3	552.1	529.0
Tampa-St. Petersburg-Clearwater, FL	11,230	11,835	12,158	12,595	12,274	410.8	430.8	436.8	445.9	434.5
Virginia Beach-Norfolk-Newport News, VA-NC	11,867	11,954	11,388	13,669	12,411	715.6	713.9	681.2	813.7	738.8
Washington-Arlington-Alexandria, DC-VA-MD-WV	20,943	20,116	19,870	22,660	23,727	390.9	367.3	356.0	397.3	416.0
U.S. MSAs TOTAL	**690,544**	**718,843**	**752,263**	**807,431**	**807,770**	**420.4**	**432.5**	**453.3**	**480.9**	**481.1**

* MSAs were selected on the basis of the largest population in the 2000 U.S. Census.

NOTE: 2008 Milwaukee County STD morbidity data were misclassified, resulting in incomplete case counts for MSA-Milwaukee-Waukesha-West Allis,WI.

Table 7. Chlamydia—Women—Reported Cases and Rates in Selected Metropolitan Statistical Areas (MSAs)* in Alphabetical Order, United States, 2008–2012

MSAs	Cases					Rates per 100,000 Population				
	2008	2009	2010	2011	2012	2008	2009	2010	2011	2012
Atlanta-Sandy Springs-Marietta, GA	14,898	14,208	15,508	19,457	18,241	547.7	512.7	573.3	708.3	664.0
Austin-Round Rock, TX	5,933	6,020	6,212	6,644	6,909	735.3	721.0	725.5	746.6	776.4
Baltimore-Towson, MD	10,774	10,187	10,744	10,668	9,933	779.9	730.8	764.4	754.3	702.3
Birmingham-Hoover, AL	4,948	4,530	4,525	4,834	4,866	855.2	774.5	775.0	824.1	829.5
Boston-Cambridge-Quincy, MA-NH	8,458	9,369	9,937	10,747	11,234	364.3	398.0	422.9	454.1	474.6
Buffalo-Cheektowaga-Tonawanda, NY	4,076	4,254	4,386	4,370	4,317	700.2	731.7	746.5	745.7	736.6
Charlotte-Gastonia-Concord, NC-SC	5,469	6,747	5,764	8,535	7,278	631.5	758.0	637.6	923.8	787.7
Chicago-Naperville-Joliet, IL-IN-WI	33,220	34,202	33,360	35,360	36,701	684.4	702.6	689.5	728.0	755.6
Cincinnati-Middletown, OH-KY-IN	8,031	7,243	7,749	7,774	7,766	728.5	652.1	711.8	711.9	711.1
Cleveland-Elyria-Mentor, OH	6,487	7,755	8,556	9,065	8,877	598.6	714.7	793.1	844.7	827.2
Columbus, OH	6,027	6,619	6,886	6,203	6,210	671.6	725.2	736.5	655.8	656.5
Dallas-Fort Worth-Arlington, TX	20,125	21,235	22,876	24,111	23,892	642.8	662.9	708.2	729.3	722.7
Denver-Aurora, CO	7,824	8,617	10,458	9,143	9,117	627.4	677.3	817.7	700.4	698.4
Detroit-Warren-Livonia, MI	18,826	18,870	20,530	19,161	17,460	831.9	836.7	927.2	867.8	790.8
Hartford-West Hartford-East Hartford, CT	3,474	3,250	3,324	3,470	3,301	569.4	530.6	534.2	557.6	530.5
Houston-Baytown-Sugar Land, TX	17,287	16,737	21,925	20,985	20,910	605.0	572.0	733.4	686.1	683.7
Indianapolis, IN	6,352	5,430	5,632	7,190	8,473	727.9	611.8	626.2	789.5	930.4
Jacksonville, FL	5,392	4,874	5,191	5,213	4,812	803.3	716.5	752.4	746.9	689.4
Kansas City, MO-KS	7,115	7,278	6,852	7,351	7,360	698.4	691.8	659.5	702.0	702.8
Las Vegas-Paradise, NV	5,842	5,874	5,537	5,777	5,942	637.5	628.5	571.4	590.2	607.0
Los Angeles-Long Beach-Santa Ana, CA	38,100	36,965	37,486	38,802	39,470	588.0	571.1	576.7	592.0	602.2
Louisville, KY-IN	3,504	3,821	4,646	4,867	5,023	548.5	593.3	707.4	734.4	758.0
Memphis, TN-MS-AR	9,199	10,170	9,529	8,743	9,345	1,377.8	1,501.5	1,392.6	1,268.0	1,355.3
Miami-Fort Lauderdale-Miami Beach, FL	13,144	13,788	13,566	13,815	14,692	472.2	485.5	472.5	473.5	503.6
Milwaukee-Waukesha-West Allis, WI	1,116	7,747	8,376	8,397	7,760	140.9	970.2	1,048.2	1,047.4	967.9
Minneapolis-St. Paul-Bloomington, MN-WI	7,037	7,028	7,710	8,275	8,233	433.7	427.0	464.2	492.9	490.4
Nashville-Davidson-Murfreesboro, TN	3,916	4,136	4,027	4,741	4,696	497.1	514.1	495.7	573.4	567.9
New Orleans-Metairie-Kenner, LA	3,722	4,875	5,065	5,956	5,241	630.1	789.5	845.0	973.7	856.8
New York-Newark-Edison, NY-NJ-PA	56,829	59,274	63,280	64,705	62,227	579.7	603.3	645.9	657.4	632.2
Oklahoma City, OK	4,119	3,912	3,292	3,518	3,951	673.4	627.6	517.9	543.3	610.2
Orlando, FL	6,160	6,740	6,777	6,993	7,373	594.1	640.8	621.9	631.1	665.4
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	20,708	21,297	22,863	23,928	24,166	686.9	690.9	740.7	772.0	779.7
Phoenix-Mesa-Scottsdale, AZ	10,725	11,405	11,892	12,696	14,396	506.4	529.1	564.3	592.8	672.1
Pittsburgh, PA	5,092	4,884	5,146	5,963	6,325	417.7	400.3	422.5	489.5	519.2
Portland-Vancouver-Beaverton, OR-WA	4,468	5,069	5,091	5,824	5,359	403.7	450.0	451.8	508.8	468.2
Providence-New Bedford-Fall River, RI-MA	3,327	3,503	3,433	4,022	4,256	403.6	425.1	415.1	486.9	515.2
Richmond, VA	4,981	4,843	5,282	5,710	5,201	790.6	760.1	812.9	871.3	793.6
Riverside-San Bernardino-Ontario, CA	10,009	12,305	8,810	15,241	15,296	486.8	595.5	414.8	704.9	707.4
Rochester, NY	3,594	3,859	4,448	3,935	3,891	679.0	728.8	820.8	725.7	717.6
Sacramento-Arden-Arcade-Roseville, CA	5,997	4,589	5,754	7,874	7,122	559.6	425.7	525.2	709.9	642.1
Salt Lake City, UT	2,254	2,173	2,434	2,558	2,719	411.0	389.2	436.0	449.6	477.9
San Antonio, TX	7,206	8,566	8,972	9,286	9,436	695.8	811.6	823.1	832.0	845.4
San Diego-Carlsbad-San Marcos, CA	10,257	10,050	10,538	10,395	11,102	688.0	660.5	683.6	664.9	710.2
San Francisco-Oakland-Fremont, CA	11,514	10,618	10,940	11,733	10,391	536.0	489.6	497.8	527.7	467.3
San Jose-Sunnyvale-Santa Clara, CA	4,218	3,989	3,951	4,187	3,260	475.3	443.2	431.6	450.7	350.9
Seattle-Tacoma-Bellevue, WA	7,975	8,062	8,000	8,259	8,460	477.1	473.1	463.0	470.9	482.4
St. Louis, MO-IL	10,166	10,481	10,489	11,108	10,393	699.4	718.4	723.2	764.7	715.5
Tampa-St. Petersburg-Clearwater, FL	8,099	8,323	8,527	8,913	8,738	577.2	590.9	593.9	612.5	600.5
Virginia Beach-Norfolk-Newport News, VA-NC	8,789	8,503	8,098	9,786	8,763	1,037.4	992.8	950.5	1,143.1	1,023.6
Washington-Arlington-Alexandria, DC-VA-MD-WV	14,967	14,429	14,146	15,811	16,247	545.7	516.1	493.6	540.8	555.7
U.S. MSAs TOTAL	**501,750**	**518,703**	**538,520**	**572,099**	**567,131**	**601.7**	**614.9**	**635.2**	**667.6**	**661.8**

* MSAs were selected on the basis of the largest population in the 2000 U.S. Census.

NOTE: 2008 Milwaukee County STD morbidity data were misclassified, resulting in incomplete case counts for MSA-Milwaukee-Waukesha-West Allis,WI. Cases reported with unknown sex are not included in this table.

Table 8. Chlamydia—Men—Reported Cases and Rates in Selected Metropolitan Statistical Areas (MSAs)* in Alphabetical Order, United States, 2008–2012

MSAs	Cases					Rates per 100,000 Population				
	2008	2009	2010	2011	2012	2008	2009	2010	2011	2012
Atlanta-Sandy Springs-Marietta, GA	5,585	5,923	6,471	7,549	7,906	210.3	219.0	252.4	289.0	302.7
Austin-Round Rock, TX	2,472	2,430	2,290	2,710	2,890	292.3	279.3	266.2	303.2	323.4
Baltimore-Towson, MD	2,754	2,665	3,231	3,723	3,608	214.2	205.5	247.6	283.2	274.4
Birmingham-Hoover, AL	1,740	1,588	1,545	1,852	1,985	322.8	290.7	283.9	339.4	363.8
Boston-Cambridge-Quincy, MA-NH	3,383	3,891	4,334	4,946	5,086	153.7	174.1	196.7	222.4	228.7
Buffalo-Cheektowaga-Tonawanda, NY	1,485	1,515	1,552	1,595	1,693	273.9	279.3	283.2	291.1	309.0
Charlotte-Gastonia-Concord, NC-SC	1,549	2,102	1,684	2,877	2,493	185.3	245.7	197.2	330.1	286.0
Chicago-Naperville-Joliet, IL-IN-WI	12,578	12,273	12,250	14,110	14,518	266.7	260.4	265.0	303.6	312.4
Cincinnati-Middletown, OH-KY-IN	1,963	1,565	2,022	2,283	2,488	186.5	147.5	194.1	218.3	237.9
Cleveland-Elyria-Mentor, OH	2,216	2,579	3,016	3,283	3,462	220.6	256.3	302.1	329.9	347.9
Columbus, OH	2,275	2,319	2,627	2,747	2,637	259.8	260.8	291.4	301.0	289.0
Dallas-Fort Worth-Arlington, TX	5,962	5,903	6,432	7,757	7,651	188.1	182.0	204.7	240.9	237.6
Denver-Aurora, CO	3,161	3,184	3,862	3,564	3,647	250.9	248.8	305.4	275.4	281.8
Detroit-Warren-Livonia, MI	5,996	6,329	7,134	7,011	6,718	277.3	294.6	342.6	337.4	323.3
Hartford-West Hartford-East Hartford, CT	1,303	1,217	1,292	1,367	1,245	224.5	208.6	219.0	231.3	210.7
Houston-Baytown-Sugar Land, TX	3,776	4,259	5,560	5,556	5,954	131.5	144.8	188.0	183.5	196.6
Indianapolis, IN	2,451	2,275	2,636	3,345	3,689	290.8	265.7	307.6	385.4	425.1
Jacksonville, FL	1,912	1,868	1,893	2,047	2,001	297.8	288.3	288.7	309.1	302.1
Kansas City, MO-KS	2,444	2,614	2,591	2,782	2,872	248.5	257.4	260.1	276.7	285.6
Las Vegas-Paradise, NV	1,911	2,301	2,076	2,558	2,644	201.3	237.7	211.4	258.1	266.8
Los Angeles-Long Beach-Santa Ana, CA	16,886	17,728	18,343	19,577	20,633	264.1	276.9	289.9	306.3	322.9
Louisville, KY-IN	1,436	1,460	1,686	1,794	1,833	237.0	237.6	269.0	283.8	290.0
Memphis, TN-MS-AR	2,697	3,197	2,928	2,942	3,374	436.4	509.4	463.4	462.5	530.4
Miami-Fort Lauderdale-Miami Beach, FL	4,934	5,304	5,523	5,721	6,238	187.5	195.9	205.0	207.8	226.6
Milwaukee-Waukesha-West Allis, WI	321	2,767	3,134	3,312	3,169	42.4	363.5	414.1	435.5	416.7
Minneapolis-St. Paul-Bloomington, MN-WI	3,056	2,897	3,160	3,752	3,775	190.1	178.4	195.2	228.8	230.2
Nashville-Davidson-Murfreesboro, TN	1,658	1,680	1,670	1,972	2,101	217.3	216.0	214.8	249.5	265.8
New Orleans-Metairie-Kenner, LA	1,349	1,804	1,687	2,017	1,769	248.3	315.1	296.8	348.1	305.3
New York-Newark-Edison, NY-NJ-PA	23,441	24,602	27,324	28,367	28,518	254.7	266.1	300.3	309.2	310.9
Oklahoma City, OK	1,473	1,536	1,410	1,457	1,688	247.8	254.3	228.4	231.1	267.7
Orlando, FL	2,117	2,452	2,705	2,539	2,555	208.0	237.9	258.9	238.8	240.3
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	8,040	9,129	10,146	10,817	11,314	284.7	316.4	352.4	373.9	391.1
Phoenix-Mesa-Scottsdale, AZ	3,586	4,210	4,626	5,047	5,960	165.7	190.6	221.8	237.9	280.9
Pittsburgh, PA	1,828	1,712	1,947	2,471	2,668	161.4	150.8	171.1	216.5	233.7
Portland-Vancouver-Beaverton, OR-WA	2,029	2,146	2,323	2,685	2,437	184.3	192.4	211.4	240.2	218.0
Providence-New Bedford-Fall River, RI-MA	1,222	1,360	1,325	1,536	1,683	158.2	175.1	171.2	198.4	217.4
Richmond, VA	1,793	1,817	1,759	2,089	2,171	301.0	302.3	289.1	340.2	353.6
Riverside-San Bernardino-Ontario, CA	3,548	4,622	3,437	5,412	5,683	172.2	222.5	163.6	252.6	265.2
Rochester, NY	1,700	1,908	2,127	1,907	1,936	336.8	377.0	415.1	371.7	377.4
Sacramento-Arden-Arcade-Roseville, CA	2,346	1,682	2,287	2,960	2,712	226.0	160.3	217.1	277.4	254.2
Salt Lake City, UT	1,308	1,251	1,283	1,263	1,385	230.6	218.7	226.7	218.9	240.1
San Antonio, TX	2,527	2,986	3,458	3,780	3,587	253.8	293.7	328.6	350.4	332.5
San Diego-Carlsbad-San Marcos, CA	4,078	4,097	4,785	4,925	5,418	270.0	267.4	308.0	312.3	343.6
San Francisco-Oakland-Fremont, CA	5,968	5,909	6,645	6,948	6,739	280.7	274.9	310.8	320.5	310.9
San Jose-Sunnyvale-Santa Clara, CA	1,558	1,513	1,649	1,667	1,353	167.2	161.0	179.0	178.0	144.5
Seattle-Tacoma-Bellevue, WA	3,538	3,471	3,509	4,070	4,505	211.4	203.7	205.0	233.1	258.0
St. Louis, MO-IL	3,925	4,065	4,200	4,444	4,494	287.9	296.7	308.3	325.6	329.3
Tampa-St. Petersburg-Clearwater, FL	3,050	3,441	3,601	3,657	3,532	229.2	257.0	267.2	267.0	257.9
Virginia Beach-Norfolk-Newport News, VA-NC	3,064	3,422	3,284	3,864	3,640	377.8	418.3	400.6	469.1	441.9
Washington-Arlington-Alexandria, DC-VA-MD-WV	5,897	5,623	5,680	6,823	7,418	225.5	209.8	209.1	245.4	266.8
U.S. MSAs TOTAL	**187,289**	**198,591**	**212,139**	**233,477**	**239,475**	**231.6**	**242.6**	**261.3**	**284.0**	**291.3**

* MSAs were selected on the basis of the largest population in the 2000 U.S. Census.

NOTE: 2008 Milwaukee County STD morbidity data were misclassified, resulting in incomplete case counts for MSA-Milwaukee-Waukesha-West Allis,WI. Cases reported with unknown sex are not included in this table.

Table 9. Chlamydia—Reported Cases and Rates in Counties and Independent Cities* Ranked by Number of Reported Cases, United States, 2012

Rank†	County/Independent City	Cases	Rate per 100,000 Population	Cumulative Percentage
1	Los Angeles County, CA	51,589	521.7	3
2	Cook County, IL	37,946	727.3	6
3	Harris County, TX	21,933	524.6	7
4	Philadelphia County, PA	20,803	1,353.9	9
5	Kings County, NY	19,224	759.0	10
6	Maricopa County, AZ	19,044	490.8	11
7	Wayne County, MI	17,532	972.9	13
8	Bronx County, NY	17,023	1,222.9	14
9	San Diego County, CA	16,524	526.2	15
10	Dallas County, TX	16,223	671.5	16
11	Queens County, NY	12,777	568.4	17
12	San Bernardino County, CA	11,781	570.4	18
13	New York County, NY	11,777	735.2	19
14	Bexar County, TX	11,586	659.7	20
15	Cuyahoga County, OH	10,221	804.6	20
16	Marion County, IN	10,109	1,109.3	21
17	Milwaukee County, WI	10,064	1,056.6	22
18	Shelby County, TN	9,905	1,059.3	22
19	Miami-Dade County, FL	9,612	376.2	23
20	Riverside County, CA	9,213	411.4	24
21	Orange County, CA	8,642	282.8	24
22	Tarrant County, TX	8,620	466.0	25
23	Clark County, NV	8,587	435.9	26
24	Sacramento County, CA	8,153	567.7	26
25	Baltimore (City), MD	7,714	1,245.2	27
26	Broward County, FL	7,383	414.7	27
27	Hillsborough County, FL	7,098	559.9	28
28	Franklin County, OH	7,063	599.2	28
29	Fulton County, GA	6,868	723.3	29
30	Washington, D.C.	6,808	1,101.6	29
31	Travis County, TX	6,782	637.9	30
32	King County, WA	6,772	343.8	30
33	Hamilton County, OH	6,576	821.6	31
34	Alameda County, CA	6,562	428.9	31
35	Allegheny County, PA	6,444	525.2	31
36	Orange County, FL	6,361	544.1	32
37	Mecklenburg County, NC	6,286	665.6	32
38	Suffolk County, MA	6,084	832.4	33
39	Prince George's County, MD	6,037	692.9	33
40	Fresno County, CA	6,025	639.0	34
41	Kern County, CA	5,935	696.8	34
42	Hennepin County, MN	5,829	498.9	34
43	Jackson County, MO	5,521	816.3	35
44	Jefferson County, AL	5,509	836.1	35
45	Denver County, CO	5,467	881.8	36
46	St. Louis County, MO	5,379	538.6	36
47	Duval County, FL	5,331	612.3	36
48	Essex County, NJ	5,237	667.0	37
49	DeKalb County, GA	5,191	741.7	37
50	Honolulu County, HI	5,096	528.8	37
51	Erie County, NY	5,088	554.2	38
52	Jefferson County, KY	5,072	679.1	38
53	El Paso County, TX	5,014	610.9	39
54	Monroe County, NY	5,000	670.6	39
55	San Francisco County, CA	4,883	600.7	39
56	Pima County, AZ	4,761	481.1	40
57	Wake County, NC	4,659	501.1	40
58	Santa Clara County, CA	4,442	245.5	40
59	Pierce County, WA	4,313	533.9	41
60	Orleans County, LA	4,292	1,189.8	41
61	Oklahoma County, OK	4,106	560.6	41
62	St. Louis (City), MO	4,081	1,283.1	41
63	Bernalillo County, NM	4,077	607.6	42
64	New Haven County, CT	4,003	464.9	42
65	Hartford County, CT	4,001	447.2	42
66	Bell County, TX	3,997	1,268.1	43
67	Guilford County, NC	3,948	797.1	43
68	Palm Beach County, FL	3,938	294.9	43
69	Salt Lake County, UT	3,923	374.0	43
70	Pinellas County, FL	3,813	415.6	44

* Accounting for 44% of reported chlamydia cases.

† Counties and independent cities were ranked in descending order by number of cases reported then by rate in 2012.

Table 10. Chlamydia—Reported Cases and Rates per 100,000 Population by Age Group and Sex, United States, 2008–2012

Age Group	Cases				Rates*			
	Total	Male	Female	Unknown Sex	Total	Male	Female	
0–4	1,109	409	696	4	5.3	3.8	6.8	2008
5–9	240	52	185	3	1.2	0.5	1.9	
10–14	14,297	1,441	12,816	40	71.3	14.0	130.9	
15–19	419,026	76,741	340,975	1,310	1,947.7	695.9	3,251.4	
20–24	437,163	113,948	322,054	1,161	2,075.9	1,050.7	3,153.2	
25–29	188,033	60,629	126,901	503	881.4	554.1	1,221.0	
30–34	74,737	26,740	47,757	240	381.4	268.5	495.5	
35–39	36,537	14,908	21,510	119	174.0	141.1	206.3	
40–44	17,991	8,525	9,398	68	83.7	79.3	87.3	
45–54	14,271	7,386	6,832	53	32.2	33.8	30.3	
55–64	3,064	1,634	1,424	6	9.1	10.1	8.2	
65+	887	427	453	7	2.3	2.6	2.0	
Unknown Age	3,168	939	2,003	226				
TOTAL	**1,210,523**	**313,779**	**893,004**	**3,740**	**398.1**	**209.3**	**579.4**	
0–4	1,022	339	676	7	4.8	3.1	6.5	2009
5–9	187	33	154	0	0.9	0.3	1.5	
10–14	13,899	1,405	12,447	47	69.6	13.7	127.6	
15–19	429,173	80,725	347,597	851	1,992.6	730.5	3,314.7	
20–24	454,760	120,975	332,946	839	2,111.3	1,090.5	3,187.3	
25–29	190,481	62,437	127,708	336	878.7	561.7	1,209.1	
30–34	77,606	28,344	49,103	159	390.2	280.4	502.0	
35–39	36,286	14,859	21,354	73	176.7	143.5	209.7	
40–44	18,263	8,750	9,467	46	87.0	83.3	90.3	
45–54	15,033	7,818	7,183	32	33.7	35.6	31.8	
55–64	3,365	1,787	1,573	5	9.7	10.6	8.7	
65+	946	472	471	3	2.4	2.8	2.1	
Unknown Age	3,159	839	2,039	281				
TOTAL	**1,244,180**	**328,783**	**912,718**	**2,679**	**405.3**	**217.1**	**586.7**	
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	3.8	2.6	5.0	2012
5–9	151	17	134	0	0.7	0.2	1.3	
10–14	14,355	1,655	12,673	27	69.3	15.6	125.3	
15–19	433,239	86,150	346,430	659	2,001.7	774.8	3,291.5	
20–24	554,173	152,772	400,629	772	2,501.5	1,350.4	3,695.5	
25–29	224,014	77,666	146,037	311	1,052.7	721.7	1,388.4	
30–34	97,736	38,011	59,594	131	476.5	369.7	582.7	
35–39	43,660	18,274	25,313	73	222.8	187.2	257.4	
40–44	23,882	11,596	12,245	41	113.5	110.8	115.8	
45–54	20,321	11,332	8,961	28	45.4	51.5	39.5	
55–64	4,950	2,783	2,161	6	13.0	15.2	11.0	
65+	1,134	602	525	7	2.7	3.4	2.2	
Unknown Age	4,587	1,427	3,075	85				
TOTAL	**1,422,976**	**402,557**	**1,018,272**	**2,147**	**456.7**	**262.6**	**643.3**	

* 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 11A. Chlamydia—Reported Cases by Race/Ethnicity, Age Group, and Sex, United States*, 2012

Age Group	American Indians/ Alaska Natives			Asians			Blacks, Non-Hispanic		
	Total†	Male	Female	Total†	Male	Female	Total†	Male	Female
0–4	7	3	4	6	4	2	171	72	99
5–9	1	0	1	1	0	1	49	4	45
10–14	162	13	149	54	5	49	5,502	738	4,759
15–19	4,493	792	3,696	2,558	361	2,191	142,812	34,129	108,564
20–24	5,793	1,232	4,556	5,473	1,247	4,216	161,101	50,036	110,974
25–29	2,684	648	2,033	3,106	847	2,252	59,342	22,964	36,337
30–34	1,218	347	871	1,646	554	1,090	24,657	11,126	13,519
35–39	539	121	418	897	329	566	10,158	5,146	5,004
40–44	276	89	187	534	236	297	5,155	2,935	2,216
45–54	187	43	144	453	211	242	4,242	2,660	1,582
55–64	35	12	23	123	54	69	1,010	609	401
65+	6	3	3	28	15	13	164	106	58
Unknown Age	8	3	4	32	10	21	945	314	628
TOTAL	**15,409**	**3,306**	**12,089**	**14,911**	**3,873**	**11,009**	**415,308**	**130,839**	**284,186**

Age Group	Native Hawaiians/ Other Pacific Islanders			Whites, Non-Hispanic			Multirace		
	Total†	Male	Female	Total†	Male	Female	Total†	Male	Female
0–4	2	1	1	146	49	97	1	1	0
5–9	0	0	0	12	1	11	2	0	2
10–14	15	1	14	2,076	130	1,946	73	4	69
15–19	726	103	622	92,549	13,558	78,939	1,828	286	1,542
20–24	1,175	248	927	137,204	35,035	102,091	1,861	478	1,383
25–29	576	163	413	53,703	18,379	35,297	655	258	397
30–34	245	78	167	21,386	8,403	12,971	224	98	126
35–39	94	29	65	8,992	3,850	5,136	88	42	46
40–44	33	11	22	5,212	2,619	2,591	62	40	22
45–54	20	11	9	4,750	3,045	1,704	42	35	7
55–64	3	2	1	1,165	819	346	12	8	4
65+	2	1	1	226	167	59	0	0	0
Unknown Age	6	0	6	559	153	403	1	1	0
TOTAL	**2,897**	**648**	**2,248**	**327,980**	**86,208**	**241,591**	**4,849**	**1,251**	**3,598**

Age Group	Hispanics			Other/Unknown		
	Total†	Male	Female	Total†	Male	Female
0–4	91	29	60	278	86	187
5–9	27	2	25	43	7	36
10–14	1,587	186	1,400	3,176	344	2,812
15–19	50,694	9,275	41,389	97,387	18,438	78,527
20–24	70,044	17,616	52,379	123,626	32,629	90,486
25–29	31,919	9,966	21,934	50,886	16,493	34,199
30–34	14,810	4,849	9,955	23,693	8,522	15,088
35–39	6,989	2,402	4,582	11,167	4,323	6,798
40–44	3,229	1,277	1,950	6,467	2,959	3,478
45–54	2,250	1,014	1,234	5,503	2,826	2,655
55–64	402	188	213	1,428	758	666
65+	72	36	36	461	201	254
Unknown Age	480	121	356	2,370	752	1,550
TOTAL	**182,594**	**46,961**	**135,513**	**326,485**	**88,338**	**236,736**

* Includes 47 states and the District of Columbia reporting race/ethnicity data in the Office of Management and Budget compliant formats in 2012.

† Total includes 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 per 100,000 Population by Race/Ethnicity, Age Group, and Sex, United States*, 2012

Age Group	American Indians/ Alaska Natives			Asians			Blacks, Non-Hispanic		
	Total†	Male	Female	Total†	Male	Female	Total†	Male	Female
0–4	4.4	3.7	5.0	0.8	1.0	0.5	6.9	5.7	8.1
5–9	0.6	0.0	1.3	0.1	0.0	0.2	2.0	0.3	3.7
10–14	96.7	15.3	180.8	6.8	1.3	12.4	211.4	55.8	372.1
15–19	2,509.8	863.2	4,235.1	313.0	86.3	548.9	4,977.7	2,333.5	7,719.1
20–24	3,310.1	1,381.1	5,309.5	558.0	250.1	874.5	5,706.2	3,556.0	7,836.3
25–29	1,753.7	846.1	2,658.7	285.0	161.0	399.5	2,459.0	1,962.9	2,922.4
30–34	858.0	491.8	1,220.0	148.7	107.4	184.3	1,061.5	1,004.8	1,112.1
35–39	407.4	185.3	623.9	77.9	60.7	93.0	464.8	497.9	434.4
40–44	199.6	131.0	265.8	50.0	47.1	52.3	225.9	271.4	184.6
45–54	62.3	29.8	92.5	24.7	24.8	24.7	89.5	118.8	63.2
55–64	15.4	11.1	19.3	8.6	8.5	8.7	28.4	37.4	20.8
65+	3.4	3.8	3.0	2.1	2.6	1.7	5.4	8.8	3.2
Unknown Age									
TOTAL	**728.2**	**317.1**	**1,126.4**	**112.9**	**61.7**	**158.7**	**1,229.4**	**809.2**	**1,613.6**

Age Group	Native Hawaiians/ Other Pacific Islanders			Whites, Non-Hispanic			Multirace		
	Total†	Male	Female	Total†	Male	Female	Total†	Male	Female
0–4	5.3	5.2	5.4	1.6	1.0	2.1	0.1	0.2	0.0
5–9	0.0	0.0	0.0	0.1	0.0	0.2	0.3	0.0	0.6
10–14	40.6	5.2	78.4	19.8	2.4	38.1	11.3	1.2	21.7
15–19	1,841.9	512.5	3,219.8	830.1	236.4	1,458.3	326.2	101.7	552.2
20–24	2,528.1	1,027.1	4,151.0	1,175.4	590.6	1,778.4	418.9	222.4	603.2
25–29	1,283.5	709.2	1,886.3	473.1	320.2	629.0	185.5	153.9	214.1
30–34	605.0	376.3	844.7	195.2	152.0	239.0	72.9	67.5	77.7
35–39	266.9	161.4	376.6	85.0	72.3	97.7	34.3	34.6	34.0
40–44	98.4	65.2	132.0	42.8	42.8	42.7	26.3	35.7	17.7
45–54	31.7	34.9	28.4	16.8	21.7	12.0	9.7	17.0	3.1
55–64	7.0	9.5	4.6	4.5	6.4	2.6	4.0	5.5	2.5
65+	6.2	6.8	5.7	0.7	1.2	0.3	0.0	0.0	0.0
Unknown Age									
TOTAL	**590.4**	**261.7**	**924.9**	**179.6**	**95.9**	**260.5**	**90.2**	**47.5**	**131.4**

Age Group	Hispanics		
	Total†	Male	Female
0–4	1.9	1.2	2.5
5–9	0.6	0.1	1.1
10–14	36.7	8.4	66.1
15–19	1,191.0	421.4	2,013.6
20–24	1,699.0	805.1	2,707.7
25–29	795.4	467.0	1,167.6
30–34	380.4	238.2	535.9
35–39	192.6	129.1	259.2
40–44	98.3	75.9	121.8
45–54	43.0	38.4	47.7
55–64	12.8	12.4	13.1
65+	2.7	3.1	2.4
Unknown Age			
TOTAL	**380.3**	**192.2**	**574.7**

* Includes 47 states and the District of Columbia reporting race/ethnicity data in the Office of Management and Budget compliant formats in 2012.

† Total includes 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 no rates are calculated.

Table 12. Chlamydia—Reported Cases and Rates for Women 15–25 Years of Age, United States, 2008–2012

	Age	Cases	Rate per 100,000 Population
2008	15	25,468	1,244.1
	16	47,865	2,294.3
	17	73,080	3,449.3
	18	96,581	4,481.6
	19	97,981	4,710.6
	20	87,892	4,283.4
	21	74,816	3,677.0
	22	63,397	3,096.3
	23	52,641	2,557.1
	24	43,308	2,143.1
	25	35,773	1,741.9
2009	15	25,118	1,246.0
	16	47,662	2,316.9
	17	72,782	3,466.4
	18	98,822	4,626.6
	19	103,213	4,738.9
	20	92,398	4,384.4
	21	78,650	3,775.1
	22	64,631	3,122.6
	23	53,362	2,558.1
	24	43,905	2,091.4
	25	35,465	1,720.0
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	1,206.2
	16	45,041	2,179.7
	17	69,465	3,299.8
	18	99,459	4,666.3
	19	108,012	4,921.1
	20	104,425	4,647.5
	21	96,456	4,292.3
	22	81,292	3,767.1
	23	65,473	3,101.7
	24	52,983	2,549.4
	25	41,911	2,001.2

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

Table 13. Gonorrhea—Reported Cases and Rates by State, Ranked by Rates, United States, 2012

Rank*	State	Cases	Rate per 100,000 Population
1	Mississippi	6,875	230.8
2	Louisiana	8,873	194.0
3	Alabama	9,270	193.0
4	South Carolina	7,638	163.2
5	Georgia	15,326	156.1
6	North Carolina	14,318	148.3
7	Arkansas	4,307	146.6
8	Ohio	16,493	142.9
9	Tennessee	9,098	142.1
10	Illinois	18,149	141.0
11	Missouri	7,889	131.2
12	Michigan	12,584	127.4
13	Texas	32,473	126.5
14	Pennsylvania	15,390	120.8
15	Oklahoma	4,441	117.1
16	New York	22,571	116.0
17	Indiana	7,338	112.6
	U.S. TOTAL†	**334,826**	**107.5**
18	Florida	19,462	102.1
19	Alaska	726	100.5
20	Delaware	899	99.1
21	Kentucky	4,283	98.0
22	Maryland	5,686	97.6
23	New Mexico	1,883	90.4
24	Arizona	5,809	89.6
25	California	33,579	89.1
26	South Dakota	707	85.8
27	Virginia	6,885	85.0
28	New Jersey	7,486	84.9
29	Nevada	2,264	83.1
30	Wisconsin	4,704	82.4
31	Kansas	2,228	77.6
32	Nebraska	1,429	77.6
33	Iowa	2,006	65.5
34	Connecticut	2,133	59.6
35	Hawaii	815	59.3
36	Minnesota	3,082	57.7
37	Colorado	2,822	55.2
38	North Dakota	335	49.0
39	Rhode Island	507	48.2
40	Washington	3,238	47.4
41	West Virginia	831	44.8
42	Massachusetts	2,628	39.9
43	Oregon	1,464	37.8
44	Maine	456	34.3
45	Utah	479	17.0
46	Vermont	99	15.8
47	New Hampshire	147	11.2
48	Montana	108	10.8
49	Idaho	167	10.5
50	Wyoming	44	7.7

* 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 2,402 cases and a rate of 388.7, but excludes outlying areas (Guam with 92 cases and rate of 57.6, Puerto Rico with 345 cases and rate of 9.3, and Virgin Islands with 136 cases and rate of 128.6).

Table 14. Gonorrhea—Reported Cases and Rates by State/Area and Region in Alphabetical Order, United States and Outlying Areas, 2008–2012

State/Area	Cases					Rates per 100,000 Population				
	2008	2009	2010	2011	2012	2008	2009	2010	2011	2012
Alabama	9,740	7,498	7,933	9,132	9,270	208.9	159.2	166.0	190.1	193.0
Alaska	578	990	1,273	984	726	84.2	141.7	179.2	136.2	100.5
Arizona	3,449	3,250	3,249	4,564	5,809	53.1	49.3	50.8	70.4	89.6
Arkansas	4,514	4,460	4,769	4,687	4,307	158.1	154.4	163.6	159.5	146.6
California	25,787	23,228	26,441	27,516	33,579	70.2	62.8	71.0	73.0	89.1
Colorado	3,757	2,823	2,787	2,363	2,822	76.1	56.2	55.4	46.2	55.2
Connecticut	2,801	2,558	2,569	2,449	2,133	80.0	72.7	71.9	68.4	59.6
Delaware	1,045	971	1,010	827	899	119.7	109.7	112.5	91.2	99.1
District of Columbia	2,656	2,561	2,104	2,569	2,402	448.8	427.1	349.7	415.7	388.7
Florida	23,326	20,878	20,163	19,689	19,462	127.3	112.6	107.2	103.3	102.1
Georgia	16,272	13,687	15,852	16,428	15,326	168.0	139.2	163.6	167.4	156.1
Hawaii	610	631	759	685	815	47.4	48.7	55.8	49.8	59.3
Idaho	187	110	147	162	167	12.3	7.1	9.4	10.2	10.5
Illinois	20,674	19,962	15,777	17,037	18,149	160.2	154.6	123.0	132.4	141.0
Indiana	8,769	6,835	6,496	6,569	7,338	137.5	106.4	100.2	100.8	112.6
Iowa	1,700	1,658	1,803	1,920	2,006	56.6	55.1	59.2	62.7	65.5
Kansas	2,274	2,505	2,084	2,209	2,228	81.2	88.9	73.0	76.9	77.6
Kentucky	4,548	3,827	4,345	4,521	4,283	106.5	88.7	100.1	103.5	98.0
Louisiana	9,455	8,996	8,912	9,169	8,873	214.4	200.3	196.6	200.4	194.0
Maine	96	143	162	272	456	7.3	10.8	12.2	20.5	34.3
Maryland	6,666	6,395	7,413	6,458	5,686	118.3	112.2	128.4	110.8	97.6
Massachusetts	2,129	1,976	2,483	2,353	2,628	32.8	30.0	37.9	35.7	39.9
Michigan	17,064	14,704	13,627	12,901	12,584	170.6	147.5	137.9	130.6	127.4
Minnesota	3,037	2,303	2,119	2,284	3,082	58.2	43.7	40.0	42.7	57.7
Mississippi	7,494	7,241	6,195	5,814	6,875	255.0	245.3	208.8	195.2	230.8
Missouri	8,014	6,488	7,159	7,802	7,889	135.6	108.4	119.5	129.8	131.2
Montana	122	80	102	85	108	12.6	8.2	10.3	8.5	10.8
Nebraska	1,460	1,376	1,187	1,352	1,429	81.9	76.6	65.0	73.4	77.6
Nevada	2,172	1,726	1,728	2,000	2,264	83.5	65.3	64.0	73.4	83.1
New Hampshire	100	113	151	130	147	7.6	8.5	11.5	9.9	11.2
New Jersey	5,298	4,762	5,872	7,348	7,486	61.0	54.7	66.8	83.3	84.9
New Mexico	1,403	1,082	1,229	1,839	1,883	70.7	53.8	59.7	88.3	90.4
New York	17,108	17,004	18,320	20,706	22,571	87.8	87.0	94.5	106.4	116.0
North Carolina	15,972	13,870	14,111	17,454	14,318	173.2	147.9	148.0	180.8	148.3
North Dakota	143	151	204	251	335	22.3	23.3	30.3	36.7	49.0
Ohio	16,803	15,988	16,496	16,726	16,493	146.3	138.5	143.0	144.9	142.9
Oklahoma	5,185	4,673	4,369	4,215	4,441	142.4	126.7	116.5	111.2	117.1
Oregon	1,225	1,113	1,076	1,489	1,464	32.3	29.1	28.1	38.5	37.8
Pennsylvania	11,071	10,138	12,883	13,770	15,390	88.9	80.4	101.4	108.1	120.8
Rhode Island	307	322	291	360	507	29.2	30.6	27.6	34.2	48.2
South Carolina	9,442	8,318	7,970	8,350	7,638	210.8	182.4	172.3	178.4	163.2
South Dakota	375	344	468	602	707	46.6	42.3	57.5	73.1	85.8
Tennessee	8,780	7,926	7,121	7,667	9,098	141.3	125.9	112.2	119.7	142.1
Texas	32,199	29,295	31,788	30,930	32,473	132.4	118.2	126.4	120.5	126.5
Utah	477	341	310	277	479	17.4	12.2	11.2	9.8	17.0
Vermont	37	50	58	48	99	6.0	8.0	9.3	7.7	15.8
Virginia	10,337	7,789	7,402	6,518	6,885	133.1	98.8	92.5	80.5	85.0
Washington	3,127	2,285	2,864	2,737	3,238	47.7	34.3	42.6	40.1	47.4
West Virginia	746	475	579	796	831	41.1	26.1	31.2	42.9	44.8
Wisconsin	6,087	5,201	5,091	4,789	4,704	108.2	92.0	89.5	83.8	82.4
Wyoming	124	74	40	46	44	23.3	13.6	7.1	8.1	7.7
U.S. TOTAL	**336,742**	**301,174**	**309,341**	**321,849**	**334,826**	**110.7**	**98.1**	**100.2**	**103.3**	**107.5**
Northeast	38,947	37,066	42,789	47,436	51,417	70.9	67.0	77.4	85.4	92.6
Midwest	86,400	77,515	72,511	74,442	76,944	129.8	116.0	108.3	110.8	114.6
South	168,377	148,860	152,036	155,224	153,067	150.7	131.4	132.7	133.8	131.9
West	43,018	37,733	42,005	44,747	53,398	60.7	52.7	58.4	61.4	73.3
Guam	109	59	97	96	92	61.9	33.1	60.8	60.2	57.6
Puerto Rico	273	230	312	341	345	6.9	5.8	8.4	9.2	9.3
Virgin Islands	120	115	151	139	136	109.2	104.7	142.1	131.4	128.6
OUTLYING AREAS	**502**	**404**	**560**	**576**	**573**	**11.8**	**9.5**	**14.0**	**14.5**	**14.4**
TOTAL	**337,244**	**301,578**	**309,901**	**322,425**	**335,399**	**109.4**	**96.9**	**99.1**	**102.2**	**106.3**

Table 15. Gonorrhea—Women—Reported Cases and Rates by State/Area and Region in Alphabetical Order, United States and Outlying Areas, 2008–2012

State/Area	Cases					Rates per 100,000 Population				
	2008	2009	2010	2011	2012	2008	2009	2010	2011	2012
Alabama	5,582	4,240	4,432	5,103	5,187	232.2	174.7	180.2	206.3	209.7
Alaska	321	516	698	515	385	97.7	153.5	204.9	148.2	110.8
Arizona	1,577	1,475	1,553	2,212	2,827	48.6	44.8	48.3	67.9	86.8
Arkansas	2,520	2,562	2,729	2,687	2,432	173.0	173.8	183.9	179.7	162.7
California	11,625	9,430	10,546	10,811	13,045	63.3	51.1	56.3	57.1	68.9
Colorado	1,978	1,502	1,514	1,285	1,362	80.8	60.2	60.4	50.4	53.4
Connecticut	1,686	1,491	1,449	1,378	1,153	94.0	82.8	79.0	75.1	62.8
Delaware	606	564	621	471	496	134.7	123.8	134.1	100.8	106.1
District of Columbia	1,259	1,233	1,073	1,209	1,006	403.6	389.5	338.0	371.1	308.8
Florida	12,279	10,745	10,240	9,999	9,570	131.7	114.1	106.5	102.7	98.3
Georgia	8,687	7,253	8,297	8,589	7,921	176.5	145.2	167.3	171.4	158.0
Hawaii	298	264	314	273	299	46.7	41.2	46.2	39.9	43.6
Idaho	90	51	68	79	63	11.9	6.6	8.7	10.0	8.0
Illinois	11,342	11,248	8,924	9,500	9,837	173.4	171.7	136.5	144.9	150.1
Indiana	5,056	3,985	3,598	3,690	4,139	156.3	122.3	109.2	111.5	125.0
Iowa	1,024	1,049	1,179	1,217	1,170	67.4	68.9	76.7	78.8	75.7
Kansas	1,459	1,541	1,235	1,360	1,339	103.5	108.6	85.9	94.1	92.6
Kentucky	2,511	2,132	2,487	2,596	2,328	115.1	97.1	112.8	117.0	104.9
Louisiana	5,177	5,125	4,824	5,263	5,080	228.1	222.2	208.5	225.3	217.4
Maine	43	62	75	122	240	6.4	9.2	11.1	18.0	35.4
Maryland	3,604	3,457	4,028	3,461	2,878	124.0	117.8	135.1	115.1	95.7
Massachusetts	1,100	976	1,004	1,083	1,076	32.9	28.8	29.7	31.9	31.7
Michigan	10,047	8,536	7,971	7,599	7,194	197.8	168.5	158.3	151.1	143.0
Minnesota	1,657	1,270	1,248	1,294	1,676	63.2	48.0	46.7	48.1	62.3
Mississippi	4,357	4,335	3,602	3,344	3,834	287.6	285.0	236.0	218.3	250.3
Missouri	4,542	3,585	3,951	4,195	4,209	150.2	117.1	129.3	136.8	137.3
Montana	92	46	56	51	58	19.0	9.4	11.4	10.3	11.7
Nebraska	891	821	675	823	784	99.1	90.7	73.4	88.7	84.5
Nevada	1,012	826	830	879	982	79.3	63.7	62.1	65.2	72.8
New Hampshire	49	54	59	59	61	7.3	8.0	8.8	8.8	9.1
New Jersey	2,813	2,435	3,115	3,916	3,798	63.5	54.8	69.0	86.6	84.0
New Mexico	783	570	610	925	857	77.8	56.2	58.6	87.9	81.5
New York	8,349	7,927	8,718	9,716	10,021	83.3	78.9	87.2	96.8	99.9
North Carolina	8,876	7,868	8,314	10,076	8,093	188.6	164.2	170.0	203.4	163.4
North Dakota	93	88	140	149	207	29.1	27.3	42.1	44.1	61.3
Ohio	9,784	9,766	10,034	10,009	9,706	166.3	165.3	169.9	169.5	164.4
Oklahoma	2,964	2,809	2,493	2,395	2,652	160.8	150.6	131.6	125.1	138.6
Oregon	553	505	477	602	528	29.0	26.2	24.7	30.8	27.0
Pennsylvania	6,210	5,650	7,268	7,687	8,360	97.2	87.4	111.6	117.7	128.1
Rhode Island	135	146	121	167	232	24.9	27.0	22.2	30.8	42.7
South Carolina	5,704	5,004	4,905	4,981	4,416	248.2	213.8	206.5	207.3	183.8
South Dakota	247	190	290	399	446	61.2	46.7	71.3	97.1	108.5
Tennessee	4,801	4,365	3,884	4,112	4,721	150.7	135.3	119.4	125.3	143.8
Texas	17,029	16,071	17,246	16,476	17,151	139.8	129.6	136.1	127.4	132.6
Utah	137	70	75	66	132	10.1	5.1	5.5	4.7	9.4
Vermont	19	29	24	24	54	6.0	9.2	7.6	7.6	17.0
Virginia	5,847	4,314	4,146	3,693	3,734	147.9	107.6	101.7	89.6	90.6
Washington	1,522	949	1,044	1,066	1,230	46.4	28.5	30.9	31.2	36.0
West Virginia	425	281	326	467	438	45.9	30.3	34.7	49.7	46.6
Wisconsin	3,744	3,113	3,164	2,907	2,640	132.3	109.4	110.5	101.1	91.8
Wyoming	71	44	19	25	19	27.0	16.5	6.9	9.0	6.8
U.S. TOTAL	**182,577**	**162,568**	**165,693**	**171,005**	**172,066**	**118.5**	**104.5**	**105.6**	**108.0**	**108.7**
Northeast	20,404	18,770	21,833	24,152	24,995	72.4	66.2	76.7	84.7	87.6
Midwest	49,886	45,192	42,409	43,142	43,347	147.7	133.3	124.7	126.5	127.1
South	92,228	82,358	83,647	84,922	81,937	162.3	143.0	143.2	143.6	138.5
West	20,059	16,248	17,804	18,789	21,787	56.7	45.5	49.3	51.4	59.6
Guam	58	32	45	44	46	67.1	36.5	57.4	56.0	58.6
Puerto Rico	128	126	141	140	157	6.2	6.1	7.3	7.2	8.1
Virgin Islands	86	90	96	94	92	148.8	155.6	170.3	167.3	163.7
OUTLYING AREAS	**272**	**248**	**282**	**278**	**295**	**12.4**	**11.2**	**13.6**	**13.4**	**14.3**
TOTAL	**182,849**	**162,816**	**165,975**	**171,283**	**172,361**	**117.0**	**103.2**	**104.4**	**106.8**	**107.5**

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

Table 16. Gonorrhea—Men—Reported Cases and Rates by State/Area and Region in Alphabetical Order, United States and Outlying Areas, 2008–2012

State/Area	Cases					Rates per 100,000 Population				
	2008	2009	2010	2011	2012	2008	2009	2010	2011	2012
Alabama	4,151	3,250	3,430	3,825	4,034	183.8	142.4	147.8	164.2	173.2
Alaska	257	474	575	469	341	71.9	130.9	155.6	125.0	90.9
Arizona	1,869	1,775	1,696	2,350	2,981	57.4	53.7	53.4	72.9	92.5
Arkansas	1,993	1,898	2,038	1,996	1,873	142.5	134.1	142.4	138.3	129.8
California	14,025	13,705	15,773	16,598	20,431	76.3	74.1	85.2	88.5	109.0
Colorado	1,777	1,319	1,273	1,078	1,460	71.3	52.1	50.5	42.0	56.9
Connecticut	1,113	1,067	1,120	1,071	978	65.2	62.1	64.4	61.4	56.1
Delaware	439	407	389	356	403	103.7	94.7	89.4	80.9	91.6
District of Columbia	1,383	1,328	1,028	1,360	1,386	494.1	469.2	361.7	465.4	474.3
Florida	10,995	10,099	9,906	9,675	9,892	122.1	110.7	107.8	103.8	106.1
Georgia	7,465	6,368	7,421	7,684	7,301	156.7	131.7	156.9	160.0	152.0
Hawaii	312	367	445	412	516	48.0	56.1	65.3	59.7	74.8
Idaho	97	58	78	83	104	12.7	7.5	9.9	10.5	13.1
Illinois	9,331	8,710	6,824	7,513	8,283	146.7	137.0	108.5	119.0	131.2
Indiana	3,693	2,831	2,884	2,867	3,188	117.5	89.5	90.4	89.4	99.4
Iowa	676	609	624	703	836	45.6	41.0	41.4	46.3	55.1
Kansas	815	964	849	849	889	58.6	68.9	60.0	59.5	62.4
Kentucky	2,030	1,690	1,854	1,913	1,948	97.2	79.8	86.8	89.0	90.6
Louisiana	4,233	3,849	3,540	3,739	3,793	197.7	176.1	159.5	167.0	169.5
Maine	53	81	86	150	216	8.3	12.6	13.2	23.1	33.2
Maryland	3,054	2,922	3,377	2,992	2,806	112.0	105.7	121.0	106.1	99.5
Massachusetts	1,026	996	1,479	1,269	1,551	32.5	31.1	46.7	39.8	48.6
Michigan	6,876	6,004	5,634	5,281	5,372	139.6	122.5	116.2	109.0	110.9
Minnesota	1,380	1,033	871	990	1,395	53.1	39.4	33.1	37.3	52.5
Mississippi	3,135	2,906	2,593	2,470	3,039	220.2	203.1	179.9	170.8	210.1
Missouri	3,472	2,903	3,208	3,607	3,680	120.2	99.2	109.4	122.5	125.0
Montana	29	34	46	34	50	6.0	7.0	9.3	6.8	10.0
Nebraska	568	553	512	528	641	64.2	62.0	56.5	57.7	70.0
Nevada	1,160	900	898	1,121	1,280	87.6	66.9	65.9	81.6	93.1
New Hampshire	51	59	92	71	86	7.9	9.0	14.2	10.9	13.2
New Jersey	2,483	2,326	2,727	3,400	3,673	58.4	54.5	63.7	79.1	85.4
New Mexico	619	512	619	914	1,025	63.3	51.5	60.8	88.7	99.5
New York	8,751	9,072	9,601	10,977	12,529	92.5	95.5	102.4	116.4	132.8
North Carolina	7,023	5,902	5,712	7,300	6,180	155.5	128.6	123.0	155.2	131.4
North Dakota	50	62	64	101	127	15.5	19.1	18.8	29.2	36.7
Ohio	6,693	6,068	6,421	6,717	6,787	119.4	107.7	114.0	119.1	120.4
Oklahoma	2,212	1,857	1,873	1,708	1,789	123.0	101.9	100.9	91.0	95.3
Oregon	672	608	599	887	936	35.7	32.0	31.6	46.3	48.8
Pennsylvania	4,860	4,484	5,615	6,078	7,025	80.2	73.0	90.7	97.8	113.0
Rhode Island	172	176	170	193	275	33.8	34.4	33.4	38.0	54.1
South Carolina	3,712	3,289	3,056	3,351	3,196	170.2	148.1	135.8	147.2	140.4
South Dakota	128	153	177	202	259	31.9	37.7	43.4	48.9	62.7
Tennessee	3,979	3,560	3,235	3,555	4,368	131.4	116.0	104.6	113.9	140.0
Texas	15,150	13,215	14,524	14,448	15,286	124.8	106.8	116.5	113.4	120.0
Utah	340	271	235	211	347	24.6	19.3	16.9	14.9	24.5
Vermont	18	21	33	24	45	5.9	6.9	10.7	7.8	14.6
Virginia	4,477	3,465	3,248	2,814	3,145	117.3	89.4	82.7	70.8	79.1
Washington	1,600	1,334	1,818	1,671	2,008	48.9	40.1	54.3	49.0	58.9
West Virginia	321	194	253	329	393	36.1	21.7	27.7	36.0	42.9
Wisconsin	2,332	2,061	1,926	1,880	2,064	83.4	73.4	68.2	66.3	72.8
Wyoming	53	30	21	21	25	19.6	10.8	7.3	7.2	8.6
U.S. TOTAL	**153,103**	**137,819**	**142,470**	**149,835**	**162,235**	**102.1**	**91.0**	**93.9**	**97.7**	**105.8**
Northeast	18,527	18,282	20,923	23,233	26,378	69.3	67.9	77.9	86.1	97.7
Midwest	36,014	31,951	29,994	31,238	33,521	109.8	97.0	91.1	94.5	101.4
South	75,752	66,199	67,477	69,515	70,832	138.0	118.8	120.2	122.2	124.5
West	22,810	21,387	24,076	25,849	31,504	64.3	59.6	67.2	71.1	86.7
Guam	51	27	52	52	46	56.9	29.8	64.2	64.2	56.8
Puerto Rico	145	104	171	201	188	7.6	5.5	9.6	11.3	10.6
Virgin Islands	34	25	55	45	44	65.3	48.1	110.2	90.7	88.7
OUTLYING AREAS	**230**	**156**	**278**	**298**	**278**	**11.3**	**7.6**	**14.5**	**15.6**	**14.6**
TOTAL	**153,333**	**137,975**	**142,748**	**150,133**	**162,513**	**100.9**	**89.9**	**92.9**	**96.7**	**104.7**

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

Table 17. Gonorrhea—Reported Cases and Rates in Selected Metropolitan Statistical Areas (MSAs)* in Alphabetical Order, United States, 2008–2012

MSAs	Cases					Rates per 100,000 Population				
	2008	2009	2010	2011	2012	2008	2009	2010	2011	2012
Atlanta-Sandy Springs-Marietta, GA	8,084	7,466	8,337	8,567	8,287	150.4	136.4	158.2	159.9	154.6
Austin-Round Rock, TX	2,388	1,973	1,932	2,009	2,204	144.5	115.7	112.6	112.6	123.6
Baltimore-Towson, MD	4,146	3,869	4,369	3,634	2,974	155.4	143.8	161.2	133.2	109.0
Birmingham-Hoover, AL	2,891	1,970	2,363	2,550	2,340	258.7	174.2	209.5	225.2	206.7
Boston-Cambridge-Quincy, MA-NH	1,464	1,352	1,881	1,671	1,995	32.4	29.5	41.3	36.4	43.5
Buffalo-Cheektowaga-Tonawanda, NY	1,898	1,574	1,227	1,543	2,172	168.8	140.1	108.1	136.1	191.5
Charlotte-Gastonia-Concord, NC-SC	3,249	3,165	2,424	3,328	2,743	190.9	181.3	137.9	185.4	152.8
Chicago-Naperville-Joliet, IL-IN-WI	16,181	15,864	12,380	13,188	14,304	169.1	165.6	130.9	138.8	150.5
Cincinnati-Middletown, OH-KY-IN	3,926	3,219	3,379	3,516	3,228	182.2	148.2	158.6	164.4	151.0
Cleveland-Elyria-Mentor, OH	2,770	3,089	3,608	3,930	4,203	132.6	147.7	173.7	190.0	203.2
Columbus, OH	3,853	3,192	3,351	3,022	2,849	217.3	177.2	182.5	162.6	153.3
Dallas-Fort Worth-Arlington, TX	9,197	7,930	8,766	8,732	7,835	146.0	123.0	137.6	133.8	120.0
Denver-Aurora, CO	2,625	1,995	2,344	1,662	2,055	104.7	78.2	92.2	63.9	79.1
Detroit-Warren-Livonia, MI	10,850	9,366	9,160	8,924	8,062	245.2	212.7	213.2	208.2	188.1
Hartford-West Hartford-East Hartford, CT	1,029	961	1,126	1,036	744	86.4	80.4	92.9	85.4	61.3
Houston-Baytown-Sugar Land, TX	7,290	6,232	7,652	6,864	7,590	127.3	106.2	128.7	112.8	124.7
Indianapolis, IN	4,194	2,975	2,969	2,962	3,542	244.5	170.6	169.1	166.5	199.1
Jacksonville, FL	2,979	2,015	2,128	2,040	1,948	226.8	151.7	158.1	150.0	143.2
Kansas City, MO-KS	3,268	3,192	3,213	2,920	2,929	163.2	154.4	157.9	142.3	142.7
Las Vegas-Paradise, NV	1,918	1,553	1,604	1,740	1,968	102.8	81.6	82.2	88.3	99.9
Los Angeles-Long Beach-Santa Ana, CA	9,832	9,774	11,156	11,105	13,102	76.4	75.9	87.0	85.8	101.2
Louisville, KY-IN	2,300	2,125	2,272	2,462	2,073	184.8	168.8	177.0	190.1	160.1
Memphis, TN-MS-AR	4,475	4,536	4,086	3,849	4,495	348.1	347.6	310.5	290.4	339.1
Miami-Fort Lauderdale-Miami Beach, FL	5,471	5,239	5,506	5,352	5,291	101.0	94.4	98.9	94.4	93.3
Milwaukee-Waukesha-West Allis, WI	446	3,588	3,425	3,349	3,277	28.8	230.0	220.1	214.4	209.8
Minneapolis-St. Paul-Bloomington, MN-WI	2,345	1,800	1,665	1,880	2,526	72.6	55.0	50.8	56.7	76.1
Nashville-Davidson-Murfreesboro, TN	1,541	1,225	1,292	1,654	1,852	99.4	77.4	81.3	102.3	114.5
New Orleans-Metairie-Kenner, LA	2,045	2,082	1,991	2,069	2,166	180.3	175.0	170.5	173.7	181.9
New York-Newark-Edison, NY-NJ-PA	15,116	15,254	17,507	20,855	20,921	79.5	80.0	92.6	109.7	110.0
Oklahoma City, OK	2,403	2,066	1,700	1,845	1,947	199.2	168.3	135.7	144.4	152.3
Orlando, FL	2,704	2,663	2,495	2,277	2,328	131.6	127.9	116.9	104.9	107.2
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	7,724	7,407	9,694	10,123	11,026	132.3	124.1	162.5	168.9	184.0
Phoenix-Mesa-Scottsdale, AZ	2,211	2,317	2,335	3,340	4,526	51.6	53.1	55.7	78.3	106.2
Pittsburgh, PA	2,569	1,866	2,069	2,473	3,048	109.3	79.2	87.8	104.8	129.2
Portland-Vancouver-Beaverton, OR-WA	1,033	826	926	1,318	1,183	46.8	36.8	41.6	58.3	52.3
Providence-New Bedford-Fall River, RI-MA	455	427	382	475	643	28.5	26.7	23.9	29.7	40.2
Richmond, VA	2,698	1,900	1,742	1,441	1,699	220.1	153.5	138.4	113.5	133.8
Riverside-San Bernardino-Ontario, CA	2,199	1,921	1,924	2,330	3,031	53.4	46.4	45.5	54.1	70.4
Rochester, NY	1,345	1,465	1,319	1,066	1,153	130.1	141.5	125.1	101.0	109.3
Sacramento-Arden-Arcade-Roseville, CA	1,771	1,124	1,676	1,913	2,324	83.9	52.8	78.0	87.9	106.8
Salt Lake City, UT	346	244	204	199	345	31.0	21.6	18.1	17.4	30.1
San Antonio, TX	3,113	3,697	3,729	3,731	3,672	153.2	178.4	174.0	170.0	167.3
San Diego-Carlsbad-San Marcos, CA	2,066	1,829	2,021	2,173	2,620	68.8	59.9	65.3	69.2	83.4
San Francisco-Oakland-Fremont, CA	5,065	4,375	4,867	5,009	5,263	118.5	101.3	112.3	114.1	119.9
San Jose-Sunnyvale-Santa Clara, CA	712	563	586	680	1,020	39.1	30.6	31.9	36.5	54.7
Seattle-Tacoma-Bellevue, WA	2,182	1,700	2,189	1,971	2,323	65.2	49.9	63.6	56.3	66.4
St. Louis, MO-IL	5,003	3,620	4,137	5,017	4,811	177.6	128.0	147.1	178.1	170.8
Tampa-St. Petersburg-Clearwater, FL	3,852	3,818	3,516	3,655	3,422	140.9	139.0	126.3	129.4	121.1
Virginia Beach-Norfolk-Newport News, VA-NC	4,935	3,647	3,429	2,810	2,625	297.6	217.8	205.1	167.3	156.3
Washington-Arlington-Alexandria, DC-VA-MD-WV	5,557	5,321	5,234	5,477	5,360	103.7	97.2	93.8	96.0	94.0
U.S. MSAs TOTAL	**197,714**	**181,371**	**189,287**	**195,736**	**204,044**	**120.4**	**109.1**	**114.1**	**116.6**	**121.5**

* MSAs were selected on the basis of the largest population in the 2000 U.S. Census.

NOTE: 2008 Milwaukee County STD morbidity data were misclassified, resulting in incomplete case counts for MSA-Milwaukee-Waukesha-West Allis,WI.

Table 18. Gonorrhea—Women—Reported Cases and Rates in Selected Metropolitan Statistical Areas (MSAs)* in Alphabetical Order, United States, 2008–2012

MSAs	Cases					Rates per 100,000 Population				
	2008	2009	2010	2011	2012	2008	2009	2010	2011	2012
Atlanta-Sandy Springs-Marietta, GA	3,967	3,633	3,954	4,136	3,901	145.8	131.1	146.2	150.6	142.0
Austin-Round Rock, TX	1,177	980	910	935	993	145.9	117.4	106.3	105.1	111.6
Baltimore-Towson, MD	2,302	2,181	2,397	1,941	1,527	166.6	156.5	170.5	137.2	108.0
Birmingham-Hoover, AL	1,655	1,056	1,323	1,417	1,280	286.0	180.6	226.6	241.6	218.2
Boston-Cambridge-Quincy, MA-NH	720	624	708	730	738	31.0	26.5	30.1	30.8	31.2
Buffalo-Cheektowaga-Tonawanda, NY	1,059	878	669	828	1,173	181.9	151.0	113.9	141.3	200.1
Charlotte-Gastonia-Concord, NC-SC	1,697	1,750	1,334	1,776	1,499	196.0	196.6	147.6	192.2	162.2
Chicago-Naperville-Joliet, IL-IN-WI	8,594	8,712	6,741	7,015	7,464	177.1	179.0	139.3	144.4	153.7
Cincinnati-Middletown, OH-KY-IN	2,696	2,181	2,330	2,264	2,052	244.5	196.4	214.0	207.3	187.9
Cleveland-Elyria-Mentor, OH	1,469	1,808	2,082	2,371	2,426	135.5	166.6	193.0	220.9	226.1
Columbus, OH	2,062	1,873	1,917	1,552	1,509	229.8	205.2	205.0	164.1	159.5
Dallas-Fort Worth-Arlington, TX	4,953	4,556	4,788	4,645	4,157	158.2	142.2	148.2	140.5	125.7
Denver-Aurora, CO	1,345	1,035	1,261	885	965	107.9	81.4	98.6	67.8	73.9
Detroit-Warren-Livonia, MI	6,226	5,204	5,217	5,114	4,406	275.1	230.8	235.6	231.6	199.6
Hartford-West Hartford-East Hartford, CT	609	551	633	596	422	99.8	90.0	101.7	95.8	67.8
Houston-Baytown-Sugar Land, TX	3,749	3,302	4,174	3,805	4,044	131.2	112.8	139.6	124.4	132.2
Indianapolis, IN	2,290	1,603	1,545	1,572	1,842	262.4	180.6	171.8	172.6	202.3
Jacksonville, FL	1,587	1,048	1,152	1,121	983	236.4	154.1	167.0	160.6	140.8
Kansas City, MO-KS	1,888	1,821	1,810	1,596	1,590	185.3	173.1	174.2	152.4	151.8
Las Vegas-Paradise, NV	880	746	779	742	847	96.0	79.8	80.4	75.8	86.5
Los Angeles-Long Beach-Santa Ana, CA	4,214	3,641	3,947	3,944	4,359	65.0	56.2	60.7	60.2	66.5
Louisville, KY-IN	1,228	1,133	1,263	1,413	1,115	192.2	175.9	192.3	213.2	168.2
Memphis, TN-MS-AR	2,472	2,537	2,285	2,191	2,415	370.2	374.6	333.9	317.8	350.2
Miami-Fort Lauderdale-Miami Beach, FL	2,661	2,439	2,480	2,361	2,198	95.6	85.9	86.4	80.9	75.3
Milwaukee-Waukesha-West Allis, WI	300	2,098	2,070	1,980	1,814	37.9	262.8	259.0	247.0	226.3
Minneapolis-St. Paul-Bloomington, MN-WI	1,210	928	950	1,028	1,318	74.6	56.4	57.2	61.2	78.5
Nashville-Davidson-Murfreesboro, TN	783	625	597	759	831	99.4	77.7	73.5	91.8	100.5
New Orleans-Metairie-Kenner, LA	984	1,098	1,014	1,110	1,165	166.6	177.8	169.2	181.5	190.5
New York-Newark-Edison, NY-NJ-PA	7,089	6,886	8,124	9,670	8,918	72.3	70.1	82.9	98.2	90.6
Oklahoma City, OK	1,294	1,188	962	1,034	1,081	211.5	190.6	151.3	159.7	166.9
Orlando, FL	1,424	1,364	1,171	1,090	1,087	137.3	129.7	107.5	98.4	98.1
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	4,098	3,811	5,125	5,361	5,581	135.9	123.6	166.0	173.0	180.1
Phoenix-Mesa-Scottsdale, AZ	988	1,022	1,071	1,568	2,118	46.7	47.4	50.8	73.2	98.9
Pittsburgh, PA	1,524	1,161	1,274	1,501	1,857	125.0	95.2	104.6	123.2	152.4
Portland-Vancouver-Beaverton, OR-WA	420	322	371	482	393	38.0	28.6	32.9	42.1	34.3
Providence-New Bedford-Fall River, RI-MA	209	196	159	232	294	25.4	23.8	19.2	28.1	35.6
Richmond, VA	1,436	1,010	994	808	927	227.9	158.5	153.0	123.3	141.5
Riverside-San Bernardino-Ontario, CA	1,237	1,024	976	1,196	1,562	60.2	49.6	46.0	55.3	72.2
Rochester, NY	744	744	714	525	560	140.6	140.5	131.8	96.8	103.3
Sacramento-Arden-Arcade-Roseville, CA	917	557	907	990	1,212	85.6	51.7	82.8	89.3	109.3
Salt Lake City, UT	88	37	41	42	88	16.0	6.6	7.3	7.4	15.5
San Antonio, TX	1,557	1,921	1,886	1,835	1,865	150.3	182.0	173.0	164.4	167.1
San Diego-Carlsbad-San Marcos, CA	803	620	535	609	847	53.9	40.7	34.7	39.0	54.2
San Francisco-Oakland-Fremont, CA	1,863	1,421	1,710	1,531	1,493	86.7	65.5	77.8	68.9	67.1
San Jose-Sunnyvale-Santa Clara, CA	312	248	249	243	372	35.2	27.6	27.2	26.2	40.0
Seattle-Tacoma-Bellevue, WA	965	604	686	649	732	57.7	35.4	39.7	37.0	41.7
St. Louis, MO-IL	2,756	1,908	2,188	2,701	2,468	189.6	130.8	150.9	186.0	169.9
Tampa-St. Petersburg-Clearwater, FL	2,006	1,907	1,834	1,887	1,701	143.0	135.4	127.7	129.7	116.9
Virginia Beach-Norfolk-Newport News, VA-NC	2,875	2,008	1,858	1,559	1,399	339.3	234.4	218.1	182.1	163.4
Washington-Arlington-Alexandria, DC-VA-MD-WV	2,711	2,637	2,673	2,695	2,348	98.8	94.3	93.3	92.2	80.3
U.S. MSAs TOTAL	**102,093**	**92,637**	**95,838**	**98,035**	**97,936**	**122.4**	**109.8**	**113.0**	**114.4**	**114.3**

* MSAs were selected on the basis of the largest population in the 2000 U.S. Census.
NOTE: 2008 Milwaukee County STD morbidity data were misclassified, resulting in incomplete case counts for MSA-Milwaukee-Waukesha-West Allis,WI.
Cases reported with unknown sex are not included in this table.

Table 19. Gonorrhea—Men—Reported Cases and Rates in Selected Metropolitan Statistical Areas (MSAs)* in Alphabetical Order, United States, 2008–2012

MSAs	Cases					Rates per 100,000 Population				
	2008	2009	2010	2011	2012	2008	2009	2010	2011	2012
Atlanta-Sandy Springs-Marietta, GA	4,054	3,786	4,306	4,338	4,323	152.6	140.0	167.9	166.1	165.5
Austin-Round Rock, TX	1,208	991	1,022	1,073	1,196	142.8	113.9	118.8	120.1	133.8
Baltimore-Towson, MD	1,841	1,675	1,968	1,690	1,447	143.2	129.2	150.8	128.5	110.1
Birmingham-Hoover, AL	1,235	913	1,024	1,094	1,057	229.1	167.2	188.2	200.5	193.7
Boston-Cambridge-Quincy, MA-NH	742	726	1,173	940	1,257	33.7	32.5	53.2	42.3	56.5
Buffalo-Cheektowaga-Tonawanda, NY	839	696	558	715	999	154.7	128.3	101.8	130.5	182.3
Charlotte-Gastonia-Concord, NC-SC	1,542	1,405	1,083	1,542	1,237	184.5	164.3	126.8	176.9	141.9
Chicago-Naperville-Joliet, IL-IN-WI	7,586	7,141	5,610	6,150	6,819	160.9	151.5	121.4	132.3	146.7
Cincinnati-Middletown, OH-KY-IN	1,224	1,019	1,043	1,251	1,176	116.3	96.0	100.1	119.6	112.4
Cleveland-Elyria-Mentor, OH	1,295	1,254	1,517	1,559	1,777	128.9	124.6	151.9	156.7	178.6
Columbus, OH	1,788	1,289	1,431	1,470	1,340	204.2	145.0	158.7	161.1	146.8
Dallas-Fort Worth-Arlington, TX	4,243	3,374	3,975	4,086	3,675	133.9	104.0	126.5	126.9	114.1
Denver-Aurora, CO	1,278	958	1,083	777	1,090	101.5	74.8	85.6	60.0	84.2
Detroit-Warren-Livonia, MI	4,502	4,005	3,924	3,794	3,642	208.2	186.4	188.5	182.6	175.3
Hartford-West Hartford-East Hartford, CT	418	410	493	440	322	72.0	70.3	83.5	74.5	54.5
Houston-Baytown-Sugar Land, TX	3,525	2,926	3,465	3,056	3,546	122.8	99.5	117.2	100.9	117.1
Indianapolis, IN	1,902	1,369	1,421	1,383	1,691	225.7	159.9	165.8	159.4	194.8
Jacksonville, FL	1,392	966	973	919	965	216.8	149.1	148.4	138.8	145.7
Kansas City, MO-KS	1,380	1,371	1,403	1,324	1,339	140.3	135.0	140.8	131.7	133.2
Las Vegas-Paradise, NV	1,038	807	825	998	1,119	109.3	83.3	84.0	100.7	112.9
Los Angeles-Long Beach-Santa Ana, CA	5,543	6,081	7,156	7,124	8,712	86.7	95.0	113.1	111.5	136.3
Louisville, KY-IN	1,070	990	1,007	1,043	954	176.6	161.1	160.7	165.0	150.9
Memphis, TN-MS-AR	2,003	1,998	1,800	1,658	2,080	324.1	318.4	284.9	260.7	327.0
Miami-Fort Lauderdale-Miami Beach, FL	2,801	2,799	3,024	2,987	3,093	106.4	103.4	112.3	108.5	112.4
Milwaukee-Waukesha-West Allis, WI	145	1,470	1,354	1,368	1,463	19.1	193.1	178.9	179.9	192.4
Minneapolis-St. Paul-Bloomington, MN-WI	1,135	872	715	852	1,205	70.6	53.7	44.2	52.0	73.5
Nashville-Davidson-Murfreesboro, TN	758	600	694	895	1,013	99.4	77.1	89.3	113.2	128.2
New Orleans-Metairie-Kenner, LA	1,050	976	919	953	1,001	193.2	170.5	161.7	164.5	172.8
New York-Newark-Edison, NY-NJ-PA	8,017	8,363	9,358	11,149	11,974	87.1	90.5	102.8	121.5	130.5
Oklahoma City, OK	1,103	876	736	775	866	185.5	145.0	119.2	122.9	137.3
Orlando, FL	1,277	1,297	1,320	1,186	1,241	125.5	125.8	126.4	111.5	116.7
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	3,626	3,593	4,565	4,756	5,439	128.4	124.5	158.6	164.4	188.0
Phoenix-Mesa-Scottsdale, AZ	1,222	1,295	1,264	1,770	2,407	56.5	58.6	60.6	83.4	113.5
Pittsburgh, PA	1,045	704	795	971	1,191	92.3	62.0	69.8	85.1	104.3
Portland-Vancouver-Beaverton, OR-WA	611	504	555	836	790	55.5	45.2	50.5	74.8	70.7
Providence-New Bedford-Fall River, RI-MA	246	231	223	243	349	31.9	29.7	28.8	31.4	45.1
Richmond, VA	1,261	886	745	628	770	211.7	147.4	122.4	102.3	125.4
Riverside-San Bernardino-Ontario, CA	961	895	944	1,126	1,467	46.7	43.1	44.9	52.5	68.5
Rochester, NY	601	721	605	541	593	119.1	142.5	118.1	105.4	115.6
Sacramento-Arden-Arcade-Roseville, CA	835	558	756	917	1,104	80.4	53.2	71.8	85.9	103.5
Salt Lake City, UT	258	207	163	157	257	45.5	36.2	28.8	27.2	44.5
San Antonio, TX	1,556	1,775	1,843	1,896	1,807	156.3	174.6	175.1	175.8	167.5
San Diego-Carlsbad-San Marcos, CA	1,254	1,206	1,482	1,552	1,766	83.0	78.7	95.4	98.4	112.0
San Francisco-Oakland-Fremont, CA	3,179	2,933	3,127	3,454	3,746	149.5	136.5	146.3	159.4	172.8
San Jose-Sunnyvale-Santa Clara, CA	398	314	333	430	626	42.7	33.4	36.1	45.9	66.8
Seattle-Tacoma-Bellevue, WA	1,216	1,094	1,501	1,322	1,591	72.7	64.2	87.7	75.7	91.1
St. Louis, MO-IL	2,247	1,712	1,949	2,316	2,340	164.8	125.0	143.1	169.7	171.4
Tampa-St. Petersburg-Clearwater, FL	1,822	1,887	1,678	1,761	1,721	136.9	141.0	124.5	128.6	125.7
Virginia Beach-Norfolk-Newport News, VA-NC	2,058	1,633	1,569	1,249	1,224	253.7	199.6	191.4	151.6	148.6
Washington-Arlington-Alexandria, DC-VA-MD-WV	2,823	2,681	2,554	2,779	2,999	107.9	100.0	94.0	100.0	107.9
U.S. MSAs TOTAL	**95,153**	**88,232**	**93,031**	**97,293**	**105,806**	**117.7**	**107.8**	**114.6**	**118.4**	**128.7**

* MSAs were selected on the basis of the largest population in the 2000 U.S. Census.

NOTE: 2008 Milwaukee County STD morbidity data were misclassified, resulting in incomplete case counts for MSA-Milwaukee-Waukesha-West Allis,WI. Cases reported with unknown sex are not included in this table.

Table 20. Gonorrhea—Reported Cases and Rates in Counties and Independent Cities* Ranked by Number of Reported Cases, United States, 2012

Rank†	County/Independent City	Cases	Rate per 100,000 Population	Cumulative Percentage
1	Cook County, IL	12,042	230.8	3
2	Los Angeles County, CA	11,933	120.7	7
3	Philadelphia County, PA	7,293	474.7	9
4	Wayne County, MI	6,609	366.7	11
5	Harris County, TX	6,462	154.6	13
6	Kings County, NY	4,551	179.7	14
7	Dallas County, TX	4,442	183.9	15
8	Maricopa County, AZ	4,325	111.5	17
9	New York County, NY	3,835	239.4	18
10	Cuyahoga County, OH	3,708	291.9	19
11	Shelby County, TN	3,665	391.9	20
12	Bronx County, NY	3,620	260.1	21
13	Bexar County, TX	3,374	192.1	22
14	Marion County, IN	3,311	363.3	23
15	Milwaukee County, WI	3,141	329.8	24
16	Fulton County, GA	3,132	329.8	25
17	San Diego County, CA	2,620	83.4	26
18	Franklin County, OH	2,594	220.1	27
19	San Francisco County, CA	2,482	305.4	27
20	Washington, D.C.	2,402	388.7	28
21	Miami-Dade County, FL	2,401	94.0	29
22	Allegheny County, PA	2,392	194.9	29
23	Hamilton County, OH	2,367	295.7	30
24	Queens County, NY	2,341	104.1	31
25	Tarrant County, TX	2,206	119.3	32
26	Jefferson County, AL	2,196	333.3	32
27	Broward County, FL	2,158	121.2	33
28	Hillsborough County, FL	2,151	169.7	33
29	Sacramento County, CA	2,101	146.3	34
30	Jackson County, MO	2,050	303.1	35
31	Clark County, NV	1,968	99.9	35
32	Essex County, NJ	1,946	247.9	36
33	Baltimore (City), MD	1,944	313.8	36
34	St. Louis County, MO	1,923	192.6	37
35	DeKalb County, GA	1,868	266.9	38
36	San Bernardino County, CA	1,858	90.0	38
37	Mecklenburg County, NC	1,848	195.7	39
38	Erie County, NY	1,781	194.0	39
39	Jefferson County, KY	1,777	237.9	40
40	St. Louis (City), MO	1,763	554.3	40
41	Duval County, FL	1,728	198.5	41
42	Travis County, TX	1,677	157.7	41
43	Orange County, FL	1,649	141.0	42
44	Oklahoma County, OK	1,617	220.8	42
45	Hennepin County, MN	1,545	132.2	43
46	Alameda County, CA	1,537	100.5	43
47	King County, WA	1,506	76.5	44
48	Fresno County, CA	1,483	157.3	44
49	Guilford County, NC	1,473	297.4	45
50	Prince George's County, MD	1,465	168.2	45
51	Orleans County, LA	1,431	396.7	45
52	Hinds County, MS	1,361	548.4	46
53	Wake County, NC	1,340	144.1	46
54	Mobile County, AL	1,332	322.8	47
55	Davidson County, TN	1,310	206.1	47
56	Montgomery County, AL	1,296	558.5	47
57	Genesee County, MI	1,280	303.3	48
58	Kern County, CA	1,242	145.8	48
59	Camden County, NJ	1,204	234.6	48
60	Lucas County, OH	1,187	269.8	49
61	Riverside County, CA	1,173	52.4	49
62	Cumberland County, NC	1,170	360.1	50
63	Orange County, CA	1,169	38.3	50
64	Montgomery County, OH	1,132	210.6	50
65	Bell County, TX	1,123	356.3	51
66	Pulaski County, AR	1,104	285.8	51
67	Monroe County, NY	1,103	147.9	51
68	Tulsa County, OK	1,096	179.5	52
69	Caddo County, LA	1,093	425.2	52
70	Denver County, CO	1,093	176.3	52

* Accounting for 52% of reported gonorrhea cases.

† Counties and independent cities were ranked in descending order by number of cases reported then by rate in 2012.

Table 21. Gonorrhea—Reported Cases and Rates per 100,000 Population by Age Group and Sex, United States, 2008–2012

Age Group	Cases				Rates*			
	Total	Male	Female	Unknown Sex	Total	Male	Female	
0–4	310	119	190	1	1.5	1.1	1.9	2008
5–9	142	36	105	1	0.7	0.4	1.1	
10–14	3,660	596	3,059	5	18.3	5.8	31.2	
15–19	97,069	30,468	66,326	275	451.2	276.3	632.5	
20–24	108,747	46,796	61,647	304	516.4	431.5	603.6	
25–29	56,654	28,928	27,563	163	265.6	264.4	265.2	
30–34	27,561	16,077	11,387	97	140.6	161.4	118.1	
35–39	16,378	10,552	5,773	53	78.0	99.8	55.4	
40–44	11,020	7,809	3,170	41	51.2	72.7	29.5	
45–54	11,123	8,612	2,481	30	25.1	39.4	11.0	
55–64	2,622	2,186	423	13	7.8	13.5	2.4	
65+	655	545	103	7	1.7	3.3	0.5	
Unknown Age	801	379	350	72				
TOTAL	**336,742**	**153,103**	**182,577**	**1,062**	**110.7**	**102.1**	**118.5**	
0–4	226	83	141	2	1.1	0.8	1.4	2009
5–9	90	13	77	0	0.4	0.1	0.8	
10–14	2,983	507	2,471	5	14.9	5.0	25.3	
15–19	86,996	27,444	59,353	199	403.9	248.3	566.0	
20–24	100,645	43,986	56,436	223	467.3	396.5	540.3	
25–29	49,855	26,016	23,719	120	230.0	234.1	224.6	
30–34	24,607	14,364	10,178	65	123.7	142.1	104.1	
35–39	13,971	8,997	4,928	46	68.0	86.9	48.4	
40–44	8,975	6,504	2,446	25	42.8	61.9	23.3	
45–54	9,294	7,311	1,954	29	20.8	33.3	8.6	
55–64	2,212	1,848	363	1	6.4	11.0	2.0	
65+	554	446	108	0	1.4	2.7	0.5	
Unknown Age	766	300	394	72				
TOTAL	**301,174**	**137,819**	**162,568**	**787**	**98.1**	**91.0**	**104.5**	
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	15.1	5.4	25.3	
15–19	81,548	26,578	54,852	118	376.8	239.0	521.2	
20–24	115,224	52,351	62,711	162	520.1	462.8	578.5	
25–29	58,441	31,631	26,722	88	274.6	293.9	254.1	
30–34	31,420	18,936	12,436	48	153.2	184.2	121.6	
35–39	16,193	10,493	5,670	30	82.6	107.5	57.7	
40–44	10,965	7,858	3,089	18	52.1	75.1	29.2	
45–54	12,383	9,773	2,594	16	27.7	44.4	11.4	
55–64	3,230	2,642	586	2	8.5	14.4	3.0	
65+	644	537	105	2	1.6	3.0	0.4	
Unknown Age	1,376	775	568	33				
TOTAL	**334,826**	**162,235**	**172,066**	**525**	**107.5**	**105.8**	**108.7**	

*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*, 2012

Age Group	American Indians/ Alaska Natives			Asians			Blacks, Non-Hispanic		
	Total†	Male	Female	Total†	Male	Female	Total†	Male	Female
0–4	2	0	2	0	0	0	78	30	48
5–9	0	0	0	0	0	0	25	7	18
10–14	27	2	25	7	2	5	1,620	303	1,317
15–19	581	143	438	298	92	205	43,422	14,806	28,581
20–24	925	319	605	638	339	298	57,589	26,786	30,767
25–29	533	190	343	469	274	193	25,486	14,299	11,169
30–34	291	131	160	328	200	125	12,472	7,962	4,502
35–39	135	61	74	182	126	55	6,030	4,105	1,921
40–44	61	29	32	145	116	28	3,568	2,666	898
45–54	68	36	32	118	89	29	4,070	3,302	765
55–64	13	6	7	33	24	9	1,067	923	143
65+	5	1	4	8	6	2	149	133	16
Unknown Age	2	1	1	6	2	3	502	288	213
TOTAL	**2,643**	**919**	**1,723**	**2,232**	**1,270**	**952**	**156,078**	**75,610**	**80,358**

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	37	14	23	2	1	1
5–9	0	0	0	5	1	4	0	0	0
10–14	3	0	3	272	29	243	21	1	20
15–19	82	28	54	9,505	2,217	7,282	386	77	309
20–24	149	63	86	18,074	6,878	11,188	451	197	254
25–29	92	50	42	11,463	5,444	6,010	230	130	100
30–34	62	30	31	6,383	3,514	2,863	99	61	38
35–39	13	9	4	3,511	2,145	1,362	53	38	15
40–44	13	11	2	2,779	1,930	848	41	30	11
45–54	12	9	3	3,399	2,747	652	39	32	7
55–64	0	0	0	900	756	144	10	7	3
65+	1	1	0	163	146	17	0	0	0
Unknown Age	4	2	2	119	63	55	0	0	0
TOTAL	**431**	**203**	**227**	**56,610**	**25,884**	**30,691**	**1,332**	**574**	**758**

Age Group	Hispanics			Other/Unknown		
	Total†	Male	Female	Total†	Male	Female
0–4	16	5	11	46	18	24
5–9	14	2	12	16	3	13
10–14	197	41	156	653	127	522
15–19	5,947	2,148	3,795	14,613	4,760	9,785
20–24	9,920	4,918	4,995	18,431	8,210	10,119
25–29	5,724	3,315	2,403	9,207	4,682	4,475
30–34	3,296	2,042	1,251	5,448	2,988	2,438
35–39	1,640	1,067	571	2,995	1,816	1,162
40–44	1,076	780	293	2,129	1,403	717
45–54	852	650	202	2,460	1,846	602
55–64	162	120	42	736	569	166
65+	38	33	5	209	164	43
Unknown Age	101	53	47	591	339	224
TOTAL	**28,983**	**15,174**	**13,783**	**57,534**	**26,925**	**30,290**

* Includes 47 states and the District of Columbia reporting race/ethnicity data in the Office of Management and Budget compliant formats in 2012.

† Total includes 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 per 100,000 Population by Race/Ethnicity, Age Group, and Sex, United States*, 2012

Age Group	American Indians/ Alaska Natives			Asians			Blacks, Non-Hispanic		
	Total†	Male	Female	Total†	Male	Female	Total†	Male	Female
0–4	1.2	0.0	2.5	0.0	0.0	0.0	3.1	2.4	3.9
5–9	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.6	1.5
10–14	16.1	2.4	30.3	0.9	0.5	1.3	62.3	22.9	103.0
15–19	324.6	155.9	501.9	36.5	22.0	51.4	1,513.5	1,012.3	2,032.2
20–24	528.5	357.6	705.1	65.0	68.0	61.8	2,039.8	1,903.7	2,172.6
25–29	348.2	248.1	448.6	43.0	52.1	34.2	1,056.1	1,222.3	898.3
30–34	205.0	185.7	224.1	29.6	38.8	21.1	536.9	719.1	370.3
35–39	102.0	93.4	110.4	15.8	23.3	9.0	275.9	397.2	166.8
40–44	44.1	42.7	45.5	13.6	23.2	4.9	156.3	246.5	74.8
45–54	22.7	24.9	20.6	6.4	10.5	3.0	85.8	147.4	30.6
55–64	5.7	5.5	5.9	2.3	3.8	1.1	30.0	56.6	7.4
65+	2.8	1.3	4.1	0.6	1.1	0.3	4.9	11.0	0.9
Unknown Age									
TOTAL	**124.9**	**88.1**	**160.5**	**16.9**	**20.2**	**13.7**	**462.0**	**467.7**	**456.3**

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	0.4	0.3	0.5	0.2	0.2	0.2
5–9	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0
10–14	8.1	0.0	16.8	2.6	0.5	4.8	3.3	0.3	6.3
15–19	208.0	139.3	279.5	85.3	38.7	134.5	68.9	27.4	110.7
20–24	320.6	260.9	385.1	154.8	115.9	194.9	101.5	91.6	110.8
25–29	205.0	217.6	191.8	101.0	94.9	107.1	65.1	77.5	53.9
30–34	153.1	144.7	156.8	58.3	63.6	52.8	32.2	42.0	23.4
35–39	36.9	50.1	23.2	33.2	40.3	25.9	20.7	31.3	11.1
40–44	38.8	65.2	12.0	22.8	31.6	14.0	17.4	26.8	8.9
45–54	19.0	28.6	9.5	12.0	19.6	4.6	9.0	15.5	3.1
55–64	0.0	0.0	0.0	3.4	5.9	1.1	3.3	4.8	1.9
65+	3.1	6.8	0.0	0.5	1.1	0.1	0.0	0.0	0.0
Unknown Age									
TOTAL	**87.8**	**82.0**	**93.4**	**31.0**	**28.8**	**33.1**	**24.8**	**21.8**	**27.7**

Age Group	Hispanics		
	Total†	Male	Female
0–4	0.3	0.2	0.5
5–9	0.3	0.1	0.5
10–14	4.6	1.9	7.4
15–19	139.7	97.6	184.6
20–24	240.6	224.8	258.2
25–29	142.6	155.3	127.9
30–34	84.7	100.3	67.3
35–39	45.2	57.3	32.3
40–44	32.8	46.3	18.3
45–54	16.3	24.6	7.8
55–64	5.2	7.9	2.6
65+	1.4	2.9	0.3
Unknown Age			
TOTAL	**60.4**	**62.1**	**58.5**

* Includes 47 states and the District of Columbia reporting race/ethnicity data in the Office of Management and Budget compliant formats in 2012.

† Total includes 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 no rates are calculated.

Table 23. Gonorrhea—Reported Cases and Rates for Women 15–25 Years of Age, United States, 2008–2012

	Age	Cases	Rate per 100,000 Population
2008	15	5,379	262.8
	16	9,518	456.2
	17	14,078	664.5
	18	18,572	861.8
	19	18,779	902.8
	20	16,611	809.5
	21	14,169	696.4
	22	12,058	588.9
	23	10,316	501.1
	24	8,493	420.3
	25	7,346	357.7
2009	15	4,458	221.1
	16	8,150	396.2
	17	12,226	582.3
	18	16,770	785.1
	19	17,749	814.9
	20	15,433	732.3
	21	13,321	639.4
	22	10,933	528.2
	23	9,151	438.7
	24	7,598	361.9
	25	6,429	311.8
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	209.2
	16	7,316	354.1
	17	11,006	522.8
	18	15,580	731.0
	19	16,709	761.3
	20	15,849	705.4
	21	15,029	668.8
	22	12,800	593.2
	23	10,449	495.0
	24	8,584	413.0
	25	7,343	350.6

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

Table 24. All Stages of Syphilis* — Reported Cases and Rates by State/Area and Region in Alphabetical Order, United States and Outlying Areas, 2008–2012

State/Area	Cases					Rates per 100,000 Population				
	2008	2009	2010	2011	2012	2008	2009	2010	2011	2012
Alabama	1,187	1,138	781	758	705	25.5	24.2	16.3	15.8	14.7
Alaska	9	4	15	11	34	1.3	0.6	2.1	1.5	4.7
Arizona	1,394	1,084	905	907	787	21.4	16.4	14.2	14.0	12.1
Arkansas	508	552	534	464	468	17.8	19.1	18.3	15.8	15.9
California	6,911	6,033	6,115	6,782	8,015	18.8	16.3	16.4	18.0	21.3
Colorado	352	269	342	367	503	7.1	5.4	6.8	7.2	9.8
Connecticut	173	179	234	189	121	4.9	5.1	6.5	5.3	3.4
Delaware	60	87	44	124	106	6.9	9.8	4.9	13.7	11.7
District of Columbia	370	431	495	552	589	62.5	71.9	82.3	89.3	95.3
Florida	4,585	3,860	4,070	4,143	4,483	25.0	20.8	21.6	21.7	23.5
Georgia	2,833	2,717	2,347	1,895	2,432	29.2	27.6	24.2	19.3	24.8
Hawaii	68	88	73	32	43	5.3	6.8	5.4	2.3	3.1
Idaho	26	31	20	42	53	1.7	2.0	1.3	2.6	3.3
Illinois	1,565	1,915	2,236	2,426	2,423	12.1	14.8	17.4	18.9	18.8
Indiana	351	324	412	468	531	5.5	5.0	6.4	7.2	8.1
Iowa	75	65	68	70	143	2.5	2.2	2.2	2.3	4.7
Kansas	125	151	110	76	129	4.5	5.4	3.9	2.6	4.5
Kentucky	218	239	311	335	390	5.1	5.5	7.2	7.7	8.9
Louisiana	2,024	1,964	2,484	2,043	1,779	45.9	43.7	54.8	44.7	38.9
Maine	27	15	41	24	22	2.1	1.1	3.1	1.8	1.7
Maryland	1,088	993	1,015	1,278	1,243	19.3	17.4	17.6	21.9	21.3
Massachusetts	479	473	639	770	806	7.4	7.2	9.8	11.7	12.2
Michigan	546	636	683	764	786	5.5	6.4	6.9	7.7	8.0
Minnesota	266	217	350	367	335	5.1	4.1	6.6	6.9	6.3
Mississippi	745	745	823	748	456	25.4	25.2	27.7	25.1	15.3
Missouri	542	514	512	414	426	9.2	8.6	8.5	6.9	7.1
Montana	10	5	5	9	3	1.0	0.5	0.5	0.9	0.3
Nebraska	36	45	33	36	35	2.0	2.5	1.8	2.0	1.9
Nevada	325	306	412	430	445	12.5	11.6	15.3	15.8	16.3
New Hampshire	41	37	43	33	64	3.1	2.8	3.3	2.5	4.9
New Jersey	1,009	890	947	971	883	11.6	10.2	10.8	11.0	10.0
New Mexico	189	208	151	212	234	9.5	10.3	7.3	10.2	11.2
New York	5,515	4,623	4,860	4,786	5,312	28.3	23.7	25.1	24.6	27.3
North Carolina	999	1,524	1,233	1,255	1,036	10.8	16.2	12.9	13.0	10.7
North Dakota	4	8	6	5	14	0.6	1.2	0.9	0.7	2.0
Ohio	763	795	1,076	954	1,138	6.6	6.9	9.3	8.3	9.9
Oklahoma	257	296	272	270	256	7.1	8.0	7.3	7.1	6.8
Oregon	97	132	173	252	424	2.6	3.5	4.5	6.5	11.0
Pennsylvania	902	1,028	1,007	1,125	1,349	7.2	8.2	7.9	8.8	10.6
Rhode Island	55	64	79	84	93	5.2	6.1	7.5	8.0	8.8
South Carolina	412	507	580	639	623	9.2	11.1	12.5	13.7	13.3
South Dakota	6	10	12	14	29	0.7	1.2	1.5	1.7	3.5
Tennessee	1,284	1,317	1,193	1,025	1,067	20.7	20.9	18.8	16.0	16.7
Texas	6,336	6,975	6,413	6,161	7,057	26.0	28.1	25.5	24.0	27.5
Utah	40	55	133	64	101	1.5	2.0	4.8	2.3	3.6
Vermont	18	1	4	10	12	2.9	0.2	0.6	1.6	1.9
Virginia	789	755	800	726	906	10.2	9.6	10.0	9.0	11.2
Washington	438	322	535	712	709	6.7	4.8	8.0	10.4	10.4
West Virginia	44	32	26	9	24	2.4	1.8	1.4	0.5	1.3
Wisconsin	187	166	186	203	269	3.3	2.9	3.3	3.6	4.7
Wyoming	9	7	6	6	12	1.7	1.3	1.1	1.1	2.1
U.S. TOTAL	**46,292**	**44,832**	**45,844**	**46,040**	**49,903**	**15.2**	**14.6**	**14.8**	**14.8**	**16.0**
Northeast	8,219	7,310	7,854	7,992	8,662	15.0	13.2	14.2	14.4	15.6
Midwest	4,466	4,846	5,684	5,797	6,258	6.7	7.3	8.5	8.6	9.3
South	23,739	24,132	23,421	22,425	23,620	21.2	21.3	20.4	19.3	20.4
West	9,868	8,544	8,885	9,826	11,363	13.9	11.9	12.3	13.5	15.6
Guam	45	12	11	26	27	25.6	6.7	6.9	16.3	16.9
Puerto Rico	797	725	723	671	704	20.2	18.3	19.4	18.1	19.0
Virgin Islands	1	2	4	7	2	0.9	1.8	3.8	6.6	1.9
OUTLYING AREAS	**843**	**739**	**738**	**704**	**733**	**19.9**	**17.4**	**18.5**	**17.7**	**18.5**
TOTAL	**47,135**	**45,571**	**46,582**	**46,744**	**50,636**	**15.3**	**14.6**	**14.9**	**14.8**	**16.0**

* See Syphilis Morbidity Reporting in the Appendix for definition.

Table 25. All Stages of Syphilis* — Reported Cases and Rates in Selected Metropolitan Statistical Areas (MSAs)† in Alphabetical Order, United States, 2008–2012

MSAs	Cases					Rates per 100,000 Population				
	2008	2009	2010	2011	2012	2008	2009	2010	2011	2012
Atlanta-Sandy Springs-Marietta, GA	2,243	2,187	1,916	1,549	1,820	41.7	39.9	36.4	28.9	34.0
Austin-Round Rock, TX	344	352	362	425	478	20.8	20.6	21.1	23.8	26.8
Baltimore-Towson, MD	685	567	531	710	726	25.7	21.1	19.6	26.0	26.6
Birmingham-Hoover, AL	504	412	234	276	226	45.1	36.4	20.7	24.4	20.0
Boston-Cambridge-Quincy, MA-NH	383	411	544	607	570	8.5	9.0	11.9	13.2	12.4
Buffalo-Cheektowaga-Tonawanda, NY	20	40	43	48	70	1.8	3.6	3.8	4.2	6.2
Charlotte-Gastonia-Concord, NC-SC	224	345	287	347	274	13.2	19.8	16.3	19.3	15.3
Chicago-Naperville-Joliet, IL-IN-WI	1,452	1,797	2,085	2,266	2,268	15.2	18.8	22.0	23.8	23.9
Cincinnati-Middletown, OH-KY-IN	105	227	484	436	527	4.9	10.5	22.7	20.4	24.6
Cleveland-Elyria-Mentor, OH	127	170	182	151	140	6.1	8.1	8.8	7.3	6.8
Columbus, OH	311	252	245	236	314	17.5	14.0	13.3	12.7	16.9
Dallas-Fort Worth-Arlington, TX	1,780	2,148	1,955	1,813	2,138	28.3	33.3	30.7	27.8	32.8
Denver-Aurora, CO	269	223	293	319	434	10.7	8.7	11.5	12.3	16.7
Detroit-Warren-Livonia, MI	304	412	459	522	607	6.9	9.4	10.7	12.2	14.2
Hartford-West Hartford-East Hartford, CT	71	67	85	55	21	6.0	5.6	7.0	4.5	1.7
Houston-Baytown-Sugar Land, TX	2,088	2,038	1,891	1,872	2,251	36.5	34.7	31.8	30.8	37.0
Indianapolis, IN	189	156	233	267	333	11.0	8.9	13.3	15.0	18.7
Jacksonville, FL	308	235	228	188	177	23.5	17.7	16.9	13.8	13.0
Kansas City, MO-KS	237	220	145	141	166	11.8	10.6	7.1	6.9	8.1
Las Vegas-Paradise, NV	299	273	389	402	403	16.0	14.3	19.9	20.4	20.5
Los Angeles-Long Beach-Santa Ana, CA	3,572	3,278	3,003	3,247	3,540	27.7	25.5	23.4	25.1	27.3
Louisville, KY-IN	91	123	197	187	205	7.3	9.8	15.3	14.4	15.8
Memphis, TN-MS-AR	748	777	758	586	590	58.2	59.5	57.6	44.2	44.5
Miami-Fort Lauderdale-Miami Beach, FL	2,408	1,969	2,259	2,315	2,591	44.5	35.5	40.6	40.8	45.7
Milwaukee-Waukesha-West Allis, WI	138	117	121	117	159	8.9	7.5	7.8	7.5	10.2
Minneapolis-St. Paul-Bloomington, MN-WI	223	182	309	326	313	6.9	5.6	9.4	9.8	9.4
Nashville-Davidson-Murfreesboro, TN	277	302	258	226	267	17.9	19.1	16.2	14.0	16.5
New Orleans-Metairie-Kenner, LA	491	462	684	663	539	43.3	38.8	58.6	55.7	45.3
New York-Newark-Edison, NY-NJ-PA	6,097	5,087	5,335	5,255	5,606	32.1	26.7	28.2	27.6	29.5
Oklahoma City, OK	161	210	148	114	148	13.3	17.1	11.8	8.9	11.6
Orlando, FL	460	408	391	485	499	22.4	19.6	18.3	22.3	23.0
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	812	959	930	1,029	1,119	13.9	16.1	15.6	17.2	18.7
Phoenix-Mesa-Scottsdale, AZ	857	682	645	676	624	20.0	15.6	15.4	15.9	14.6
Pittsburgh, PA	98	70	72	92	128	4.2	3.0	3.1	3.9	5.4
Portland-Vancouver-Beaverton, OR-WA	64	114	153	220	410	2.9	5.1	6.9	9.7	18.1
Providence-New Bedford-Fall River, RI-MA	71	76	95	111	125	4.4	4.7	5.9	6.9	7.8
Richmond, VA	226	207	213	157	197	18.4	16.7	16.9	12.4	15.5
Riverside-San Bernardino-Ontario, CA	452	416	428	527	775	11.0	10.0	10.1	12.2	18.0
Rochester, NY	51	52	66	59	91	4.9	5.0	6.3	5.6	8.6
Sacramento-Arden-Arcade-Roseville, CA	243	212	183	258	249	11.5	10.0	8.5	11.9	11.4
Salt Lake City, UT	35	40	95	48	74	3.1	3.5	8.5	4.2	6.5
San Antonio, TX	598	739	730	736	983	29.4	35.7	34.1	33.5	44.8
San Diego-Carlsbad-San Marcos, CA	828	495	607	609	717	27.6	16.2	19.6	19.4	22.8
San Francisco-Oakland-Fremont, CA	1,044	932	1,150	1,271	1,595	24.4	21.6	26.5	28.9	36.3
San Jose-Sunnyvale-Santa Clara, CA	156	141	183	159	233	8.6	7.7	10.0	8.5	12.5
Seattle-Tacoma-Bellevue, WA	359	256	439	589	559	10.7	7.5	12.8	16.8	16.0
St. Louis, MO-IL	322	294	403	271	281	11.4	10.4	14.3	9.6	10.0
Tampa-St. Petersburg-Clearwater, FL	680	631	503	516	582	24.9	23.0	18.1	18.3	20.6
Virginia Beach-Norfolk-Newport News, VA-NC	248	236	236	212	296	15.0	14.1	14.1	12.6	17.6
Washington-Arlington-Alexandria, DC-VA-MD-WV	956	1,004	1,191	1,315	1,372	17.8	18.3	21.3	23.1	24.1
U.S. MSAs TOTAL	**34,709**	**33,003**	**34,376**	**35,006**	**38,810**	**21.1**	**19.9**	**20.7**	**20.8**	**23.1**

* See Syphilis Morbidity Reporting in the Appendix for definition.
† MSAs were selected on the basis of the largest population in the 2000 U.S. Census.

Table 26. Primary and Secondary Syphilis—Reported Cases and Rates by State, Ranked by Rates, United States, 2012

Rank*	State	Cases	Rate per 100,000 Population
1	Georgia	937	9.5
2	California	2,953	7.8
3	Louisiana	339	7.4
4	Maryland	431	7.4
5	Florida	1,369	7.2
6	Texas	1,627	6.3
7	New York	1,224	6.3
8	Illinois	804	6.2
9	Arkansas	173	5.9
10	Oregon	212	5.5
11	Mississippi	150	5.0
	U.S. TOTAL†	**15,667**	**5.0**
12	New Mexico	101	4.9
13	South Carolina	225	4.8
14	Massachusetts	316	4.8
15	Alabama	216	4.5
16	Washington	302	4.4
17	Delaware	38	4.2
18	Rhode Island	44	4.2
19	Tennessee	266	4.2
20	Nevada	113	4.1
21	Colorado	208	4.1
22	Pennsylvania	494	3.9
23	Ohio	425	3.7
24	North Carolina	347	3.6
25	Virginia	285	3.5
26	Indiana	224	3.4
27	Kentucky	150	3.4
28	Arizona	202	3.1
29	Michigan	295	3.0
30	New Hampshire	36	2.7
31	Missouri	157	2.6
32	New Jersey	229	2.6
33	Iowa	70	2.3
34	Minnesota	118	2.2
35	Oklahoma	83	2.2
36	South Dakota	18	2.2
37	Hawaii	23	1.7
38	Idaho	26	1.6
39	Wisconsin	91	1.6
40	Connecticut	55	1.5
41	Alaska	11	1.5
42	Utah	42	1.5
43	Maine	17	1.3
44	Vermont	6	1.0
45	Kansas	24	0.8
46	Wyoming	4	0.7
47	North Dakota	4	0.6
48	Nebraska	8	0.4
49	West Virginia	8	0.4
50	Montana	2	0.2

* 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 165 cases and a rate of 26.7, but excludes outlying areas (Guam with 6 cases and rate of 3.8, Puerto Rico with 306 cases and rate of 8.3, and Virgin Islands with 0 cases and rate of 0.0).

Table 27. Primary and Secondary Syphilis—Reported Cases and Rates by State/Area and Region in Alphabetical Order, United States and Outlying Areas, 2008–2012

State/Area	Cases					Rates per 100,000 Population				
	2008	2009	2010	2011	2012	2008	2009	2010	2011	2012
Alabama	449	417	260	228	216	9.6	8.9	5.4	4.7	4.5
Alaska	1	0	3	5	11	0.1	0.0	0.4	0.7	1.5
Arizona	317	231	230	274	202	4.9	3.5	3.6	4.2	3.1
Arkansas	206	275	205	182	173	7.2	9.5	7.0	6.2	5.9
California	2,204	1,900	2,065	2,443	2,953	6.0	5.1	5.5	6.5	7.8
Colorado	128	105	138	133	208	2.6	2.1	2.7	2.6	4.1
Connecticut	34	65	98	65	55	1.0	1.8	2.7	1.8	1.5
Delaware	16	27	9	27	38	1.8	3.1	1.0	3.0	4.2
District of Columbia	146	163	134	165	165	24.7	27.2	22.3	26.7	26.7
Florida	1,044	1,041	1,184	1,257	1,369	5.7	5.6	6.3	6.6	7.2
Georgia	914	953	795	678	937	9.4	9.7	8.2	6.9	9.5
Hawaii	29	33	35	14	23	2.3	2.5	2.6	1.0	1.7
Idaho	7	3	6	13	26	0.5	0.2	0.4	0.8	1.6
Illinois	554	750	908	881	804	4.3	5.8	7.1	6.8	6.2
Indiana	140	158	175	173	224	2.2	2.5	2.7	2.7	3.4
Iowa	16	23	19	20	70	0.5	0.8	0.6	0.7	2.3
Kansas	30	32	19	24	24	1.1	1.1	0.7	0.8	0.8
Kentucky	93	92	139	129	150	2.2	2.1	3.2	3.0	3.4
Louisiana	707	741	546	447	339	16.0	16.5	12.0	9.8	7.4
Maine	10	4	32	12	17	0.8	0.3	2.4	0.9	1.3
Maryland	378	314	328	452	431	6.7	5.5	5.7	7.8	7.4
Massachusetts	216	238	285	266	316	3.3	3.6	4.4	4.0	4.8
Michigan	210	230	235	286	295	2.1	2.3	2.4	2.9	3.0
Minnesota	116	71	149	139	118	2.2	1.3	2.8	2.6	2.2
Mississippi	184	237	228	191	150	6.3	8.0	7.7	6.4	5.0
Missouri	224	173	152	136	157	3.8	2.9	2.5	2.3	2.6
Montana	7	4	3	7	2	0.7	0.4	0.3	0.7	0.2
Nebraska	15	5	12	10	8	0.8	0.3	0.7	0.5	0.4
Nevada	77	91	130	136	113	3.0	3.4	4.8	5.0	4.1
New Hampshire	20	14	22	18	36	1.5	1.1	1.7	1.4	2.7
New Jersey	226	212	244	232	229	2.6	2.4	2.8	2.6	2.6
New Mexico	44	61	53	71	101	2.2	3.0	2.6	3.4	4.9
New York	1,217	1,182	1,098	1,083	1,224	6.2	6.0	5.7	5.6	6.3
North Carolina	287	579	396	431	347	3.1	6.2	4.2	4.5	3.6
North Dakota	0	4	3	1	4	0.0	0.6	0.4	0.1	0.6
Ohio	351	360	528	440	425	3.1	3.1	4.6	3.8	3.7
Oklahoma	86	97	92	84	83	2.4	2.6	2.5	2.2	2.2
Oregon	26	57	71	97	212	0.7	1.5	1.9	2.5	5.5
Pennsylvania	272	341	369	373	494	2.2	2.7	2.9	2.9	3.9
Rhode Island	18	20	41	46	44	1.7	1.9	3.9	4.4	4.2
South Carolina	98	123	155	221	225	2.2	2.7	3.4	4.7	4.8
South Dakota	1	0	4	0	18	0.1	0.0	0.5	0.0	2.2
Tennessee	413	403	277	278	266	6.6	6.4	4.4	4.3	4.2
Texas	1,405	1,644	1,230	1,169	1,627	5.8	6.6	4.9	4.6	6.3
Utah	25	31	65	14	42	0.9	1.1	2.4	0.5	1.5
Vermont	11	0	4	9	6	1.8	0.0	0.6	1.4	1.0
Virginia	266	299	279	213	285	3.4	3.8	3.5	2.6	3.5
Washington	181	139	266	328	302	2.8	2.1	4.0	4.8	4.4
West Virginia	13	8	6	4	8	0.7	0.4	0.3	0.2	0.4
Wisconsin	65	44	49	65	91	1.2	0.8	0.9	1.1	1.6
Wyoming	3	3	0	0	4	0.6	0.6	0.0	0.0	0.7
U.S. TOTAL	**13,500**	**13,997**	**13,774**	**13,970**	**15,667**	**4.4**	**4.6**	**4.5**	**4.5**	**5.0**
Northeast	2,024	2,076	2,193	2,104	2,421	3.7	3.8	4.0	3.8	4.4
Midwest	1,722	1,850	2,253	2,175	2,238	2.6	2.8	3.4	3.2	3.3
South	6,705	7,413	6,263	6,156	6,809	6.0	6.5	5.5	5.3	5.9
West	3,049	2,658	3,065	3,535	4,199	4.3	3.7	4.3	4.9	5.8
Guam	6	2	1	5	6	3.4	1.1	0.6	3.1	3.8
Puerto Rico	167	227	228	254	306	4.2	5.7	6.1	6.9	8.3
Virgin Islands	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
OUTLYING AREAS	**173**	**229**	**229**	**259**	**312**	**4.1**	**5.4**	**5.7**	**6.5**	**7.9**
TOTAL	**13,673**	**14,226**	**14,003**	**14,229**	**15,979**	**4.4**	**4.6**	**4.5**	**4.5**	**5.1**

Table 28. Primary and Secondary Syphilis—Women—Reported Cases and Rates by State/Area and Region in Alphabetical Order, United States and Outlying Areas, 2008–2012

State/Area	Cases					Rates per 100,000 Population				
	2008	2009	2010	2011	2012	2008	2009	2010	2011	2012
Alabama	171	137	75	54	38	7.1	5.6	3.0	2.2	1.5
Alaska	0	0	0	1	1	0.0	0.0	0.0	0.3	0.3
Arizona	56	22	20	15	16	1.7	0.7	0.6	0.5	0.5
Arkansas	81	104	82	76	49	5.6	7.1	5.5	5.1	3.3
California	110	79	74	103	116	0.6	0.4	0.4	0.5	0.6
Colorado	3	6	2	4	3	0.1	0.2	0.1	0.2	0.1
Connecticut	0	1	5	5	9	0.0	0.1	0.3	0.3	0.5
Delaware	6	11	1	1	2	1.3	2.4	0.2	0.2	0.4
District of Columbia	7	10	2	7	6	2.2	3.2	0.6	2.1	1.8
Florida	193	147	147	134	134	2.1	1.6	1.5	1.4	1.4
Georgia	96	101	82	58	66	2.0	2.0	1.7	1.2	1.3
Hawaii	7	6	7	0	2	1.1	0.9	1.0	0.0	0.3
Idaho	1	0	0	1	2	0.1	0.0	0.0	0.1	0.3
Illinois	38	55	108	81	73	0.6	0.8	1.7	1.2	1.1
Indiana	16	13	20	13	22	0.5	0.4	0.6	0.4	0.7
Iowa	3	6	3	5	7	0.2	0.4	0.2	0.3	0.5
Kansas	5	9	1	0	2	0.4	0.6	0.1	0.0	0.1
Kentucky	14	4	8	19	13	0.6	0.2	0.4	0.9	0.6
Louisiana	307	349	251	179	127	13.5	15.1	10.8	7.7	5.4
Maine	0	0	0	0	2	0.0	0.0	0.0	0.0	0.3
Maryland	77	42	26	49	45	2.6	1.4	0.9	1.6	1.5
Massachusetts	6	5	16	23	15	0.2	0.1	0.5	0.7	0.4
Michigan	60	40	23	26	30	1.2	0.8	0.5	0.5	0.6
Minnesota	5	0	9	5	7	0.2	0.0	0.3	0.2	0.3
Mississippi	66	73	69	45	34	4.4	4.8	4.5	2.9	2.2
Missouri	29	15	3	6	12	1.0	0.5	0.1	0.2	0.4
Montana	1	0	0	1	0	0.2	0.0	0.0	0.2	0.0
Nebraska	3	0	3	1	1	0.3	0.0	0.3	0.1	0.1
Nevada	14	7	7	7	4	1.1	0.5	0.5	0.5	0.3
New Hampshire	0	0	1	1	0	0.0	0.0	0.1	0.1	0.0
New Jersey	21	26	16	13	19	0.5	0.6	0.4	0.3	0.4
New Mexico	6	6	3	2	9	0.6	0.6	0.3	0.2	0.9
New York	52	55	47	37	45	0.5	0.5	0.5	0.4	0.4
North Carolina	44	108	55	31	37	0.9	2.3	1.1	0.6	0.7
North Dakota	0	1	1	0	0	0.0	0.3	0.3	0.0	0.0
Ohio	63	63	132	107	85	1.1	1.1	2.2	1.8	1.4
Oklahoma	25	24	16	12	6	1.4	1.3	0.8	0.6	0.3
Oregon	2	1	1	0	6	0.1	0.1	0.1	0.0	0.3
Pennsylvania	21	42	36	34	34	0.3	0.6	0.6	0.5	0.5
Rhode Island	0	1	2	3	1	0.0	0.2	0.4	0.6	0.2
South Carolina	12	10	9	24	34	0.5	0.4	0.4	1.0	1.4
South Dakota	1	0	0	0	1	0.2	0.0	0.0	0.0	0.2
Tennessee	119	122	49	34	31	3.7	3.8	1.5	1.0	0.9
Texas	450	490	333	255	269	3.7	4.0	2.6	2.0	2.1
Utah	1	0	2	0	0	0.1	0.0	0.1	0.0	0.0
Vermont	0	0	2	0	0	0.0	0.0	0.6	0.0	0.0
Virginia	25	22	20	18	21	0.6	0.5	0.5	0.4	0.5
Washington	5	6	5	6	9	0.2	0.2	0.1	0.2	0.3
West Virginia	4	2	0	0	2	0.4	0.2	0.0	0.0	0.2
Wisconsin	14	10	6	5	11	0.5	0.4	0.2	0.2	0.4
Wyoming	2	1	0	0	0	0.8	0.4	0.0	0.0	0.0
U.S. TOTAL	**2,242**	**2,232**	**1,780**	**1,501**	**1,458**	**1.5**	**1.4**	**1.1**	**0.9**	**0.9**
Northeast	100	130	125	116	125	0.4	0.5	0.4	0.4	0.4
Midwest	237	212	309	249	251	0.7	0.6	0.9	0.7	0.7
South	1,697	1,756	1,225	996	914	3.0	3.0	2.1	1.7	1.5
West	208	134	121	140	168	0.6	0.4	0.3	0.4	0.5
Guam	1	1	1	2	1	1.2	1.1	1.3	2.5	1.3
Puerto Rico	29	23	18	17	20	1.4	1.1	0.9	0.9	1.0
Virgin Islands	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
OUTLYING AREAS	**30**	**24**	**19**	**19**	**21**	**1.4**	**1.1**	**0.9**	**0.9**	**1.0**
TOTAL	**2,272**	**2,256**	**1,799**	**1,520**	**1,479**	**1.5**	**1.4**	**1.1**	**0.9**	**0.9**

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

Table 29. Primary and Secondary Syphilis—Men—Reported Cases and Rates by State/Area and Region in Alphabetical Order, United States and Outlying Areas, 2008–2012

State/Area	Cases					Rates per 100,000 Population				
	2008	2009	2010	2011	2012	2008	2009	2010	2011	2012
Alabama	278	280	185	174	178	12.3	12.3	8.0	7.5	7.6
Alaska	1	0	3	4	10	0.3	0.0	0.8	1.1	2.7
Arizona	261	208	210	257	186	8.0	6.3	6.6	8.0	5.8
Arkansas	125	171	123	106	124	8.9	12.1	8.6	7.3	8.6
California	2,092	1,821	1,990	2,327	2,823	11.4	9.8	10.7	12.4	15.1
Colorado	125	99	136	129	205	5.0	3.9	5.4	5.0	8.0
Connecticut	34	64	93	60	46	2.0	3.7	5.3	3.4	2.6
Delaware	10	16	8	26	36	2.4	3.7	1.8	5.9	8.2
District of Columbia	139	153	132	158	159	49.7	54.1	46.4	54.1	54.4
Florida	850	894	1,037	1,123	1,235	9.4	9.8	11.3	12.0	13.2
Georgia	818	852	713	620	870	17.2	17.6	15.1	12.9	18.1
Hawaii	22	27	28	14	21	3.4	4.1	4.1	2.0	3.0
Idaho	6	3	6	12	24	0.8	0.4	0.8	1.5	3.0
Illinois	516	695	800	800	731	8.1	10.9	12.7	12.7	11.6
Indiana	124	145	155	160	202	3.9	4.6	4.9	5.0	6.3
Iowa	13	17	16	15	63	0.9	1.1	1.1	1.0	4.2
Kansas	25	23	18	24	22	1.8	1.6	1.3	1.7	1.5
Kentucky	79	88	131	110	137	3.8	4.2	6.1	5.1	6.4
Louisiana	400	392	284	268	212	18.7	17.9	12.8	12.0	9.5
Maine	10	4	32	12	15	1.6	0.6	4.9	1.8	2.3
Maryland	301	272	302	403	386	11.0	9.8	10.8	14.3	13.7
Massachusetts	210	233	269	243	301	6.7	7.3	8.5	7.6	9.4
Michigan	150	190	212	260	265	3.0	3.9	4.4	5.4	5.5
Minnesota	111	71	140	134	111	4.3	2.7	5.3	5.0	4.2
Mississippi	118	164	159	146	116	8.3	11.5	11.0	10.1	8.0
Missouri	195	158	149	130	145	6.8	5.4	5.1	4.4	4.9
Montana	6	4	3	6	2	1.2	0.8	0.6	1.2	0.4
Nebraska	12	5	9	9	7	1.4	0.6	1.0	1.0	0.8
Nevada	63	84	123	129	109	4.8	6.2	9.0	9.4	7.9
New Hampshire	20	14	21	17	36	3.1	2.1	3.2	2.6	5.5
New Jersey	205	186	228	219	210	4.8	4.4	5.3	5.1	4.9
New Mexico	38	55	50	69	92	3.9	5.5	4.9	6.7	8.9
New York	1,165	1,127	1,051	1,045	1,175	12.3	11.9	11.2	11.1	12.5
North Carolina	243	471	341	400	310	5.4	10.3	7.3	8.5	6.6
North Dakota	0	3	2	1	4	0.0	0.9	0.6	0.3	1.2
Ohio	288	297	396	333	340	5.1	5.3	7.0	5.9	6.0
Oklahoma	61	73	76	72	77	3.4	4.0	4.1	3.8	4.1
Oregon	24	56	70	97	206	1.3	3.0	3.7	5.1	10.7
Pennsylvania	251	299	333	339	460	4.1	4.9	5.4	5.5	7.4
Rhode Island	18	19	39	43	43	3.5	3.7	7.7	8.5	8.5
South Carolina	86	113	146	197	191	3.9	5.1	6.5	8.7	8.4
South Dakota	0	0	4	0	17	0.0	0.0	1.0	0.0	4.1
Tennessee	294	281	228	244	235	9.7	9.2	7.4	7.8	7.5
Texas	955	1,154	896	914	1,358	7.9	9.3	7.2	7.2	10.7
Utah	24	31	63	14	42	1.7	2.2	4.5	1.0	3.0
Vermont	11	0	2	9	6	3.6	0.0	0.6	2.9	1.9
Virginia	241	277	259	195	264	6.3	7.1	6.6	4.9	6.6
Washington	176	133	261	322	293	5.4	4.0	7.8	9.4	8.6
West Virginia	9	6	6	4	6	1.0	0.7	0.7	0.4	0.7
Wisconsin	51	34	43	60	80	1.8	1.2	1.5	2.1	2.8
Wyoming	1	2	0	0	4	0.4	0.7	0.0	0.0	1.4
U.S. TOTAL	**11,255**	**11,764**	**11,981**	**12,453**	**14,190**	**7.5**	**7.8**	**7.9**	**8.1**	**9.3**
Northeast	1,924	1,946	2,068	1,987	2,292	7.2	7.2	7.7	7.4	8.5
Midwest	1,485	1,638	1,944	1,926	1,987	4.5	5.0	5.9	5.8	6.0
South	5,007	5,657	5,026	5,160	5,894	9.1	10.2	9.0	9.1	10.4
West	2,839	2,523	2,943	3,380	4,017	8.0	7.0	8.2	9.3	11.1
Guam	5	1	0	3	5	5.6	1.1	0.0	3.7	6.2
Puerto Rico	138	204	210	237	286	7.3	10.7	11.8	13.4	16.1
Virgin Islands	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
OUTLYING AREAS	**143**	**205**	**210**	**240**	**291**	**7.0**	**10.0**	**11.0**	**12.6**	**15.3**
TOTAL	**11,398**	**11,969**	**12,191**	**12,693**	**14,481**	**7.5**	**7.8**	**7.9**	**8.2**	**9.3**

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

Table 30. Primary and Secondary Syphilis—Reported Cases and Rates in Selected Metropolitan Statistical Areas (MSAs)* in Alphabetical Order, United States, 2008–2012

MSAs	Cases					Rates per 100,000 Population				
	2008	2009	2010	2011	2012	2008	2009	2010	2011	2012
Atlanta-Sandy Springs-Marietta, GA	765	809	651	581	745	14.2	14.8	12.4	10.8	13.9
Austin-Round Rock, TX	107	99	107	114	154	6.5	5.8	6.2	6.4	8.6
Baltimore-Towson, MD	270	204	212	308	307	10.1	7.6	7.8	11.3	11.2
Birmingham-Hoover, AL	188	145	82	89	73	16.8	12.8	7.3	7.9	6.4
Boston-Cambridge-Quincy, MA-NH	173	203	240	191	204	3.8	4.4	5.3	4.2	4.4
Buffalo-Cheektowaga-Tonawanda, NY	3	10	11	14	27	0.3	0.9	1.0	1.2	2.4
Charlotte-Gastonia-Concord, NC-SC	58	138	106	145	105	3.4	7.9	6.0	8.1	5.8
Chicago-Naperville-Joliet, IL-IN-WI	535	732	881	853	759	5.6	7.6	9.3	9.0	8.0
Cincinnati-Middletown, OH-KY-IN	62	124	272	228	166	2.9	5.7	12.8	10.7	7.8
Cleveland-Elyria-Mentor, OH	64	71	82	55	44	3.1	3.4	3.9	2.7	2.1
Columbus, OH	135	115	120	122	159	7.6	6.4	6.5	6.6	8.6
Dallas-Fort Worth-Arlington, TX	328	502	342	317	391	5.2	7.8	5.4	4.9	6.0
Denver-Aurora, CO	103	92	120	116	183	4.1	3.6	4.7	4.5	7.0
Detroit-Warren-Livonia, MI	100	151	146	203	235	2.3	3.4	3.4	4.7	5.5
Hartford-West Hartford-East Hartford, CT	8	25	32	15	9	0.7	2.1	2.6	1.2	0.7
Houston-Baytown-Sugar Land, TX	456	432	330	322	537	8.0	7.4	5.5	5.3	8.8
Indianapolis, IN	80	81	108	91	150	4.7	4.6	6.1	5.1	8.4
Jacksonville, FL	67	57	49	47	44	5.1	4.3	3.6	3.5	3.2
Kansas City, MO-KS	102	80	43	57	65	5.1	3.9	2.1	2.8	3.2
Las Vegas-Paradise, NV	72	86	125	126	97	3.9	4.5	6.4	6.4	4.9
Los Angeles-Long Beach-Santa Ana, CA	920	858	766	876	1,049	7.1	6.7	6.0	6.8	8.1
Louisville, KY-IN	36	57	105	92	84	2.9	4.5	8.2	7.1	6.5
Memphis, TN-MS-AR	234	189	165	120	110	18.2	14.5	12.5	9.1	8.3
Miami-Fort Lauderdale-Miami Beach, FL	509	518	652	630	705	9.4	9.3	11.7	11.1	12.4
Milwaukee-Waukesha-West Allis, WI	45	28	29	35	43	2.9	1.8	1.9	2.2	2.8
Minneapolis-St. Paul-Bloomington, MN-WI	105	67	140	127	116	3.3	2.0	4.3	3.8	3.5
Nashville-Davidson-Murfreesboro, TN	85	92	73	84	88	5.5	5.8	4.6	5.2	5.4
New Orleans-Metairie-Kenner, LA	170	138	92	101	66	15.0	11.6	7.9	8.5	5.5
New York-Newark-Edison, NY-NJ-PA	1,353	1,301	1,219	1,162	1,293	7.1	6.8	6.5	6.1	6.8
Oklahoma City, OK	61	70	55	39	54	5.1	5.7	4.4	3.1	4.2
Orlando, FL	126	109	103	174	168	6.1	5.2	4.8	8.0	7.7
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	214	289	307	302	369	3.7	4.8	5.1	5.0	6.2
Phoenix-Mesa-Scottsdale, AZ	211	169	161	213	162	4.9	3.9	3.8	5.0	3.8
Pittsburgh, PA	38	29	36	49	61	1.6	1.2	1.5	2.1	2.6
Portland-Vancouver-Beaverton, OR-WA	21	53	66	90	209	1.0	2.4	3.0	4.0	9.2
Providence-New Bedford-Fall River, RI-MA	25	28	47	55	58	1.6	1.7	2.9	3.4	3.6
Richmond, VA	92	97	89	52	66	7.5	7.8	7.1	4.1	5.2
Riverside-San Bernardino-Ontario, CA	157	115	157	182	166	3.8	2.8	3.7	4.2	3.9
Rochester, NY	9	11	16	19	16	0.9	1.1	1.5	1.8	1.5
Sacramento-Arden-Arcade-Roseville, CA	102	73	57	131	151	4.8	3.4	2.7	6.0	6.9
Salt Lake City, UT	23	28	54	9	34	2.1	2.5	4.8	0.8	3.0
San Antonio, TX	195	216	183	188	329	9.6	10.4	8.5	8.6	15.0
San Diego-Carlsbad-San Marcos, CA	345	190	274	293	331	11.5	6.2	8.9	9.3	10.5
San Francisco-Oakland-Fremont, CA	478	438	543	626	744	11.2	10.1	12.5	14.3	16.9
San Jose-Sunnyvale-Santa Clara, CA	42	59	91	68	105	2.3	3.2	5.0	3.6	5.6
Seattle-Tacoma-Bellevue, WA	153	115	236	276	248	4.6	3.4	6.9	7.9	7.1
St. Louis, MO-IL	121	83	118	92	95	4.3	2.9	4.2	3.3	3.4
Tampa-St. Petersburg-Clearwater, FL	191	180	183	199	230	7.0	6.6	6.6	7.0	8.1
Virginia Beach-Norfolk-Newport News, VA-NC	98	102	92	64	106	5.9	6.1	5.5	3.8	6.3
Washington-Arlington-Alexandria, DC-VA-MD-WV	297	324	311	360	358	5.5	5.9	5.6	6.3	6.3
U.S. MSAs TOTAL	**10,132**	**10,182**	**10,479**	**10,702**	**12,068**	**6.2**	**6.1**	**6.3**	**6.4**	**7.2**

* MSAs were selected on the basis of the largest population in the 2000 U.S. Census.

Table 31. Primary and Secondary Syphilis—Women—Reported Cases and Rates in Selected Metropolitan Statistical Areas (MSAs)* in Alphabetical Order, United States, 2008–2012

MSAs	Cases					Rates per 100,000 Population				
	2008	2009	2010	2011	2012	2008	2009	2010	2011	2012
Atlanta-Sandy Springs-Marietta, GA	51	59	44	40	33	1.9	2.1	1.6	1.5	1.2
Austin-Round Rock, TX	16	14	18	12	8	2.0	1.7	2.1	1.3	0.9
Baltimore-Towson, MD	70	33	19	39	39	5.1	2.4	1.4	2.8	2.8
Birmingham-Hoover, AL	77	44	21	10	7	13.3	7.5	3.6	1.7	1.2
Boston-Cambridge-Quincy, MA-NH	4	3	12	14	5	0.2	0.1	0.5	0.6	0.2
Buffalo-Cheektowaga-Tonawanda, NY	0	0	0	2	1	0.0	0.0	0.0	0.3	0.2
Charlotte-Gastonia-Concord, NC-SC	9	14	6	14	11	1.0	1.6	0.7	1.5	1.2
Chicago-Naperville-Joliet, IL-IN-WI	40	46	107	77	77	0.8	0.9	2.2	1.6	1.6
Cincinnati-Middletown, OH-KY-IN	14	26	107	99	63	1.3	2.3	9.8	9.1	5.8
Cleveland-Elyria-Mentor, OH	13	14	6	3	5	1.2	1.3	0.6	0.3	0.5
Columbus, OH	19	15	11	10	14	2.1	1.6	1.2	1.1	1.5
Dallas-Fort Worth-Arlington, TX	116	153	103	63	56	3.7	4.8	3.2	1.9	1.7
Denver-Aurora, CO	1	3	0	1	3	0.1	0.2	0.0	0.1	0.2
Detroit-Warren-Livonia, MI	27	26	9	20	27	1.2	1.2	0.4	0.9	1.2
Hartford-West Hartford-East Hartford, CT	0	0	3	2	3	0.0	0.0	0.5	0.3	0.5
Houston-Baytown-Sugar Land, TX	114	113	77	69	97	4.0	3.9	2.6	2.3	3.2
Indianapolis, IN	8	6	12	5	10	0.9	0.7	1.3	0.5	1.1
Jacksonville, FL	16	11	11	11	4	2.4	1.6	1.6	1.6	0.6
Kansas City, MO-KS	20	8	1	4	1	2.0	0.8	0.1	0.4	0.1
Las Vegas-Paradise, NV	11	7	6	4	2	1.2	0.7	0.6	0.4	0.2
Los Angeles-Long Beach-Santa Ana, CA	31	22	17	16	26	0.5	0.3	0.3	0.2	0.4
Louisville, KY-IN	3	1	4	7	9	0.5	0.2	0.6	1.1	1.4
Memphis, TN-MS-AR	71	67	33	22	22	10.6	9.9	4.8	3.2	3.2
Miami-Fort Lauderdale-Miami Beach, FL	74	54	55	47	63	2.7	1.9	1.9	1.6	2.2
Milwaukee-Waukesha-West Allis, WI	11	9	5	5	5	1.4	1.1	0.6	0.6	0.6
Minneapolis-St. Paul-Bloomington, MN-WI	5	0	5	5	7	0.3	0.0	0.3	0.3	0.4
Nashville-Davidson-Murfreesboro, TN	14	23	10	3	1	1.8	2.9	1.2	0.4	0.1
New Orleans-Metairie-Kenner, LA	53	36	30	17	9	9.0	5.8	5.0	2.8	1.5
New York-Newark-Edison, NY-NJ-PA	60	69	52	37	53	0.6	0.7	0.5	0.4	0.5
Oklahoma City, OK	16	16	12	6	1	2.6	2.6	1.9	0.9	0.2
Orlando, FL	21	19	7	10	15	2.0	1.8	0.6	0.9	1.4
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	17	37	33	28	30	0.6	1.2	1.1	0.9	1.0
Phoenix-Mesa-Scottsdale, AZ	24	8	12	9	14	1.1	0.4	0.6	0.4	0.7
Pittsburgh, PA	6	4	2	4	5	0.5	0.3	0.2	0.3	0.4
Portland-Vancouver-Beaverton, OR-WA	0	0	2	0	9	0.0	0.0	0.2	0.0	0.8
Providence-New Bedford-Fall River, RI-MA	0	1	3	3	1	0.0	0.1	0.4	0.4	0.1
Richmond, VA	6	3	6	10	10	1.0	0.5	0.9	1.5	1.5
Riverside-San Bernardino-Ontario, CA	5	5	1	8	3	0.2	0.2	0.0	0.4	0.1
Rochester, NY	0	1	3	0	1	0.0	0.2	0.6	0.0	0.2
Sacramento-Arden-Arcade-Roseville, CA	18	16	12	7	5	1.7	1.5	1.1	0.6	0.5
Salt Lake City, UT	1	0	0	0	0	0.2	0.0	0.0	0.0	0.0
San Antonio, TX	58	42	28	39	59	5.6	4.0	2.6	3.5	5.3
San Diego-Carlsbad-San Marcos, CA	12	6	3	13	12	0.8	0.4	0.2	0.8	0.8
San Francisco-Oakland-Fremont, CA	12	9	20	27	28	0.6	0.4	0.9	1.2	1.3
San Jose-Sunnyvale-Santa Clara, CA	3	5	3	4	3	0.3	0.6	0.3	0.4	0.3
Seattle-Tacoma-Bellevue, WA	2	4	2	3	6	0.1	0.2	0.1	0.2	0.3
St. Louis, MO-IL	16	9	3	3	9	1.1	0.6	0.2	0.2	0.6
Tampa-St. Petersburg-Clearwater, FL	54	29	33	26	29	3.8	2.1	2.3	1.8	2.0
Virginia Beach-Norfolk-Newport News, VA-NC	12	11	3	7	5	1.4	1.3	0.4	0.8	0.6
Washington-Arlington-Alexandria, DC-VA-MD-WV	15	19	13	16	15	0.5	0.7	0.5	0.5	0.5
U.S. MSAs TOTAL	**1,246**	**1,120**	**985**	**881**	**921**	**1.5**	**1.3**	**1.2**	**1.0**	**1.1**

* MSAs were selected on the basis of the largest population in the 2000 U.S. Census.
NOTE: Cases reported with unknown sex are not included in this table.

Table 32. Primary and Secondary Syphilis—Men—Reported Cases and Rates in Selected Metropolitan Statistical Areas (MSAs)* in Alphabetical Order, United States, 2008–2012

MSAs	Cases					Rates per 100,000 Population				
	2008	2009	2010	2011	2012	2008	2009	2010	2011	2012
Atlanta-Sandy Springs-Marietta, GA	714	750	607	541	712	26.9	27.7	23.7	20.7	27.3
Austin-Round Rock, TX	91	85	89	102	146	10.8	9.8	10.3	11.4	16.3
Baltimore-Towson, MD	200	171	193	269	268	15.6	13.2	14.8	20.5	20.4
Birmingham-Hoover, AL	111	101	61	79	66	20.6	18.5	11.2	14.5	12.1
Boston-Cambridge-Quincy, MA-NH	169	200	228	177	199	7.7	8.9	10.4	8.0	8.9
Buffalo-Cheektowaga-Tonawanda, NY	3	10	11	12	26	0.6	1.8	2.0	2.2	4.7
Charlotte-Gastonia-Concord, NC-SC	49	124	100	131	94	5.9	14.5	11.7	15.0	10.8
Chicago-Naperville-Joliet, IL-IN-WI	495	686	774	776	682	10.5	14.6	16.7	16.7	14.7
Cincinnati-Middletown, OH-KY-IN	48	98	165	129	103	4.6	9.2	15.8	12.3	9.8
Cleveland-Elyria-Mentor, OH	51	57	76	52	39	5.1	5.7	7.6	5.2	3.9
Columbus, OH	116	100	109	112	145	13.2	11.2	12.1	12.3	15.9
Dallas-Fort Worth-Arlington, TX	212	349	239	254	335	6.7	10.8	7.6	7.9	10.4
Denver-Aurora, CO	102	89	120	115	180	8.1	7.0	9.5	8.9	13.9
Detroit-Warren-Livonia, MI	73	125	137	183	208	3.4	5.8	6.6	8.8	10.0
Hartford-West Hartford-East Hartford, CT	8	25	29	13	6	1.4	4.3	4.9	2.2	1.0
Houston-Baytown-Sugar Land, TX	342	319	253	253	440	11.9	10.8	8.6	8.4	14.5
Indianapolis, IN	72	75	96	86	140	8.5	8.8	11.2	9.9	16.1
Jacksonville, FL	51	46	38	36	40	7.9	7.1	5.8	5.4	6.0
Kansas City, MO-KS	82	72	42	53	64	8.3	7.1	4.2	5.3	6.4
Las Vegas-Paradise, NV	61	79	119	122	95	6.4	8.2	12.1	12.3	9.6
Los Angeles-Long Beach-Santa Ana, CA	889	836	749	858	1,019	13.9	13.1	11.8	13.4	15.9
Louisville, KY-IN	33	56	101	85	75	5.4	9.1	16.1	13.4	11.9
Memphis, TN-MS-AR	163	122	132	98	88	26.4	19.4	20.9	15.4	13.8
Miami-Fort Lauderdale-Miami Beach, FL	435	464	597	583	642	16.5	17.1	22.2	21.2	23.3
Milwaukee-Waukesha-West Allis, WI	34	19	24	30	38	4.5	2.5	3.2	3.9	5.0
Minneapolis-St. Paul-Bloomington, MN-WI	100	67	135	122	109	6.2	4.1	8.3	7.4	6.6
Nashville-Davidson-Murfreesboro, TN	71	69	63	81	87	9.3	8.9	8.1	10.2	11.0
New Orleans-Metairie-Kenner, LA	117	102	55	84	57	21.5	17.8	9.7	14.5	9.8
New York-Newark-Edison, NY-NJ-PA	1,293	1,232	1,167	1,124	1,236	14.0	13.3	12.8	12.3	13.5
Oklahoma City, OK	45	54	43	33	53	7.6	8.9	7.0	5.2	8.4
Orlando, FL	105	90	96	164	153	10.3	8.7	9.2	15.4	14.4
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	197	252	274	274	339	7.0	8.7	9.5	9.5	11.7
Phoenix-Mesa-Scottsdale, AZ	187	161	149	202	148	8.6	7.3	7.1	9.5	7.0
Pittsburgh, PA	32	25	34	45	56	2.8	2.2	3.0	3.9	4.9
Portland-Vancouver-Beaverton, OR-WA	21	53	64	90	200	1.9	4.8	5.8	8.0	17.9
Providence-New Bedford-Fall River, RI-MA	25	27	44	52	57	3.2	3.5	5.7	6.7	7.4
Richmond, VA	86	94	83	42	56	14.4	15.6	13.6	6.8	9.1
Riverside-San Bernardino-Ontario, CA	150	110	156	171	163	7.3	5.3	7.4	8.0	7.6
Rochester, NY	9	10	13	19	15	1.8	2.0	2.5	3.7	2.9
Sacramento-Arden-Arcade-Roseville, CA	84	57	45	122	144	8.1	5.4	4.3	11.4	13.5
Salt Lake City, UT	22	28	54	9	34	3.9	4.9	9.5	1.6	5.9
San Antonio, TX	137	174	155	149	270	13.8	17.1	14.7	13.8	25.0
San Diego-Carlsbad-San Marcos, CA	333	184	271	279	318	22.1	12.0	17.4	17.7	20.2
San Francisco-Oakland-Fremont, CA	466	429	523	596	713	21.9	20.0	24.5	27.5	32.9
San Jose-Sunnyvale-Santa Clara, CA	39	54	88	64	102	4.2	5.7	9.5	6.8	10.9
Seattle-Tacoma-Bellevue, WA	151	111	234	273	242	9.0	6.5	13.7	15.6	13.9
St. Louis, MO-IL	105	74	115	89	86	7.7	5.4	8.4	6.5	6.3
Tampa-St. Petersburg-Clearwater, FL	137	151	150	173	201	10.3	11.3	11.1	12.6	14.7
Virginia Beach-Norfolk-Newport News, VA-NC	86	91	89	57	101	10.6	11.1	10.9	6.9	12.3
Washington-Arlington-Alexandria, DC-VA-MD-WV	282	305	298	344	343	10.8	11.4	11.0	12.4	12.3
U.S. MSAs TOTAL	**8,884**	**9,062**	**9,487**	**9,807**	**11,133**	**11.0**	**11.1**	**11.7**	**11.9**	**13.5**

* MSAs were selected on the basis of the largest population in the 2000 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 in Counties and Independent Cities* Ranked by Number of Reported Cases, United States, 2012

Rank†	County/Independent City	Cases	Rate per 100,000 Population	Cumulative Percentage
1	Los Angeles County, CA	943	9.5	6
2	Cook County, IL	679	13.0	10
3	San Francisco County, CA	496	61.0	13
4	Harris County, TX	489	11.7	16
5	Fulton County, GA	394	41.5	19
6	New York County, NY	378	23.6	21
7	Miami-Dade County, FL	346	13.5	23
8	San Diego County, CA	331	10.5	25
9	Bexar County, TX	321	18.3	27
10	Broward County, FL	281	15.8	29
11	Philadelphia County, PA	269	17.5	31
12	Kings County, NY	267	10.5	33
13	Baltimore (City), MD	251	40.5	34
14	King County, WA	213	10.8	36
15	Dallas County, TX	189	7.8	37
16	Bronx County, NY	178	12.8	38
17	Wayne County, MI	171	9.5	39
18	DeKalb County, GA	167	23.9	40
19	Washington, D.C.	165	26.7	41
20	Tarrant County, TX	163	8.8	42
21	Queens County, NY	161	7.2	43
22	Maricopa County, AZ	159	4.1	44
23	Hillsborough County, FL	155	12.2	45
24	Franklin County, OH	151	12.8	46
25	Travis County, TX	137	12.9	47
26	Orange County, FL	137	11.7	48
27	Alameda County, CA	136	8.9	49
28	Sacramento County, CA	135	9.4	50
29	Multnomah County, OR	134	17.9	51
30	Hamilton County, OH	134	16.7	51
31	Marion County, IN	129	14.2	52
32	Denver County, CO	122	19.7	53
33	Riverside County, CA	113	5.0	54
34	Orange County, CA	106	3.5	54
35	Santa Clara County, CA	104	5.7	55
36	Caddo County, LA	101	39.3	56
37	Suffolk County, MA	98	13.4	56
38	Shelby County, TN	97	10.4	57
39	Clark County, NV	97	4.9	58
40	Mecklenburg County, NC	88	9.3	58
41	Prince George's County, MD	83	9.5	59
42	Palm Beach County, FL	78	5.8	59
43	Hennepin County, MN	76	6.5	60
44	San Joaquin County, CA	75	10.8	60
45	Richland County, SC	74	19.0	61
46	Kern County, CA	73	8.6	61
47	Jefferson County, KY	72	9.6	62
48	Davidson County, TN	71	11.2	62
49	Hampden County, MA	63	13.6	62
50	Jefferson County, AL	62	9.4	63
51	Bernalillo County, NM	62	9.2	63
52	Hinds County, MS	61	24.6	64
53	Pinellas County, FL	61	6.6	64
54	Contra Costa County, CA	61	5.7	64
55	Pulaski County, AR	57	14.8	65
56	Wake County, NC	56	6.0	65
57	Hudson County, NJ	55	8.6	65
58	Cobb County, GA	55	7.9	66
59	Allegheny County, PA	55	4.5	66
60	San Bernardino County, CA	53	2.6	66
61	East Baton Rouge County, LA	52	11.8	67
62	Jackson County, MO	52	7.7	67
63	Clayton County, GA	49	18.7	67
64	Orleans County, LA	49	13.6	68
65	Essex County, NJ	49	6.2	68
66	Fresno County, CA	49	5.2	68
67	Westchester County, NY	48	5.0	69
68	Middlesex County, MA	48	3.2	69
69	Escambia County, FL	47	15.7	69
70	St. Louis (City), MO	47	14.8	70

* Accounting for 70% 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 2012.

Table 34. Primary and Secondary Syphilis—Reported Cases and Rates* Among Men and Women and Male-To-Female Rate Ratios in the Counties and Independent Cities Ranked in the Top 30 for Cases in 2012, United States, 2011–2012

	Male				Female				Male-to-Female Rate Ratio	
	2011		2012		2011		2012			
County/Independent City†	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates	2011	2012
Maricopa County, AZ	198	10.3	147	7.7	8	0.4	12	0.6	25.8	12.8
Alameda County, CA	121	16.1	126	16.8	12	1.5	9	1.2	10.7	14.0
Los Angeles County, CA	795	16.3	918	18.8	15	0.3	23	0.5	54.3	37.6
Sacramento County, CA	112	15.9	128	18.2	5	0.7	5	0.7	22.7	26.0
San Diego County, CA	279	17.7	318	20.2	13	0.8	12	0.8	22.1	25.3
San Francisco County, CA	378	91.5	483	116.9	7	1.8	11	2.8	50.8	41.8
Washington, D.C.	158	54.1	159	54.4	7	2.1	6	1.8	25.8	30.2
Broward County, FL	214	24.8	255	29.5	21	2.3	26	2.8	10.8	10.5
Hillsborough County, FL	104	16.8	136	21.9	20	3.1	19	2.9	5.4	7.6
Miami-Dade County, FL	311	25.0	325	26.2	19	1.4	21	1.6	17.9	16.4
Orange County, FL	124	21.5	126	21.9	9	1.5	11	1.9	14.3	11.5
DeKalb County, GA	93	27.7	163	48.5	5	1.4	4	1.1	19.8	44.1
Fulton County, GA	333	71.7	376	81.0	29	6.0	18	3.7	12.0	21.9
Cook County, IL	705	27.9	615	24.3	68	2.5	64	2.4	11.2	10.1
Baltimore (City), MD	200	68.5	221	75.7	33	10.1	30	9.2	6.8	8.2
Wayne County, MI	125	14.4	148	17.1	15	1.6	23	2.5	9.0	6.8
Bronx County, NY	145	22.1	170	25.9	8	1.1	7	1.0	20.1	25.9
Kings County, NY	262	21.9	257	21.5	6	0.4	10	0.7	54.8	30.7
New York County, NY	346	45.9	373	49.4	7	0.8	4	0.5	57.4	98.8
Queens County, NY	104	9.5	152	13.9	2	0.2	7	0.6	47.5	23.2
Franklin County, OH	106	18.5	139	24.2	9	1.5	12	2.0	12.3	12.1
Hamilton County, OH	109	28.4	77	20.0	85	20.4	57	13.7	1.4	1.5
Multnomah County, OR	71	19.2	131	35.4	0	0.0	3	0.8	39.4	44.3
Philadelphia County, PA	185	25.5	247	34.1	22	2.7	22	2.7	9.4	12.6
Bexar County, TX	145	16.8	265	30.8	39	4.4	56	6.3	3.8	4.9
Dallas County, TX	151	12.6	168	14.0	28	2.3	21	1.7	5.5	8.2
Harris County, TX	218	10.5	405	19.4	55	2.6	84	4.0	4.0	4.9
Tarrant County, TX	94	10.4	135	14.9	30	3.2	28	3.0	3.3	5.0
Travis County, TX	91	17.0	130	24.2	9	1.7	7	1.3	10.0	18.6
King County, WA	232	23.6	208	21.2	2	0.2	5	0.5	118.0	42.4

* Cases per 100,000 population.

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

Table 35. Primary and Secondary Syphilis—Reported Cases and Rates per 100,000 Population by Age Group and Sex, United States, 2008–2012

	Age Group	Cases				Rates*		
		Total	Male	Female	Unknown Sex	Total	Male	Female
2008	0–4	1	0	1	0	0.0	0.0	0.0
	5–9	2	0	2	0	0.0	0.0	0.0
	10–14	27	8	19	0	0.1	0.1	0.2
	15–19	903	585	318	0	4.2	5.3	3.0
	20–24	2,397	1,877	520	0	11.4	17.3	5.1
	25–29	2,256	1,851	404	1	10.6	16.9	3.9
	30–34	1,733	1,489	244	0	8.8	15.0	2.5
	35–39	1,809	1,568	241	0	8.6	14.8	2.3
	40–44	1,776	1,573	202	1	8.3	14.6	1.9
	45–54	2,027	1,790	236	1	4.6	8.2	1.0
	55–64	458	412	46	0	1.4	2.5	0.3
	65+	105	97	8	0	0.3	0.6	0.0
	Unknown Age	6	5	1	0			
	TOTAL	**13,500**	**11,255**	**2,242**	**3**	**4.4**	**7.5**	**1.5**
2009	0–4	1	0	1	0	0.0	0.0	0.0
	5–9	1	0	1	0	0.0	0.0	0.0
	10–14	19	4	15	0	0.1	0.0	0.2
	15–19	1,005	661	344	0	4.7	6.0	3.3
	20–24	2,812	2,242	570	0	13.1	20.2	5.5
	25–29	2,405	2,027	377	1	11.1	18.2	3.6
	30–34	1,857	1,571	286	0	9.3	15.5	2.9
	35–39	1,612	1,409	203	0	7.8	13.6	2.0
	40–44	1,643	1,476	167	0	7.8	14.1	1.6
	45–54	2,033	1,815	218	0	4.6	8.3	1.0
	55–64	517	475	42	0	1.5	2.8	0.2
	65+	90	83	7	0	0.2	0.5	0.0
	Unknown Age	2	1	1	0			
	TOTAL	**13,997**	**11,764**	**2,232**	**1**	**4.6**	**7.8**	**1.4**
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	14.8	25.3	3.9
	25–29	2,911	2,641	266	4	13.7	24.5	2.5
	30–34	2,209	2,023	182	4	10.8	19.7	1.8
	35–39	1,563	1,443	120	0	8.0	14.8	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	10.5	0.6
	55–64	614	586	27	1	1.6	3.2	0.1
	65+	123	121	2	0	0.3	0.7	0.0
	Unknown Age	20	17	3	0			
	TOTAL	**15,667**	**14,190**	**1,458**	**19**	**5.0**	**9.3**	**0.9**

* 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*, 2012

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	1	1	0
5–9	0	0	0	0	0	0	0	0	0
10–14	0	0	0	0	0	0	5	3	2
15–19	4	4	0	10	7	3	502	342	160
20–24	19	16	3	46	42	4	1,631	1,361	270
25–29	10	8	2	56	54	1	1,200	1,043	157
30–34	9	9	0	33	32	1	758	654	103
35–39	7	6	1	42	41	1	419	357	62
40–44	3	3	0	31	31	0	370	332	38
45–54	9	8	1	33	33	0	501	444	57
55–64	1	1	0	10	10	0	134	116	18
65+	0	0	0	1	1	0	24	22	2
Unknown Age	0	0	0	0	0	0	7	5	2
TOTAL	**62**	**55**	**7**	**262**	**251**	**10**	**5,552**	**4,680**	**871**

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	3	2	1	0	0	0
15–19	2	1	1	128	99	29	2	1	1
20–24	7	5	2	603	542	61	23	22	1
25–29	8	8	0	668	618	50	18	18	0
30–34	6	6	0	639	599	40	18	17	1
35–39	2	2	0	541	515	26	14	12	2
40–44	3	3	0	673	654	19	9	9	0
45–54	9	8	1	1,207	1,169	37	21	20	1
55–64	2	2	0	345	340	4	1	1	0
65+	2	2	0	63	63	0	0	0	0
Unknown Age	0	0	0	4	4	0	0	0	0
TOTAL	**41**	**37**	**4**	**4,874**	**4,605**	**267**	**106**	**100**	**6**

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	0	0	0	0	0	0
15–19	145	116	28	11	6	4
20–24	573	531	40	54	46	8
25–29	533	495	37	69	67	1
30–34	436	411	24	51	47	3
35–39	307	290	17	37	34	3
40–44	306	295	10	47	43	2
45–54	355	337	18	76	73	3
55–64	55	52	3	17	17	0
65+	15	15	0	8	8	0
Unknown Age	8	8	0	1	0	1
TOTAL	**2,733**	**2,550**	**177**	**371**	**341**	**25**

* Includes 47 states and the District of Columbia reporting race/ethnicity data in the Office of Management and Budget compliant formats in 2012.

† Total includes 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 per 100,000 Population by Race/Ethnicity, Age Group, and Sex, United States*, 2012

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	0.1	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	0.2	0.2
15–19	2.2	4.4	0.0	1.2	1.7	0.8	17.5	23.4	11.4
20–24	10.9	17.9	3.5	4.7	8.4	0.8	57.8	96.7	19.1
25–29	6.5	10.4	2.6	5.1	10.3	0.2	49.7	89.2	12.6
30–34	6.3	12.8	0.0	3.0	6.2	0.2	32.6	59.1	8.5
35–39	5.3	9.2	1.5	3.6	7.6	0.2	19.2	34.5	5.4
40–44	2.2	4.4	0.0	2.9	6.2	0.0	16.2	30.7	3.2
45–54	3.0	5.5	0.6	1.8	3.9	0.0	10.6	19.8	2.3
55–64	0.4	0.9	0.0	0.7	1.6	0.0	3.8	7.1	0.9
65+	0.0	0.0	0.0	0.1	0.2	0.0	0.8	1.8	0.1
Unknown Age									
TOTAL	**2.9**	**5.3**	**0.7**	**2.0**	**4.0**	**0.1**	**16.4**	**28.9**	**4.9**

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	0.0	0.0	0.0
15–19	5.1	5.0	5.2	1.1	1.7	0.5	0.4	0.4	0.4
20–24	15.1	20.7	9.0	5.2	9.1	1.1	5.2	10.2	0.4
25–29	17.8	34.8	0.0	5.9	10.8	0.9	5.1	10.7	0.0
30–34	14.8	28.9	0.0	5.8	10.8	0.7	5.9	11.7	0.6
35–39	5.7	11.1	0.0	5.1	9.7	0.5	5.5	9.9	1.5
40–44	8.9	17.8	0.0	5.5	10.7	0.3	3.8	8.0	0.0
45–54	14.2	25.4	3.2	4.3	8.3	0.3	4.9	9.7	0.4
55–64	4.7	9.5	0.0	1.3	2.7	0.0	0.3	0.7	0.0
65+	6.2	13.5	0.0	0.2	0.5	0.0	0.0	0.0	0.0
Unknown Age									
TOTAL	**8.4**	**14.9**	**1.6**	**2.7**	**5.1**	**0.3**	**2.0**	**3.8**	**0.2**

Age Group	Hispanics		
	Total†	Male	Female
0–4	0.0	0.0	0.0
5–9	0.0	0.0	0.0
10–14	0.0	0.0	0.0
15–19	3.4	5.3	1.4
20–24	13.9	24.3	2.1
25–29	13.3	23.2	2.0
30–34	11.2	20.2	1.3
35–39	8.5	15.6	1.0
40–44	9.3	17.5	0.6
45–54	6.8	12.8	0.7
55–64	1.8	3.4	0.2
65+	0.6	1.3	0.0
Unknown Age			
TOTAL	**5.7**	**10.4**	**0.8**

* Includes 47 states and the District of Columbia reporting race/ethnicity data in the Office of Management and Budget compliant formats in 2012.

† Total includes 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 no rates are calculated.

Table 37. Early Latent Syphilis—Reported Cases and Rates by State/Area and Region in Alphabetical Order, United States and Outlying Areas, 2008–2012

State/Area	Cases					Rates per 100,000 Population				
	2008	2009	2010	2011	2012	2008	2009	2010	2011	2012
Alabama	440	419	277	268	237	9.4	8.9	5.8	5.6	4.9
Alaska	2	0	5	3	8	0.3	0.0	0.7	0.4	1.1
Arizona	258	196	166	187	147	4.0	3.0	2.6	2.9	2.3
Arkansas	144	172	202	167	152	5.0	6.0	6.9	5.7	5.2
California	1,648	1,621	1,788	2,030	2,519	4.5	4.4	4.8	5.4	6.7
Colorado	91	63	129	154	194	1.8	1.3	2.6	3.0	3.8
Connecticut	28	40	51	57	52	0.8	1.1	1.4	1.6	1.5
Delaware	23	23	14	49	38	2.6	2.6	1.6	5.4	4.2
District of Columbia	77	158	239	222	244	13.0	26.3	39.7	35.9	39.5
Florida	1,252	1,254	1,294	1,212	1,384	6.8	6.8	6.9	6.4	7.3
Georgia	563	768	636	436	639	5.8	7.8	6.6	4.4	6.5
Hawaii	9	15	15	5	9	0.7	1.2	1.1	0.4	0.7
Idaho	6	3	4	11	21	0.4	0.2	0.3	0.7	1.3
Illinois	271	344	502	581	690	2.1	2.7	3.9	4.5	5.4
Indiana	83	55	103	95	148	1.3	0.9	1.6	1.5	2.3
Iowa	11	9	4	11	15	0.4	0.3	0.1	0.4	0.5
Kansas	54	58	63	34	54	1.9	2.1	2.2	1.2	1.9
Kentucky	47	64	88	109	139	1.1	1.5	2.0	2.5	3.2
Louisiana	809	799	742	488	343	18.3	17.8	16.4	10.7	7.5
Maine	10	10	6	8	2	0.8	0.8	0.5	0.6	0.2
Maryland	313	261	279	332	361	5.6	4.6	4.8	5.7	6.2
Massachusetts	149	135	195	233	231	2.3	2.0	3.0	3.5	3.5
Michigan	99	155	121	132	150	1.0	1.6	1.2	1.3	1.5
Minnesota	47	46	73	121	96	0.9	0.9	1.4	2.3	1.8
Mississippi	232	312	386	313	253	7.9	10.6	13.0	10.5	8.5
Missouri	145	146	133	124	135	2.5	2.4	2.2	2.1	2.2
Montana	1	0	2	1	0	0.1	0.0	0.2	0.1	0.0
Nebraska	0	6	1	3	8	0.0	0.3	0.1	0.2	0.4
Nevada	168	137	178	166	214	6.5	5.2	6.6	6.1	7.9
New Hampshire	4	6	5	5	9	0.3	0.5	0.4	0.4	0.7
New Jersey	415	401	386	452	410	4.8	4.6	4.4	5.1	4.6
New Mexico	45	40	41	56	68	2.3	2.0	2.0	2.7	3.3
New York	1,372	1,266	1,358	1,254	1,413	7.0	6.5	7.0	6.4	7.3
North Carolina	221	357	328	333	244	2.4	3.8	3.4	3.4	2.5
North Dakota	2	0	0	1	0	0.3	0.0	0.0	0.1	0.0
Ohio	224	221	189	160	171	2.0	1.9	1.6	1.4	1.5
Oklahoma	117	172	149	145	146	3.2	4.7	4.0	3.8	3.9
Oregon	18	29	33	63	94	0.5	0.8	0.9	1.6	2.4
Pennsylvania	309	361	355	412	484	2.5	2.9	2.8	3.2	3.8
Rhode Island	7	14	20	20	24	0.7	1.3	1.9	1.9	2.3
South Carolina	192	284	344	345	336	4.3	6.2	7.4	7.4	7.2
South Dakota	3	2	0	0	3	0.4	0.2	0.0	0.0	0.4
Tennessee	312	333	363	256	255	5.0	5.3	5.7	4.0	4.0
Texas	1,733	1,932	1,874	1,581	1,767	7.1	7.8	7.5	6.2	6.9
Utah	10	7	20	8	8	0.4	0.3	0.7	0.3	0.3
Vermont	6	1	0	1	6	1.0	0.2	0.0	0.2	1.0
Virginia	238	233	275	289	303	3.1	3.0	3.4	3.6	3.7
Washington	98	64	109	146	181	1.5	1.0	1.6	2.1	2.7
West Virginia	16	8	4	0	10	0.9	0.4	0.2	0.0	0.5
Wisconsin	78	66	52	57	86	1.4	1.2	0.9	1.0	1.5
Wyoming	1	0	3	0	2	0.2	0.0	0.5	0.0	0.4
U.S. TOTAL	**12,401**	**13,066**	**13,604**	**13,136**	**14,503**	**4.1**	**4.3**	**4.4**	**4.2**	**4.7**
Northeast	2,300	2,234	2,376	2,442	2,631	4.2	4.0	4.3	4.4	4.7
Midwest	1,017	1,108	1,241	1,319	1,556	1.5	1.7	1.9	2.0	2.3
South	6,729	7,549	7,494	6,545	6,851	6.0	6.7	6.5	5.6	5.9
West	2,355	2,175	2,493	2,830	3,465	3.3	3.0	3.5	3.9	4.8
Guam	2	1	0	4	1	1.1	0.6	0.0	2.5	0.6
Puerto Rico	241	164	191	211	222	6.1	4.1	5.1	5.7	6.0
Virgin Islands	0	0	3	0	0	0.0	0.0	2.8	0.0	0.0
OUTLYING AREAS	**243**	**165**	**194**	**215**	**223**	**5.7**	**3.9**	**4.9**	**5.4**	**5.6**
TOTAL	**12,644**	**13,231**	**13,798**	**13,351**	**14,726**	**4.1**	**4.3**	**4.4**	**4.2**	**4.7**

Table 38. Early Latent Syphilis—Reported Cases and Rates in Selected Metropolitan Statistical Areas (MSAs)* in Alphabetical Order, United States, 2008–2012

MSAs	Cases					Rates per 100,000 Population				
	2008	2009	2010	2011	2012	2008	2009	2010	2011	2012
Atlanta-Sandy Springs-Marietta, GA	402	613	529	352	491	7.5	11.2	10.0	6.6	9.2
Austin-Round Rock, TX	109	135	137	137	170	6.6	7.9	8.0	7.7	9.5
Baltimore-Towson, MD	214	153	148	198	206	8.0	5.7	5.5	7.3	7.5
Birmingham-Hoover, AL	199	150	67	90	74	17.8	13.3	5.9	7.9	6.5
Boston-Cambridge-Quincy, MA-NH	124	116	161	176	158	2.7	2.5	3.5	3.8	3.4
Buffalo-Cheektowaga-Tonawanda, NY	10	3	0	7	11	0.9	0.3	0.0	0.6	1.0
Charlotte-Gastonia-Concord, NC-SC	62	78	90	95	60	3.6	4.5	5.1	5.3	3.3
Chicago-Naperville-Joliet, IL-IN-WI	251	324	476	531	630	2.6	3.4	5.0	5.6	6.6
Cincinnati-Middletown, OH-KY-IN	23	42	88	67	78	1.1	1.9	4.1	3.1	3.6
Cleveland-Elyria-Mentor, OH	48	70	20	25	13	2.3	3.3	1.0	1.2	0.6
Columbus, OH	89	64	42	36	49	5.0	3.6	2.3	1.9	2.6
Dallas-Fort Worth-Arlington, TX	496	592	647	500	604	7.9	9.2	10.2	7.7	9.3
Denver-Aurora, CO	68	57	109	139	177	2.7	2.2	4.3	5.3	6.8
Detroit-Warren-Livonia, MI	45	88	76	82	113	1.0	2.0	1.8	1.9	2.6
Hartford-West Hartford-East Hartford, CT	10	13	18	18	9	0.8	1.1	1.5	1.5	0.7
Houston-Baytown-Sugar Land, TX	555	421	370	351	421	9.7	7.2	6.2	5.8	6.9
Indianapolis, IN	56	27	70	65	102	3.3	1.5	4.0	3.7	5.7
Jacksonville, FL	86	82	91	50	57	6.5	6.2	6.8	3.7	4.2
Kansas City, MO-KS	79	64	59	40	61	3.9	3.1	2.9	1.9	3.0
Las Vegas-Paradise, NV	166	135	174	162	207	8.9	7.1	8.9	8.2	10.5
Los Angeles-Long Beach-Santa Ana, CA	910	1,070	991	1,132	1,393	7.1	8.3	7.7	8.7	10.8
Louisville, KY-IN	20	17	46	43	72	1.6	1.4	3.6	3.3	5.6
Memphis, TN-MS-AR	199	259	256	180	188	15.5	19.8	19.5	13.6	14.2
Miami-Fort Lauderdale-Miami Beach, FL	563	644	749	682	831	10.4	11.6	13.5	12.0	14.7
Milwaukee-Waukesha-West Allis, WI	60	46	35	33	57	3.9	2.9	2.2	2.1	3.6
Minneapolis-St. Paul-Bloomington, MN-WI	43	45	68	112	91	1.3	1.4	2.1	3.4	2.7
Nashville-Davidson-Murfreesboro, TN	54	64	70	37	50	3.5	4.0	4.4	2.3	3.1
New Orleans-Metairie-Kenner, LA	239	243	193	108	88	21.1	20.4	16.5	9.1	7.4
New York-Newark-Edison, NY-NJ-PA	1,628	1,530	1,595	1,556	1,654	8.6	8.0	8.4	8.2	8.7
Oklahoma City, OK	72	123	76	65	79	6.0	10.0	6.1	5.1	6.2
Orlando, FL	148	132	138	142	136	7.2	6.3	6.5	6.5	6.3
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	305	362	348	398	408	5.2	6.1	5.8	6.6	6.8
Phoenix-Mesa-Scottsdale, AZ	160	131	126	153	120	3.7	3.0	3.0	3.6	2.8
Pittsburgh, PA	43	25	27	30	46	1.8	1.1	1.1	1.3	1.9
Portland-Vancouver-Beaverton, OR-WA	11	22	33	58	101	0.5	1.0	1.5	2.6	4.5
Providence-New Bedford-Fall River, RI-MA	13	16	26	26	35	0.8	1.0	1.6	1.6	2.2
Richmond, VA	81	59	77	69	78	6.6	4.8	6.1	5.4	6.1
Riverside-San Bernardino-Ontario, CA	89	88	86	144	138	2.2	2.1	2.0	3.3	3.2
Rochester, NY	5	6	7	9	6	0.5	0.6	0.7	0.9	0.6
Sacramento-Arden-Arcade-Roseville, CA	39	38	43	51	38	1.8	1.8	2.0	2.3	1.7
Salt Lake City, UT	10	4	12	7	7	0.9	0.4	1.1	0.6	0.6
San Antonio, TX	203	290	305	252	269	10.0	14.0	14.2	11.5	12.3
San Diego-Carlsbad-San Marcos, CA	179	80	177	162	236	6.0	2.6	5.7	5.2	7.5
San Francisco-Oakland-Fremont, CA	281	253	373	396	528	6.6	5.9	8.6	9.0	12.0
San Jose-Sunnyvale-Santa Clara, CA	25	22	29	35	44	1.4	1.2	1.6	1.9	2.4
Seattle-Tacoma-Bellevue, WA	91	56	91	134	142	2.7	1.6	2.6	3.8	4.1
St. Louis, MO-IL	70	90	106	84	89	2.5	3.2	3.8	3.0	3.2
Tampa-St. Petersburg-Clearwater, FL	275	225	117	139	176	10.1	8.2	4.2	4.9	6.2
Virginia Beach-Norfolk-Newport News, VA-NC	69	78	84	108	90	4.2	4.7	5.0	6.4	5.4
Washington-Arlington-Alexandria, DC-VA-MD-WV	224	306	441	402	497	4.2	5.6	7.9	7.0	8.7
U.S. MSAs TOTAL	**9,201**	**9,551**	**10,097**	**9,868**	**11,378**	**5.6**	**5.7**	**6.1**	**5.9**	**6.8**

* MSAs were selected on the basis of the largest population in the 2000 U.S. Census.

Table 39. Late and Late Latent Syphilis*—Reported Cases and Rates by State/Area and Region in Alphabetical Order, United States and Outlying Areas, 2008–2012

State/Area	Cases					Rates per 100,000 Population				
	2008	2009	2010	2011	2012	2008	2009	2010	2011	2012
Alabama	286	289	235	252	248	6.1	6.1	4.9	5.2	5.2
Alaska	6	4	7	3	14	0.9	0.6	1.0	0.4	1.9
Arizona	789	629	493	431	424	12.1	9.5	7.7	6.6	6.5
Arkansas	149	95	116	100	132	5.2	3.3	4.0	3.4	4.5
California	2,995	2,449	2,223	2,269	2,509	8.1	6.6	6.0	6.0	6.7
Colorado	133	101	75	80	101	2.7	2.0	1.5	1.6	2.0
Connecticut	109	72	83	67	14	3.1	2.0	2.3	1.9	0.4
Delaware	20	36	19	48	29	2.3	4.1	2.1	5.3	3.2
District of Columbia	147	110	121	164	180	24.8	18.3	20.1	26.5	29.1
Florida	2,272	1,547	1,572	1,641	1,693	12.4	8.3	8.4	8.6	8.9
Georgia	1,345	982	898	771	842	13.9	10.0	9.3	7.9	8.6
Hawaii	30	39	23	13	11	2.3	3.0	1.7	0.9	0.8
Idaho	13	24	9	18	6	0.9	1.6	0.6	1.1	0.4
Illinois	720	805	799	946	902	5.6	6.2	6.2	7.4	7.0
Indiana	128	110	134	200	159	2.0	1.7	2.1	3.1	2.4
Iowa	48	33	45	39	58	1.6	1.1	1.5	1.3	1.9
Kansas	41	58	28	18	51	1.5	2.1	1.0	0.6	1.8
Kentucky	77	81	84	95	99	1.8	1.9	1.9	2.2	2.3
Louisiana	485	413	1,163	1,090	1,065	11.0	9.2	25.7	23.8	23.3
Maine	7	1	3	4	3	0.5	0.1	0.2	0.3	0.2
Maryland	374	387	386	470	439	6.6	6.8	6.7	8.1	7.5
Massachusetts	114	100	158	271	258	1.8	1.5	2.4	4.1	3.9
Michigan	227	246	322	338	334	2.3	2.5	3.3	3.4	3.4
Minnesota	102	99	128	107	120	2.0	1.9	2.4	2.0	2.2
Mississippi	320	188	200	238	53	10.9	6.4	6.7	8.0	1.8
Missouri	171	189	225	153	133	2.9	3.2	3.8	2.5	2.2
Montana	2	1	0	1	1	0.2	0.1	0.0	0.1	0.1
Nebraska	21	34	20	23	18	1.2	1.9	1.1	1.2	1.0
Nevada	71	75	99	125	117	2.7	2.8	3.7	4.6	4.3
New Hampshire	17	17	16	10	19	1.3	1.3	1.2	0.8	1.4
New Jersey	364	270	314	282	243	4.2	3.1	3.6	3.2	2.8
New Mexico	96	107	57	85	64	4.8	5.3	2.8	4.1	3.1
New York	2,903	2,160	2,387	2,436	2,667	14.9	11.1	12.3	12.5	13.7
North Carolina	480	578	499	485	444	5.2	6.2	5.2	5.0	4.6
North Dakota	2	3	3	3	10	0.3	0.5	0.4	0.4	1.5
Ohio	185	206	349	341	526	1.6	1.8	3.0	3.0	4.6
Oklahoma	51	25	31	39	27	1.4	0.7	0.8	1.0	0.7
Oregon	53	46	69	92	117	1.4	1.2	1.8	2.4	3.0
Pennsylvania	313	321	280	335	365	2.5	2.5	2.2	2.6	2.9
Rhode Island	30	29	18	18	25	2.9	2.8	1.7	1.7	2.4
South Carolina	120	100	80	73	56	2.7	2.2	1.7	1.6	1.2
South Dakota	2	8	8	14	8	0.2	1.0	1.0	1.7	1.0
Tennessee	548	568	542	483	545	8.8	9.0	8.5	7.5	8.5
Texas	3,071	3,271	3,204	3,312	3,585	12.6	13.2	12.7	12.9	14.0
Utah	5	17	47	42	51	0.2	0.6	1.7	1.5	1.8
Vermont	1	0	0	0	0	0.2	0.0	0.0	0.0	0.0
Virginia	281	221	245	224	317	3.6	2.8	3.1	2.8	3.9
Washington	159	118	159	236	226	2.4	1.8	2.4	3.5	3.3
West Virginia	14	16	16	5	6	0.8	0.9	0.9	0.3	0.3
Wisconsin	43	56	84	80	91	0.8	1.0	1.5	1.4	1.6
Wyoming	5	4	3	6	6	0.9	0.7	0.5	1.1	1.1
U.S. TOTAL	**19,945**	**17,338**	**18,079**	**18,576**	**19,411**	**6.6**	**5.6**	**5.9**	**6.0**	**6.2**
Northeast	3,858	2,970	3,259	3,423	3,594	7.0	5.4	5.9	6.2	6.5
Midwest	1,690	1,847	2,145	2,262	2,410	2.5	2.8	3.2	3.4	3.6
South	10,040	8,907	9,411	9,490	9,760	9.0	7.9	8.2	8.2	8.4
West	4,357	3,614	3,264	3,401	3,647	6.1	5.0	4.5	4.7	5.0
Guam	37	9	10	17	20	21.0	5.0	6.3	10.7	12.5
Puerto Rico	381	328	302	204	175	9.6	8.3	8.1	5.5	4.7
Virgin Islands	1	2	1	7	2	0.9	1.8	0.9	6.6	1.9
OUTLYING AREAS	**419**	**339**	**313**	**228**	**197**	**9.9**	**8.0**	**7.8**	**5.7**	**5.0**
TOTAL	**20,364**	**17,677**	**18,392**	**18,804**	**19,608**	**6.6**	**5.7**	**5.9**	**6.0**	**6.2**

* Late and late latent syphilis includes late latent syphilis, latent syphilis of unknown duration, neurosyphilis, and late syphilis with clinical manifestations other than neurosyphilis.

Table 40. Late and Late Latent Syphilis*—Reported Cases and Rates in Selected Metropolitan Statistical Areas (MSAs)† in Alphabetical Order, United States, 2008–2012

MSAs	Cases					Rates per 100,000 Population				
	2008	2009	2010	2011	2012	2008	2009	2010	2011	2012
Atlanta-Sandy Springs-Marietta, GA	1,068	756	723	611	573	19.9	13.8	13.7	11.4	10.7
Austin-Round Rock, TX	127	116	118	168	154	7.7	6.8	6.9	9.4	8.6
Baltimore-Towson, MD	186	193	162	196	203	7.0	7.2	6.0	7.2	7.4
Birmingham-Hoover, AL	110	112	84	95	79	9.8	9.9	7.4	8.4	7.0
Boston-Cambridge-Quincy, MA-NH	86	92	142	240	207	1.9	2.0	3.1	5.2	4.5
Buffalo-Cheektowaga-Tonawanda, NY	7	27	32	27	32	0.6	2.4	2.8	2.4	2.8
Charlotte-Gastonia-Concord, NC-SC	100	127	91	106	108	5.9	7.3	5.2	5.9	6.0
Chicago-Naperville-Joliet, IL-IN-WI	650	727	703	866	853	6.8	7.6	7.4	9.1	9.0
Cincinnati-Middletown, OH-KY-IN	20	58	117	131	275	0.9	2.7	5.5	6.1	12.9
Cleveland-Elyria-Mentor, OH	15	29	79	70	82	0.7	1.4	3.8	3.4	4.0
Columbus, OH	84	71	82	76	99	4.7	3.9	4.5	4.1	5.3
Dallas-Fort Worth-Arlington, TX	934	1,020	941	979	1,130	14.8	15.8	14.8	15.0	17.3
Denver-Aurora, CO	98	74	64	64	74	3.9	2.9	2.5	2.5	2.8
Detroit-Warren-Livonia, MI	154	171	232	229	252	3.5	3.9	5.4	5.3	5.9
Hartford-West Hartford-East Hartford, CT	51	29	34	22	3	4.3	2.4	2.8	1.8	0.2
Houston-Baytown-Sugar Land, TX	1,024	1,139	1,149	1,168	1,268	17.9	19.4	19.3	19.2	20.8
Indianapolis, IN	53	48	55	111	81	3.1	2.8	3.1	6.2	4.6
Jacksonville, FL	153	95	87	89	73	11.7	7.2	6.5	6.5	5.4
Kansas City, MO-KS	55	70	43	44	40	2.7	3.4	2.1	2.1	1.9
Las Vegas-Paradise, NV	52	49	85	111	98	2.8	2.6	4.4	5.6	5.0
Los Angeles-Long Beach-Santa Ana, CA	1,722	1,332	1,238	1,222	1,091	13.4	10.3	9.7	9.4	8.4
Louisville, KY-IN	34	48	46	50	49	2.7	3.8	3.6	3.9	3.8
Memphis, TN-MS-AR	306	316	326	278	291	23.8	24.2	24.8	21.0	22.0
Miami-Fort Lauderdale-Miami Beach, FL	1,326	797	853	984	1,032	24.5	14.4	15.3	17.4	18.2
Milwaukee-Waukesha-West Allis, WI	32	43	57	49	59	2.1	2.8	3.7	3.1	3.8
Minneapolis-St. Paul-Bloomington, MN-WI	75	70	101	87	105	2.3	2.1	3.1	2.6	3.2
Nashville-Davidson-Murfreesboro, TN	138	145	115	105	129	8.9	9.2	7.2	6.5	8.0
New Orleans-Metairie-Kenner, LA	75	78	391	453	380	6.6	6.6	33.5	38.0	31.9
New York-Newark-Edison, NY-NJ-PA	3,089	2,237	2,502	2,522	2,651	16.3	11.7	13.2	13.3	13.9
Oklahoma City, OK	26	16	17	10	15	2.2	1.3	1.4	0.8	1.2
Orlando, FL	184	165	149	166	192	9.0	7.9	7.0	7.6	8.8
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	287	304	271	325	338	4.9	5.1	4.5	5.4	5.6
Phoenix-Mesa-Scottsdale, AZ	468	368	345	299	332	10.9	8.4	8.2	7.0	7.8
Pittsburgh, PA	17	16	9	13	21	0.7	0.7	0.4	0.6	0.9
Portland-Vancouver-Beaverton, OR-WA	32	39	54	72	99	1.4	1.7	2.4	3.2	4.4
Providence-New Bedford-Fall River, RI-MA	33	31	22	30	32	2.1	1.9	1.4	1.9	2.0
Richmond, VA	53	50	47	36	52	4.3	4.0	3.7	2.8	4.1
Riverside-San Bernardino-Ontario, CA	202	210	185	201	465	4.9	5.1	4.4	4.7	10.8
Rochester, NY	37	34	43	31	69	3.6	3.3	4.1	2.9	6.5
Sacramento-Arden-Arcade-Roseville, CA	100	94	81	69	59	4.7	4.4	3.8	3.2	2.7
Salt Lake City, UT	2	8	29	32	33	0.2	0.7	2.6	2.8	2.9
San Antonio, TX	190	221	232	286	366	9.4	10.7	10.8	13.0	16.7
San Diego-Carlsbad-San Marcos, CA	292	211	148	154	144	9.7	6.9	4.8	4.9	4.6
San Francisco-Oakland-Fremont, CA	277	239	230	244	321	6.5	5.5	5.3	5.6	7.3
San Jose-Sunnyvale-Santa Clara, CA	84	58	62	54	84	4.6	3.2	3.4	2.9	4.5
Seattle-Tacoma-Bellevue, WA	115	84	112	177	169	3.4	2.5	3.3	5.1	4.8
St. Louis, MO-IL	129	120	177	94	96	4.6	4.2	6.3	3.3	3.4
Tampa-St. Petersburg-Clearwater, FL	212	223	195	175	171	7.8	8.1	7.0	6.2	6.1
Virginia Beach-Norfolk-Newport News, VA-NC	80	55	59	40	100	4.8	3.3	3.5	2.4	6.0
Washington-Arlington-Alexandria, DC-VA-MD-WV	425	362	425	536	515	7.9	6.6	7.6	9.4	9.0
U.S. MSAs TOTAL	**15,069**	**12,977**	**13,544**	**14,197**	**15,144**	**9.2**	**7.8**	**8.2**	**8.5**	**9.0**

* Late and late latent syphilis includes late latent syphilis, latent syphilis of unknown duration, neurosyphilis, and late syphilis with clinical manifestations other than neurosyphilis.

† MSAs were selected on the basis of the largest population in the 2000 U.S. Census.

Table 41. Congenital Syphilis—Reported Cases and Rates in Infants by Year of Birth, by State, Ranked by Rates, United States, 2012

Rank*	State†	Cases	Rate per 100,000 Live Births
1	Louisiana	32	49.3
2	Arkansas	11	27.6
3	Texas	78	19.4
4	Florida	37	16.7
5	Maryland	12	16.0
6	Illinois	27	15.8
7	Arizona	14	15.1
8	Ohio	16	11.0
9	Georgia	14	9.9
10	South Carolina	6	9.9
	HEALTHY PEOPLE 2020 TARGET		**9.1**
11	Alaska	1	8.8
12	Delaware	1	8.7
	U.S. TOTAL‡	**322**	**7.8**
13	California	34	6.5
14	Alabama	4	6.4
15	Michigan	7	6.0
16	Pennsylvania	6	4.1
17	Nebraska	1	3.7
18	Kentucky	2	3.5
19	New Mexico	1	3.4
20	New York	8	3.2
21	Nevada	1	2.7
22	Oregon	1	2.1
23	Minnesota	1	1.4
24	Wisconsin	1	1.4
25	Massachusetts	1	1.3
26	Missouri	1	1.3
27	Tennessee	1	1.2
28	Virginia	1	1.0
29	New Jersey	1	0.9
30	North Carolina	1	0.8
	Colorado	0	0.0
	Connecticut	0	0.0
	Hawaii	0	0.0
	Idaho	0	0.0
	Indiana	0	0.0
	Iowa	0	0.0
	Kansas	0	0.0
	Maine	0	0.0
	Mississippi	0	0.0
	Montana	0	0.0
	New Hampshire	0	0.0
	North Dakota	0	0.0
	Oklahoma	0	0.0
	Rhode Island	0	0.0
	South Dakota	0	0.0
	Utah	0	0.0
	Vermont	0	0.0
	Washington	0	0.0
	West Virginia	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 1 case and rate of 2.2, and Virgin Islands with 0 cases).

Table 42. Congenital Syphilis—Reported Cases and Rates in Infants by Year of Birth, by State/Area and Region in Alphabetical Order, United States and Outlying Areas, 2008–2012

State/Area*	Cases					Rates per 100,000 Live Births				
	2008	2009	2010	2011	2012	2008	2009	2010	2011	2012
Alabama	12	13	9	10	4	18.6	20.8	14.4	16.0	6.4
Alaska	0	0	0	0	1	0.0	0.0	0.0	0.0	8.8
Arizona	30	28	16	15	14	30.2	30.2	17.2	16.2	15.1
Arkansas	9	10	11	15	11	22.1	25.1	27.6	37.7	27.6
California	64	63	39	40	34	11.6	12.0	7.4	7.6	6.5
Colorado	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Connecticut	2	2	2	0	0	5.0	5.1	5.1	0.0	0.0
Delaware	1	1	2	0	1	8.3	8.7	17.3	0.0	8.7
District of Columbia	0	0	1	1	0	0.0	0.0	11.1	11.1	0.0
Florida	17	18	20	33	37	7.3	8.1	9.0	14.9	16.7
Georgia	11	14	18	10	14	7.5	9.9	12.7	7.1	9.9
Hawaii	0	1	0	0	0	0.0	5.3	0.0	0.0	0.0
Idaho	0	1	1	0	0	0.0	4.2	4.2	0.0	0.0
Illinois	20	16	27	18	27	11.3	9.3	15.8	10.5	15.8
Indiana	0	1	0	0	0	0.0	1.2	0.0	0.0	0.0
Iowa	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Kansas	0	3	0	0	0	0.0	7.2	0.0	0.0	0.0
Kentucky	1	2	0	2	2	1.7	3.5	0.0	3.5	3.5
Louisiana	23	11	33	18	32	35.2	16.9	50.8	27.7	49.3
Maine	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Maryland	23	31	22	24	12	29.8	41.3	29.3	32.0	16.0
Massachusetts	0	0	1	0	1	0.0	0.0	1.3	0.0	1.3
Michigan	10	5	5	8	7	8.3	4.3	4.3	6.8	6.0
Minnesota	1	1	0	0	1	1.4	1.4	0.0	0.0	1.4
Mississippi	9	8	9	6	0	20.0	18.6	21.0	14.0	0.0
Missouri	2	6	2	1	1	2.5	7.6	2.5	1.3	1.3
Montana	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Nebraska	0	0	0	0	1	0.0	0.0	0.0	0.0	3.7
Nevada	9	3	5	3	1	22.8	8.0	13.3	8.0	2.7
New Hampshire	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
New Jersey	4	7	3	5	1	3.5	6.3	2.7	4.5	0.9
New Mexico	4	0	0	0	1	13.3	0.0	0.0	0.0	3.4
New York	23	15	17	13	8	9.2	6.0	6.9	5.2	3.2
North Carolina	11	10	10	6	1	8.4	7.9	7.9	4.7	0.8
North Dakota	0	1	0	0	0	0.0	11.1	0.0	0.0	0.0
Ohio	3	8	10	13	16	2.0	5.5	6.9	9.0	11.0
Oklahoma	3	2	0	2	0	5.5	3.7	0.0	3.7	0.0
Oregon	0	0	0	0	1	0.0	0.0	0.0	0.0	2.1
Pennsylvania	8	5	3	5	6	5.4	3.4	2.0	3.4	4.1
Rhode Island	0	1	0	0	0	0.0	8.7	0.0	0.0	0.0
South Carolina	2	0	1	0	6	3.2	0.0	1.6	0.0	9.9
South Dakota	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Tennessee	11	13	11	8	1	12.9	15.8	13.4	9.7	1.2
Texas	127	128	105	99	78	31.3	31.8	26.1	24.6	19.4
Utah	0	0	1	0	0	0.0	0.0	1.9	0.0	0.0
Vermont	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Virginia	4	2	1	0	1	3.7	1.9	1.0	0.0	1.0
Washington	0	1	1	2	0	0.0	1.1	1.1	2.2	0.0
West Virginia	1	0	0	0	0	4.7	0.0	0.0	0.0	0.0
Wisconsin	1	0	1	1	1	1.4	0.0	1.4	1.4	1.4
Wyoming	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
U.S. TOTAL	**446**	**431**	**387**	**358**	**322**	**10.5**	**10.4**	**9.4**	**8.7**	**7.8**
Northeast	37	30	26	23	16	5.5	4.5	3.9	3.5	2.4
Midwest	37	41	45	41	54	4.2	4.7	5.2	4.7	6.2
South	265	263	253	234	200	16.4	16.7	16.0	14.8	12.7
West	107	97	63	60	52	10.1	9.5	6.2	5.9	5.1
Guam	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Puerto Rico	8	6	2	2	1	17.5	13.4	4.5	4.5	2.2
Virgin Islands	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
OUTLYING AREAS	**8**	**6**	**2**	**2**	**1**	**15.7**	**12.0**	**4.0**	**4.0**	**2.0**
TOTAL	**454**	**437**	**389**	**360**	**323**	**10.6**	**10.5**	**9.3**	**8.6**	**7.7**

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

Table 43. Congenital Syphilis—Reported Cases and Rates per 100,000 Live Births in Infants by Year of Birth and Race/Ethnicity of Mother, United States, 2008–2012

Year of Birth	Whites, Non-Hispanic		Blacks, Non-Hispanic		Hispanics	
	Cases	Rate	Cases	Rate	Cases	Rate
2008	67	2.9	226	35.9	135	13.0
2009	65	2.9	216	35.1	128	12.8
2010	63	2.8	216	35.1	91	9.1
2011	50	2.2	211	34.3	73	7.3
2012	47	2.1	182	29.6	79	7.9

Year of Birth	Asians/Pacific Islanders		American Indians/Alaska Natives		Multirace	
	Cases	Rate	Cases	Rate	Cases	Rate
2008	7	2.9	6	13.8	0	NA
2009	11	4.6	5	11.8	0	NA
2010	9	3.7	1	2.4	2	NA
2011	14	5.8	2	4.7	0	NA
2012	6	2.5	2	4.7	0	NA

Year of Birth	Other		Unknown		Total	
	Cases	Rate	Cases	Rate	Cases	Rate
2008	1	NA	4	NA	446	10.5
2009	2	NA	4	NA	431	10.4
2010	1	NA	4	NA	387	9.4
2011	3	NA	5	NA	358	8.7
2012	2	NA	4	NA	322	7.8

NA = Not applicable.

Table 44. Chancroid—Reported Cases and Rates by State/Area in Alphabetical Order, United States and Outlying Areas, 2008–2012

State/Area	Cases					Rates per 100,000 Population				
	2008	2009	2010	2011	2012	2008	2009	2010	2011	2012
Alabama	0	0	1	0	1	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	0	0	1	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	2	1	5	1	7	0.0	0.0	0.0	0.0	0.0
Colorado	2	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	0	1	1	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	1	0	0	1	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	0	0	1	0.0	0.0	0.0	0.0	0.0
Massachusetts	4	3	1	2	1	0.1	0.0	0.0	0.0	0.0
Michigan	0	0	0	1	2	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	2	0	0	0	0	0.0	0.0	0.0	0.0	0.0
North Carolina	4	6	1	0	1	0.0	0.1	0.0	0.0	0.0
North Dakota	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Ohio	1	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	1	1	2	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	0	0	1	0	0	0.0	0.0	0.0	0.0	0.0
Texas	8	8	12	1	0	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	1	0	0	1	0.0	0.0	0.0	0.0	0.0
Washington	1	0	1	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	6	0	0	0	0.0	0.1	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	**25**	**28**	**24**	**8**	**15**	**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	**25**	**28**	**24**	**8**	**15**	**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, 1966–2012

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

*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 100,000-300,000 are from 20% to 30%; 300,000-600,000 are from 16% to 20%; 600,000-1,000,000 are from 13% to 16%; and 1,000,000-5,000,000 are from 9% to 13%.
SOURCE: National Disease and Therapeutic Index (IMS Health). See Other Data Sources in the Appendix for more information.

APPENDIX

APPENDIX

Interpreting STD Surveillance Data

Sexually Transmitted Disease Surveillance 2012 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.

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.

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 2012 to report detailed case-specific data for congenital syphilis in some areas.

National Electronic Telecommunications System for Surveillance

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 (43 reporting areas submit congenital syphilis surveillance data through NETSS). 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 May 29, 2013, 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.

Population Denominators and Rate Calculations

2000–2012 Rates and Population

CDC's National Center for Health Statistics (NCHS) released bridged-race population counts for the 2000–2011 U.S. resident populations that are based on counts from the 2000 U.S. Census. These estimates resulted from bridging the 31 race categories 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 bridged-race population estimates at the time this report was written was 2011. Thus 2011 population estimates were used to calculate 2011 and 2012 rates. Once published, the 2012 population estimates will be used to calculate rates in the upcoming 2013 STD Surveillance Report.

Population estimates for Guam, Puerto Rico, and the Virgin Islands were obtained from the U.S. Census Bureau Web site at http://www.census.gov/ipc/www/idb/tables.html. The 2010–2011 rates for outlying areas were calculated by using the 2011 population estimates.

Because of the use of the updated population data, rates for 2000–2011 may be different from those presented in previous STD surveillance reports.

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.

1941–2012 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 1941–2012. 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 2012, 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 2006 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 2007 through 2012 were calculated by using live birth data for 2009.

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.

Reporting of Surveillance Data by Metropolitan Statistical Area

Sexually Transmitted Disease Surveillance 2012 continues the presentation of STD incidence data and rates for the 50 metropolitan statistical areas (MSAs) with the largest populations according to 2000 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 2000 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/estimates/metro-city/03mfips.txt.

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 this publication, *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 or Other Pacific Islander, White and multirace. As of reporting year 2012, there are 47 states (Alabama, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Florida, Georgia, Hawaii, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, Wyoming) and the District of Columbia compliant with the current OMB race/ethnicity standards. In figures where trends are shown for 2008-2012, the data are presented for 38 states (Alabama, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Florida, Georgia, Hawaii, Illinois, Missouri, Indiana, Iowa, Kansas, Kentucky, Maine, Massachusetts, Michigan, Minnesota, Mississippi, Nebraska, Nevada, New Hampshire, New Mexico, North Dakota, Ohio, Oklahoma, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Vermont, Virginia, Washington, West Virginia, Wyoming) and the District of Columbia since these areas consistently reported race/ethnicity data according to the current standard categories for the five consecutive years.

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 2012.

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

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 1984–2012 are presented as STD clinic or non-STD clinic only (Table A2).

Chlamydia Case Reporting

Trends in chlamydia case reporting from many state and local jurisdictions are likely reflective of changes in diagnostic, screening, and reporting practices than of actual trends in disease incidence. In particular, morbidity trends are likely to be influenced by changes in test technology as laboratories expand their use of more sensitive tests (e.g., nucleic acid amplification tests).

Syphilis Morbidity Reporting

The category of "total syphilis" or "all stages of syphilis" includes primary, secondary, latent (including early latent, late latent, and latent syphilis of unknown duration), neurosyphilis, late (including late syphilis with clinical manifestations other than neurosyphilis), and congenital syphilis.

In 1996, the syphilis stage "late syphilis with clinical manifestations other than neurosyphilis (late benign and cardiovascular syphilis)" was added to the syphilis case definition (see STD Surveillance Case Definitions in the Appendix). 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.

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 April 2010). 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 1995–2012.

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.

Chlamydia and Gonorrhea Positivity and Prevalence Monitoring

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.

During the mid-1990s to 2011, chlamydia and gonorrhea positivity among women screened in correctional facilities, family planning clinics, and prenatal care clinics participating in infertility prevention activities were reported to CDC to monitor chlamydia and gonorrhea prevalence. As the national infertility prevention program expanded, these data became difficult to interpret as trends were influenced by changes in screening coverage, screening criteria, and test technologies, as well as demographic changes in patients attending clinics reporting data to CDC. These issues could not be addressed with the limited variables that were collected at the national level. Positivity data continue to be useful locally to inform clinic-based screening recommendations and to identify at-risk populations in need of prevention interventions, but are no longer collected to monitor national trends in chlamydia and gonorrhea.

STD Surveillance Network (SSuN)

In 2005, CDC established the STD Surveillance Network (SSuN) as a dynamic network comprised of local enhanced STD surveillance systems that follow common 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 participated in SSuN in 2012: 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.

The SSuN data contained in this report include demographic, behavioral, clinical, and laboratory information collected from all patients at 42 STD clinics within the jurisdictions of SSuN 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).

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).

Gonococcal Isolate Surveillance Project

Data on antimicrobial susceptibility in *Neisseria gonorrhoeae* were collected through the Gonococcal Isolate Surveillance Project (GISP), a sentinel system of selected STD clinics located at 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 2012, the antimicrobial agents tested by GISP were ceftriaxone, cefixime, cefpodoxime, azithromycin, spectinomycin, ciprofloxacin, penicillin, and tetracycline.

The antimicrobial susceptibility criteria used in GISP for 2012 are as follows:

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

Other Surveillance Data Sources

National Health and Nutrition Examination Survey

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.

National Disease and Therapeutic Index

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 2012). 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.

National Hospital Discharge Survey

The information on patients hospitalized for pelvic inflammatory disease (PID) or ectopic pregnancy was based on analysis of data from the National Hospital Discharge Survey (NHDS) (machine-readable files for 1980 through 2010. NHDS, which is conducted by NCHS, is an ongoing, nationwide sample survey of medical records of patients discharged from acute care hospitals in the United States. For more information, see: http://www.cdc.gov/nchs/nhds.htm. The estimates generated by using NHDS data are based on statistical surveys and therefore have sampling variability associated with the estimates.

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.[8] 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.

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

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 A3. 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."

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 A4.

[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; twentieth informational supplement. M100-S23, 33(1). Wayne (PA): Clinical and Laboratory Standards Institute; 2013.

[8] U.S. Department of Health and Human Services. Healthy People 2020 Web site. [Accessed on 10/18/2013] http://healthypeople.gov/2020/default.aspx.

Table A1. Selected STDs—Percentage of Unknown, Missing, or Invalid Values for Selected Variables by State and by Nationally Notifiable STD, 2012

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	0.0	0.0	0.0	32.9	28.8	0.1	0.5	32.9	0.1	0.7
Alaska	0.0	0.0	0.0	100.0	0.3	0.0	0.0	1.0	0.0	0.0
Arizona	0.5	0.0	0.0	99.0	15.0	0.0	0.0	19.9	0.0	0.0
Arkansas	1.2	0.0	0.0	12.1	9.6	0.1	0.0	12.9	0.1	0.0
California	3.6	0.1	0.5	8.1	26.1	0.5	0.3	33.7	0.4	0.2
Colorado	5.8	0.0	0.0	3.4	13.9	0.0	0.0	28.1	0.0	0.0
Connecticut	0.0	1.8	0.0	12.7	34.5	0.1	0.1	53.4	0.3	0.6
Delaware	0.0	0.0	0.0	89.5	2.8	0.0	0.0	3.2	0.0	0.0
District of Columbia	1.2	0.0	0.0	18.2	34.2	0.1	0.4	36.4	0.1	0.5
Florida	0.4	0.0	0.0	6.1	7.7	0.0	0.0	21.4	0.0	0.0
Georgia	3.0	0.0	0.1	45.8	28.6	0.1	0.7	37.7	0.1	0.8
Hawaii	0.0	0.0	0.0	13.0	43.3	0.1	0.0	51.2	0.1	0.0
Idaho	0.0	0.0	0.0	23.1	30.5	0.6	0.0	32.0	0.2	0.0
Illinois	1.9	0.0	0.0	20.0	17.5	0.0	0.2	23.1	0.0	0.2
Indiana	1.8	0.0	0.0	2.7	11.1	0.0	0.1	14.7	0.0	0.1
Iowa	8.6	0.0	0.0	4.3	8.7	0.0	0.0	13.2	0.0	0.0
Kansas	0.0	0.0	0.0	4.2	14.9	0.0	0.0	33.9	0.0	0.0
Kentucky	0.0	0.0	0.0	2.7	20.6	0.5	0.2	28.4	0.6	0.3
Louisiana	0.0	0.0	0.0	13.6	10.6	0.0	0.0	12.3	0.0	0.0
Maine	5.9	0.0	0.0	5.9	12.1	0.2	0.0	25.1	0.4	0.1
Maryland	0.2	0.0	0.0	6.0	19.5	0.4	0.0	28.7	0.3	0.2
Massachusetts	6.3	0.0	0.0	21.2	23.1	0.0	0.0	33.6	0.1	0.2
Michigan	0.7	0.7	0.0	8.5	29.4	0.1	0.1	31.7	0.1	0.2
Minnesota	7.6	0.0	0.0	10.2	20.1	0.0	0.4	24.9	0.0	0.3
Mississippi	4.0	0.7	0.0	4.0	17.2	0.0	0.0	21.5	0.0	0.0
Missouri	1.3	0.0	0.0	2.5	7.4	0.0	0.0	12.0	0.0	0.0
Montana*	0.0	0.0	0.0	50.0	4.6	0.0	0.0	6.6	0.0	0.0
Nebraska*	25.0	0.0	0.0	87.5	22.8	0.1	0.3	33.5	0.1	0.4
Nevada	3.5	0.0	0.0	1.8	26.7	0.0	0.1	31.2	0.0	0.0
New Hampshire	0.0	0.0	0.0	2.8	10.2	0.0	0.0	10.2	0.0	0.0
New Jersey	3.5	5.2	0.0	14.0	38.8	12.9	0.2	57.0	11.1	0.3
New Mexico	12.9	0.0	0.0	3.0	32.2	0.0	0.1	30.7	0.0	0.0
New York	4.2	0.0	0.3	21.2	31.5	0.1	0.1	40.1	0.1	0.1
North Carolina	0.0	0.0	0.0	4.9	13.1	0.0	0.3	17.0	0.0	0.2
North Dakota*	25.0	0.0	0.0	0.0	17.0	0.3	0.3	22.4	0.0	0.0
Ohio	0.2	0.0	0.0	7.8	20.6	0.2	0.0	26.5	0.1	0.0
Oklahoma	0.0	0.0	0.0	4.8	8.5	0.0	0.0	11.9	0.0	0.0
Oregon	4.7	0.0	0.0	28.3	8.3	0.0	0.0	20.6	0.0	0.0
Pennsylvania	4.0	0.0	0.0	13.8	26.9	0.0	0.0	34.1	0.0	0.1
Rhode Island	0.0	0.0	0.0	2.3	8.9	0.0	0.0	17.8	0.0	0.0
South Carolina	0.0	0.0	0.0	2.7	32.3	0.1	0.3	36.7	0.1	0.2
South Dakota	0.0	0.0	0.0	11.1	3.1	0.0	0.3	17.9	0.0	0.0
Tennessee	1.9	0.0	0.0	1.9	2.4	0.0	0.1	2.9	0.0	0.1
Texas	0.1	0.1	0.0	2.9	6.5	0.1	0.1	9.2	0.1	0.1
Utah	0.0	0.0	0.0	11.9	0.0	0.0	0.0	0.0	0.0	0.0
Vermont*	0.0	0.0	0.0	0.0	2.0	0.0	0.0	1.6	0.0	0.0
Virginia	0.0	0.0	0.0	4.9	17.5	0.0	0.1	28.2	0.1	0.1
Washington	21.9	0.0	0.0	6.0	16.5	0.1	0.0	21.6	0.1	0.0
West Virginia*	0.0	0.0	0.0	0.0	6.6	0.0	0.0	7.3	0.0	0.0
Wisconsin	8.8	0.0	0.0	59.3	21.2	0.0	0.0	22.3	0.0	0.0
Wyoming*	0.0	0.0	0.0	0.0	9.1	0.0	0.0	16.1	0.0	0.0
U.S. TOTAL	**2.6**	**0.1**	**0.1**	**13.7**	**19.2**	**0.4**	**0.2**	**25.8**	**0.3**	**0.2**

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

Table A2. Reported Cases of STDs by Reporting Source and Sex, United States, 2012

Disease	Non-STD Clinic			STD Clinic			Total		
	Male	Female	Total*	Male	Female	Total*	Male†	Female†	Total‡
Chlamydia	279,690	840,146	1,121,526	76,126	62,748	138,979	402,557	1,018,272	1,422,976
Gonorrhea	108,491	135,498	244,386	35,150	16,035	51,221	162,235	172,066	334,826
Primary Syphilis	2,596	185	2,785	1,261	68	1,329	4,076	280	4,360
Secondary Syphilis	7,042	831	7,887	2,386	264	2,651	10,114	1,178	11,307
Early Latent Syphilis	8,697	1,478	10,184	2,835	567	3,405	12,327	2,164	14,503
Late and Late Latent Syphilis§	10,121	4,694	14,833	2,170	746	2,917	13,458	5,929	19,411
Chancroid	5	7	12	1	0	1	7	8	15

* Total includes unknown sex.
† Total includes unknown reporting source.
‡ Total includes unknown sex and reporting source.
§ Late and late latent syphilis includes late latent syphilis, latent syphilis of unknown duration, neurosyphilis, and late syphilis with clinical manifestations other than neurosyphilis.

Table A3. *Healthy People 2020* (HP 2020) Sexually Transmitted Diseases Objectives

	HP2020 Objectives	Baseline Year	Baseline	2010	2011	2012	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%	8.0%	8.3%	IPP no longer collected	6.7%
	b. Among females aged 24 years and under enrolled in a National Job Training Program	2008	12.8%	11.4%	10.4%	11.0%	11.5%
	c. Among males aged 24 years and under enrolled in a National Job Training Program	2008	7.0%	7.2%	8.0%	7.0%	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%	54.6%	54.9%	53.5%	70.9%
	b. Females aged 21 to 24 years	2008	59.4%	62.3%	63.4%	63.6%	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%	40.8%	41.5%	41.1%	61.3%
	b. Females aged 21 to 24 years	2008	43.5%	45.7%	48.4%	49.2%	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%	4.2%*	N/A	N/A	3.6%
5	**Reduce gonorrhea rates (cases per 100,000 population)**						
	a. Females aged 15 to 44 years	2008	284.0	256.9	264.2	264.7	257.0
	b. Males aged 15 to 44 years	2008	219.4	208.1	216.6	232.1	198.0
6	**Reduce sustained domestic transmission of primary and secondary syphilis (cases per 100,000 population)**						
	a. Among females	2008	1.5	1.1	1.0	0.9	1.4
	b. Among males	2008	7.5	7.9	8.2	9.3	6.8
7	**Reduce congenital syphilis**	2008	10.1	8.7	8.5	7.8	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%***	N/A	N/A	N/A

HP2020 Objectives	Data Source
1 a	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

* 2006–2010
** 2007–2010
*** 2009–2010 data among 20–29 years old

Table A4. Government Performance and Results Act (GPRA) Sexually Transmitted Diseases Goals, Measures, and Target

GPRA Goals	Actual			Target
	2010	2011	2012	2013
Goal 1: Reduction in PID (as measured by initial visits to physicians in women 15–44 years of age)	**113,000**	**90,000**	**106,000**	**99,667**
a. Proportion of high-risk women aged 16-20 infected with chlamydia*	13.3†	13.1†	12.4†	12.3
b. Proportion of high-risk women aged 21-24 infected with chlamydia*	8.4†	9.1†	8.9†	7.8
c. Rate of gonorrhea/100,000 population in women aged 16-20	658.8	663	618.5	708.4
d. Rate of gonorrhea/100,000 population in women aged 21-24	505.4	536.9	545.3	528.8
e. Black: white ratio of gonorrhea in women 16-24	13.9	13.6	12.4	12.9
f. Proportion of sexually active females 16-20 enrolled in Medicaid who are screened for chlamydia infections	54.6	54.9	N/A	59.8
g. Proportion of sexually active females 21-24 enrolled in Medicaid who are screened for chlamydia infections	62.3	63.4	N/A	70.1
h. Proportion of sexually active females 16-20 enrolled in commercial health insurance plans who are screened for chlamydia infections	40.8	41.5	N/A	48.0
i. Proportion of sexually active females 21-24 enrolled in commercial health insurance plans who are screened for chlamydia infections	45.7	48.4	N/A	55.5
Goal 2: Elimination of Congenital Syphilis				
a. Incidence of P&S syphilis/100,000 population in women aged 15-44	2.5	2.1	2.1	3.0
b. Incidence of congenital syphilis/100,000 live births	9.4	8.7	7.8	10.0
c. Proportion of pregnant women that are screened for syphilis at least one month before delivery	84.8	83.0	N/A	81.3

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.

STD Surveillance Case Definitions

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

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

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

Gonorrhea (Revised 9/96)

Clinical description

A sexually transmitted infection commonly manifested by urethritis, cervicitis, or salpingitis. 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

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

Case classification

Probable: a) demonstration of gram-negative intracellular diplococci in an endocervical smear obtained from a female or b) a written morbidity report of gonorrhea submitted by a physician

Confirmed: a case that is laboratory confirmed

Syphilis (All Definitions Revised 9/96)

Syphilis is a complex sexually transmitted disease that has a highly variable clinical course. Classification by a clinician with expertise in syphilis may take precedence over the following case definitions developed for surveillance purposes.

Syphilis, primary

Clinical description

A stage of infection with *Treponema pallidum* characterized by one or more chancres (ulcers); chancres might differ considerably in clinical appearance.

Laboratory criteria for diagnosis

- Demonstration of *T. pallidum* in clinical specimens by darkfield microscopy, direct fluorescent antibody (DFA-TP), or equivalent methods

Case classification

Probable: a clinically compatible case with one or more ulcers (chancres) consistent with primary syphilis and a reactive serologic test (nontreponemal: Venereal Disease Research Laboratory [VDRL] or rapid plasma reagin [RPR]; treponemal: fluorescent treponemal antibody absorbed [FTA-ABS] or microhemagglutination assay for antibody to T. pallidum [MHA-TP])

Confirmed: a clinically compatible case that is laboratory confirmed

Syphilis, secondary

Clinical description

A stage of infection caused by *T. pallidum* and characterized by localized or diffuse mucocutaneous lesions, often with generalized lymphadenopathy. The primary chancre may still be present.

Laboratory criteria for diagnosis

- Demonstration of *T. pallidum* in clinical specimens by darkfield microscopy, DFA-TP, or equivalent methods

Case classification

Probable: a clinically compatible case with a nontreponemal (VDRL or RPR) titer ≥4

Confirmed: a clinically compatible case that is laboratory confirmed

Syphilis, latent

Clinical description
A stage of infection caused by *T. pallidum* in which organisms persist in the body of the infected person without causing symptoms or signs. Latent syphilis is subdivided into early, late, and unknown categories based on the duration of infection.

Case classification
Probable: no clinical signs or symptoms of syphilis and the presence of one of the following:
- No past diagnosis of syphilis, a reactive nontreponemal test (i.e., VDRL or RPR), and a reactive treponemal test (i.e., FTA-ABS or MHA-TP)
- A past history of syphilis therapy and a current nontreponemal test titer demonstrating fourfold or greater increase from the last nontreponemal test titer

Syphilis, early latent

Clinical description
A subcategory of latent syphilis. When initial infection has occurred within the previous 12 months, latent syphilis is classified as early latent.

Case classification
Probable: latent syphilis (see Syphilis, latent) in a person who has 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
- A history of symptoms consistent with primary or secondary syphilis during the previous 12 months
- A history of sexual exposure to a partner who had confirmed or probable primary or secondary syphilis or probable early latent syphilis (documented independently as duration <1 year)
- Reactive nontreponemal and treponemal tests from a person whose only possible exposure occurred within the preceding 12 months

Syphilis, late latent

Clinical description
A subcategory of latent syphilis. When initial infection has occurred >1 year previously, latent syphilis is classified as late latent.

Case classification
Probable: latent syphilis (see Syphilis, latent) in a patient who has no evidence of having acquired the disease within the preceding 12 months (see Syphilis, early latent) and whose age and titer do not meet the criteria specified for latent syphilis of unknown duration.

Syphilis, latent, of unknown duration

Clinical description
A subcategory of latent syphilis. When the date of initial infection cannot be established as having occurred within the previous year and the patient's age and titer meet criteria described below, latent syphilis is classified as latent syphilis of unknown duration.

Case classification
Probable: latent syphilis (see Syphilis, latent) that does not meet the criteria for early latent syphilis, and the patient is aged 13–35 years and has a nontreponemal titer ≥32

Neurosyphilis

Note

Since neurosyphilis can occur at almost any stage of syphilis, , it was classified and reported, between 1996 and 2005, as one of several mutually exclusive stages of syphilis. In 2005, the Division of STD Prevention requested that STD control programs discontinue classifying and reporting neurosyphilis as a distinct stage of syphilis. Since 2005, if the patient has confirmed or probably neurosyphilis, the case should be reported as the appropriate state of syphilis and neurological manifestations should be noted.

Clinical description

Evidence of central nervous system infection with *T. pallidum*

Laboratory criteria for diagnosis

- A reactive serologic test for syphilis and reactive VDRL in cerebrospinal fluid (CSF) Case classification

Case classification

Probable: syphilis of any stage, a negative VDRL in CSF, and both of the following:

- Elevated CSF protein or leukocyte count in the absence of other known causes of these abnormalities
- 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 other than Neurosyphilis (late benign syphilis and cardiovascular syphilis)

Clinical description

Clinical manifestations of late syphilis other than neurosyphilis may include inflammatory lesions of the cardiovascular system, skin, and bone. 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.

Laboratory criteria for diagnosis

- Demonstration of *T. pallidum* in late lesions by fluorescent antibody or special stains (although organisms are rarely visualized in late lesions)

Case classification

Probable: characteristic abnormalities or lesions of the cardiovascular system, skin, bone, or other structures with a reactive treponemal test, in the absence of other known causes of these abnormalities, and without CSF abnormalities and clinical symptoms or signs consistent with neurosyphilis

Confirmed: a clinically compatible case that is laboratory confirmed

Comment

Analysis of CSF for evidence of neurosyphilis is necessary in the evaluation of late syphilis with clinical manifestations.

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.

PART 2. CASE DEFINITIONS[1] FOR NON-NOTIFIABLE INFECTIOUS DISEASES

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.

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).

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

Lymphogranuloma Venereum

Clinical description

Infection with L_1, L_2, or, L_3 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 L_1, L_2, or L_3 from clinical specimen, or
- Demonstration by immunofluorescence of inclusion bodies in leukocytes of an inguinal lymph node (bubo) aspirate, or
- Positive microimmunofluorescent serologic test for a lymphogranuloma venereum strain of *C. trachomatis*

Case classification

Probable: a clinically compatible case with one or more tender fluctuant inguinal lymph nodes or characteristic proctogenital lesions with supportive laboratory findings of a single C. trachomatis complement fixation titer of >64

Confirmed: a clinically compatible case that is laboratory confirmed

Mucopurulent Cervicitis (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*, Genital Infections). If gonorrhea, trichomoniasis, and

chlamydia are excluded, a clinically compatible illness should be classified as MPC. An illness in a female that meets the case definition of MPC and *C. trachomatis* infection should be classified as chlamydia.

Nongonococcal Urethritis (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*, Genital Infection). If gonorrhea and chlamydia are excluded, a clinically compatible illness should be classified as NGU. An illness in a male that meets the case definition of NGU and *C. trachomatis* infection should be classified as chlamydia.

Pelvic Inflammatory Disease (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 3, 2013.

State/City/Outlying Area	STD Project Directors	STD Program Managers	State Epidemiologists	Laboratory Directors
Alabama	Anthony Merriweather	Anthony Merriweather	Mary McIntyre	Sharon Massingale
Alaska	Ward Hurlburt	Donna Cecere	Joe McLaughlin	Bernard Jilly
Arizona	Brenda Flattum	Roxanne Ereth	Kenneth Komatsu	Victor Waddell
Arkansas	Kellye McCarthy	Brandi Roberts	Dirk Haselow	Glen Baker
California	Heidi Bauer	Romni Neiman	Gilberto Chavez	Paul Kimsey
Los Angeles	Christine Wigen	Vacant	Gilberto Chavez	Nicole Green (Acting)
San Francisco	Susan Philip	Wendy Wolf	Gilberto Chavez	Mark Pandori
Colorado	Melanie Mattson	Rebecca Jordan	Lisa Miller (Acting)	Laura Gillim-Ross
Connecticut	Heidi Jenkins	Vacant	Matthew Cartter	John Fontana
Delaware	Catherine Mosley	Catherine Mosley	Marjorie Shannon	Christina Pleasanton
District of Columbia	Michael Kharfen	Michael Kharfen	John Davies-Cole	Alpha Diallo (Acting)
Florida	Adrian Cooksey	Adrian Cooksey	Carina Blackmore	Susanne R. Crowe (Acting)
Georgia	Michelle Allen	Michelle Allen	Cherie Drenzek	Elizabeth Franko
Hawaii	Peter Whiticar	Gerald "Luke" Hasty, Jr.	Sarah Park	A. Christian Whelen
Idaho	Aimee Shipman	Vacant	Christine Hahn	Christopher Ball
Illinois	Rich Zimmerman	Rich Zimmerman	Craig Conover	Tom Johnson
Chicago	Nanette Benbow	Vacant	Craig Conover	Susan Gerber
Indiana	Andrea Allen	Andrea Allen	Pamela Pontones	Judith Lovchik
Iowa	Randy Mayer	George Walton	Patricia Quinlisk	Christopher Atchison
Kansas	Jennifer VandeVelde	Jennifer VandeVelde	Charles Hunt	Leo Henning
Kentucky	Vacant	Chang Lee	Kraig Humbaugh	Paul Bachner
Louisiana	DeAnn Gruber	Jeff Hitt	Raoult Ratard	Stephen Martin
Maine	James Markiewicz	Sarah Bly	Stephen Sears	Kenneth Pote
Maryland	Barbara Conrad	Barbara Conrad	David Blythe	Robert Myers
Baltimore	Patrick Chaulk	Patrick Chaulk	David Blythe	Jack DeBoy
Massachusetts	Vacant	David Goudreau	Alfred DeMaria	Michael Pentella
Michigan	Amna Osman	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	Ingrid Denney	Ken Palermo	George Turabelidze	Bill Whitmar
Montana	Laurie Kops	Laurie Kops	Carol Ballew	Ron Paul
Nebraska	Jeri Weberg-Bryce	Jeri Weberg-Bryce	Thomas Safranek	Steve Hinrichs
Nevada	Sandra Noffsinger	Jon Basilio	Ishan Azzam	L. Dee Brown
New Hampshire	Donna M. Mombourquette	Lindsay Pierce	Christine Adamski	Christine Bean
New Jersey	Vacant	Patricia Mason	Christina Tan	Onesia Bishop
New Mexico	Daniel Burke	Vacant	Michael Landen (Acting)	David Mills
New York	Alison Muse	Vacant	Debra Blog	Jill Taylor (Acting)
New York City	Susan Blank	Vacant	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	Jamie Blair	Jen Keagy	Mary DiOrio	Rosemarie Gearhart
Oklahoma	Jan Fox	Kristen Eberly	Kristy Bradley	S. Terrance Dunn
Oregon	Veda Latin	Doug Harger	Katrina Hedberg	Michael Skeels
Pennsylvania	Beth Butler	Faith Blough	Maria Moll (Acting)	Julia Kiehlbauch
Philadelphia	Melinda Salmon	Melinda Salmon	Maria Moll (Acting)	Kerry Buchs
Rhode Island	Vacant	Jaime Comella	Utpala Bandy	Ewa King
South Carolina	Vacant	Janice Tapp	Linda Bell	Shahiedy Shahied
South Dakota	Amanda Gill	Amanda Gill	Lon Kightlinger	Michael Smith
Tennessee	Brad Beasely		Tim Jones	James Gibson
Texas	Feipe Rocha	Vacant	Linda Gaul	Grace Kubin
Utah	Emily Holmes	Lynn Meinor	Allyn Nakashima	Robyn Atkinson-Dunn
Vermont	Daniel Daltry	Vacant	Patsy Kelso	Mary Celotti
Virginia	Theresa Henry	Tammie Woodson	David Trump	Thomas York
Washington	Mark Aubin	Mark Aubin	Wayne Turnberg	Romesh Gautom
West Virginia	Susan Hall	Ken Gould	Loretta Haddy	Sharon Lee Cibrik
Wisconsin	Diane Christen	Anthony Wade	Jeffrey Davis	Charles Brokopp
Wyoming		Tai Wright	Tracy Murphy	Richard Harris
American Samoa	Elizabeth Ponausuia	Vacant	Sharmain Mageo	Utoofili Mago
Federated States of Micronesia	Vita Skilling	Vacant	Vita Skilling	
Government of the Marshall Islands	Justina Langidrik	Vacant		Paul Lalita
Northern Marianas (CNMI)	Joseph Villagomz	Vacant	James Hosfschneider	Joseph Villagomez
Guam	Josie O'Mallan	Vacant	Josephine O'Mallan	Josie O'Mallan
Puerto Rico	Greduvel Duran-Guzman	Trinidad Garcia-Vargas	Haydée García Díaz	Myriam Garcia-Negron (Acting)
Republic of Palau	Victor Yano	Johana Ngiruchelbad	Julie Erb-Alvarez	Francis Permeteet
Virgin Islands	Gritell Martinez	Vacant	Thomas Morris	Joseph Mark