Sexually Transmitted Disease Surveillance 2011

Division of STD Prevention
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Division of STD Prevention
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Web Site

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

Selected STD Surveillance and Prevention References and Web Sites

STD Surveillance Reports 1993–2011
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. 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 2011 presents statistics and trends for sexually transmitted diseases (STDs) in the United States through 2011. 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.

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 2011.

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 previous reports.

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 regional Infertility Prevention Projects, 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.

Sexually Transmitted Disease Surveillance 2011 consists of four sections: the National Profile, the Special Focus Profiles, the Tables, and the Appendix. The National Profile section contains figures that provide an overview of STD morbidity in the United States. The accompanying text identifies major findings and trends for selected STDs. The Special Focus Profiles section contains figures and text that describe STDs in selected populations that are a focus of national and state prevention efforts. The Tables section provides statistical information about STDs at county, metropolitan statistical area, regional, state, and national levels. The Appendix includes information on how to interpret the STD surveillance data used to produce this report, as well as information about *Healthy People 2020* STD objectives and progress toward meeting these objectives, Government Performance and Results Act goals and progress toward meeting these goals, and STD surveillance case definitions.

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

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Guide to Acronyms

CDC	Centers for Disease Control and Prevention
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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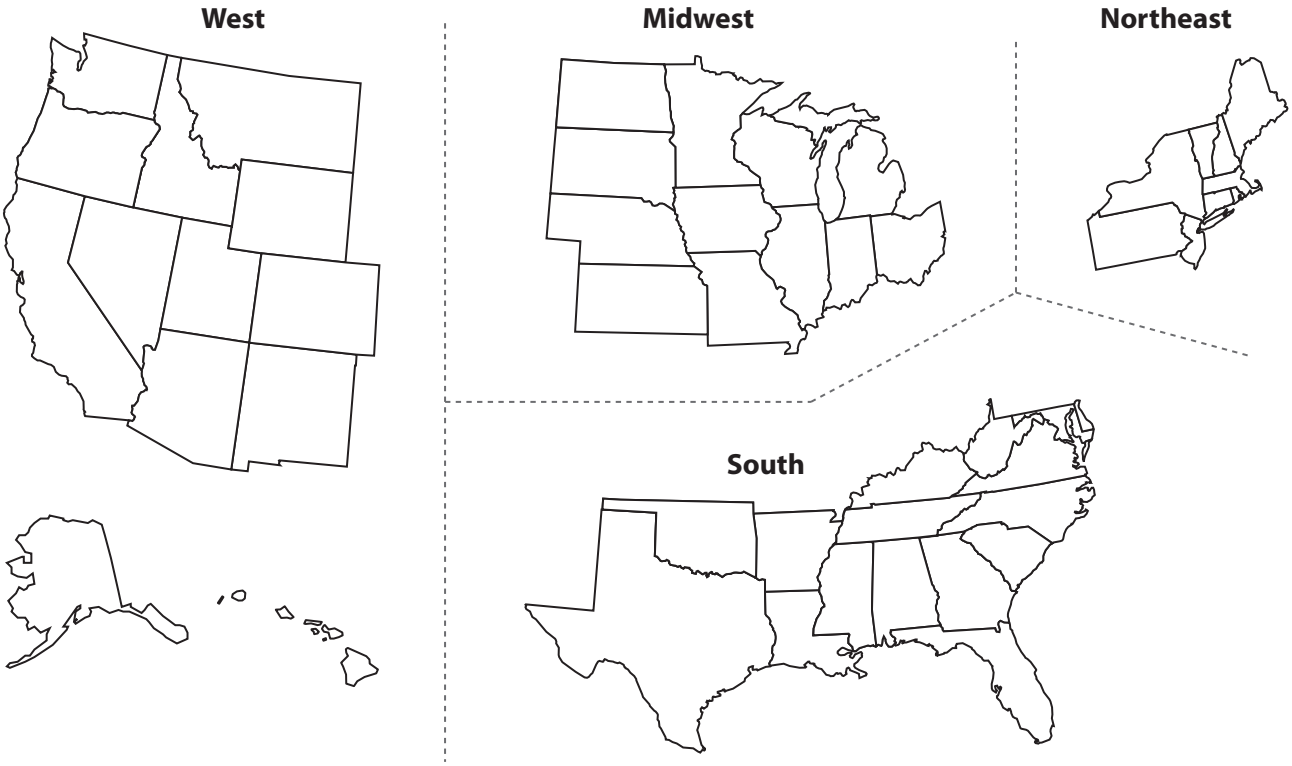

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National Overview of Sexually Transmitted Diseases (STDs), 2011

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,*[1] surveillance is a key component of all our efforts to prevent and control these diseases.

This overview summarizes national surveillance data for 2011 on the three notifiable diseases for which there are federally funded control programs: chlamydia, gonorrhea, and syphilis. Several observations for 2011 are worthy of note.

Chlamydia

In 2011, a total of 1,412,791 cases of *Chlamydia trachomatis* infection were reported to the Centers for Disease Control and Prevention (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 457.6 cases per 100,000 population, an increase of 8.0% compared with the rate in 2010. Rates of reported chlamydial infections among women have been increasing annually since the late 1980s, when public programs for screening and treatment of women were first established to avert pelvic inflammatory disease (PID) and related complications.

The continued increase in chlamydia case reports in 2011 most likely represents a continued increase in screening for this usually asymptomatic infection, expanded use of more sensitive tests, and more complete national reporting, but it also may reflect a true increase in morbidity.

In 2011, the overall rate of chlamydial infection in the United States among women (648.9 cases per 100,000 females) was over two and a half times the rate among men (256.9 cases per 100,000 males), reflecting the large number of women screened for this disease (Tables 4 and 5). However, with the increased availability of urine testing, men are increasingly being tested for chlamydial infection. During 2007–2011, the chlamydia rate in men increased 36.2%, compared with a 20.2% increase in women during this period. Rates also varied among different racial and ethnic minority populations. For example, in 2011, the chlamydia rate in blacks was over seven times the rate in whites.

Data from multiple sources on the positivity and prevalence of chlamydial infection in defined populations have been useful in monitoring disease burden and guiding chlamydia screening programs.

In 2011, the median state-specific chlamydia test positivity was 8.3% (range: 3.8% to 15.9%) among women aged 15–24 years who were screened at selected family planning clinics in all 50 states, the District of Columbia, Puerto Rico, and the Virgin Islands (Figures 13 and 14).

At selected prenatal clinics in 15 states, Puerto Rico, and the Virgin Islands, the median state-specific chlamydia positivity among women aged 15–24 years was 7.7% (range: 2.8% to 16.3%) (Figure B).

The prevalence of infection was greater among young economically disadvantaged women aged 16–24 years who entered the National Job Training Program (NJTP) in 2011 in 46 states, the District of Columbia, and Puerto Rico. The median state-specific prevalence was 10.3% (range: 4.1% to 18.7%) (Figure K). Among men entering the program in 2011 in 48 states, the District of Columbia, and Puerto Rico, the median state-specific chlamydia prevalence was 8.0% (range: 2.7% to 13.0%) (Figure L).

Among adolescent females aged 12–18 years entering selected juvenile corrections facilities, overall chlamydia positivity was 15.7%. Among adolescent males of the same age entering selected juvenile corrections facilities, overall chlamydia positivity was 7.4% (Figure BB).

Gonorrhea

Following a 74% decline in the rate of reported gonorrhea during 1975–1997, overall gonorrhea rates plateaued for 10 years; it decreased during 2006–2009 to the lowest rate since national reporting began and then increased 2.1% between 2009 and 2010. In 2011 there was another 4.0% increase with a total of 321,849 cases of gonorrhea reported in the United States, corresponding to a rate of 104.2 cases per 100,000 population (Figure 16, Table 1).

In 2011, as in previous years, the South had the highest gonorrhea rate among the four regions of the country (Table 14). While rates in 2011 increased in all four regions, the rate in the South remained more than twice the rate in the West (Figure 18).

During 1997–2006, gonorrhea rates in men and women were similar. Recently, the rates in women have been somewhat higher than rates in men (Figure 17). In 2011, the gonorrhea rate in women was 108.9 cases per 100,000 population compared with a rate of 98.7 in men. As with chlamydia, gonorrhea rates in women were highest among those aged 15–24 years. In men, they were highest among those aged 20–24 years (Figure 21). In 2011, the gonorrhea rate in blacks was 17 times the rate in whites. As with chlamydia, data on gonorrhea prevalence in defined populations were available from several sources in 2011. 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 of cefixime, dual therapy with ceftriaxone and either azithromycin or doxycycline is now the only CDC recommended treatment for gonorrhea.[2] Continued monitoring of susceptibility patterns to these antibiotics is critical. No isolates with decreased susceptibility to ceftriaxone were seen in 2011 in CDC's sentinel surveillance system, the Gonococcal Isolate Surveillance Project (GISP).

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.[3] 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; in 2011 this rate remained unchanged. Between 2010 and 2011, the rate decreased 9.1% in women but increased slightly, 3.8%, in men. In 2011, a total of 13,970 cases of P&S syphilis were reported to CDC, approximately 200 more than were reported in 2010. Approximately 72% of cases were in MSM.

After 14 years of decline, the number of reported cases of congenital syphilis reached an historic low of 339 cases in 2005. The number of cases increased from 2006–2008 but has since decreased with 360 cases reported in 2011, a 19% decrease since 2008.

Although wide disparities exist in the rates of STDs among racial and ethnic groups, these disparities have decreased for syphilis over the past 10 years. In 2011, the P&S syphilis rate among blacks was seven times the rate among whites, which is substantially lower than the disparity observed in 1999, when the rate among blacks was 24 times the rate among whites. In some subgroups, however, these disparities remain much higher. The 2011 rate among black men aged 15–19

years was 16 times the rate for white men of that age. The 2011, rate for black women aged 15–19 years was 30 times the rate for white women of the same age.

While efforts to eliminate syphilis have focused on racial and ethnic minority populations, the syphilis rates among all MSM have continued to increase since 2001, especially among young MSM.[4,5] Although some decreases were observed this year among blacks, syphilis rates remain disproportionately high among black men and women. These findings highlight the importance of continually reassessing and refining surveillance, prevention, and control strategies to eliminate syphilis.

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

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

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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, which are usually asymptomatic, can result in 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 can 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 43.1% in 2010. During the same time period, the screening rate among sexually-active women aged 16-24 years covered by Medicaid increased from 40.4% to 57.5%.[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 2011, a total of 1,412,791 chlamydial infections were reported to CDC in 50 states and the District of Columbia (Table 1). This case count corresponds to a rate of 457.6 cases per 100,000 population, which is an increase of 8.0% compared with the rate of 423.6 in 2010. During 1991–2011, the rate of reported chlamydial infection increased from 179.7 to 457.6 cases per 100,000 population (Figure 1, Table 1).

Chlamydia by Region

During 2002–2011, chlamydia rates increased in all regions (Figure 2). In 2011, rates were highest in the South (505.3 per 100,000 population), followed by the Midwest (445.7), the West (424.9), and the Northeast (415.8) (Table 3).

Chlamydia by State

In 2011, chlamydia rates by state ranged from 228.6 cases per 100,000 population in New Hampshire to 808.0 cases in Alaska (Figure 3, Table 2).

Chlamydia by Metropolitan Statistical Area

In 2011, the chlamydia rate per 100,000 population in the 50 most populous metropolitan statistical areas (MSAs) increased (Table 6). In 2011, 57.2% of chlamydia cases were reported by these MSAs. Among women, the 2011 rate of 674.8 cases per 100,000 females was a 6.2% increase over the 2010 rate of 635.2 cases per 100,000 females (Table 7). Among men, the 2011 rate (287.6 per 100,000 males) increased 10.1% from the 2010 rate (261.3 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 2011, 877 (27.9%) 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 2011 (Table 9).

Chlamydia by Sex

In 2011, the overall rate of reported chlamydial infection among women in all 50 states and the District of Columbia (648.9 cases per 100,000 females) was over two and a half times the rate among men (256.9 cases per 100,000 males), 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 2007–2011, the reported chlamydial infection rate among men increased 36.2% (from 188.6 to 256.9 cases per 100,000 males) compared with a 20.2% increase among women during the same period (from 539.8 to 648.9 cases per 100,000 females).

Chlamydia by Age

Among women, the highest age-specific rates of reported chlamydia in 2011 were among those aged 15–19 years (3,416.5 cases per 100,000 females) and 20–24 years (3,722.5 cases per 100,000 females) (Figure 5, Table 10). Within these age ranges, reported rates were highest among women aged 18 years (4,760.0 cases per 100,000 females), aged 19 years (5,012.4 cases per 100,000 females), and aged 20 years (4,883.2 cases per 100,000 females) (Table 12). Age-specific rates among men, although substantially lower than the rates among women, were highest in those aged 20–24 years (1,343.3 cases per 100,000 males) (Figure 5, Table 10).

Chlamydia by Race/Ethnicity

In 2011, chlamydia rates were highest among black men and women (Figure 6, Table 11B). The rate of chlamydia among blacks was more than seven times the rate among whites (1,194.4 and 159.0 cases per 100,000 population, respectively). The rate among American Indians/Alaska Natives (648.3 cases per 100,000) was 4.1 times the rate among whites. The rate among Hispanics (383.6 cases per 100,000) was 2.4 times the rate among whites.

During 2007–2011, rates among blacks increased 17.6% (from 1,015.7 to 1,194.4 cases per 100,000). Among whites, rates increased 34.6% (from 118.1 to 159.0 cases per 100,000).

Chlamydia by Reporting Source

Most chlamydia cases reported in 2011 were from venues outside of STD clinics (Table A2). Over time, the proportion of cases reported from non-STD clinic sites has continued to increase (Figure 7). In 2011, among women, only 7.7% of chlamydia cases were reported through an STD clinic (Figure 8). Most cases among women were reported from private physicians/health maintenance organizations (HMOs) (37.7%). Among men, 23.6% of chlamydia cases were reported from an STD clinic in 2011 and 26.4% 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 (Figure 10).[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 11).

Chlamydia Positivity in Selected Populations

Chlamydia screening and monitoring activities have been conducted in all ten U.S. Department of Health and Human Services (HHS) regions since 1995. In some regions, federal funds may support local- and state-funded screening programs. Screening criteria and

practices vary by region and state. See Definitions of HHS Regions in the Appendix for details.

In 2011, the median state-specific chlamydia test positivity among women aged 15–24 years who were tested during visits to selected family planning clinics in all 50 states, Puerto Rico, and the Virgin Islands was 8.3% (range: 3.8% to 15.9%) (Figures 12 and 13). Chlamydia test positivity among women aged 15–24 years screened in family planning clinics increased in most HHS regions during 2007–2011 (Figure 14).

The positivity trend data in Figure 12 and Figure 14 are not adjusted for changes in laboratory test methods and associated increases in test sensitivity. Use of NAATs in family planning clinics to screen women aged 15–24 years for chlamydia has increased over time, with all ten HHS regions using NAATs nearly exclusively in 2011 (Figure 15). Additionally, positivity trends are influenced by changes in the population of women accessing care,[8] clinic screening criteria, and clinic participation in the screening program. In a regression analysis accounting for individual-level and clinic-level factors, chlamydia positivity among women aged 14–25 years who were screened in family planning clinics remained stable from 2004–2008.[9]

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 2011, 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 2011, 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 (34.8%). 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).

Chlamydia Among Special Populations

More information on chlamydia screening programs for women of reproductive age and chlamydia among adolescents, minority populations, and people in corrections facilities is presented in the Special Focus Profiles.

Chlamydia Summary

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. The reported number of chlamydia cases is higher among women, especially those of younger age (15–19 and 20–24 years), but this finding could be a reflection of screening recommendations. Racial differences also persist; reported case rates and prevalence estimates among blacks continue to be substantially higher than among other racial/ethnic groups.

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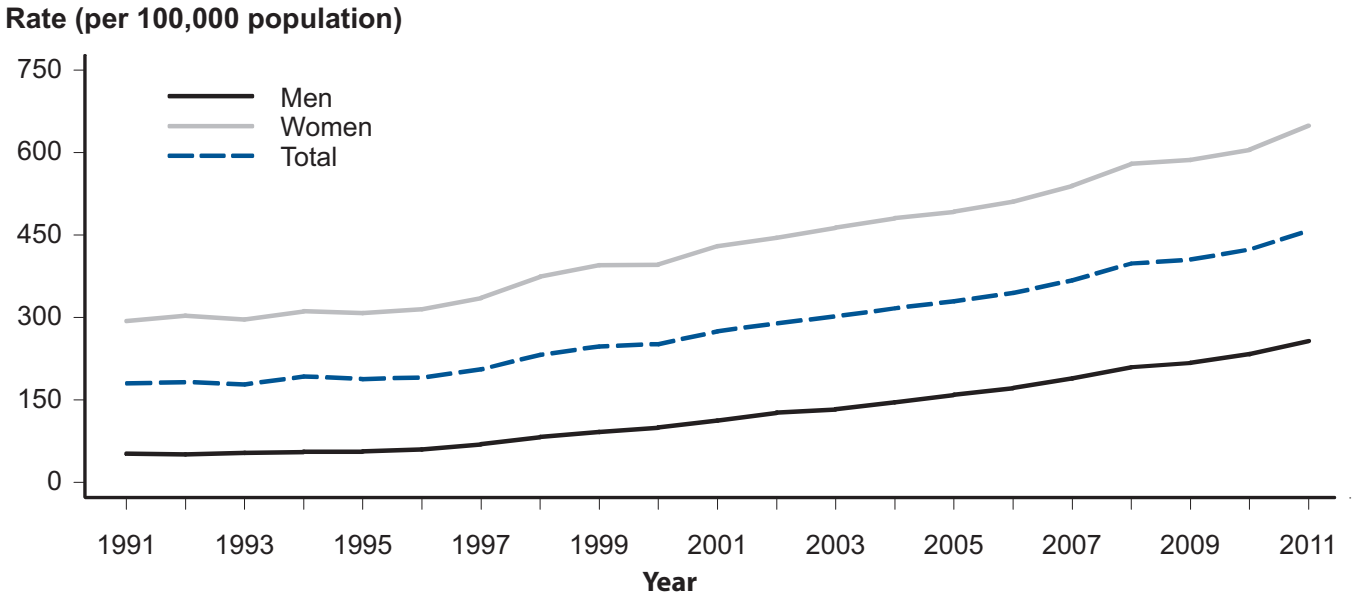
Figure 1. Chlamydia—Rates by Sex, United States, 1991–2011



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, 2002–2011

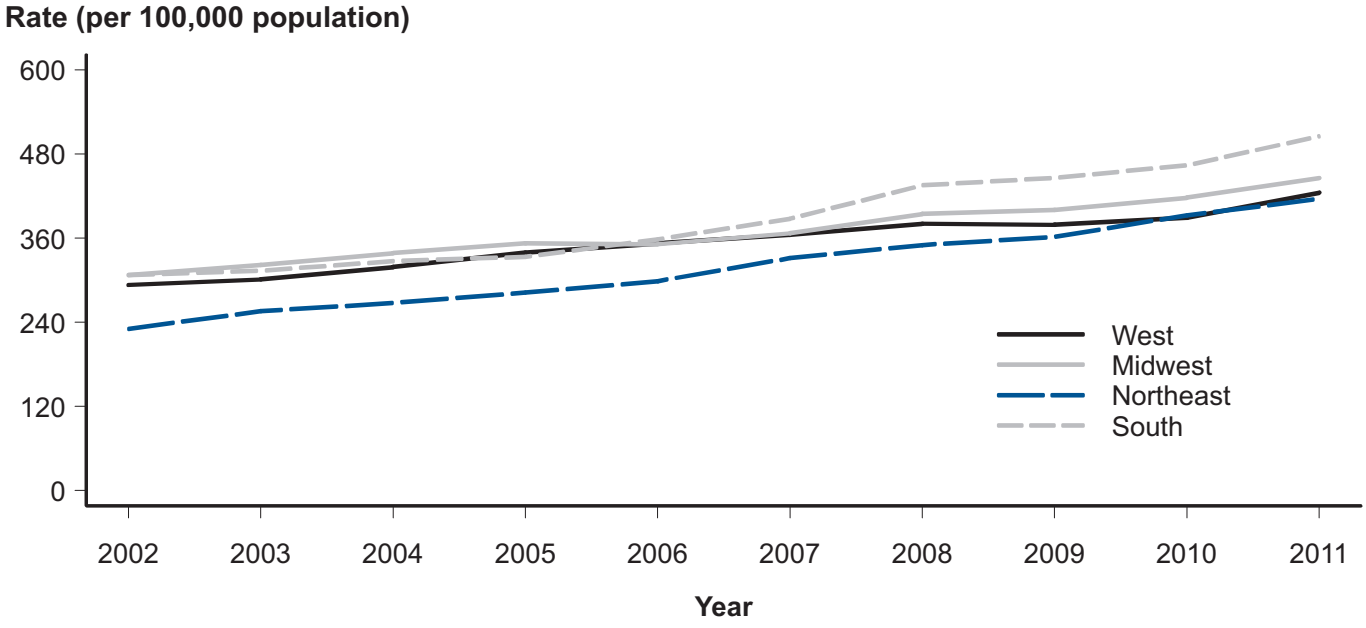
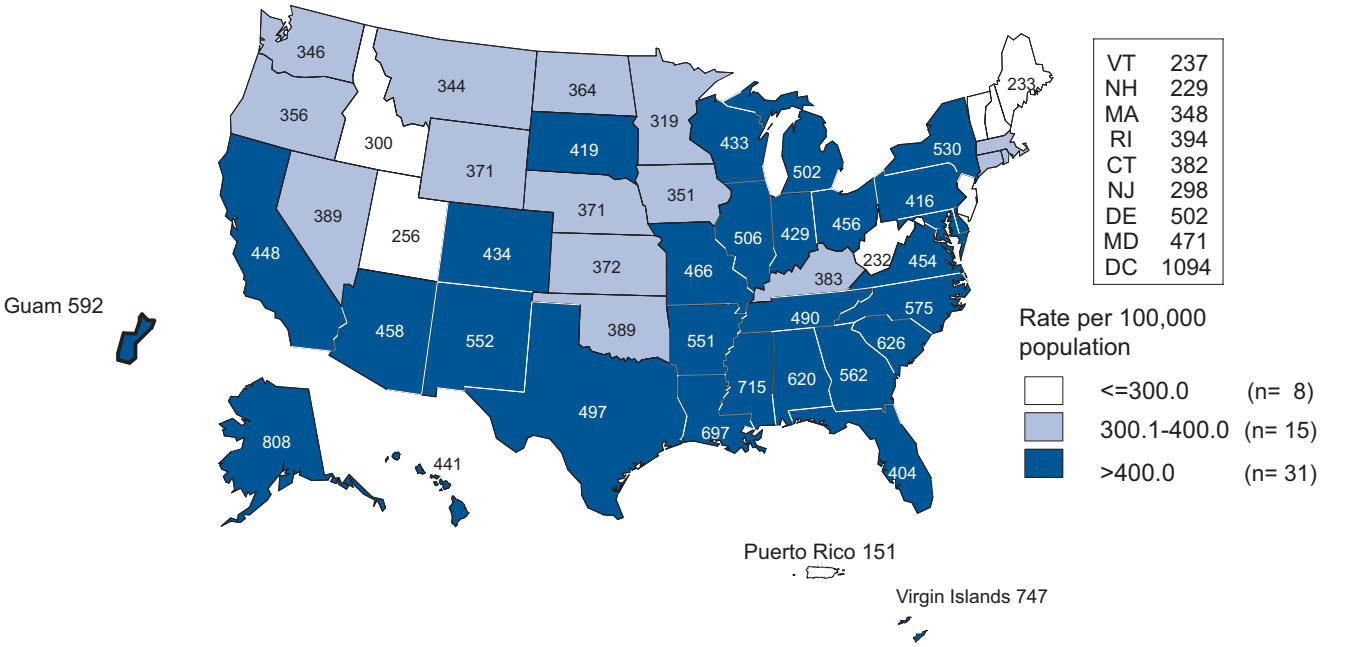


Figure 3. Chlamydia—Rates by State, United States and Outlying Areas, 2011



NOTE: The total rate of chlamydia for the United States and outlying areas (Guam, Puerto Rico, and Virgin Islands) was 454.1 per 100,000 population. For more information on chlamydia reporting, see Chlamydia Morbidity Reporting in the Appendix.

Figure 4. Chlamydia—Rates by County, United States, 2011

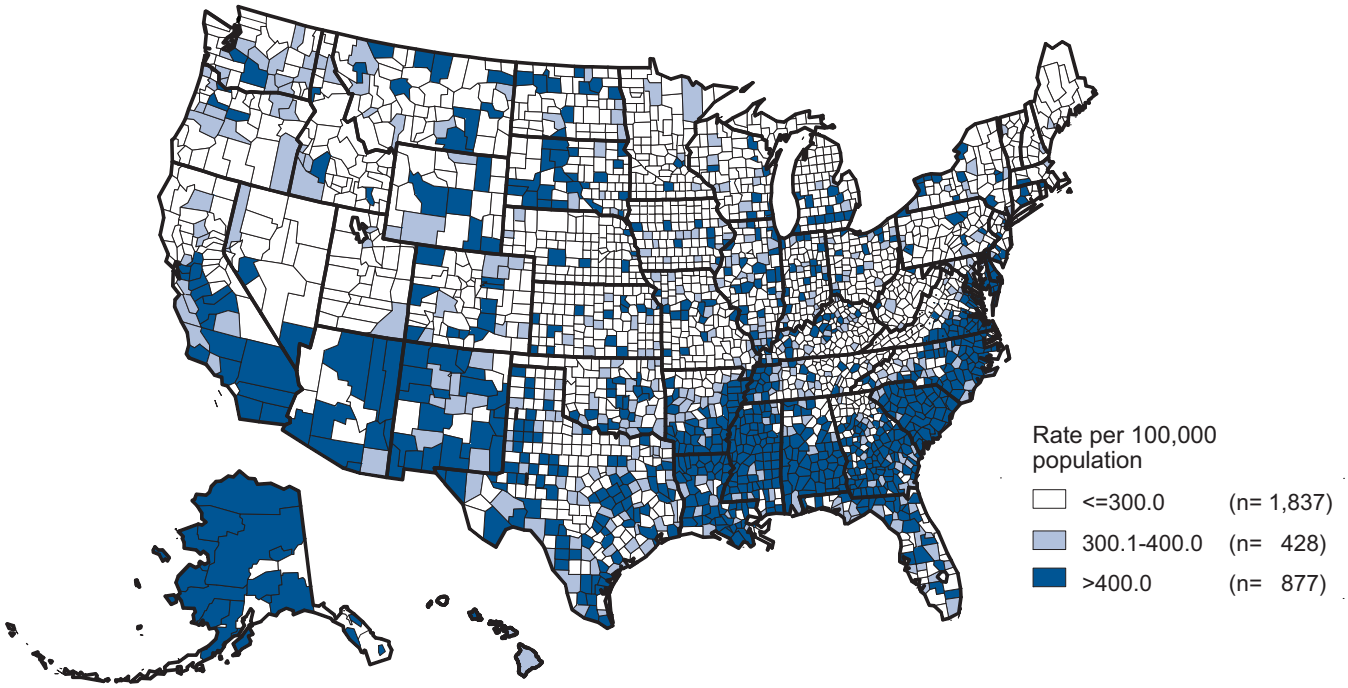


Figure 5. Chlamydia—Rates by Age and Sex, United States, 2011

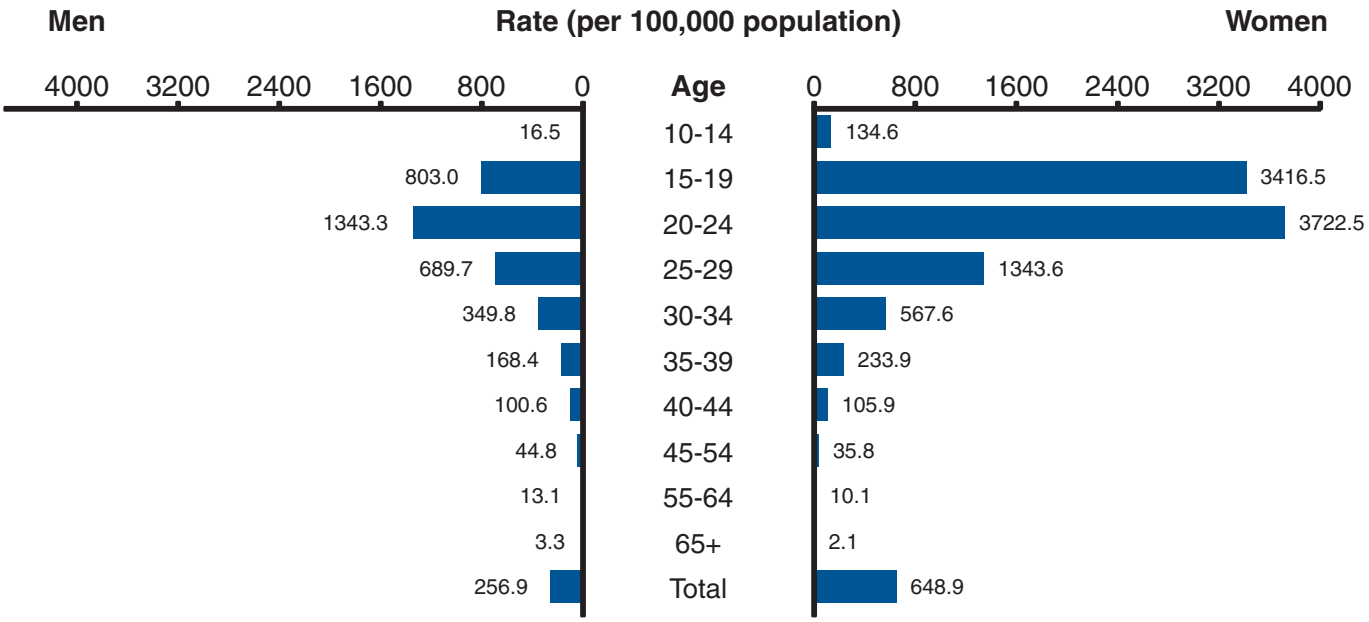


Figure 6. Chlamydia—Rates by Race/Ethnicity, United States 2002–2011

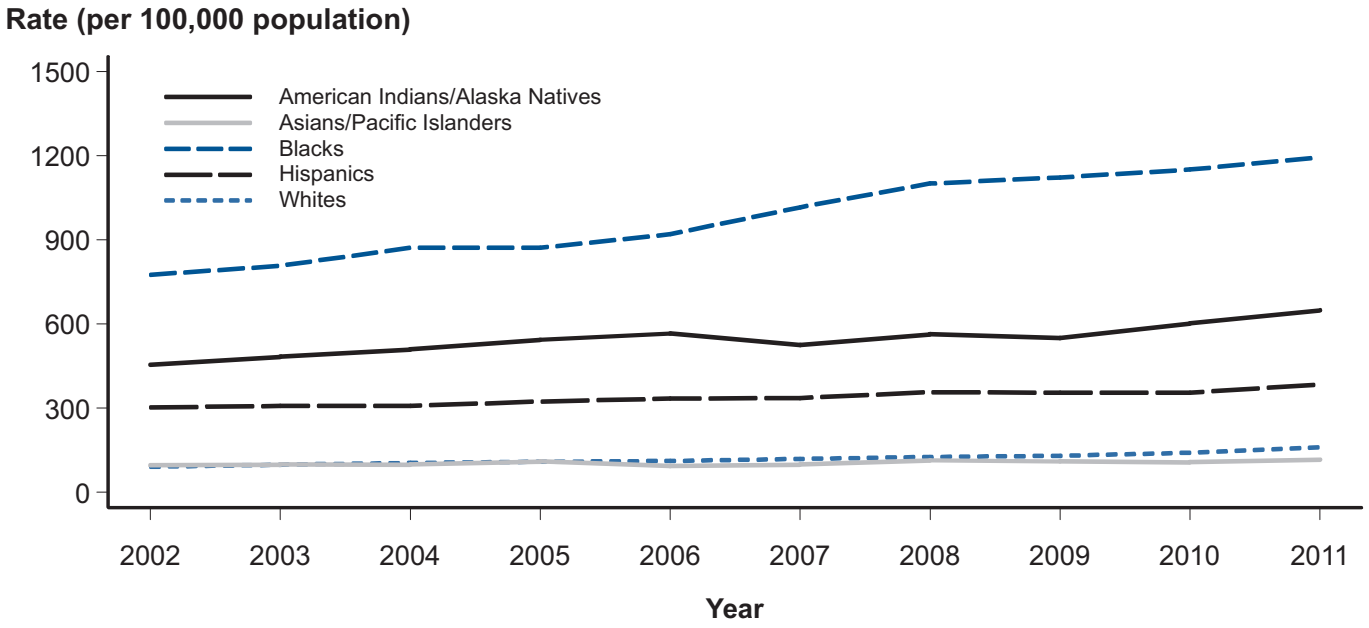


Figure 7. Chlamydia—Cases by Reporting Source and Sex, United States, 2002–2011

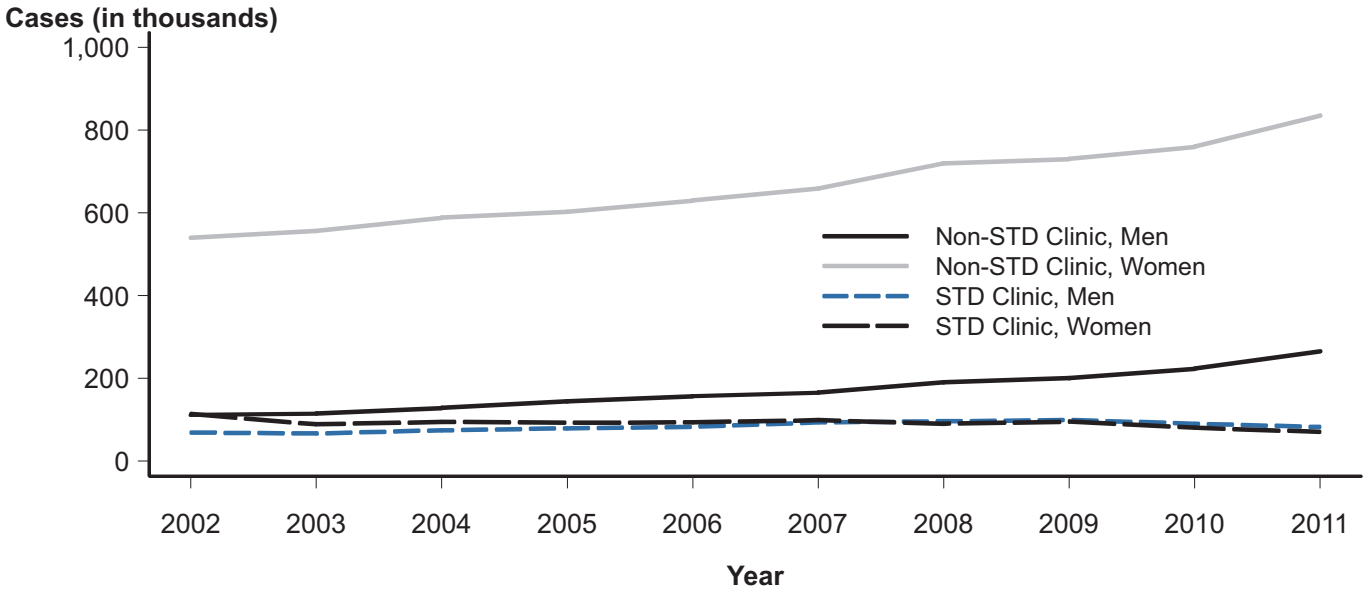
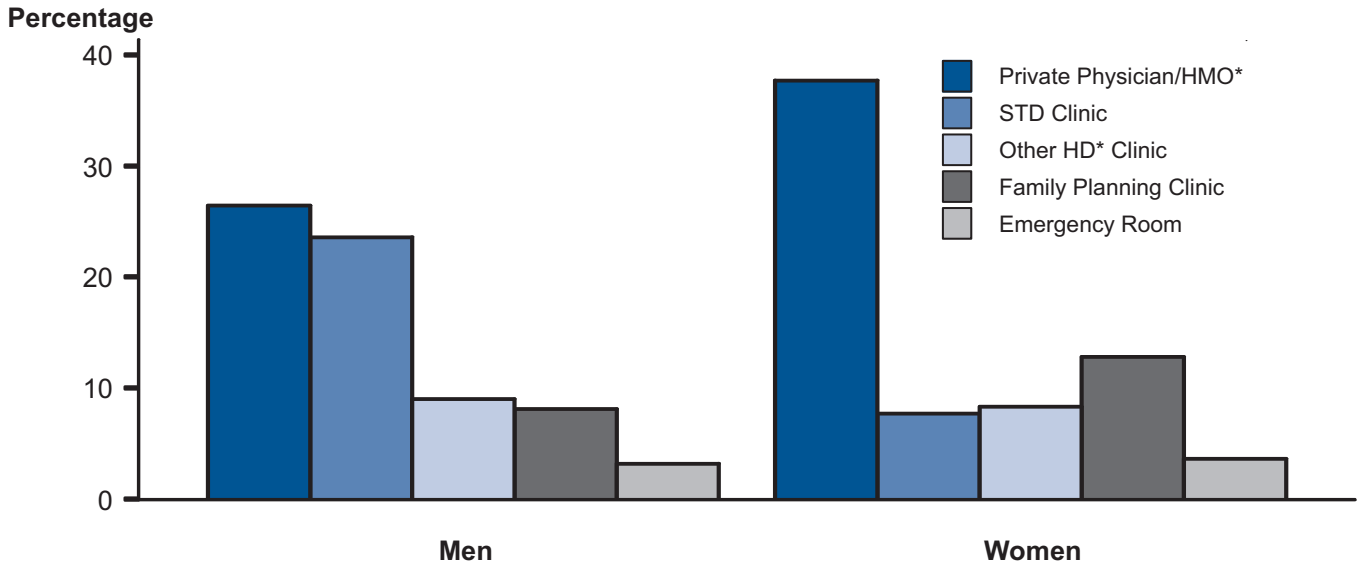
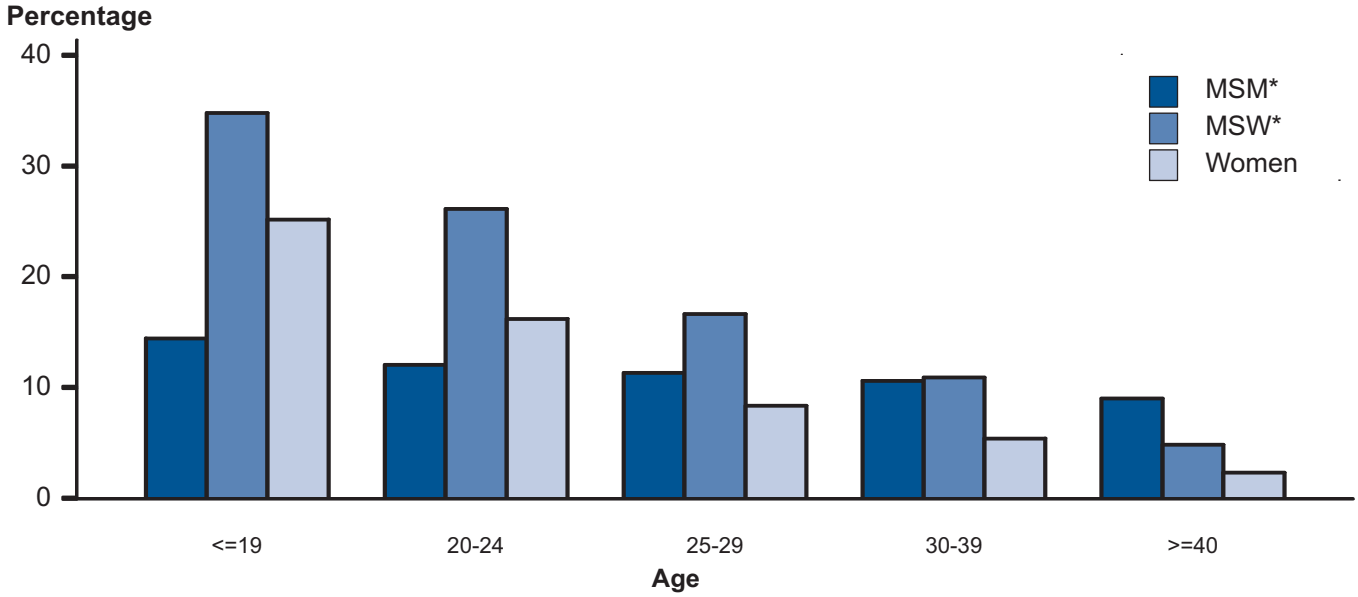


Figure 8. Chlamydia—Percentage of Reported Cases by Sex and Selected Reporting Sources, United States, 2011



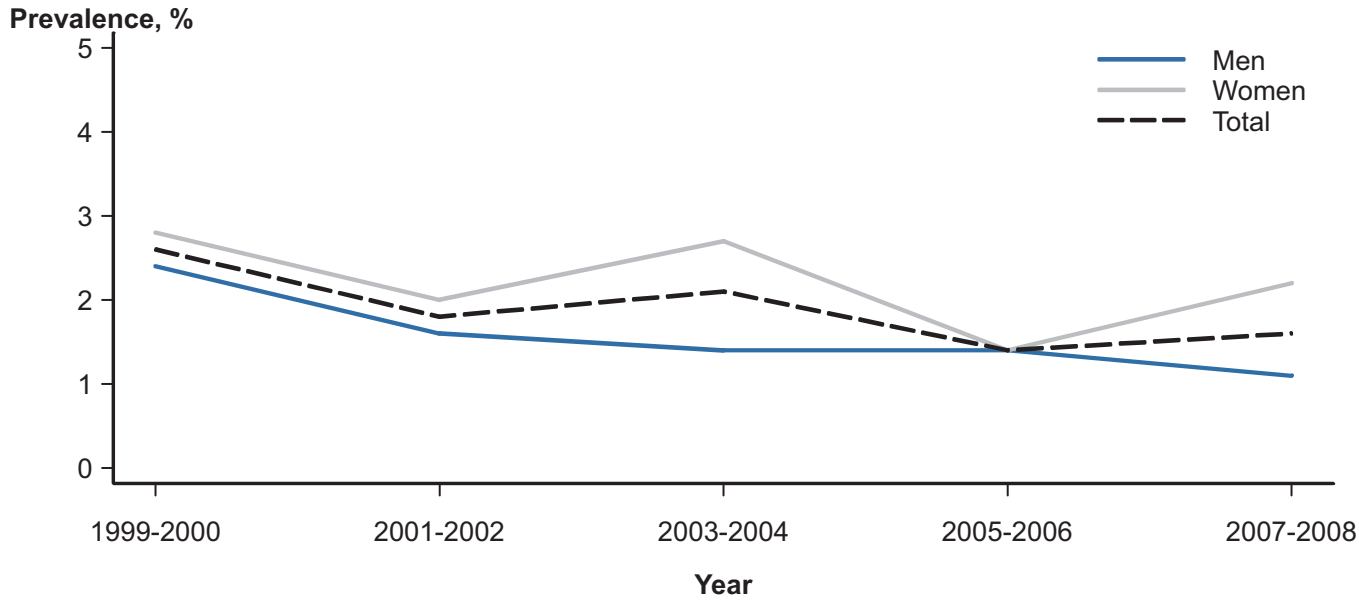
* HMO = health maintenance organization; HD = health department.
NOTE: These categories represent 70.2% of cases with a known reporting source. Of all cases, 11.2% had a missing or unknown reporting source.

Figure 9. Chlamydia—Proportion of Sexually Transmitted Disease (STD) Clinic Patients Testing Positive by Age, Sex, and Sexual Behavior, STD Surveillance Network (SSuN), 2011



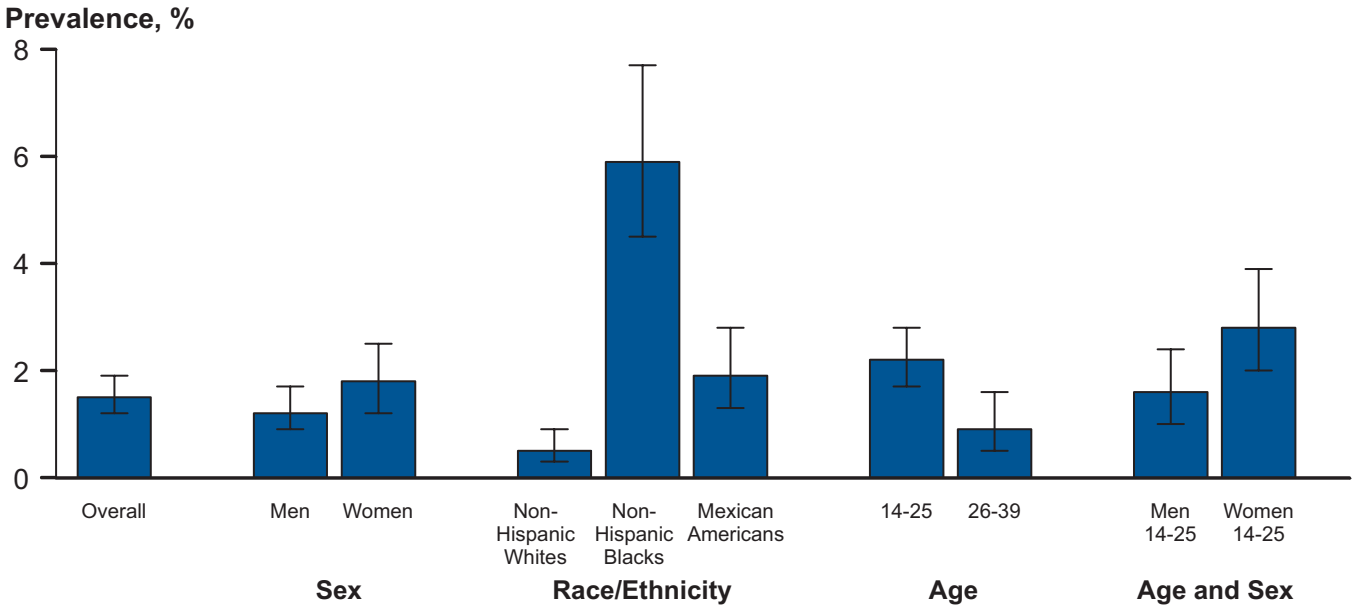
* MSM = men who have sex with men; MSW = men who have sex with women only.

Figure 10. Chlamydia—Prevalence Among Persons Aged 14–39 Years by Sex and Survey Cycle, National Health and Nutrition Examination Survey, 1999–2008



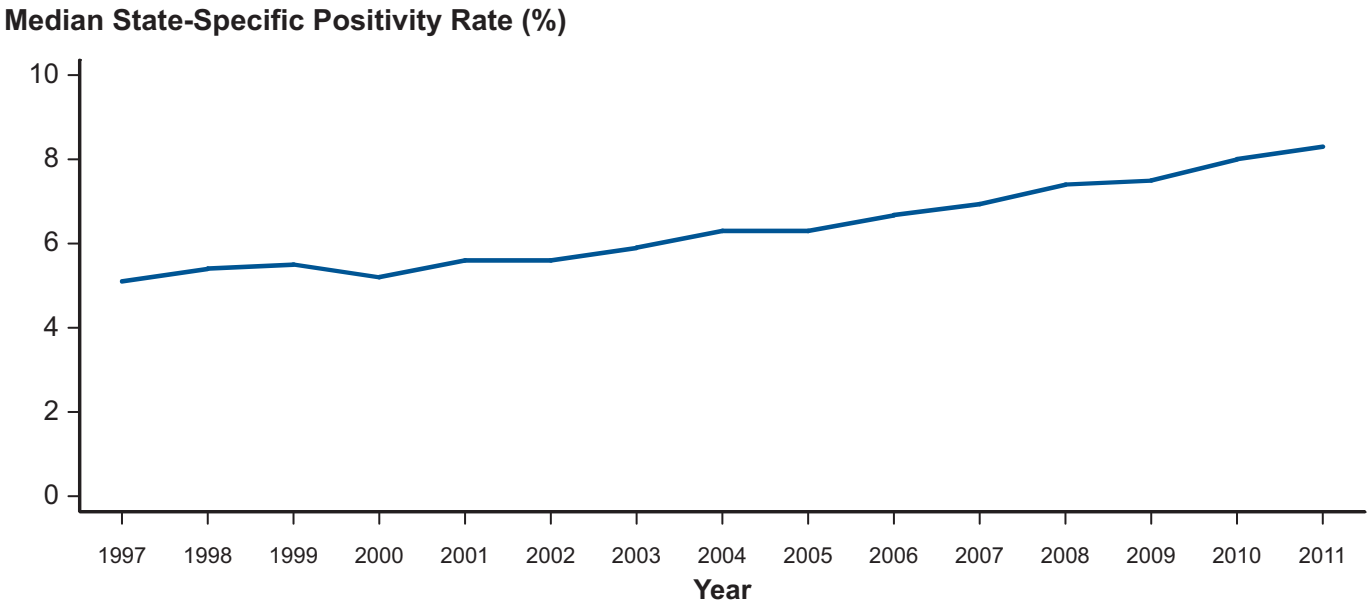
SOURCE: Datta SD, Torrone E, Kruszon-Moran D, Berman S, Johnson R, Satterwhite CL, Papp J, Weinstock H. *Chlamydia trachomatis* trends in the United States among persons 14 to 39 years of age, 1999–2008. Sex Transm Dis. 2012 Feb;39(2):92–6.

Figure 11. Chlamydia—Prevalence Among Persons Aged 14–39 Years by Sex, Race/Ethnicity, or Age Group, National Health and Nutrition Examination Survey, 2005–2008



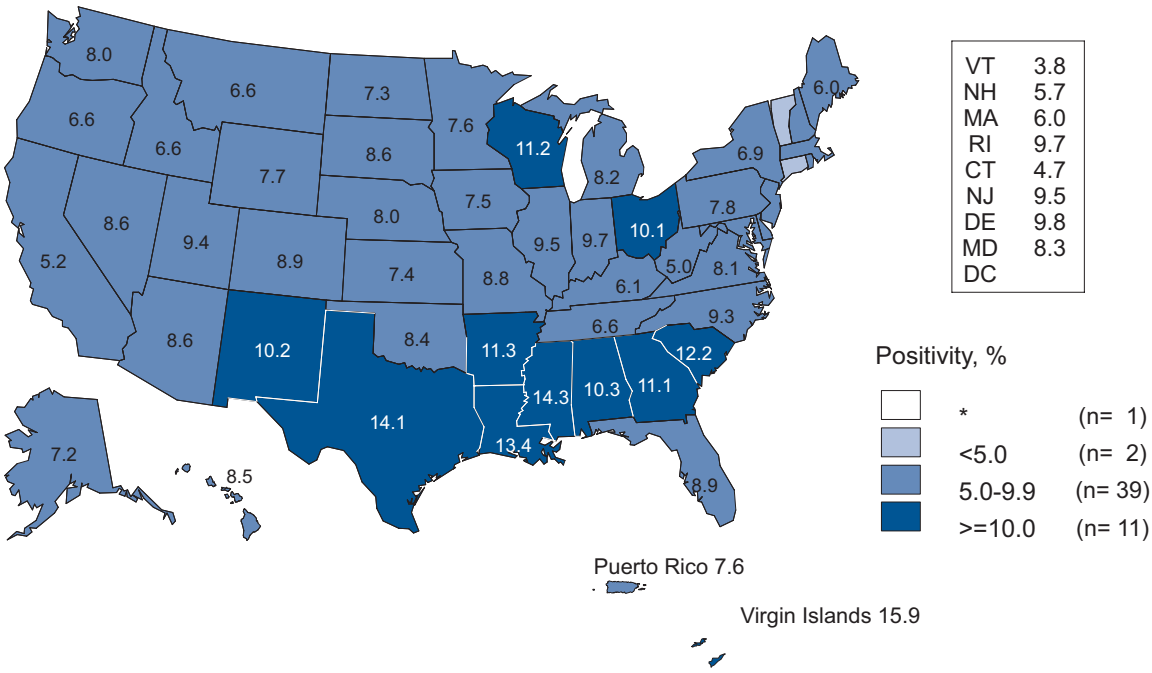
NOTE: Error bars indicate 95% confidence intervals.

Figure 12. Chlamydia—Median State-specific Positivity Rates Among Women Aged 15–24 Years Tested in Family Planning Clinics, Infertility Prevention Project, United States, 1997–2011



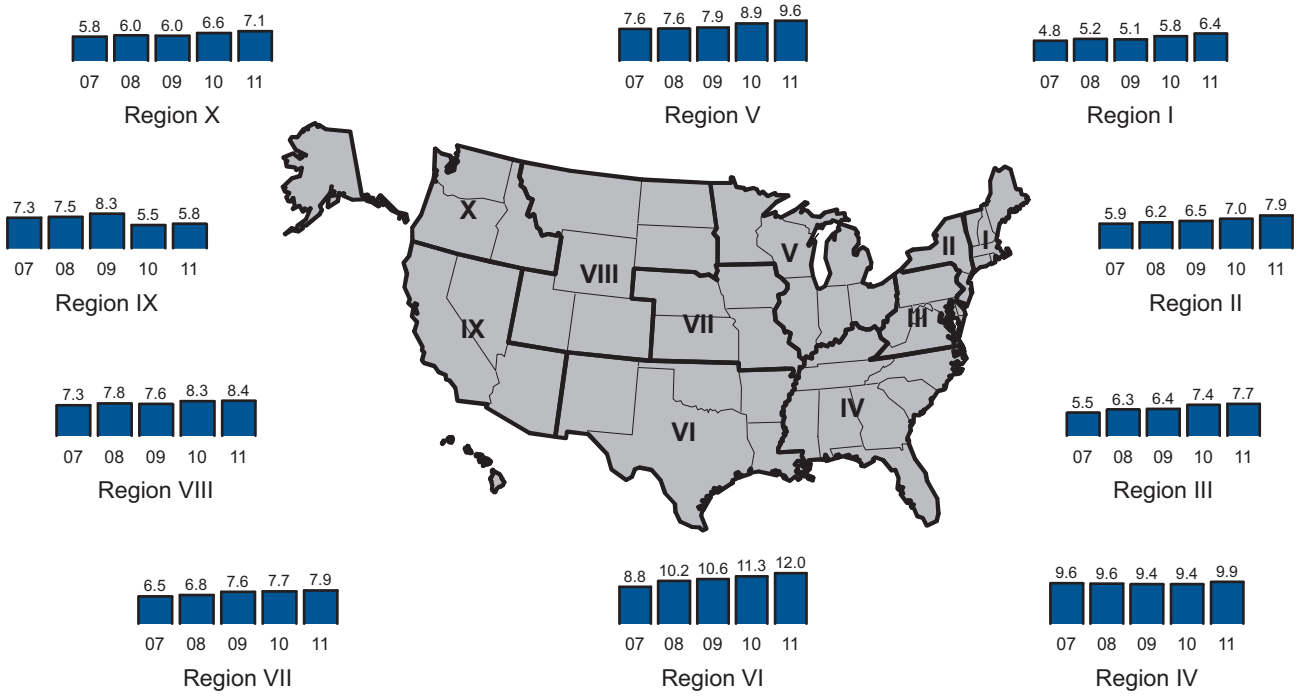
NOTE: As of 1997, all 10 U.S. Department of Health and Human Services (HHS) regions, which represent all 50 states, the District of Columbia, and outlying areas, reported chlamydia positivity data. See Definition of HHS Regions in the Appendix for definitions.

Figure 13. Chlamydia—Positivity Among Women Aged 15–24 Years Tested in Family Planning Clinics, by State, Infertility Prevention Project, United States and Outlying Areas, 2011



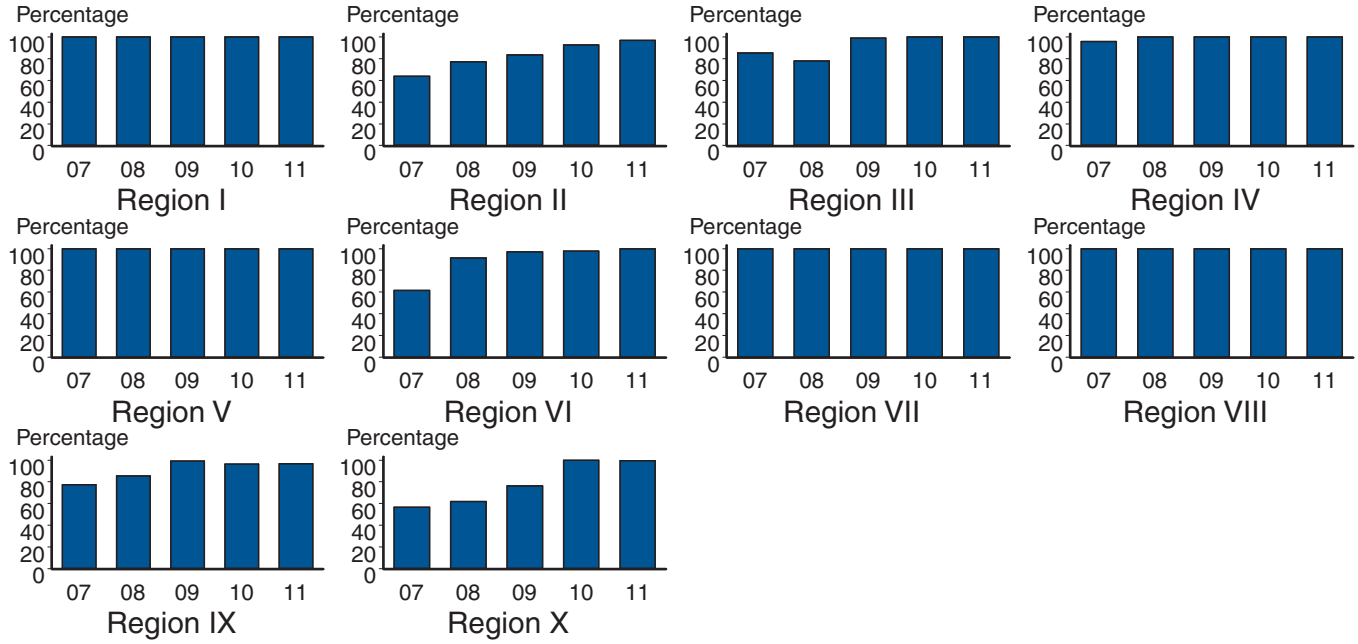
* States/areas reported chlamydia positivity data on fewer than 500 women aged 15–24 years in 2011.

Figure 14. Chlamydia—Trends in Positivity Rates Among Women Aged 15–24 Years Tested in Family Planning Clinics, by U.S. Department of Health and Human Services (HHS) Region, Infertility Prevention Project, 2007–2011



NOTE: See Definition of HHS Regions in the Appendix for definitions.

Figure 15. Chlamydia—Percentage of Nucleic Acid Amplification Tests Used Among Women Aged 15–24 Years Tested in Family Planning Clinics, by U.S. Department of Health and Human Services (HHS) Region, Infertility Prevention Project, 2007–2011



NOTE: Excludes tests where test type is not specified or otherwise unavailable. See Definition of HHS Regions in the Appendix for definitions.

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 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 strong 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 16). 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. The rate increased slightly in 2010 to 100.2 and increased again in 2011 to 104.2 per 100,000 population, with a total of 321,849 cases reported in the United States in 2011 (Figure 16 and Table 1).

The increase in gonorrhea rates during 2010–2011 was observed among both men and women (Figure 17), among all racial/ethnic groups (Figure 24), and in all regions of the United States (Figure 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 2011, a total of 321,849 cases of gonorrhea were reported in the United States, yielding a rate of 104.2 cases per 100,000 population (Table 1). The rate increased 4.0% since 2010; however, the rate decreased 11.7% overall during 2007–2011.

Gonorrhea by Region

In 2011, as in previous years, the South had the highest gonorrhea rate (135.5 cases per 100,000 population) among the four regions of the United States, followed by the Midwest (111.2), Northeast (85.8), and West (62.2) (Table 14). During 2010–2011, rates increased 10.9% in the Northeast, 6.5% in the West, 2.7% in the Midwest, and 2.1% in the South (Figure 18, Table 14).

Gonorrhea by State

In 2011, gonorrhea rates per 100,000 population ranged by state from 7.7 in Vermont to 202.3 in Louisiana (Figure 19, Table 13). During 2010–2011, 61% (31/51) of states, plus the District of Columbia, reported an increase in gonorrhea rates (Table 14).

Gonorrhea by Metropolitan Statistical Area (MSA)

The overall gonorrhea rate in the 50 most populous MSAs was 117.9 cases per 100,000 population in 2011 (Table 17), representing a 3.3% rate increase from 2010 (114.1). In 2011, 60.8% of gonorrhea cases were reported by these MSAs (Table 17). The total gonorrhea rate among women in these MSAs in 2011 (115.6) was similar to rates among men (119.9) (Tables 18 and 19).

Gonorrhea by County

In 2011, 53% of reported gonorrhea cases occurred in just 70 counties or independent cities (Table 20). In 2011, 1,299 counties (41.3%) in the United States had a rate less than or equal to 19 cases per 100,000 population (Figure 20). Rates ranged from 19.1 to 100 per 100,000 population in 1,198 counties (38.1%) and more than 100 cases per 100,000 population in 645 counties (20.5%). 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 higher than those among men since 2002 (Figure 17). During 2010–2011, the gonorrhea rate among women increased 3.1%, to 108.9 cases per 100,000 population, and the rate among men increased 5.1%, to 98.7 per 100,000 population, (Tables 15 and 16).

Gonorrhea by Age

In 2011, gonorrhea rates were highest among adolescents and young adults. In 2011, the highest rates were observed among women aged 20–24 years (584.2) and 15–19 years (556.5). Among men, the rate was highest among those aged 20–24 years (450.6) (Figure 21, Table 21).

In 2011, persons aged 15–44 years accounted for 94.6% of reported gonorrhea cases with known age. During 2010–2011, gonorrhea rates increased among most age groups within this age range: the gonorrhea rate increased 5.8% among those aged 20–24 years, 4.6% among those aged 25–29 years, 6.9% among those aged 30–34 years, 2.5% among those aged 35–39 years, and 4.7% among those aged 40–44 years (Table 21). The gonorrhea rate decreased 0.1% among those aged 15–19 years.

Among women aged 15–44, the largest increase was among those aged 40–44 years (8.4%) (Figure 22). Among men aged 15–44, the largest increase was among those aged 30–34 years (8.4%) (Figure 23).

Gonorrhea by Race/Ethnicity

In 2011, gonorrhea rates remained highest among blacks (427.3 cases per 100,000 population) (Figure 24). The rate among blacks was 17.0 times the rate among whites (25.2 per 100,000 population). The gonorrhea rate among American Indians/Alaska Natives (115.7) was 4.6 times that of whites, and the rate among Hispanics (53.8) was 2.1 times that of whites (Figure 24, Figure P).

During 2010–2011, gonorrhea rates increased among Hispanics (12.3%), whites (7.7%), American Indians/Alaska Natives (7.7%), Asian/Pacific Islanders (4.9%), and blacks (0.3%) (Figure 24).

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

Gonorrhea by Region and Sex

During 2010–2011, gonorrhea rates among women and among men increased in all four regions of the United States: the Northeast, Midwest, South, and West (Tables 15 and 16). In 2011, women (145.4) and men (123.8) in the South had the highest gonorrhea rates.

Gonorrhea by Race/Ethnicity and Sex

Gonorrhea rates were higher in women than men among whites and American Indians/Alaska Natives in 2011 (Figure Q). Gonorrhea rates were highest among black men (428.3) and black women (425.4) and American Indian/Alaska Native women (145.3) and American Indian/Alaska Native men (84.4).

Among blacks, Hispanics, and Asians/Pacific Islanders, rates were higher in women than men among persons aged 15–24, but were higher in men than women among those aged 25 years and older (Table 22B). Among whites, women had higher rates than men among persons aged 15–29 years; men had higher rates than women among those aged 30 years and older. Among American Indians/Alaska Natives, women had higher rates than men among persons aged 15–44 years, but men had higher rates than women among those aged 45 years and older.

Gonorrhea by Reporting Source

The number of gonorrhea cases reported by STD clinics declined during 2002–2011 (Figure 25). In 2011, 18.6% of gonorrhea cases with known reporting source were reported by STD clinics (Table A2). This is a decrease from 2010, when 21.5% of gonorrhea cases were reported by STD clinics. In 2011, among women, private physicians or HMOs (29.7%) were the most common reporting source, followed by STD clinics (11.7%), family planning clinics (10.4%), other health department clinics (8.0%), and emergency rooms (5.4%) (Figure 26). Among men, STD clinics were the most common reporting source (26.4%) (Figure 26). Other common reporting sources for males were private physicians/HMOs (21.5%), other health department clinics (9.3%), emergency rooms (5.4%), and family planning clinics (5.2%) (Figure 26).

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 2011, SSuN collaborators interviewed 4,540 gonorrhea cases representing 6.7% 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, MSW, and women varied substantially across collaborating sites (Figure 27). San Francisco County had the highest proportion of estimated MSM cases (83.0%), while the lowest proportion of morbidity estimated to be attributed to MSM was found in Jefferson County (Birmingham), Alabama at 4.8%. Across all SSuN jurisdictions in 2011, 21.6% of gonorrhea cases were estimated to be among MSM, 31.0% among MSW, and 47.4% among women.

Positivity in Selected Populations

Positivity data from gonorrhea tests are primarily available from family planning clinics. Screening criteria and practices vary by state and over time.

In 2011, the median state-specific gonorrhea test positivity among women aged 15–24 years screened in selected family planning clinics in 48 states, Puerto Rico, and the Virgin Islands was 0.7% (range: 0.0% to 3.5%) (Figure 28).

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 *N. gonorrhoeae* strains in the United States.[10] Data are collected from selected STD clinic sentinel sites and from regional laboratories (Figure 29).

With the renewed availability of cefixime, susceptibility testing for this oral cephalosporin antibiotic was restarted in 2009. Susceptibility testing for an additional oral cephalosporin, cefpodoxime, was started in 2009.

Information on the GISP antimicrobial susceptibility criteria used can be found in the Gonococcal Isolate Surveillance Project section of the Appendix, Interpreting STD Surveillance Data. More information about 2011 GISP data can be found at http://www.cdc.gov/std/GISP.

Susceptibility to Ceftriaxone

Susceptibility testing for ceftriaxone began in 1987. Figure 30 displays the distribution of ceftriaxone minimum inhibitory concentrations (MICs) among GISP isolates during 2007–2011. During 2010–2011, the proportion of isolates with MICs of 0.125 µg/ml increased slightly from 0.3% in 2010 to 0.4% in 2011. The proportion of isolates with MICs of 0.25 µg/ml decreased slightly from 0.05% in 2010 to 0.02% (n = 1) in 2011.

No isolates with decreased susceptibility to ceftriaxone (MIC ≥ 0.5 µg/ml) were seen in 2011. GISP has reported four isolates with decreased susceptibility to ceftriaxone (MIC of 0.5 µg/ml). The locations and years of these isolates were San Diego, 1987; Cincinnati, 1992 and 1993; and Philadelphia, 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 cefixime MICs of 0.125 µg/ml increased each year, from 1.4% in 2009 to 1.7% in 2011 (Figure 31). The percentage of isolates with cefixime MICs of 0.25 µg/ml increased from 0.7% in 2009 to 1.3% in 2011.The proportion with decreased susceptibility to cefixime (MIC=0.5 µg/ml) decreased from 0.2% in 2010 to 0.05% in 2011.

Since 2000, GISP has reported 23 isolates with decreased susceptibility to cefixime (MICs of 0.5 µg/ml). Three isolates with decreased susceptibility to cefixime were reported in 2011 and were collected in the South (Baltimore, Maryland), Midwest (Minneapolis, Minnesota) and West (Phoenix, Arizona). Unlike 2010, during which 89% of isolates with decreased susceptibility to cefixime were collected from MSM, two of the three isolates with decreased susceptibility to cefixime collected in 2011 were from men who have sex exclusively with women (MSW).

Susceptibility to Cefpodoxime

GISP began monitoring cefpodoxime susceptibility in 2009. Of 5,467 GISP isolates tested for cefpodoxime susceptibility in 2011, 1.1% had MICs of 0.5 µg/ml, 1.3% had MICs of 1 µg/ml, and 0.2% had MICs of 2 µg/ml.

Susceptibility to Azithromycin

Susceptibility testing for azithromycin began in 1992. Figure 32 displays the distribution of azithromycin MICs among GISP isolates during 2007–2011. The proportion of GISP isolates with azithromycin MICs of ≥ 2.0 µg/ml decreased from 0.5% in 2010 to 0.3% in 2011. In 2011, 5 (0.1%) isolates had azithromycin MICs of 8.0 µg/ml, and 1 (0.02%) isolate had an MIC of 16.0 µg/ml. Of these 6 isolates with MICs 8–16 µg/ml, 5 (83.3%) were from the West and 5 were from MSM.

Susceptibility to Spectinomycin

All isolates were susceptible to spectinomycin in 2011. GISP has identified five spectinomycin-resistant isolates—from St. Louis in 1988, Honolulu in 1989, San Francisco in 1989, Long Beach in 1990, and West Palm Beach in 1994.

Susceptibility to Ciprofloxacin

Resistance to ciprofloxacin (a fluoroquinolone antimicrobial) was first identified at GISP sites in 1991. Since 1999, fluoroquinolone-resistant *Neisseria gonorrhoeae* (QRNG) prevalence steadily increased, first in Hawaii and the Pacific Islands, then in the Western states, then among MSM,[11,12] and eventually among all populations in all regions of the United States.[4]

The proportion of GISP isolates identified as QRNG peaked in 2007 at 14.8%. The overall proportion decreased to 9.6% by 2009, and increased to 13.3% in 2011.

The prevalence of QRNG in isolates from MSM peaked at 38.9% in 2006 and then decreased to 20.1% by 2009 (Figure 33). In 2011, 26.0% of isolates from MSM were identified as QRNG. The prevalence of QRNG in isolates from MSW peaked at 8.7% in 2007, decreased to 6.0% in 2009, and increased to 8.0% in 2011.

Other Antimicrobial Susceptibility Testing

In 2011, 30.4% of isolates collected from GISP sites were resistant to penicillin, tetracycline, ciprofloxacin, or some combination of those antimicrobials (Figure 34). Although these antimicrobials are no longer recommended for treatment of gonorrhea, the resistance phenotypes remain common.

Antimicrobial Treatments Given for Gonorrhea

The antimicrobial agents given to GISP patients for gonorrhea therapy are shown in Figure 35. The proportion of GISP patients treated with ceftriaxone 250 mg increased from 37.4% in 2010 to 84.0% in 2011. The proportion treated with ceftriaxone 125 mg decreased from 46.9% in 2010 to 4.8% in 2011, and the proportion treated with cefixime decreased from 7.8% in 2010 to 5.3% in 2011.

In 2011, 0.3% of GISP patients were treated with fluoroquinolones (ciprofloxacin, ofloxacin, or levofloxacin) and 2.3% were treated with azithromycin 2 gram monotherapy.

Among patients treated with ceftriaxone 250 mg or cefixime 400 mg, 84.6% were also treated with azithromycin, 14.9% were also treated with doxycycline, 0.04% were treated with another antimicrobial, and 0.5% 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 fluctuated at about 115–120 cases per 100,000 population for 10 years during 1996–2006, decreased during 2006–2009, and increased during 2009–2011. 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.

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[12] Centers for Disease Control and Prevention. Increases in fluoroquinolone-resistant *Neisseria gonorrhoeae* among men who have sex with men — United States, 2003, and revised recommendations for gonorrhea treatment, 2004. MMWR Morb Mortal Wkly Rep. 2004;53:335-8.

Figure 16. Gonorrhea—Rates, United States, 1941–2011

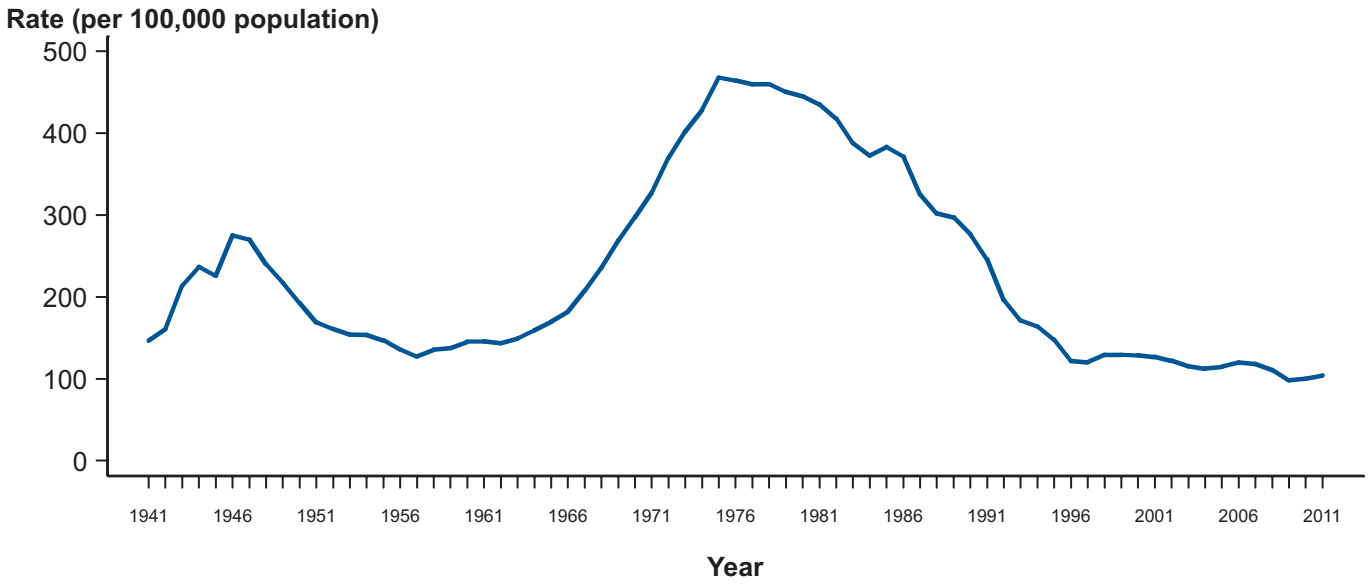


Figure 17. Gonorrhea—Rates by Sex, United States, 1991–2011

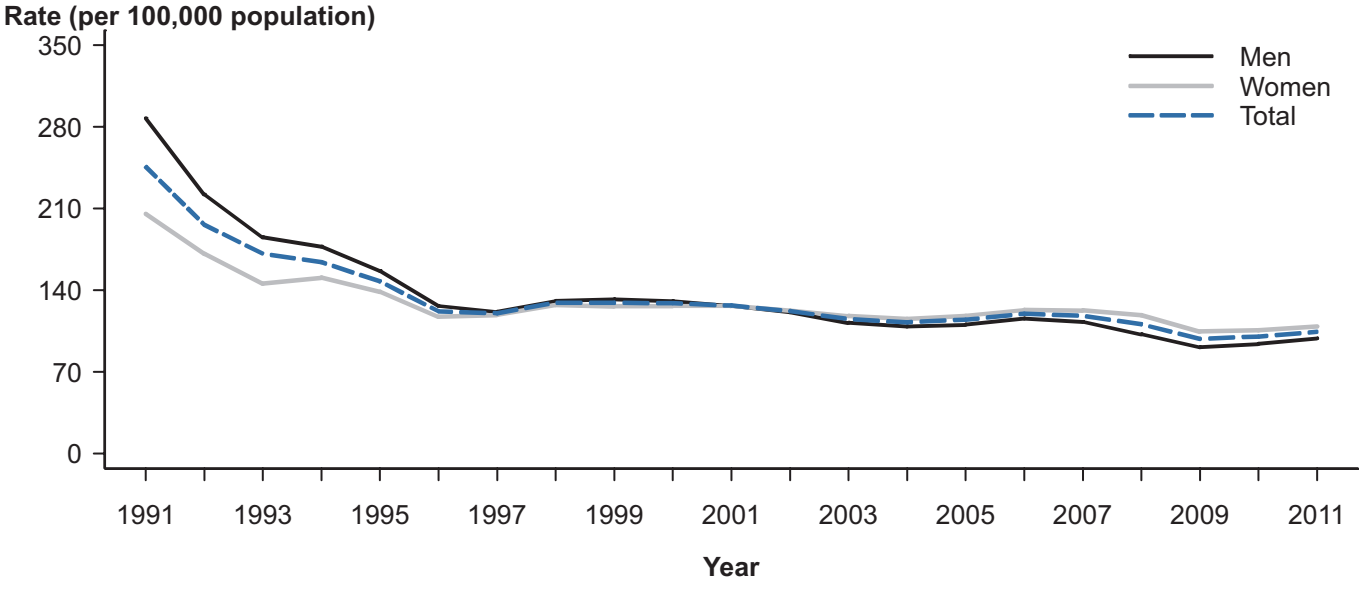


Figure 18. Gonorrhea—Rates by Region, United States, 2002–2011

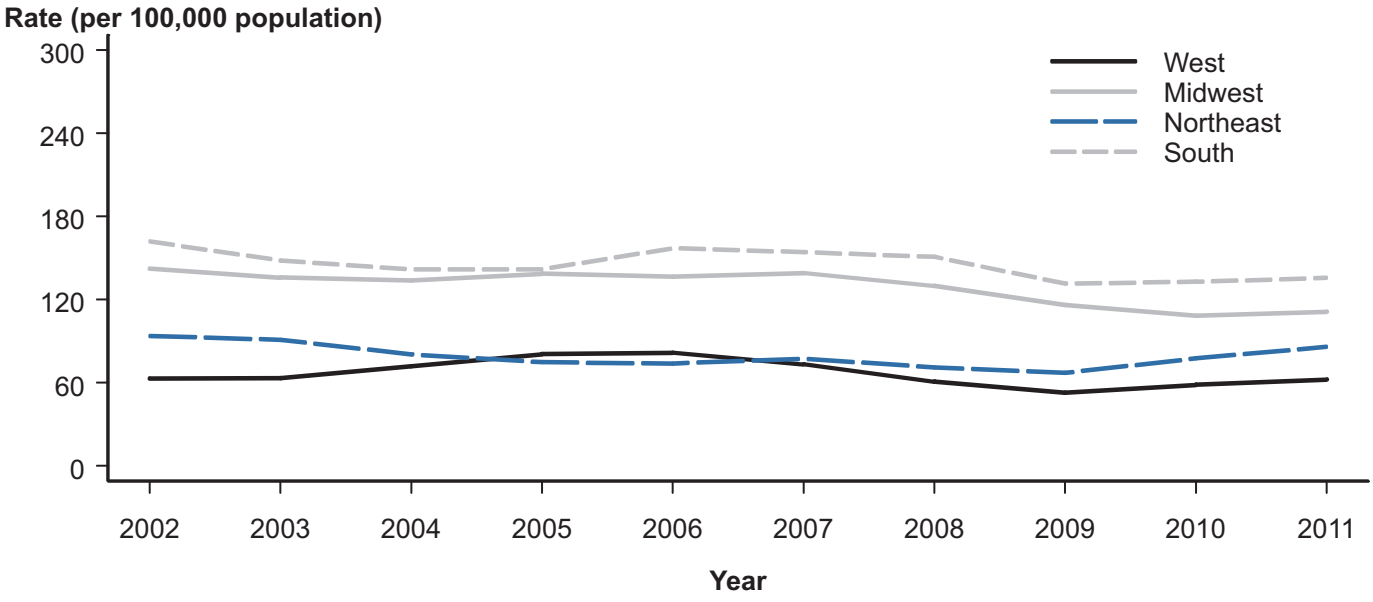
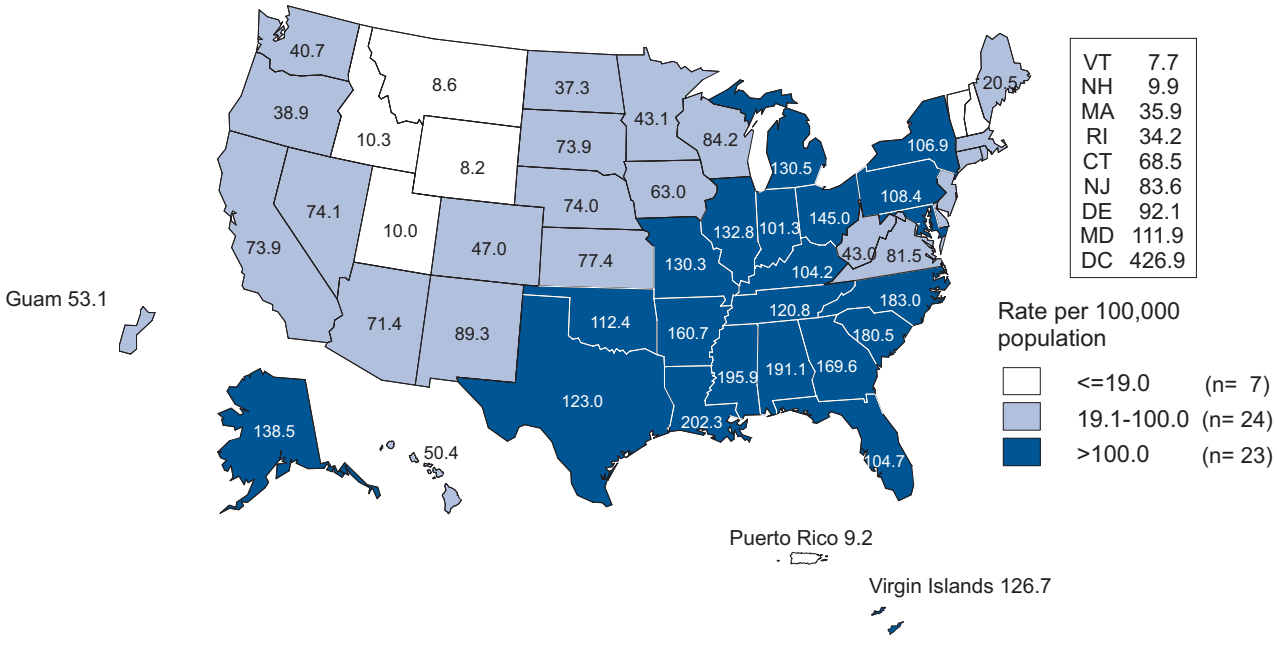


Figure 19. Gonorrhea—Rates by State, United States and Outlying areas, 2011



NOTE: The total rate of gonorrhea for the United States and outlying areas (Guam, Puerto Rico, and Virgin Islands) was 103.1 per 100,000 population.

Figure 20. Gonorrhea—Rates by County, United States, 2011

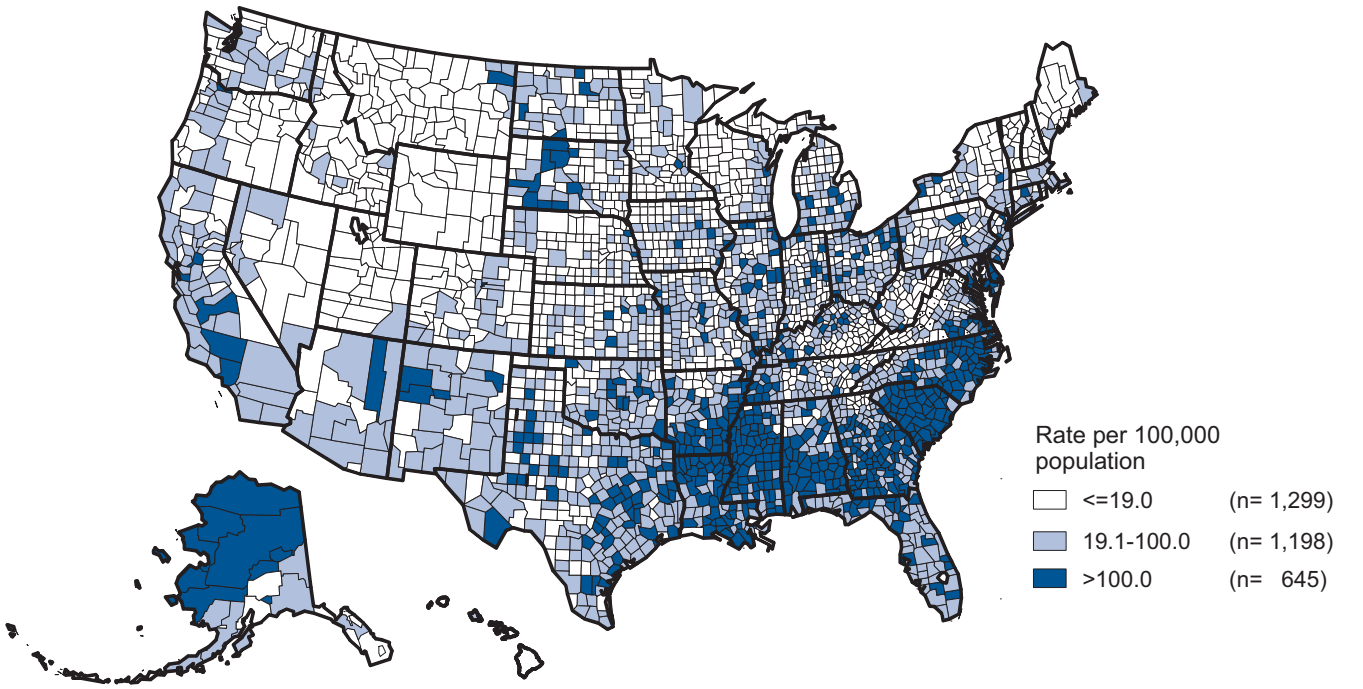


Figure 21. Gonorrhea—Rates by Age and Sex, United States, 2011

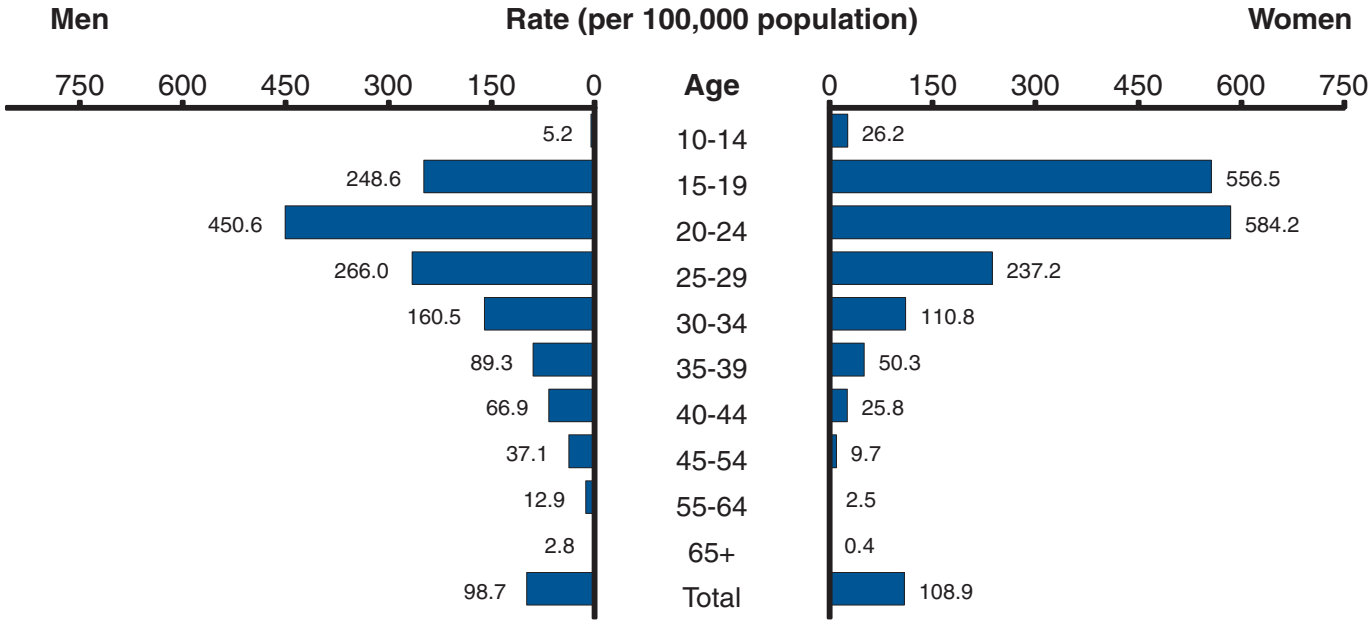


Figure 22. Gonorrhea—Rates by Age Among Women Aged 15–44 Years, United States, 2002–2011

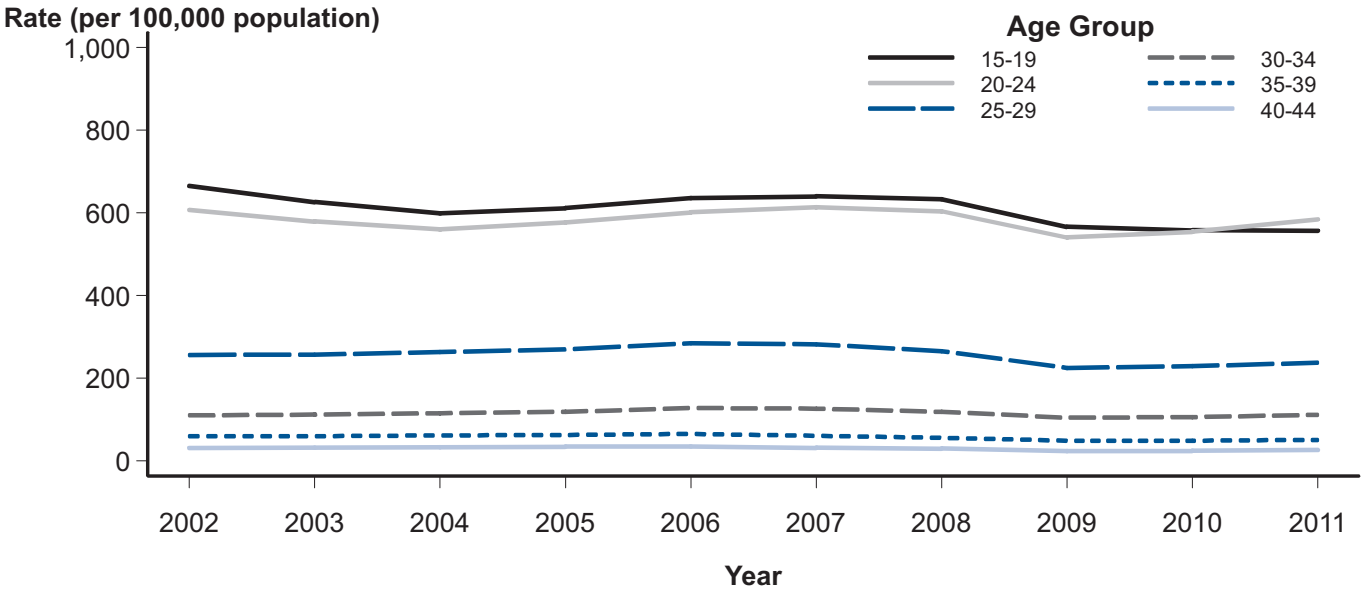


Figure 23. Gonorrhea—Rates by Age Among Men Aged 15–44 Years, United States, 2002–2011

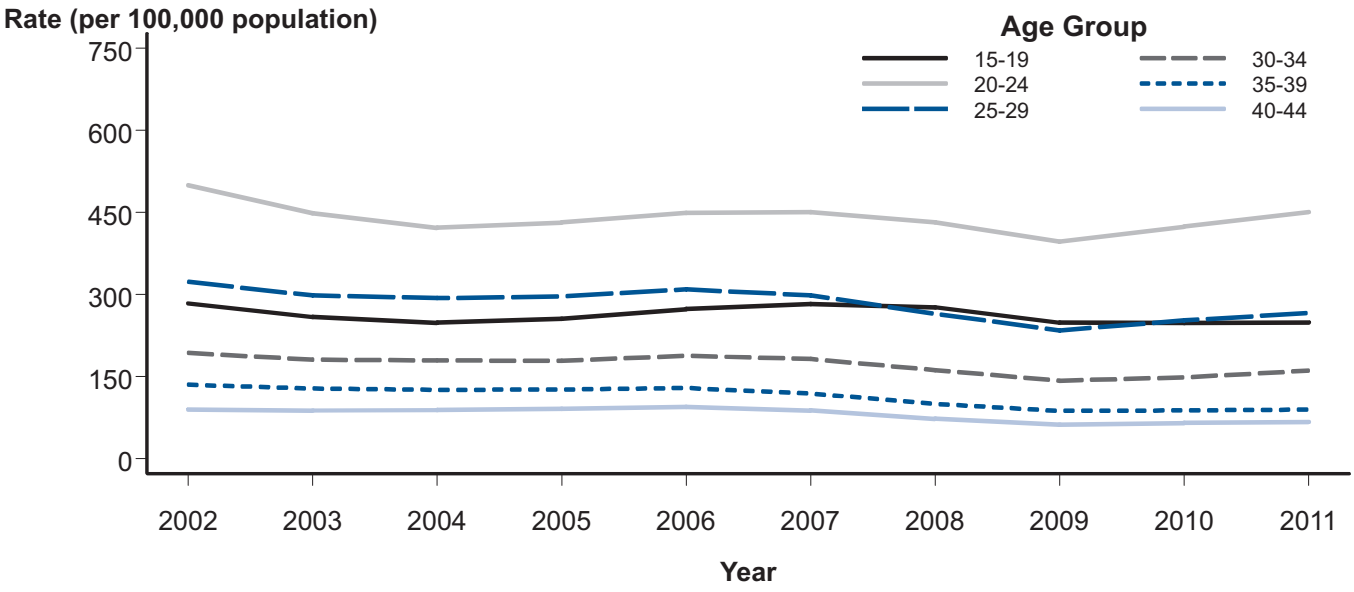


Figure 24. Gonorrhea—Rates by Race/Ethnicity, United States, 2002–2011

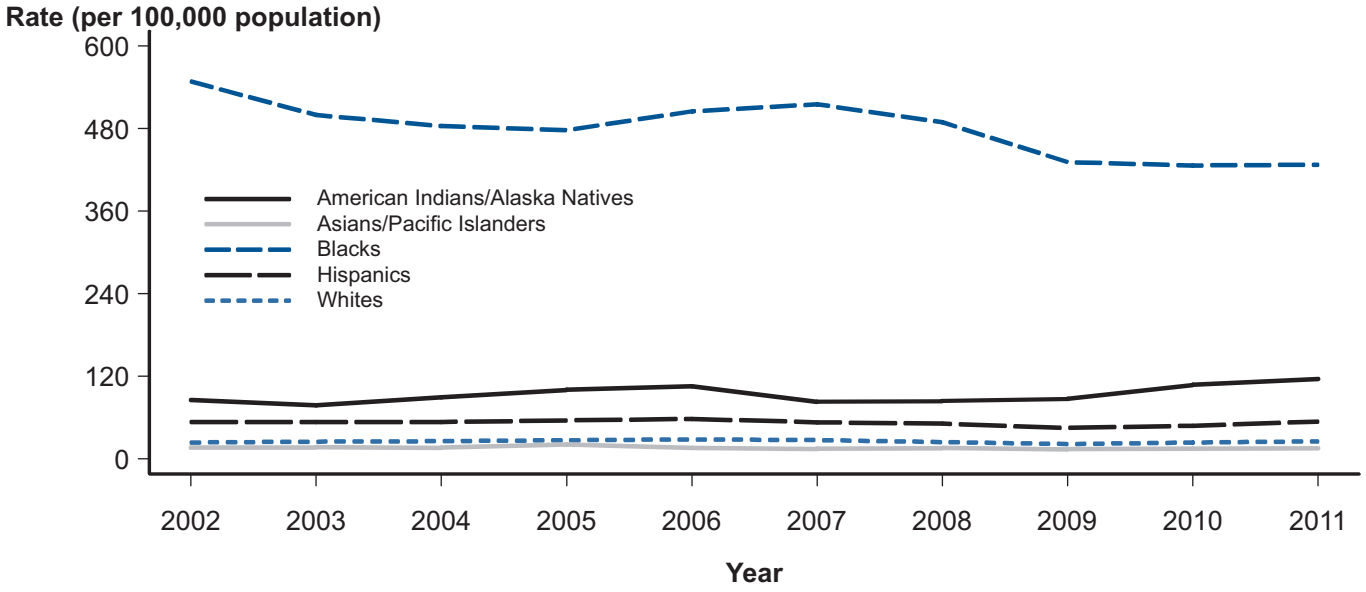


Figure 25. Gonorrhea—Cases by Reporting Source and Sex, United States, 2002–2011

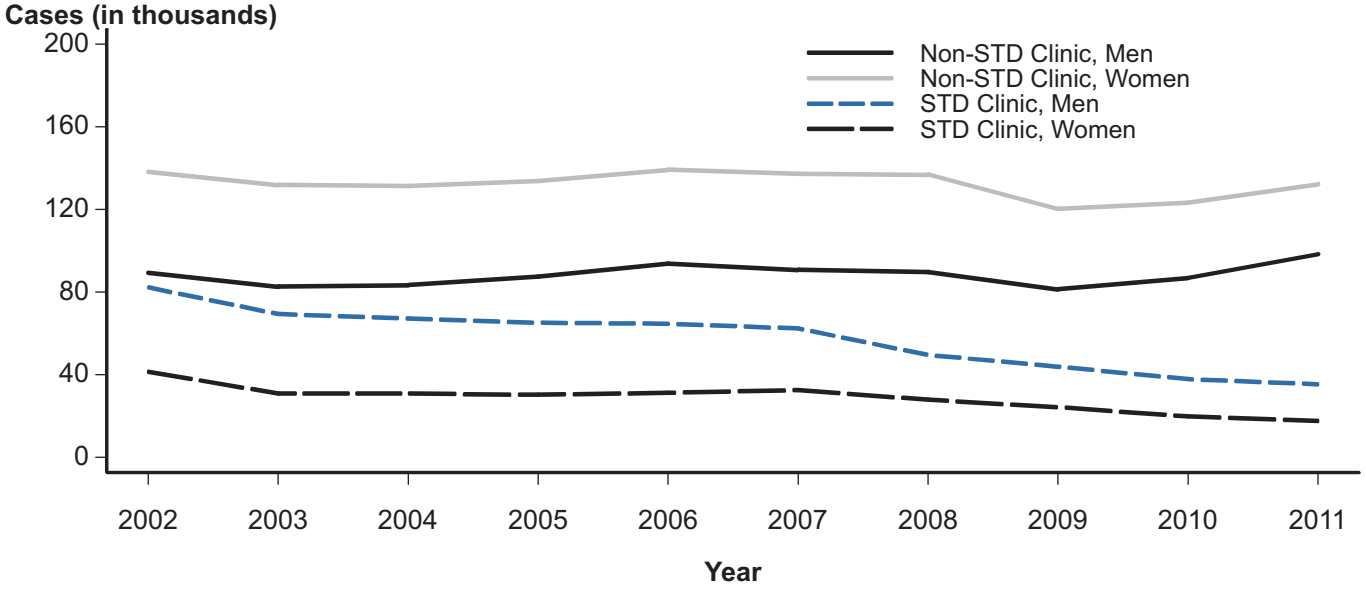
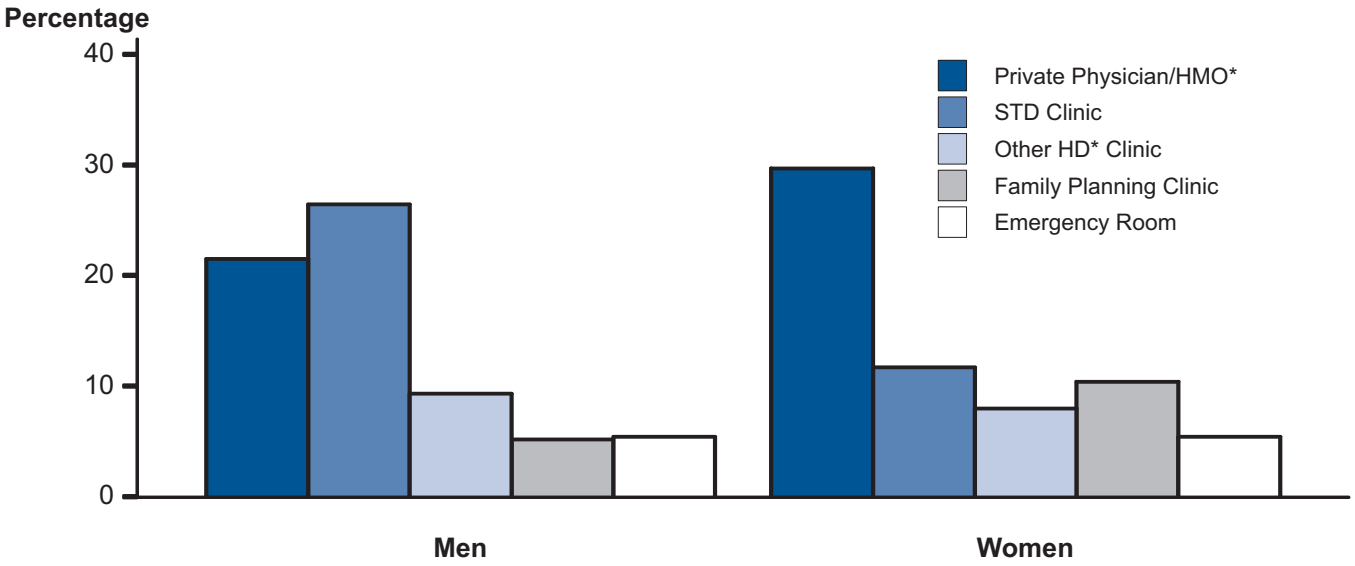
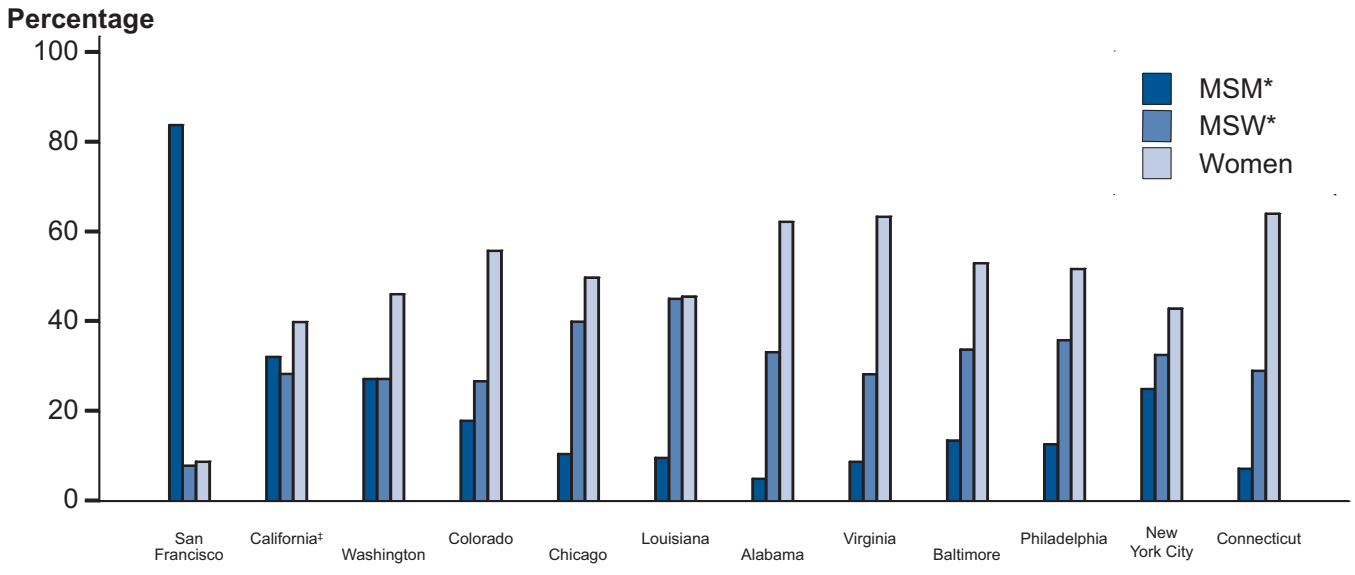


Figure 26. Gonorrhea—Percentage of Reported Cases by Sex and Selected Reporting Sources, United States, 2011



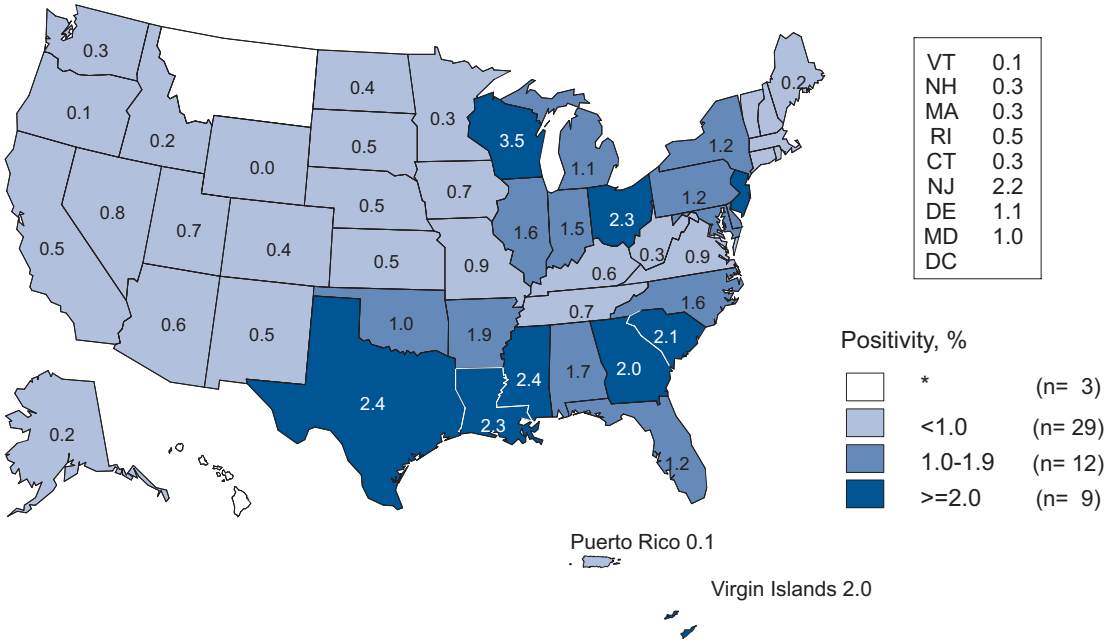
* HMO = health maintenance organization; HD = health department.
NOTE: These categories represent 66.5% of cases with known reporting source. Of all cases, 11.7% had a missing or unknown reporting source.

Figure 27. Proportion MSM*, MSW*, and Women Among Interviewed† Gonorrhea Cases by Site, STD Surveillance Network (SSuN), 2011



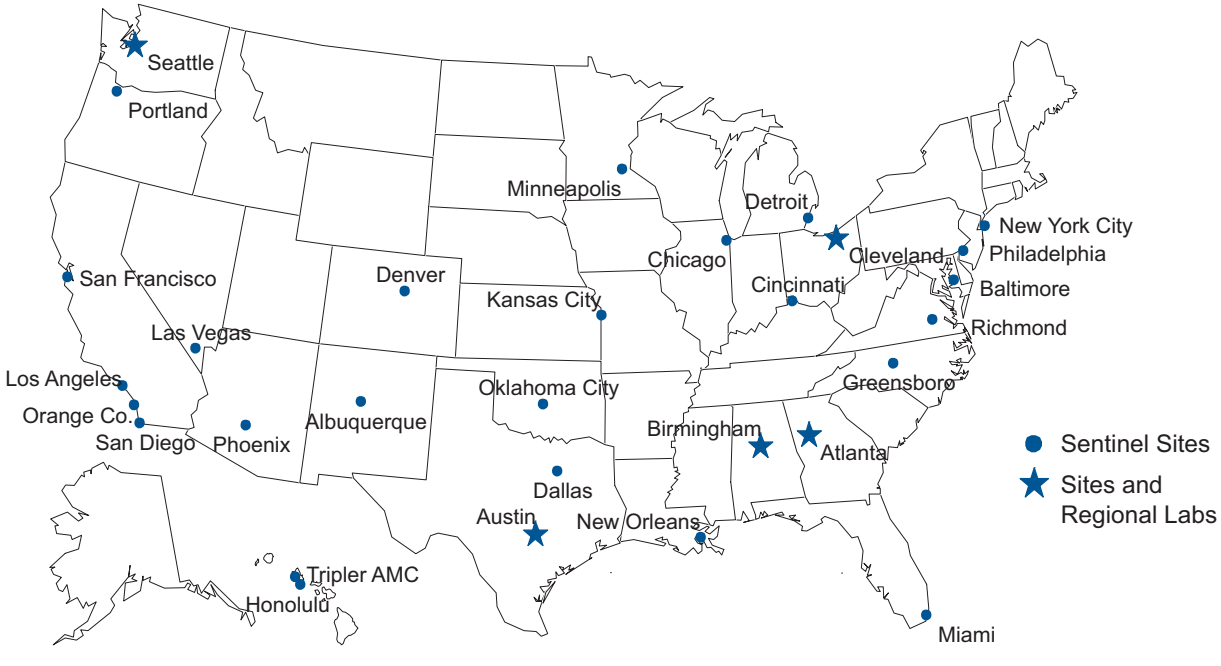
* MSM = men who have sex with men; MSW = men who have sex with women only.
† SSuN interviews conducted in a randomly selected sample of the patient population with gonorrhea (n= 4,540).
‡ California data excludes San Francisco.
NOTE: See Appendix for included jurisdictions within each state.

Figure 28. Gonorrhea—Positivity Among Women Aged 15–24 Years Tested in Family Planning Clinics, by State, Infertility Prevention Project, United States and Outlying Areas, 2011



* States/areas had incomplete data or reported gonorrhea positivity data on fewer than 500 women aged 15–24 years in 2011.

Figure 29. Location of Participating Sentinel Sites and Regional Laboratories, Gonococcal Isolate Surveillance Project (GISP), United States, 2011



NOTE: The Austin site is a regional laboratory only.

Figure 30. Distribution of Minimum Inhibitory Concentrations (MICs) of Ceftriaxone Among *Neisseria gonorrhoeae* Isolates, Gonococcal Isolate Surveillance Project (GISP), 2007–2011

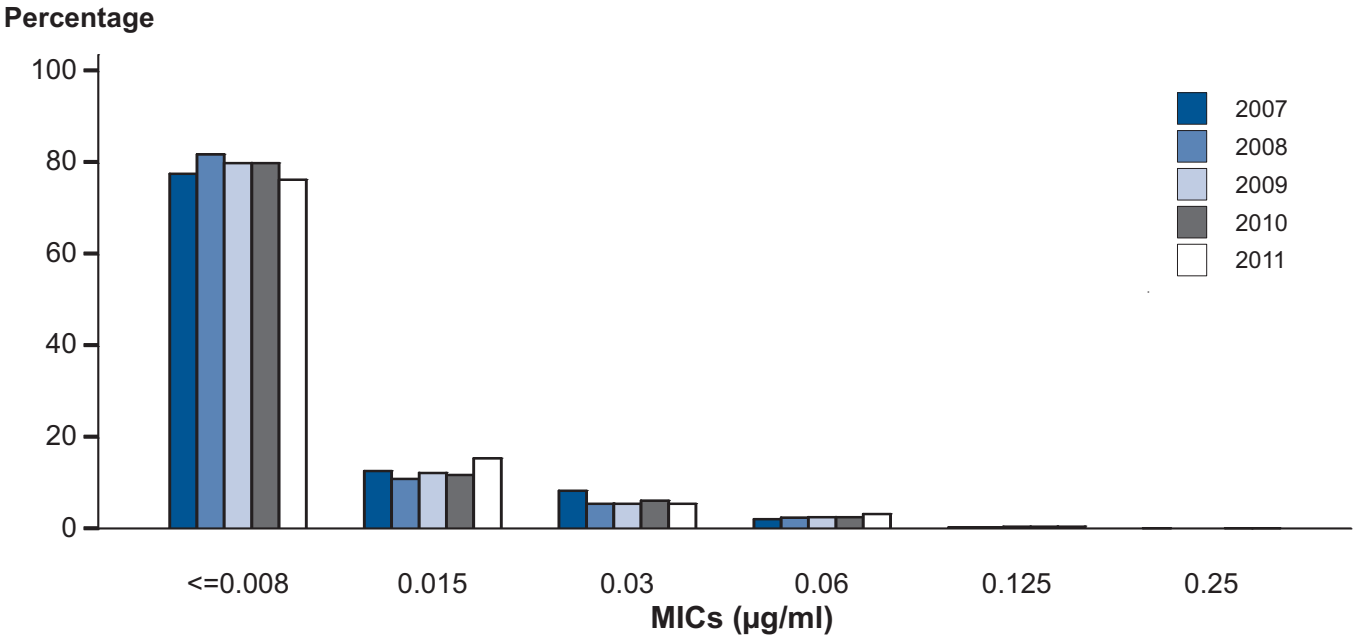
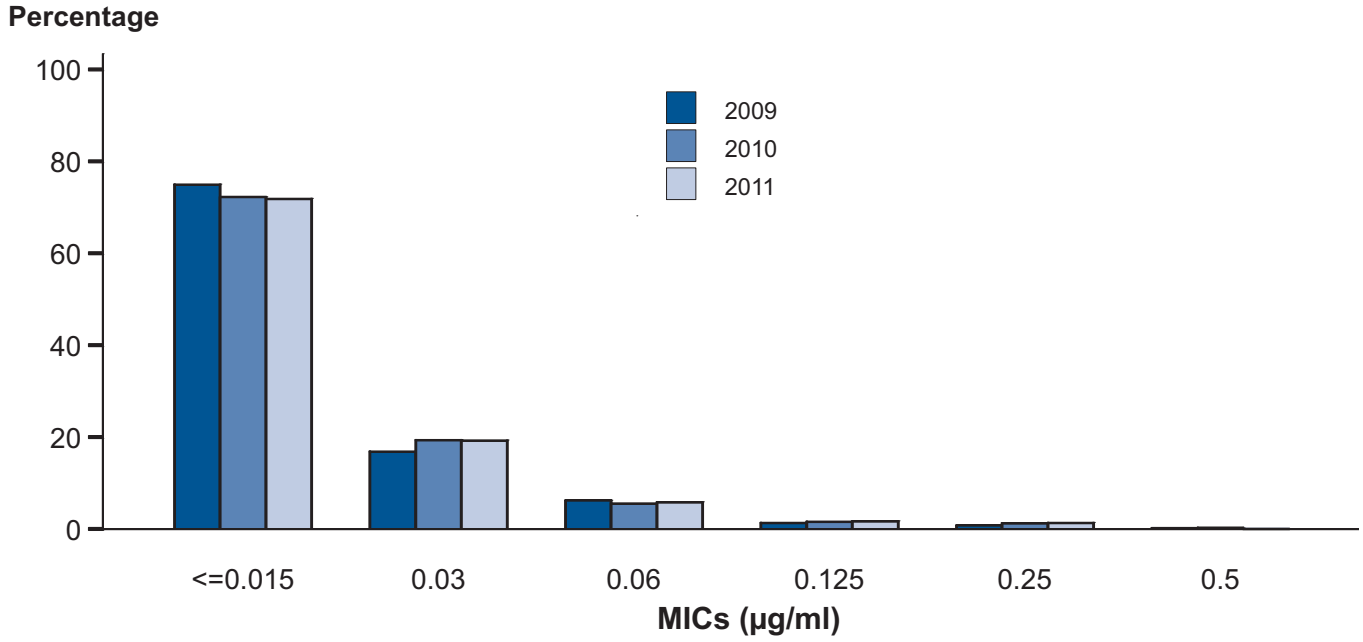


Figure 31. Distribution of Minimum Inhibitory Concentrations (MICs) of Cefixime Among *Neisseria gonorrhoeae* Isolates, Gonococcal Isolate Surveillance Project (GISP), 2009–2011



NOTE: Isolates were not tested for cefixime susceptibility in 2007 and 2008.

Figure 32. Distribution of Minimum Inhibitory Concentrations (MICs) of Azithromycin Among *Neisseria gonorrhoeae* Isolates, Gonococcal Isolate Surveillance Project (GISP), 2007–2011

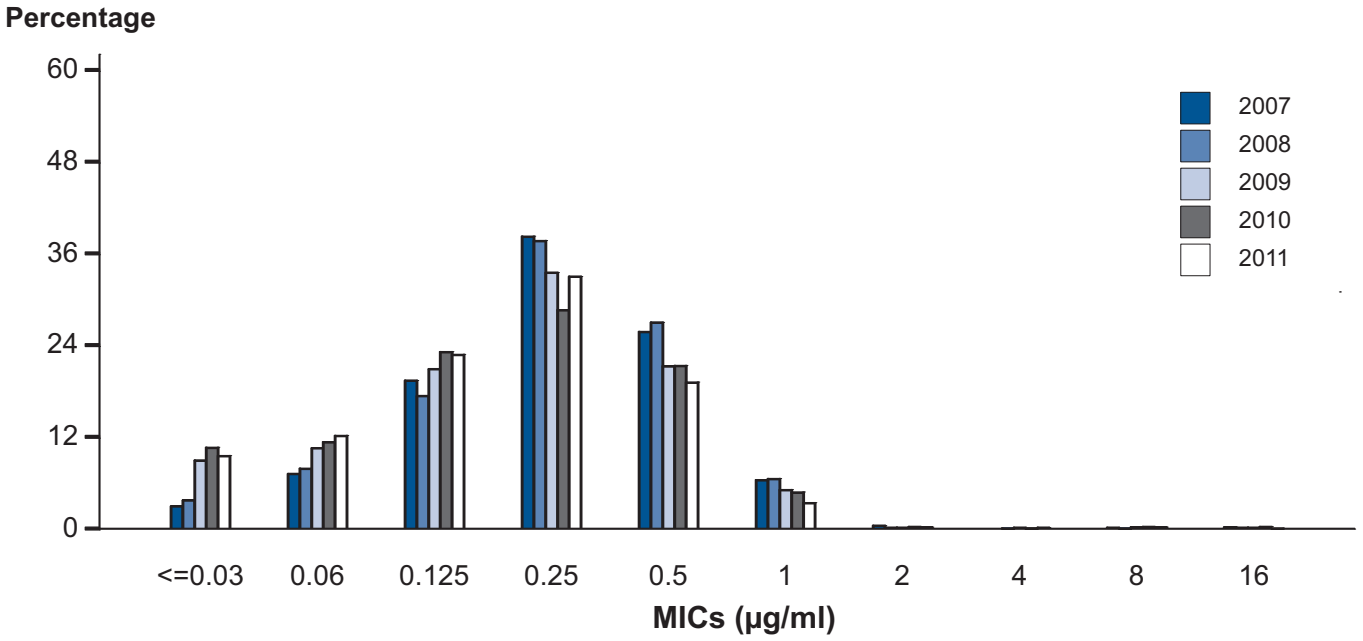
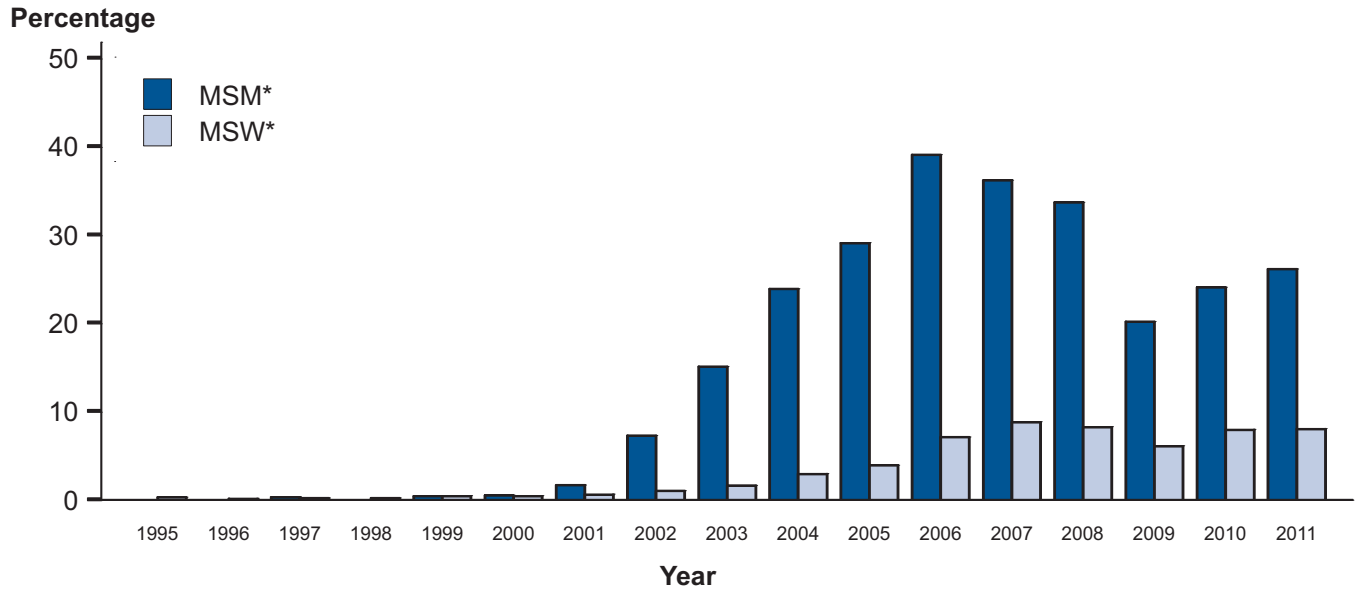
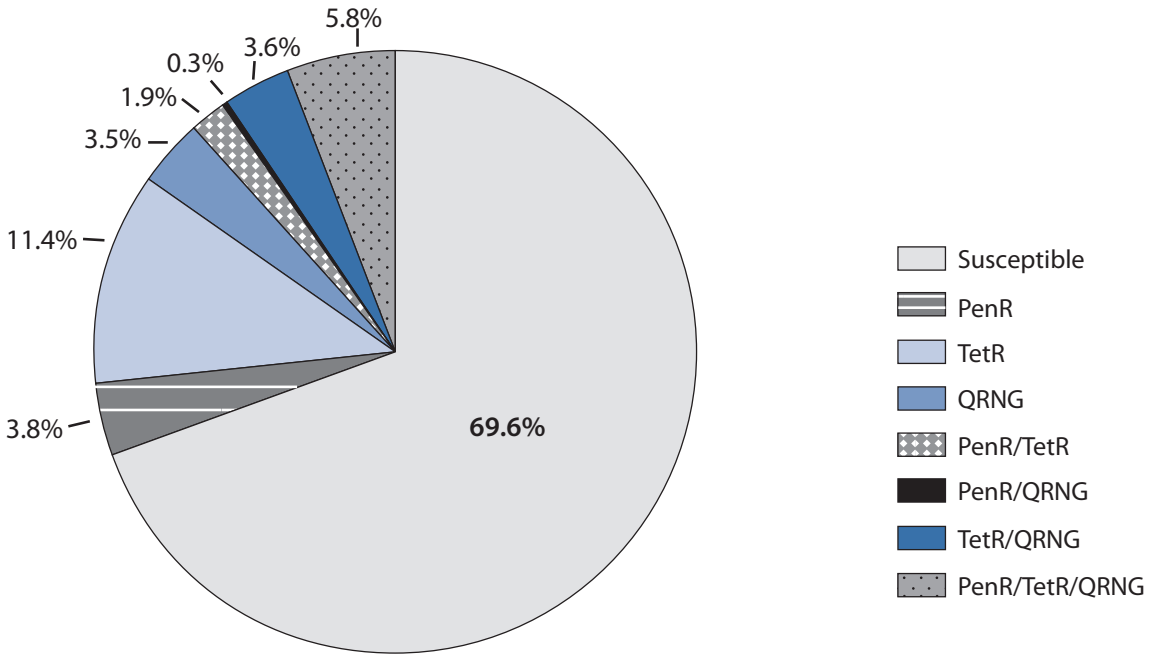


Figure 33. Percentage of *Neisseria gonorrhoeae* Isolates that are Ciprofloxacin-Resistant by Sex of Sex Partner, Gonococcal Isolate Surveillance Project (GISP), 1995–2011



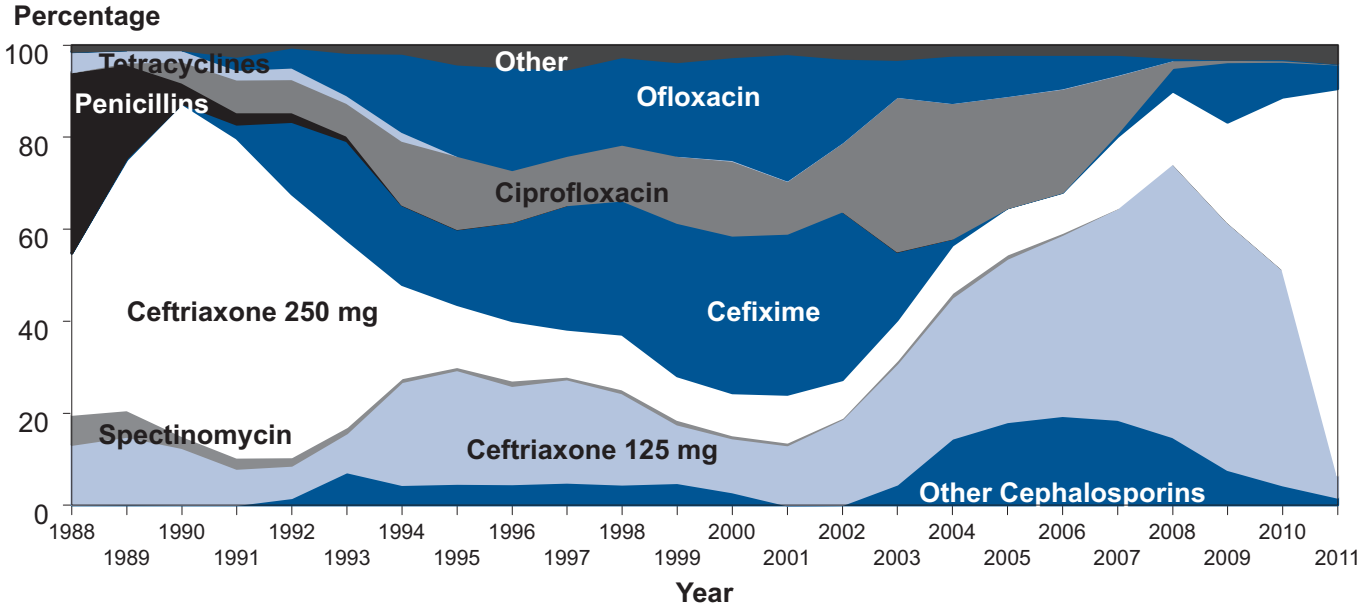
* MSM = men who have sex with men; MSW = men who have sex exclusively with women.

Figure 34. Penicillin, Tetracycline, and Ciprofloxacin Resistance Among *Neisseria gonorrhoeae* isolates, Gonococcal Isolate Surveillance Project (GISP), 2011



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 35. Antimicrobial Drugs Used to Treat Gonorrhea Among Participants, Gonococcal Isolate Surveillance Project (GISP), 1988–2011



NOTE: For 2011, "Other" includes no therapy (1.2%), azithromycin 2g (2.3%), and other less frequently used drugs.

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 36). 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 Surgeon General David Satcher, MD, PhD, 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. The 2011 rate remained unchanged. Overall increases in rates were observed primarily among men (increasing from 3.0 cases per 100,000 population in 2001 to 8.2 cases in 2011). 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 1.1 cases per 100,000 population in 2010 and 1.0 cases per 100,000 population in 2011.

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 2011 was available for 83%. In 2011, 72% of P&S syphilis cases in 46 states and the District of Columbia that provided information about sex of sex partners were among MSM.

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

During 2010–2011, the number of cases of early latent syphilis reported to CDC decreased 3.4% (from 13,604 cases to 13,136), and the number of cases of late and late latent syphilis increased 2.7% (from 18,079 cases to 18,576) (Tables 1, 36, and 38). The total number of cases of syphilis (P&S, early latent, late, late latent, and congenital) reported to CDC increased 0.4% (from 45,844 cases to 46,042) during 2010–2011 (Table 1).

P&S Syphilis—United States

P&S syphilis cases reported to CDC increased from 13,774 in 2010 to 13,970 in 2011, an increase of 1.4%. The rate of P&S syphilis in the United States in 2011 (4.5 cases per 100,000 population) remained unchanged from the rate in 2010 (Figure 36, Table 1).

P&S Syphilis by Region

The South accounted for 44.1% of P&S syphilis cases in 2011 and 45.5% in 2010. During 2010–2011, rates decreased 1.8% in the South (from 5.5 to 5.4 cases per 100,000 population), 5.0% in the Northeast (from 4.0 to 3.8 cases), and 5.9% in the Midwest (from 3.4 to 3.2 cases), and increased 14.0% in the West (from 4.3 to 4.9 cases) (Figure 40, Table 26).

P&S Syphilis by State

In 2011, the 15 states and areas (including the District of Columbia) with the highest rates of P&S syphilis accounted for 71% of all U.S. cases of P&S syphilis. The rate of P&S syphilis in all of these 15 states and areas (including the District of Columbia) exceeded the national rate of 4.5 cases per 100,000 population; 10 of these 15 states and areas (including the District of Columbia) were in the South (Figure 40, Table 25).

P&S Syphilis by Metropolitan Statistical Area

The rate of P&S syphilis in 2011 for the 50 most populous MSAs (6.4 cases per 100,000 population) (Table 29) exceeded the overall rate for the United States (4.5 cases) (Table 26). The rate increased in 27 of these 50 MSAs (54%) during 2010–2011.

P&S Syphilis by County

In 2011, 2,154 of 3,142 counties (68.5%) in the United States reported no cases of P&S syphilis, compared with 2,167 counties (69.0%) in 2010 (Figure 41). In 2011, half of the total number of P&S syphilis cases was reported from 26 counties and two cities (Table 32).

P&S Syphilis by Sex

The rate of P&S syphilis increased 3.8% among men (from 7.9 to 8.2 cases per 100,000 men) during 2010–2011 (Figure 38, Table 28). During this same period, the rate decreased 9.1% among women (from 1.1 to 1.0 cases per 100,000 women) (Figure 38, Table 27).

P&S Syphilis by Age

In 2011, the rate of P&S syphilis was highest among persons aged 20–24 years and 25–29 years (13.8 and 12.1 cases per 100,000 population, respectively) (Table 34).

Rates were highest among men 20–29 years, increasing 5.9% (from 22.1 to 23.4 cases) among men 20–24 years and 7.0% (from 20.0 to 21.4 cases) among men 25–29 years during 2011 (Figures 42 and 44, Table 34). This marks the fourth consecutive year that rates of P&S syphilis among men have been highest among men aged 20–29 years (Table 34).These data indicate a shift since 2006, when the highest rates were in men aged 35–39 years.

Rates among women decreased in all age groups during 2010–2011 (except for women aged 10–14 and 55 years and older), with the largest decrease in women aged 45–54 years. Rates remained highest among women aged 20–24 years (Figures 42 and 43, Table 34).

P&S Syphilis by Race/Ethnicity

During 2010–2011, the rate of P&S syphilis increased 4.5% among Hispanics (from 4.4 to 4.6 cases per 100,000 population), 8.0% among American Indians/Alaska Natives (from 2.5 to 2.7 cases per 100,000 population), 9.5% among non-Hispanic whites (from 2.1 to 2.3 cases per 100,000 population), and 33.3% among Asian/Pacific Islanders (from 1.2 to 1.6 cases per 100,000 population) (Figure 45). The rate decreased 6.6% among non-Hispanic blacks (from 16.6 to 15.5 cases per 100,000 population).

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), reflecting higher rates in men than women (Figure 38). This ratio has since increased more gradually to 8.2 in 2011.

In 2005, CDC began collecting information on the sex partners of patients with P&S syphilis. In 2011, this information was available for 83% of male cases. During 2007–2011, 33 areas reported sex of partner data for at least 70% of cases each year during this time period. In these areas, cases among women and men having sex with women only (MSW) have declined since 2008, while cases among MSM have increased each consecutive year (Figure 37).

In 2011, among MSW with P&S syphilis, 40.1% had primary syphilis, and 59.9% had secondary syphilis. Among women with P&S syphilis, 18.9% had primary syphilis, and 81.1% had secondary syphilis. Among MSM, 26.3% had primary syphilis, and 73.7% had secondary syphilis (Figure 46).

Among women with P&S syphilis, 17.4% were white, 69.4% were black, 9.5% were Hispanic, and 2.0% were of other races/ethnicities. Among MSW, 18.9% were white, 61.8% were black, 14.6% were Hispanic, and 2.5% were of other races/ethnicities. Among MSM, 38.7% were white, 35.7% were black, 18.8% were Hispanic, and 4.4% were of other races/ethnicities (Figure 47).

P&S Syphilis by Race/Ethnicity and Sex

In 2011, rates of P&S syphilis among men were highest among non-Hispanic black men (27.0 cases per 100,000 population), followed by Hispanic (8.5 cases per 100,000 population), American Indians/Alaska Natives (5.0 cases per 100,000 population), non-Hispanic white (4.4 cases per 100,000 population), and Asian/Pacific Islander (3.1 cases per 100,000 population) men (Figure S, Table 35B).

In 2011, rates of P&S syphilis among women were highest among non-Hispanic black women (5.0 cases per 100,000 population), followed by Hispanic (0.6 cases per 100,000 population), American Indian/Alaska Native (0.5 cases per 100,000 population), non-Hispanic white (0.3 cases per 100,000 population), and Asian/Pacific Islander (0.1 per 100,000 population) women (Figure S, Table 35B).

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

In 2011 the rate of P&S syphilis among non-Hispanic blacks was highest among women aged 20–24 years (18.9 cases per 100,000 women) and among men aged 20–24 years (96.2 cases per 100,000 men) and 25–29 years (82.5 cases). For non-Hispanic whites, the rate was highest among women aged 20–24 years and 25–29 years (0.9 cases for both) and among men aged 25–29 years (9.5 cases) and 40–44 years (9.6 cases) (Table 35B).

For Hispanics, the rate was highest among women aged 20–24 years (1.8 cases per 100,000 women) and among men aged 20–24 years and 25–29 years (18.8 cases per 100,000 men for both). For Asians/Pacific Islanders, the rate was highest among women aged 20–24 years (0.5 cases) and among men aged 30–34 years (7.3 cases). For American Indians/Alaska Natives, the rate was highest among women aged 25–29 years (2.1 cases) and among men aged 20–24 years (13.5 cases) and 30–34 years (13.3 cases) (Table 35B).

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 1998–2011, the proportion of cases reported from sources other than STD clinics increased from 39.2% to 72.0% (Figure 48, Table A2). During 2002–2011, the number of cases among males reported from non-STD clinic sources increased sharply, while the number reported from STD clinics increased only slightly (Figure 48).

During 2011, 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 49).

Congenital Syphilis—United States

After an 18% increase in the rate of congenital syphilis during 2006–2008, the rate of congenital syphilis decreased during 2008–2011 (from 10.5 to 8.5 cases per 100,000 live births) (Table 41). In 2011, a total of 360 cases were reported, a decrease from 387 cases in 2010 and 429 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 50).

In 2011, a total of 23 states, the District of Columbia, and 1 outlying area had 1 or more cases of congenital syphilis (Table 41).

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 number of syphilis cases in the United States.[9, 10] According to information reported from 46 states and the District of Columbia, 72% of P&S syphilis cases are among MSM. Although the majority of U.S. syphilis cases have occurred among MSM, syphilis among MSW and women continues to be a problem.[11]

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. Congenital syphilis — United States, 2003–2008. MMWR Morb Mortal Wkly Rep. 2010;59:413-7.

Figure 36. Syphilis—Reported Cases by Stage of Infection, United States, 1941–2011

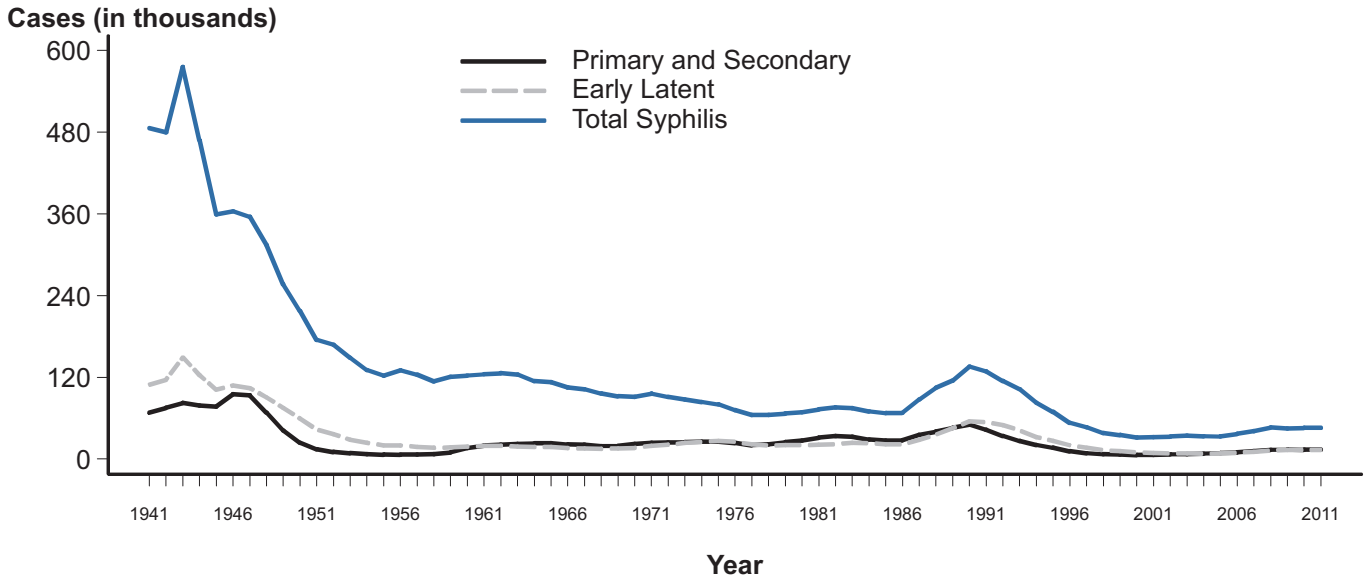
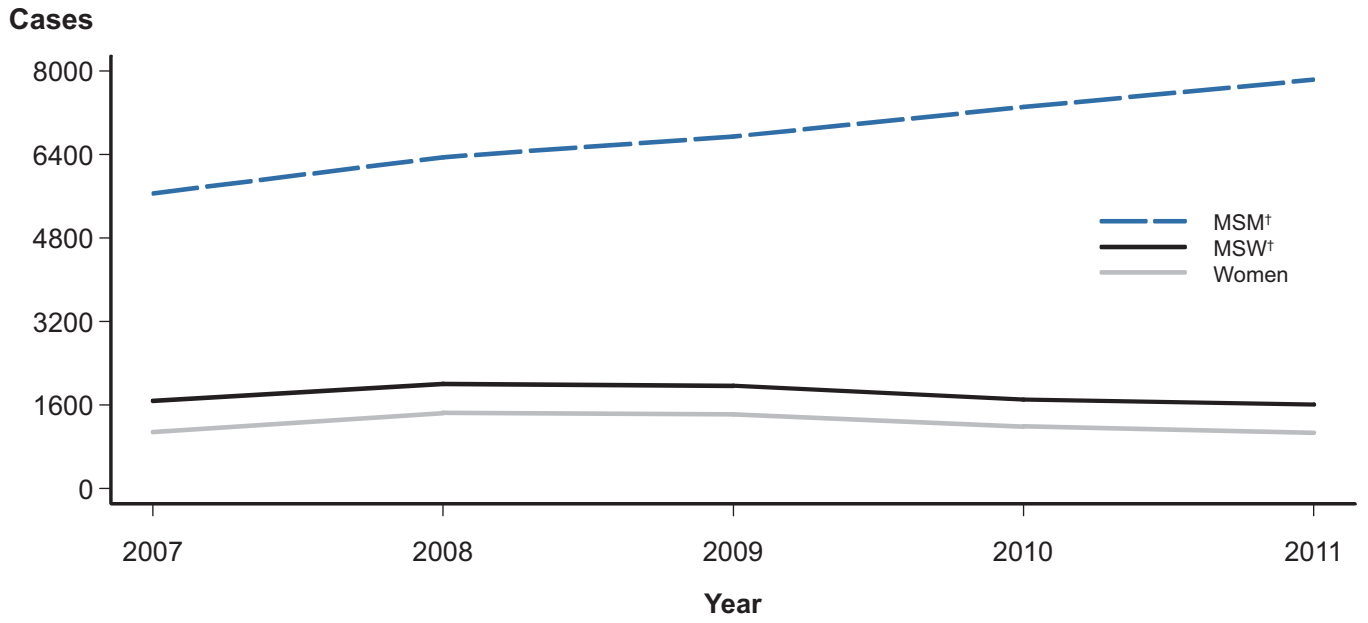


Figure 37. Primary and Secondary Syphilis—by Sex and Sexual Behavior, 33 Areas*, 2007–2011



* 32 states and Washington, DC reported sex of partner data for ≥70% of cases of P&S syphilis for each year during 2007–2011.
† MSM = men who have sex with men, MSW = men who have sex with women only.

Figure 38. Primary and Secondary Syphilis—Rates by Sex and Male-to-Female Rate Ratios, United States, 1990–2011

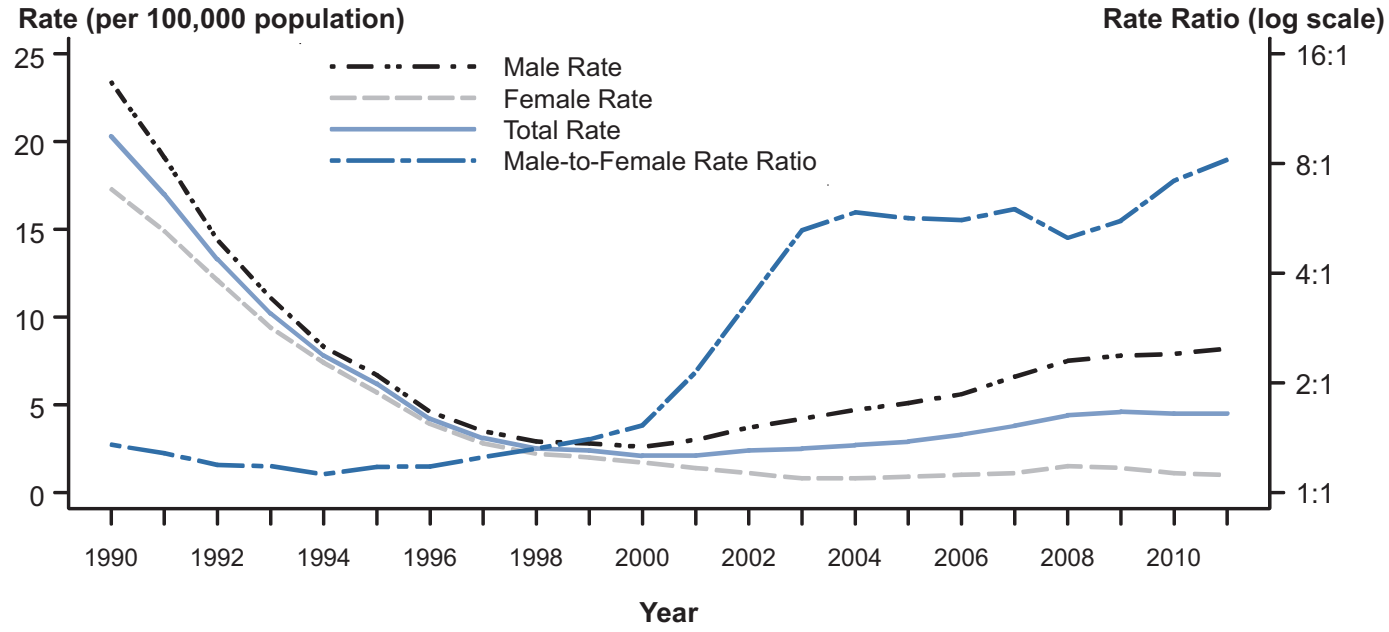


Figure 39. Primary and Secondary Syphilis—Rates by Region, United States, 2002–2011

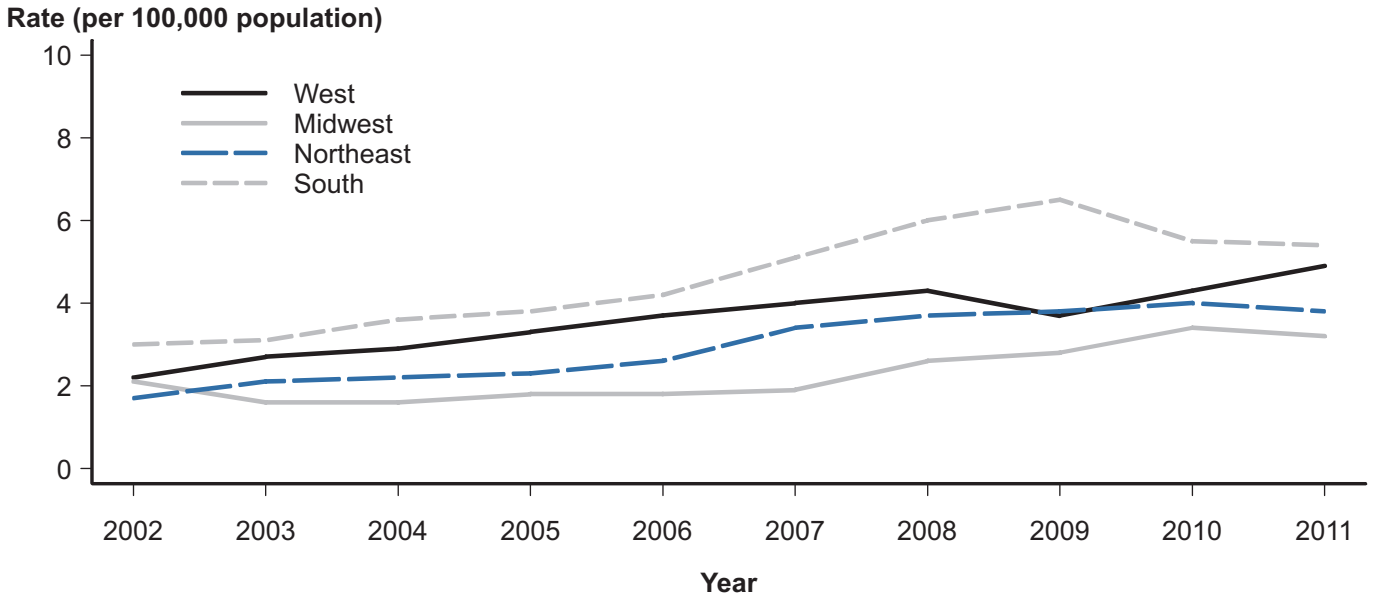
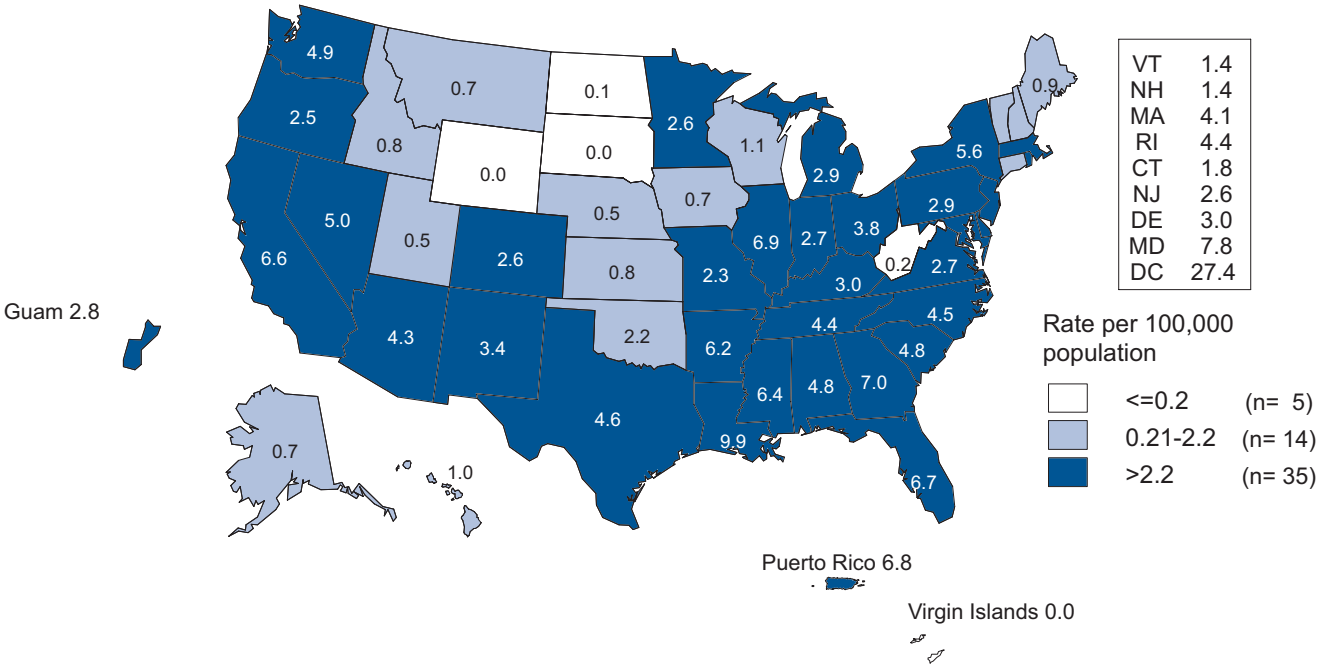
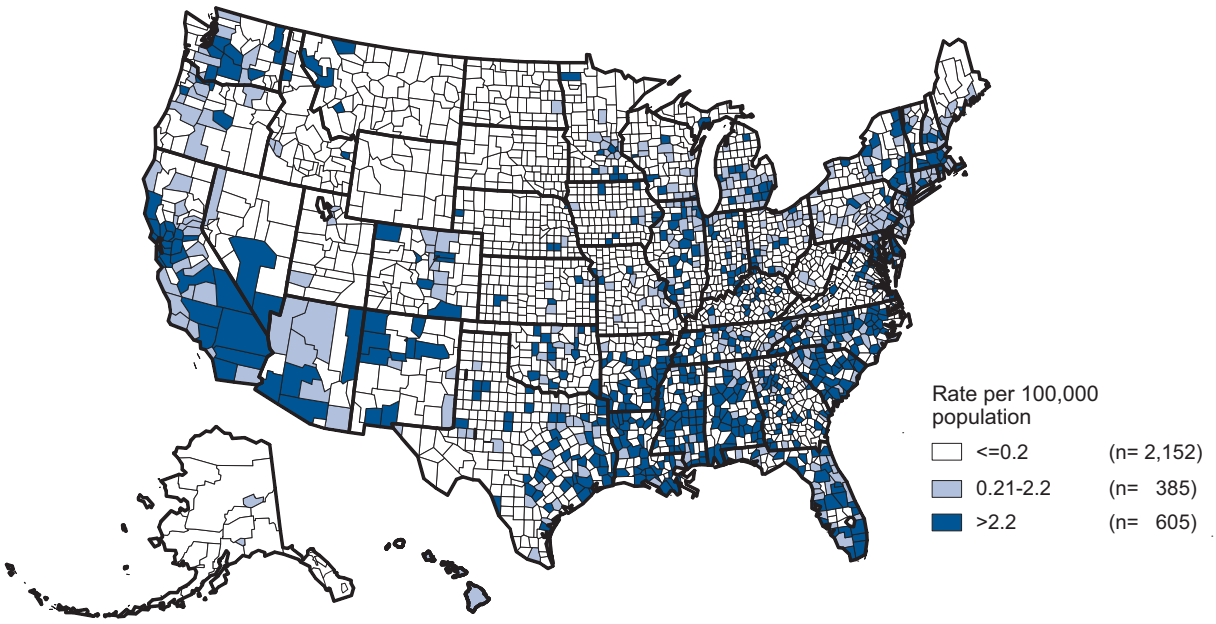


Figure 40. Primary and Secondary Syphilis—Rates by State, United States and Outlying Areas, 2011



NOTE: The total rate of primary and secondary syphilis for the United States and outlying areas (Guam, Puerto Rico, and Virgin Islands) was 4.5 per 100,000 population.

Figure 41. Primary and Secondary Syphilis—Rates by County, United States, 2011



NOTE: In 2011, 2,154 (68.5%) of 3,142 counties in the United States reported no cases of primary and secondary syphilis.

Figure 42. Primary and Secondary Syphilis—Rates by Age and Sex, United States, 2011

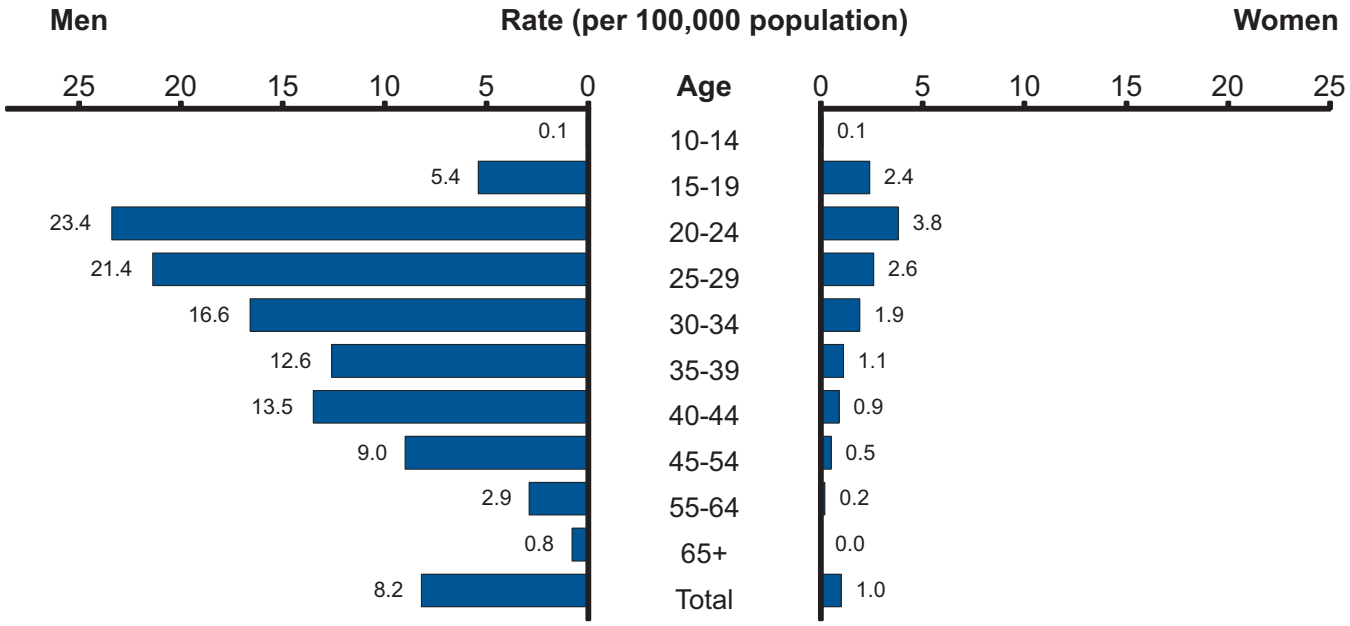


Figure 43. Primary and Secondary Syphilis—Rates by Age Among Women Aged 15–44 Years, United States, 2002–2011

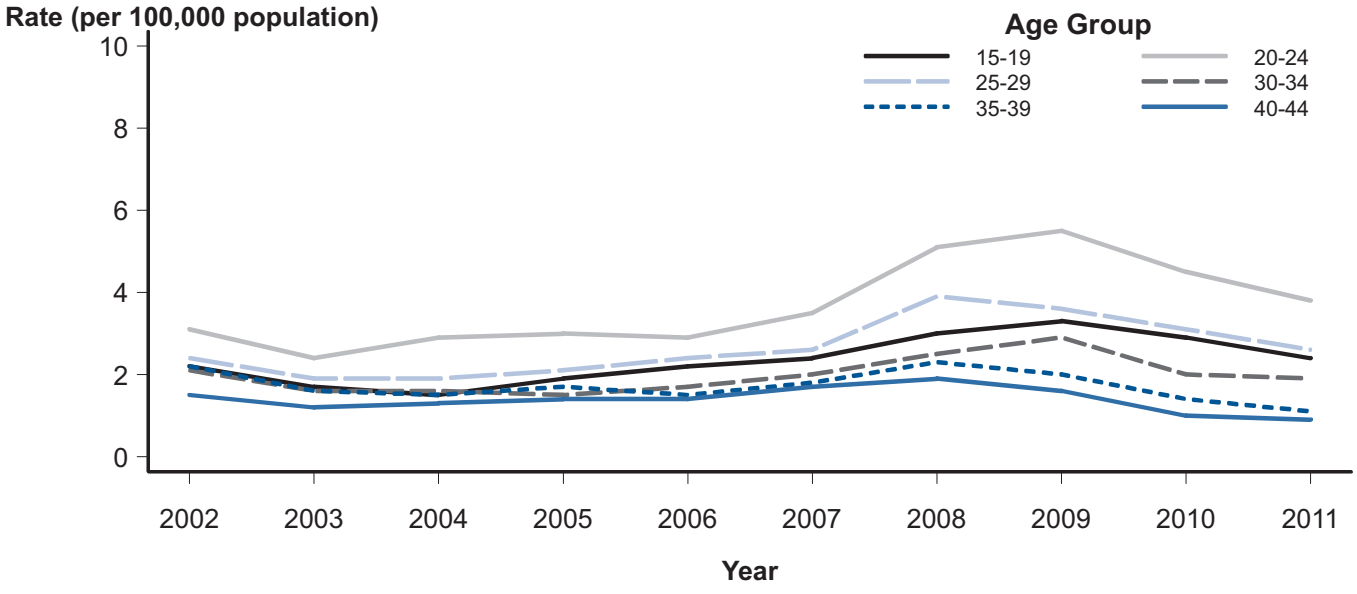


Figure 44. Primary and Secondary Syphilis—Rates by Age Among Men Aged 15–44 Years, United States, 2002–2011

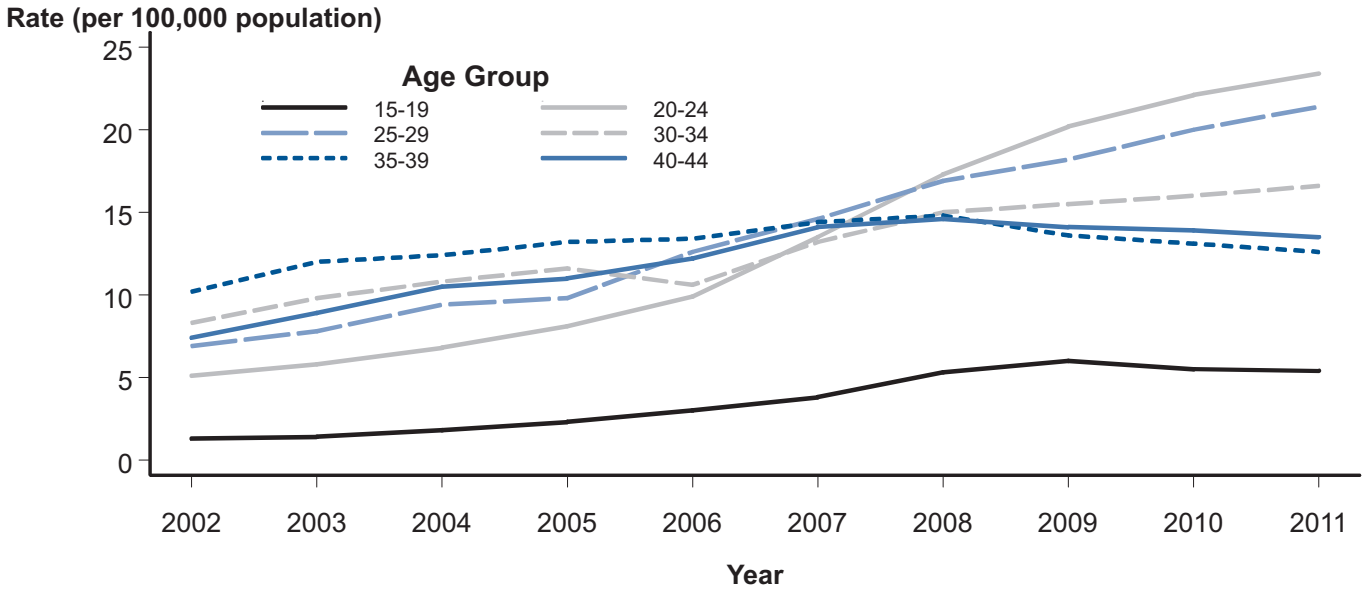


Figure 45. Primary and Secondary Syphilis—Rates by Race/Ethnicity, United States, 2002–2011

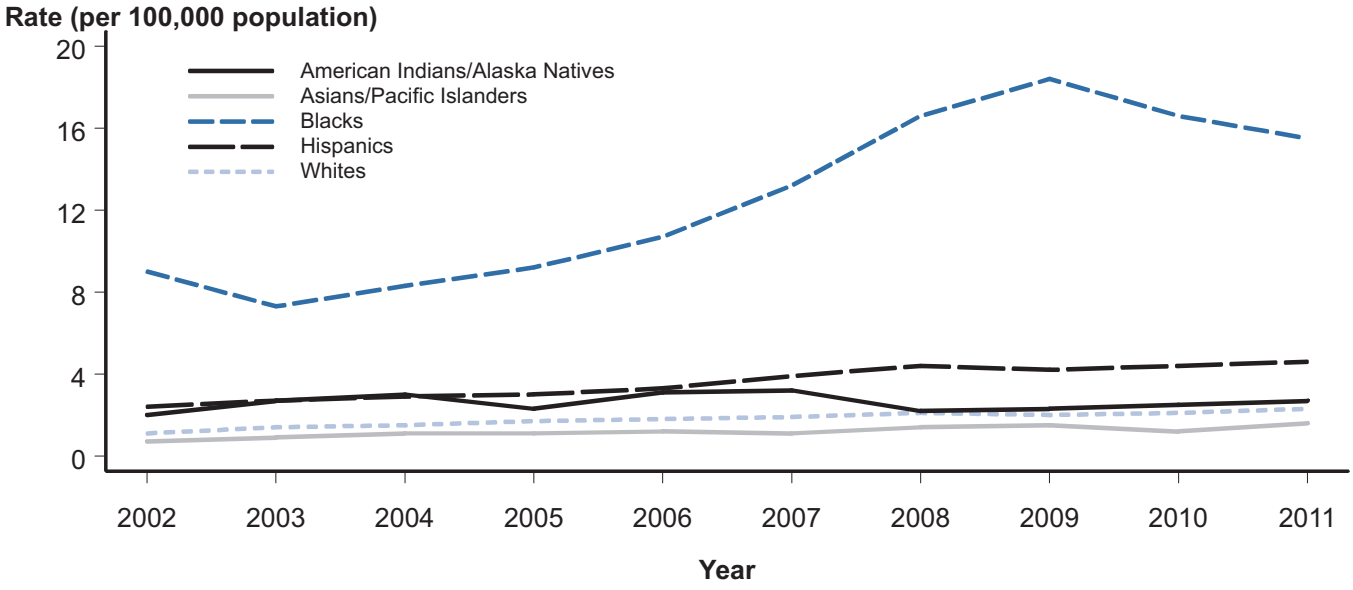
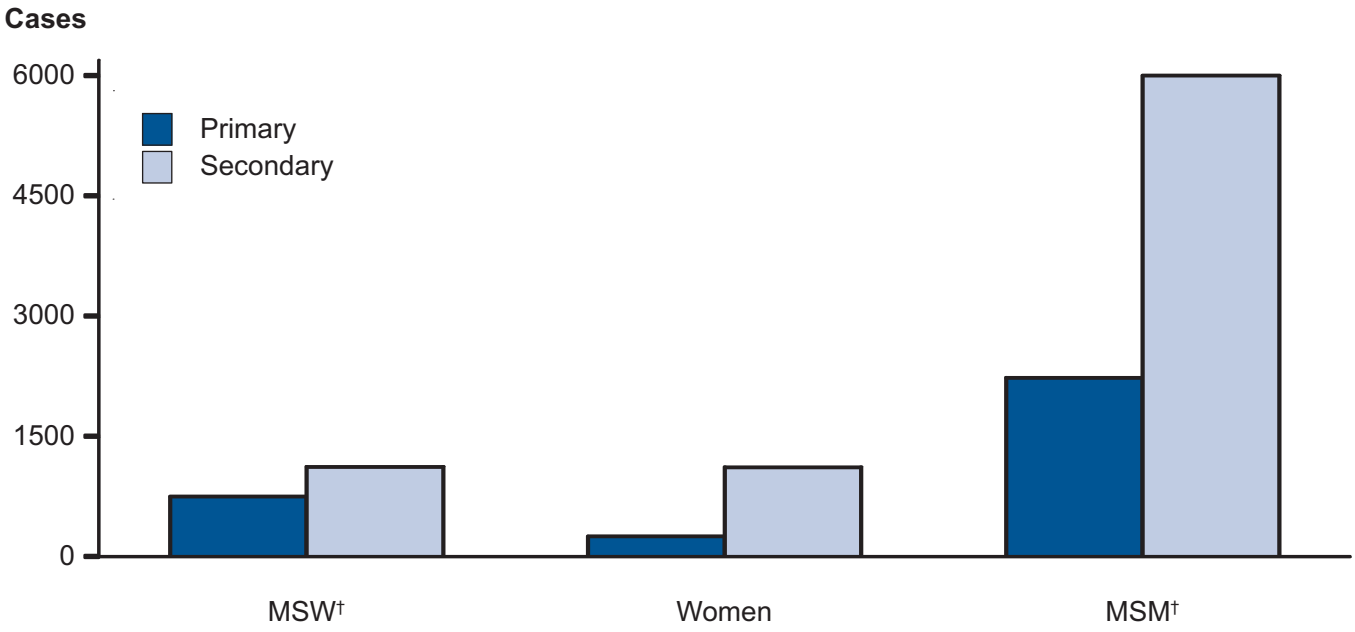
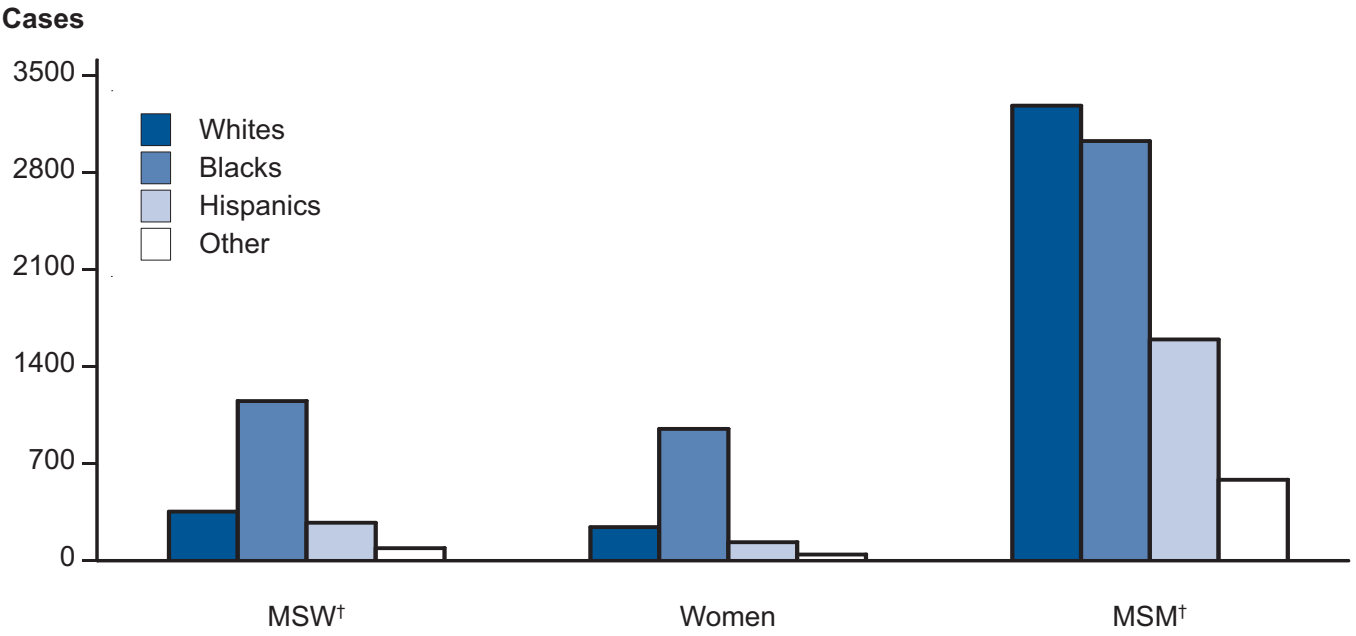


Figure 46. Primary and Secondary Syphilis—Reported Cases* by Stage, Sex, and Sexual Behavior, United States, 2011



* Of the reported male cases of primary and secondary syphilis, 17.0% were missing sex of sex partner information.
† MSW = men who have sex with women only; MSM = men who have sex with men.

Figure 47. Primary and Secondary Syphilis—Reported Cases* by Sex, Sexual Behavior, and Race/Ethnicity, United States, 2011



* Of the reported male cases of primary and secondary syphilis, 17.0% were missing sex of sex partner information; 2.4% 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 48. Primary and Secondary Syphilis—Reported Cases by Reporting Source and Sex, United States, 2002–2011

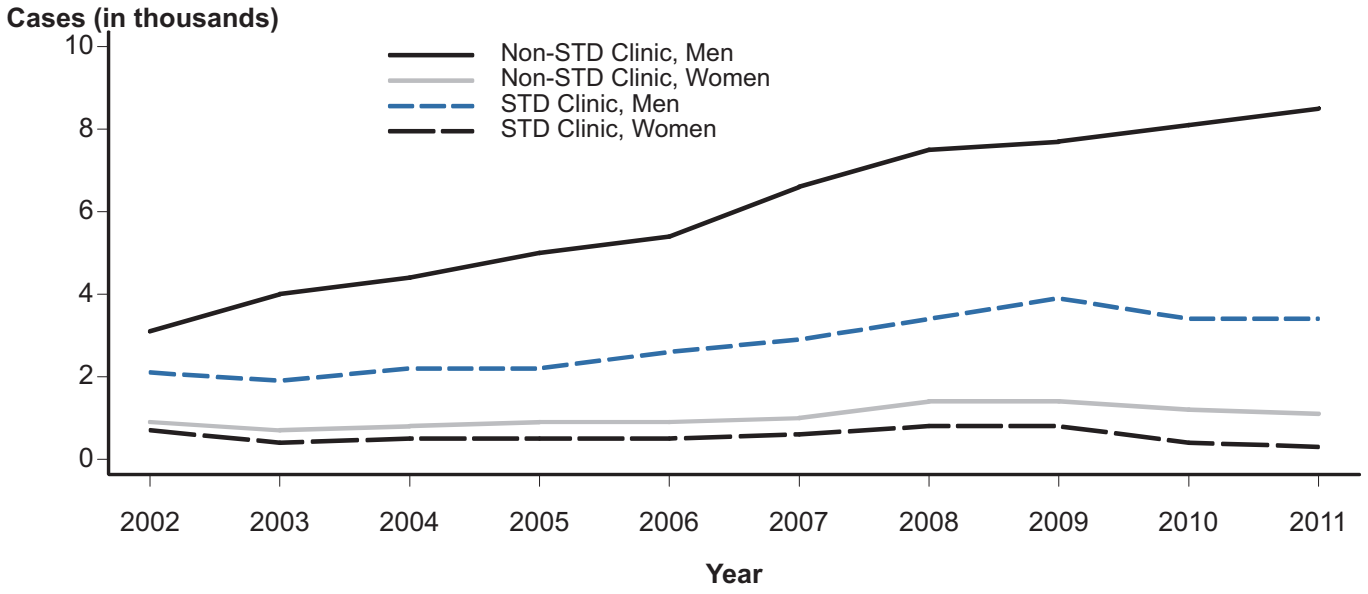
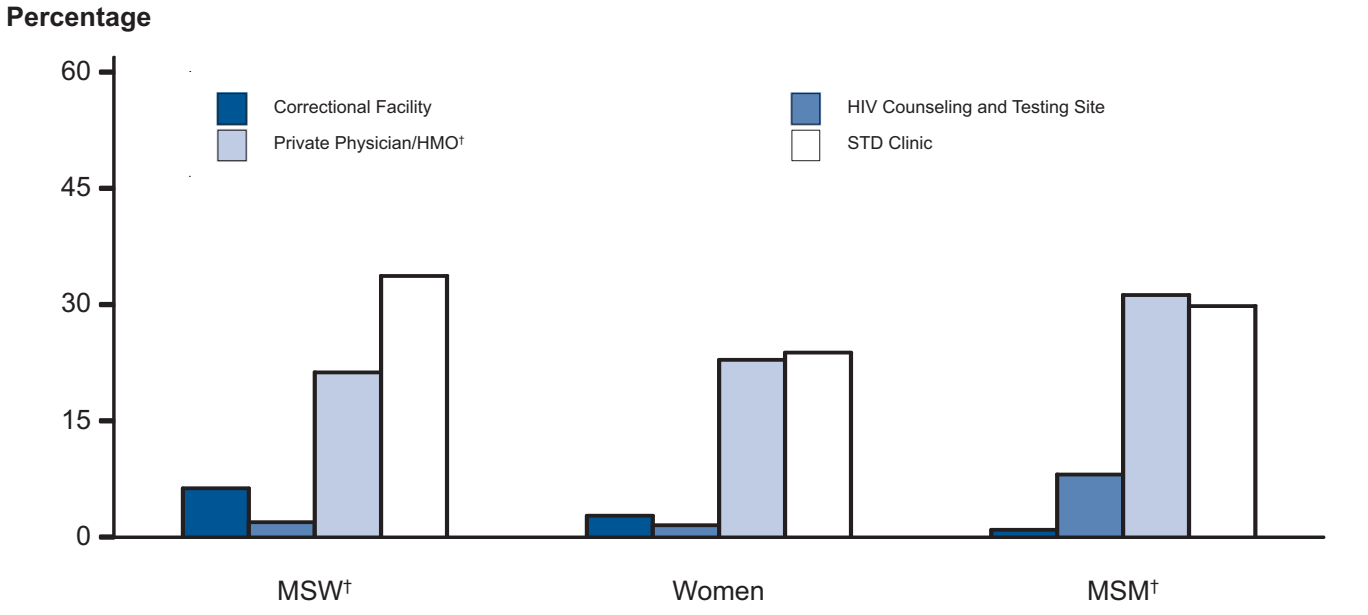


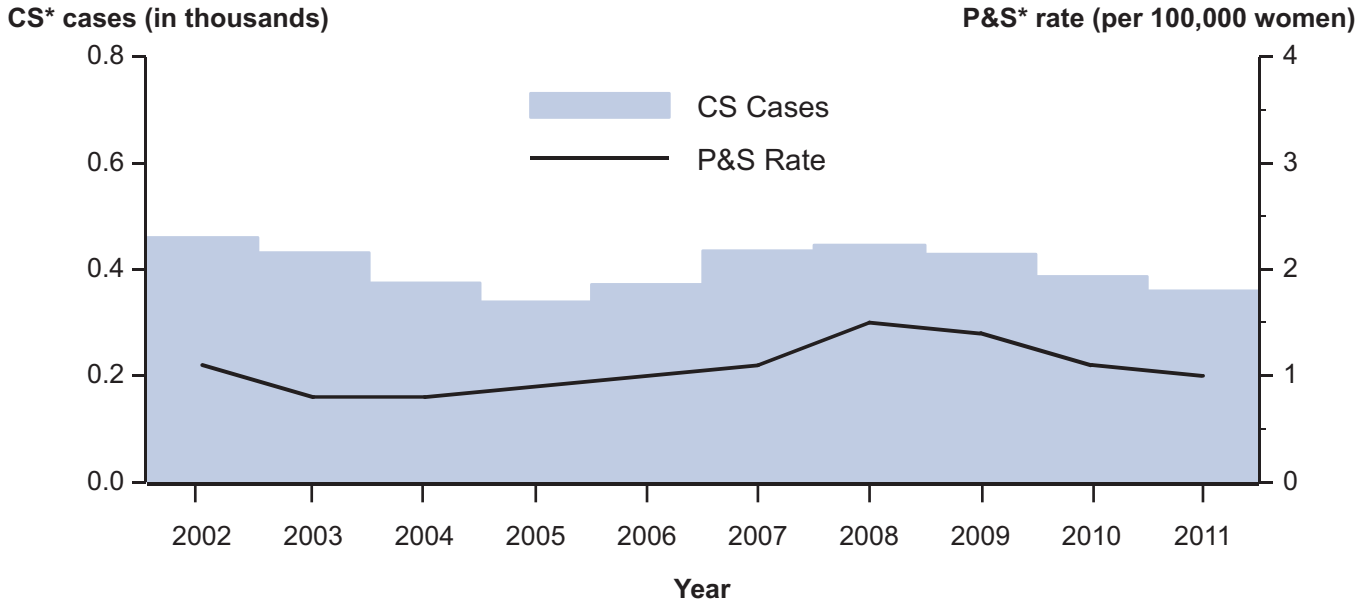
Figure 49. Primary and Secondary Syphilis—Percentage of Reported Cases* by Sex, Sexual Behavior, and Selected Reporting Sources, 2011



* Of the reported male cases of primary and secondary syphilis, 17.0% were missing sex of sex partner information, and 3.9% 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 50. Congenital Syphilis—Reported Cases Among Infants by Year of Birth and Rates of Primary and Secondary Syphilis Among Women, United States, 2002–2011



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

Other Sexually Transmitted Diseases

Chancroid

Since 1987, reported cases of chancroid had declined steadily until 2001. Since then, the number of cases reported has fluctuated (Figure 51, Table 1). In 2011, a total of 8 cases of chancroid were reported in the United States. Only six states reported one or more cases of chancroid in 2011 (Table 43).

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, and as a result, this condition may be substantially underdiagnosed.[1,2]

Human Papillomavirus

Persistent infection with high-risk human papillomavirus (HPV) can lead to development of anogenital cancers (e.g., cervical cancer). In June 2006, a quadrivalent HPV vaccine was licensed for use in the United States in females aged 9–26 years; in October 2009, this vaccine also was licensed for use in males aged 9–26 years. The vaccine provides protection against HPV types 6, 11, 16, and 18. Types 6 and 11 are responsible for about 90% of anogenital warts, while types 16 and 18 are high-risk oncogenic types associated with anogenital cancers. 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.

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 in 26 STD, family planning, and primary care clinics in 6 locations (Boston, Baltimore, New Orleans, Denver, Seattle, and Los Angeles) as part of an effort to estimate national burden of disease and guide prevention efforts, such as vaccine programs, in the United States. Testing was performed using a commercially available test for high-risk HPV DNA (Hybrid Capture 2, Qiagen).

Results during 2003–2005 documented an overall high-risk HPV prevalence of 23%. Prevalence was 27% in STD clinics, 26% in family planning clinics, and 15% in primary care clinics. Prevalence by age group was 35% in women aged 14–19 years, 29% in those aged 20–29, 13% in those aged 30–39, 11% in those aged 40–49, and 6% in those aged 50–65.[3]

National population-based data were obtained from NHANES to examine the prevalence of both high-risk HPV and low-risk HPV—including types 6 and 11—in the civilian, non-institutionalized female population during 2003–2006 (Figure 52). 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 HPV prevalence of high- and low-risk types was 42.5% (95% confidence interval [CI]: 40.3–44.7) among females aged 14–59 years.[4] 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).[5]

Data from the National Disease and Therapeutic Index (NDTI) suggest that incidence of genital warts (Figure 53, Table 44), as measured by initial visits to physicians' offices, may be increasing. 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.[6]

For data reported in Figure 54, enhanced behavioral and demographic information on patients who presented for care in 2011 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 2011 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 1.7% (range 1.0% to 2.7%) across all sites compared to 5.5% (range 2.3% to 8.1%) for MSM and 5.8% (range 2.0% to 11.0%) for MSW.

Pelvic Inflammatory Disease

For data on PID, 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 in physicians' offices for this condition from the NDTI (Figure 55, Table 44).

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 to 17.0% (95% CI: 15.8–18.3) in 1999–2004 and 16.2% (95% CI: 14.6–17.9) in 2005–2008. These data, along with data from NHANES survey years 1976–1980, indicate that blacks had higher seroprevalence than whites for each survey period and age group (Figure 56).

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%. 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 57, Table 44). 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).[7]

[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(No. 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;178:1795-8.

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[6] Dinh TH, Sternberg M, Dunne EF, Markowitz LE. Genital warts among 18- to 59-year-olds in the United States, National Health and Nutrition Examination Survey, 1999–2004. Sex Transm Dis. 2008;35(4):357-60.

[7] Sutton M, Sternberg M, Koumans EH, McQuillan G, Berman, S, Markowitz LE. The prevalence of *Trichomonas vaginalis* infection among reproductive-age women in the United States, 2001–2004. Clin Infect Dis. 2007;45(10):1319-26.

Figure 51. Chancroid—Reported Cases, United States, 1981–2011

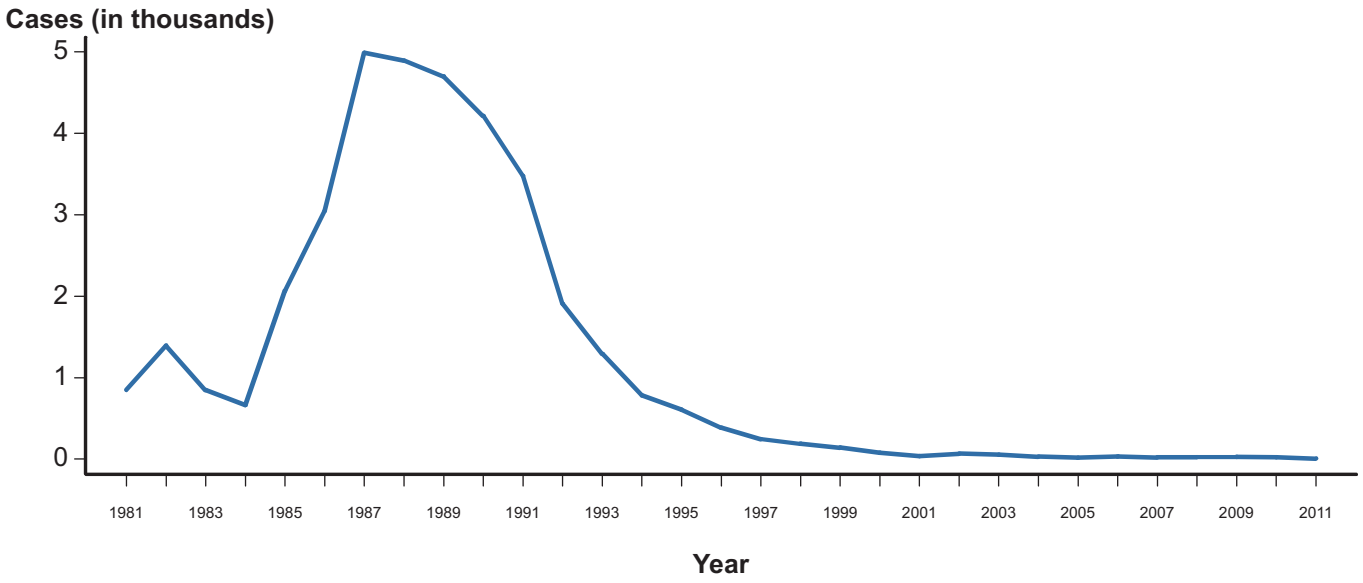
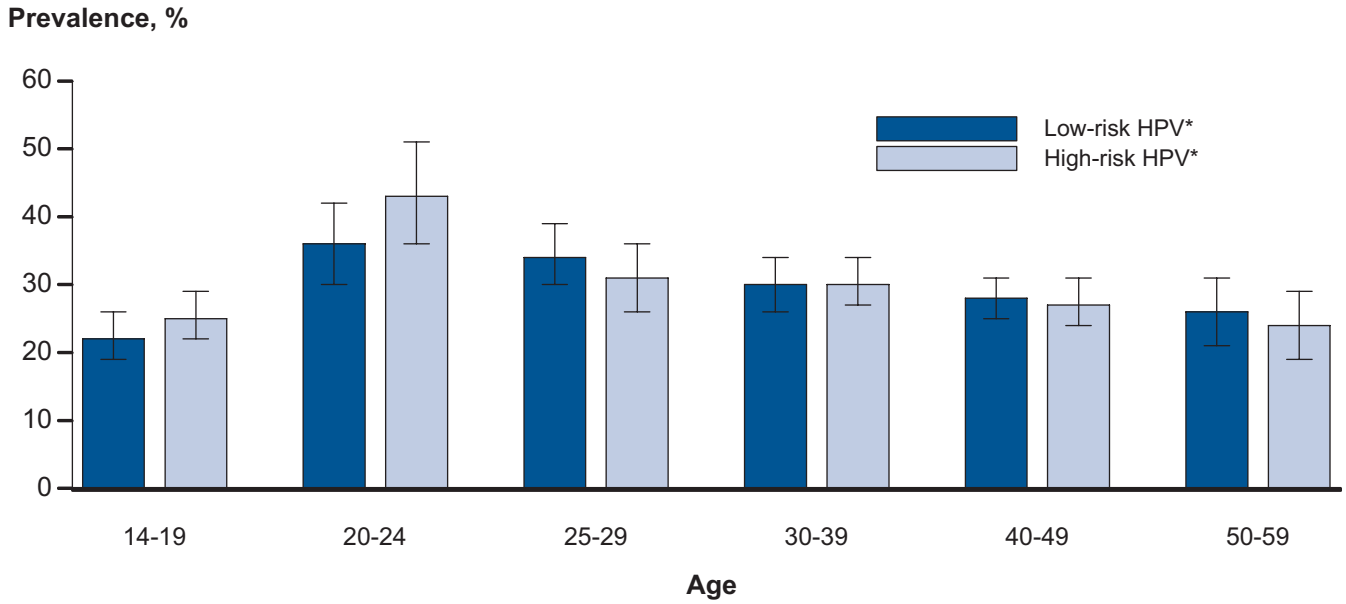
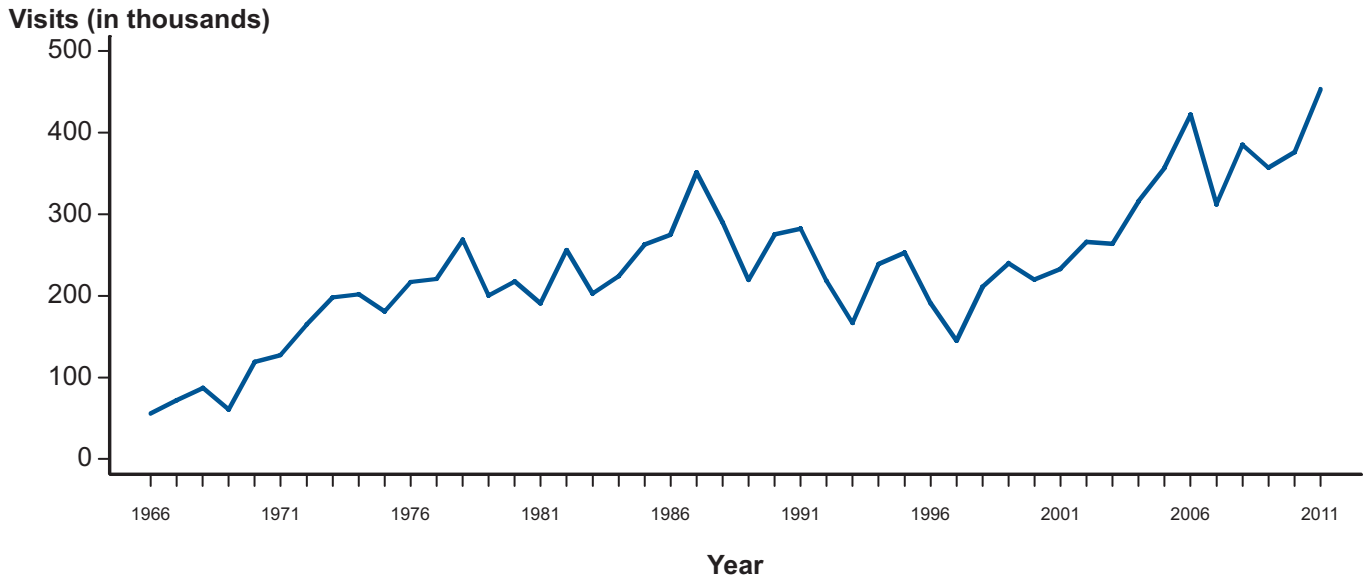


Figure 52. Human Papillomavirus—Prevalence of High-risk and Low-risk Types Among Females Aged 14–59 Years, National Health and Nutrition Examination Survey, 2003–2006



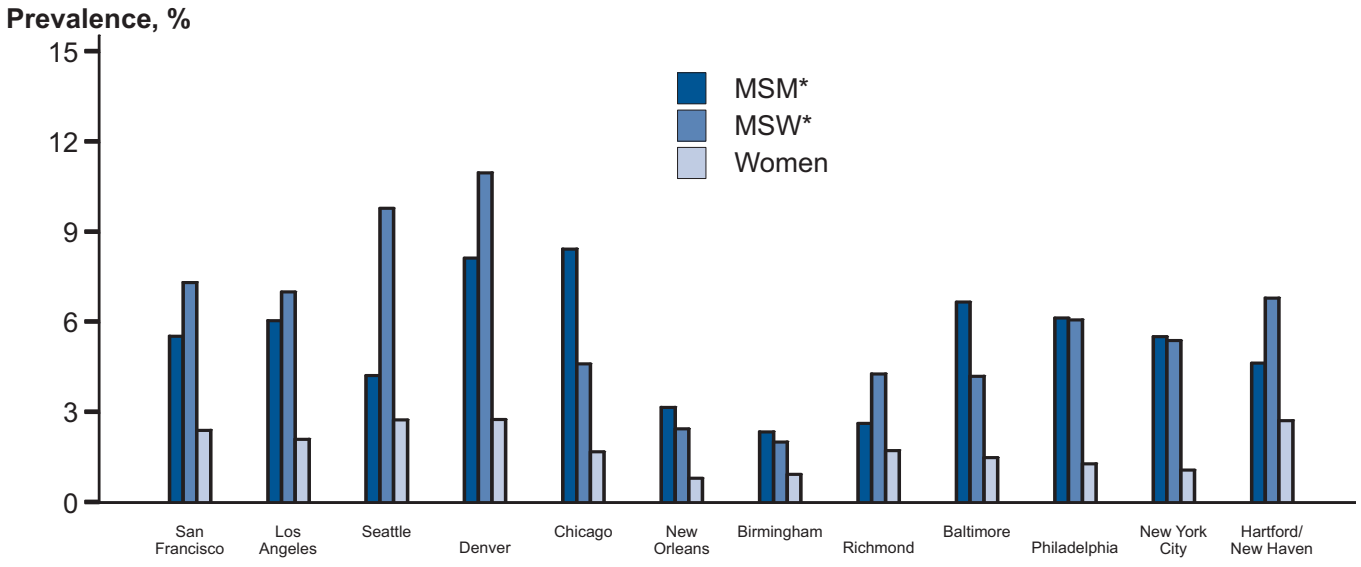
* HPV = human papillomavirus.
NOTE: Error bars indicate 95% confidence interval. Both high-risk and low-risk HPV types were detected in some females.
SOURCE: Hariri S, Unger ER, Sternberg M, Dunne EF, Swan D, Patel S, et al. Prevalence of genital HPV among females in the United States, the National Health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

Figure 53. Genital Warts—Initial Visits to Physicians' Offices, United States, 1966–2011



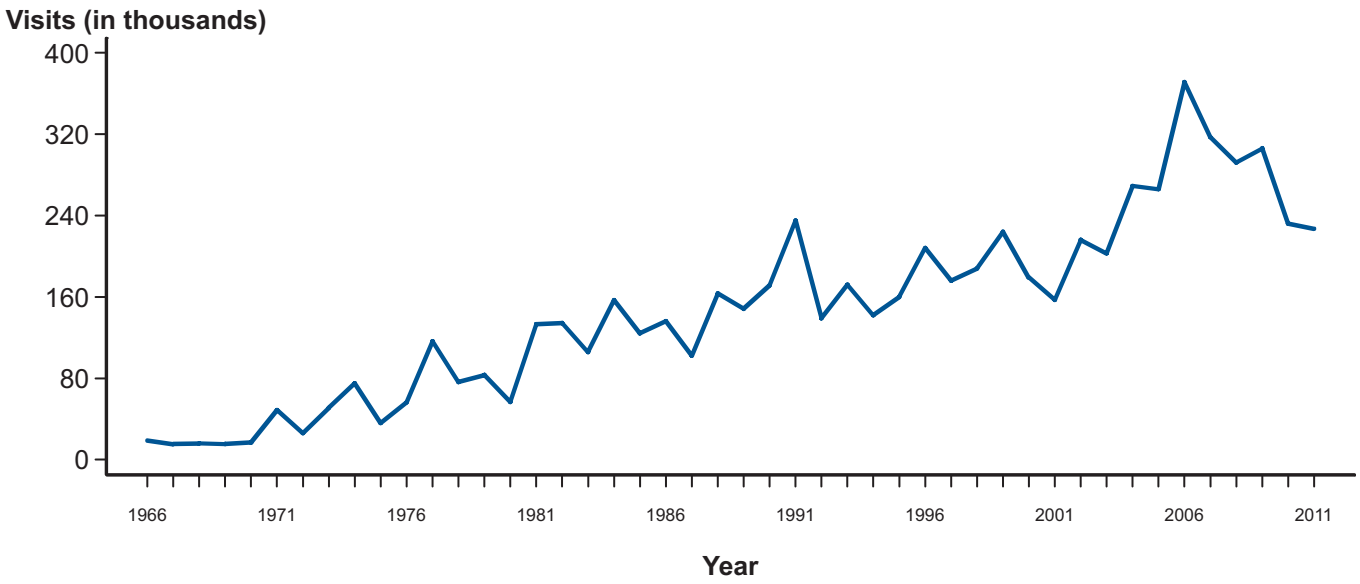
NOTE: The relative standard errors for genital warts estimates of more than 100,000 range from 18% to 30%. See Other Surveillance Data Sources in the Appendix and Table 44.
SOURCE: IMS Health, Integrated Promotional Services™. IMS Health Report, 1966–2011.

Figure 54. Genital Warts—Prevalence Among Sexually Transmitted Disease (STD) Clinic Patients by Sex, Sex of Partners, and Site, STD Surveillance Network (SSuN), 2011



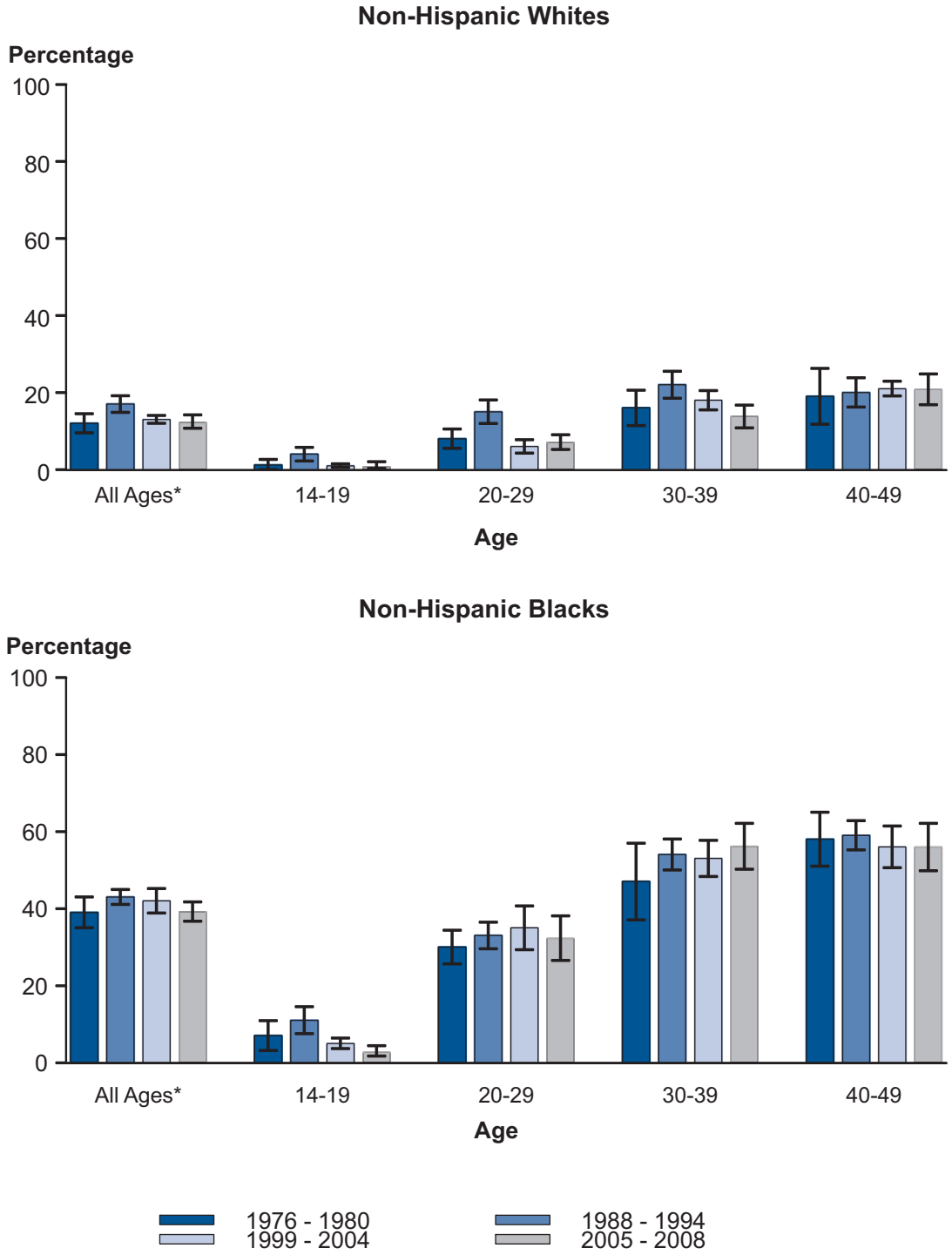
* MSM = men who have sex with men; MSW = men who have sex with women only.

Figure 55. Genital Herpes—Initial Visits to Physicians' Offices, United States, 1966–2011



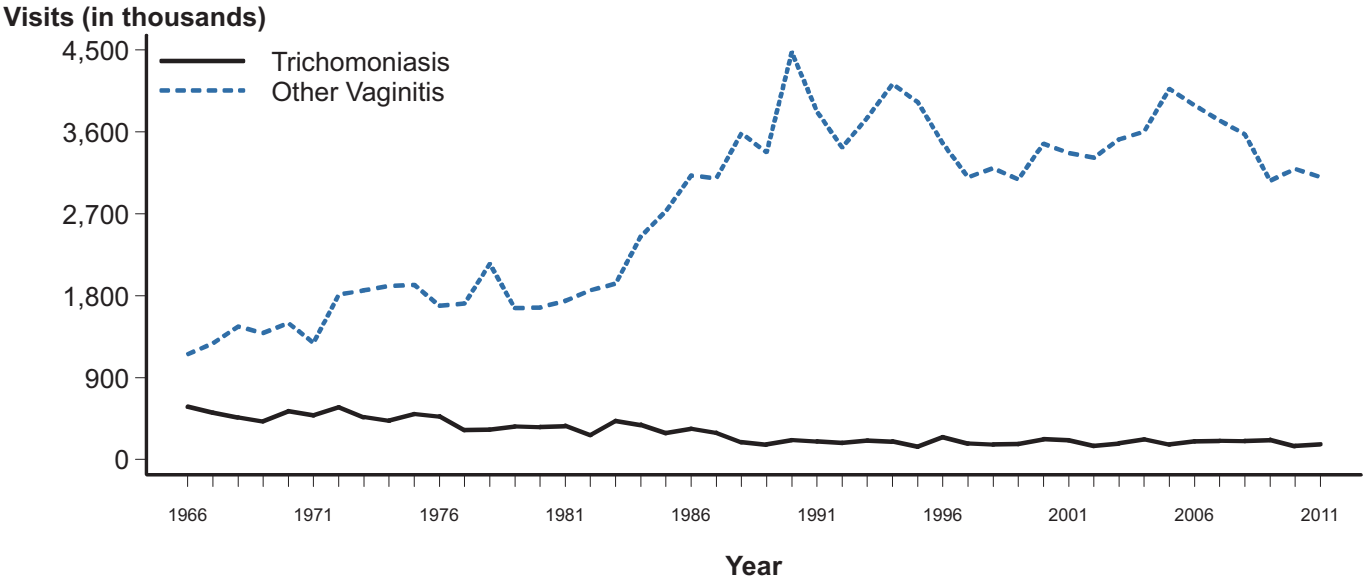
NOTE: The relative standard errors for genital herpes estimates of more than 100,000 range from 18% to 30%. See Other Surveillance Data Sources in the Appendix and Table 44.
SOURCE: IMS Health, Integrated Promotional Services™. IMS Health Report, 1966–2011.

Figure 56. Herpes Simplex Virus Type 2—Seroprevalence in 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 57. Trichomoniasis and Other Vaginal Infections—Women—Initial Visits to Physicians' Offices, United States, 1966–2011



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 44.
SOURCE: IMS Health, Integrated Promotional Services™, IMS Health Report, 1966–2011.

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. They include women and infants, adolescents and young adults, racial and ethnic minorities, MSM, and persons entering corrections facilities. The figures cited in this section are located in disease-specific sections of the National Profile, as well as throughout this section.

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 20% 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 a randomized controlled trial of chlamydia screening in a managed care setting suggest that such screening programs can reduce the incidence of PID by as much as 60%.[13]

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.[14]

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.[15]

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.[16]

Observations

Chlamydia—United States

During 2010-2011, the rate of reported chlamydial infections in women increased from 605.1 to 648.9 cases per 100,000 females (Figure 1, Table 4). Chlamydia rates exceeded gonorrhea rates among women in all states (Figures A and C, Tables 4 and 15).

Positivity in Selected Populations

Prenatal Clinics—In 2011, the median state-specific chlamydia test positivity among women aged 15–24 years who were screened in selected prenatal clinics in 15 states, Puerto Rico, and the Virgin Islands was 7.7% (range: 2.8% to 16.3%) (Figure B). In a multivariate-regression analysis accounting for individual-level and clinic-level factors, chlamydia positivity among women aged 14-25 years who were screened in prenatal care clinics decreased from 2004-2009.[17]

Family Planning Clinics—In 2011, the median state-specific chlamydia test positivity among women aged 15–24 years who were screened during visits to selected family planning clinics in all 50 states, Puerto Rico, and the Virgin Islands was 8.3% (range: 3.8% to 15.9%) (Figure 13). In a multivariate-regression analysis accounting for individual-level and clinic-level factors, chlamydia positivity among women aged 14-25 years who were screened in family planning clinics remained stable from 2004-2008.[18]

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 reached a plateau (Figure 16). After reaching an all-time low in 2009 (104.5 cases per 100,000 females), the gonorrhea rate for women increased slightly in 2010 and 2011 to 108.9 cases per 100,000 females (Figure 17, Table 15).

Although the gonorrhea rate in men has historically been higher than the rate in women, the gonorrhea rate among women has been slightly higher than the rate among men for 10 consecutive years (Figure 17, Tables 15 and 16).

Positivity in Selected Populations

Prenatal Clinics—In 2011, the median state-specific gonorrhea test positivity among women aged 15–24 years who were screened in selected prenatal clinics in 15 states, Puerto Rico, and the Virgin Islands was 0.8% (range: 0.0% to 3.8%) (Figure D).

Family Planning Clinics—In 2011, the median state-specific gonorrhea test positivity among women aged 15–24 years who were screened during visits to selected family planning clinics in 48 states, Puerto Rico, and the Virgin Islands was 0.7% (range 0.0% to 3.5%) (Figure 28).

Congenital Syphilis

Trends in congenital syphilis usually follow trends in P&S syphilis among women, with a lag of 1–2 years (Figure 50). 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 38). 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 and congenital syphilis increased during 2005–2008, and have since declined.

The rate of P&S syphilis among women was 1.0 cases per 100,000 women in 2011 (Table 27), and the rate of congenital syphilis was 8.5 cases per 100,000 live births in 2011 (Table 41). The highest rates of P&S syphilis among women and congenital syphilis were observed in the South (Figures E and F, Table 41).

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.[19]

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. Hospitalizations for PID declined steadily throughout the 1980s and 1990s.[20,21] 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). While this does not represent a trend in this data, and the explanations may not be immediately clear, continued monitoring of these data is warranted. Hospitalizations for chronic PID have also shown modest declines, remaining relatively stable between 2007 and 2010 (Figure G).

The estimated number of initial visits to physicians' offices for PID from NDTI declined during 2002–2011 (Figure H, Table 44).

Racial disparities in diagnosed PID have been observed in both ambulatory and hospitalized settings. 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.[21]

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 relied on the National Hospital Discharge Survey (NHDS), which collects 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 shows that the proportion of cases being treated with nonsurgical intervention is increasing.[22]

[1] Pulerwitz J, Amaro H, De Jong W, Gortmaker SL, Rudd R. Relationship power, condom use and HIV risk among women in the USA. AIDS Care. 2002;14(6):789-800.

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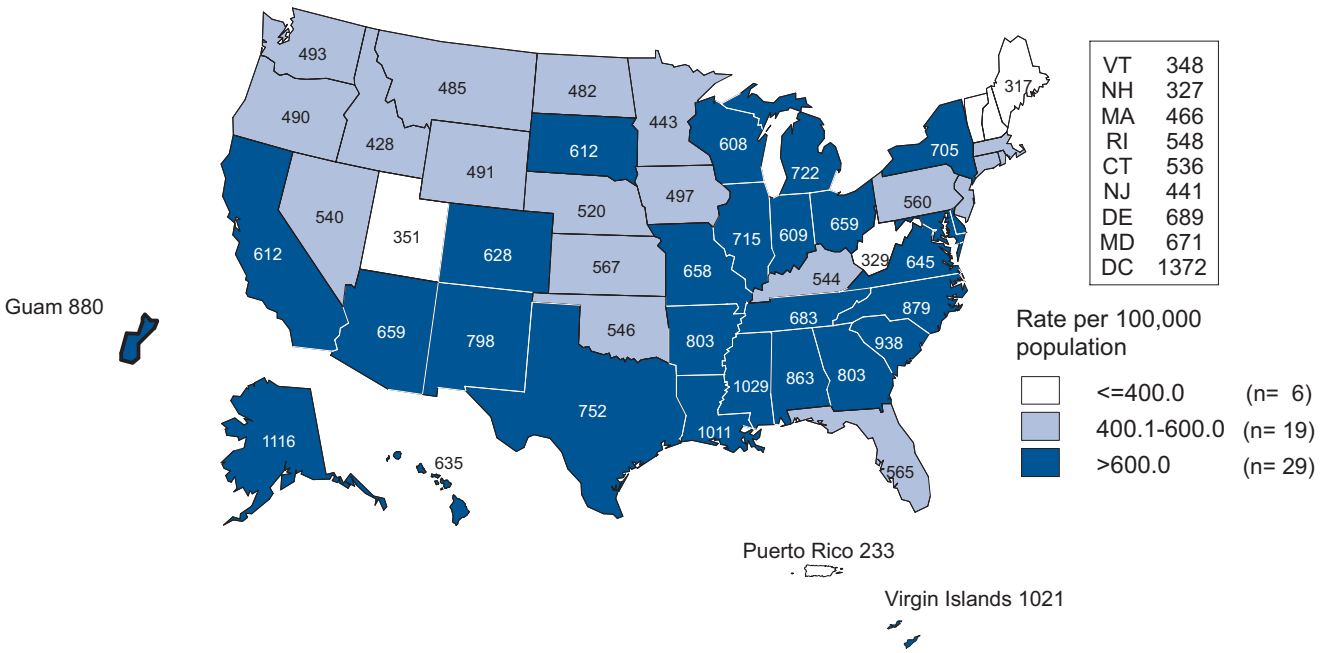
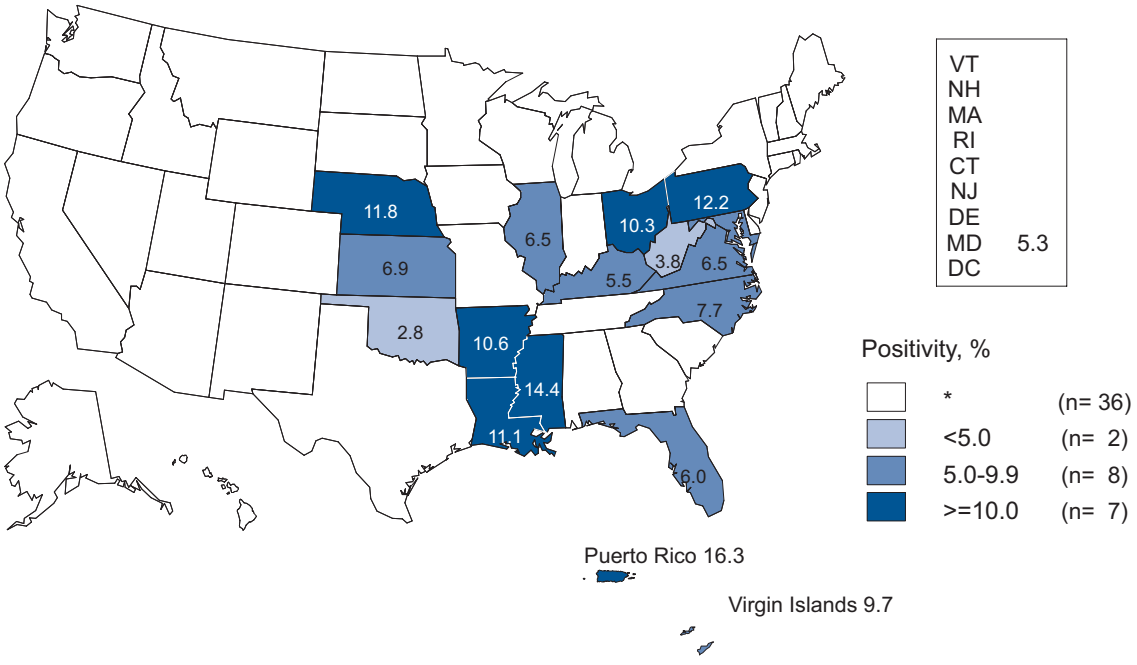
Figure A. Chlamydia—Women—Rates by State, United States and Outlying Areas, 2011



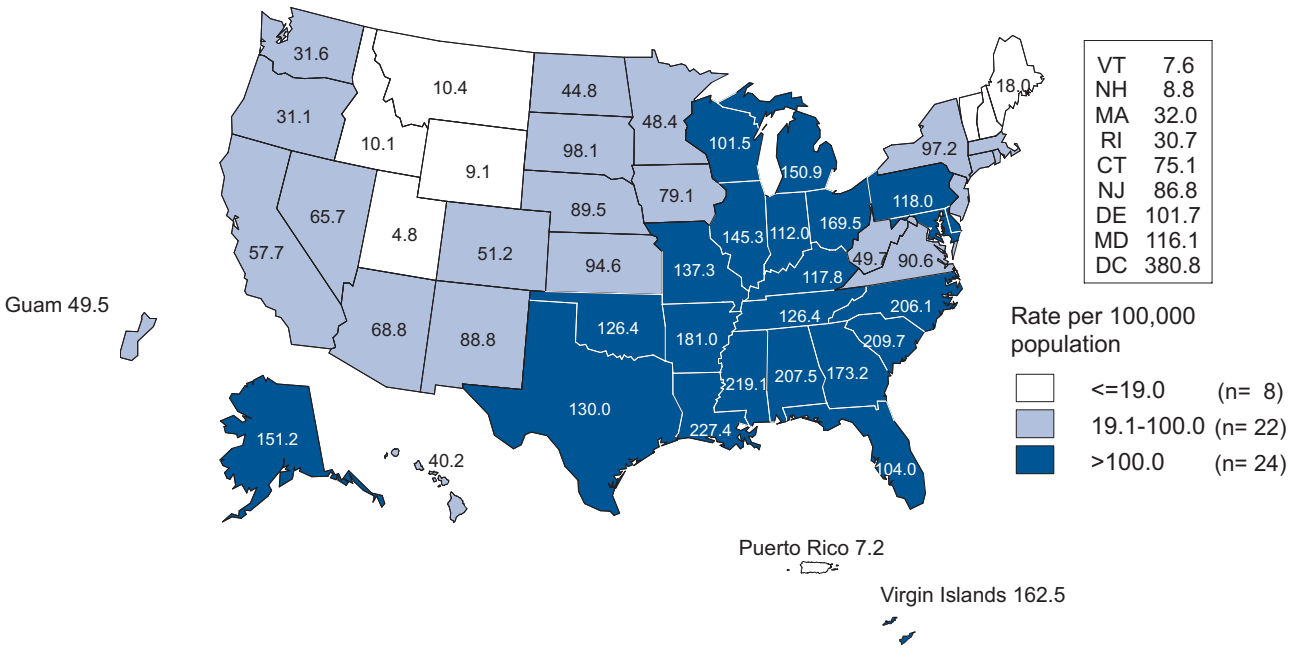
NOTE: The total chlamydial infection rate among women in the United States and outlying areas (Guam, Puerto Rico, and Virgin Islands) was 644.1 per 100,000 female population.

Figure B. Chlamydia—Positivity Among Women Aged 15–24 Years Tested in Prenatal Clinics by State, Infertility Prevention Project, United States and Outlying Areas, 2011



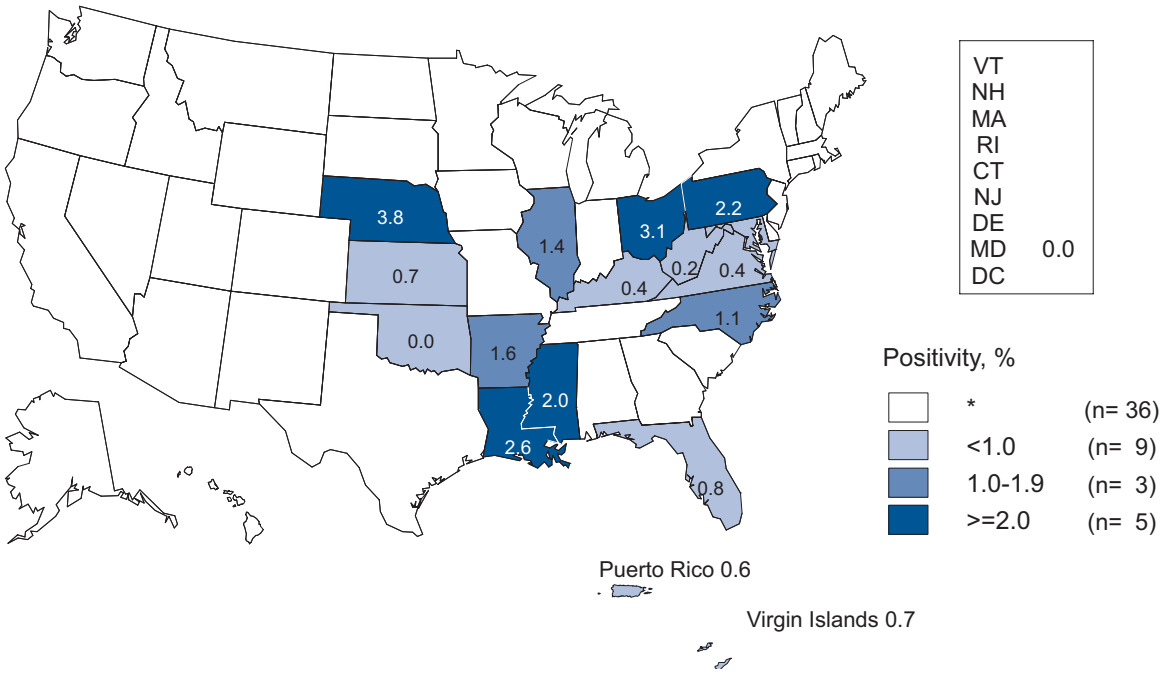
* States/areas reported chlamydia positivity data on fewer than 100 women aged 15–24 years in 2011.

Figure C. Gonorrhea—Women—Rates by State, United States and Outlying Areas, 2011



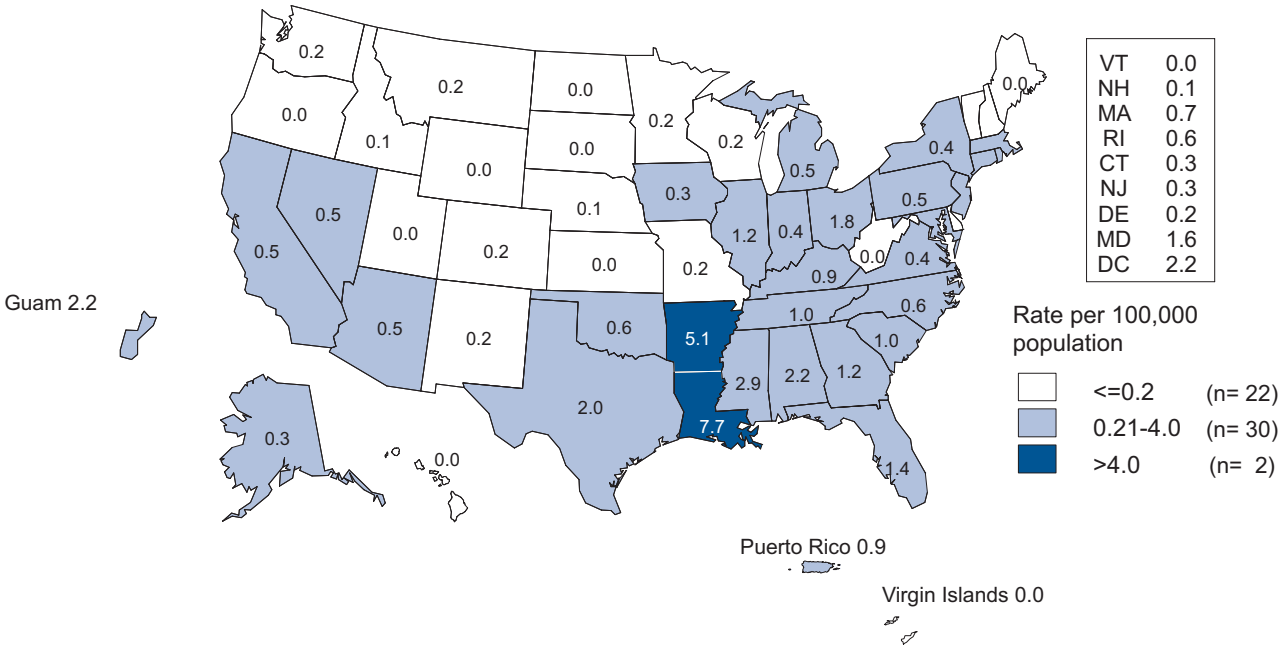
NOTE: The total gonorrhea infection rate among women in the United States and outlying areas (Guam, Puerto Rico, and Virgin Islands) was 107.7 per 100,000 female population.

Figure D. Gonorrhea—Positivity Among Women Aged 15–24 Years Tested in Prenatal Clinics by State, Infertility Prevention Project, United States and Outlying Areas, 2011



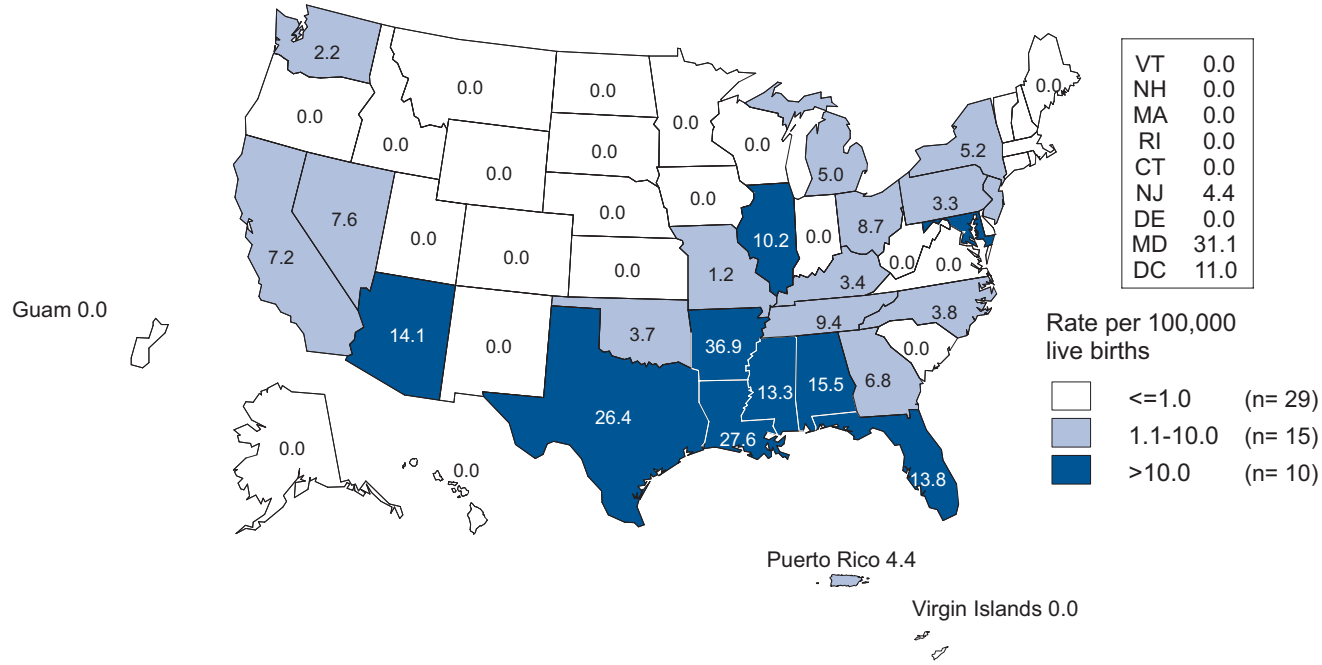
* States/areas reported gonorrhea positivity data on fewer than 100 women aged 15–24 years in 2011.

Figure E. Primary and Secondary Syphilis—Women—Rates by State, United States and Outlying Areas, 2011



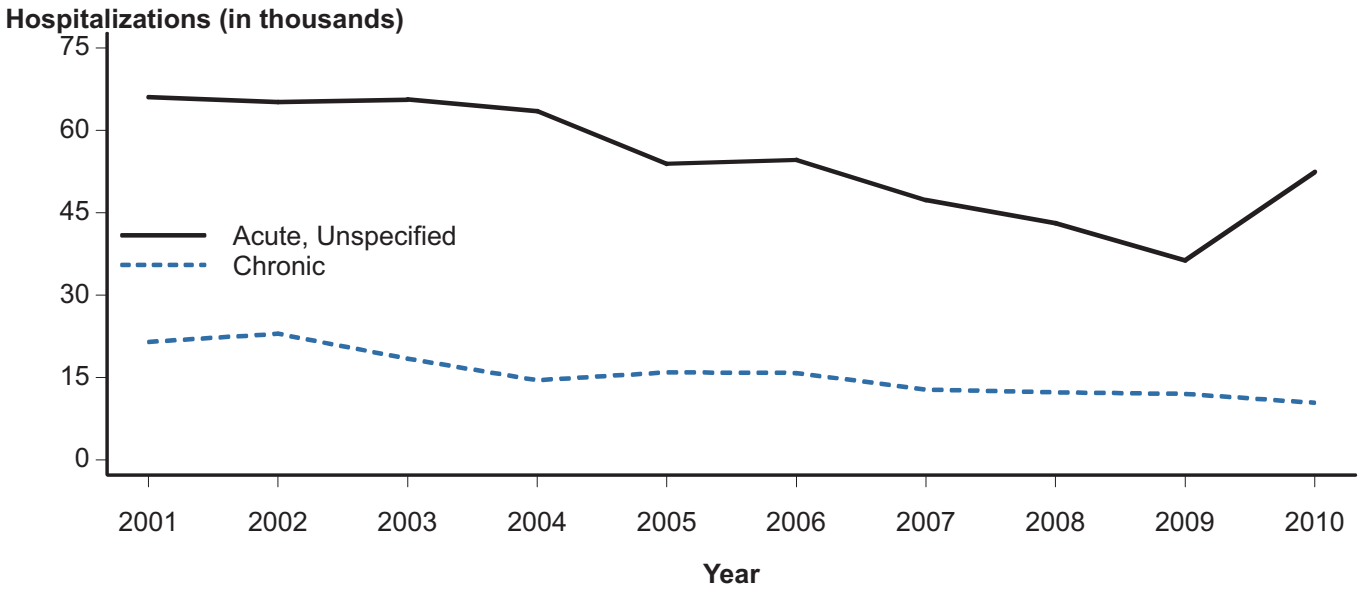
NOTE: The total rate of primary and secondary syphilis among women in the United States and outlying areas (Guam, Puerto Rico, and Virgin Islands) was 1.0 per 100,000 females.

Figure F. Congenital Syphilis—Infants—Rates by Year of Birth and State, United States and Outlying Areas, 2011



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 8.5 per 100,000 live births.

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

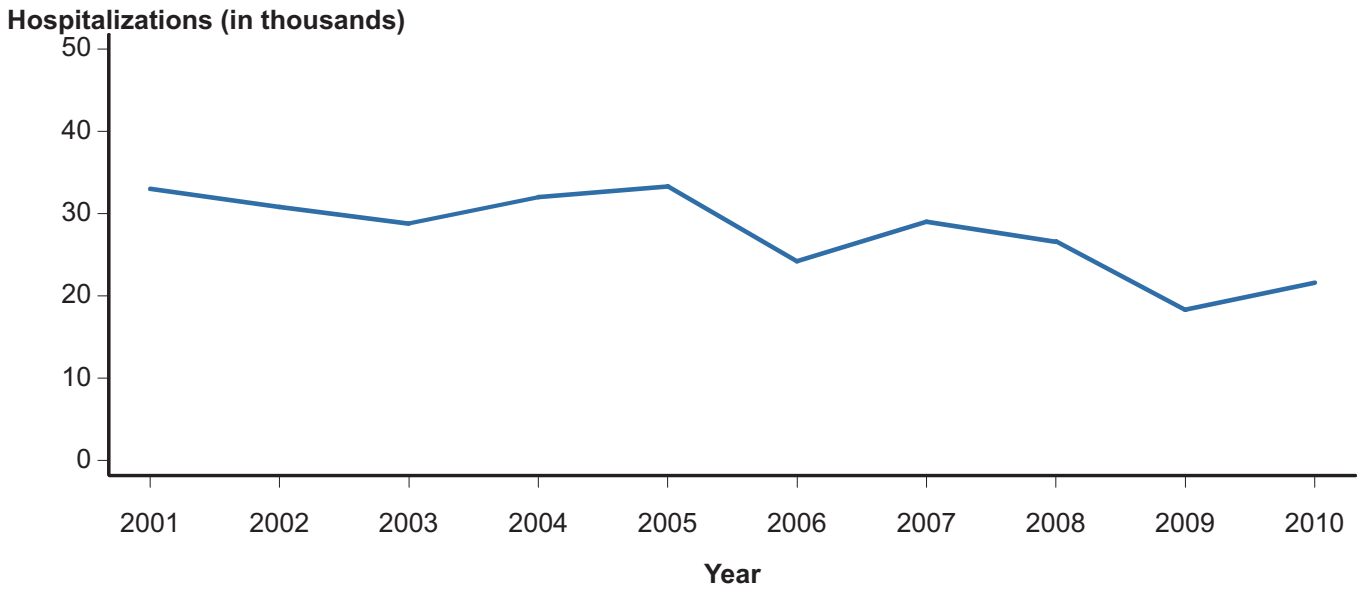


NOTE: The relative standard errors for acute and unspecified pelvic inflammatory disease (PID) cases ranges from 8%–18%. The relative standard error for chronic PID cases ranges from 12%–28%. Data only available through 2010.
SOURCE: 2010 National Hospital Discharge Survey [Internet]. Atlanta: Centers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

Figure H. Pelvic Inflammatory Disease—Initial Visits to Physicians' Offices by Women Aged 15–44 Years, United States, 2002–2011

NOTE: The relative standard errors for these estimates are 21.6%–30%. See Other Data Sources in the Appendix and Table 44.
SOURCE: IMS Health, Integrated Promotional Services™. IMS Health Report, 1966–2011.

Figure I. 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 [Internet]. 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

Estimates suggest that young people aged 15–24 years acquire nearly half of all new STDs.[1] 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 *C. trachomatis*, 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.[2] 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.[3,4]

Observations

Chlamydia

Rates of reported chlamydial infection among persons aged 15–19 years and 20–24 years continue to increase. During 2010–2011, rates increased 4.0% for those aged 15–19 years and 11.0% for those aged 20–24 years (Table 10).

15- to 19-Year-Old Women—In 2011, the rate among women aged 15–19 years was 3,416.5 cases per 100,000 females, a 3.5% increase from the 2010 rate of 3,299.5 cases per 100,000 (Figure 5, Table 10).

20- to 24-Year-Old Women—In 2011, women aged 20–24 years had the highest rate of chlamydia (3,722.5 cases per 100,000 females) compared with any other age and sex group. Chlamydia rates for women in this age group increased 10.5% during 2010–2011.

15- to 19-Year-Old Men—Chlamydia rates for men aged 15–19 years increased 6.1% from 757.0 cases per 100,000 males in 2010 to 803.0 cases per 100,000 in 2011.

20- to 24-Year-Old Men—In 2011, as in previous years, men aged 20–24 years had the highest rate of chlamydia (1,343.3 cases per 100,000 males). Chlamydia rates for men in this age group increased 12.4% during 2010–2011.

Gonorrhea

During 2010–2011, gonorrhea rates remained essentially unchanged for persons aged 15–19 years (decreased 0.1%) and increased for persons aged 20–24 years (5.8%).

15- to 19-Year-Old Women—In 2011, women aged 15–19 years had the second highest rate of gonorrhea (556.5 cases per 100,000 females) compared with any other age or sex group (Figure 21, Table 21). During 2010–2011, the gonorrhea rate for women in this age group decreased 0.2%.

20- to 24-Year-Old Women—In 2011, women aged 20–24 years had the highest rate of gonorrhea (584.2 cases per 100,000 females) compared with any other age or sex group (Figure 21, Table 21). During 2010–2011, the gonorrhea rate for women in this age group increased 5.4%.

15- to 19-Year-Old Men—In 2011, the gonorrhea rate among men aged 15–19 years was 248.6 cases per 100,000 males (Figure 21, Table 21). During 2010–2011, the gonorrhea rate for men in this age group increased 0.4%.

20- to 24-Year-Old Men—In 2011, as in previous years, men aged 20–24 years had the highest rate of gonorrhea (450.6 cases per 100,000 males) compared with other males (Figure 21, Table 21). During 2010–2011, the gonorrhea rate for men in this age group increased 6.2%.

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 to 2.9 cases in 2010 and 2.4 cases in 2011.

Rates in women have been highest each year among those aged 20–24 years with 3.8 cases per 100,000 females in 2011 (Figures 42 and 43, Table 34).

Rates among men aged 15–19 years are much lower than the rates among men in older age groups (Figures 42 and 44, Table 34). Rates in this group increased during 2002–2009 (from 1.3 cases per 100,000 males to 6.0 cases in 2009), but decreased to 5.5 cases in 2010 and 5.4 cases in 2011. However, rates among men aged 20–24 years have increased each consecutive year since 2002, from 5.2 cases per 100,000 males to 23.4 cases in 2011. 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 34). 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

In 2011, the median state-specific chlamydia test positivity among women aged 15–19 years who were tested during visits to selected family planning clinics in all 50 states, Puerto Rico, and the Virgin Islands was 9.8% (range: 3.4% to 19.1%). Chlamydia test positivity among women aged 15–19 years screened in selected family planning clinics increased in most HHS regions during 2007–2011 (Figure J). Test positivity data presented in Figure J are not adjusted for changes in laboratory test methods and associated increases in test sensitivity.

Among adolescent females entering selected juvenile corrections facilities, the median facility-specific chlamydia positivity was 13.5% (range: 3.7% to 27.7%); the median gonorrhea positivity was 3.4% (range: 0.0% to 9.6%). Among adolescent males entering selected juvenile corrections facilities, the median facility-specific chlamydia positivity was 6.3% (range: 0.4 to 19.1%); the median gonorrhea positivity was 0.7% (range: 0.0% to 6.0%) (Figures BB and DD). See the STDs in Persons Entering Corrections Facilities section for more details.

National Job Training Program

Since 1990 about 20,000 female NJTP entrants have been screened each year for chlamydia. Since 2004, about 35,000 male entrants have been screened annually. This educational program for socioeconomically disadvantaged youth aged 16–24 years is administered at more than 100 sites throughout the country. The data presented are from sites where more than 100 persons were screened in 2011.

Chlamydial infection is widespread geographically and highly prevalent among socioeconomically disadvantaged young women and men entering the NJTP.[5] Specimens from students in each state and outlying area were tested by a single national contract laboratory.*

Among women entering the program in 46 states, the District of Columbia, and Puerto Rico, the median state-specific chlamydia prevalence was 10.3% (range: 4.1% to 18.7%) (Figure K). Among men entering the program in 48 states, the District of Columbia, and Puerto Rico, the median state-specific chlamydia prevalence was 8.0% (range: 2.7% to 13.0%) (Figure L).

The data from NJTP centers that submit gonorrhea specimens from female students aged 16–24 years to the national contract laboratory indicated a high prevalence of gonococcal infection in this population. Among women entering the program in 44 states and Puerto Rico, the median state-specific gonorrhea prevalence in 2011 was 1.0% (range: 0.0% to 4.9%) (Figure M). Among men entering the program in 38 states and Puerto Rico, the median state-specific gonorrhea prevalence was 0.9% (range: 0.0% to 2.6%) (Figure N).

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

1 Weinstock H, Berman S, Cates W Jr. Sexually transmitted diseases among American youth: incidence and prevalence estimates, 2000. Perspect Sex Reprod Health. 2004:36(1):6-10.

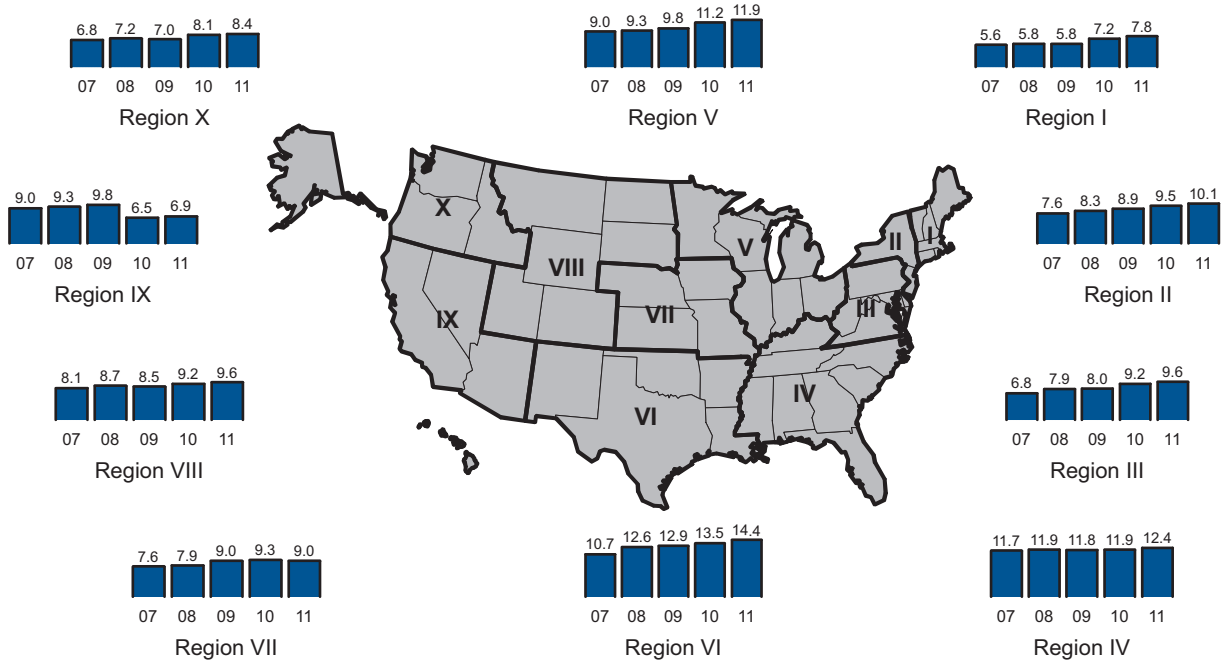
2 DiClemente RJ, Salazar LF, Crosby RA. A review of STD/HIV preventive interventions for adolescents: sustaining effects using an ecological approach. J. Pediatr. Psychol. 2007;32 (8): 888−906.

3 Sieving RE, Bernat DH, Resnick MD, Oliphant J, Pettingell S, Plowman S, et al. A clinic-based youth development program to reduce sexual risk behaviors among adolescent girls: prime time pilot study. Health Promot Pract (online). May 23, 2011.

4 Upchurch DM, Mason W, Kusunoki Y, Kriechbaum MJ. Social and behavioral determinants of self-reported STD among adolescents. Perspect Sex Reprod Health. 2004;36(6):276-287.

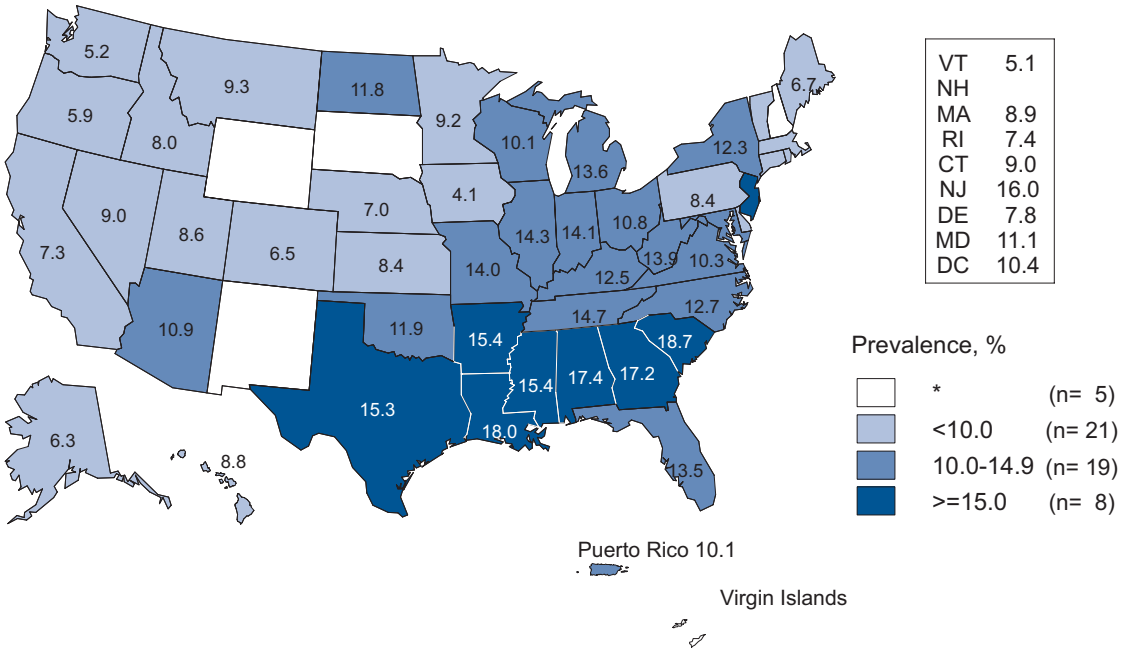
5 Satterwhite CL, Tian LH, Braxton J, Weinstock H. Chlamydia prevalence among women and men entering the National Job Training Program: United States, 2003–2007. Sex Transm Dis. 2010;37(2):63-7.

Figure J. Chlamydia—Trends in Positivity Among Women Aged 15–19 Years Tested in Family Planning Clinics, by U.S. Department of Health and Human Services (HHS) Region, Infertility Prevention Project, 2007–2011



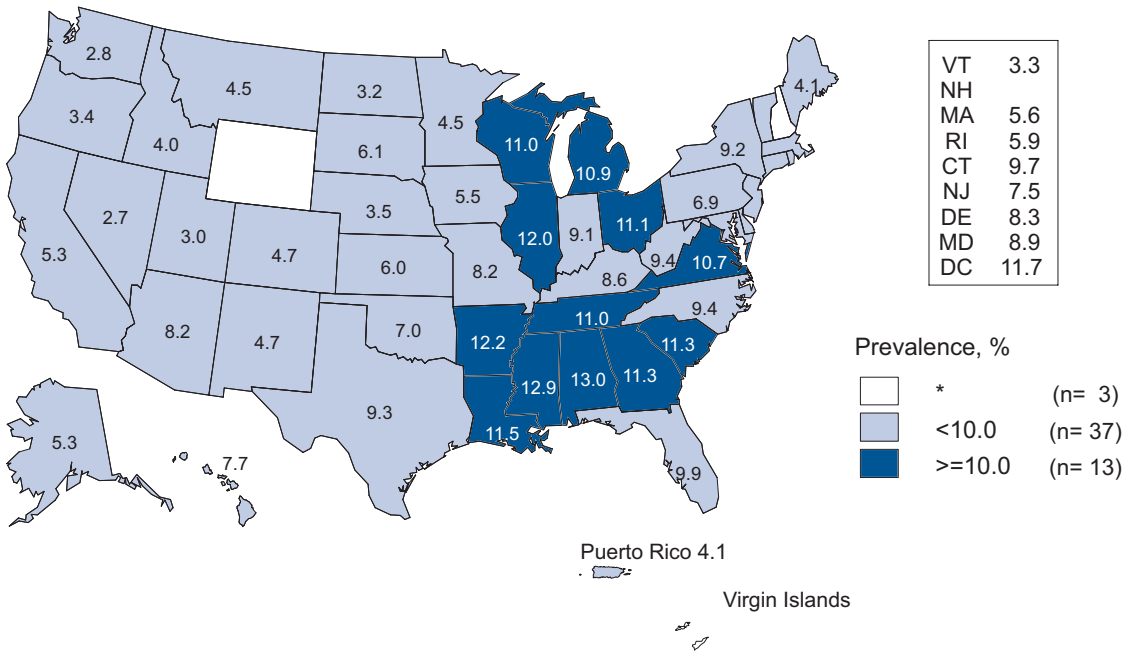
NOTE: See Definition of HHS Regions in the Appendix for definitions.

Figure K. Chlamydia—Prevalence Among Women Aged 16–24 Years Entering the National Job Training Program, by State of Residence, United States and Outlying Areas, 2011



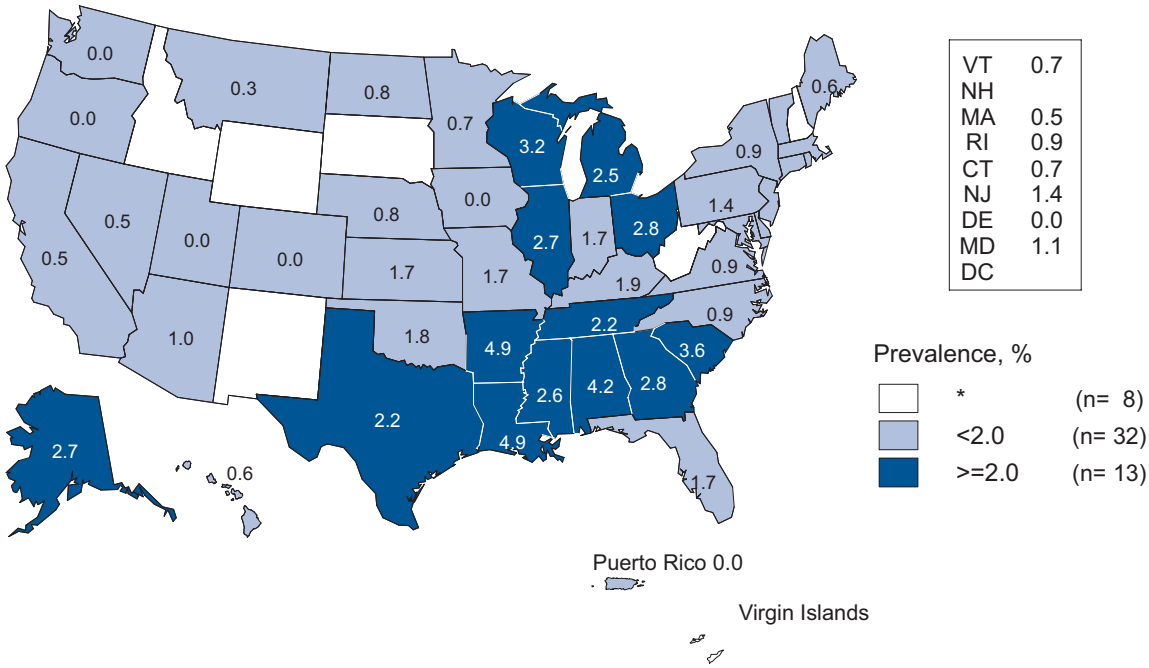
* Fewer than 100 women who resided in these states/areas and entered the National Job Training Program were screened for chlamydia in 2011.

Figure L. Chlamydia—Prevalence Among Men Aged 16–24 Years Entering the National Job Training Program, by State of Residence, United States and Outlying Areas, 2011



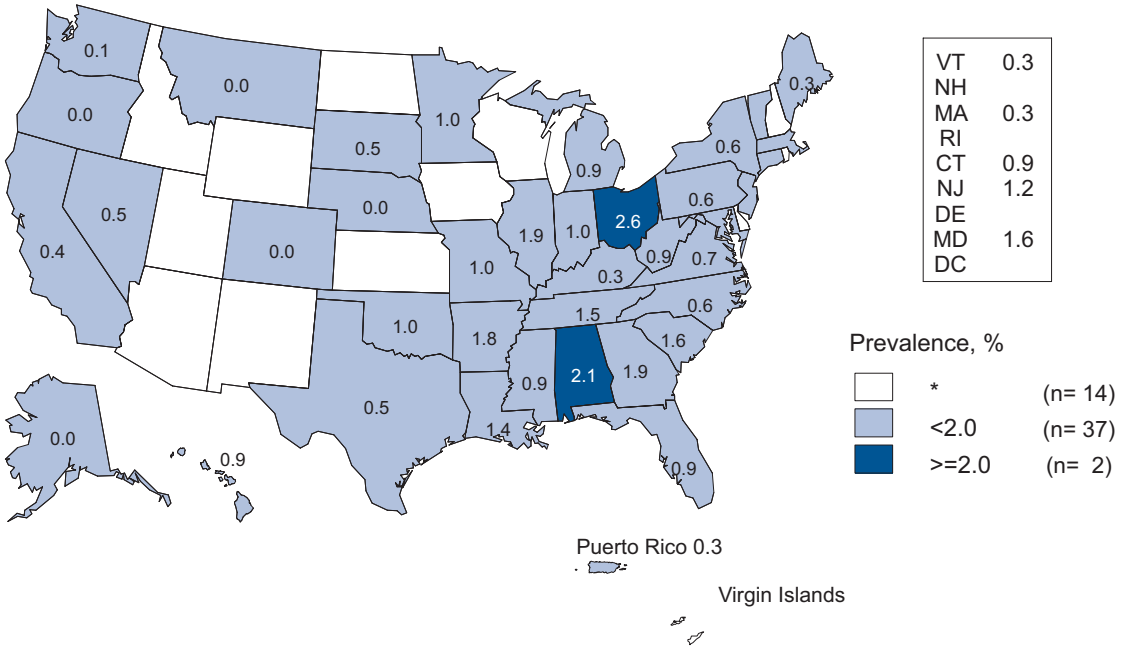
* Fewer than 100 men who resided in these states/areas and entered the National Job Training Program were screened for chlamydia in 2011.

Figure M. Gonorrhea—Prevalence Among Women Aged 16–24 Years Entering the National Job Training Program, by State of Residence, United States and Outlying Areas, 2011



* Fewer than 100 women who resided in these states/areas and entered the National Job Training Program were screened for gonorrhea in 2011.
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 number of gonorrhea tests submitted was greater than 90% of the number of chlamydia tests submitted.

Figure N. Gonorrhea—Prevalence Among Men Aged 16–24 Years Entering the National Job Training Program, by State of Residence, United States and Outlying Areas, 2011



* Fewer than 100 men who resided in these states/areas and entered the National Job Training Program were screened for gonorrhea in 2011.

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 correlate with other fundamental determinants of health status.[1,2]

Social and economic conditions, such as high rates of poverty, income inequality, unemployment, and low educational attainment, 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] Recent data show that one-fifth of blacks (20.8%) do not have health insurance. Many people of Hispanic ethnicity face similar challenges; and for some, there are the additional barriers arising from immigration or undocumented citizenship status.[10,11] 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.[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]

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 2011, 26.1% of chlamydia case reports were missing race or ethnicity data, ranging by state from 0.2% to 55.5% (Table A1).

Gonorrhea—In 2011, 20.4% of gonorrhea case reports were missing information on race or ethnicity, ranging by state from 0.0% to 42.3% (Table A1).

Syphilis—In 2011, 2.9% of P&S syphilis case reports were missing information on race or ethnicity, ranging from 0.0% to 30.0% among states with 10 or more cases of P&S syphilis (Table A1).

Observations

Chlamydia

Chlamydia rates based on reported cases increased during 2011–2012 among all racial and ethnic groups (Figure 6). During 2007–2011, chlamydia rates increased by 17.6% among blacks, 23.6% among American Indians/Alaska Natives, 14.4% among Hispanics, 17.1% among Asians/Pacific Islanders, and 34.6% among whites.

Blacks—In 2011, the overall rate among blacks in the United States was 1,194.4 cases per 100,000, a 3.8% increase from the 2010 rate of 1,150.4 cases per 100,000. The rate of chlamydia among black women was over six times the rate among white women (1,563.0 and 232.7 per 100,000 women, respectively) (Figure O). The chlamydia rate among black men was over nine times the rate among white men (787.7 and 82.3 cases per 100,000 men, respectively).

Chlamydia rates were highest for blacks aged 15–19 and 20–24 years in 2011 (Table 11B). The chlamydia rate among black females aged 15–19 years was 7,507.1 cases per 100,000 women, which was almost six times the rate among white females in the same age group (1,301.5). The rate among black women aged 20–24 years was 4.8 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 11.1 times the rate among whites (Table 11B). The chlamydia rate among black men aged 20–24 years was seven times the rate among white men of the same age group (3,662.0 and 516.4 cases per 100,000 men, respectively).

American Indians/Alaska Natives—In 2011, the chlamydia rate among American Indians/Alaska Natives was 648.3 cases per 100,000 population, an increase of 7.7% from the 2010 rate of 602.0 cases per 100,000. Overall, the rate of chlamydia among American Indians/Alaska Natives in the United States was more than four times the rate among whites.

Asians/Pacific Islanders—In 2011, the chlamydia rate among Asians/Pacific Islanders was 115.3 cases per 100,000 population, an increase of 7.9% from the 2010 rate of 106.9 cases per 100,000. The overall rate among Asians/Pacific Islanders was lower than the rate among whites.

Hispanics—In 2011, the chlamydia rate among Hispanics was 383.6 cases per 100,000 population, which is a 8.2% increase from the 2010 rate of 354.6 cases per 100,000 and over two times the rate among whites.

Gonorrhea

During 2010–2011, gonorrhea rates increased 12.3% among Hispanics (47.9 to 53.8), 7.7% among American Indians/Alaska Natives (107.4 to 115.7), 7.7% among whites (23.4 to 25.2), 4.9% among Asians/Pacific Islanders (14.4 to 15.1), and 0.3% among blacks (426.2 to 427.3) (Figure 24).

Blacks—In 2011, 67% 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). The rate of gonorrhea among blacks in 2011 was 427.3 cases per 100,000 population (Figure 24), which was 17.0 times the rate among whites (25.2 per 100,000). This disparity has changed little in recent years (Figure P). This disparity was larger for black men (19.4 times) than for black women (15.2 times) (Figure Q).

As in previous years, the disparity in gonorrhea rates for blacks in 2011 was larger in the Midwest and Northeast than in the West or the South (Figure R).

Considering all racial/ethnic and age categories, gonorrhea rates were highest for blacks aged 15–19 and 20–24 years in 2011 (Table 22B). Black women aged 15–19 years had a gonorrhea rate of 1,929.6 cases per 100,000 women. This rate was 15.9 times the rate among white women in the same age group (121.2). Black women aged 20–24 had a gonorrhea rate of 2050.4 cases per 100,000 women, which was 12.1 times the rate among white women in the same age group (169.2 per 100,000) (Table 22B).

Black men aged 15–19 years had a gonorrhea rate of 959.9 cases per 100,000 men, which was 30.3 times the rate among white men in the same age group (31.7 per 100,000). Black men aged 20–24 years had a gonorrhea rate of 1875.1 cases per 100,000 men, which was 20.4 times the rate among white men in the same age group (91.8 per 100,000) (Table 22B).

American Indians/Alaska Natives—In 2011, the gonorrhea rate among American Indians/Alaska Natives was 115.7 cases per 100,000 population, which was 4.6 times the rate among whites (Figure 24, Figure P). The disparity between gonorrhea rates for American Indians/Alaska Natives and whites was larger for American Indian/Alaska Native women (5.2 times) than for American Indian/Alaska Native men (3.8 times) (Figure Q). As in previous years, the disparity in gonorrhea rates for American Indians/Alaska Natives in 2011 was larger in the West and Midwest than in the Northeast or South (Figure R).

Asians/Pacific Islanders—In 2011, the gonorrhea rate among Asians/Pacific Islanders was 15.1 cases per 100,000 population, which was lower than the rate among whites (Figure 24, Figure P). This difference is larger for Asian/Pacific Islander women than for Asian/Pacific Islander men (Figure Q). In 2011, rates among Asians/Pacific Islanders were again lower than rates among whites in all four regions of the United States (Figure R).

Hispanics—In 2011, the gonorrhea rate among Hispanics was 53.8 cases per 100,000 population, which was 2.1 times the rate among whites (Figures 24 and P). This disparity between Hispanics and whites was similar to that in recent years and was larger for Hispanic men than for Hispanic women (Figure Q). As In previous years, the disparity in gonorrhea rates for Hispanics was highest in the Northeast and lowest in the West (Figure R).

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.[17,18] During the 1990s, the rate of P&S syphilis declined among all racial and ethnic groups. During 2007–2011, the rate increased among all racial and ethnic groups except American Indians/Alaska Natives (Figure 45).

Blacks—During 2010–2011, the rate of P&S syphilis among blacks decreased 6.6% (from 16.6 to 15.5 cases per 100,000 population). In 2011, 43.8% of all cases reported to CDC were among blacks and 32.8% of all cases were among whites.

The overall 2011 rate for blacks was 7.0 times the rate for whites, while the 2010 rate was 7.9 times the rate for whites (Figure 45). In 2011, the rate of P&S syphilis among black men was 6.1 times the rate among white men; the rate among black women was 17 times the rate among white women (Figure S).

In some age groups, particularly black men (including men who have sex with men) aged 20–24 years and 25–29 years, disparities have increased markedly in recent years as rates of disease have increased (Table 35B). [19] During 2007–2011, rates among black men aged 20–24 years increased from 54.9 to 96.2 cases per 100,000 population (75%); the magnitude of this increase (41.3 cases per 100,000 population) was the greatest reported regardless of age, sex, or race/ethnicity. Among men and women aged 15–19 years, disparities between blacks and other races/ethnicities have decreased since 2009 (Figures T and U). Nonetheless, large disparities remain; the 2011 rate among black men aged 15–19 years was 16 times the rate for whites and 5 times the rate for Hispanics (Table 35B).

The largest rate increases among black women during 2007–2011 occurred among women aged 20–24 years (from 15.7 to 18.9 cases per 100,000 population). In 2011, rates for black women aged 15–19 years were 30 times and 24 times the rate for white and Hispanic women of the same ages, respectively.

Recent trends in syphilis rates in young black men are of particular concern given data indicating high HIV incidence in this population.[20,21]

American Indians/Alaska Natives—During 2010–2011, the rate of P&S syphilis among American Indians/Alaska Natives increased 8.0% (from 2.5 to 2.7 cases per 100,000 population). In 2011, 0.5% of all cases reported to CDC were among American Indians/Alaska Natives. The 2011 rate of P&S syphilis for American Indians/Alaska Natives was 1.2 times the rate for whites (Figure 45).

Asians/Pacific Islanders—During 2010–2011, the rate of P&S syphilis among Asians/Pacific Islanders increased 33.3% (from 1.2 to 1.6 cases per 100,000 population). In 2011, 1.8% of all cases reported to CDC were among Asians/Pacific Islanders. The 2011 rate of P&S syphilis for Asians/Pacific Islanders was less than the rate for whites (Figure 45).

Hispanics—During 2010–2011, the rate of P&S syphilis among Hispanics increased 4.5% (from 4.4 to 4.6 cases per 100,000 population). In 2011, 16.7% of all cases reported to CDC were among Hispanics. The 2011 rate of P&S syphilis for Hispanics was 2.0 times the rate for whites (Figure 45).

Congenital Syphilis

In 2011, the rate of congenital syphilis was 33.0 cases per 100,000 live births among blacks and 7.6 cases per 100,000 live births among Hispanics. Race/ethnicity for cases of congenital syphilis is based on the mother's race/ethnicity. These rates were 15.0 and 3.5 times, respectively, the rate among whites (2.2 cases per 100,000 live births) (Table 42, Figure V).

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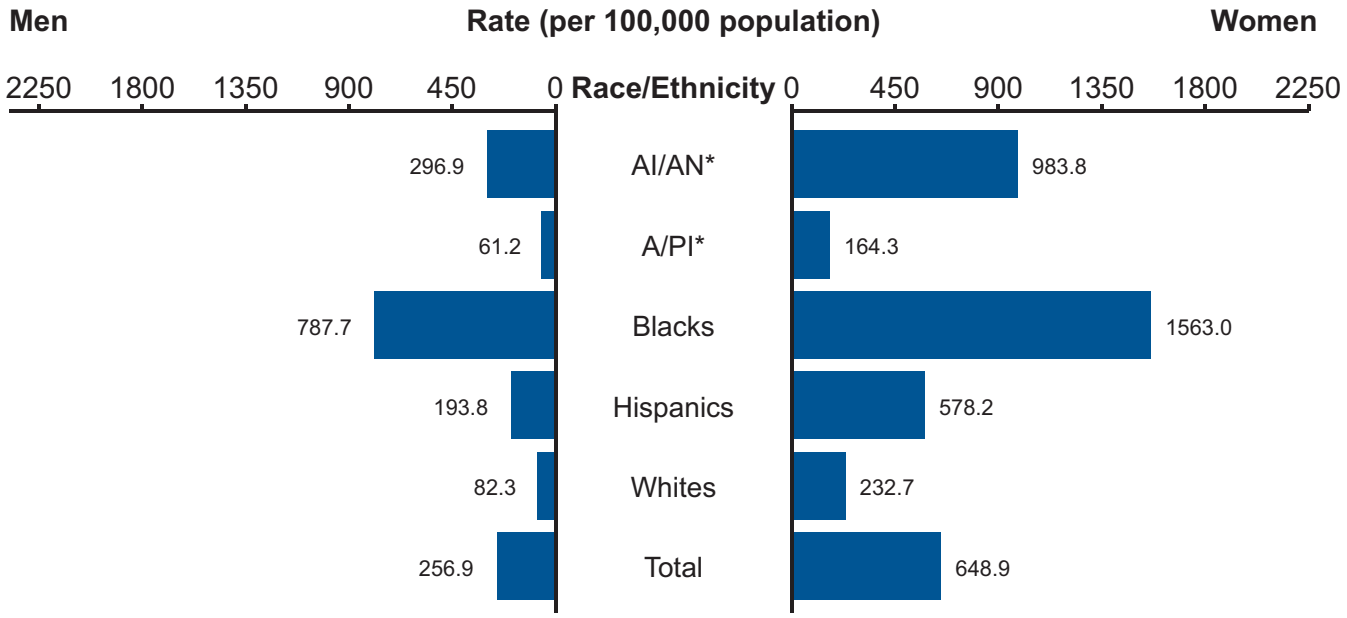
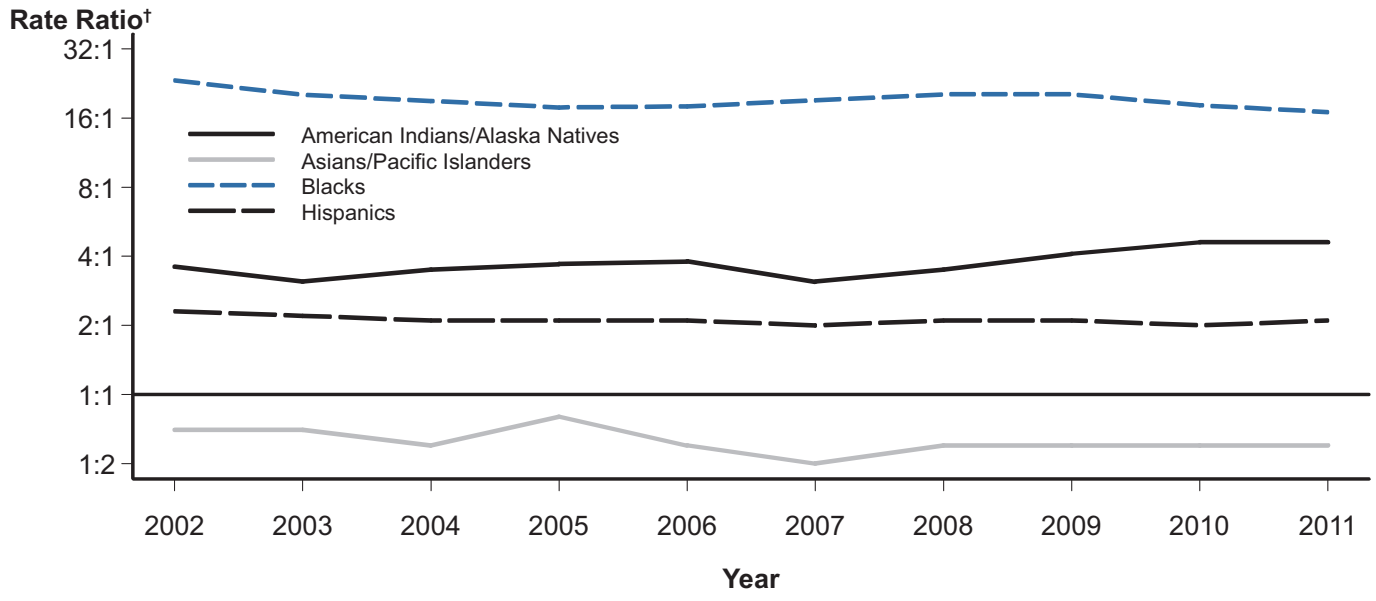
Figure O. Chlamydia—Rates by Race/Ethnicity and Sex, United States, 2011



* AI/AN = American Indians/Alaska Natives; A/PI = Asians/Pacific Islanders.

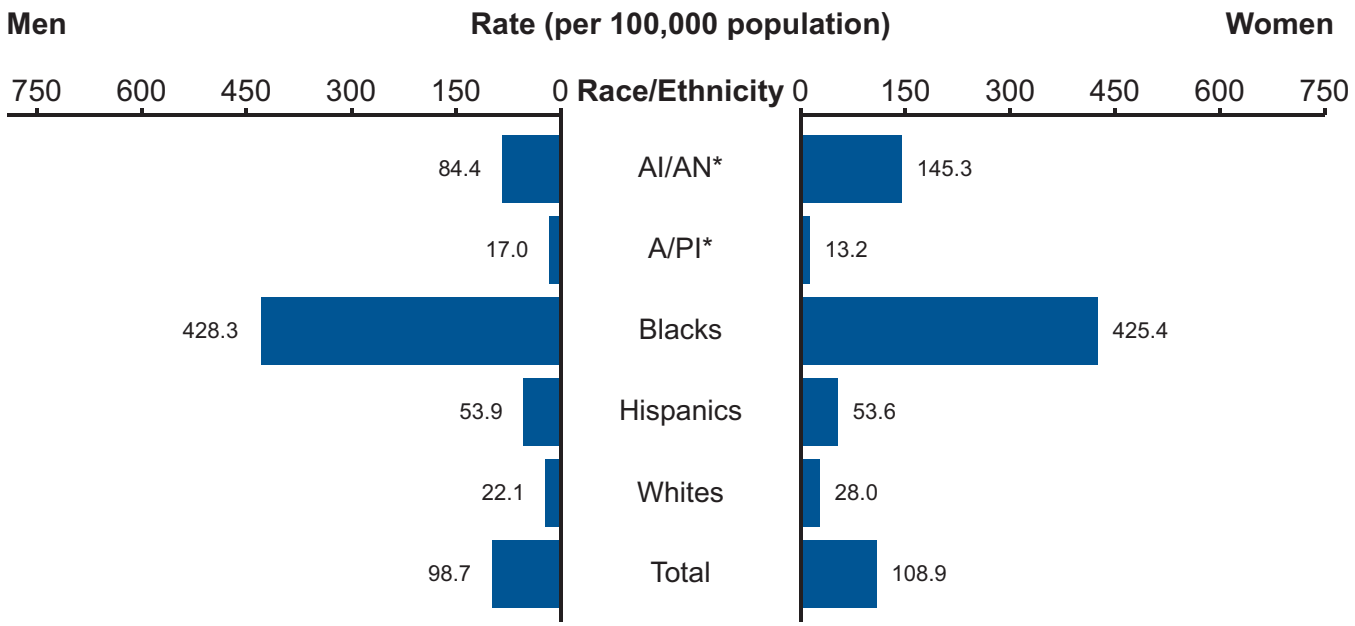
Figure P. Gonorrhea—Rate Ratios* by Race/Ethnicity, United States, 2002–2011



* 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.

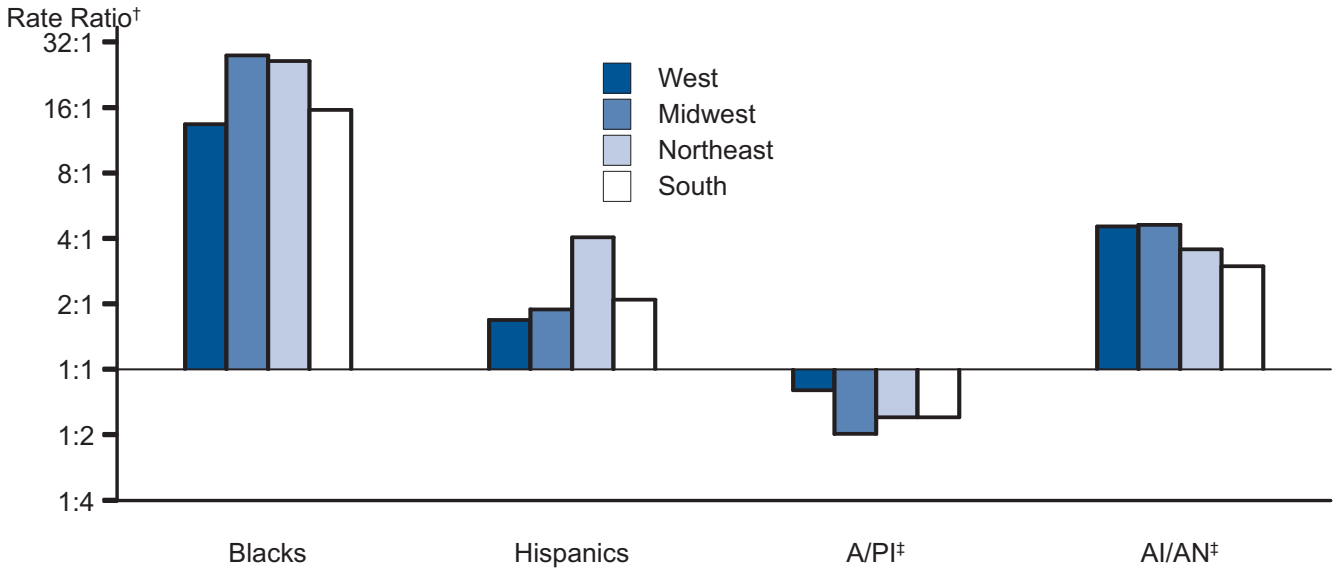
† Y-axis is log scale.

Figure Q. Gonorrhea—Rates by Race/Ethnicity and Sex, United States, 2011



* AI/AN = American Indians/Alaska Natives; A/PI = Asians/Pacific Islanders.

Figure R. Gonorrhea—Rate Ratios* by Race/Ethnicity and Region, United States, 2011

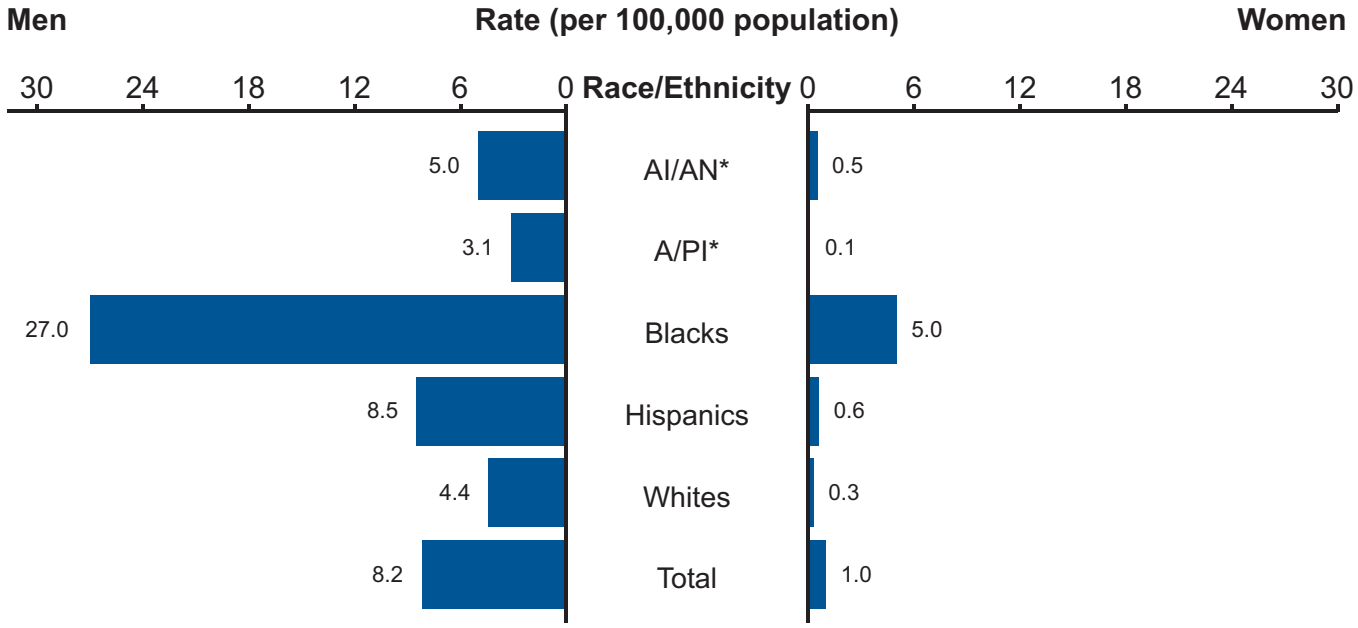


* Rate ratios are calculated as the gonorrhea rate per 100,000 population for a given racial or ethnic minority population divided by the gonorrhea rate per 100,000 population for non-Hispanic whites. Any population with a lower rate of gonorrhea than the non-Hispanic white population will have a rate ratio of less than 1:1.

† Y-axis is log scale.

‡ AI/AN = American Indians/Alaska Natives; A/PI = Asians/Pacific Islanders.

Figure S. Primary and Secondary Syphilis—Rates by Race/Ethnicity and Sex, United States, 2011



* AI/AN = American Indians/Alaska Natives; A/PI = Asians/Pacific Islanders.

Figure T. Primary and Secondary Syphilis—Rates Among Females Aged 15–19 Years by Race/Ethnicity, United States, 2002–2011

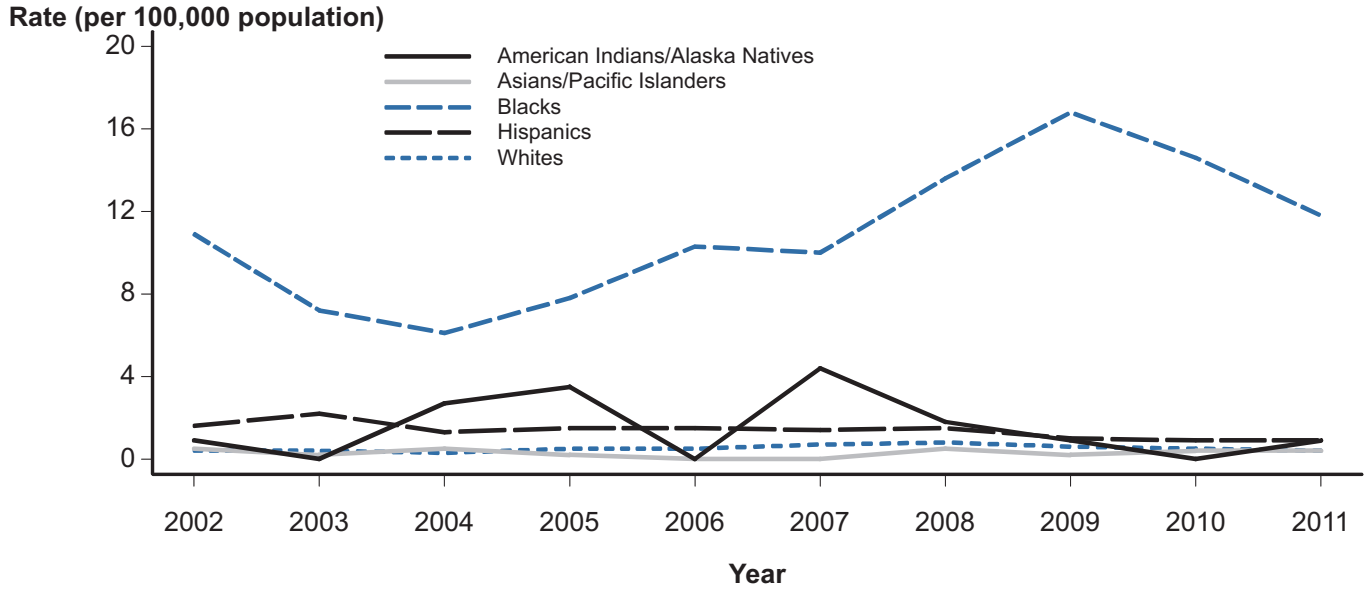


Figure U. Primary and Secondary Syphilis—Rates Among Males Aged 15–19 Years by Race/Ethnicity, United States, 2002–2011

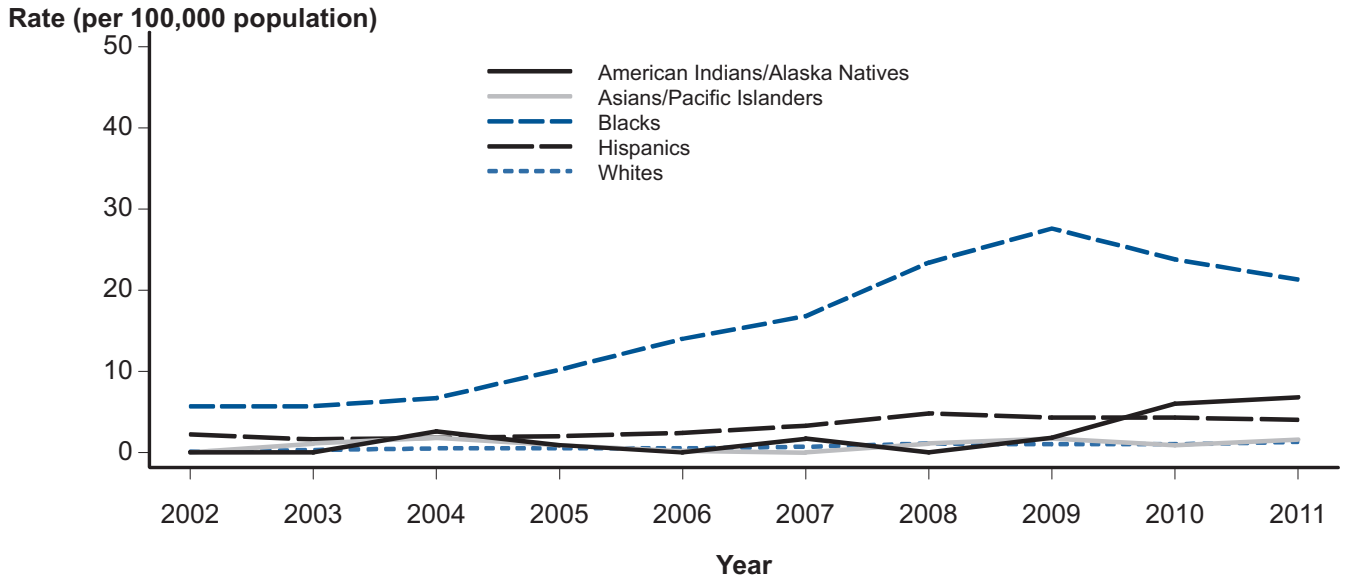
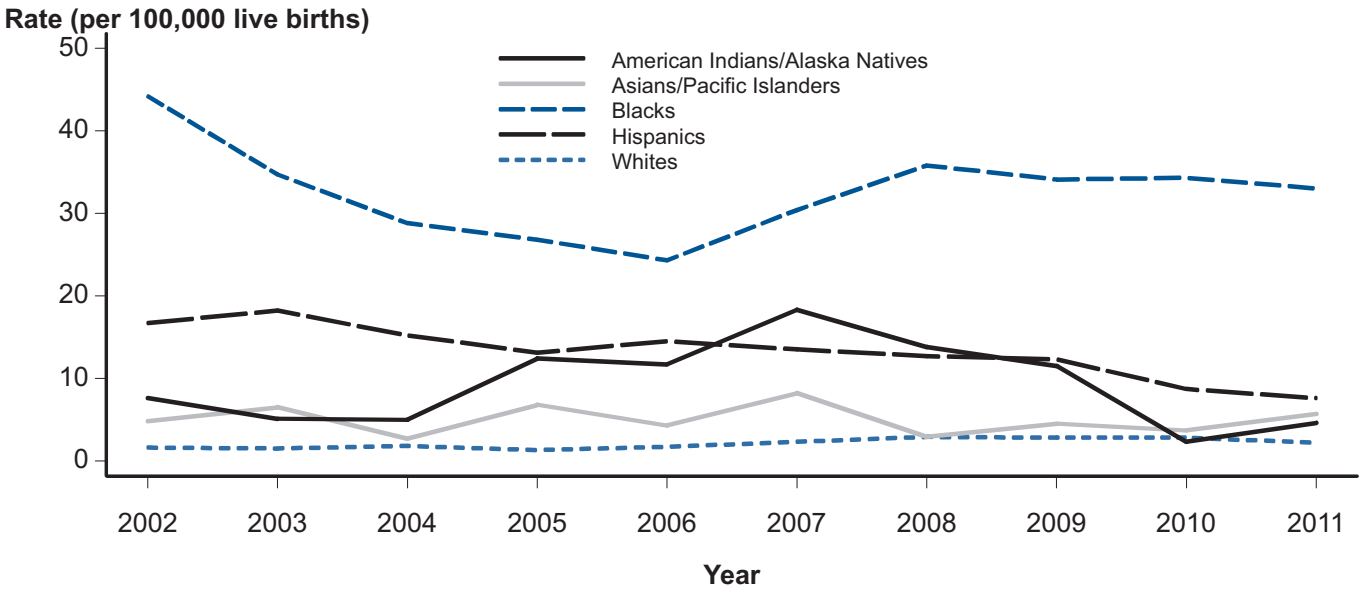


Figure V. Congenital Syphilis—Infants—Rates by Year of Birth and Mother's Race/Ethnicity, United States, 2002–2011



NOTE: Cases missing maternal race/ethnicity information were excluded (< 1% of cases).

STDs in Men Who Have Sex with Men

Public Health Impact

Notifiable disease surveillance data on syphilis and data from GISP suggest that some STDs in MSM, including men who have sex with both women and men, are increasing.[1–4] Because STDs and the behaviors associated with acquiring them increase the likelihood of acquiring and transmitting HIV infection,[5] the rise in STDs among MSM may be associated with an increase in HIV diagnoses among MSM.[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] 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.[9] Similarly, for Hispanic men, the relationship between individual experiences of oppression (e.g., social discrimination and financial hardship) and risk for sexually transmitted infections in the United States has been documented.[10]

With the exception of reported syphilis cases, most nationally notifiable STD surveillance data do not include information on sexual behaviors; therefore, trends in STDs among MSM in the United States are based on findings from sentinel surveillance systems. 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.[11] Data from enhanced surveillance projects are presented in this section to provide information on STDs in MSM.

STD Surveillance Network—Monitoring Trends in Prevalence of STDs Among MSM Who Visit STD Clinics, 2011

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.[12] SSuN currently includes 12 collaborating local and state health departments. In 2011, 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.[13] 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 2011, the proportion of MSM who tested positive for gonorrhea and chlamydia at STD clinics varied by SSuN site (Figure W). A larger proportion of MSM who visited SSuN STD clinics tested positive for gonorrhea than tested positive for chlamydia in all cities except Hartford/New Haven (where the proportion for chlamydia was higher).

Across the participating sites, about the same number of MSM were tested for gonorrhea (20,333) and chlamydia (19,957). The median site-specific gonorrhea prevalence was 14.5% (range by site: 2.8%–21.0%). The median site-specific chlamydia prevalence was 11.3% (range by site: 6.5%–23.1%). 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 2011, the proportion of MSM who presented to SSuN clinics with P&S syphilis infection who also were infected with HIV ranged from 14.3% in Los Angeles to 65% in Baltimore (Figure X). The median site-specific proportion co-infected with HIV was 40.4%. 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 Y). The prevalence of P&S syphilis was 2.6% among HIV-negative MSM and 10.1% among HIV-positive MSM. Urethral gonorrhea positivity was 9.0% in MSM who were HIV-negative and 12.5% in HIV-positive MSM. Pharyngeal gonorrhea positivity was 5.5% in MSM who were HIV-negative and 6.6% in HIV-positive MSM; rectal gonorrhea positivity was 7.2% in MSM who were HIV-negative and 12.9% in HIV-positive MSM. Urethral chlamydia was 7.4% in MSM who were HIV-negative and 8.3% in HIV-positive MSM; rectal chlamydia positivity was 10.8% in MSM who were HIV-negative and 20.6% in HIV-positive MSM.

Nationally Notifiable Syphilis Surveillance Data

In 33 areas reporting sex of partner data, cases among women and among men having sex with women only (MSW) have declined since 2008, while cases among MSM have increased each consecutive year (Figure 37). Increases in primary and secondary syphilis among MSM have been increasing since 2000. [14,15] In 2011, MSM accounted for 72% of all P&S syphilis cases in 46 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 47). 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 strains of *N. gonorrhoeae* in the United States.[4,16] GISP also reports the percentage of *N. gonorrhoeae* isolates obtained from MSM. Overall, the proportion of isolates from MSM in selected STD clinics from GISP sentinel sites has increased steadily, from 4.6% in 1990 to 29.7% in 2011 (Figure Z). The proportion of isolates from MSM varies geographically, with the largest proportion reported from the West Coast (Figure AA).

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

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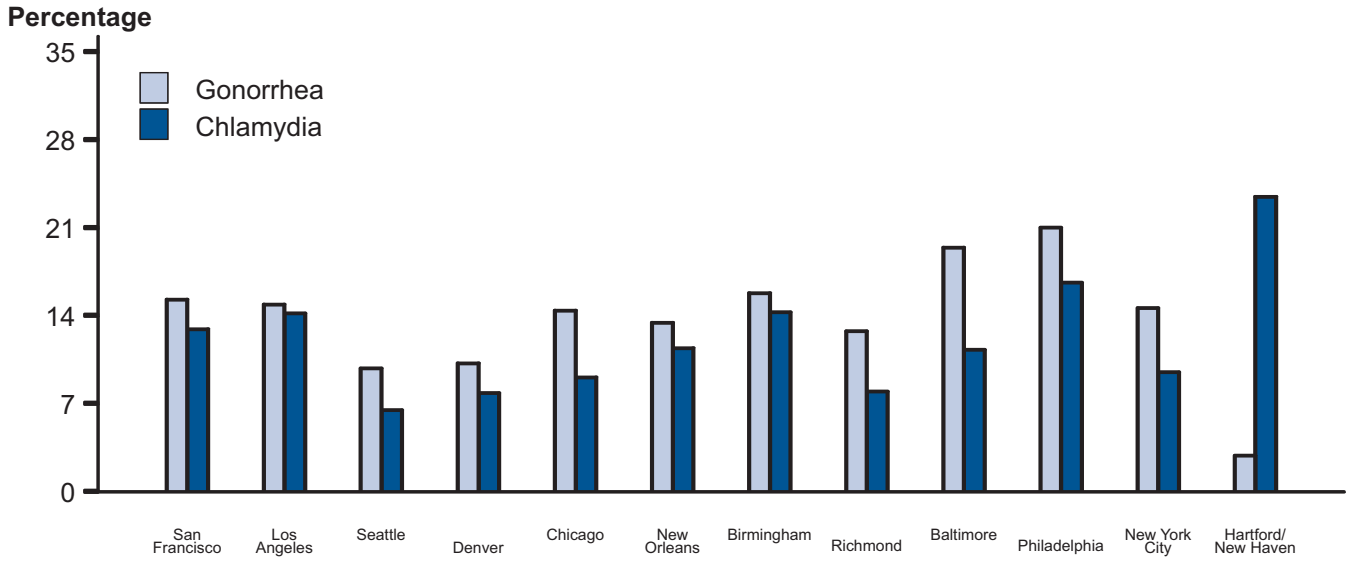
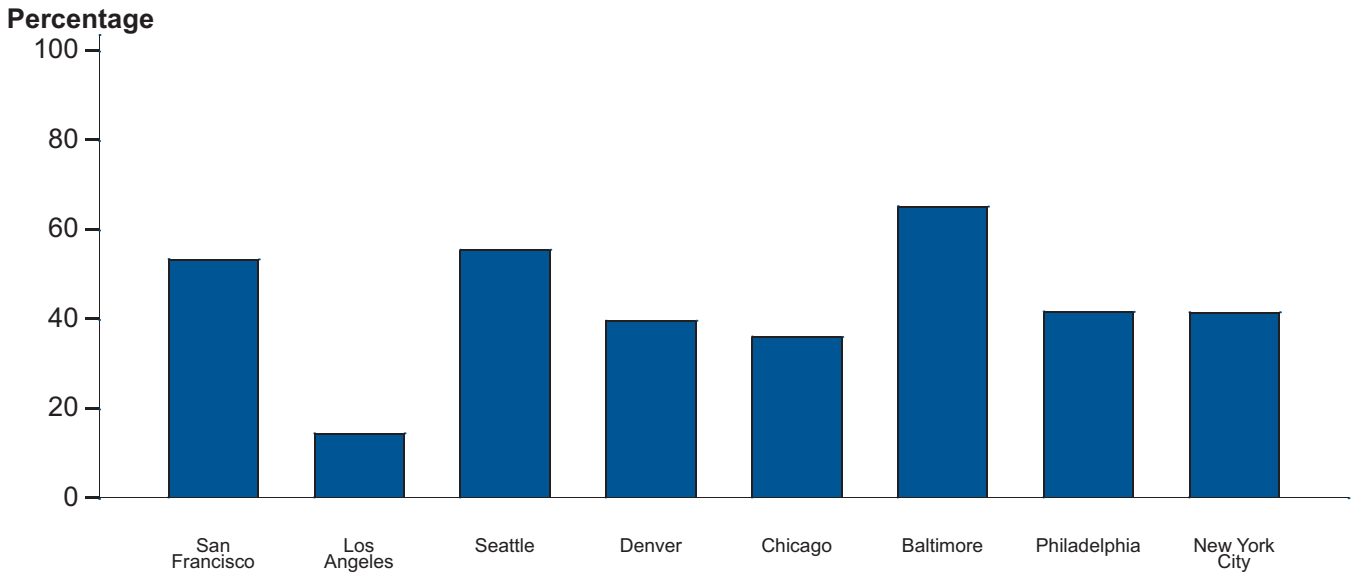
Figure W. Gonorrhea and Chlamydia—Proportion of MSM* Attending STD Clinics Testing Positive for Gonorrhea and Chlamydia, STD Surveillance Network (SSuN), 2011



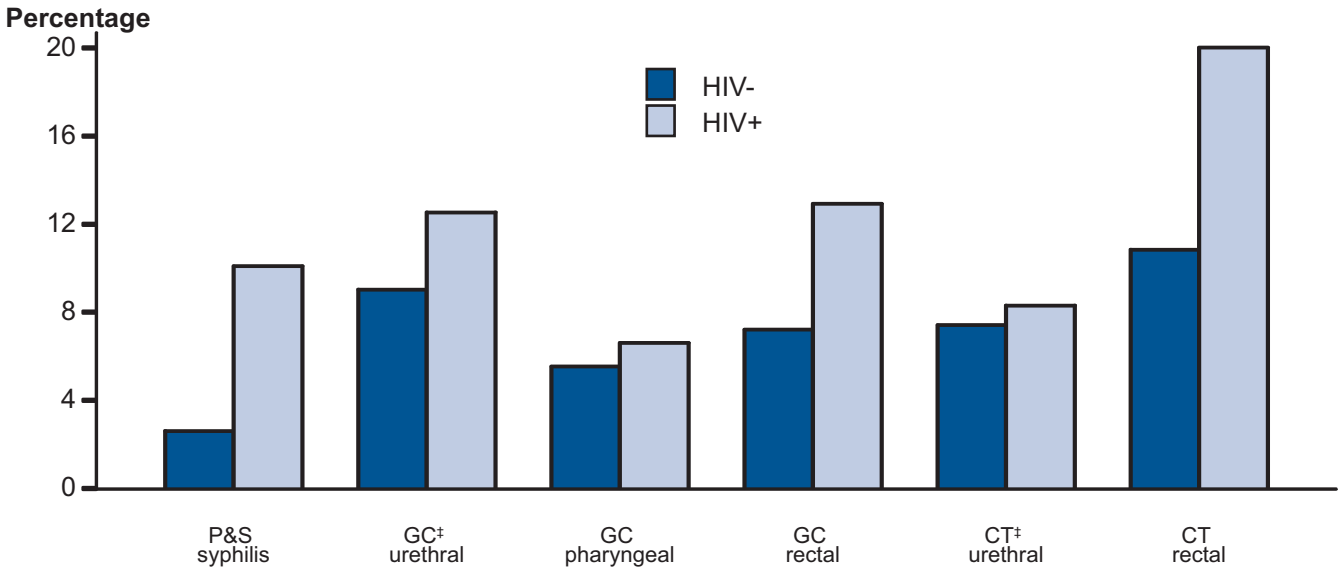
* MSM = men who have sex with men.

Figure X. 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), 2011



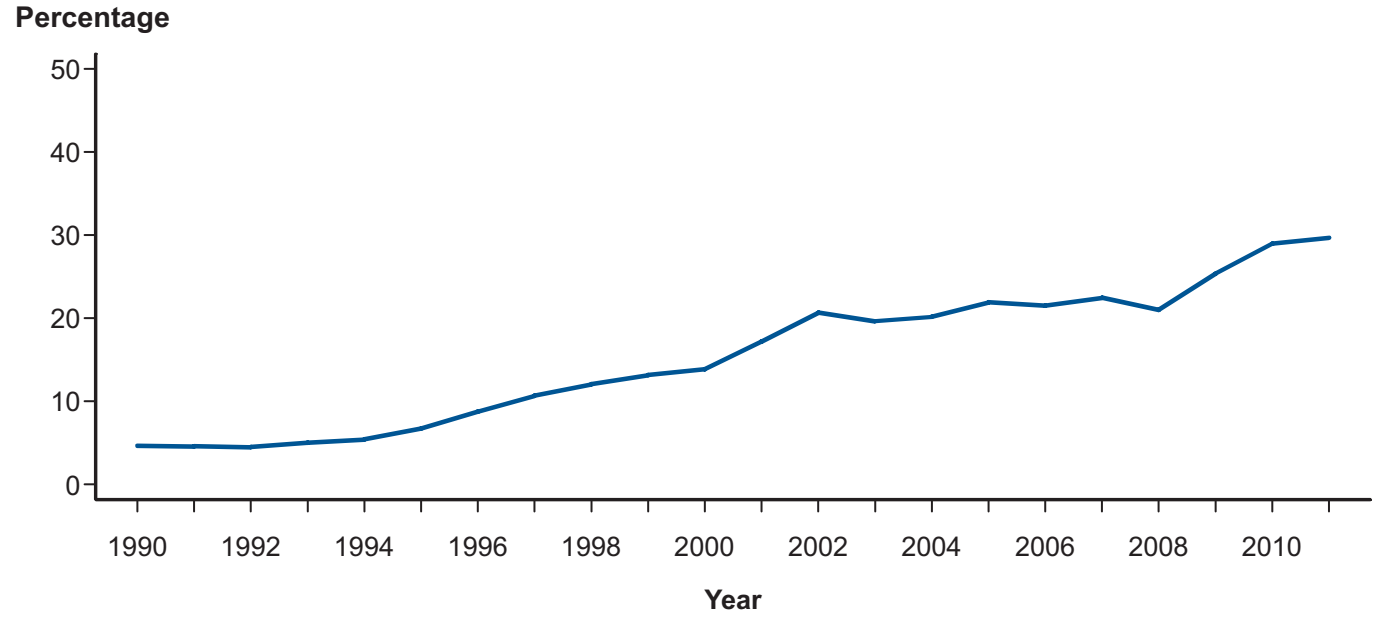
* MSM = men who have sex with men.
NOTE: Includes sites that reported data on at least 25 MSM with primary and secondary syphilis in 2011.

Figure Y. Proportion of MSM* Attending STD Clinics with Primary and Secondary Syphilis, Gonorrhea or Chlamydia by HIV Status†, STD Surveillance Network (SSuN), 2011



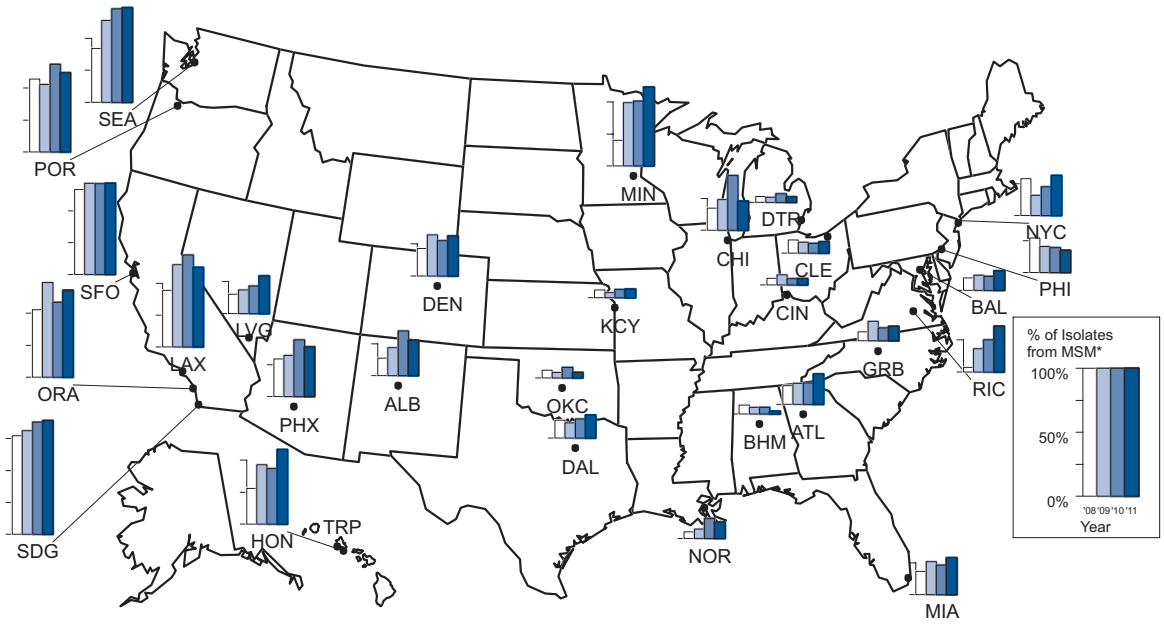
* MSM = men who have sex with men.
† Excludes all persons for whom there was no laboratory documentation or self-report of HIV status.
‡ GC urethral and CT urethral include results from both urethral and urine specimens.

Figure Z. Percentage of Urethral *Neisseria gonorrhoeae* Isolates Obtained from MSM* Attending STD Clinics, Gonococcal Isolate Surveillance Project (GISP), 1990–2011



* MSM = men who have sex with men.

Figure AA. Percentage of Urethral *Neisseria gonorrhoeae* Isolates Obtained from MSM* Attending STD*Clinics, by Site, Gonococcal Isolate Surveillance Project (GISP), 2008–2011



* MSM = men who have sex with men; STD = sexually transmitted disease.

NOTE: Participating sites include ALB = Albuquerque, NM; ATL = Atlanta, GA; BAL = Baltimore, MD; BHM = Birmingham, AL; CHI = Chicago, IL; CIN = Cincinnati, OH; CLE = Cleveland, OH; DAL = Dallas, TX; DEN = Denver, CO; DTR = Detroit, MI; 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; POR = Portland, OR; RIC = Richmond, VA; SDG = San Diego, CA; SEA = Seattle, WA; SFO = San Francisco, CA; and TRP = Tripler Army Medical Center, HI (does not provide sexual risk behavior data)

STDs in Persons Entering Corrections Facilities

Public Health Impact

Multiple studies and surveillance projects have demonstrated a high prevalence of STDs in persons entering jails and juvenile corrections facilities.[1–4] Prevalence rates for chlamydia and gonorrhea in these settings are consistently among the highest observed in any venue.[4] Screening for chlamydia, gonorrhea, and syphilis at intake offers an opportunity to identify infections, prevent complications, and reduce transmission in the general community.

For example, data from one study in a location with high syphilis incidence suggested that screening and treatment of female inmates for syphilis may reduce syphilis in the general community.[5] In some locations, a substantial proportion of all early syphilis cases are reported from corrections facilities.[6]

Description of Population

In 2011, STD screening data from corrections facilities were reported in 33 states and Puerto Rico for chlamydia and in 32 states and Puerto Rico for gonorrhea. Line-listed (i.e., case-specific) data for chlamydia and gonorrhea are provided to CDC through the regional infertility prevention infrastructure. The figures and tables presented in this section represent 40,211 chlamydia tests of women (19,081 from juvenile corrections facilities and 21,130 from adult facilities), 96,917 chlamydia tests of men (64,350 from juvenile facilities and 32,567 from adult facilities), 37,754 gonorrhea tests of women (16,991 from juvenile facilities and 20,763 from adult facilities), and 93,193 gonorrhea tests of men (61,080 from juvenile facilities and 32,113 from adult facilities). Syphilis data from notifiable disease surveillance are reported to CDC by local and state STD prevention programs.

Chlamydia

Overall, chlamydia positivity was higher in women than in men for all age groups.

Males in Juvenile Corrections Facilities—Among males aged 12–18 years entering 118 juvenile corrections facilities, the overall chlamydia positivity was 7.4% (Figure BB). Chlamydia positivity ranged from 1.0% for adolescent males aged 12 years to 10.2% for those aged 18 years.

Females in Juvenile Corrections Facilities—Among females aged 12–18 years entering 63 juvenile corrections facilities, the overall chlamydia positivity was 15.7% (Figure BB). Positivity ranged from 5.4% for females aged 12 years to 17.3% for those aged 17 years.

Men in Adult Corrections Facilities—Among men entering 49 adult corrections facilities in 2011, positivity in men aged younger than 20 years (12.6%) was higher than the overall prevalence observed in adolescent males entering juvenile facilities (7.4%) (Figure CC). Chlamydia positivity decreased with age, from 12.6% for those aged younger than 20 years to 1.6% for those aged older than 34 years. Overall chlamydia positivity among adult men entering corrections facilities in 2011 was 7.1%.

Women in Adult Corrections Facilities—Among women entering 34 adult corrections facilities in 2011, positivity was 7.4% (Figure CC). Chlamydia positivity decreased with age, from 16.8% for those aged younger than 20 years to 2.5% for those aged older than 34 years. Overall chlamydia positivity in women entering adult corrections facilities (7.4%) was substantially lower than that in adolescent females entering juvenile corrections facilities (15.7%). However, chlamydia positivity among women aged younger than 20 years entering adult corrections facilities was similar to that among females entering juvenile corrections facilities.

Gonorrhea

Overall, gonorrhea positivity in women was uniformly higher than in men for all age groups.

Males in Juvenile Corrections Facilities—The overall gonorrhea positivity for adolescent males entering 115 juvenile corrections facilities in 2011 was 1.2% (Figure DD). Positivity increased with age, from 0.1% for those aged 12 years to 2.3% for those aged 18 years.

Females in Juvenile Corrections Facilities—The overall gonorrhea positivity for adolescent females entering 57 juvenile corrections facilities in 2011 was 4.4% (Figure DD). Positivity ranged from 2.5% for those aged 13 years to 4.9% for those aged 16 years.

Men in Adult Corrections Facilities—The overall gonorrhea positivity for men entering 49 adult corrections facilities in 2011 was 1.0% (Figure EE). Positivity was highest in men aged younger than 20 years (1.7%) and declined with age to 0.4% in men aged older than 34 years. Men aged younger than 20 years entering adult facilities (1.7%) had a similar gonorrhea positivity compared with males entering juvenile corrections facilities (1.2%).

Women in Adult Corrections Facilities—Among women entering 32 adult corrections facilities in 2011, overall gonorrhea positivity was 1.8% (Figure EE). Positivity decreased with age, from 4.3% among those aged younger than 20 years to 0.8% among those aged older than 34 years. Women aged younger than 20 years entering adult facilities (4.3%) had a similar gonorrhea positivity compared with females entering juvenile corrections facilities (4.4%).

Syphilis

In 2011, reports of P&S syphilis cases from corrections facilities accounted for 6% of P&S syphilis among MSW, 3% among women, and 1% among MSM (Figure 49).

[1] Heimberger TS, Chang HG, Birkhead GS, DiFerdinando GD, Greenberg AJ, Gunn R, et al. High prevalence of syphilis detected through a jail screening program. A potential public health measure to address the syphilis epidemic. Arch Intern Med. 1993;153:1799-804.

[2] Kahn RH, Mosure DJ, Blank S, Kent CK, Chow JM, Boudov MR, et al. *Chlamydia trachomatis* and *Neisseria gonorrhoeae* prevalence and coinfection in adolescents entering selected US juvenile detention centers, 1997–2002. Sex Transm Dis. 2005;29:255-59.

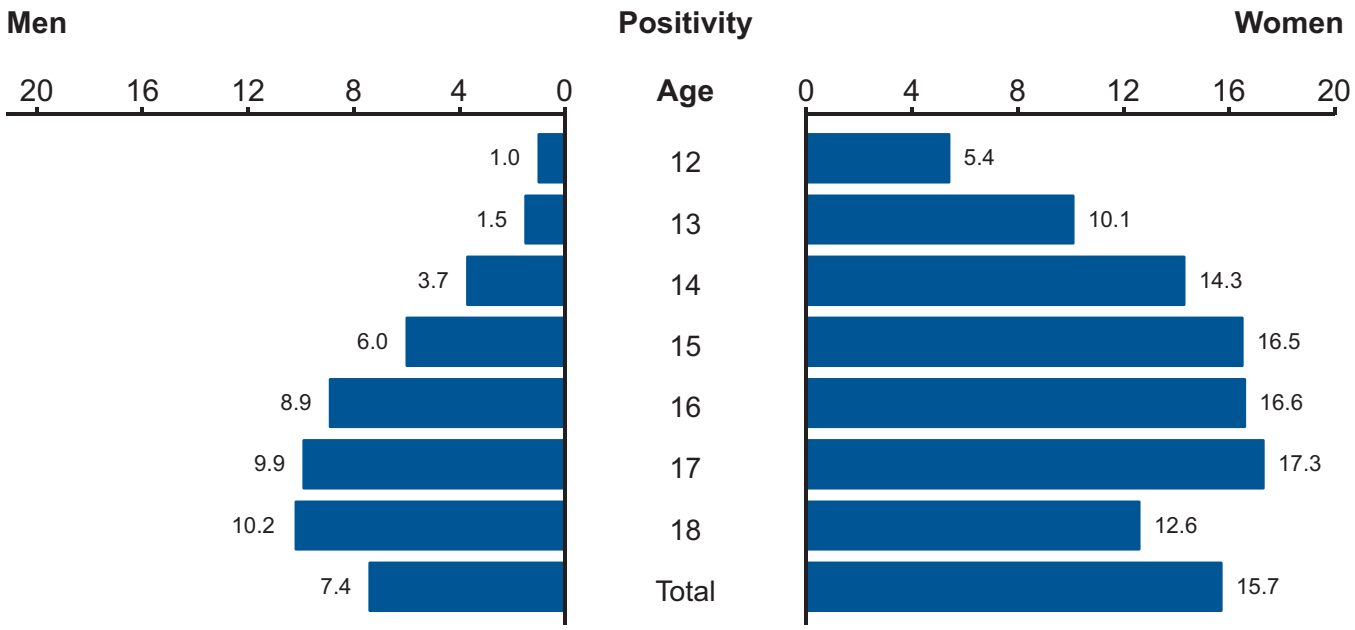
[3] Joesoef MR, Weinstock HS, Kent CK, Chow JM, Boudov MR, Parvez FM, et al. Sex and age correlates of chlamydia prevalence in adolescents and adults entering correctional facilities, 2005: implications for screening policy. Sex Transm Dis. 2009;36(Suppl 2):S67-71.

[4] Satterwhite CL, Joesoef MR, Datta SD, Weinstock H. Estimates of *Chlamydia trachomatis* infections among men: United States. Sex Transm Dis. 2008;35(Suppl 11):S3-7.

[5] Blank S, McDonnell DD, Rubin SR, Neal JJ, Brome MW, Masterson MB, et al. New approaches to syphilis control. Finding opportunities for syphilis treatment and congenital syphilis prevention in a women's correctional setting. Sex Transm Dis. 1997;24:218-26.

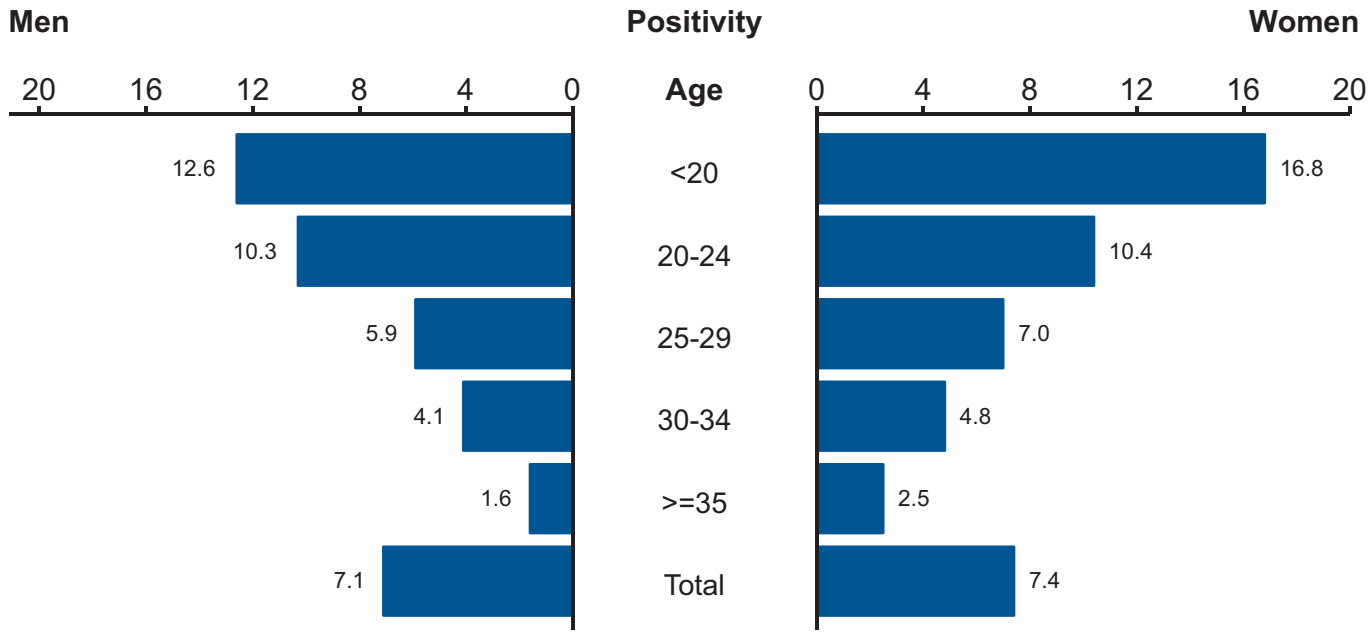
[6] Kahn R, Voigt R, Swint E, Weinstock H. Early syphilis in the United States identified in corrections facilities, 1999–2002. Sex Transm Dis. 2004;29:271-76.

Figure BB. Chlamydia—Positivity by Age and Sex, Juvenile Corrections Facilities, 2011



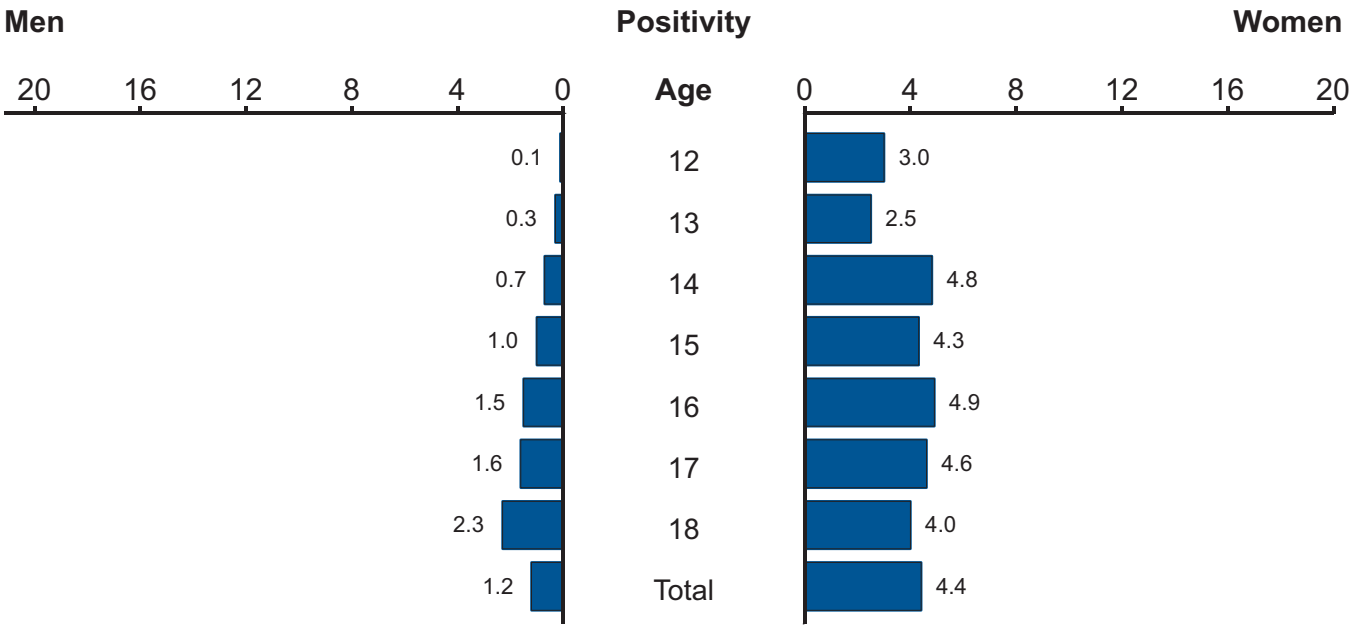
NOTE: Includes chlamydia positivity data from facilities reporting more than 100 results.

Figure CC. Chlamydia—Positivity by Age and Sex, Adult Corrections Facilities, 2011



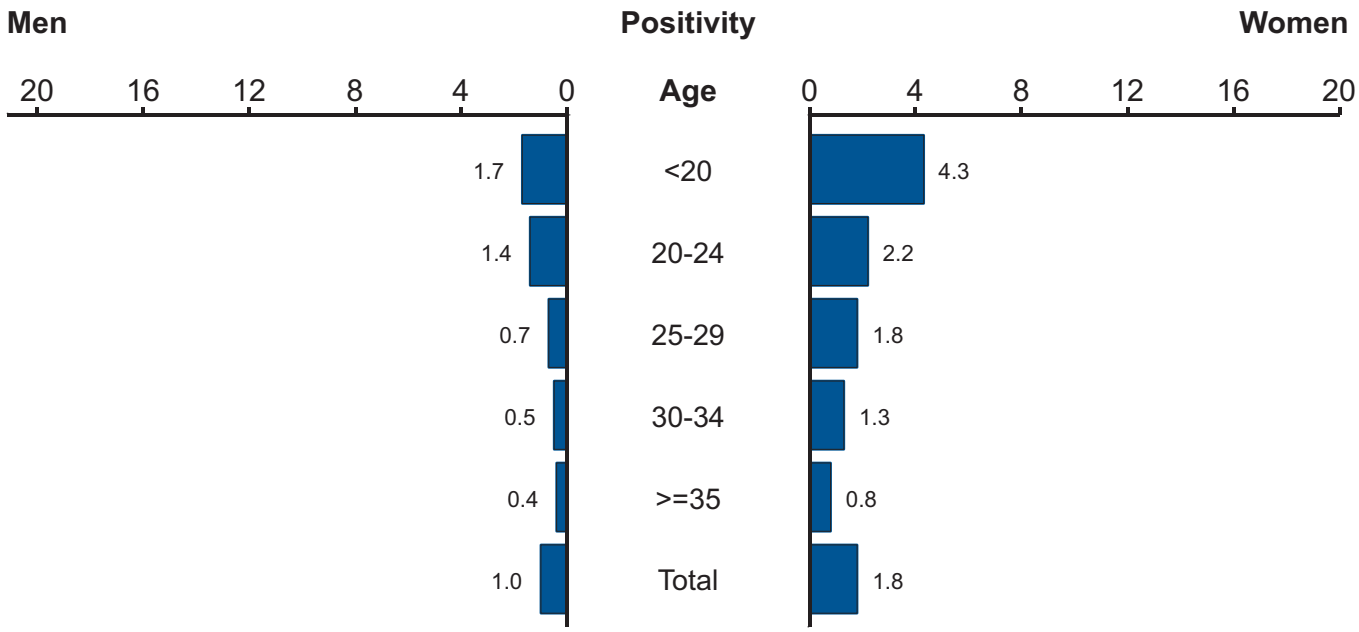
NOTE: Includes chlamydia positivity data from facilities reporting more than 100 results.

Figure DD. Gonorrhea—Positivity by Age and Sex, Juvenile Corrections Facilities, 2011



NOTE: Includes gonorrhea positivity data from facilities reporting more than 100 results.

Figure EE. Gonorrhea—Positivity by Age and Sex, Adult Corrections Facilities, 2011



NOTE: Includes gonorrhea positivity data from facilities reporting more than 100 results.

TABLES

TABLES

Table 1. Cases of Sexually Transmitted Diseases Reported by State Health Departments and Rates per 100,000 Population, United States, 1941–2011

	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, 1941–2011 (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	44,830	14.6	13,997	4.6	13,066	4.3	17,338	5.6	429	10.1	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	9.1	1,307,893	423.6	309,341	100.2	24	0.0
2011	46,042	14.9	13,970	4.5	13,136	4.3	18,576	6.0	360	8.5	1,412,791	457.6	321,849	104.2	8	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 June 7, 2012 (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, 2011

Rank*	State	Cases	Rate per 100,000 Population
1	Alaska	5,739	808.0
2	Mississippi	21,216	715.0
3	Louisiana	31,614	697.4
4	South Carolina	28,932	625.5
5	Alabama	29,626	619.8
6	North Carolina	54,819	574.9
7	Georgia	54,403	561.6
8	New Mexico	11,374	552.4
9	Arkansas	16,052	550.5
10	New York	102,763	530.3
11	Illinois	64,939	506.1
12	Delaware	4,508	502.0
13	Michigan	49,568	501.5
14	Texas	124,882	496.6
15	Tennessee	31,105	490.1
16	Maryland	27,212	471.3
17	Missouri	27,887	465.6
18	Arizona	29,251	457.6
	U.S. TOTAL†	**1,412,791**	**457.6**
19	Ohio	52,653	456.4
20	Virginia	36,314	453.9
21	California	166,773	447.7
22	Hawaii	6,001	441.2
23	Colorado	21,811	433.7
24	Wisconsin	24,619	432.9
25	Indiana	27,801	428.8
26	South Dakota	3,409	418.7
27	Pennsylvania	52,884	416.3
28	Florida	76,033	404.4
29	Rhode Island	4,146	393.9
30	Oklahoma	14,596	389.1
31	Nevada	10,507	389.1
32	Kentucky	16,629	383.2
33	Connecticut	13,649	381.9
34	Kansas	10,598	371.5
35	Nebraska	6,780	371.2
36	Wyoming	2,092	371.2
37	North Dakota	2,445	363.5
38	Oregon	13,643	356.1
39	Iowa	10,705	351.4
40	Massachusetts	22,764	347.7
41	Washington	23,280	346.2
42	Montana	3,406	344.2
43	Minnesota	16,902	318.7
44	Idaho	4,699	299.8
45	New Jersey	26,209	298.1
46	Utah	7,086	256.4
47	Vermont	1,483	237.0
48	Maine	3,094	232.9
49	West Virginia	4,295	231.8
50	New Hampshire	3,010	228.6

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

† Total includes cases reported by the District of Columbia with 6,585 cases and a rate of 1,094.4, but excludes outlying areas (Guam with 1,071 cases and rate of 592.2, Puerto Rico with 5,634 cases and rate of 151.2, and Virgin Islands with 820 cases and rate of 747.2).

Table 3. Chlamydia—Reported Cases and Rates by State/Area and Region in Alphabetical Order, United States and Outlying Areas, 2007–2011

State/Area	Cases					Rates per 100,000 Population				
	2007	2008	2009	2010	2011	2007	2008	2009	2010	2011
Alabama	25,153	24,760	25,929	27,041	29,626	543.5	531.1	550.7	565.7	619.8
Alaska	4,911	4,861	5,166	6,019	5,739	718.5	708.3	739.6	847.5	808.0
Arizona	24,866	24,769	26,002	26,861	29,251	392.3	381.1	394.2	420.2	457.6
Arkansas	9,954	14,136	14,354	15,424	16,052	351.1	495.1	496.8	529.0	550.5
California	141,928	148,798	146,796	150,443	166,773	388.3	404.8	397.2	403.8	447.7
Colorado	17,186	19,180	19,998	19,447	21,811	353.5	388.3	398.0	386.7	433.7
Connecticut	11,454	12,519	12,127	12,649	13,649	327.0	357.6	344.7	353.9	381.9
Delaware	3,479	3,868	4,718	4,464	4,508	402.3	443.0	533.0	497.1	502.0
District of Columbia	6,029	6,924	6,549	5,589	6,585	1,024.8	1,169.9	1,092.1	928.8	1,094.4
Florida	57,575	71,017	72,931	74,744	76,033	315.5	387.5	393.4	397.5	404.4
Georgia	42,913	42,629	39,828	45,147	54,403	449.6	440.1	405.2	466.0	561.6
Hawaii	5,659	5,982	6,026	6,015	6,001	440.9	464.4	465.3	442.2	441.2
Idaho	3,722	4,194	3,842	4,208	4,699	248.2	275.2	248.5	268.4	299.8
Illinois	55,470	59,169	60,542	60,672	64,939	431.6	458.6	468.9	472.9	506.1
Indiana	20,712	22,154	21,732	22,825	27,801	326.4	347.4	338.3	352.0	428.8
Iowa	8,643	9,372	9,406	10,542	10,705	289.3	312.1	312.7	346.1	351.4
Kansas	8,180	9,208	10,510	9,601	10,598	294.7	328.6	372.9	336.5	371.5
Kentucky	8,798	12,163	13,293	16,376	16,629	207.4	284.9	308.1	377.4	383.2
Louisiana	19,362	22,659	27,628	29,151	31,614	451.0	513.7	615.0	643.0	697.4
Maine	2,541	2,608	2,431	2,586	3,094	192.9	198.1	184.4	194.7	232.9
Maryland	23,150	24,669	23,747	26,192	27,212	412.0	437.9	416.7	453.7	471.3
Massachusetts	16,145	17,503	19,315	21,080	22,764	250.3	269.4	292.9	321.9	347.7
Michigan	37,353	44,923	45,714	49,478	49,568	370.9	449.1	458.5	500.6	501.5
Minnesota	13,413	14,351	14,197	15,294	16,902	258.1	274.9	269.6	288.4	318.7
Mississippi	21,686	21,253	23,589	21,417	21,216	743.0	723.2	799.1	721.8	715.0
Missouri	23,308	24,817	25,868	26,049	27,887	396.5	419.8	432.0	435.0	465.6
Montana	2,748	3,101	2,988	3,082	3,406	286.9	320.5	306.5	311.5	344.2
Nebraska	5,132	5,573	5,443	5,114	6,780	289.2	312.5	303.0	280.0	371.2
Nevada	9,514	9,670	10,045	9,666	10,507	370.9	371.9	380.0	357.9	389.1
New Hampshire	2,055	2,109	2,102	2,462	3,010	156.2	160.3	158.7	187.0	228.6
New Jersey	21,536	22,405	23,974	26,142	26,209	247.9	258.0	275.3	297.3	298.1
New Mexico	9,460	9,262	9,493	11,706	11,374	480.2	466.8	472.4	568.5	552.4
New York	80,717	88,359	92,069	99,920	102,763	418.3	453.3	471.1	515.6	530.3
North Carolina	30,611	37,516	41,045	42,048	54,819	337.8	406.8	437.5	441.0	574.9
North Dakota	1,789	1,921	1,957	2,404	2,445	279.7	299.5	302.5	357.4	363.5
Ohio	47,434	47,117	48,239	51,150	52,653	413.7	410.2	417.9	443.4	456.4
Oklahoma	12,529	14,803	15,023	14,302	14,596	346.4	406.4	407.5	381.2	389.1
Oregon	9,849	10,744	11,497	12,352	13,643	262.8	283.5	300.5	322.4	356.1
Pennsylvania	42,469	42,233	43,068	47,518	52,884	341.6	339.3	341.7	374.1	416.3
Rhode Island	3,177	3,317	3,615	3,480	4,146	300.3	315.7	343.2	330.6	393.9
South Carolina	26,431	26,323	26,654	26,525	28,932	599.7	587.6	584.4	573.5	625.5
South Dakota	2,620	2,956	3,015	3,192	3,409	329.1	367.6	371.1	392.1	418.7
Tennessee	26,866	28,038	29,711	28,327	31,105	436.4	451.1	471.9	446.4	490.1
Texas	85,786	100,870	105,910	119,872	124,882	358.9	414.6	427.4	476.7	496.6
Utah	5,721	6,021	6,145	6,690	7,086	216.3	220.0	220.7	242.1	256.4
Vermont	1,057	1,190	1,186	1,257	1,483	170.1	191.5	190.7	200.9	237.0
Virginia	24,579	31,218	30,903	30,797	36,314	318.7	401.8	392.0	384.9	453.9
Washington	18,784	21,402	21,387	21,348	23,280	290.4	326.8	320.9	317.5	346.2
West Virginia	3,168	3,316	3,604	3,876	4,295	174.8	182.8	198.0	209.2	231.8
Wisconsin	19,555	20,996	20,906	23,236	24,619	349.1	373.1	369.7	408.6	432.9
Wyoming	1,197	1,577	1,963	2,113	2,092	228.9	296.1	360.7	374.9	371.2
U.S. TOTAL	**1,108,374**	**1,210,523**	**1,244,180**	**1,307,893**	**1,412,791**	**367.5**	**398.1**	**405.3**	**423.6**	**457.6**
Northeast	181,151	192,243	199,887	217,094	230,002	331.3	350.0	361.6	392.5	415.8
Midwest	243,609	262,557	267,529	279,557	298,306	366.9	394.5	400.3	417.7	445.7
South	428,069	486,162	505,416	531,292	578,821	387.6	435.2	446.0	463.8	505.3
West	255,545	269,561	271,348	279,950	305,662	364.6	380.4	379.1	389.1	424.9
Guam	822	687	620	899	1,071	473.7	390.4	347.5	497.1	592.2
Puerto Rico	7,909	6,874	7,302	5,960	5,634	200.6	173.8	184.1	160.0	151.2
Virgin Islands	348	587	488	609	820	316.9	534.4	444.4	554.9	747.2
OUTLYING AREAS	**9,079**	**8,148**	**8,410**	**7,468**	**7,525**	**214.8**	**192.2**	**197.6**	**185.9**	**187.4**
TOTAL	**1,117,453**	**1,218,671**	**1,252,590**	**1,315,361**	**1,420,316**	**365.4**	**395.3**	**402.4**	**420.6**	**454.1**

Table 4. Chlamydia—Women—Reported Cases and Rates by State/Area and Region in Alphabetical Order, United States and Outlying Areas, 2007–2011

State/Area	Cases					Rates per 100,000 Population				
	2007	2008	2009	2010	2011	2007	2008	2009	2010	2011
Alabama	19,186	18,744	19,413	20,030	21,217	804.2	779.8	799.8	814.4	862.6
Alaska	3,295	3,253	3,364	3,960	3,801	1,002.6	989.7	1,000.5	1,162.6	1,116.0
Arizona	18,794	18,358	19,097	19,529	21,196	593.7	566.0	580.6	607.2	659.0
Arkansas	7,893	10,643	10,689	11,303	11,921	546.0	730.6	725.2	761.5	803.1
California	101,175	104,201	101,716	102,645	114,657	553.6	567.3	551.1	547.8	612.0
Colorado	12,707	13,825	14,765	14,188	15,751	527.1	564.7	592.1	565.6	627.9
Connecticut	8,577	9,239	8,937	9,223	9,824	477.7	515.0	496.3	502.8	535.5
Delaware	2,554	2,789	3,573	3,296	3,191	573.3	620.1	784.5	711.9	689.2
District of Columbia	3,970	4,438	4,153	3,782	4,357	1,279.9	1,422.7	1,311.8	1,191.2	1,372.3
Florida	42,173	52,206	52,747	53,318	54,262	454.3	560.0	560.3	554.7	564.5
Georgia	31,827	31,515	29,074	32,863	39,829	656.1	640.4	582.2	662.8	803.2
Hawaii	4,228	4,422	4,399	4,340	4,314	663.1	692.4	686.5	639.1	635.3
Idaho	2,660	3,048	2,768	3,014	3,345	357.1	402.5	359.5	385.3	427.6
Illinois	41,733	43,112	44,560	44,598	46,728	640.2	659.0	680.2	682.1	714.7
Indiana	15,576	16,513	16,150	16,344	20,065	483.9	510.6	495.6	496.2	609.1
Iowa	6,310	6,882	6,785	7,612	7,647	416.9	452.9	445.7	494.9	497.2
Kansas	6,629	7,401	8,209	7,449	8,158	473.6	524.8	578.5	518.1	567.4
Kentucky	6,184	8,622	9,621	11,859	11,990	285.9	395.3	438.0	538.0	543.9
Louisiana	15,334	17,260	20,719	20,564	23,390	694.6	760.4	898.1	888.6	1,010.8
Maine	1,831	1,847	1,705	1,814	2,149	271.5	274.0	252.7	267.4	316.8
Maryland	18,230	19,337	18,782	19,827	20,004	628.7	665.4	639.8	664.9	670.9
Massachusetts	11,671	12,646	13,786	14,753	15,744	351.2	378.1	406.8	436.4	465.7
Michigan	28,341	33,719	33,860	36,431	36,367	554.4	663.8	668.3	723.5	722.2
Minnesota	9,681	10,266	10,204	10,965	11,827	371.0	391.8	385.7	410.4	442.7
Mississippi	16,718	16,323	17,829	15,958	15,697	1,110.8	1,077.6	1,172.2	1,045.7	1,028.6
Missouri	17,080	18,116	18,825	18,867	20,097	567.9	599.1	614.9	617.5	657.7
Montana	2,024	2,227	2,134	2,194	2,390	423.2	461.1	438.2	445.3	485.0
Nebraska	3,755	4,123	3,884	3,561	4,783	419.5	458.5	429.2	387.0	519.9
Nevada	7,044	7,131	7,112	6,897	7,215	559.7	559.0	548.3	515.9	539.7
New Hampshire	1,533	1,548	1,542	1,808	2,184	230.0	232.2	229.6	271.0	327.4
New Jersey	17,355	18,001	18,757	20,128	19,886	391.1	406.3	422.5	446.1	440.7
New Mexico	7,044	6,986	6,987	8,718	8,309	705.7	694.4	688.3	836.9	797.6
New York	56,590	61,280	63,882	68,693	70,466	569.5	611.1	636.1	686.9	704.6
North Carolina	25,110	30,693	33,002	33,836	42,992	541.9	652.3	688.9	691.9	879.2
North Dakota	1,194	1,291	1,297	1,577	1,603	374.7	404.0	403.0	474.0	481.8
Ohio	36,143	35,021	36,724	38,636	38,914	615.1	595.4	621.5	654.4	659.1
Oklahoma	9,130	11,117	11,101	10,297	10,349	499.0	603.0	595.2	543.6	546.3
Oregon	6,890	7,433	8,136	8,565	9,489	365.5	389.7	421.9	442.6	490.4
Pennsylvania	30,511	30,509	30,335	33,175	36,463	477.9	477.6	469.1	509.4	559.9
Rhode Island	2,282	2,400	2,603	2,478	2,984	418.0	442.7	480.5	455.4	548.4
South Carolina	20,793	20,492	21,124	20,842	22,278	919.8	891.5	902.7	877.5	937.9
South Dakota	1,894	2,185	2,214	2,300	2,491	474.2	541.7	544.7	565.4	612.3
Tennessee	19,604	20,479	21,655	20,559	22,200	622.2	642.8	671.1	632.1	682.5
Texas	67,966	79,002	82,551	92,847	95,326	567.4	648.4	665.5	732.6	752.2
Utah	3,926	3,982	4,019	4,473	4,821	299.8	293.8	290.5	325.2	350.5
Vermont	812	896	889	910	1,106	257.4	284.0	281.6	286.6	348.3
Virginia	18,136	23,172	22,390	22,348	26,283	461.8	586.3	558.7	548.4	645.0
Washington	13,793	15,581	15,741	15,634	16,641	425.0	475.1	472.0	463.3	493.1
West Virginia	2,423	2,490	2,684	2,832	3,092	262.0	269.0	289.3	301.5	329.1
Wisconsin	14,438	15,229	15,038	16,657	17,402	512.4	538.1	528.4	581.5	607.5
Wyoming	913	1,011	1,187	1,305	1,357	354.2	385.2	444.2	472.5	491.3
U.S. TOTAL	**825,660**	**893,004**	**912,718**	**949,802**	**1,018,552**	**539.8**	**579.4**	**586.7**	**605.1**	**648.9**
Northeast	131,162	138,366	142,436	152,982	160,806	467.1	490.9	502.6	537.8	565.3
Midwest	182,774	193,858	197,750	204,997	216,082	542.6	574.2	583.1	602.9	635.5
South	327,231	369,322	381,107	396,361	428,378	582.3	649.8	661.6	678.5	733.3
West	184,493	191,458	191,425	195,462	213,286	527.2	541.5	536.2	541.5	590.9
Guam	669	574	512	664	783	785.4	664.1	583.9	746.6	880.4
Puerto Rico	6,781	5,834	6,336	4,878	4,528	330.8	283.7	307.0	251.4	233.3
Virgin Islands	267	448	435	427	591	462.5	775.2	752.2	738.0	1,021.4
OUTLYING AREAS	**7,717**	**6,856**	**7,283**	**5,969**	**5,902**	**351.9**	**311.5**	**329.6**	**286.0**	**282.7**
TOTAL	**833,377**	**899,860**	**920,001**	**955,771**	**1,024,454**	**537.1**	**575.6**	**583.1**	**600.9**	**644.1**

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, 2007–2011

State/Area	Cases					Rates per 100,000 Population				
	2007	2008	2009	2010	2011	2007	2008	2009	2010	2011
Alabama	5,955	6,007	6,508	6,877	7,648	265.6	266.0	285.2	296.4	329.6
Alaska	1,616	1,608	1,802	2,058	1,938	455.4	449.7	497.5	556.8	524.3
Arizona	6,055	6,401	6,904	7,331	8,052	190.8	196.5	208.8	230.8	253.5
Arkansas	2,060	3,491	3,664	4,112	4,125	148.3	249.6	258.8	287.2	288.1
California	40,213	44,060	44,592	47,239	51,554	220.0	239.6	241.0	255.1	278.4
Colorado	4,479	5,319	5,228	5,259	6,057	182.8	213.5	206.6	208.6	240.3
Connecticut	2,877	3,264	3,190	3,426	3,825	168.5	191.2	185.7	196.9	219.9
Delaware	925	1,079	1,145	1,168	1,317	220.6	254.9	266.5	268.5	302.8
District of Columbia	2,034	2,438	2,390	1,789	2,225	731.4	871.1	844.3	629.4	782.8
Florida	15,376	18,593	20,069	21,362	21,685	171.4	206.5	220.0	232.5	236.0
Georgia	10,808	10,690	10,513	11,965	13,978	230.3	224.3	217.4	253.0	295.6
Hawaii	1,431	1,560	1,626	1,675	1,687	221.6	240.2	248.5	245.9	247.6
Idaho	1,030	1,133	1,051	1,183	1,347	136.5	147.8	135.5	150.6	171.5
Illinois	13,736	16,052	15,964	15,957	18,083	216.9	252.4	251.0	253.6	287.4
Indiana	5,032	5,572	5,502	6,451	7,681	160.9	177.3	173.9	202.2	240.8
Iowa	2,333	2,490	2,621	2,930	3,058	158.2	167.9	176.4	194.3	202.7
Kansas	1,551	1,807	2,301	2,152	2,440	112.7	129.8	164.4	152.0	172.4
Kentucky	2,605	3,508	3,647	4,488	4,577	125.3	168.0	172.2	210.2	214.4
Louisiana	3,758	5,226	6,841	6,658	7,568	180.2	244.1	313.1	300.0	341.0
Maine	708	761	726	768	944	110.1	118.5	112.8	118.1	145.2
Maryland	4,907	5,307	4,885	6,336	7,197	180.5	194.6	176.7	227.0	257.8
Massachusetts	4,457	4,839	5,490	6,302	7,000	142.6	153.5	171.3	199.0	221.1
Michigan	8,845	11,007	11,675	12,926	13,095	178.3	223.5	238.1	266.6	270.1
Minnesota	3,732	4,085	3,993	4,329	5,075	144.2	157.1	152.4	164.5	192.8
Mississippi	4,968	4,930	5,760	5,459	5,519	351.4	346.2	402.5	378.8	382.9
Missouri	6,228	6,701	7,043	7,182	7,790	216.9	232.0	240.7	244.8	265.6
Montana	716	865	851	888	1,016	149.3	178.5	174.4	178.8	204.6
Nebraska	1,363	1,441	1,549	1,548	1,987	155.0	163.0	173.7	170.8	219.2
Nevada	2,460	2,539	2,931	2,768	3,290	188.3	191.7	217.7	203.0	241.3
New Hampshire	522	561	560	654	826	80.4	86.4	85.8	100.7	127.2
New Jersey	4,169	4,390	5,200	5,874	6,231	98.1	103.3	121.8	137.3	145.6
New Mexico	2,415	2,272	2,500	2,986	3,054	248.5	232.2	251.3	293.5	300.2
New York	24,045	27,056	28,171	31,224	32,126	256.9	285.9	296.6	333.0	342.6
North Carolina	5,493	6,656	7,798	8,030	11,585	124.1	147.4	169.9	172.9	249.4
North Dakota	594	629	654	822	841	185.0	195.4	201.2	241.9	247.5
Ohio	10,852	10,847	10,978	12,320	13,731	194.1	193.6	194.9	218.7	243.8
Oklahoma	3,399	3,606	3,879	3,997	3,851	190.2	200.5	212.9	215.2	207.4
Oregon	2,959	3,311	3,361	3,786	4,154	158.9	175.9	177.2	199.7	219.1
Pennsylvania	11,934	11,722	12,700	14,297	16,364	197.3	193.4	206.9	231.0	264.3
Rhode Island	892	915	1,012	1,002	1,162	174.3	179.9	197.9	197.1	228.6
South Carolina	5,549	5,723	5,418	5,653	6,585	258.4	262.4	243.9	251.2	292.7
South Dakota	725	767	788	883	914	182.7	191.3	194.1	216.8	224.4
Tennessee	7,262	7,559	8,055	7,748	8,905	241.6	249.5	262.4	250.5	287.9
Texas	17,687	21,812	23,302	26,966	29,533	148.3	179.6	188.3	216.2	236.8
Utah	1,795	2,039	2,126	2,215	2,265	134.4	147.6	151.8	159.5	163.1
Vermont	245	294	297	347	377	80.1	96.2	97.1	112.6	122.3
Virginia	6,433	7,985	8,442	8,397	9,929	170.0	209.2	217.9	213.9	252.9
Washington	4,991	5,767	5,645	5,711	6,639	154.9	176.4	169.6	170.5	198.2
West Virginia	744	825	920	1,044	1,203	83.9	92.8	103.1	114.3	131.7
Wisconsin	5,090	5,707	5,740	6,573	7,203	182.8	204	204.3	232.9	255.2
Wyoming	284	563	776	808	734	107.2	208.4	280.1	281.1	255.4
U.S. TOTAL	**280,337**	**313,779**	**328,783**	**353,923**	**389,970**	**188.6**	**209.3**	**217.1**	**233.2**	**256.9**
Northeast	49,849	53,802	57,346	63,894	68,855	187.4	201.2	212.8	237.8	256.3
Midwest	60,081	67,105	68,808	74,073	81,898	183.7	204.6	209	225	248.7
South	99,963	115,435	123,236	132,049	147,430	184.3	210.3	221.2	235.2	262.6
West	70,444	77,437	79,393	83,907	91,787	200.7	218.1	221.3	234.1	256.0
Guam	153	113	108	235	288	173.1	126.2	119.0	255.6	313.3
Puerto Rico	1,125	1,034	957	1,076	1,106	59.4	54.5	50.3	60.3	62.0
Virgin Islands	81	139	53	182	229	155.5	267.1	102.0	350.7	441.3
OUTLYING AREAS	**1,359**	**1,286**	**1,118**	**1,493**	**1,623**	**66.8**	**63.1**	**54.6**	**77.4**	**84.1**
TOTAL	**281,696**	**315,065**	**329,901**	**355,416**	**391,593**	**186.9**	**207.3**	**214.9**	**231.2**	**254.8**

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, 2007–2011

MSAs	Cases					Rates per 100,000 Population				
	2007	2008	2009	2010	2011	2007	2008	2009	2010	2011
Atlanta-Sandy Springs-Marietta, GA	21,609	20,722	20,292	22,144	27,308	409.3	385.4	370.6	420.3	518.3
Austin-Round Rock, TX	6,814	8,413	8,456	8,511	9,360	426.4	509.1	495.9	495.9	545.4
Baltimore-Towson, MD	13,053	13,537	12,883	13,988	14,399	489.2	507.6	478.8	516.1	531.2
Birmingham-Hoover, AL	6,913	6,690	6,120	6,126	6,834	623.8	598.6	541.1	543.1	605.8
Boston-Cambridge-Quincy, MA-NH	10,697	11,854	13,285	14,291	15,703	238.6	262.1	289.5	313.9	344.9
Buffalo-Cheektowaga-Tonawanda, NY	5,078	5,561	5,769	5,938	5,965	450.1	494.6	513.3	522.9	525.3
Charlotte-Gastonia-Concord, NC-SC	4,216	7,046	8,869	7,458	11,452	255.3	414.0	508.1	424.2	651.4
Chicago-Naperville-Joliet, IL-IN-WI	41,403	45,803	46,505	45,726	49,590	434.7	478.6	485.4	483.3	524.1
Cincinnati-Middletown, OH-KY-IN	10,080	10,016	8,872	9,805	10,059	472.4	464.8	408.5	460.3	472.2
Cleveland-Elyria-Mentor, OH	9,351	8,731	10,439	11,608	12,348	446.0	418.1	499.2	558.8	594.4
Columbus, OH	7,157	8,314	9,015	9,545	8,953	408.0	468.9	500.3	519.7	487.5
Dallas-Fort Worth-Arlington, TX	22,292	26,090	27,142	29,314	31,871	362.8	414.1	421.0	460.1	500.2
Denver-Aurora, CO	9,539	10,996	11,803	14,320	12,710	387.0	438.7	462.5	563.0	499.7
Detroit-Warren-Livonia, MI	17,934	24,987	25,347	27,751	26,237	401.4	564.7	575.6	645.9	610.7
Hartford-West Hartford-East Hartford, CT	4,300	4,781	4,467	4,616	4,837	361.6	401.6	373.5	380.7	399.0
Houston-Baytown-Sugar Land, TX	17,196	21,100	21,032	27,522	26,543	305.5	368.4	358.4	462.8	446.3
Indianapolis, IN	8,173	8,814	7,716	8,274	10,559	482.2	513.8	442.5	471.1	601.2
Jacksonville, FL	6,501	7,318	6,745	7,093	7,264	499.8	557.3	507.9	527.1	539.8
Kansas City, MO-KS	8,358	9,559	9,892	9,443	10,133	421.0	477.5	478.4	464.0	497.9
Las Vegas-Paradise, NV	7,333	7,753	8,177	7,614	8,337	399.3	415.5	429.7	390.2	427.3
Los Angeles-Long Beach-Santa Ana, CA	52,352	55,276	54,892	56,033	58,552	406.6	429.4	426.4	436.8	456.4
Louisville, KY-IN	3,493	4,953	5,294	6,344	6,691	283.1	397.9	420.6	494.2	521.3
Memphis, TN-MS-AR	11,349	11,896	13,368	12,463	11,685	886.3	925.2	1,024.4	947.0	887.9
Miami-Fort Lauderdale-Miami Beach, FL	13,761	18,128	19,101	19,095	19,561	254.2	334.8	344.3	343.1	351.5
Milwaukee-Waukesha-West Allis, WI	10,150	1,441	10,588	11,512	11,712	657.2	93.0	678.9	739.9	752.7
Minneapolis-St. Paul-Bloomington, MN-WI	9,514	10,093	9,925	10,870	12,027	296.6	312.5	303.5	331.4	366.7
Nashville-Davidson-Murfreesboro, TN	4,972	5,574	5,816	5,705	6,713	326.8	359.4	367.6	358.8	422.2
New Orleans-Metairie-Kenner, LA	4,573	5,109	6,701	6,947	7,998	443.8	450.5	563.1	594.9	684.9
New York-Newark-Edison, NY-NJ-PA	74,071	80,306	83,904	90,704	93,295	393.7	422.5	440.0	480.0	493.7
Oklahoma City, OK	4,646	5,650	5,475	4,704	5,087	389.4	468.4	446.1	375.4	406.0
Orlando, FL	6,825	8,287	9,199	9,491	9,545	335.8	403.3	441.7	444.7	447.2
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	28,116	28,749	30,449	33,050	34,799	482.4	492.4	510.2	554.0	583.4
Phoenix-Mesa-Scottsdale, AZ	15,245	14,314	15,615	16,519	17,746	364.8	334.3	357.8	394.0	423.2
Pittsburgh, PA	6,616	6,920	6,597	7,096	8,436	280.8	294.3	280.1	301.2	358.0
Portland-Vancouver-Beaverton, OR-WA	5,970	6,499	7,215	7,415	8,509	274.5	294.4	321.8	333.1	382.3
Providence-New Bedford-Fall River, RI-MA	4,297	4,551	4,865	4,759	5,559	268.4	285.0	303.9	297.3	347.3
Richmond, VA	5,294	6,783	6,681	7,065	7,845	436.4	553.4	539.6	561.5	623.5
Riverside-San Bernardino-Ontario, CA	14,316	13,557	16,934	12,263	20,749	350.8	329.4	408.7	290.3	491.1
Rochester, NY	4,833	5,294	5,767	6,575	5,842	469.0	511.9	556.9	623.6	554.1
Sacramento-Arden-Arcade-Roseville, CA	8,770	8,395	6,320	8,084	10,866	419.4	397.9	297.1	376.2	505.6
Salt Lake City, UT	3,395	3,562	3,424	3,717	3,821	308.6	319.3	302.9	330.6	339.9
San Antonio, TX	8,727	9,734	11,555	12,430	13,066	438.4	479.2	557.6	580.2	609.8
San Diego-Carlsbad-San Marcos, CA	12,693	14,373	14,169	15,341	15,346	426.7	478.9	464.0	495.6	495.8
San Francisco-Oakland-Fremont, CA	16,710	17,555	16,642	17,686	18,745	397.5	410.7	385.4	407.9	432.4
San Jose-Sunnyvale-Santa Clara, CA	5,892	5,796	5,537	5,691	5,965	326.7	318.6	301.0	309.8	324.7
Seattle-Tacoma-Bellevue, WA	10,397	11,532	11,533	11,510	12,329	314.2	344.8	338.4	334.6	358.4
St. Louis, MO-IL	13,710	14,092	14,546	14,691	15,556	489.0	500.3	514.2	522.3	553.0
Tampa-St. Petersburg-Clearwater, FL	9,501	11,230	11,835	12,158	12,595	348.8	410.8	430.8	436.8	452.5
Virginia Beach-Norfolk-Newport News, VA-NC	9,383	11,867	11,954	11,388	13,669	565.7	715.6	713.9	681.2	817.7
Washington-Arlington-Alexandria, DC-VA-MD-WV	18,069	20,943	20,116	19,870	22,660	340.5	390.9	367.3	356.0	405.9
U.S. MSAs TOTAL	**635,637**	**690,544**	**718,843**	**752,263**	**807,431**	**390.6**	**420.4**	**432.5**	**453.3**	**486.5**

* 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 7. Chlamydia—Women—Reported Cases and Rates in Selected Metropolitan Statistical Areas (MSAs)* in Alphabetical Order, United States, 2007–2011

MSAs	Cases					Rates per 100,000 Population				
	2007	2008	2009	2010	2011	2007	2008	2009	2010	2011
Atlanta-Sandy Springs-Marietta, GA	15,553	14,898	14,208	15,508	19,457	582.4	547.7	512.7	573.3	719.3
Austin-Round Rock, TX	4,753	5,933	6,020	6,212	6,644	609.2	735.3	721.0	725.5	776.0
Baltimore-Towson, MD	10,416	10,774	10,187	10,744	10,668	753.5	779.9	730.8	764.4	759.0
Birmingham-Hoover, AL	5,165	4,948	4,530	4,525	4,834	900.4	855.2	774.5	775.0	828.0
Boston-Cambridge-Quincy, MA-NH	7,721	8,458	9,369	9,937	10,747	335.2	364.3	398.0	422.9	457.4
Buffalo-Cheektowaga-Tonawanda, NY	3,818	4,076	4,254	4,386	4,370	653.5	700.2	731.7	746.5	743.8
Charlotte-Gastonia-Concord, NC-SC	3,430	5,469	6,747	5,764	8,535	407.4	631.5	758.0	637.6	944.1
Chicago-Naperville-Joliet, IL-IN-WI	31,134	33,220	34,202	33,360	35,360	644.2	684.4	702.6	689.5	730.8
Cincinnati-Middletown, OH-KY-IN	8,082	8,031	7,243	7,749	7,774	740.4	728.5	652.1	711.8	714.1
Cleveland-Elyria-Mentor, OH	7,023	6,487	7,755	8,556	9,065	645.2	598.6	714.7	793.1	840.3
Columbus, OH	5,428	6,027	6,619	6,886	6,203	611.1	671.6	725.2	736.5	663.4
Dallas-Fort Worth-Arlington, TX	17,251	20,125	21,235	22,876	24,111	564.5	642.8	662.9	708.2	746.4
Denver-Aurora, CO	7,020	7,824	8,617	10,458	9,143	572.1	627.4	677.3	817.7	714.9
Detroit-Warren-Livonia, MI	13,580	18,826	18,870	20,530	19,161	594.5	831.9	836.7	927.2	865.4
Hartford-West Hartford-East Hartford, CT	3,122	3,474	3,250	3,324	3,470	511.7	569.4	530.6	534.2	557.6
Houston-Baytown-Sugar Land, TX	14,170	17,287	16,737	21,925	20,985	504.4	605.0	572.0	733.4	702.0
Indianapolis, IN	5,808	6,352	5,430	5,632	7,190	673.8	727.9	611.8	626.2	799.5
Jacksonville, FL	4,627	5,392	4,874	5,191	5,213	695.7	803.3	716.5	752.4	755.6
Kansas City, MO-KS	6,231	7,115	7,278	6,852	7,351	616.2	698.4	691.8	659.5	707.5
Las Vegas-Paradise, NV	5,620	5,842	5,874	5,537	5,777	623.0	637.5	628.5	571.4	596.1
Los Angeles-Long Beach-Santa Ana, CA	36,520	38,100	36,965	37,486	38,802	563.3	588.0	571.1	576.7	596.9
Louisville, KY-IN	2,482	3,504	3,821	4,646	4,867	392.6	548.5	593.3	707.4	741.1
Memphis, TN-MS-AR	8,846	9,199	10,170	9,529	8,743	1,332.7	1,377.8	1,501.5	1,392.6	1,277.8
Miami-Fort Lauderdale-Miami Beach, FL	9,985	13,144	13,788	13,566	13,815	359.0	472.2	485.5	472.5	481.2
Milwaukee-Waukesha-West Allis, WI	7,653	1,116	7,747	8,376	8,397	968.8	140.9	970.2	1,048.2	1,050.8
Minneapolis-St. Paul-Bloomington, MN-WI	6,727	7,037	7,028	7,710	8,275	417.2	433.7	427.0	464.2	498.2
Nashville-Davidson-Murfreesboro, TN	3,445	3,916	4,136	4,027	4,741	446.5	497.1	514.1	495.7	583.5
New Orleans-Metairie-Kenner, LA	3,503	3,722	4,875	5,065	5,956	653.5	630.1	789.5	845.0	993.7
New York-Newark-Edison, NY-NJ-PA	52,815	56,829	59,274	63,280	64,705	543.6	579.7	603.3	645.9	660.4
Oklahoma City, OK	3,262	4,119	3,912	3,292	3,518	539.5	673.4	627.6	517.9	553.5
Orlando, FL	5,203	6,160	6,740	6,777	6,993	507.6	594.1	640.8	621.9	641.7
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	20,132	20,708	21,297	22,863	23,928	668.7	686.9	690.9	740.7	775.3
Phoenix-Mesa-Scottsdale, AZ	11,675	10,725	11,405	11,892	12,696	564.2	506.4	529.1	564.3	602.5
Pittsburgh, PA	4,870	5,092	4,884	5,146	5,963	398.4	417.7	400.3	422.5	489.5
Portland-Vancouver-Beaverton, OR-WA	4,109	4,468	5,069	5,091	5,824	376.7	403.7	450.0	451.8	516.8
Providence-New Bedford-Fall River, RI-MA	3,116	3,327	3,503	3,433	4,022	376.8	403.6	425.1	415.1	486.4
Richmond, VA	3,778	4,981	4,843	5,282	5,710	605.1	790.6	760.1	812.9	878.8
Riverside-San Bernardino-Ontario, CA	10,773	10,009	12,305	8,810	15,241	528.4	486.8	595.5	414.8	717.6
Rochester, NY	3,337	3,594	3,859	4,448	3,935	632.2	679.0	728.8	820.8	726.1
Sacramento-Arden-Arcade-Roseville, CA	6,310	5,997	4,589	5,754	7,874	594.0	559.6	425.7	525.2	718.6
Salt Lake City, UT	2,299	2,254	2,173	2,434	2,558	425.3	411.0	389.2	436.0	458.2
San Antonio, TX	6,567	7,206	8,566	8,972	9,286	646.8	695.8	811.6	823.1	851.9
San Diego-Carlsbad-San Marcos, CA	9,187	10,257	10,050	10,538	10,395	620.4	688.0	660.5	683.6	674.3
San Francisco-Oakland-Fremont, CA	11,118	11,514	10,618	10,940	11,733	525.7	536.0	489.6	497.8	533.9
San Jose-Sunnyvale-Santa Clara, CA	4,232	4,218	3,989	3,951	4,187	480.4	475.3	443.2	431.6	457.4
Seattle-Tacoma-Bellevue, WA	7,412	7,975	8,062	8,000	8,259	447.2	477.1	473.1	463.0	478.0
St. Louis, MO-IL	10,012	10,166	10,481	10,489	11,108	691.6	699.4	718.4	723.2	765.8
Tampa-St. Petersburg-Clearwater, FL	6,841	8,099	8,323	8,527	8,913	489.4	577.2	590.9	593.9	620.8
Virginia Beach-Norfolk-Newport News, VA-NC	6,884	8,789	8,503	8,098	9,786	811.7	1,037.4	992.8	950.5	1,148.6
Washington-Arlington-Alexandria, DC-VA-MD-WV	13,194	14,967	14,429	14,146	15,811	485.5	545.7	516.1	493.6	551.7
U.S. MSAs TOTAL	**466,239**	**501,750**	**518,703**	**538,520**	**572,099**	**564.1**	**601.7**	**614.9**	**635.2**	**674.8**

* 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, 2007–2011

MSAs	Cases					Rates per 100,000 Population				
	2007	2008	2009	2010	2011	2007	2008	2009	2010	2011
Atlanta-Sandy Springs-Marietta, GA	5,896	5,585	5,923	6,471	7,549	226.0	210.3	219.0	252.4	294.4
Austin-Round Rock, TX	2,053	2,472	2,430	2,290	2,710	251.0	292.3	279.3	266.2	315.1
Baltimore-Towson, MD	2,624	2,754	2,665	3,231	3,723	204.1	214.2	205.5	247.6	285.3
Birmingham-Hoover, AL	1,745	1,740	1,588	1,545	1,852	326.4	322.8	290.7	283.9	340.3
Boston-Cambridge-Quincy, MA-NH	2,966	3,383	3,891	4,334	4,946	136.1	153.7	174.1	196.7	224.5
Buffalo-Cheektowaga-Tonawanda, NY	1,260	1,485	1,515	1,552	1,595	231.7	273.9	279.3	283.2	291.1
Charlotte-Gastonia-Concord, NC-SC	786	1,549	2,102	1,684	2,877	97.1	185.3	245.7	197.2	336.9
Chicago-Naperville-Joliet, IL-IN-WI	10,259	12,578	12,273	12,250	14,110	218.7	266.7	260.4	265.0	305.2
Cincinnati-Middletown, OH-KY-IN	1,935	1,963	1,565	2,022	2,283	185.7	186.5	147.5	194.1	219.2
Cleveland-Elyria-Mentor, OH	2,285	2,216	2,579	3,016	3,283	226.7	220.6	256.3	302.1	328.8
Columbus, OH	1,706	2,275	2,319	2,627	2,747	197.0	259.8	260.8	291.4	304.7
Dallas-Fort Worth-Arlington, TX	4,987	5,962	5,903	6,432	7,757	161.5	188.1	182.0	204.7	246.9
Denver-Aurora, CO	2,519	3,161	3,184	3,862	3,564	203.5	250.9	248.8	305.4	281.8
Detroit-Warren-Livonia, MI	4,220	5,996	6,329	7,134	7,011	193.3	277.3	294.6	342.6	336.7
Hartford-West Hartford-East Hartford, CT	1,178	1,303	1,217	1,292	1,367	203.5	224.5	208.6	219.0	231.7
Houston-Baytown-Sugar Land, TX	2,963	3,776	4,259	5,560	5,556	105.1	131.5	144.8	188.0	187.9
Indianapolis, IN	2,340	2,451	2,275	2,636	3,345	280.9	290.8	265.7	307.6	390.4
Jacksonville, FL	1,873	1,912	1,868	1,893	2,047	294.6	297.8	288.3	288.7	312.2
Kansas City, MO-KS	2,127	2,444	2,614	2,591	2,782	218.3	248.5	257.4	260.1	279.2
Las Vegas-Paradise, NV	1,704	1,911	2,301	2,076	2,558	182.4	201.3	237.7	211.4	260.4
Los Angeles-Long Beach-Santa Ana, CA	15,639	16,886	17,728	18,343	19,577	244.7	264.1	276.9	289.9	309.3
Louisville, KY-IN	1,011	1,436	1,460	1,686	1,794	168.1	237.0	237.6	269.0	286.2
Memphis, TN-MS-AR	2,503	2,697	3,197	2,928	2,942	405.8	436.4	509.4	463.4	465.6
Miami-Fort Lauderdale-Miami Beach, FL	3,771	4,934	5,304	5,523	5,721	143.3	187.5	195.9	205.0	212.4
Milwaukee-Waukesha-West Allis, WI	2,473	321	2,767	3,134	3,312	327.8	42.4	363.5	414.1	437.6
Minneapolis-St. Paul-Bloomington, MN-WI	2,787	3,056	2,897	3,160	3,752	174.6	190.1	178.4	195.2	231.8
Nashville-Davidson-Murfreesboro, TN	1,527	1,658	1,680	1,670	1,972	203.7	217.3	216.0	214.8	253.6
New Orleans-Metairie-Kenner, LA	985	1,349	1,804	1,687	2,017	199.3	248.3	315.1	296.8	354.9
New York-Newark-Edison, NY-NJ-PA	21,165	23,441	24,602	27,324	28,367	232.6	254.7	266.1	300.3	311.8
Oklahoma City, OK	1,384	1,473	1,536	1,410	1,457	235.2	247.8	254.3	228.4	236.0
Orlando, FL	1,620	2,117	2,452	2,705	2,539	160.8	208.0	237.9	258.9	243.0
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	7,972	8,040	9,129	10,146	10,817	283.0	284.7	316.4	352.4	375.7
Phoenix-Mesa-Scottsdale, AZ	3,569	3,586	4,210	4,626	5,047	169.1	165.7	190.6	221.8	242.0
Pittsburgh, PA	1,745	1,828	1,712	1,947	2,471	154.0	161.4	150.8	171.1	217.1
Portland-Vancouver-Beaverton, OR-WA	1,861	2,029	2,146	2,323	2,685	171.6	184.3	192.4	211.4	244.3
Providence-New Bedford-Fall River, RI-MA	1,178	1,222	1,360	1,325	1,536	152.2	158.2	175.1	171.2	198.5
Richmond, VA	1,514	1,793	1,817	1,759	2,089	257.2	301.0	302.3	289.1	343.3
Riverside-San Bernardino-Ontario, CA	3,532	3,548	4,622	3,437	5,412	172.9	172.2	222.5	163.6	257.6
Rochester, NY	1,496	1,700	1,908	2,127	1,907	297.6	336.8	377.0	415.1	372.2
Sacramento-Arden-Arcade-Roseville, CA	2,387	2,346	1,682	2,287	2,960	232.0	226.0	160.3	217.1	281.0
Salt Lake City, UT	1,096	1,308	1,251	1,283	1,263	195.9	230.6	218.7	226.7	223.2
San Antonio, TX	2,160	2,527	2,986	3,458	3,780	221.5	253.8	293.7	328.6	359.2
San Diego-Carlsbad-San Marcos, CA	3,457	4,078	4,097	4,785	4,925	231.4	270.0	267.4	308.0	317.0
San Francisco-Oakland-Fremont, CA	5,465	5,968	5,909	6,645	6,948	261.6	280.7	274.9	310.8	325.0
San Jose-Sunnyvale-Santa Clara, CA	1,633	1,558	1,513	1,649	1,667	177.0	167.2	161.0	179.0	180.9
Seattle-Tacoma-Bellevue, WA	2,985	3,538	3,471	3,509	4,070	180.7	211.4	203.7	205.0	237.7
St. Louis, MO-IL	3,698	3,925	4,065	4,200	4,444	272.7	287.9	296.7	308.3	326.2
Tampa-St. Petersburg-Clearwater, FL	2,652	3,050	3,441	3,601	3,657	200.0	229.2	257.0	267.2	271.4
Virginia Beach-Norfolk-Newport News, VA-NC	2,494	3,064	3,422	3,284	3,864	307.7	377.8	418.3	400.6	471.4
Washington-Arlington-Alexandria, DC-VA-MD-WV	4,849	5,897	5,623	5,680	6,823	187.3	225.5	209.8	209.1	251.2
U.S. MSAs TOTAL	**168,034**	**187,289**	**198,591**	**212,139**	**233,477**	**209.9**	**231.6**	**242.6**	**261.3**	**287.6**

* 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, 2011

Rank†	County/Independent City	Cases	Rate per 100,000 Population	Cumulative Percentage
1	Los Angeles County, CA	50,542	514.8	3
2	Cook County, IL	36,769	707.8	6
3	Harris County, TX	21,631	528.6	7
4	Philadelphia County, PA	20,471	1,341.5	9
5	Kings County, NY	20,123	803.4	10
6	Wayne County, MI	19,800	1,087.6	11
7	Bronx County, NY	18,037	1,302.2	13
8	Dallas County, TX	17,265	729.1	14
9	Maricopa County, AZ	16,667	436.6	15
10	San Diego County, CA	15,346	495.8	16
11	Queens County, NY	12,930	579.6	17
12	New York County, NY	12,562	792.1	18
13	Bexar County, TX	11,904	694.2	19
14	San Bernardino County, CA	10,947	537.9	20
15	Milwaukee County, WI	10,864	1,146.3	20
16	Cuyahoga County, OH	10,301	804.7	21
17	Shelby County, TN	9,802	1,056.7	22
18	Riverside County, CA	9,802	447.7	23
19	Sacramento County, CA	9,331	657.7	23
20	Marion County, IN	9,118	1,009.3	24
21	Miami-Dade County, FL	8,827	353.6	24
22	Clark County, NV	8,337	427.3	25
23	Tarrant County, TX	8,053	445.2	26
24	Orange County, CA	8,010	266.1	26
25	Baltimore (City), MD	7,837	1,262.1	27
26	Mecklenburg County, NC	7,518	817.5	27
27	Fulton County, GA	7,456	809.9	28
28	Franklin County, OH	7,412	637.1	28
29	Hillsborough County, FL	7,290	593.1	29
30	Broward County, FL	7,091	405.6	29
31	Alameda County, CA	7,040	466.1	30
32	Washington, D.C.	6,585	1,094.4	30
33	Hamilton County, OH	6,449	803.7	31
34	King County, WA	6,386	330.7	31
35	Travis County, TX	6,309	616.0	32
36	Suffolk County, MA	6,212	860.4	32
37	Prince George's County, MD	6,086	704.9	33
38	Orange County, FL	6,076	530.2	33
39	Allegheny County, PA	6,000	490.5	33
40	Orleans County, LA	5,970	1,736.3	34
41	Fresno County, CA	5,960	640.6	34
42	Duval County, FL	5,939	687.2	35
43	Santa Clara County, CA	5,764	323.5	35
44	Hennepin County, MN	5,719	496.3	35
45	Jackson County, MO	5,676	841.9	36
46	Jefferson County, AL	5,636	855.9	36
47	Kern County, CA	5,590	665.8	37
48	St. Louis County, MO	5,548	555.4	37
49	Denver County, CO	5,533	921.9	37
50	Essex County, NJ	5,263	671.3	38
51	Jefferson County, KY	5,125	691.5	38
52	Guilford County, NC	5,093	1,042.8	39
53	Erie County, NY	5,065	551.1	39
54	DeKalb County, GA	5,053	730.3	39
55	Monroe County, NY	5,009	672.9	40
56	Wake County, NC	4,961	550.6	40
57	Honolulu County, HI	4,794	502.9	40
58	San Francisco County, CA	4,778	593.4	41
59	St. Louis (City), MO	4,642	1,453.8	41
60	El Paso County, TX	4,528	565.5	41
61	Contra Costa County, CA	4,404	419.8	42
62	Hartford County, CT	4,223	472.4	42
63	Pierce County, WA	4,184	526.1	42
64	New Haven County, CT	4,123	478.0	43
65	Pima County, AZ	4,078	416.0	43
66	Davidson County, TN	4,062	648.2	43
67	Multnomah County, OR	3,957	538.1	43
68	Bell County, TX	3,951	1,273.6	44
69	Bernalillo County, NM	3,870	584.1	44
70	Pinellas County, FL	3,868	422.0	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 2011.

Table 10. Chlamydia—Reported Cases and Rates per 100,000 Population by Age Group and Sex, United States, 2007–2011

Age Group	Cases				Rates per 100,000*				
	Total	Male	Female	Unknown Sex	Total	Male	Female	Unknown Sex	
0–4	1,152	422	725	5	5.6	4.0	7.2		2007
5–9	265	45	218	2	1.3	0.4	2.2		
10–14	13,583	1,242	12,303	38	66.9	11.9	124.1		
15–19	378,107	66,806	310,474	827	1,760.8	606.9	2,966.3		
20–24	401,173	101,160	299,315	698	1,907.4	932.1	2,940.4		
25–29	174,196	54,560	119,354	282	827.2	506.3	1,160.9		
30–34	69,164	24,477	44,552	135	354.1	247.1	462.8		
35–39	33,529	13,747	19,707	75	158.3	129.0	187.3		
40–44	16,554	7,941	8,580	33	75.3	72.4	77.9		
45–54	13,091	6,835	6,226	30	29.8	31.7	27.9		
55–64	2,831	1,521	1,304	6	8.7	9.6	7.7		
65+	809	413	392	4	2.1	2.6	1.8		
Unknown Age	3,920	1,168	2,510	242					
TOTAL	**1,108,374**	**280,337**	**825,660**	**2,377**	**367.5**	**188.6**	**539.8**		
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	74.5	16.5	134.6		
15–19	459,029	90,764	366,818	1,447	2,082.7	803.0	3,416.5		
20–24	542,947	147,948	393,534	1,465	2,515.3	1,343.3	3,722.5		
25–29	214,534	73,357	140,628	549	1,016.7	689.7	1,343.6		
30–34	91,787	34,971	56,562	254	459.8	349.8	567.6		
35–39	40,734	16,911	23,711	112	201.9	168.4	233.9		
40–44	21,654	10,460	11,120	74	103.7	100.6	105.9		
45–54	18,136	9,910	8,182	44	40.3	44.8	35.8		
55–64	4,210	2,300	1,903	7	11.5	13.1	10.1		
65+	1,064	569	486	9	2.6	3.3	2.1		
Unknown Age	2,401	729	1,444	228					
TOTAL	**1,412,791**	**389,970**	**1,018,552**	**4,269**	**457.6**	**256.9**	**648.9**		

* 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 age group may include cases due to perinatal transmission.

Table 11A. Chlamydia—Reported Cases by Race/Ethnicity, Age Group, and Sex, United States, 2007–2011

	Age Group	Whites, Non-Hispanic				Blacks, Non-Hispanic				Hispanics				Asians/Pacific Islanders				American Indians/ Alaska Natives			
		Total	Male	Female	UNK	Total	Male	Female	UNK	Total	Male	Female	UNK	Total	Male	Female	UNK	Total	Male	Female	UNK
2007	0–4	210	70	140	0	347	139	207	1	119	45	74	0	7	2	5	0	7	1	6	0
	5–9	36	8	28	0	89	16	73	0	29	4	24	1	2	0	2	0	5	1	4	0
	10–14	1,860	75	1,785	0	5,941	682	5,253	6	1,560	167	1,387	6	93	6	87	0	184	13	171	0
	15–19	76,281	9,047	67,183	51	147,795	32,378	115,282	135	45,851	7,979	37,820	52	3,050	430	2,615	5	4,317	700	3,613	4
	20–24	96,207	22,184	73,977	46	136,713	40,976	95,635	102	55,656	13,591	42,013	52	4,838	1,015	3,815	8	4,673	1,014	3,657	2
	25–29	37,206	11,492	25,698	16	55,183	20,271	34,884	28	27,812	7,991	19,795	26	2,826	746	2,072	8	2,162	493	1,667	2
	30–34	12,589	4,441	8,144	4	21,194	9,228	11,953	13	11,912	3,576	8,321	15	1,450	440	1,006	4	917	241	676	0
	35–39	6,284	2,563	3,715	6	9,746	5,030	4,707	9	5,281	1,763	3,512	6	823	272	551	0	431	110	321	0
	40–44	3,150	1,597	1,551	2	4,849	2,793	2,052	4	2,251	858	1,390	3	452	189	263	0	245	75	170	0
	45–54	2,622	1,578	1,043	1	3,948	2,415	1,527	6	1,416	564	850	2	352	141	208	3	159	51	108	0
	55–64	568	381	185	2	716	449	267	0	244	90	154	0	109	51	58	0	17	5	11	1
	65+	149	99	50	0	166	88	75	3	75	33	42	0	16	8	8	0	6	3	3	0
	UNK Age	542	140	393	9	765	235	519	11	322	102	217	3	43	8	33	2	38	11	26	1
	TOTAL	**237,704**	**53,675**	**183,892**	**137**	**387,452**	**114,700**	**272,434**	**318**	**152,528**	**36,763**	**115,599**	**166**	**14,061**	**3,308**	**10,723**	**30**	**13,161**	**2,718**	**10,433**	**10**
2008	0–4	182	66	115	1	364	144	220	0	120	48	72	0	16	5	11	0	7	0	7	0
	5–9	43	11	31	1	65	12	53	0	26	4	22	0	1	0	1	0	8	4	4	0
	10–14	1,902	102	1,800	0	6,147	721	5,421	5	1,701	171	1,527	3	79	9	70	0	152	10	142	0
	15–19	80,850	10,062	70,730	58	163,079	36,861	126,084	134	50,890	9,166	41,683	41	3,517	460	3,053	4	4,688	758	3,924	6
	20–24	101,534	24,144	77,325	65	149,056	45,631	103,283	142	60,909	15,577	45,273	59	5,782	1,276	4,492	14	5,161	1,127	4,022	12
	25–29	39,615	12,593	26,982	40	59,300	22,118	37,145	37	29,862	8,969	20,850	43	3,253	890	2,356	7	2,476	597	1,877	2
	30–34	13,852	4,954	8,885	13	22,451	9,749	12,687	15	12,914	3,995	8,902	17	1,680	517	1,154	9	1,009	253	756	0
	35–39	6,659	2,752	3,900	7	10,267	5,279	4,973	15	6,041	1,987	4,050	4	938	316	617	5	473	121	352	0
	40–44	3,418	1,774	1,634	10	5,153	2,921	2,223	9	2,623	1,010	1,609	4	455	177	276	2	264	89	174	1
	45–54	2,808	1,653	1,146	9	4,180	2,525	1,648	7	1,556	630	923	3	422	181	239	2	208	60	148	0
	55–64	645	411	234	0	804	495	305	4	278	117	161	0	132	48	84	0	30	7	23	0
	65+	163	107	56	0	174	92	81	1	83	32	50	1	28	14	14	0	10	5	5	0
	UNK Age	408	116	281	11	626	225	383	18	303	93	205	5	45	8	36	1	18	3	15	0
	TOTAL	**252,079**	**58,745**	**193,119**	**215**	**421,666**	**126,773**	**294,506**	**387**	**167,306**	**41,799**	**125,327**	**180**	**16,348**	**3,901**	**12,403**	**44**	**14,504**	**3,034**	**11,449**	**21**
2009	0–4	173	48	124	1	307	107	199	1	95	38	56	1	6	3	3	0	15	7	8	0
	5–9	27	5	22	0	52	13	39	0	22	2	20	0	0	0	0	0	0	0	0	0
	10–14	1,728	90	1,638	0	5,961	731	5,226	4	1,649	179	1,468	2	75	6	69	0	166	15	151	0
	15–19	82,588	11,007	71,529	52	167,271	39,037	128,094	140	52,069	9,420	42,602	47	3,467	470	2,992	5	4,481	735	3,734	12
	20–24	106,157	25,653	80,433	71	157,132	49,312	107,684	136	62,431	16,222	46,162	47	5,873	1,323	4,539	11	5,293	1,204	4,085	4
	25–29	41,212	13,399	27,778	35	60,528	23,007	37,472	49	30,647	9,342	21,285	20	3,296	891	2,399	6	2,422	571	1,851	0
	30–34	14,933	5,501	9,416	16	23,450	10,302	13,131	17	13,207	4,229	8,965	13	1,609	457	1,149	3	1,017	279	737	1
	35–39	6,600	2,797	3,796	7	10,386	5,326	5,054	6	6,105	2,012	4,084	9	926	320	600	6	475	113	362	0
	40–44	3,380	1,697	1,680	3	5,102	2,965	2,135	2	2,717	1,062	1,652	3	526	197	329	0	239	71	167	1
	45–54	3,087	1,890	1,194	3	4,159	2,455	1,701	3	1,728	714	1,013	1	450	186	261	3	181	62	119	0
	55–64	720	481	239	0	862	514	347	1	313	125	188	0	117	46	71	0	36	13	23	0
	65+	165	106	59	0	184	96	88	0	78	34	44	0	32	19	13	0	8	4	4	0
	UNK Age	501	113	373	15	716	200	476	40	276	75	187	14	29	7	21	1	14	7	7	0
	TOTAL	**261,271**	**62,787**	**198,281**	**203**	**436,110**	**134,065**	**301,646**	**399**	**171,337**	**43,454**	**127,726**	**157**	**16,406**	**3,925**	**12,446**	**35**	**14,347**	**3,081**	**11,248**	**18**
2010	0–4	163	56	107	0	273	99	173	1	127	53	74	0	6	1	5	0	15	5	10	0
	5–9	18	6	12	0	54	7	47	0	28	2	26	0	0	0	0	0	2	0	2	0
	10–14	1,915	116	1,797	2	6,051	783	5,261	7	1,593	198	1,395	0	87	4	83	0	171	12	159	0
	15–19	85,610	11,855	73,723	32	170,871	40,666	130,068	137	53,113	9,773	43,302	38	3,499	486	3,012	1	4,488	793	3,690	5
	20–24	115,811	28,197	87,560	54	168,198	53,317	114,782	99	66,593	17,220	49,312	61	6,258	1,386	4,866	6	5,852	1,402	4,445	5
	25–29	44,495	14,886	29,574	35	61,789	23,694	38,054	41	31,284	9,873	21,388	23	3,509	1,004	2,497	8	2,779	720	2,057	2
	30–34	16,789	6,237	10,533	19	24,938	11,025	13,891	22	14,214	4,641	9,564	9	1,689	587	1,101	1	1,146	320	826	0
	35–39	7,221	3,148	4,065	8	10,635	5,500	5,127	8	6,519	2,169	4,345	5	1,021	368	649	4	522	157	365	0
	40–44	3,807	2,022	1,782	3	5,296	3,075	2,212	9	2,976	1,198	1,769	9	547	225	321	1	234	74	160	0
	45–54	3,431	2,153	1,274	4	4,232	2,504	1,725	3	1,901	840	1,060	1	462	198	264	0	203	48	155	0
	55–64	718	492	225	1	814	461	353	0	326	140	185	1	106	37	69	0	43	12	31	0
	65+	180	126	53	1	165	85	80	0	79	34	44	1	31	17	14	0	4	2	2	0
	UNK Age	307	94	209	4	387	130	247	10	226	72	144	10	31	9	22	0	11	5	6	0
	TOTAL	**280,465**	**69,388**	**210,914**	**163**	**453,703**	**141,346**	**312,020**	**337**	**178,979**	**46,213**	**132,608**	**158**	**17,246**	**4,322**	**12,903**	**21**	**15,470**	**3,550**	**11,908**	**12**
2011	0–4	139	47	92	0	237	100	136	1	76	29	47	0	6	1	5	0	10	1	9	0
	5–9	25	4	20	1	54	12	42	0	23	0	23	0	2	0	2	0	2	0	2	0
	10–14	2,121	140	1,974	7	6,560	864	5,693	3	1,796	189	1,604	3	88	7	80	1	185	13	172	0
	15–19	93,979	13,454	80,372	153	171,274	41,117	129,976	181	56,789	10,500	46,227	62	3,671	515	3,152	4	5,025	919	4,093	13
	20–24	133,173	33,231	99,732	210	178,887	56,770	121,948	169	72,592	18,469	54,030	93	6,690	1,448	5,235	7	6,189	1,383	4,789	17
	25–29	50,871	17,182	33,592	97	64,804	25,074	39,663	67	33,425	10,455	22,924	46	3,851	1,156	2,691	4	2,899	771	2,119	9
	30–34	19,736	7,554	12,153	29	26,617	11,903	14,693	21	15,439	5,051	10,364	24	1,898	636	1,258	4	1,256	336	918	2
	35–39	8,062	3,429	4,620	13	10,976	5,593	5,369	14	7,208	2,377	4,824	7	1,079	374	703	2	551	144	406	1
	40–44	4,581	2,398	2,177	6	5,488	3,141	2,341	6	3,427	1,346	2,078	3	582	231	349	2	249	85	164	0
	45–54	4,079	2,606	1,470	3	4,654	2,811	1,835	8	2,172	965	1,206	1	513	255	256	2	229	72	157	0
	55–64	965	671	294	0	999	599	400	0	379	162	216	1	162	68	94	0	49	15	34	0
	65+	236	156	80	0	169	99	70	0	91	38	52	1	26	15	11	0	5	1	4	0
	UNK Age	305	86	212	7	316	103	204	9	206	76	127	3	30	10	20	0	9	4	5	0
	TOTAL	**318,272**	**80,958**	**236,788**	**526**	**471,035**	**148,186**	**322,370**	**479**	**193,623**	**49,657**	**143,722**	**244**	**18,598**	**4,716**	**13,856**	**26**	**16,658**	**3,744**	**12,872**	**42**

UNK = Unknown

NOTE: These tables should only be used 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.

In 2011, race/ethnicity was unknown (i.e., unknown, missing, or invalid data values) for 26.1% of reported chlamydia cases.

Table 11B. Chlamydia—Rates per 100,000 Population by Race/Ethnicity, Age Group, and Sex, United States, 2007–2011

Age Group	Whites, Non-Hispanic				Blacks, Non-Hispanic				Hispanics				Asians/Pacific Islanders				American Indians/ Alaska Natives				
	Total	Male	Female	UNK	Total	Male	Female	UNK	Total	Male	Female	UNK	Total	Male	Female	UNK	Total	Male	Female	UNK	
0–4	1.8	1.2	2.5		10.9	8.6	13.2		2.4	1.8	3.1		0.7	0.4	1.0		3.7	1.0	6.4		2007
5–9	0.3	0.1	0.5		2.9	1.0	4.9		0.7	0.2	1.2		0.2	0.0	0.4		2.7	1.1	4.4		
10–14	15.4	1.2	30.3		189.1	42.7	339.8		39.3	8.2	71.6		10.3	1.3	19.6		91.2	12.7	171.9		
15–19	577.3	133.4	1,044.6		4,380.7	1,893.9	6,927.5		1,224.0	413.6	2,081.5		335.7	91.8	594.2		1,865.3	598.0	3,159.0		
20–24	733.8	329.8	1,158.8		4,475.2	2,650.4	6,338.0		1,508.3	686.3	2,457.4		507.1	208.6	816.0		2,097.9	894.0	3,345.3		
25–29	294.2	180.4	409.4		1,912.0	1,435.5	2,366.5		666.1	343.6	1,070.2		244.5	130.6	354.3		1,116.4	503.8	1,740.0		
30–34	109.1	76.5	142.0		841.6	770.8	904.9		298.4	164.2	458.4		109.9	68.3	149.0		558.6	293.0	825.4		
35–39	47.0	38.1	55.8		366.7	401.4	335.1		145.0	90.6	207.1		61.9	42.0	80.9		258.1	132.5	382.2		
40–44	21.4	21.7	21.1		176.7	217.5	140.5		70.3	51.0	91.6		38.9	33.4	44.0		139.0	87.1	188.5		
45–54	8.3	10.0	6.5		77.2	102.3	55.5		29.8	23.4	36.4		17.7	15.0	19.8		46.2	31.1	59.9		
55–64	2.3	3.1	1.4		21.9	30.9	14.8		9.1	7.0	11.0		8.1	8.2	8.0		7.3	4.5	9.0		
65+	0.5	0.8	0.3		5.2	7.2	3.8		3.0	3.1	2.9		1.2	1.4	1.1		3.0	3.4	2.7		
UNK Age																					
TOTAL	**118.1**	**54.3**	**179.6**		**1,015.7**	**630.5**	**1,365.3**		**335.2**	**156.3**	**525.9**		**98.5**	**47.7**	**146.2**		**524.7**	**220.2**	**818.8**		
0–4	1.6	1.1	2.1		11.8	9.2	14.6		2.3	1.8	2.8		1.6	1.0	2.2		3.2	0.0	6.6		2008
5–9	0.4	0.2	0.6		2.2	0.8	3.6		0.6	0.2	1.0		0.1	0.0	0.2		4.1	4.0	4.1		
10–14	16.0	1.7	31.1		200.5	46.3	359.4		42.6	8.4	78.4		8.8	2.0	15.7		77.0	10.0	146.0		
15–19	616.4	149.4	1,108.1		4,785.4	2,132.7	7,507.3		1,321.7	462.7	2,229.8		386.1	98.0	691.3		2,045.0	654.9	3,457.4		
20–24	773.1	358.3	1,209.2		4,814.2	2,915.4	6,746.1		1,662.8	800.5	2,636.4		613.5	264.9	974.9		2,302.2	987.9	3,653.2		
25–29	307.1	193.2	422.9		2,005.2	1,515.4	2,480.0		721.2	390.5	1,130.9		286.5	157.8	412.4		1,220.4	581.5	1,873.0		
30–34	119.7	85.1	154.5		885.3	806.0	956.6		319.5	180.2	487.9		131.3	82.7	176.3		606.4	303.3	911.0		
35–39	50.9	41.8	59.9		387.5	422.3	355.4		162.0	99.5	233.7		69.2	47.7	88.9		283.3	145.6	419.7		
40–44	24.1	25.0	23.0		191.3	231.5	155.2		80.0	58.3	104.0		38.7	31.0	45.7		154.0	106.2	198.6		
45–54	8.8	10.5	7.2		80.2	105.0	58.8		31.2	24.8	37.8		20.6	18.6	22.2		59.5	36.0	81.0		
55–64	2.5	3.3	1.8		23.6	32.6	16.2		9.7	8.5	10.9		9.3	7.3	11.0		12.4	6.1	18.1		
65+	0.5	0.8	0.3		5.3	7.3	4.0		3.1	2.8	3.3		2.1	2.4	1.8		4.7	5.4	4.2		
UNK Age																					
TOTAL	**125.0**	**59.3**	**188.1**		**1,100.6**	**693.7**	**1,469.8**		**356.4**	**172.3**	**552.4**		**112.9**	**55.4**	**166.6**		**563.4**	**239.4**	**875.8**		
0–4	1.5	0.8	2.2		9.8	6.7	12.9		1.7	1.4	2.1		0.5	0.5	0.6		6.8	6.3	7.4		2009
5–9	0.2	0.1	0.4		1.7	0.9	2.6		0.5	0.1	0.9		0.0	0.0	0.0		0.0	0.0	0.0		
10–14	14.7	1.5	28.6		196.9	47.5	350.8		40.6	8.6	74.1		8.1	1.3	15.1		85.3	15.2	157.6		
15–19	639.0	165.9	1,137.3		4,892.0	2,250.9	7,602.0		1,291.4	451.4	2,190.4		370.4	97.8	656.9		1,990.6	646.6	3,350.5		
20–24	802.0	377.9	1,247.4		4,910.8	3,045.2	6,813.7		1,607.4	784.7	2,541.0		591.3	262.5	927.7		2,332.4	1,043.1	3,663.2		
25–29	314.8	202.0	430.2		2,002.3	1,528.7	2,468.5		738.5	409.1	1,140.5		273.6	151.4	389.3		1,150.8	537.2	1,776.9		
30–34	126.9	93.0	160.9		894.2	819.7	961.5		327.7	190.4	495.7		124.0	73.0	171.2		594.0	324.0	866.1		
35–39	52.2	44.0	60.3		394.8	428.7	364.0		162.5	99.4	235.7		69.1	49.0	87.3		286.1	136.9	433.8		
40–44	24.6	24.7	24.5		194.1	240.6	153.0		82.2	60.4	106.6		44.8	34.8	54.1		143.3	86.5	197.2		
45–54	9.7	12.0	7.5		78.8	100.8	59.8		33.4	27.0	40.2		21.8	19.0	24.1		51.0	36.6	64.3		
55–64	2.7	3.7	1.8		24.2	32.4	17.5		10.5	8.6	12.2		7.9	6.8	8.9		14.2	10.8	17.2		
65+	0.5	0.8	0.3		5.5	7.5	4.3		2.8	2.9	2.8		2.3	3.1	1.6		3.7	4.2	3.3		
UNK Age																					
TOTAL	**129.2**	**63.2**	**192.8**		**1,122.2**	**722.5**	**1,485.4**		**353.9**	**173.4**	**546.7**		**109.7**	**54.2**	**161.3**		**549.8**	**239.9**	**848.9**		
0–4	1.5	1.0	2.0		8.9	6.3	11.4		2.5	2.0	3.0		0.6	0.2	1.0		7.2	4.7	9.7		2010
5–9	0.2	0.1	0.2		1.8	0.5	3.2		0.6	0.1	1.1		0.0	0.0	0.0		1.0	0.0	2.0		
10–14	16.3	1.9	31.4		192.2	48.9	340.3		35.2	8.6	63.0		8.6	0.8	16.5		80.3	11.1	151.4		
15–19	675.7	182.5	1,193.8		4,857.3	2,276.3	7,512.4		1,171.9	416.6	1,980.8		321.3	87.1	567.4		1,946.7	674.2	3,267.6		
20–24	912.9	438.2	1,400.7		5,359.9	3,439.3	7,228.9		1,540.7	747.9	2,441.2		507.2	222.5	796.6		2,841.2	1,350.4	4,351.3		
25–29	357.3	237.1	479.0		2,209.2	1,765.1	2,616.2		725.8	433.8	1,051.3		258.7	155.3	351.7		1,500.4	784.5	2,201.5		
30–34	143.6	105.8	181.7		948.2	885.4	1,003.1		344.6	216.6	482.7		125.2	92.7	153.7		683.4	386.1	973.8		
35–39	59.4	51.5	67.2		407.4	448.5	370.4		169.0	110.1	230.4		73.3	56.0	88.2		319.2	196.0	437.6		
40–44	28.5	30.2	26.7		198.9	244.5	157.5		86.5	67.9	105.4		44.0	38.4	48.8		139.5	90.5	186.1		
45–54	10.9	13.8	8.0		76.7	96.7	59.0		34.8	30.7	38.9		20.8	19.1	22.3		55.9	27.6	81.9		
55–64	2.6	3.7	1.6		20.9	26.1	16.6		10.1	9.1	11.0		6.5	5.0	7.7		16.7	9.8	23.0		
65+	0.6	0.9	0.3		4.8	6.3	3.8		2.8	2.9	2.8		2.1	2.7	1.7		2.0	2.3	1.8		
UNK Age																					
TOTAL	**140.1**	**70.5**	**207.3**		**1,150.4**	**751.4**	**1,512.8**		**354.6**	**180.4**	**533.4**		**106.9**	**56.1**	**153.0**		**602.0**	**281.5**	**910.1**		
0–4	1.3	0.9	1.8		7.7	6.4	9.0		1.5	1.1	1.9		0.6	0.2	1.0		4.8	0.9	8.7		2011
5–9	0.2	0.1	0.4		1.8	0.8	2.8		0.5	0.0	1.0		0.2	0.0	0.4		1.0	0.0	2.0		
10–14	18.0	2.3	34.4		208.4	53.9	368.2		39.7	8.2	72.5		8.7	1.4	15.9		86.8	12.0	163.7		
15–19	741.7	207.1	1,301.5		4,868.7	2,301.6	7,507.1		1,253.0	447.6	2,114.6		337.1	92.3	593.8		2,179.7	781.4	3,624.4		
20–24	1,049.8	516.4	1,595.5		5,700.5	3,662.0	7,680.2		1,679.5	802.2	2,674.8		542.2	232.4	857.0		3,004.8	1,332.1	4,688.0		
25–29	408.5	273.6	544.1		2,317.0	1,867.9	2,726.8		775.4	459.3	1,126.9		283.9	178.8	379.0		1,565.2	840.0	2,267.8		
30–34	168.8	128.2	209.6		1,012.1	956.0	1,061.0		374.3	235.7	523.1		140.6	100.5	175.6		749.0	405.4	1,082.2		
35–39	66.3	56.1	76.4		420.5	456.1	387.9		186.9	120.6	255.8		77.4	56.9	95.5		336.9	179.7	486.7		
40–44	34.2	35.8	32.6		206.2	249.8	166.7		99.6	76.3	123.8		46.8	39.5	53.0		148.4	104.0	190.8		
45–54	13.0	16.7	9.3		84.4	108.5	62.7		39.8	35.3	44.2		23.1	24.6	21.6		63.0	41.4	82.9		
55–64	3.5	5.0	2.1		25.7	33.9	18.9		11.8	10.6	12.9		9.9	9.2	10.5		19.0	12.2	25.2		
65+	0.7	1.1	0.4		4.9	7.3	3.4		3.3	3.2	3.3		1.8	2.4	1.3		2.5	1.1	3.6		
UNK Age																					
TOTAL	**159.0**	**82.3**	**232.7**		**1,194.4**	**787.7**	**1,563.0**		**383.6**	**193.8**	**578.2**		**115.3**	**61.2**	**164.3**		**648.3**	**296.9**	**983.8**		

UNK = Unknown

NOTE: These tables should only be used 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.

In 2011, race/ethnicity was unknown (i.e., unknown, missing, or invalid data values) for 26.1% of reported chlamydia cases.

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

Table 12. Chlamydia—Reported Cases and Rates for Women 15-25 Years of Age, United States, 2007-2011

	Age	Cases	Rate per 100,000 Population
2007	15	23,729	1,139.3
	16	45,131	2,134.5
	17	67,160	3,123.3
	18	86,461	4,168.5
	19	87,993	4,302.3
	20	79,823	3,937.3
	21	70,060	3,434.3
	22	59,132	2,882.7
	23	49,066	2,436.5
	24	41,234	2,014.3
	25	34,339	1,653.9
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	1,248.5
	16	48,942	2,330.5
	17	75,143	3,524.3
	18	104,501	4,760.0
	19	112,440	5,012.4
	20	107,958	4,883.2
	21	95,195	4,467.0
	22	77,799	3,728.1
	23	62,339	3,029.4
	24	50,243	2,409.4
	25	40,711	1,937.7

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, 2011

Rank*	State	Cases	Rate per 100,000 Population
1	Louisiana	9,169	202.3
2	Mississippi	5,814	195.9
3	Alabama	9,132	191.1
4	North Carolina	17,454	183.0
5	South Carolina	8,350	180.5
6	Georgia	16,428	169.6
7	Arkansas	4,687	160.7
8	Ohio	16,726	145.0
9	Alaska	984	138.5
10	Illinois	17,037	132.8
11	Michigan	12,901	130.5
12	Missouri	7,802	130.3
13	Texas	30,930	123.0
14	Tennessee	7,667	120.8
15	Oklahoma	4,215	112.4
16	Maryland	6,458	111.9
17	Pennsylvania	13,770	108.4
18	New York	20,706	106.9
19	Florida	19,689	104.7
	U.S. TOTAL†	**321,849**	**104.2**
20	Kentucky	4,521	104.2
21	Indiana	6,569	101.3
22	Delaware	827	92.1
23	New Mexico	1,839	89.3
24	Wisconsin	4,789	84.2
25	New Jersey	7,348	83.6
26	Virginia	6,518	81.5
27	Kansas	2,209	77.4
28	Nevada	2,000	74.1
29	Nebraska	1,352	74.0
30	South Dakota	602	73.9
31	California	27,516	73.9
32	Arizona	4,564	71.4
33	Connecticut	2,449	68.5
34	Iowa	1,920	63.0
35	Hawaii	685	50.4
36	Colorado	2,363	47.0
37	Minnesota	2,284	43.1
38	West Virginia	796	43.0
39	Washington	2,737	40.7
40	Oregon	1,489	38.9
41	North Dakota	251	37.3
42	Massachusetts	2,353	35.9
43	Rhode Island	360	34.2
44	Maine	272	20.5
45	Idaho	162	10.3
46	Utah	277	10.0
47	New Hampshire	130	9.9
48	Montana	85	8.6
49	Wyoming	46	8.2
50	Vermont	48	7.7

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

† Total includes cases reported by the District of Columbia with 2,569 cases and a rate of 426.9, but excludes outlying areas (Guam with 96 cases and rate of 53.1, Puerto Rico with 341 cases and rate of 9.2, and Virgin Islands with 139 cases and rate of 126.7).

Table 14. Gonorrhea—Reported Cases and Rates by State/Area and Region in Alphabetical Order, United States and Outlying Areas, 2007–2011

State/Area	Cases					Rates per 100,000 Population				
	2007	2008	2009	2010	2011	2007	2008	2009	2010	2011
Alabama	10,885	9,740	7,498	7,933	9,132	235.2	208.9	159.2	166.0	191.1
Alaska	579	578	990	1,273	984	84.7	84.2	141.7	179.2	138.5
Arizona	5,062	3,449	3,250	3,249	4,564	79.9	53.1	49.3	50.8	71.4
Arkansas	4,168	4,514	4,460	4,769	4,687	147.0	158.1	154.4	163.6	160.7
California	31,294	25,787	23,228	26,441	27,516	85.6	70.2	62.8	71.0	73.9
Colorado	3,376	3,757	2,823	2,787	2,363	69.4	76.1	56.2	55.4	47.0
Connecticut	2,327	2,801	2,558	2,569	2,449	66.4	80.0	72.7	71.9	68.5
Delaware	1,293	1,045	971	1,010	827	149.5	119.7	109.7	112.5	92.1
District of Columbia	2,373	2,656	2,561	2,104	2,569	403.4	448.8	427.1	349.7	426.9
Florida	23,327	23,326	20,878	20,163	19,689	127.8	127.3	112.6	107.2	104.7
Georgia	17,835	16,272	13,687	15,852	16,428	186.9	168.0	139.2	163.6	169.6
Hawaii	659	610	631	759	685	51.3	47.4	48.7	55.8	50.4
Idaho	269	187	110	147	162	17.9	12.3	7.1	9.4	10.3
Illinois	20,813	20,674	19,962	15,777	17,037	161.9	160.2	154.6	123.0	132.8
Indiana	8,790	8,769	6,835	6,496	6,569	138.5	137.5	106.4	100.2	101.3
Iowa	1,928	1,700	1,658	1,803	1,920	64.5	56.6	55.1	59.2	63.0
Kansas	2,282	2,274	2,505	2,084	2,209	82.2	81.2	88.9	73.0	77.4
Kentucky	3,449	4,548	3,827	4,345	4,521	81.3	106.5	88.7	100.1	104.2
Louisiana	11,137	9,455	8,996	8,912	9,169	259.4	214.4	200.3	196.6	202.3
Maine	118	96	143	162	272	9.0	7.3	10.8	12.2	20.5
Maryland	6,768	6,666	6,395	7,413	6,458	120.5	118.3	112.2	128.4	111.9
Massachusetts	2,695	2,129	1,976	2,483	2,353	41.8	32.8	30.0	37.9	35.9
Michigan	15,482	17,064	14,704	13,627	12,901	153.7	170.6	147.5	137.9	130.5
Minnesota	3,459	3,037	2,303	2,119	2,284	66.5	58.2	43.7	40.0	43.1
Mississippi	8,314	7,494	7,241	6,195	5,814	284.8	255.0	245.3	208.8	195.9
Missouri	9,876	8,014	6,488	7,159	7,802	168.0	135.6	108.4	119.5	130.3
Montana	122	122	80	102	85	12.7	12.6	8.2	10.3	8.6
Nebraska	1,434	1,460	1,376	1,187	1,352	80.8	81.9	76.6	65.0	74.0
Nevada	2,357	2,172	1,726	1,728	2,000	91.9	83.5	65.3	64.0	74.1
New Hampshire	138	100	113	151	130	10.5	7.6	8.5	11.5	9.9
New Jersey	6,076	5,298	4,762	5,872	7,348	70.0	61.0	54.7	66.8	83.6
New Mexico	1,796	1,403	1,082	1,229	1,839	91.2	70.7	53.8	59.7	89.3
New York	17,697	17,108	17,004	18,320	20,706	91.7	87.8	87.0	94.5	106.9
North Carolina	16,666	15,972	13,870	14,111	17,454	183.9	173.2	147.9	148.0	183.0
North Dakota	116	143	151	204	251	18.1	22.3	23.3	30.3	37.3
Ohio	21,066	16,803	15,988	16,496	16,726	183.7	146.3	138.5	143.0	145.0
Oklahoma	4,827	5,185	4,673	4,369	4,215	133.4	142.4	126.7	116.5	112.4
Oregon	1,236	1,225	1,113	1,076	1,489	33.0	32.3	29.1	28.1	38.9
Pennsylvania	12,706	11,071	10,138	12,883	13,770	102.2	88.9	80.4	101.4	108.4
Rhode Island	402	307	322	291	360	38.0	29.2	30.6	27.6	34.2
South Carolina	10,326	9,442	8,318	7,970	8,350	234.3	210.8	182.4	172.3	180.5
South Dakota	261	375	344	468	602	32.8	46.6	42.3	57.5	73.9
Tennessee	9,564	8,780	7,926	7,121	7,667	155.3	141.3	125.9	112.2	120.8
Texas	32,073	32,199	29,295	31,788	30,930	134.2	132.4	118.2	126.4	123.0
Utah	821	477	341	310	277	31.0	17.4	12.2	11.2	10.0
Vermont	64	37	50	58	48	10.3	6.0	8.0	9.3	7.7
Virginia	6,269	10,337	7,789	7,402	6,518	81.3	133.1	98.8	92.5	81.5
Washington	3,653	3,127	2,285	2,864	2,737	56.5	47.7	34.3	42.6	40.7
West Virginia	930	746	475	579	796	51.3	41.1	26.1	31.2	43.0
Wisconsin	6,752	6,087	5,201	5,091	4,789	120.5	108.2	92.0	89.5	84.2
Wyoming	81	124	74	40	46	15.5	23.3	13.6	7.1	8.2
U.S. TOTAL	**355,991**	**336,742**	**301,174**	**309,341**	**321,849**	**118.0**	**110.7**	**98.1**	**100.2**	**104.2**
Northeast	42,223	38,947	37,066	42,789	47,436	77.2	70.9	67.0	77.4	85.8
Midwest	92,259	86,400	77,515	72,511	74,442	139.0	129.8	116.0	108.3	111.2
South	170,204	168,377	148,860	152,036	155,224	154.1	150.7	131.4	132.7	135.5
West	51,305	43,018	37,733	42,005	44,747	73.2	60.7	52.7	58.4	62.2
Guam	141	109	59	97	96	81.2	61.9	33.1	53.6	53.1
Puerto Rico	323	273	230	312	341	8.2	6.9	5.8	8.4	9.2
Virgin Islands	69	120	115	151	139	62.8	109.2	104.7	137.6	126.7
OUTLYING AREAS	**533**	**502**	**404**	**560**	**576**	**12.6**	**11.8**	**9.5**	**13.9**	**14.3**
TOTAL	**356,524**	**337,244**	**301,578**	**309,901**	**322,425**	**116.6**	**109.4**	**96.9**	**99.1**	**103.1**

Table 15. Gonorrhea—Women—Reported Cases and Rates by State/Area and Region in Alphabetical Order, United States and Outlying Areas, 2007–2011

State/Area	Cases					Rates per 100,000 Population				
	2007	2008	2009	2010	2011	2007	2008	2009	2010	2011
Alabama	6,095	5,582	4,240	4,432	5,103	255.5	232.2	174.7	180.2	207.5
Alaska	326	321	516	698	515	99.2	97.7	153.5	204.9	151.2
Arizona	2,342	1,577	1,475	1,553	2,212	74.0	48.6	44.8	48.3	68.8
Arkansas	2,275	2,520	2,562	2,729	2,687	157.4	173.0	173.8	183.9	181.0
California	14,533	11,625	9,430	10,546	10,811	79.5	63.3	51.1	56.3	57.7
Colorado	1,807	1,978	1,502	1,514	1,285	75.0	80.8	60.2	60.4	51.2
Connecticut	1,372	1,686	1,491	1,449	1,378	76.4	94.0	82.8	79.0	75.1
Delaware	699	606	564	621	471	156.9	134.7	123.8	134.1	101.7
District of Columbia	1,077	1,259	1,233	1,073	1,209	347.2	403.6	389.5	338.0	380.8
Florida	11,793	12,279	10,745	10,240	9,999	127.0	131.7	114.1	106.5	104.0
Georgia	9,334	8,687	7,253	8,297	8,589	192.4	176.5	145.2	167.3	173.2
Hawaii	295	298	264	314	273	46.3	46.7	41.2	46.2	40.2
Idaho	152	90	51	68	79	20.4	11.9	6.6	8.7	10.1
Illinois	11,312	11,342	11,248	8,924	9,500	173.5	173.4	171.7	136.5	145.3
Indiana	4,884	5,056	3,985	3,598	3,690	151.7	156.3	122.3	109.2	112.0
Iowa	1,121	1,024	1,049	1,179	1,217	74.1	67.4	68.9	76.7	79.1
Kansas	1,401	1,459	1,541	1,235	1,360	100.1	103.5	108.6	85.9	94.6
Kentucky	1,887	2,511	2,132	2,487	2,596	87.2	115.1	97.1	112.8	117.8
Louisiana	5,822	5,177	5,125	4,824	5,263	263.7	228.1	222.2	208.5	227.4
Maine	45	43	62	75	122	6.7	6.4	9.2	11.1	18.0
Maryland	3,529	3,604	3,457	4,028	3,461	121.7	124.0	117.8	135.1	116.1
Massachusetts	1,282	1,100	976	1,004	1,083	38.6	32.9	28.8	29.7	32.0
Michigan	8,984	10,047	8,536	7,971	7,599	175.7	197.8	168.5	158.3	150.9
Minnesota	1,930	1,657	1,270	1,248	1,294	74.0	63.2	48.0	46.7	48.4
Mississippi	4,901	4,357	4,335	3,602	3,344	325.6	287.6	285.0	236.0	219.1
Missouri	5,481	4,542	3,585	3,951	4,195	182.3	150.2	117.1	129.3	137.3
Montana	75	92	46	56	51	15.7	19.0	9.4	11.4	10.4
Nebraska	847	891	821	675	823	94.6	99.1	90.7	73.4	89.5
Nevada	1,066	1,012	826	830	879	84.7	79.3	63.7	62.1	65.7
New Hampshire	63	49	54	59	59	9.5	7.3	8.0	8.8	8.8
New Jersey	3,059	2,813	2,435	3,115	3,916	68.9	63.5	54.8	69.0	86.8
New Mexico	974	783	570	610	925	97.6	77.8	56.2	58.6	88.8
New York	8,324	8,349	7,927	8,718	9,716	83.8	83.3	78.9	87.2	97.2
North Carolina	8,941	8,876	7,868	8,314	10,076	193.0	188.6	164.2	170.0	206.1
North Dakota	66	93	88	140	149	20.7	29.1	27.3	42.1	44.8
Ohio	11,771	9,784	9,766	10,034	10,009	200.3	166.3	165.3	169.9	169.5
Oklahoma	2,606	2,964	2,809	2,493	2,395	142.4	160.8	150.6	131.6	126.4
Oregon	564	553	505	477	602	29.9	29.0	26.2	24.7	31.1
Pennsylvania	6,945	6,210	5,650	7,268	7,687	108.8	97.2	87.4	111.6	118.0
Rhode Island	169	135	146	121	167	31.0	24.9	27.0	22.2	30.7
South Carolina	5,640	5,704	5,004	4,905	4,981	249.5	248.2	213.8	206.5	209.7
South Dakota	153	247	190	290	399	38.3	61.2	46.7	71.3	98.1
Tennessee	5,247	4,801	4,365	3,884	4,112	166.5	150.7	135.3	119.4	126.4
Texas	16,192	17,029	16,071	17,246	16,476	135.2	139.8	129.6	136.1	130.0
Utah	345	137	70	75	66	26.3	10.1	5.1	5.5	4.8
Vermont	30	19	29	24	24	9.5	6.0	9.2	7.6	7.6
Virginia	3,369	5,847	4,314	4,146	3,693	85.8	147.9	107.6	101.7	90.6
Washington	1,858	1,522	949	1,044	1,066	57.2	46.4	28.5	30.9	31.6
West Virginia	504	425	281	326	467	54.5	45.9	30.3	34.7	49.7
Wisconsin	4,066	3,744	3,113	3,164	2,907	144.3	132.3	109.4	110.5	101.5
Wyoming	41	71	44	19	25	15.9	27.0	16.5	6.9	9.1
U.S. TOTAL	**187,594**	**182,577**	**162,568**	**165,693**	**171,005**	**122.6**	**118.5**	**104.5**	**105.6**	**108.9**
Northeast	21,289	20,404	18,770	21,833	24,152	75.8	72.4	66.2	76.7	84.9
Midwest	52,016	49,886	45,192	42,409	43,142	154.4	147.7	133.3	124.7	126.9
South	89,911	92,228	82,358	83,647	84,922	160.0	162.3	143.0	143.2	145.4
West	24,378	20,059	16,248	17,804	18,789	69.7	56.7	45.5	49.3	52.1
Guam	66	58	32	45	44	77.5	67.1	36.5	50.6	49.5
Puerto Rico	165	128	126	141	140	8.0	6.2	6.1	7.3	7.2
Virgin Islands	51	86	90	96	94	88.3	148.8	155.6	165.9	162.5
OUTLYING AREAS	**282**	**272**	**248**	**282**	**278**	**12.9**	**12.4**	**11.2**	**13.5**	**13.3**
TOTAL	**187,876**	**182,849**	**162,816**	**165,975**	**171,283**	**121.1**	**117.0**	**103.2**	**104.4**	**107.7**

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, 2007–2011

State/Area	Cases					Rates per 100,000 Population				
	2007	2008	2009	2010	2011	2007	2008	2009	2010	2011
Alabama	4,786	4,151	3,250	3,430	3,825	213.5	183.8	142.4	147.8	164.9
Alaska	253	257	474	575	469	71.3	71.9	130.9	155.6	126.9
Arizona	2,718	1,869	1,775	1,696	2,350	85.7	57.4	53.7	53.4	74.0
Arkansas	1,890	1,993	1,898	2,038	1,996	136.0	142.5	134.1	142.4	139.4
California	16,632	14,025	13,705	15,773	16,598	91.0	76.3	74.1	85.2	89.6
Colorado	1,569	1,777	1,319	1,273	1,078	64.0	71.3	52.1	50.5	42.8
Connecticut	955	1,113	1,067	1,120	1,071	55.9	65.2	62.1	64.4	61.6
Delaware	594	439	407	389	356	141.7	103.7	94.7	89.4	81.9
District of Columbia	1,284	1,383	1,328	1,028	1,360	461.7	494.1	469.2	361.7	478.5
Florida	11,527	10,995	10,099	9,906	9,675	128.5	122.1	110.7	107.8	105.3
Georgia	8,401	7,465	6,368	7,421	7,684	179.0	156.7	131.7	156.9	162.5
Hawaii	364	312	367	445	412	56.4	48.0	56.1	65.3	60.5
Idaho	112	97	58	78	83	14.8	12.7	7.5	9.9	10.6
Illinois	9,501	9,331	8,710	6,824	7,513	150.0	146.7	137.0	108.5	119.4
Indiana	3,880	3,693	2,831	2,884	2,867	124.1	117.5	89.5	90.4	89.9
Iowa	807	676	609	624	703	54.7	45.6	41.0	41.4	46.6
Kansas	881	815	964	849	849	64.0	58.6	68.9	60.0	60.0
Kentucky	1,559	2,030	1,690	1,854	1,913	75.0	97.2	79.8	86.8	89.6
Louisiana	5,201	4,233	3,849	3,540	3,739	249.4	197.7	176.1	159.5	168.5
Maine	73	53	81	86	150	11.4	8.3	12.6	13.2	23.1
Maryland	3,238	3,054	2,922	3,377	2,992	119.1	112.0	105.7	121.0	107.2
Massachusetts	1,412	1,026	996	1,479	1,269	45.2	32.5	31.1	46.7	40.1
Michigan	6,447	6,876	6,004	5,634	5,281	130.0	139.6	122.5	116.2	108.9
Minnesota	1,529	1,380	1,033	871	990	59.1	53.1	39.4	33.1	37.6
Mississippi	3,413	3,135	2,906	2,593	2,470	241.4	220.2	203.1	179.9	171.4
Missouri	4,395	3,472	2,903	3,208	3,607	153.1	120.2	99.2	109.4	123.0
Montana	47	29	34	46	34	9.8	6.0	7.0	9.3	6.8
Nebraska	583	568	553	512	528	66.3	64.2	62.0	56.5	58.3
Nevada	1,291	1,160	900	898	1,121	98.8	87.6	66.9	65.9	82.2
New Hampshire	75	51	59	92	71	11.6	7.9	9.0	14.2	10.9
New Jersey	3,014	2,483	2,326	2,727	3,400	70.9	58.4	54.5	63.7	79.4
New Mexico	822	619	512	619	914	84.6	63.3	51.5	60.8	89.8
New York	9,363	8,751	9,072	9,601	10,977	100.0	92.5	95.5	102.4	117.1
North Carolina	7,725	7,023	5,902	5,712	7,300	174.5	155.5	128.6	123.0	157.1
North Dakota	50	50	62	64	101	15.6	15.5	19.1	18.8	29.7
Ohio	9,164	6,693	6,068	6,421	6,717	163.9	119.4	107.7	114.0	119.3
Oklahoma	2,221	2,212	1,857	1,873	1,708	124.3	123.0	101.9	100.9	92.0
Oregon	672	672	608	599	887	36.1	35.7	32.0	31.6	46.8
Pennsylvania	5,758	4,860	4,484	5,615	6,078	95.2	80.2	73.0	90.7	98.2
Rhode Island	232	172	176	170	193	45.3	33.8	34.4	33.4	38.0
South Carolina	4,665	3,712	3,289	3,056	3,351	217.3	170.2	148.1	135.8	148.9
South Dakota	107	128	153	177	202	27.0	31.9	37.7	43.4	49.6
Tennessee	4,317	3,979	3,560	3,235	3,555	143.6	131.4	116.0	104.6	114.9
Texas	15,819	15,150	13,215	14,524	14,448	132.6	124.8	106.8	116.5	115.8
Utah	476	340	271	235	211	35.6	24.6	19.3	16.9	15.2
Vermont	34	18	21	33	24	11.1	5.9	6.9	10.7	7.8
Virginia	2,895	4,477	3,465	3,248	2,814	76.5	117.3	89.4	82.7	71.7
Washington	1,795	1,600	1,334	1,818	1,671	55.7	48.9	40.1	54.3	49.9
West Virginia	426	321	194	253	329	48.0	36.1	21.7	27.7	36.0
Wisconsin	2,673	2,332	2,061	1,926	1,880	96.0	83.4	73.4	68.2	66.6
Wyoming	40	53	30	21	21	15.1	19.6	10.8	7.3	7.3
U.S. TOTAL	**167,685**	**153,103**	**137,819**	**142,470**	**149,835**	**112.8**	**102.1**	**91.0**	**93.9**	**98.7**
Northeast	20,916	18,527	18,282	20,923	23,233	78.6	69.3	67.9	77.9	86.5
Midwest	40,017	36,014	31,951	29,994	31,238	122.4	109.8	97.0	91.1	94.9
South	79,961	75,752	66,199	67,477	69,515	147.4	138.0	118.8	120.2	123.8
West	26,791	22,810	21,387	24,076	25,849	76.3	64.3	59.6	67.2	72.1
Guam	75	51	27	52	52	84.9	56.9	29.8	56.6	56.6
Puerto Rico	158	145	104	171	201	8.3	7.6	5.5	9.6	11.3
Virgin Islands	18	34	25	55	45	34.6	65.3	48.1	106.0	86.7
OUTLYING AREAS	**251**	**230**	**156**	**278**	**298**	**12.3**	**11.3**	**7.6**	**14.4**	**15.4**
TOTAL	**167,936**	**153,333**	**137,975**	**142,748**	**150,133**	**111.4**	**100.9**	**89.9**	**92.9**	**97.7**

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, 2007–2011

MSAs	Cases					Rates per 100,000 Population				
	2007	2008	2009	2010	2011	2007	2008	2009	2010	2011
Atlanta-Sandy Springs-Marietta, GA	9,060	8,084	7,466	8,337	8,567	171.6	150.4	136.4	158.2	162.6
Austin-Round Rock, TX	2,075	2,388	1,973	1,932	2,009	129.8	144.5	115.7	112.6	117.1
Baltimore-Towson, MD	4,156	4,146	3,869	4,369	3,634	155.8	155.4	143.8	161.2	134.1
Birmingham-Hoover, AL	3,129	2,891	1,970	2,363	2,550	282.3	258.7	174.2	209.5	226.1
Boston-Cambridge-Quincy, MA-NH	1,770	1,464	1,352	1,881	1,671	39.5	32.4	29.5	41.3	36.7
Buffalo-Cheektowaga-Tonawanda, NY	2,289	1,898	1,574	1,227	1,543	202.9	168.8	140.1	108.1	135.9
Charlotte-Gastonia-Concord, NC-SC	2,388	3,249	3,165	2,424	3,328	144.6	190.9	181.3	137.9	189.3
Chicago-Naperville-Joliet, IL-IN-WI	14,979	16,181	15,864	12,380	13,188	157.3	169.1	165.6	130.9	139.4
Cincinnati-Middletown, OH-KY-IN	4,583	3,926	3,219	3,379	3,516	214.8	182.2	148.2	158.6	165.1
Cleveland-Elyria-Mentor, OH	4,286	2,770	3,089	3,608	3,930	204.4	132.6	147.7	173.7	189.2
Columbus, OH	4,136	3,853	3,192	3,351	3,022	235.8	217.3	177.2	182.5	164.5
Dallas-Fort Worth-Arlington, TX	10,064	9,197	7,930	8,766	8,732	163.8	146.0	123.0	137.6	137.0
Denver-Aurora, CO	2,238	2,625	1,995	2,344	1,662	90.8	104.7	78.2	92.2	65.3
Detroit-Warren-Livonia, MI	8,554	10,850	9,366	9,160	8,924	191.5	245.2	212.7	213.2	207.7
Hartford-West Hartford-East Hartford, CT	920	1,029	961	1,126	1,036	77.4	86.4	80.4	92.9	85.5
Houston-Baytown-Sugar Land, TX	7,757	7,290	6,232	7,652	6,864	137.8	127.3	106.2	128.7	115.4
Indianapolis, IN	4,543	4,194	2,975	2,969	2,962	268.0	244.5	170.6	169.1	168.7
Jacksonville, FL	3,113	2,979	2,015	2,128	2,040	239.3	226.8	151.7	158.1	151.6
Kansas City, MO-KS	3,683	3,268	3,192	3,213	2,920	185.5	163.2	154.4	157.9	143.5
Las Vegas-Paradise, NV	2,112	1,918	1,553	1,604	1,740	115.0	102.8	81.6	82.2	89.2
Los Angeles-Long Beach-Santa Ana, CA	11,059	9,832	9,774	11,156	11,105	85.9	76.4	75.9	87.0	86.6
Louisville, KY-IN	1,908	2,300	2,125	2,272	2,462	154.7	184.8	168.8	177.0	191.8
Memphis, TN-MS-AR	4,756	4,475	4,536	4,086	3,849	371.4	348.1	347.6	310.5	292.5
Miami-Fort Lauderdale-Miami Beach, FL	5,152	5,471	5,239	5,506	5,352	95.2	101.0	94.4	98.9	96.2
Milwaukee-Waukesha-West Allis, WI	4,960	446	3,588	3,425	3,349	321.2	28.8	230.0	220.1	215.2
Minneapolis-St. Paul-Bloomington, MN-WI	2,834	2,345	1,800	1,665	1,880	88.3	72.6	55.0	50.8	57.3
Nashville-Davidson-Murfreesboro, TN	1,692	1,541	1,225	1,292	1,654	111.2	99.4	77.4	81.3	104.0
New Orleans-Metairie-Kenner, LA	2,713	2,045	2,082	1,991	2,069	263.3	180.3	175.0	170.5	177.2
New York-Newark-Edison, NY-NJ-PA	15,396	15,116	15,254	17,507	20,855	81.8	79.5	80.0	92.6	110.4
Oklahoma City, OK	2,373	2,403	2,066	1,700	1,845	198.9	199.2	168.3	135.7	147.2
Orlando, FL	2,743	2,704	2,663	2,495	2,277	135.0	131.6	127.9	116.9	106.7
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	8,669	7,724	7,407	9,694	10,123	148.7	132.3	124.1	162.5	169.7
Phoenix-Mesa-Scottsdale, AZ	3,333	2,211	2,317	2,335	3,340	79.7	51.6	53.1	55.7	79.7
Pittsburgh, PA	2,599	2,569	1,866	2,069	2,473	110.3	109.3	79.2	87.8	105.0
Portland-Vancouver-Beaverton, OR-WA	1,053	1,033	826	926	1,318	48.4	46.8	36.8	41.6	59.2
Providence-New Bedford-Fall River, RI-MA	621	455	427	382	475	38.8	28.5	26.7	23.9	29.7
Richmond, VA	2,199	2,698	1,900	1,742	1,441	181.3	220.1	153.5	138.4	114.5
Riverside-San Bernardino-Ontario, CA	3,166	2,199	1,921	1,924	2,330	77.6	53.4	46.4	45.5	55.1
Rochester, NY	1,207	1,345	1,465	1,319	1,066	117.1	130.1	141.5	125.1	101.1
Sacramento-Arden-Arcade-Roseville, CA	2,315	1,771	1,124	1,676	1,913	110.7	83.9	52.8	78.0	89.0
Salt Lake City, UT	573	346	244	204	199	52.1	31.0	21.6	18.1	17.7
San Antonio, TX	2,601	3,113	3,697	3,729	3,731	130.7	153.2	178.4	174.0	174.1
San Diego-Carlsbad-San Marcos, CA	2,385	2,066	1,829	2,021	2,173	80.2	68.8	59.9	65.3	70.2
San Francisco-Oakland-Fremont, CA	5,695	5,065	4,375	4,867	5,009	135.5	118.5	101.3	112.3	115.5
San Jose-Sunnyvale-Santa Clara, CA	893	712	563	586	680	49.5	39.1	30.6	31.9	37.0
Seattle-Tacoma-Bellevue, WA	2,572	2,182	1,700	2,189	1,971	77.7	65.2	49.9	63.6	57.3
St. Louis, MO-IL	6,483	5,003	3,620	4,137	5,017	231.2	177.6	128.0	147.1	178.4
Tampa-St. Petersburg-Clearwater, FL	3,819	3,852	3,818	3,516	3,655	140.2	140.9	139.0	126.3	131.3
Virginia Beach-Norfolk-Newport News, VA-NC	2,504	4,935	3,647	3,429	2,810	151.0	297.6	217.8	205.1	168.1
Washington-Arlington-Alexandria, DC-VA-MD-WV	4,665	5,557	5,321	5,234	5,477	87.9	103.7	97.2	93.8	98.1
U.S. MSAs TOTAL	**208,773**	**197,714**	**181,371**	**189,287**	**195,736**	**128.3**	**120.4**	**109.1**	**114.1**	**117.9**

* 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, 2007–2011

MSAs	Cases					Rates per 100,000 Population				
	2007	2008	2009	2010	2011	2007	2008	2009	2010	2011
Atlanta-Sandy Springs-Marietta, GA	4,515	3,967	3,633	3,954	4,136	169.1	145.8	131.1	146.2	152.9
Austin-Round Rock, TX	992	1,177	980	910	935	127.1	145.9	117.4	106.3	109.2
Baltimore-Towson, MD	2,179	2,302	2,181	2,397	1,941	157.6	166.6	156.5	170.5	138.1
Birmingham-Hoover, AL	1,761	1,655	1,056	1,323	1,417	307.0	286.0	180.6	226.6	242.7
Boston-Cambridge-Quincy, MA-NH	773	720	624	708	730	33.6	31.0	26.5	30.1	31.1
Buffalo-Cheektowaga-Tonawanda, NY	1,258	1,059	878	669	828	215.3	181.9	151.0	113.9	140.9
Charlotte-Gastonia-Concord, NC-SC	1,188	1,697	1,750	1,334	1,776	141.1	196.0	196.6	147.6	196.5
Chicago-Naperville-Joliet, IL-IN-WI	7,813	8,594	8,712	6,741	7,015	161.7	177.1	179.0	139.3	145.0
Cincinnati-Middletown, OH-KY-IN	2,884	2,696	2,181	2,330	2,264	264.2	244.5	196.4	214.0	208.0
Cleveland-Elyria-Mentor, OH	2,180	1,469	1,808	2,082	2,371	200.3	135.5	166.6	193.0	219.8
Columbus, OH	2,142	2,062	1,873	1,917	1,552	241.1	229.8	205.2	205.0	166.0
Dallas-Fort Worth-Arlington, TX	4,905	4,953	4,556	4,788	4,645	160.5	158.2	142.2	148.2	143.8
Denver-Aurora, CO	1,128	1,345	1,035	1,261	885	91.9	107.9	81.4	98.6	69.2
Detroit-Warren-Livonia, MI	4,721	6,226	5,204	5,217	5,114	206.7	275.1	230.8	235.6	231.0
Hartford-West Hartford-East Hartford, CT	522	609	551	633	596	85.6	99.8	90.0	101.7	95.8
Houston-Baytown-Sugar Land, TX	3,805	3,749	3,302	4,174	3,805	135.5	131.2	112.8	139.6	127.3
Indianapolis, IN	2,385	2,290	1,603	1,545	1,572	276.7	262.4	180.6	171.8	174.8
Jacksonville, FL	1,532	1,587	1,048	1,152	1,121	230.4	236.4	154.1	167.0	162.5
Kansas City, MO-KS	2,040	1,888	1,821	1,810	1,596	201.8	185.3	173.1	174.2	153.6
Las Vegas-Paradise, NV	954	880	746	779	742	105.8	96.0	79.8	80.4	76.6
Los Angeles-Long Beach-Santa Ana, CA	5,001	4,214	3,641	3,947	3,944	77.1	65.0	56.2	60.7	60.7
Louisville, KY-IN	1,026	1,228	1,133	1,263	1,413	162.3	192.2	175.9	192.3	215.2
Memphis, TN-MS-AR	2,789	2,472	2,537	2,285	2,191	420.2	370.2	374.6	333.9	320.2
Miami-Fort Lauderdale-Miami Beach, FL	2,444	2,661	2,439	2,480	2,361	87.9	95.6	85.9	86.4	82.2
Milwaukee-Waukesha-West Allis, WI	2,972	300	2,098	2,070	1,980	376.2	37.9	262.8	259.0	247.8
Minneapolis-St. Paul-Bloomington, MN-WI	1,500	1,210	928	950	1,028	93.0	74.6	56.4	57.2	61.9
Nashville-Davidson-Murfreesboro, TN	800	783	625	597	759	103.7	99.4	77.7	73.5	93.4
New Orleans-Metairie-Kenner, LA	1,322	984	1,098	1,014	1,110	246.6	166.6	177.8	169.2	185.2
New York-Newark-Edison, NY-NJ-PA	6,979	7,089	6,886	8,124	9,670	71.8	72.3	70.1	82.9	98.7
Oklahoma City, OK	1,202	1,294	1,188	962	1,034	198.8	211.5	190.6	151.3	162.7
Orlando, FL	1,377	1,424	1,364	1,171	1,090	134.3	137.3	129.7	107.5	100.0
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	4,416	4,098	3,811	5,125	5,361	146.7	135.9	123.6	166.0	173.7
Phoenix-Mesa-Scottsdale, AZ	1,497	988	1,022	1,071	1,568	72.3	46.7	47.4	50.8	74.4
Pittsburgh, PA	1,530	1,524	1,161	1,274	1,501	125.2	125.0	95.2	104.6	123.2
Portland-Vancouver-Beaverton, OR-WA	446	420	322	371	482	40.9	38.0	28.6	32.9	42.8
Providence-New Bedford-Fall River, RI-MA	282	209	196	159	232	34.1	25.4	23.8	19.2	28.1
Richmond, VA	1,122	1,436	1,010	994	808	179.7	227.9	158.5	153.0	124.4
Riverside-San Bernardino-Ontario, CA	1,705	1,237	1,024	976	1,196	83.6	60.2	49.6	46.0	56.3
Rochester, NY	608	744	744	714	525	115.2	140.6	140.5	131.8	96.9
Sacramento-Arden-Arcade-Roseville, CA	1,190	917	557	907	990	112.0	85.6	51.7	82.8	90.4
Salt Lake City, UT	229	88	37	41	42	42.4	16.0	6.6	7.3	7.5
San Antonio, TX	1,279	1,557	1,921	1,886	1,835	126.0	150.3	182.0	173.0	168.3
San Diego-Carlsbad-San Marcos, CA	961	803	620	535	609	64.9	53.9	40.7	34.7	39.5
San Francisco-Oakland-Fremont, CA	2,174	1,863	1,421	1,710	1,531	102.8	86.7	65.5	77.8	69.7
San Jose-Sunnyvale-Santa Clara, CA	385	312	248	249	243	43.7	35.2	27.6	27.2	26.5
Seattle-Tacoma-Bellevue, WA	1,205	965	604	686	649	72.7	57.7	35.4	39.7	37.6
St. Louis, MO-IL	3,539	2,756	1,908	2,188	2,701	244.5	189.6	130.8	150.9	186.2
Tampa-St. Petersburg-Clearwater, FL	1,973	2,006	1,907	1,834	1,887	141.1	143.0	135.4	127.7	131.4
Virginia Beach-Norfolk-Newport News, VA-NC	1,355	2,875	2,008	1,858	1,559	159.8	339.3	234.4	218.1	183.0
Washington-Arlington-Alexandria, DC-VA-MD-WV	2,268	2,711	2,637	2,673	2,695	83.5	98.8	94.3	93.3	94.0
U.S. MSAs TOTAL	**105,253**	**102,093**	**92,637**	**95,838**	**98,035**	**127.3**	**122.4**	**109.8**	**113.0**	**115.6**

* 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, 2007–2011

MSAs	Cases					Rates per 100,000 Population				
	2007	2008	2009	2010	2011	2007	2008	2009	2010	2011
Atlanta-Sandy Springs-Marietta, GA	4,484	4,054	3,786	4,306	4,338	171.9	152.6	140.0	167.9	169.2
Austin-Round Rock, TX	1,081	1,208	991	1,022	1,073	132.2	142.8	113.9	118.8	124.8
Baltimore-Towson, MD	1,976	1,841	1,675	1,968	1,690	153.7	143.2	129.2	150.8	129.5
Birmingham-Hoover, AL	1,367	1,235	913	1,024	1,094	255.7	229.1	167.2	188.2	201.0
Boston-Cambridge-Quincy, MA-NH	996	742	726	1,173	940	45.7	33.7	32.5	53.2	42.7
Buffalo-Cheektowaga-Tonawanda, NY	1,031	839	696	558	715	189.6	154.7	128.3	101.8	130.5
Charlotte-Gastonia-Concord, NC-SC	1,199	1,542	1,405	1,083	1,542	148.1	184.5	164.3	126.8	180.6
Chicago-Naperville-Joliet, IL-IN-WI	7,161	7,586	7,141	5,610	6,150	152.6	160.9	151.5	121.4	133.0
Cincinnati-Middletown, OH-KY-IN	1,674	1,224	1,019	1,043	1,251	160.6	116.3	96.0	100.1	120.1
Cleveland-Elyria-Mentor, OH	2,091	1,295	1,254	1,517	1,559	207.4	128.9	124.6	151.9	156.1
Columbus, OH	1,985	1,788	1,289	1,431	1,470	229.2	204.2	145.0	158.7	163.1
Dallas-Fort Worth-Arlington, TX	5,123	4,243	3,374	3,975	4,086	165.9	133.9	104.0	126.5	130.1
Denver-Aurora, CO	1,110	1,278	958	1,083	777	89.7	101.5	74.8	85.6	61.4
Detroit-Warren-Livonia, MI	3,786	4,502	4,005	3,924	3,794	173.4	208.2	186.4	188.5	182.2
Hartford-West Hartford-East Hartford, CT	398	418	410	493	440	68.7	72.0	70.3	83.5	74.6
Houston-Baytown-Sugar Land, TX	3,930	3,525	2,926	3,465	3,056	139.4	122.8	99.5	117.2	103.3
Indianapolis, IN	2,150	1,902	1,369	1,421	1,383	258.1	225.7	159.9	165.8	161.4
Jacksonville, FL	1,581	1,392	966	973	919	248.7	216.8	149.1	148.4	140.2
Kansas City, MO-KS	1,643	1,380	1,371	1,403	1,324	168.6	140.3	135.0	140.8	132.9
Las Vegas-Paradise, NV	1,158	1,038	807	825	998	123.9	109.3	83.3	84.0	101.6
Los Angeles-Long Beach-Santa Ana, CA	6,023	5,543	6,081	7,156	7,124	94.2	86.7	95.0	113.1	112.6
Louisville, KY-IN	881	1,070	990	1,007	1,043	146.5	176.6	161.1	160.7	166.4
Memphis, TN-MS-AR	1,967	2,003	1,998	1,800	1,658	318.9	324.1	318.4	284.9	262.4
Miami-Fort Lauderdale-Miami Beach, FL	2,706	2,801	2,799	3,024	2,987	102.8	106.4	103.4	112.3	110.9
Milwaukee-Waukesha-West Allis, WI	1,975	145	1,470	1,354	1,368	261.8	19.1	193.1	178.9	180.8
Minneapolis-St. Paul-Bloomington, MN-WI	1,334	1,135	872	715	852	83.6	70.6	53.7	44.2	52.6
Nashville-Davidson-Murfreesboro, TN	892	758	600	694	895	119.0	99.4	77.1	89.3	115.1
New Orleans-Metairie-Kenner, LA	1,352	1,050	976	919	953	273.5	193.2	170.5	161.7	167.7
New York-Newark-Edison, NY-NJ-PA	8,406	8,017	8,363	9,358	11,149	92.4	87.1	90.5	102.8	122.5
Oklahoma City, OK	1,171	1,103	876	736	775	199.0	185.5	145.0	119.2	125.5
Orlando, FL	1,366	1,277	1,297	1,320	1,186	135.6	125.5	125.8	126.4	113.5
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	4,250	3,626	3,593	4,565	4,756	150.9	128.4	124.5	158.6	165.2
Phoenix-Mesa-Scottsdale, AZ	1,834	1,222	1,295	1,264	1,770	86.9	56.5	58.6	60.6	84.9
Pittsburgh, PA	1,069	1,045	704	795	971	94.3	92.3	62.0	69.8	85.3
Portland-Vancouver-Beaverton, OR-WA	607	611	504	555	836	56.0	55.5	45.2	50.5	76.1
Providence-New Bedford-Fall River, RI-MA	338	246	231	223	243	43.7	31.9	29.7	28.8	31.4
Richmond, VA	1,074	1,261	886	745	628	182.4	211.7	147.4	122.4	103.2
Riverside-San Bernardino-Ontario, CA	1,450	961	895	944	1,126	71.0	46.7	43.1	44.9	53.6
Rochester, NY	599	601	721	605	541	119.2	119.1	142.5	118.1	105.6
Sacramento-Arden-Arcade-Roseville, CA	1,098	835	558	756	917	106.7	80.4	53.2	71.8	87.0
Salt Lake City, UT	344	258	207	163	157	61.5	45.5	36.2	28.8	27.7
San Antonio, TX	1,322	1,556	1,775	1,843	1,896	135.5	156.3	174.6	175.1	180.1
San Diego-Carlsbad-San Marcos, CA	1,415	1,254	1,206	1,482	1,552	94.7	83.0	78.7	95.4	99.9
San Francisco-Oakland-Fremont, CA	3,493	3,179	2,933	3,127	3,454	167.2	149.5	136.5	146.3	161.6
San Jose-Sunnyvale-Santa Clara, CA	506	398	314	333	430	54.8	42.7	33.4	36.1	46.7
Seattle-Tacoma-Bellevue, WA	1,367	1,216	1,094	1,501	1,322	82.7	72.7	64.2	87.7	77.2
St. Louis, MO-IL	2,944	2,247	1,712	1,949	2,316	217.1	164.8	125.0	143.1	170.0
Tampa-St. Petersburg-Clearwater, FL	1,842	1,822	1,887	1,678	1,761	138.9	136.9	141.0	124.5	130.7
Virginia Beach-Norfolk-Newport News, VA-NC	1,148	2,058	1,633	1,569	1,249	141.6	253.7	199.6	191.4	152.4
Washington-Arlington-Alexandria, DC-VA-MD-WV	2,385	2,823	2,681	2,554	2,779	92.1	107.9	100.0	94.0	102.3
U.S. MSAs TOTAL	**103,082**	**95,153**	**88,232**	**93,031**	**97,293**	**128.8**	**117.7**	**107.8**	**114.6**	**119.9**

* 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, 2011

Rank†	County/Independent City	Cases	Rate per 100,000 Population	Cumulative Percentage
1	Cook County, IL	10,864	209.1	3
2	Los Angeles County, CA	10,121	103.1	6
3	Wayne County, MI	7,353	403.9	8
4	Philadelphia County, PA	6,761	443.1	10
5	Harris County, TX	5,764	140.8	12
6	Dallas County, TX	5,226	220.7	14
7	Kings County, NY	4,548	181.6	15
8	Bronx County, NY	3,767	272.0	16
9	Bexar County, TX	3,488	203.4	17
10	Cuyahoga County, OH	3,484	272.2	19
11	New York County, NY	3,446	217.3	20
12	Shelby County, TN	3,382	364.6	21
13	Fulton County, GA	3,335	362.3	22
14	Milwaukee County, WI	3,236	341.4	23
15	Maricopa County, AZ	3,228	84.6	24
16	Franklin County, OH	2,831	243.3	25
17	Marion County, IN	2,785	308.3	25
18	Hamilton County, OH	2,719	338.9	26
19	Washington, D.C.	2,569	426.9	27
20	Baltimore (City), MD	2,521	406.0	28
21	Jefferson County, AL	2,393	363.4	29
22	Queens County, NY	2,367	106.1	29
23	Miami-Dade County, FL	2,356	94.4	30
24	Hillsborough County, FL	2,343	190.6	31
25	Mecklenburg County, NC	2,281	248.0	32
26	San Francisco County, CA	2,251	279.5	32
27	Tarrant County, TX	2,220	122.7	33
28	San Diego County, CA	2,173	70.2	34
29	Jefferson County, KY	2,152	290.4	34
30	Broward County, FL	2,135	122.1	35
31	Essex County, NJ	2,024	258.2	36
32	Guilford County, NC	2,019	413.4	36
33	Jackson County, MO	2,012	298.4	37
34	St. Louis (City), MO	1,952	611.3	37
35	Allegheny County, PA	1,931	157.8	38
36	Duval County, FL	1,834	212.2	39
37	St. Louis County, MO	1,831	183.3	39
38	DeKalb County, GA	1,793	259.1	40
39	Sacramento County, CA	1,778	125.3	40
40	Clark County, NV	1,740	89.2	41
41	Orleans County, LA	1,718	499.7	41
42	Orange County, FL	1,669	145.6	42
43	Prince George's County, MD	1,607	186.1	42
44	Alameda County, CA	1,590	105.3	43
45	Caddo County, LA	1,567	614.6	43
46	Travis County, TX	1,516	148.0	44
47	Oklahoma County, OK	1,509	210.0	44
48	Cumberland County, NC	1,507	471.8	45
49	Wake County, NC	1,420	157.6	45
50	San Bernardino County, CA	1,408	69.2	46
51	Erie County, NY	1,382	150.4	46
52	King County, WA	1,377	71.3	47
53	Pulaski County, AR	1,257	328.4	47
54	Davidson County, TN	1,243	198.3	47
55	Mobile County, AL	1,238	299.8	48
56	Camden County, NJ	1,189	231.5	48
57	Montgomery County, OH	1,175	219.6	48
58	Hennepin County, MN	1,172	101.7	49
59	Montgomery County, AL	1,169	509.7	49
60	Fresno County, CA	1,164	125.1	49
61	Hinds County, MS	1,116	455.0	50
62	Tulsa County, OK	1,080	179.0	50
63	Bell County, TX	1,077	347.2	51
64	Pinellas County, FL	1,034	112.8	51
65	Monroe County, NY	1,016	136.5	51
66	East Baton Rouge County, LA	1,015	230.6	51
67	Richland County, SC	1,010	262.7	52
68	Oakland County, MI	991	82.4	52
69	Bernalillo County, NM	987	149.0	52
70	Orange County, CA	984	32.7	53

* Accounting for 53% of reported gonorrhea cases.

† Counties and independent cities were ranked in descending order by number of cases reported then by rate in 2011.

Table 21. Gonorrhea—Reported Cases and Rates per 100,000 Population by Age Group, and Sex, United States, 2007–2011

Age Group	Cases				Rates per 100,000*				
	Total	Male	Female	Unknown Sex	Total	Male	Female	Unknown Sex	
0–4	353	140	211	2	1.7	1.3	2.1		2007
5–9	140	35	105	0	0.7	0.3	1.1		
10–14	3,946	619	3,313	14	19.4	6.0	33.4		
15–19	98,260	31,090	66,961	209	457.6	282.5	639.7		
20–24	111,418	48,848	62,401	169	529.7	450.1	613.0		
25–29	61,157	32,135	28,941	81	290.4	298.2	281.5		
30–34	30,191	18,019	12,123	49	154.6	181.9	125.9		
35–39	19,028	12,648	6,336	44	89.9	118.7	60.2		
40–44	13,138	9,651	3,463	24	59.8	88.0	31.4		
45–54	13,299	10,640	2,645	14	30.3	49.3	11.9		
55–64	3,168	2,675	484	9	9.7	17.0	2.9		
65+	707	617	89	1	1.9	3.9	0.4		
Unknown Age	1,186	568	522	96					
TOTAL	**355,991**	**167,685**	**187,594**	**712**	**118.0**	**112.8**	**122.6**		
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	399.9	248.6	556.5		
20–24	111,730	49,633	61,756	341	517.6	450.6	584.2		
25–29	53,245	28,288	24,821	136	252.3	266.0	237.2		
30–34	27,157	16,044	11,044	69	136.0	160.5	110.8		
35–39	14,109	8,972	5,096	41	69.9	89.3	50.3		
40–44	9,686	6,955	2,708	23	46.4	66.9	25.8		
45–54	10,473	8,222	2,222	29	23.3	37.1	9.7		
55–64	2,747	2,270	471	6	7.5	12.9	2.5		
65+	587	485	99	3	1.5	2.8	0.4		
Unknown Age	489	258	191	40					
TOTAL	**321,849**	**149,835**	**171,005**	**1,009**	**104.2**	**98.7**	**108.9**		

*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 age group may include cases due to perinatal transmission.

Table 22A. Gonorrhea—Reported Cases by Race/Ethnicity, Age Group, and Sex, United States, 2007–2011

	Age Group	Whites, Non-Hispanic				Blacks, Non-Hispanic				Hispanics				Asians/Pacific Islanders				American Indians/ Alaska Natives			
		Total	Male	Female	UNK	Total	Male	Female	UNK	Total	Male	Female	UNK	Total	Male	Female	UNK	Total	Male	Female	UNK
2007	0–4	47	16	31	0	158	69	89	0	22	9	13	0	1	0	1	0	1	1	0	0
	5–9	15	2	13	0	65	10	55	0	13	4	9	0	0	0	0	0	1	0	1	0
	10–14	353	15	338	0	2,270	395	1,870	5	269	47	222	0	16	0	16	0	22	2	20	0
	15–19	12,053	2,101	9,948	4	57,436	20,121	37,266	49	5,827	1,896	3,922	9	384	95	289	0	516	114	401	1
	20–24	16,655	5,173	11,469	13	63,965	30,729	33,188	48	7,845	3,703	4,129	13	614	242	372	0	707	209	498	0
	25–29	9,832	4,037	5,792	3	33,334	19,108	14,214	12	4,662	2,574	2,083	5	411	230	181	0	382	150	231	1
	30–34	5,003	2,382	2,617	4	15,595	10,306	5,285	4	2,414	1,443	967	4	273	164	109	0	174	67	106	1
	35–39	3,760	2,141	1,616	3	9,067	6,611	2,445	11	1,396	902	493	1	141	92	49	0	123	60	63	0
	40–44	2,759	1,864	893	2	6,211	4,894	1,313	4	787	539	246	2	89	62	27	0	72	21	51	0
	45–54	2,867	2,156	710	1	6,505	5,513	990	2	623	456	167	0	85	49	36	0	61	37	24	0
	55–64	712	611	101	0	1,364	1,231	130	3	134	97	36	1	33	24	9	0	11	9	1	1
	65+	188	167	20	1	250	219	31	0	34	30	4	0	9	7	2	0	3	3	0	0
	UNK Age	116	41	71	4	297	147	140	10	45	23	22	0	9	5	4	0	3	2	1	0
	TOTAL	**54,360**	**20,706**	**33,619**	**35**	**196,517**	**99,353**	**97,016**	**148**	**24,071**	**11,723**	**12,313**	**35**	**2,065**	**970**	**1,095**	**0**	**2,076**	**675**	**1,397**	**4**
2008	0–4	45	16	29	0	158	58	99	1	17	5	12	0	5	2	3	0	1	0	1	0
	5–9	14	2	12	0	63	14	49	0	14	3	11	0	1	1	0	0	1	0	1	0
	10–14	330	26	304	0	2,086	355	1,731	0	229	31	198	0	20	3	17	0	24	4	20	0
	15–19	10,874	1,917	8,945	12	57,194	19,657	37,500	37	5,890	1,861	4,022	7	407	100	306	1	524	122	400	2
	20–24	15,650	4,715	10,920	15	62,868	29,555	33,244	69	7,758	3,640	4,114	4	677	284	391	2	726	245	481	0
	25–29	8,935	3,494	5,427	14	30,977	17,151	13,788	38	4,651	2,494	2,150	7	441	225	215	1	405	145	260	0
	30–34	4,396	2,043	2,347	6	14,315	9,221	5,074	20	2,344	1,370	973	1	250	133	114	3	187	71	116	0
	35–39	2,990	1,672	1,316	2	7,799	5,478	2,311	10	1,390	887	500	3	160	111	49	0	111	50	61	0
	40–44	2,238	1,478	756	4	5,062	3,813	1,241	8	823	570	250	3	101	76	25	0	78	34	44	0
	45–54	2,366	1,753	613	0	5,236	4,322	909	5	596	430	164	2	121	85	36	0	76	42	34	0
	55–64	587	503	83	1	1,166	1,028	134	4	119	84	35	0	33	22	11	0	16	14	2	0
	65+	172	147	25	0	204	185	19	0	28	21	7	0	8	4	4	0	7	6	1	0
	UNK Age	82	35	46	1	225	126	95	4	29	15	13	1	5	4	1	0	4	3	1	0
	TOTAL	**48,679**	**17,801**	**30,823**	**55**	**187,353**	**90,963**	**96,194**	**196**	**23,888**	**11,411**	**12,449**	**28**	**2,229**	**1,050**	**1,172**	**7**	**2,160**	**736**	**1,422**	**2**
2009	0–4	17	5	12	0	102	39	63	0	19	5	14	0	0	0	0	0	3	1	2	0
	5–9	9	2	7	0	42	7	35	0	10	0	10	0	1	0	1	0	2	0	2	0
	10–14	253	22	231	0	1,729	300	1,428	1	171	31	140	0	12	1	11	0	18	3	15	0
	15–19	9,430	1,802	7,621	7	51,214	17,688	33,468	58	5,366	1,728	3,633	5	412	92	320	0	558	128	428	2
	20–24	13,902	4,456	9,433	13	58,733	27,754	30,891	88	7,180	3,434	3,740	6	604	265	336	3	727	228	497	2
	25–29	7,864	3,415	4,430	19	27,264	15,186	12,043	35	4,084	2,288	1,793	3	399	214	184	1	409	160	248	1
	30–34	4,030	2,045	1,980	5	12,645	7,998	4,626	21	2,132	1,282	846	4	228	132	96	0	229	97	132	0
	35–39	2,601	1,496	1,101	4	6,595	4,641	1,938	16	1,172	737	433	2	149	109	40	0	137	62	75	0
	40–44	1,869	1,307	559	3	3,866	2,945	916	5	731	524	206	1	100	75	25	0	78	38	40	0
	45–54	2,127	1,669	456	2	3,992	3,284	698	10	562	421	141	0	104	73	30	1	81	48	33	0
	55–64	532	450	82	0	896	800	96	0	110	78	32	0	30	17	13	0	25	19	6	0
	65+	157	138	19	0	176	145	31	0	29	19	10	0	7	6	1	0	4	3	1	0
	UNK Age	93	22	68	3	275	111	146	18	33	14	18	1	1	1	0	0	0	0	0	0
	TOTAL	**42,884**	**16,829**	**25,999**	**56**	**167,529**	**80,898**	**86,379**	**252**	**21,599**	**10,561**	**11,016**	**22**	**2,047**	**985**	**1,057**	**5**	**2,271**	**787**	**1,479**	**5**
2010	0–4	26	4	22	0	103	33	70	0	22	6	16	0	1	0	1	0	4	1	3	0
	5–9	5	1	4	0	28	2	26	0	7	0	7	0	1	0	1	0	0	0	0	0
	10–14	268	22	246	0	1,695	300	1,391	4	181	26	155	0	6	1	5	0	15	3	12	0
	15–19	9,311	1,821	7,486	4	52,064	17,771	34,246	47	5,673	1,928	3,741	4	407	126	280	1	660	168	492	0
	20–24	15,426	5,308	10,107	11	60,257	28,643	31,570	44	8,271	3,957	4,309	5	724	337	387	0	900	290	610	0
	25–29	8,776	3,939	4,829	8	26,640	14,860	11,758	22	4,604	2,666	1,927	11	469	286	181	2	546	215	331	0
	30–34	4,642	2,407	2,230	5	12,497	7,702	4,778	17	2,418	1,547	867	4	273	172	99	2	278	121	157	0
	35–39	2,788	1,693	1,092	3	6,113	4,175	1,930	8	1,336	853	483	0	197	141	56	0	151	72	79	0
	40–44	2,231	1,565	666	0	3,735	2,883	848	4	851	611	240	0	114	78	36	0	100	52	48	0
	45–54	2,513	1,968	540	5	3,818	3,121	696	1	629	478	151	0	100	77	23	0	79	48	31	0
	55–64	582	489	93	0	847	766	81	0	117	90	27	0	25	16	9	0	18	15	3	0
	65+	133	117	16	0	136	118	18	0	38	29	8	1	4	4	0	0	5	2	2	1
	UNK Age	73	39	33	1	149	71	72	6	21	10	8	3	2	1	1	0	3	2	1	0
	TOTAL	**46,774**	**19,373**	**27,364**	**37**	**168,082**	**80,445**	**87,484**	**153**	**24,168**	**12,201**	**11,939**	**28**	**2,323**	**1,239**	**1,079**	**5**	**2,759**	**989**	**1,769**	**1**
2011	0–4	27	7	20	0	88	22	65	1	13	3	10	0	1	0	1	0	2	0	2	0
	5–9	5	1	4	0	45	8	37	0	9	2	7	0	0	0	0	0	3	0	3	0
	10–14	243	29	211	3	1,857	321	1,535	1	215	40	175	0	9	1	7	1	26	3	23	0
	15–19	9,556	2,058	7,482	16	50,619	17,148	33,409	62	6,254	2,150	4,098	6	419	113	306	0	637	157	479	1
	20–24	16,511	5,906	10,576	29	61,704	29,069	32,557	78	9,206	4,409	4,781	16	740	365	374	1	1,054	369	683	2
	25–29	9,729	4,451	5,261	17	26,466	14,890	11,550	26	5,299	3,100	2,194	5	482	292	189	1	593	223	368	2
	30–34	5,198	2,829	2,357	12	12,732	7,902	4,813	17	2,801	1,729	1,067	5	289	202	86	1	278	116	160	2
	35–39	2,947	1,789	1,153	5	6,082	4,101	1,978	3	1,453	936	516	1	194	125	66	3	137	66	71	0
	40–44	2,329	1,644	683	2	3,715	2,797	915	3	938	679	256	3	141	101	40	0	96	44	52	0
	45–54	2,832	2,205	624	3	3,929	3,226	697	6	781	601	179	1	116	83	33	0	123	69	54	0
	55–64	765	646	119	0	1,021	904	114	3	156	121	35	0	30	18	12	0	16	12	4	0
	65+	177	155	22	0	164	144	20	0	17	15	2	0	6	5	1	0	5	4	1	0
	UNK Age	42	24	15	3	93	48	38	7	34	23	11	0	4	3	1	0	2	1	1	0
	TOTAL	**50,361**	**21,744**	**28,527**	**90**	**168,515**	**80,580**	**87,728**	**207**	**27,176**	**13,808**	**13,331**	**37**	**2,431**	**1,308**	**1,116**	**7**	**2,972**	**1,064**	**1,901**	**7**

UNK = Unknown

NOTE: These tables should only be used 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.

In 2011, race/ethnicity was unknown (i.e., unknown, missing, or invalid data values) for 20.4% of reported gonorrhea cases.

Table 22B. Gonorrhea—Rates per 100,000 Population by Race/Ethnicity, Age Group, and Sex, United States, 2007–2011

Age Group	Whites, Non-Hispanic				Blacks, Non-Hispanic				Hispanics				Asians/Pacific Islanders				American Indians/ Alaska Natives				
	Total	Male	Female	UNK	Total	Male	Female	UNK	Total	Male	Female	UNK	Total	Male	Female	UNK	Total	Male	Female	UNK	
0–4	0.4	0.3	0.6		5.0	4.3	5.7		0.4	0.4	0.5		0.1	0.0	0.2		0.5	1.0	0.0		2007
5–9	0.1	0.0	0.2		2.1	0.6	3.7		0.3	0.2	0.4		0.0	0.0	0.0		0.5	0.0	1.1		
10–14	2.9	0.2	5.7		72.2	24.7	121.0		6.8	2.3	11.5		1.8	0.0	3.6		10.9	2.0	20.1		
15–19	91.2	31.0	154.7		1,702.4	1,176.9	2,239.4		155.6	98.3	215.9		42.3	20.3	65.7		223.0	97.4	350.6		
20–24	127.0	76.9	179.7		2,093.8	1,987.6	2,199.5		212.6	187.0	241.5		64.4	49.7	79.6		317.4	184.3	455.5		
25–29	77.7	63.4	92.3		1,155.0	1,353.2	964.3		111.6	110.7	112.6		35.6	40.3	31.0		197.3	153.3	241.1		
30–34	43.4	41.0	45.6		619.3	860.8	400.1		60.5	66.3	53.3		20.7	25.5	16.1		106.0	81.4	129.4		
35–39	28.1	31.8	24.3		341.2	527.6	174.1		38.3	46.3	29.1		10.6	14.2	7.2		73.6	72.3	75.0		
40–44	18.8	25.4	12.1		226.3	381.1	89.9		24.6	32.0	16.2		7.7	11.0	4.5		40.8	24.4	56.5		
45–54	9.1	13.7	4.4		127.2	233.5	36.0		13.1	18.9	7.1		4.3	5.2	3.4		17.7	22.6	13.3		
55–64	2.8	5.0	0.8		41.8	84.7	7.2		5.0	7.5	2.6		2.4	3.8	1.2		4.7	8.2	0.8		
65+	0.6	1.3	0.1		7.9	17.9	1.6		1.4	2.8	0.3		0.7	1.3	0.3		1.5	3.4	0.0		
UNK Age																					
TOTAL	**27.0**	**21.0**	**32.8**		**515.2**	**546.1**	**486.2**		**52.9**	**49.8**	**56.0**		**14.5**	**14.0**	**14.9**		**82.8**	**54.7**	**109.6**		
0–4	0.4	0.3	0.5		5.1	3.7	6.6		0.3	0.2	0.5		0.5	0.4	0.6		0.5	0.0	0.9		2008
5–9	0.1	0.0	0.2		2.1	0.9	3.4		0.3	0.1	0.5		0.1	0.2	0.0		0.5	0.0	1.0		
10–14	2.8	0.4	5.2		68.0	22.8	114.8		5.7	1.5	10.2		2.2	0.7	3.8		12.2	4.0	20.6		
15–19	82.9	28.5	140.1		1,678.3	1,137.3	2,232.8		153.0	93.9	215.2		44.7	21.3	69.3		228.6	105.4	352.4		
20–24	119.2	70.0	170.8		2,030.5	1,888.3	2,171.4		211.8	187.1	239.6		71.8	59.0	84.9		323.9	214.8	436.9		
25–29	69.3	53.6	85.1		1,047.5	1,175.1	920.6		112.3	108.6	116.6		38.8	39.9	37.6		199.6	141.2	259.4		
30–34	38.0	35.1	40.8		564.5	762.3	382.6		58.0	61.8	53.3		19.5	21.3	17.4		112.4	85.1	139.8		
35–39	22.8	25.4	20.2		294.3	438.2	165.1		37.3	44.4	28.8		11.8	16.8	7.1		66.5	60.2	72.7		
40–44	15.8	20.8	10.7		187.9	302.2	86.6		25.1	32.9	16.2		8.6	13.3	4.1		45.5	40.6	50.2		
45–54	7.4	11.1	3.8		100.5	179.7	32.4		12.0	16.9	6.7		5.9	8.8	3.4		21.7	25.2	18.6		
55–64	2.3	4.0	0.6		34.3	67.8	7.1		4.2	6.1	2.4		2.3	3.3	1.4		6.6	12.2	1.6		
65+	0.5	1.1	0.1		6.3	14.7	0.9		1.1	1.8	0.5		0.6	0.7	0.5		3.3	6.4	0.8		
UNK Age																					
TOTAL	**24.1**	**18.0**	**30.0**		**489.0**	**497.7**	**480.1**		**50.9**	**47.0**	**54.9**		**15.4**	**14.9**	**15.7**		**83.9**	**58.1**	**108.8**		
0–4	0.1	0.1	0.2		3.3	2.4	4.1		0.3	0.2	0.5		0.0	0.0	0.0		1.4	0.9	1.8		2009
5–9	0.1	0.0	0.1		1.4	0.5	2.4		0.2	0.0	0.4		0.1	0.0	0.2		1.0	0.0	2.0		
10–14	2.2	0.4	4.0		57.1	19.5	95.9		4.2	1.5	7.1		1.3	0.2	2.4		9.2	3.0	15.7		
15–19	73.0	27.2	121.2		1,497.8	1,019.9	1,986.2		133.1	82.8	186.8		44.0	19.1	70.3		247.9	112.6	384.0		
20–24	105.0	65.6	146.3		1,835.6	1,713.9	1,954.6		184.9	166.1	205.9		60.8	52.6	68.7		320.4	197.5	445.7		
25–29	60.1	51.5	68.6		901.9	1,009.1	793.3		98.4	100.2	96.1		33.1	36.4	29.9		194.3	150.5	238.1		
30–34	34.2	34.6	33.8		482.2	636.4	338.7		52.9	57.7	46.8		17.6	21.1	14.3		133.8	112.6	155.1		
35–39	20.6	23.6	17.5		250.7	373.6	139.6		31.2	36.4	25.0		11.1	16.7	5.8		82.5	75.1	89.9		
40–44	13.6	19.0	8.2		147.1	238.9	65.6		22.1	29.8	13.3		8.5	13.2	4.1		46.8	46.3	47.2		
45–54	6.7	10.6	2.9		75.6	134.8	24.6		10.9	15.9	5.6		5.0	7.4	2.8		22.8	28.3	17.8		
55–64	2.0	3.5	0.6		25.1	50.4	4.9		3.7	5.4	2.1		2.0	2.5	1.6		9.8	15.8	4.5		
65+	0.5	1.0	0.1		5.3	11.3	1.5		1.1	1.6	0.6		0.5	1.0	0.1		1.8	3.1	0.8		
UNK Age																					
TOTAL	**21.2**	**16.9**	**25.3**		**431.1**	**436.0**	**425.4**		**44.6**	**42.1**	**47.2**		**13.7**	**13.6**	**13.7**		**87.0**	**61.3**	**111.6**		
0–4	0.2	0.1	0.4		3.3	2.1	4.6		0.4	0.2	0.6		0.1	0.0	0.2		1.9	0.9	2.9		2010
5–9	0.0	0.0	0.1		0.9	0.1	1.8		0.1	0.0	0.3		0.1	0.0	0.2		0.0	0.0	0.0		
10–14	2.3	0.4	4.3		53.8	18.7	90.0		4.0	1.1	7.0		0.6	0.2	1.0		7.0	2.8	11.4		
15–19	73.5	28.0	121.2		1,480.0	994.8	1,978.0		125.2	82.2	171.1		37.4	22.6	52.7		286.3	142.8	435.7		
20–24	121.6	82.5	161.7		1,920.2	1,847.7	1,988.2		191.4	171.9	213.3		58.7	54.1	63.4		437.0	279.3	597.1		
25–29	70.5	62.7	78.2		952.5	1,107.0	808.4		106.8	117.1	94.7		34.6	44.2	25.5		294.8	234.3	354.2		
30–34	39.7	40.8	38.5		475.2	618.6	345.0		58.6	72.2	43.8		20.2	27.2	13.8		165.8	146.0	185.1		
35–39	22.9	27.7	18.1		234.2	340.5	139.4		34.6	43.3	25.6		14.1	21.4	7.6		92.3	89.9	94.7		
40–44	16.7	23.3	10.0		140.3	229.3	60.4		24.7	34.6	14.3		9.2	13.3	5.5		59.6	63.6	55.8		
45–54	8.0	12.6	3.4		69.2	120.5	23.8		11.5	17.5	5.5		4.5	7.4	1.9		21.7	27.6	16.4		
55–64	2.1	3.6	0.7		21.8	43.3	3.8		3.6	5.9	1.6		1.5	2.2	1.0		7.0	12.2	2.2		
65+	0.4	0.8	0.1		4.0	8.8	0.9		1.4	2.5	0.5		0.3	0.6	0.0		2.5	2.3	1.8		
UNK Age																					
TOTAL	**23.4**	**19.7**	**26.9**		**426.2**	**427.6**	**424.2**		**47.9**	**47.6**	**48.0**		**14.4**	**16.1**	**12.8**		**107.4**	**78.4**	**135.2**		
0–4	0.3	0.1	0.4		2.9	1.4	4.3		0.3	0.1	0.4		0.1	0.0	0.2		1.0	0.0	1.9		2011
5–9	0.0	0.0	0.1		1.5	0.5	2.5		0.2	0.1	0.3		0.0	0.0	0.0		1.4	0.0	2.9		
10–14	2.1	0.5	3.7		59.0	20.0	99.3		4.8	1.7	7.9		0.9	0.2	1.4		12.2	2.8	21.9		
15–19	75.4	31.7	121.2		1,438.9	959.9	1,929.6		138.0	91.6	187.5		38.5	20.2	57.6		276.3	133.5	424.2		
20–24	130.2	91.8	169.2		1,966.3	1,875.1	2,050.4		213.0	191.5	236.7		60.0	58.6	61.2		511.7	355.4	668.6		
25–29	78.1	70.9	85.2		946.3	1,109.3	794.1		122.9	136.2	107.8		35.5	45.2	26.6		320.2	243.0	393.8		
30–34	44.5	48.0	40.7		484.1	634.6	347.6		67.9	80.7	53.8		21.4	31.9	12.0		165.8	140.0	188.6		
35–39	24.2	29.3	19.1		233.0	334.4	142.9		37.7	47.5	27.4		13.9	19.0	9.0		83.8	82.4	85.1		
40–44	17.4	24.5	10.2		139.6	222.4	65.1		27.2	38.5	15.2		11.3	17.3	6.1		57.2	53.8	60.5		
45–54	9.0	14.1	3.9		71.2	124.5	23.8		14.3	22.0	6.6		5.2	8.0	2.8		33.9	39.7	28.5		
55–64	2.8	4.8	0.8		26.3	51.1	5.4		4.9	7.9	2.1		1.8	2.4	1.3		6.2	9.8	3.0		
65+	0.5	1.1	0.1		4.8	10.7	1.0		0.6	1.3	0.1		0.4	0.8	0.1		2.5	4.6	0.9		
UNK Age																					
TOTAL	**25.2**	**22.1**	**28.0**		**427.3**	**428.3**	**425.4**		**53.8**	**53.9**	**53.6**		**15.1**	**17.0**	**13.2**		**115.7**	**84.4**	**145.3**		

UNK = Unknown

NOTE: These tables should only be used 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.

In 2011, race/ethnicity was unknown (i.e., unknown, missing, or invalid data values) for 20.4% of reported gonorrhea cases.

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

Table 23. All Stages of Syphilis* — Reported Cases and Rates by State/Area and Region in Alphabetical Order, United States and Outlying Areas, 2007–2011

State/Area	Cases					Rates per 100,000 Population				
	2007	2008	2009	2010	2011	2007	2008	2009	2010	2011
Alabama	1,006	1,187	1,138	781	758	21.7	25.5	24.2	16.3	15.9
Alaska	16	9	4	15	11	2.3	1.3	0.6	2.1	1.5
Arizona	1,245	1,394	1,084	905	906	19.6	21.4	16.4	14.2	14.2
Arkansas	371	508	552	534	464	13.1	17.8	19.1	18.3	15.9
California	6,323	6,911	6,033	6,115	6,782	17.3	18.8	16.3	16.4	18.2
Colorado	157	352	269	342	367	3.2	7.1	5.4	6.8	7.3
Connecticut	148	173	179	234	189	4.2	4.9	5.1	6.5	5.3
Delaware	63	60	87	44	124	7.3	6.9	9.8	4.9	13.8
District of Columbia	416	370	431	495	552	70.7	62.5	71.9	82.3	91.7
Florida	3,918	4,585	3,860	4,070	4,142	21.5	25.0	20.8	21.6	22.0
Georgia	2,254	2,833	2,717	2,347	1,895	23.6	29.2	27.6	24.2	19.6
Hawaii	58	68	88	73	32	4.5	5.3	6.8	5.4	2.4
Idaho	14	26	31	20	42	0.9	1.7	2.0	1.3	2.7
Illinois	1,220	1,565	1,915	2,236	2,426	9.5	12.1	14.8	17.4	18.9
Indiana	216	351	324	412	468	3.4	5.5	5.0	6.4	7.2
Iowa	65	75	65	68	70	2.2	2.5	2.2	2.2	2.3
Kansas	97	125	151	110	76	3.5	4.5	5.4	3.9	2.7
Kentucky	153	218	239	311	335	3.6	5.1	5.5	7.2	7.7
Louisiana	1,808	2,024	1,964	2,484	2,043	42.1	45.9	43.7	54.8	45.1
Maine	21	27	15	41	24	1.6	2.1	1.1	3.1	1.8
Maryland	1,171	1,088	993	1,015	1,278	20.8	19.3	17.4	17.6	22.1
Massachusetts	399	479	473	639	770	6.2	7.4	7.2	9.8	11.8
Michigan	473	546	635	683	762	4.7	5.5	6.4	6.9	7.7
Minnesota	186	266	217	350	367	3.6	5.1	4.1	6.6	6.9
Mississippi	708	745	745	823	748	24.3	25.4	25.2	27.7	25.2
Missouri	484	542	514	512	414	8.2	9.2	8.6	8.5	6.9
Montana	8	10	5	5	9	0.8	1.0	0.5	0.5	0.9
Nebraska	30	36	45	33	36	1.7	2.0	2.5	1.8	2.0
Nevada	396	325	306	412	430	15.4	12.5	11.6	15.3	15.9
New Hampshire	52	41	37	43	33	4.0	3.1	2.8	3.3	2.5
New Jersey	926	1,009	890	947	971	10.7	11.6	10.2	10.8	11.0
New Mexico	180	189	208	151	212	9.1	9.5	10.3	7.3	10.3
New York	5,001	5,515	4,623	4,860	4,786	25.9	28.3	23.7	25.1	24.7
North Carolina	1,093	999	1,524	1,233	1,254	12.1	10.8	16.2	12.9	13.2
North Dakota	2	4	8	6	5	0.3	0.6	1.2	0.9	0.7
Ohio	549	763	795	1,076	954	4.8	6.6	6.9	9.3	8.3
Oklahoma	216	257	296	272	270	6.0	7.1	8.0	7.3	7.2
Oregon	59	97	132	173	252	1.6	2.6	3.5	4.5	6.6
Pennsylvania	844	902	1,027	1,007	1,125	6.8	7.2	8.1	7.9	8.9
Rhode Island	76	55	64	79	84	7.2	5.2	6.1	7.5	8.0
South Carolina	411	412	507	580	639	9.3	9.2	11.1	12.5	13.8
South Dakota	12	6	10	12	14	1.5	0.7	1.2	1.5	1.7
Tennessee	1,212	1,284	1,317	1,193	1,025	19.7	20.7	20.9	18.8	16.2
Texas	5,506	6,336	6,975	6,413	6,169	23.0	26.0	28.1	25.5	24.5
Utah	45	40	55	133	64	1.7	1.5	2.0	4.8	2.3
Vermont	11	18	1	4	10	1.8	2.9	0.2	0.6	1.6
Virginia	736	789	755	800	726	9.5	10.2	9.6	10.0	9.1
Washington	367	438	322	535	712	5.7	6.7	4.8	8.0	10.6
West Virginia	27	44	32	26	9	1.5	2.4	1.8	1.4	0.5
Wisconsin	170	187	166	186	202	3.0	3.3	2.9	3.3	3.6
Wyoming	6	9	7	6	6	1.1	1.7	1.3	1.1	1.1
U.S. TOTAL	**40,925**	**46,292**	**44,830**	**45,844**	**46,042**	**13.6**	**15.2**	**14.6**	**14.8**	**14.9**
Northeast	7,478	8,219	7,309	7,854	7,992	13.7	15.0	13.2	14.2	14.4
Midwest	3,504	4,466	4,845	5,684	5,794	5.3	6.7	7.2	8.5	8.7
South	21,069	23,739	24,132	23,421	22,431	19.1	21.2	21.3	20.4	19.6
West	8,874	9,868	8,544	8,885	9,825	12.7	13.9	11.9	12.3	13.7
Guam	37	45	12	11	26	21.3	25.6	6.7	6.1	14.4
Puerto Rico	1,269	797	725	723	671	32.2	20.2	18.3	19.4	18.0
Virgin Islands	5	1	2	4	7	4.6	0.9	1.8	3.6	6.4
OUTLYING AREAS	**1,311**	**843**	**739**	**738**	**704**	**31.0**	**19.9**	**17.4**	**18.4**	**17.5**
TOTAL	**42,236**	**47,135**	**45,569**	**46,582**	**46,746**	**13.8**	**15.3**	**14.6**	**14.9**	**14.9**

* See Syphilis Morbidity Reporting in the Appendix for definition.

Table 24. All Stages of Syphilis* — Reported Cases and Rates in Selected Metropolitan Statistical Areas (MSAs)† in Alphabetical Order, United States, 2007–2011

MSAs	Cases					Rates per 100,000 Population				
	2007	2008	2009	2010	2011	2007	2008	2009	2010	2011
Atlanta-Sandy Springs-Marietta, GA	1,904	2,243	2,187	1,916	1,549	36.1	41.7	39.9	36.4	29.4
Austin-Round Rock, TX	234	344	352	362	428	14.6	20.8	20.6	21.1	24.9
Baltimore-Towson, MD	650	685	567	531	710	24.4	25.7	21.1	19.6	26.2
Birmingham-Hoover, AL	483	504	412	234	276	43.6	45.1	36.4	20.7	24.5
Boston-Cambridge-Quincy, MA-NH	324	383	411	544	607	7.2	8.5	9.0	11.9	13.3
Buffalo-Cheektowaga-Tonawanda, NY	28	20	40	43	48	2.5	1.8	3.6	3.8	4.2
Charlotte-Gastonia-Concord, NC-SC	301	224	345	287	347	18.2	13.2	19.8	16.3	19.7
Chicago-Naperville-Joliet, IL-IN-WI	1,116	1,452	1,797	2,085	2,266	11.7	15.2	18.8	22.0	24.0
Cincinnati-Middletown, OH-KY-IN	77	105	227	484	436	3.6	4.9	10.5	22.7	20.5
Cleveland-Elyria-Mentor, OH	83	127	170	182	151	4.0	6.1	8.1	8.8	7.3
Columbus, OH	222	311	252	245	236	12.7	17.5	14.0	13.3	12.9
Dallas-Fort Worth-Arlington, TX	1,643	1,780	2,148	1,955	1,814	26.7	28.3	33.3	30.7	28.5
Denver-Aurora, CO	120	269	223	293	319	4.9	10.7	8.7	11.5	12.5
Detroit-Warren-Livonia, MI	339	304	411	459	520	7.6	6.9	9.3	10.7	12.1
Hartford-West Hartford-East Hartford, CT	51	71	67	85	55	4.3	6.0	5.6	7.0	4.5
Houston-Baytown-Sugar Land, TX	2,048	2,088	2,038	1,891	1,876	36.4	36.5	34.7	31.8	31.5
Indianapolis, IN	95	189	156	233	267	5.6	11.0	8.9	13.3	15.2
Jacksonville, FL	198	308	235	228	188	15.2	23.5	17.7	16.9	14.0
Kansas City, MO-KS	268	237	220	145	141	13.5	11.8	10.6	7.1	6.9
Las Vegas-Paradise, NV	364	299	273	389	402	19.8	16.0	14.3	19.9	20.6
Los Angeles-Long Beach-Santa Ana, CA	3,581	3,572	3,278	3,003	3,247	27.8	27.7	25.5	23.4	25.3
Louisville, KY-IN	77	91	123	197	187	6.2	7.3	9.8	15.3	14.6
Memphis, TN-MS-AR	761	748	777	758	586	59.4	58.2	59.5	57.6	44.5
Miami-Fort Lauderdale-Miami Beach, FL	1,863	2,408	1,969	2,259	2,315	34.4	44.5	35.5	40.6	41.6
Milwaukee-Waukesha-West Allis, WI	127	138	117	121	117	8.2	8.9	7.5	7.8	7.5
Minneapolis-St. Paul-Bloomington, MN-WI	170	223	182	309	326	5.3	6.9	5.6	9.4	9.9
Nashville-Davidson-Murfreesboro, TN	240	277	302	258	226	15.8	17.9	19.1	16.2	14.2
New Orleans-Metairie-Kenner, LA	560	491	462	684	663	54.3	43.3	38.8	58.6	56.8
New York-Newark-Edison, NY-NJ-PA	5,503	6,097	5,087	5,335	5,255	29.2	32.1	26.7	28.2	27.8
Oklahoma City, OK	114	161	210	148	114	9.6	13.3	17.1	11.8	9.1
Orlando, FL	583	460	408	391	485	28.7	22.4	19.6	18.3	22.7
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	778	812	959	930	1,029	13.3	13.9	16.1	15.6	17.2
Phoenix-Mesa-Scottsdale, AZ	866	857	682	645	675	20.7	20.0	15.6	15.4	16.1
Pittsburgh, PA	122	98	70	72	92	5.2	4.2	3.0	3.1	3.9
Portland-Vancouver-Beaverton, OR-WA	51	64	114	153	220	2.3	2.9	5.1	6.9	9.9
Providence-New Bedford-Fall River, RI-MA	100	71	76	95	111	6.2	4.4	4.7	5.9	6.9
Richmond, VA	129	226	207	213	157	10.6	18.4	16.7	16.9	12.5
Riverside-San Bernardino-Ontario, CA	340	452	416	428	527	8.3	11.0	10.0	10.1	12.5
Rochester, NY	76	51	52	66	59	7.4	4.9	5.0	6.3	5.6
Sacramento-Arden-Arcade-Roseville, CA	117	243	212	183	258	5.6	11.5	10.0	8.5	12.0
Salt Lake City, UT	35	35	40	95	48	3.2	3.1	3.5	8.5	4.3
San Antonio, TX	420	598	739	730	736	21.1	29.4	35.7	34.1	34.4
San Diego-Carlsbad-San Marcos, CA	788	828	495	607	609	26.5	27.6	16.2	19.6	19.7
San Francisco-Oakland-Fremont, CA	783	1,044	932	1,150	1,271	18.6	24.4	21.6	26.5	29.3
San Jose-Sunnyvale-Santa Clara, CA	159	156	141	183	159	8.8	8.6	7.7	10.0	8.7
Seattle-Tacoma-Bellevue, WA	309	359	256	439	589	9.3	10.7	7.5	12.8	17.1
St. Louis, MO-IL	252	322	294	403	271	9.0	11.4	10.4	14.3	9.6
Tampa-St. Petersburg-Clearwater, FL	612	680	631	503	516	22.5	24.9	23.0	18.1	18.5
Virginia Beach-Norfolk-Newport News, VA-NC	232	248	236	236	212	14.0	15.0	14.1	14.1	12.7
Washington-Arlington-Alexandria, DC-VA-MD-WV	1,163	956	1,004	1,191	1,315	21.9	17.8	18.3	21.3	23.6
U.S. MSAs TOTAL	**31,459**	**34,709**	**33,002**	**34,376**	**35,011**	**19.3**	**21.1**	**19.9**	**20.7**	**21.1**

* 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 25. Primary and Secondary Syphilis—Reported Cases and Rates by State, Ranked by Rates, United States, 2011

Rank*	State	Cases	Rate per 100,000 Population
1	Louisiana	447	9.9
2	Maryland	452	7.8
3	Georgia	678	7.0
4	Illinois	881	6.9
5	Florida	1,257	6.7
6	California	2,443	6.6
7	Mississippi	191	6.4
8	Arkansas	182	6.2
9	New York	1,083	5.6
10	Nevada	136	5.0
11	Washington	328	4.9
12	South Carolina	221	4.8
13	Alabama	228	4.8
14	Texas	1,169	4.6
	U.S. TOTAL†	**13,970**	**4.5**
15	North Carolina	431	4.5
16	Tennessee	278	4.4
17	Rhode Island	46	4.4
18	Arizona	274	4.3
19	Massachusetts	266	4.1
20	Ohio	440	3.8
21	New Mexico	71	3.4
22	Delaware	27	3.0
23	Kentucky	129	3.0
24	Pennsylvania	373	2.9
25	Michigan	286	2.9
26	Indiana	173	2.7
27	Virginia	213	2.7
28	Colorado	133	2.6
29	New Jersey	232	2.6
30	Minnesota	139	2.6
31	Oregon	97	2.5
32	Missouri	136	2.3
33	Oklahoma	84	2.2
34	Connecticut	65	1.8
35	Vermont	9	1.4
36	New Hampshire	18	1.4
37	Wisconsin	65	1.1
38	Hawaii	14	1.0
39	Maine	12	0.9
40	Kansas	24	0.8
41	Idaho	13	0.8
42	Montana	7	0.7
43	Alaska	5	0.7
44	Iowa	20	0.7
45	Nebraska	10	0.5
46	Utah	14	0.5
47	West Virginia	4	0.2
48	North Dakota	1	0.1
	South Dakota	0	0.0
	Wyoming	0	0.0

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

† Total includes cases reported by the District of Columbia with 165 cases and a rate of 27.4, but excludes outlying areas (Guam with 5 cases and rate of 2.8, Puerto Rico with 254 cases and rate of 6.8, and Virgin Islands with 0 cases and rate of 0.0).

Table 26. Primary and Secondary Syphilis—Reported Cases and Rates by State/Area and Region in Alphabetical Order, United States and Outlying Areas, 2007–2011

State/Area	Cases					Rates per 100,000 Population				
	2007	2008	2009	2010	2011	2007	2008	2009	2010	2011
Alabama	380	449	417	260	228	8.2	9.6	8.9	5.4	4.8
Alaska	7	1	0	3	5	1.0	0.1	0.0	0.4	0.7
Arizona	296	317	231	230	274	4.7	4.9	3.5	3.6	4.3
Arkansas	122	206	275	205	182	4.3	7.2	9.5	7.0	6.2
California	2,038	2,204	1,900	2,065	2,443	5.6	6.0	5.1	5.5	6.6
Colorado	57	128	105	138	133	1.2	2.6	2.1	2.7	2.6
Connecticut	39	34	65	98	65	1.1	1.0	1.8	2.7	1.8
Delaware	18	16	27	9	27	2.1	1.8	3.1	1.0	3.0
District of Columbia	178	146	163	134	165	30.3	24.7	27.2	22.3	27.4
Florida	913	1,044	1,041	1,184	1,257	5.0	5.7	5.6	6.3	6.7
Georgia	680	914	953	795	678	7.1	9.4	9.7	8.2	7.0
Hawaii	9	29	33	35	14	0.7	2.3	2.5	2.6	1.0
Idaho	1	7	3	6	13	0.1	0.5	0.2	0.4	0.8
Illinois	464	554	750	908	881	3.6	4.3	5.8	7.1	6.9
Indiana	54	140	158	175	173	0.9	2.2	2.5	2.7	2.7
Iowa	21	16	23	19	20	0.7	0.5	0.8	0.6	0.7
Kansas	28	30	32	19	24	1.0	1.1	1.1	0.7	0.8
Kentucky	56	93	92	139	129	1.3	2.2	2.1	3.2	3.0
Louisiana	533	707	741	546	447	12.4	16.0	16.5	12.0	9.9
Maine	9	10	4	32	12	0.7	0.8	0.3	2.4	0.9
Maryland	345	378	314	328	452	6.1	6.7	5.5	5.7	7.8
Massachusetts	155	216	238	285	266	2.4	3.3	3.6	4.4	4.1
Michigan	123	210	230	235	286	1.2	2.1	2.3	2.4	2.9
Minnesota	59	116	71	149	139	1.1	2.2	1.3	2.8	2.6
Mississippi	133	184	237	228	191	4.6	6.3	8.0	7.7	6.4
Missouri	239	224	173	152	136	4.1	3.8	2.9	2.5	2.3
Montana	8	7	4	3	7	0.8	0.7	0.4	0.3	0.7
Nebraska	4	15	5	12	10	0.2	0.8	0.3	0.7	0.5
Nevada	111	77	91	130	136	4.3	3.0	3.4	4.8	5.0
New Hampshire	30	20	14	22	18	2.3	1.5	1.1	1.7	1.4
New Jersey	227	226	212	244	232	2.6	2.6	2.4	2.8	2.6
New Mexico	46	44	61	53	71	2.3	2.2	3.0	2.6	3.4
New York	1,068	1,217	1,182	1,098	1,083	5.5	6.2	6.0	5.7	5.6
North Carolina	323	287	579	396	431	3.6	3.1	6.2	4.2	4.5
North Dakota	1	0	4	3	1	0.2	0.0	0.6	0.4	0.1
Ohio	194	351	360	528	440	1.7	3.1	3.1	4.6	3.8
Oklahoma	65	86	97	92	84	1.8	2.4	2.6	2.5	2.2
Oregon	18	26	57	71	97	0.5	0.7	1.5	1.9	2.5
Pennsylvania	263	272	341	369	373	2.1	2.2	2.7	2.9	2.9
Rhode Island	36	18	20	41	46	3.4	1.7	1.9	3.9	4.4
South Carolina	91	98	123	155	221	2.1	2.2	2.7	3.4	4.8
South Dakota	7	1	0	4	0	0.9	0.1	0.0	0.5	0.0
Tennessee	367	413	403	277	278	6.0	6.6	6.4	4.4	4.4
Texas	1,160	1,405	1,644	1,230	1,169	4.9	5.8	6.6	4.9	4.6
Utah	20	25	31	65	14	0.8	0.9	1.1	2.4	0.5
Vermont	10	11	0	4	9	1.6	1.8	0.0	0.6	1.4
Virginia	230	266	299	279	213	3.0	3.4	3.8	3.5	2.7
Washington	154	181	139	266	328	2.4	2.8	2.1	4.0	4.9
West Virginia	6	13	8	6	4	0.3	0.7	0.4	0.3	0.2
Wisconsin	66	65	44	49	65	1.2	1.2	0.8	0.9	1.1
Wyoming	4	3	3	0	0	0.8	0.6	0.6	0.0	0.0
U.S. TOTAL	**11,466**	**13,500**	**13,997**	**13,774**	**13,970**	**3.8**	**4.4**	**4.6**	**4.5**	**4.5**
Northeast	1,837	2,024	2,076	2,193	2,104	3.4	3.7	3.8	4.0	3.8
Midwest	1,260	1,722	1,850	2,253	2,175	1.9	2.6	2.8	3.4	3.2
South	5,600	6,705	7,413	6,263	6,156	5.1	6.0	6.5	5.5	5.4
West	2,769	3,049	2,658	3,065	3,535	4.0	4.3	3.7	4.3	4.9
Guam	8	6	2	1	5	4.6	3.4	1.1	0.6	2.8
Puerto Rico	169	167	227	228	254	4.3	4.2	5.7	6.1	6.8
Virgin Islands	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
OUTLYING AREAS	**177**	**173**	**229**	**229**	**259**	**4.2**	**4.1**	**5.4**	**5.7**	**6.4**
TOTAL	**11,643**	**13,673**	**14,226**	**14,003**	**14,229**	**3.8**	**4.4**	**4.6**	**4.5**	**4.5**

Table 27. Primary and Secondary Syphilis—Women—Reported Cases and Rates by State/Area and Region in Alphabetical Order, United States and Outlying Areas, 2007–2011

State/Area	Cases					Rates per 100,000 Population				
	2007	2008	2009	2010	2011	2007	2008	2009	2010	2011
Alabama	143	171	137	75	54	6.0	7.1	5.6	3.0	2.2
Alaska	1	0	0	0	1	0.3	0.0	0.0	0.0	0.3
Arizona	64	56	22	20	15	2.0	1.7	0.7	0.6	0.5
Arkansas	50	81	104	82	76	3.5	5.6	7.1	5.5	5.1
California	115	110	79	74	103	0.6	0.6	0.4	0.4	0.5
Colorado	2	3	6	2	4	0.1	0.1	0.2	0.1	0.2
Connecticut	2	0	1	5	5	0.1	0.0	0.1	0.3	0.3
Delaware	1	6	11	1	1	0.2	1.3	2.4	0.2	0.2
District of Columbia	5	7	10	2	7	1.6	2.2	3.2	0.6	2.2
Florida	153	193	147	147	134	1.6	2.1	1.6	1.5	1.4
Georgia	53	96	101	82	58	1.1	2.0	2.0	1.7	1.2
Hawaii	1	7	6	7	0	0.2	1.1	0.9	1.0	0.0
Idaho	1	1	0	0	1	0.1	0.1	0.0	0.0	0.1
Illinois	39	38	55	108	81	0.6	0.6	0.8	1.7	1.2
Indiana	8	16	13	20	13	0.2	0.5	0.4	0.6	0.4
Iowa	3	3	6	3	5	0.2	0.2	0.4	0.2	0.3
Kansas	6	5	9	1	0	0.4	0.4	0.6	0.1	0.0
Kentucky	9	14	4	8	19	0.4	0.6	0.2	0.4	0.9
Louisiana	209	307	349	251	179	9.5	13.5	15.1	10.8	7.7
Maine	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Maryland	47	77	42	26	49	1.6	2.6	1.4	0.9	1.6
Massachusetts	10	6	5	16	23	0.3	0.2	0.1	0.5	0.7
Michigan	27	60	40	23	26	0.5	1.2	0.8	0.5	0.5
Minnesota	1	5	0	9	5	0.0	0.2	0.0	0.3	0.2
Mississippi	35	66	73	69	45	2.3	4.4	4.8	4.5	2.9
Missouri	27	29	15	3	6	0.9	1.0	0.5	0.1	0.2
Montana	2	1	0	0	1	0.4	0.2	0.0	0.0	0.2
Nebraska	0	3	0	3	1	0.0	0.3	0.0	0.3	0.1
Nevada	12	14	7	7	7	1.0	1.1	0.5	0.5	0.5
New Hampshire	0	0	0	1	1	0.0	0.0	0.0	0.1	0.1
New Jersey	16	21	26	16	13	0.4	0.5	0.6	0.4	0.3
New Mexico	15	6	6	3	2	1.5	0.6	0.6	0.3	0.2
New York	32	52	55	47	37	0.3	0.5	0.5	0.5	0.4
North Carolina	60	44	108	55	31	1.3	0.9	2.3	1.1	0.6
North Dakota	0	0	1	1	0	0.0	0.0	0.3	0.3	0.0
Ohio	28	63	63	132	107	0.5	1.1	1.1	2.2	1.8
Oklahoma	24	25	24	16	12	1.3	1.4	1.3	0.8	0.6
Oregon	2	2	1	1	0	0.1	0.1	0.1	0.1	0.0
Pennsylvania	34	21	42	36	34	0.5	0.3	0.6	0.6	0.5
Rhode Island	2	0	1	2	3	0.4	0.0	0.2	0.4	0.6
South Carolina	10	12	10	9	24	0.4	0.5	0.4	0.4	1.0
South Dakota	2	1	0	0	0	0.5	0.2	0.0	0.0	0.0
Tennessee	113	119	122	49	34	3.6	3.7	3.8	1.5	1.0
Texas	297	450	490	333	255	2.5	3.7	4.0	2.6	2.0
Utah	0	1	0	2	0	0.0	0.1	0.0	0.1	0.0
Vermont	0	0	0	2	0	0.0	0.0	0.0	0.6	0.0
Virginia	16	25	22	20	18	0.4	0.6	0.5	0.5	0.4
Washington	6	5	6	5	6	0.2	0.2	0.2	0.1	0.2
West Virginia	2	4	2	0	0	0.2	0.4	0.2	0.0	0.0
Wisconsin	6	14	10	6	5	0.2	0.5	0.4	0.2	0.2
Wyoming	1	2	1	0	0	0.4	0.8	0.4	0.0	0.0
U.S. TOTAL	**1,692**	**2,242**	**2,232**	**1,780**	**1,501**	**1.1**	**1.5**	**1.4**	**1.1**	**1.0**
Northeast	96	100	130	125	116	0.3	0.4	0.5	0.4	0.4
Midwest	147	237	212	309	249	0.4	0.7	0.6	0.9	0.7
South	1,227	1,697	1,756	1,225	996	2.2	3.0	3.0	2.1	1.7
West	222	208	134	121	140	0.6	0.6	0.4	0.3	0.4
Guam	4	1	1	1	2	4.7	1.2	1.1	1.1	2.2
Puerto Rico	56	29	23	18	17	2.7	1.4	1.1	0.9	0.9
Virgin Islands	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
OUTLYING AREAS	**60**	**30**	**24**	**19**	**19**	**2.7**	**1.4**	**1.1**	**0.9**	**0.9**
TOTAL	**1,752**	**2,272**	**2,256**	**1,799**	**1,520**	**1.1**	**1.5**	**1.4**	**1.1**	**1.0**

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

Table 28. Primary and Secondary Syphilis—Men—Reported Cases and Rates by State/Area and Region in Alphabetical Order, United States and Outlying Areas, 2007–2011

State/Area	Cases					Rates per 100,000 Population				
	2007	2008	2009	2010	2011	2007	2008	2009	2010	2011
Alabama	237	278	280	185	174	10.6	12.3	12.3	8.0	7.5
Alaska	6	1	0	3	4	1.7	0.3	0.0	0.8	1.1
Arizona	230	261	208	210	257	7.2	8.0	6.3	6.6	8.1
Arkansas	72	125	171	123	106	5.2	8.9	12.1	8.6	7.4
California	1,921	2,092	1,821	1,990	2,327	10.5	11.4	9.8	10.7	12.6
Colorado	55	125	99	136	129	2.2	5.0	3.9	5.4	5.1
Connecticut	37	34	64	93	60	2.2	2.0	3.7	5.3	3.4
Delaware	17	10	16	8	26	4.1	2.4	3.7	1.8	6.0
District of Columbia	173	139	153	132	158	62.2	49.7	54.1	46.4	55.6
Florida	760	850	894	1,037	1,123	8.5	9.4	9.8	11.3	12.2
Georgia	626	818	852	713	620	13.3	17.2	17.6	15.1	13.1
Hawaii	8	22	27	28	14	1.2	3.4	4.1	4.1	2.1
Idaho	0	6	3	6	12	0.0	0.8	0.4	0.8	1.5
Illinois	425	516	695	800	800	6.7	8.1	10.9	12.7	12.7
Indiana	46	124	145	155	160	1.5	3.9	4.6	4.9	5.0
Iowa	18	13	17	16	15	1.2	0.9	1.1	1.1	1.0
Kansas	22	25	23	18	24	1.6	1.8	1.6	1.3	1.7
Kentucky	47	79	88	131	110	2.3	3.8	4.2	6.1	5.2
Louisiana	324	400	392	284	268	15.5	18.7	17.9	12.8	12.1
Maine	9	10	4	32	12	1.4	1.6	0.6	4.9	1.8
Maryland	298	301	272	302	403	11.0	11.0	9.8	10.8	14.4
Massachusetts	145	210	233	269	243	4.6	6.7	7.3	8.5	7.7
Michigan	96	150	190	212	260	1.9	3.0	3.9	4.4	5.4
Minnesota	58	111	71	140	134	2.2	4.3	2.7	5.3	5.1
Mississippi	98	118	164	159	146	6.9	8.3	11.5	11.0	10.1
Missouri	212	195	158	149	130	7.4	6.8	5.4	5.1	4.4
Montana	6	6	4	3	6	1.3	1.2	0.8	0.6	1.2
Nebraska	4	12	5	9	9	0.5	1.4	0.6	1.0	1.0
Nevada	99	63	84	123	129	7.6	4.8	6.2	9.0	9.5
New Hampshire	30	20	14	21	17	4.6	3.1	2.1	3.2	2.6
New Jersey	211	205	186	228	219	5.0	4.8	4.4	5.3	5.1
New Mexico	31	38	55	50	69	3.2	3.9	5.5	4.9	6.8
New York	1,036	1,165	1,127	1,051	1,045	11.1	12.3	11.9	11.2	11.1
North Carolina	263	243	471	341	400	5.9	5.4	10.3	7.3	8.6
North Dakota	1	0	3	2	1	0.3	0.0	0.9	0.6	0.3
Ohio	166	288	297	396	333	3.0	5.1	5.3	7.0	5.9
Oklahoma	41	61	73	76	72	2.3	3.4	4.0	4.1	3.9
Oregon	16	24	56	70	97	0.9	1.3	3.0	3.7	5.1
Pennsylvania	229	251	299	333	339	3.8	4.1	4.9	5.4	5.5
Rhode Island	34	18	19	39	43	6.6	3.5	3.7	7.7	8.5
South Carolina	81	86	113	146	197	3.8	3.9	5.1	6.5	8.8
South Dakota	5	0	0	4	0	1.3	0.0	0.0	1.0	0.0
Tennessee	254	294	281	228	244	8.4	9.7	9.2	7.4	7.9
Texas	863	955	1,154	896	914	7.2	7.9	9.3	7.2	7.3
Utah	20	24	31	63	14	1.5	1.7	2.2	4.5	1.0
Vermont	10	11	0	2	9	3.3	3.6	0.0	0.6	2.9
Virginia	214	241	277	259	195	5.7	6.3	7.1	6.6	5.0
Washington	148	176	133	261	322	4.6	5.4	4.0	7.8	9.6
West Virginia	4	9	6	6	4	0.5	1.0	0.7	0.7	0.4
Wisconsin	60	51	34	43	60	2.2	1.8	1.2	1.5	2.1
Wyoming	3	1	2	0	0	1.1	0.4	0.7	0.0	0.0
U.S. TOTAL	**9,769**	**11,255**	**11,764**	**11,981**	**12,453**	**6.6**	**7.5**	**7.8**	**7.9**	**8.2**
Northeast	1,741	1,924	1,946	2,068	1,987	6.5	7.2	7.2	7.7	7.4
Midwest	1,113	1,485	1,638	1,944	1,926	3.4	4.5	5.0	5.9	5.8
South	4,372	5,007	5,657	5,026	5,160	8.1	9.1	10.2	9.0	9.2
West	2,543	2,839	2,523	2,943	3,380	7.2	8.0	7.0	8.2	9.4
Guam	4	5	1	0	3	4.5	5.6	1.1	0.0	3.3
Puerto Rico	113	138	204	210	237	6.0	7.3	10.7	11.8	13.3
Virgin Islands	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
OUTLYING AREAS	**117**	**143**	**205**	**210**	**240**	**5.8**	**7.0**	**10.0**	**10.9**	**12.4**
TOTAL	**9,886**	**11,398**	**11,969**	**12,191**	**12,693**	**6.6**	**7.5**	**7.8**	**7.9**	**8.3**

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

Table 29. Primary and Secondary Syphilis—Reported Cases and Rates in Selected Metropolitan Statistical Areas (MSAs)* in Alphabetical Order, United States, 2007–2011

MSAs	Cases					Rates per 100,000 Population				
	2007	2008	2009	2010	2011	2007	2008	2009	2010	2011
Atlanta-Sandy Springs-Marietta, GA	608	765	809	651	581	11.5	14.2	14.8	12.4	11.0
Austin-Round Rock, TX	74	107	99	107	114	4.6	6.5	5.8	6.2	6.6
Baltimore-Towson, MD	211	270	204	212	308	7.9	10.1	7.6	7.8	11.4
Birmingham-Hoover, AL	189	188	145	82	89	17.1	16.8	12.8	7.3	7.9
Boston-Cambridge-Quincy, MA-NH	131	173	203	240	191	2.9	3.8	4.4	5.3	4.2
Buffalo-Cheektowaga-Tonawanda, NY	11	3	10	11	14	1.0	0.3	0.9	1.0	1.2
Charlotte-Gastonia-Concord, NC-SC	103	58	138	106	145	6.2	3.4	7.9	6.0	8.2
Chicago-Naperville-Joliet, IL-IN-WI	427	535	732	881	853	4.5	5.6	7.6	9.3	9.0
Cincinnati-Middletown, OH-KY-IN	34	62	124	272	228	1.6	2.9	5.7	12.8	10.7
Cleveland-Elyria-Mentor, OH	29	64	71	82	55	1.4	3.1	3.4	3.9	2.6
Columbus, OH	76	135	115	120	122	4.3	7.6	6.4	6.5	6.6
Dallas-Fort Worth-Arlington, TX	265	328	502	342	317	4.3	5.2	7.8	5.4	5.0
Denver-Aurora, CO	46	103	92	120	116	1.9	4.1	3.6	4.7	4.6
Detroit-Warren-Livonia, MI	91	100	151	146	203	2.0	2.3	3.4	3.4	4.7
Hartford-West Hartford-East Hartford, CT	15	8	25	32	15	1.3	0.7	2.1	2.6	1.2
Houston-Baytown-Sugar Land, TX	501	456	432	330	322	8.9	8.0	7.4	5.5	5.4
Indianapolis, IN	26	80	81	108	91	1.5	4.7	4.6	6.1	5.2
Jacksonville, FL	44	67	57	49	47	3.4	5.1	4.3	3.6	3.5
Kansas City, MO-KS	149	102	80	43	57	7.5	5.1	3.9	2.1	2.8
Las Vegas-Paradise, NV	102	72	86	125	126	5.6	3.9	4.5	6.4	6.5
Los Angeles-Long Beach-Santa Ana, CA	1,061	920	858	766	876	8.2	7.1	6.7	6.0	6.8
Louisville, KY-IN	32	36	57	105	92	2.6	2.9	4.5	8.2	7.2
Memphis, TN-MS-AR	208	234	189	165	120	16.2	18.2	14.5	12.5	9.1
Miami-Fort Lauderdale-Miami Beach, FL	414	509	518	652	630	7.6	9.4	9.3	11.7	11.3
Milwaukee-Waukesha-West Allis, WI	53	45	28	29	35	3.4	2.9	1.8	1.9	2.2
Minneapolis-St. Paul-Bloomington, MN-WI	57	105	67	140	127	1.8	3.3	2.0	4.3	3.9
Nashville-Davidson-Murfreesboro, TN	84	85	92	73	84	5.5	5.5	5.8	4.6	5.3
New Orleans-Metairie-Kenner, LA	168	170	138	92	101	16.3	15.0	11.6	7.9	8.6
New York-Newark-Edison, NY-NJ-PA	1,208	1,353	1,301	1,219	1,162	6.4	7.1	6.8	6.5	6.1
Oklahoma City, OK	36	61	70	55	39	3.0	5.1	5.7	4.4	3.1
Orlando, FL	145	126	109	103	174	7.1	6.1	5.2	4.8	8.2
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	205	214	289	307	302	3.5	3.7	4.8	5.1	5.1
Phoenix-Mesa-Scottsdale, AZ	193	211	169	161	213	4.6	4.9	3.9	3.8	5.1
Pittsburgh, PA	60	38	29	36	49	2.5	1.6	1.2	1.5	2.1
Portland-Vancouver-Beaverton, OR-WA	11	21	53	66	90	0.5	1.0	2.4	3.0	4.0
Providence-New Bedford-Fall River, RI-MA	44	25	28	47	55	2.7	1.6	1.7	2.9	3.4
Richmond, VA	38	92	97	89	52	3.1	7.5	7.8	7.1	4.1
Riverside-San Bernardino-Ontario, CA	95	157	115	157	182	2.3	3.8	2.8	3.7	4.3
Rochester, NY	16	9	11	16	19	1.6	0.9	1.1	1.5	1.8
Sacramento-Arden-Arcade-Roseville, CA	59	102	73	57	131	2.8	4.8	3.4	2.7	6.1
Salt Lake City, UT	19	23	28	54	9	1.7	2.1	2.5	4.8	0.8
San Antonio, TX	157	195	216	183	188	7.9	9.6	10.4	8.5	8.8
San Diego-Carlsbad-San Marcos, CA	347	345	190	274	293	11.7	11.5	6.2	8.9	9.5
San Francisco-Oakland-Fremont, CA	308	478	438	543	626	7.3	11.2	10.1	12.5	14.4
San Jose-Sunnyvale-Santa Clara, CA	56	42	59	91	68	3.1	2.3	3.2	5.0	3.7
Seattle-Tacoma-Bellevue, WA	138	153	115	236	276	4.2	4.6	3.4	6.9	8.0
St. Louis, MO-IL	112	121	83	118	92	4.0	4.3	2.9	4.2	3.3
Tampa-St. Petersburg-Clearwater, FL	195	191	180	183	199	7.2	7.0	6.6	6.6	7.1
Virginia Beach-Norfolk-Newport News, VA-NC	88	98	102	92	64	5.3	5.9	6.1	5.5	3.8
Washington-Arlington-Alexandria, DC-VA-MD-WV	377	297	324	311	360	7.1	5.5	5.9	5.6	6.4
U.S. MSAs TOTAL	**9,116**	**10,132**	**10,182**	**10,479**	**10,702**	**5.6**	**6.2**	**6.1**	**6.3**	**6.4**

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

Table 30. Primary and Secondary Syphilis—Women—Reported Cases and Rates in Selected Metropolitan Statistical Areas (MSAs)* in Alphabetical Order, United States, 2007–2011

MSAs	Cases					Rates per 100,000 Population				
	2007	2008	2009	2010	2011	2007	2008	2009	2010	2011
Atlanta-Sandy Springs-Marietta, GA	40	51	59	44	40	1.5	1.9	2.1	1.6	1.5
Austin-Round Rock, TX	12	16	14	18	12	1.5	2.0	1.7	2.1	1.4
Baltimore-Towson, MD	40	70	33	19	39	2.9	5.1	2.4	1.4	2.8
Birmingham-Hoover, AL	80	77	44	21	10	13.9	13.3	7.5	3.6	1.7
Boston-Cambridge-Quincy, MA-NH	10	4	3	12	14	0.4	0.2	0.1	0.5	0.6
Buffalo-Cheektowaga-Tonawanda, NY	0	0	0	0	2	0.0	0.0	0.0	0.0	0.3
Charlotte-Gastonia-Concord, NC-SC	20	9	14	6	14	2.4	1.0	1.6	0.7	1.5
Chicago-Naperville-Joliet, IL-IN-WI	31	40	46	107	77	0.6	0.8	0.9	2.2	1.6
Cincinnati-Middletown, OH-KY-IN	6	14	26	107	99	0.5	1.3	2.3	9.8	9.1
Cleveland-Elyria-Mentor, OH	5	13	14	6	3	0.5	1.2	1.3	0.6	0.3
Columbus, OH	11	19	15	11	10	1.2	2.1	1.6	1.2	1.1
Dallas-Fort Worth-Arlington, TX	93	116	153	103	63	3.0	3.7	4.8	3.2	2.0
Denver-Aurora, CO	1	1	3	0	1	0.1	0.1	0.2	0.0	0.1
Detroit-Warren-Livonia, MI	22	27	26	9	20	1.0	1.2	1.2	0.4	0.9
Hartford-West Hartford-East Hartford, CT	1	0	0	3	2	0.2	0.0	0.0	0.5	0.3
Houston-Baytown-Sugar Land, TX	108	114	113	77	69	3.8	4.0	3.9	2.6	2.3
Indianapolis, IN	3	8	6	12	5	0.3	0.9	0.7	1.3	0.6
Jacksonville, FL	11	16	11	11	11	1.7	2.4	1.6	1.6	1.6
Kansas City, MO-KS	25	20	8	1	4	2.5	2.0	0.8	0.1	0.4
Las Vegas-Paradise, NV	11	11	7	6	4	1.2	1.2	0.7	0.6	0.4
Los Angeles-Long Beach-Santa Ana, CA	58	31	22	17	16	0.9	0.5	0.3	0.3	0.2
Louisville, KY-IN	2	3	1	4	7	0.3	0.5	0.2	0.6	1.1
Memphis, TN-MS-AR	87	71	67	33	22	13.1	10.6	9.9	4.8	3.2
Miami-Fort Lauderdale-Miami Beach, FL	60	74	54	55	47	2.2	2.7	1.9	1.9	1.6
Milwaukee-Waukesha-West Allis, WI	5	11	9	5	5	0.6	1.4	1.1	0.6	0.6
Minneapolis-St. Paul-Bloomington, MN-WI	1	5	0	5	5	0.1	0.3	0.0	0.3	0.3
Nashville-Davidson-Murfreesboro, TN	13	14	23	10	3	1.7	1.8	2.9	1.2	0.4
New Orleans-Metairie-Kenner, LA	51	53	36	30	17	9.5	9.0	5.8	5.0	2.8
New York-Newark-Edison, NY-NJ-PA	42	60	69	52	37	0.4	0.6	0.7	0.5	0.4
Oklahoma City, OK	13	16	16	12	6	2.2	2.6	2.6	1.9	0.9
Orlando, FL	13	21	19	7	10	1.3	2.0	1.8	0.6	0.9
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	14	17	37	33	28	0.5	0.6	1.2	1.1	0.9
Phoenix-Mesa-Scottsdale, AZ	29	24	8	12	9	1.4	1.1	0.4	0.6	0.4
Pittsburgh, PA	25	6	4	2	4	2.0	0.5	0.3	0.2	0.3
Portland-Vancouver-Beaverton, OR-WA	1	0	0	2	0	0.1	0.0	0.0	0.2	0.0
Providence-New Bedford-Fall River, RI-MA	2	0	1	3	3	0.2	0.0	0.1	0.4	0.4
Richmond, VA	3	6	3	6	10	0.5	1.0	0.5	0.9	1.5
Riverside-San Bernardino-Ontario, CA	4	5	5	1	8	0.2	0.2	0.2	0.0	0.4
Rochester, NY	1	0	1	3	0	0.2	0.0	0.2	0.6	0.0
Sacramento-Arden-Arcade-Roseville, CA	2	18	16	12	7	0.2	1.7	1.5	1.1	0.6
Salt Lake City, UT	0	1	0	0	0	0.0	0.2	0.0	0.0	0.0
San Antonio, TX	35	58	42	28	39	3.4	5.6	4.0	2.6	3.6
San Diego-Carlsbad-San Marcos, CA	12	12	6	3	13	0.8	0.8	0.4	0.2	0.8
San Francisco-Oakland-Fremont, CA	12	12	9	20	27	0.6	0.6	0.4	0.9	1.2
San Jose-Sunnyvale-Santa Clara, CA	4	3	5	3	4	0.5	0.3	0.6	0.3	0.4
Seattle-Tacoma-Bellevue, WA	4	2	4	2	3	0.2	0.1	0.2	0.1	0.2
St. Louis, MO-IL	9	16	9	3	3	0.6	1.1	0.6	0.2	0.2
Tampa-St. Petersburg-Clearwater, FL	52	54	29	33	26	3.7	3.8	2.1	2.3	1.8
Virginia Beach-Norfolk-Newport News, VA-NC	10	12	11	3	7	1.2	1.4	1.3	0.4	0.8
Washington-Arlington-Alexandria, DC-VA-MD-WV	12	15	19	13	16	0.4	0.5	0.7	0.5	0.6
U.S. MSAs TOTAL	**1,106**	**1,246**	**1,120**	**985**	**881**	**1.3**	**1.5**	**1.3**	**1.2**	**1.0**

* 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 31. Primary and Secondary Syphilis—Men—Reported Cases and Rates in Selected Metropolitan Statistical Areas (MSAs)* in Alphabetical Order, United States, 2007–2011

MSAs	Cases					Rates per 100,000 Population				
	2007	2008	2009	2010	2011	2007	2008	2009	2010	2011
Atlanta-Sandy Springs-Marietta, GA	567	714	750	607	541	21.7	26.9	27.7	23.7	21.1
Austin-Round Rock, TX	62	91	85	89	102	7.6	10.8	9.8	10.3	11.9
Baltimore-Towson, MD	171	200	171	193	269	13.3	15.6	13.2	14.8	20.6
Birmingham-Hoover, AL	109	111	101	61	79	20.4	20.6	18.5	11.2	14.5
Boston-Cambridge-Quincy, MA-NH	121	169	200	228	177	5.6	7.7	8.9	10.4	8.0
Buffalo-Cheektowaga-Tonawanda, NY	11	3	10	11	12	2.0	0.6	1.8	2.0	2.2
Charlotte-Gastonia-Concord, NC-SC	83	49	124	100	131	10.3	5.9	14.5	11.7	15.3
Chicago-Naperville-Joliet, IL-IN-WI	396	495	686	774	776	8.4	10.5	14.6	16.7	16.8
Cincinnati-Middletown, OH-KY-IN	28	48	98	165	129	2.7	4.6	9.2	15.8	12.4
Cleveland-Elyria-Mentor, OH	24	51	57	76	52	2.4	5.1	5.7	7.6	5.2
Columbus, OH	65	116	100	109	112	7.5	13.2	11.2	12.1	12.4
Dallas-Fort Worth-Arlington, TX	172	212	349	239	254	5.6	6.7	10.8	7.6	8.1
Denver-Aurora, CO	45	102	89	120	115	3.6	8.1	7.0	9.5	9.1
Detroit-Warren-Livonia, MI	69	73	125	137	183	3.2	3.4	5.8	6.6	8.8
Hartford-West Hartford-East Hartford, CT	14	8	25	29	13	2.4	1.4	4.3	4.9	2.2
Houston-Baytown-Sugar Land, TX	393	342	319	253	253	13.9	11.9	10.8	8.6	8.6
Indianapolis, IN	23	72	75	96	86	2.8	8.5	8.8	11.2	10.0
Jacksonville, FL	33	51	46	38	36	5.2	7.9	7.1	5.8	5.5
Kansas City, MO-KS	124	82	72	42	53	12.7	8.3	7.1	4.2	5.3
Las Vegas-Paradise, NV	91	61	79	119	122	9.7	6.4	8.2	12.1	12.4
Los Angeles-Long Beach-Santa Ana, CA	1,002	889	836	749	858	15.7	13.9	13.1	11.8	13.6
Louisville, KY-IN	30	33	56	101	85	5.0	5.4	9.1	16.1	13.6
Memphis, TN-MS-AR	121	163	122	132	98	19.6	26.4	19.4	20.9	15.5
Miami-Fort Lauderdale-Miami Beach, FL	354	435	464	597	583	13.5	16.5	17.1	22.2	21.6
Milwaukee-Waukesha-West Allis, WI	48	34	19	24	30	6.4	4.5	2.5	3.2	4.0
Minneapolis-St. Paul-Bloomington, MN-WI	56	100	67	135	122	3.5	6.2	4.1	8.3	7.5
Nashville-Davidson-Murfreesboro, TN	71	71	69	63	81	9.5	9.3	8.9	8.1	10.4
New Orleans-Metairie-Kenner, LA	117	117	102	55	84	23.7	21.5	17.8	9.7	14.8
New York-Newark-Edison, NY-NJ-PA	1,166	1,293	1,232	1,167	1,124	12.8	14.0	13.3	12.8	12.4
Oklahoma City, OK	23	45	54	43	33	3.9	7.6	8.9	7.0	5.3
Orlando, FL	132	105	90	96	164	13.1	10.3	8.7	9.2	15.7
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	191	197	252	274	274	6.8	7.0	8.7	9.5	9.5
Phoenix-Mesa-Scottsdale, AZ	162	187	161	149	202	7.7	8.6	7.3	7.1	9.7
Pittsburgh, PA	35	32	25	34	45	3.1	2.8	2.2	3.0	4.0
Portland-Vancouver-Beaverton, OR-WA	10	21	53	64	90	0.9	1.9	4.8	5.8	8.2
Providence-New Bedford-Fall River, RI-MA	42	25	27	44	52	5.4	3.2	3.5	5.7	6.7
Richmond, VA	35	86	94	83	42	5.9	14.4	15.6	13.6	6.9
Riverside-San Bernardino-Ontario, CA	90	150	110	156	171	4.4	7.3	5.3	7.4	8.1
Rochester, NY	15	9	10	13	19	3.0	1.8	2.0	2.5	3.7
Sacramento-Arden-Arcade-Roseville, CA	57	84	57	45	122	5.5	8.1	5.4	4.3	11.6
Salt Lake City, UT	19	22	28	54	9	3.4	3.9	4.9	9.5	1.6
San Antonio, TX	122	137	174	155	149	12.5	13.8	17.1	14.7	14.2
San Diego-Carlsbad-San Marcos, CA	335	333	184	271	279	22.4	22.1	12.0	17.4	18.0
San Francisco-Oakland-Fremont, CA	296	466	429	523	596	14.2	21.9	20.0	24.5	27.9
San Jose-Sunnyvale-Santa Clara, CA	52	39	54	88	64	5.6	4.2	5.7	9.5	6.9
Seattle-Tacoma-Bellevue, WA	134	151	111	234	273	8.1	9.0	6.5	13.7	15.9
St. Louis, MO-IL	103	105	74	115	89	7.6	7.7	5.4	8.4	6.5
Tampa-St. Petersburg-Clearwater, FL	143	137	151	150	173	10.8	10.3	11.3	11.1	12.8
Virginia Beach-Norfolk-Newport News, VA-NC	78	86	91	89	57	9.6	10.6	11.1	10.9	7.0
Washington-Arlington-Alexandria, DC-VA-MD-WV	365	282	305	298	344	14.1	10.8	11.4	11.0	12.7
U.S. MSAs TOTAL	**8,005**	**8,884**	**9,062**	**9,487**	**9,807**	**10.0**	**11.0**	**11.1**	**11.7**	**12.1**

* 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—Reported Cases and Rates in Counties and Independent Cities* Ranked by Number of Reported Cases, United States, 2011

Rank†	County/Independent City	Cases	Rate per 100,000 Population	Cumulative Percentage
1	Los Angeles County, CA	810	8.2	5
2	Cook County, IL	773	14.9	11
3	San Francisco County, CA	388	48.2	14
4	Fulton County, GA	362	39.3	16
5	New York County, NY	353	22.3	19
6	Miami-Dade County, FL	330	13.2	21
7	San Diego County, CA	293	9.5	23
8	Harris County, TX	273	6.7	25
9	Kings County, NY	269	10.7	27
10	Broward County, FL	235	13.4	29
11	King County, WA	234	12.1	30
12	Baltimore (City), MD	233	37.5	32
13	Maricopa County, AZ	208	5.4	34
14	Philadelphia County, PA	207	13.6	35
15	Hamilton County, OH	194	24.2	36
16	Bexar County, TX	184	10.7	38
17	Dallas County, TX	179	7.6	39
18	Washington, D.C.	165	27.4	40
19	Bronx County, NY	153	11.0	41
20	Caddo County, LA	151	59.2	42
21	Wayne County, MI	140	7.7	43
22	Orange County, FL	133	11.6	44
23	Alameda County, CA	133	8.8	45
24	Clark County, NV	126	6.5	46
25	Riverside County, CA	125	5.7	47
26	Hillsborough County, FL	124	10.1	48
27	Tarrant County, TX	124	6.9	49
28	Mecklenburg County, NC	122	13.3	50
29	Sacramento County, CA	119	8.4	51
30	Franklin County, OH	115	9.9	51
31	Shelby County, TN	110	11.9	52
32	Queens County, NY	106	4.8	53
33	Suffolk County, MA	101	14.0	54
34	Travis County, TX	100	9.8	54
35	DeKalb County, GA	98	14.2	55
36	Prince George's County, MD	98	11.4	56
37	Hennepin County, MN	90	7.8	56
38	Marion County, IN	89	9.9	57
39	Orleans County, LA	80	23.3	58
40	Jefferson County, KY	77	10.4	58
41	Denver County, CO	73	12.2	59
42	Jefferson County, AL	71	10.8	59
43	Multnomah County, OR	71	9.7	60
44	Santa Clara County, CA	68	3.8	60
45	Pinellas County, FL	66	7.2	61
46	Orange County, CA	66	2.2	61
47	Palm Beach County, FL	65	4.9	62
48	Richland County, SC	64	16.6	62
49	Contra Costa County, CA	64	6.1	63
50	Davidson County, TN	62	9.9	63
51	Pulaski County, AR	60	15.7	63
52	Hinds County, MS	57	23.2	64
53	Guilford County, NC	57	11.7	64
54	San Bernardino County, CA	57	2.8	65
55	Hudson County, NJ	56	8.8	65
56	East Baton Rouge County, LA	54	12.3	65
57	Cuyahoga County, OH	52	4.1	66
58	Escambia County, FL	50	16.8	66
59	Essex County, NJ	50	6.4	67
60	Jefferson County, TX	46	18.2	67
61	San Joaquin County, CA	46	6.7	67
62	Allegheny County, PA	46	3.8	68
63	St. Louis (City), MO	45	14.1	68
64	Cobb County, GA	45	6.5	68
65	Pima County, AZ	45	4.6	69
66	Wake County, NC	44	4.9	69
67	Polk County, FL	43	7.1	69
68	Baltimore County, MD	42	5.2	69
69	Kern County, CA	42	5.0	70
70	Hampden County, MA	41	8.8	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 2011.

Table 33. 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 2011, United States, 2010–2011

	Male				Female				Male-to-Female Rate Ratio	
	2010		2011		2010		2011			
County/Independent City†	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates	2010	2011
Maricopa County, AZ	146	7.7	198	10.5	9	0.5	8	0.4	15.4	26.3
Alameda County, CA	104	14.0	121	16.3	8	1.0	12	1.6	14.0	10.2
Los Angeles County, CA	676	14.0	795	16.4	13	0.3	15	0.3	46.7	54.7
Riverside County, CA	116	10.6	119	10.9	0	0.0	3	0.3	22.2	36.3
Sacramento County, CA	38	5.5	112	16.1	12	1.7	5	0.7	3.2	23.0
San Diego County, CA	271	17.4	279	18.0	3	0.2	13	0.8	87.0	22.5
San Francisco County, CA	369	90.3	378	92.5	6	1.5	7	1.8	60.2	51.4
Washington, D.C.	132	46.4	158	55.6	2	0.6	7	2.2	77.3	25.3
Broward County, FL	208	24.6	214	25.3	12	1.3	21	2.3	18.9	11.0
Hillsborough County, FL	98	16.4	104	17.4	20	3.2	20	3.2	5.1	5.4
Miami-Dade County, FL	339	28.1	311	25.7	34	2.6	19	1.5	10.8	17.1
Orange County, FL	81	14.4	124	22.0	6	1.0	9	1.5	14.4	14.7
Fulton County, GA	302	67.4	333	74.3	18	3.8	29	6.1	17.7	12.2
Cook County, IL	705	28.0	705	28.0	94	3.5	68	2.5	8.0	11.2
Caddo County, LA	85	70.1	75	61.9	94	70.3	76	56.8	1.0	1.1
Baltimore (City), MD	148	50.6	200	68.4	14	4.3	33	10.0	11.8	6.8
Wayne County, MI	91	10.4	125	14.3	6	0.6	15	1.6	17.3	8.9
Clark County, NV	119	12.1	122	12.4	6	0.6	4	0.4	20.2	31.0
Bronx County, NY	150	23.1	145	22.3	13	1.8	8	1.1	12.8	20.3
Kings County, NY	226	19.1	262	22.2	9	0.7	6	0.5	27.3	44.4
New York County, NY	406	54.5	346	46.5	9	1.1	7	0.8	49.5	58.1
Mecklenburg County, NC	88	19.8	113	25.4	5	1.1	9	1.9	18.0	13.4
Franklin County, OH	101	17.8	106	18.7	9	1.5	9	1.5	11.9	12.5
Hamilton County, OH	146	37.9	109	28.3	99	23.7	85	20.4	1.6	1.4
Philadelphia County, PA	212	29.5	185	25.7	26	3.2	22	2.7	9.2	9.5
Bexar County, TX	153	18.2	145	17.2	27	3.1	39	4.5	5.9	3.8
Dallas County, TX	122	10.4	151	12.9	54	4.5	28	2.3	2.3	5.6
Harris County, TX	217	10.7	218	10.7	55	2.7	55	2.7	4.0	4.0
Tarrant County, TX	105	11.8	94	10.6	46	5.0	30	3.3	2.4	3.2
King County, WA	214	22.2	232	24.1	2	0.2	2	0.2	111.0	121.0

* Cases per 100,000 population.

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

Table 34. Primary and Secondary Syphilis—Reported Cases and Rates per 100,000 Population by Age Group and Sex, United States, 2007–2011

Age Group	Cases				Rates*				
	Total	Male	Female	Unknown Sex	Total	Male	Female	Unknown Sex	
0–4	2	2	0	0	0.0	0.0	0.0		2007
5–9	0	0	0	0	0.0	0.0	0.0		
10–14	13	5	8	0	0.1	0.0	0.1		
15–19	664	416	248	0	3.1	3.8	2.4		
20–24	1,817	1,461	356	0	8.6	13.5	3.5		
25–29	1,840	1,574	265	1	8.7	14.6	2.6		
30–34	1,499	1,303	193	3	7.7	13.2	2.0		
35–39	1,720	1,529	191	0	8.1	14.4	1.8		
40–44	1,744	1,551	192	1	7.9	14.1	1.7		
45–54	1,663	1,463	200	0	3.8	6.8	0.9		
55–64	409	379	30	0	1.3	2.4	0.2		
65+	91	82	9	0	0.2	0.5	0.0		
Unknown Age	4	4	0	0					
TOTAL	**11,466**	**9,769**	**1,692**	**5**	**3.8**	**6.6**	**1.1**		
0–4	1	0	1	0	0.0	0.0	0.0		2008
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**		
0–4	1	0	1	0	0.0	0.0	0.0		2009
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**		
0–4	1	0	1	0	0.0	0.0	0.0		2010
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**		
0–4	9	5	4	0	0.0	0.0	0.0		2011
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	3.9	5.4	2.4		
20–24	2,987	2,582	403	2	13.8	23.4	3.8		
25–29	2,546	2,277	268	1	12.1	21.4	2.6		
30–34	1,846	1,657	187	2	9.2	16.6	1.9		
35–39	1,382	1,265	115	2	6.8	12.6	1.1		
40–44	1,503	1,408	91	4	7.2	13.5	0.9		
45–54	2,123	1,999	120	4	4.7	9.0	0.5		
55–64	554	510	43	1	1.5	2.9	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**	**8.2**	**1.0**		

* 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.

Table 35A. Primary and Secondary Syphilis—Reported Cases by Race/Ethnicity, Age Group, and Sex, United States, 2007–2011

	Age Group	Whites, Non-Hispanic				Blacks, Non-Hispanic				Hispanics				Asians/Pacific Islanders				American Indians/ Alaska Natives			
		Total	Male	Female	UNK	Total	Male	Female	UNK	Total	Male	Female	UNK	Total	Male	Female	UNK	Total	Male	Female	UNK
2007	0–4	1	1	0	0	1	1	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	0	0
	10–14	0	0	0	0	12	4	8	0	0	0	0	0	0	0	0	0	0	0	0	0
	15–19	92	47	45	0	453	287	166	0	88	63	25	0	0	0	0	0	7	2	5	0
	20–24	326	260	66	0	1,085	848	237	0	316	277	39	0	14	12	2	0	13	6	7	0
	25–29	463	410	53	0	910	744	165	1	335	303	32	0	33	32	1	0	14	7	7	0
	30–34	481	430	49	2	583	478	105	0	309	282	26	1	36	33	3	0	18	14	4	0
	35–39	657	610	47	0	644	524	120	0	275	263	12	0	29	29	0	0	14	9	5	0
	40–44	788	731	56	1	570	454	116	0	248	237	11	0	25	24	1	0	6	4	2	0
	45–54	772	723	49	0	584	457	127	0	175	160	15	0	22	22	0	0	9	7	2	0
	55–64	204	201	3	0	148	124	24	0	39	36	3	0	2	2	0	0	0	0	0	0
	65+	44	42	2	0	36	29	7	0	5	5	0	0	1	1	0	0	0	0	0	0
	UNK Age	1	1	0	0	2	2	0	0	1	1	0	0	0	0	0	0	0	0	0	0
	TOTAL	**3,829**	**3,456**	**370**	**3**	**5,028**	**3,952**	**1,075**	**1**	**1,791**	**1,627**	**163**	**1**	**162**	**155**	**7**	**0**	**81**	**49**	**32**	**0**
2008	0–4	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0
	5–9	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
	10–14	2	1	1	0	22	7	15	0	2	0	2	0	0	0	0	0	0	0	0	0
	15–19	120	71	49	0	632	404	228	0	124	96	28	0	7	5	2	0	2	0	2	0
	20–24	440	354	86	0	1,499	1,123	376	0	346	298	48	0	33	33	0	0	11	8	3	0
	25–29	560	479	81	0	1,157	888	269	0	395	359	36	0	43	39	4	0	14	11	3	0
	30–34	525	473	52	0	736	585	151	0	332	300	32	0	46	46	0	0	11	8	3	0
	35–39	653	582	71	0	705	575	130	0	327	300	27	0	28	26	2	0	5	2	3	0
	40–44	741	677	63	1	652	531	121	0	267	252	15	0	23	22	1	0	5	4	1	0
	45–54	947	887	59	1	742	593	149	0	214	196	18	0	21	21	0	0	5	4	1	0
	55–64	218	209	9	0	176	144	32	0	34	32	2	0	7	7	0	0	2	1	1	0
	65+	58	55	3	0	28	23	5	0	10	10	0	0	2	2	0	0	0	0	0	0
	UNK Age	1	1	0	0	3	3	0	0	1	1	0	0	0	0	0	0	1	0	1	0
	TOTAL	**4,265**	**3,789**	**474**	**2**	**6,354**	**4,876**	**1,478**	**0**	**2,053**	**1,844**	**209**	**0**	**210**	**201**	**9**	**0**	**56**	**38**	**18**	**0**
2009	0–4	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	5–9	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	10–14	1	0	1	0	16	3	13	0	2	1	1	0	0	0	0	0	0	0	0	0
	15–19	106	69	37	0	762	479	283	0	109	90	19	0	9	8	1	0	3	2	1	0
	20–24	431	352	79	0	1,885	1,439	446	0	392	358	34	0	36	34	2	0	12	10	2	0
	25–29	503	438	64	1	1,400	1,120	280	0	392	370	22	0	34	31	3	0	13	10	3	0
	30–34	508	452	56	0	896	697	199	0	333	315	18	0	43	41	2	0	9	7	2	0
	35–39	571	511	60	0	646	535	111	0	279	258	21	0	45	41	4	0	11	9	2	0
	40–44	707	665	42	0	586	478	108	0	257	245	12	0	22	21	1	0	5	5	0	0
	45–54	973	903	70	0	734	606	128	0	235	223	12	0	27	25	2	0	5	3	2	0
	55–64	276	267	9	0	178	151	27	0	42	37	5	0	2	2	0	0	1	1	0	0
	65+	45	45	0	0	34	27	7	0	6	6	0	0	0	0	0	0	0	0	0	0
	UNK Age	0	0	0	0	1	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0
	TOTAL	**4,121**	**3,702**	**418**	**1**	**7,140**	**5,535**	**1,605**	**0**	**2,048**	**1,904**	**144**	**0**	**218**	**203**	**15**	**0**	**59**	**47**	**12**	**0**
2010	0–4	1	0	1	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	0	0
	10–14	0	0	0	0	15	5	10	0	2	2	0	0	0	0	0	0	0	0	0	0
	15–19	94	66	28	0	678	425	253	0	119	100	19	0	7	5	2	0	7	7	0	0
	20–24	476	420	56	0	1,865	1,498	367	0	441	409	32	0	39	33	6	0	19	18	1	0
	25–29	555	509	46	0	1,375	1,125	250	0	415	396	19	0	28	28	0	0	14	13	1	0
	30–34	530	496	34	0	833	693	140	0	319	304	15	0	42	40	2	0	7	5	2	0
	35–39	554	514	40	0	513	431	82	0	298	284	14	0	29	29	0	0	5	3	2	0
	40–44	649	625	24	0	491	426	65	0	314	303	11	0	25	25	0	0	4	4	0	0
	45–54	1,062	1,007	55	0	599	495	104	0	272	264	7	1	23	22	1	0	8	5	3	0
	55–64	286	274	12	0	139	117	22	0	42	41	1	0	7	7	0	0	0	0	0	0
	65+	64	62	2	0	22	19	3	0	15	15	0	0	1	1	0	0	0	0	0	0
	UNK Age	1	0	1	0	2	2	0	0	1	1	0	0	0	0	0	0	0	0	0	0
	TOTAL	**4,272**	**3,973**	**299**	**0**	**6,532**	**5,236**	**1,296**	**0**	**2,238**	**2,119**	**118**	**1**	**201**	**190**	**11**	**0**	**64**	**55**	**9**	**0**
2011	0–4	2	1	1	0	7	4	3	0	0	0	0	0	0	0	0	0	0	0	0	0
	5–9	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	10–14	1	0	1	0	12	4	8	0	2	2	0	0	0	0	0	0	0	0	0	0
	15–19	110	87	23	0	586	381	205	0	115	95	20	0	11	9	2	0	9	8	1	0
	20–24	565	510	55	0	1,791	1,491	300	0	469	432	36	1	41	38	3	0	16	14	1	1
	25–29	648	594	54	0	1,288	1,107	181	0	452	428	24	0	45	44	1	0	12	10	2	0
	30–34	538	506	32	0	789	664	125	0	371	345	24	2	49	46	3	0	12	11	1	0
	35–39	487	465	22	0	491	413	78	0	298	286	11	1	37	36	1	0	6	5	1	0
	40–44	667	643	24	0	451	397	53	1	269	259	10	0	30	30	0	0	6	6	0	0
	45–54	1,131	1,097	33	1	544	479	65	0	293	278	12	3	32	30	2	0	5	5	0	0
	55–64	344	329	15	0	127	104	22	1	50	46	4	0	5	5	0	0	3	3	0	0
	65+	90	89	1	0	29	28	1	0	12	11	1	0	1	1	0	0	1	1	0	0
	UNK Age	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	**4,583**	**4,321**	**261**	**1**	**6,117**	**5,074**	**1,041**	**2**	**2,331**	**2,182**	**142**	**7**	**251**	**239**	**12**	**0**	**70**	**63**	**6**	**1**

UNK = Unknown

NOTE: These tables should only be used for race/ethnicity comparisons. **See Table 34 for age-specific cases and rates and Tables 26-28 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.

In 2011, race/ethnicity was unknown (i.e., unknown, missing, or invalid data values) for 2.9% of reported primary and secondary syphilis cases.

Table 35B. Primary and Secondary Syphilis—Rates per 100,000 Population by Race/Ethnicity, Age Group, and Sex, United States, 2007–2011

Age Group	Whites, Non-Hispanic				Blacks, Non-Hispanic				Hispanics				Asians/Pacific Islanders				American Indians/ Alaska Natives				
	Total	Male	Female	UNK	Total	Male	Female	UNK	Total	Male	Female	UNK	Total	Male	Female	UNK	Total	Male	Female	UNK	
0–4	0.0	0.0	0.0		0.0	0.1	0.0		0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		2007
5–9	0.0	0.0	0.0		0.0	0.0	0.0		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		0.4	0.3	0.5		0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
15–19	0.7	0.7	0.7		13.4	16.8	10.0		2.3	3.3	1.4		0.0	0.0	0.0		3.0	1.7	4.4		
20–24	2.5	3.9	1.0		35.5	54.9	15.7		8.6	14.0	2.3		1.5	2.5	0.4		5.8	5.3	6.4		
25–29	3.7	6.4	0.8		31.5	52.7	11.2		8.0	13.0	1.7		2.9	5.6	0.2		7.2	7.2	7.3		
30–34	4.2	7.4	0.9		23.2	39.9	7.9		7.7	13.0	1.4		2.7	5.1	0.4		11.0	17.0	4.9		
35–39	4.9	9.1	0.7		24.2	41.8	8.5		7.5	13.5	0.7		2.2	4.5	0.0		8.4	10.8	6.0		
40–44	5.4	10.0	0.8		20.8	35.4	7.9		7.8	14.1	0.7		2.1	4.2	0.2		3.4	4.6	2.2		
45–54	2.4	4.6	0.3		11.4	19.4	4.6		3.7	6.6	0.6		1.1	2.3	0.0		2.6	4.3	1.1		
55–64	0.8	1.6	0.0		4.5	8.5	1.3		1.4	2.8	0.2		0.1	0.3	0.0		0.0	0.0	0.0		
65+	0.1	0.3	0.0		1.1	2.4	0.4		0.2	0.5	0.0		0.1	0.2	0.0		0.0	0.0	0.0		
UNK Age																					
TOTAL	**1.9**	**3.5**	**0.4**		**13.2**	**21.7**	**5.4**		**3.9**	**6.9**	**0.7**		**1.1**	**2.2**	**0.1**		**3.2**	**4.0**	**2.5**		
0–4	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		2008
5–9	0.0	0.0	0.0		0.1	0.0	0.1		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		0.7	0.4	1.0		0.1	0.0	0.1		0.0	0.0	0.0		0.0	0.0	0.0		
15–19	0.9	1.1	0.8		18.5	23.4	13.6		3.2	4.8	1.5		0.8	1.1	0.5		0.9	0.0	1.8		
20–24	3.4	5.3	1.3		48.4	71.7	24.6		9.4	15.3	2.8		3.5	6.9	0.0		4.9	7.0	2.7		
25–29	4.3	7.3	1.3		39.1	60.8	18.0		9.5	15.6	2.0		3.8	6.9	0.7		6.9	10.7	3.0		
30–34	4.5	8.1	0.9		29.0	48.4	11.4		8.2	13.5	1.8		3.6	7.4	0.0		6.6	9.6	3.6		
35–39	5.0	8.8	1.1		26.6	46.0	9.3		8.8	15.0	1.6		2.1	3.9	0.3		3.0	2.4	3.6		
40–44	5.2	9.5	0.9		24.2	42.1	8.4		8.1	14.5	1.0		2.0	3.9	0.2		2.9	4.8	1.1		
45–54	3.0	5.6	0.4		14.2	24.7	5.3		4.3	7.7	0.7		1.0	2.2	0.0		1.4	2.4	0.5		
55–64	0.8	1.7	0.1		5.2	9.5	1.7		1.2	2.3	0.1		0.5	1.1	0.0		0.8	0.9	0.8		
65+	0.2	0.4	0.0		0.9	1.8	0.2		0.4	0.9	0.0		0.1	0.3	0.0		0.0	0.0	0.0		
UNK Age																					
TOTAL	**2.1**	**3.8**	**0.5**		**16.6**	**26.7**	**7.4**		**4.4**	**7.6**	**0.9**		**1.4**	**2.9**	**0.1**		**2.2**	**3.0**	**1.4**		
0–4	0.0	0.0	0.0		0.0	0.0	0.1		0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		2009
5–9	0.0	0.0	0.0		0.0	0.0	0.1		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		0.5	0.2	0.9		0.0	0.0	0.1		0.0	0.0	0.0		0.0	0.0	0.0		
15–19	0.8	1.0	0.6		22.3	27.6	16.8		2.7	4.3	1.0		1.0	1.7	0.2		1.3	1.8	0.9		
20–24	3.3	5.2	1.2		58.9	88.9	28.2		10.1	17.3	1.9		3.6	6.7	0.4		5.3	8.7	1.8		
25–29	3.8	6.6	1.0		46.3	74.4	18.4		9.4	16.2	1.2		2.8	5.3	0.5		6.2	9.4	2.9		
30–34	4.3	7.6	1.0		34.2	55.5	14.6		8.3	14.2	1.0		3.3	6.5	0.3		5.3	8.1	2.4		
35–39	4.5	8.0	1.0		24.6	43.1	8.0		7.4	12.7	1.2		3.4	6.3	0.6		6.6	10.9	2.4		
40–44	5.2	9.7	0.6		22.3	38.8	7.7		7.8	13.9	0.8		1.9	3.7	0.2		3.0	6.1	0.0		
45–54	3.1	5.7	0.4		13.9	24.9	4.5		4.5	8.4	0.5		1.3	2.5	0.2		1.4	1.8	1.1		
55–64	1.0	2.1	0.1		5.0	9.5	1.4		1.4	2.5	0.3		0.1	0.3	0.0		0.4	0.8	0.0		
65+	0.1	0.3	0.0		1.0	2.1	0.3		0.2	0.5	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
UNK Age																					
TOTAL	**2.0**	**3.7**	**0.4**		**18.4**	**29.8**	**7.9**		**4.2**	**7.6**	**0.6**		**1.5**	**2.8**	**0.2**		**2.3**	**3.7**	**0.9**		
0–4	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		2010
5–9	0.0	0.0	0.0		0.0	0.0	0.0		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		0.5	0.3	0.6		0.0	0.1	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
15–19	0.7	1.0	0.5		19.3	23.8	14.6		2.6	4.3	0.9		0.6	0.9	0.4		3.0	6.0	0.0		
20–24	3.8	6.5	0.9		59.4	96.6	23.1		10.2	17.8	1.6		3.2	5.3	1.0		9.2	17.3	1.0		
25–29	4.5	8.1	0.7		49.2	83.8	17.2		9.6	17.4	0.9		2.1	4.3	0.0		7.6	14.2	1.1		
30–34	4.5	8.4	0.6		31.7	55.7	10.1		7.7	14.2	0.8		3.1	6.3	0.3		4.2	6.0	2.4		
35–39	4.6	8.4	0.7		19.7	35.1	5.9		7.7	14.4	0.7		2.1	4.4	0.0		3.1	3.7	2.4		
40–44	4.9	9.3	0.4		18.4	33.9	4.6		9.1	17.2	0.7		2.0	4.3	0.0		2.4	4.9	0.0		
45–54	3.4	6.5	0.3		10.9	19.1	3.6		5.0	9.6	0.3		1.0	2.1	0.1		2.2	2.9	1.6		
55–64	1.0	2.0	0.1		3.6	6.6	1.0		1.3	2.7	0.1		0.4	0.9	0.0		0.0	0.0	0.0		
65+	0.2	0.4	0.0		0.6	1.4	0.1		0.5	1.3	0.0		0.1	0.2	0.0		0.0	0.0	0.0		
UNK Age																					
TOTAL	**2.1**	**4.0**	**0.3**		**16.6**	**27.8**	**6.3**		**4.4**	**8.3**	**0.5**		**1.2**	**2.5**	**0.1**		**2.5**	**4.4**	**0.7**		
0–4	0.0	0.0	0.0		0.2	0.3	0.2		0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		2011
5–9	0.0	0.0	0.0		0.0	0.1	0.0		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		0.4	0.2	0.5		0.0	0.1	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
15–19	0.9	1.3	0.4		16.7	21.3	11.8		2.5	4.0	0.9		1.0	1.6	0.4		3.9	6.8	0.9		
20–24	4.5	7.9	0.9		57.1	96.2	18.9		10.9	18.8	1.8		3.3	6.1	0.5		7.8	13.5	1.0		
25–29	5.2	9.5	0.9		46.1	82.5	12.4		10.5	18.8	1.2		3.3	6.8	0.1		6.5	10.9	2.1		
30–34	4.6	8.6	0.6		30.0	53.3	9.0		9.0	16.1	1.2		3.6	7.3	0.4		7.2	13.3	1.2		
35–39	4.0	7.6	0.4		18.8	33.7	5.6		7.7	14.5	0.6		2.7	5.5	0.1		3.7	6.2	1.2		
40–44	5.0	9.6	0.4		16.9	31.6	3.8		7.8	14.7	0.6		2.4	5.1	0.0		3.6	7.3	0.0		
45–54	3.6	7.0	0.2		9.9	18.5	2.2		5.4	10.2	0.4		1.4	2.9	0.2		1.4	2.9	0.0		
55–64	1.3	2.4	0.1		3.3	5.9	1.0		1.6	3.0	0.2		0.3	0.7	0.0		1.2	2.4	0.0		
65+	0.3	0.6	0.0		0.8	2.1	0.0		0.4	0.9	0.1		0.1	0.2	0.0		0.5	1.1	0.0		
UNK Age																					
TOTAL	**2.3**	**4.4**	**0.3**		**15.5**	**27.0**	**5.0**		**4.6**	**8.5**	**0.6**		**1.6**	**3.1**	**0.1**		**2.7**	**5.0**	**0.5**		

UNK = Unknown

NOTE: These tables should only be used for race/ethnicity comparisons. **See Table 34 for age-specific cases and rates and Tables 26-28 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.

In 2011, race/ethnicity was unknown (i.e., unknown, missing, or invalid data values) for 2.9% of reported primary and secondary syphilis cases.

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

Table 36. Early Latent Syphilis—Reported Cases and Rates by State/Area and Region in Alphabetical Order, United States and Outlying Areas, 2007–2011

State/Area	Cases					Rates per 100,000 Population				
	2007	2008	2009	2010	2011	2007	2008	2009	2010	2011
Alabama	363	440	419	277	268	7.8	9.4	8.9	5.8	5.6
Alaska	3	2	0	5	3	0.4	0.3	0.0	0.7	0.4
Arizona	269	258	196	166	187	4.2	4.0	3.0	2.6	2.9
Arkansas	115	144	172	202	167	4.1	5.0	6.0	6.9	5.7
California	1,421	1,648	1,621	1,788	2,030	3.9	4.5	4.4	4.8	5.4
Colorado	35	91	63	129	154	0.7	1.8	1.3	2.6	3.1
Connecticut	20	28	40	51	57	0.6	0.8	1.1	1.4	1.6
Delaware	14	23	23	14	49	1.6	2.6	2.6	1.6	5.5
District of Columbia	84	77	158	239	222	14.3	13.0	26.3	39.7	36.9
Florida	1,155	1,252	1,254	1,294	1,212	6.3	6.8	6.8	6.9	6.4
Georgia	423	563	768	636	436	4.4	5.8	7.8	6.6	4.5
Hawaii	11	9	15	15	5	0.9	0.7	1.2	1.1	0.4
Idaho	3	6	3	4	11	0.2	0.4	0.2	0.3	0.7
Illinois	224	271	344	502	581	1.7	2.1	2.7	3.9	4.5
Indiana	39	83	55	103	95	0.6	1.3	0.9	1.6	1.5
Iowa	6	11	9	4	11	0.2	0.4	0.3	0.1	0.4
Kansas	25	54	58	63	34	0.9	1.9	2.1	2.2	1.2
Kentucky	34	47	64	88	109	0.8	1.1	1.5	2.0	2.5
Louisiana	722	809	799	742	488	16.8	18.3	17.8	16.4	10.8
Maine	5	10	10	6	8	0.4	0.8	0.8	0.5	0.6
Maryland	320	313	261	279	332	5.7	5.6	4.6	4.8	5.8
Massachusetts	116	149	135	195	233	1.8	2.3	2.0	3.0	3.6
Michigan	73	99	155	121	132	0.7	1.0	1.6	1.2	1.3
Minnesota	55	47	46	73	121	1.1	0.9	0.9	1.4	2.3
Mississippi	269	232	312	386	313	9.2	7.9	10.6	13.0	10.5
Missouri	120	145	146	133	124	2.0	2.5	2.4	2.2	2.1
Montana	0	1	0	2	1	0.0	0.1	0.0	0.2	0.1
Nebraska	3	0	6	1	3	0.2	0.0	0.3	0.1	0.2
Nevada	174	168	137	178	166	6.8	6.5	5.2	6.6	6.1
New Hampshire	13	4	6	5	5	1.0	0.3	0.5	0.4	0.4
New Jersey	343	415	401	386	452	3.9	4.8	4.6	4.4	5.1
New Mexico	66	45	40	41	56	3.4	2.3	2.0	2.0	2.7
New York	1,149	1,372	1,266	1,358	1,254	6.0	7.0	6.5	7.0	6.5
North Carolina	247	221	357	328	333	2.7	2.4	3.8	3.4	3.5
North Dakota	0	2	0	0	1	0.0	0.3	0.0	0.0	0.1
Ohio	135	224	221	189	160	1.2	2.0	1.9	1.6	1.4
Oklahoma	115	117	172	149	145	3.2	3.2	4.7	4.0	3.9
Oregon	6	18	29	33	63	0.2	0.5	0.8	0.9	1.6
Pennsylvania	309	309	361	355	412	2.5	2.5	2.9	2.8	3.2
Rhode Island	10	7	14	20	20	0.9	0.7	1.3	1.9	1.9
South Carolina	143	192	284	344	345	3.2	4.3	6.2	7.4	7.5
South Dakota	4	3	2	0	0	0.5	0.4	0.2	0.0	0.0
Tennessee	304	312	333	363	256	4.9	5.0	5.3	5.7	4.0
Texas	1,467	1,733	1,932	1,874	1,581	6.1	7.1	7.8	7.5	6.3
Utah	2	10	7	20	8	0.1	0.4	0.3	0.7	0.3
Vermont	1	6	1	0	1	0.2	1.0	0.2	0.0	0.2
Virginia	177	238	233	275	289	2.3	3.1	3.0	3.4	3.6
Washington	76	98	64	109	146	1.2	1.5	1.0	1.6	2.2
West Virginia	9	16	8	4	0	0.5	0.9	0.4	0.2	0.0
Wisconsin	91	78	66	52	57	1.6	1.4	1.2	0.9	1.0
Wyoming	0	1	0	3	0	0.0	0.2	0.0	0.5	0.0
U.S. TOTAL	**10,768**	**12,401**	**13,066**	**13,604**	**13,136**	**3.6**	**4.1**	**4.3**	**4.4**	**4.3**
Northeast	1,966	2,300	2,234	2,376	2,442	3.6	4.2	4.0	4.3	4.4
Midwest	775	1,017	1,108	1,241	1,319	1.2	1.5	1.7	1.9	2.0
South	5,961	6,729	7,549	7,494	6,545	5.4	6.0	6.7	6.5	5.7
West	2,066	2,355	2,175	2,493	2,830	2.9	3.3	3.0	3.5	3.9
Guam	3	2	1	0	4	1.7	1.1	0.6	0.0	2.2
Puerto Rico	408	241	164	191	211	10.3	6.1	4.1	5.1	5.7
Virgin Islands	1	0	0	3	0	0.9	0.0	0.0	2.7	0.0
OUTLYING AREAS	**412**	**243**	**165**	**194**	**215**	**9.7**	**5.7**	**3.9**	**4.8**	**5.4**
TOTAL	**11,180**	**12,644**	**13,231**	**13,798**	**13,351**	**3.7**	**4.1**	**4.3**	**4.4**	**4.3**

Table 37. Early Latent Syphilis—Reported Cases and Rates in Selected Metropolitan Statistical Areas (MSAs)* in Alphabetical Order, United States, 2007–2011

MSAs	Cases					Rates per 100,000 Population				
	2007	2008	2009	2010	2011	2007	2008	2009	2010	2011
Atlanta-Sandy Springs-Marietta, GA	363	402	613	529	352	6.9	7.5	11.2	10.0	6.7
Austin-Round Rock, TX	66	109	135	137	137	4.1	6.6	7.9	8.0	8.0
Baltimore-Towson, MD	185	214	153	148	198	6.9	8.0	5.7	5.5	7.3
Birmingham-Hoover, AL	196	199	150	67	90	17.7	17.8	13.3	5.9	8.0
Boston-Cambridge-Quincy, MA-NH	95	124	116	161	176	2.1	2.7	2.5	3.5	3.9
Buffalo-Cheektowaga-Tonawanda, NY	6	10	3	0	7	0.5	0.9	0.3	0.0	0.6
Charlotte-Gastonia-Concord, NC-SC	63	62	78	90	95	3.8	3.6	4.5	5.1	5.4
Chicago-Naperville-Joliet, IL-IN-WI	209	251	324	476	531	2.2	2.6	3.4	5.0	5.6
Cincinnati-Middletown, OH-KY-IN	12	23	42	88	67	0.6	1.1	1.9	4.1	3.1
Cleveland-Elyria-Mentor, OH	21	48	70	20	25	1.0	2.3	3.3	1.0	1.2
Columbus, OH	47	89	64	42	36	2.7	5.0	3.6	2.3	2.0
Dallas-Fort Worth-Arlington, TX	468	496	592	647	500	7.6	7.9	9.2	10.2	7.8
Denver-Aurora, CO	30	68	57	109	139	1.2	2.7	2.2	4.3	5.5
Detroit-Warren-Livonia, MI	47	45	88	76	82	1.1	1.0	2.0	1.8	1.9
Hartford-West Hartford-East Hartford, CT	8	10	13	18	18	0.7	0.8	1.1	1.5	1.5
Houston-Baytown-Sugar Land, TX	468	555	421	370	351	8.3	9.7	7.2	6.2	5.9
Indianapolis, IN	20	56	27	70	65	1.2	3.3	1.5	4.0	3.7
Jacksonville, FL	51	86	82	91	50	3.9	6.5	6.2	6.8	3.7
Kansas City, MO-KS	70	79	64	59	40	3.5	3.9	3.1	2.9	2.0
Las Vegas-Paradise, NV	170	166	135	174	162	9.3	8.9	7.1	8.9	8.3
Los Angeles-Long Beach-Santa Ana, CA	893	910	1,070	991	1,132	6.9	7.1	8.3	7.7	8.8
Louisville, KY-IN	12	20	17	46	43	1.0	1.6	1.4	3.6	3.4
Memphis, TN-MS-AR	222	199	259	256	180	17.3	15.5	19.8	19.5	13.7
Miami-Fort Lauderdale-Miami Beach, FL	440	563	644	749	682	8.1	10.4	11.6	13.5	12.3
Milwaukee-Waukesha-West Allis, WI	65	60	46	35	33	4.2	3.9	2.9	2.2	2.1
Minneapolis-St. Paul-Bloomington, MN-WI	54	43	45	68	112	1.7	1.3	1.4	2.1	3.4
Nashville-Davidson-Murfreesboro, TN	56	54	64	70	37	3.7	3.5	4.0	4.4	2.3
New Orleans-Metairie-Kenner, LA	222	239	243	193	108	21.5	21.1	20.4	16.5	9.2
New York-Newark-Edison, NY-NJ-PA	1,360	1,628	1,530	1,595	1,556	7.2	8.6	8.0	8.4	8.2
Oklahoma City, OK	65	72	123	76	65	5.4	6.0	10.0	6.1	5.2
Orlando, FL	160	148	132	138	142	7.9	7.2	6.3	6.5	6.7
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	310	305	362	348	398	5.3	5.2	6.1	5.8	6.7
Phoenix-Mesa-Scottsdale, AZ	165	160	131	126	153	3.9	3.7	3.0	3.0	3.6
Pittsburgh, PA	45	43	25	27	30	1.9	1.8	1.1	1.1	1.3
Portland-Vancouver-Beaverton, OR-WA	5	11	22	33	58	0.2	0.5	1.0	1.5	2.6
Providence-New Bedford-Fall River, RI-MA	12	13	16	26	26	0.7	0.8	1.0	1.6	1.6
Richmond, VA	45	81	59	77	69	3.7	6.6	4.8	6.1	5.5
Riverside-San Bernardino-Ontario, CA	49	89	88	86	144	1.2	2.2	2.1	2.0	3.4
Rochester, NY	5	5	6	7	9	0.5	0.5	0.6	0.7	0.9
Sacramento-Arden-Arcade-Roseville, CA	16	39	38	43	51	0.8	1.8	1.8	2.0	2.4
Salt Lake City, UT	2	10	4	12	7	0.2	0.9	0.4	1.1	0.6
San Antonio, TX	115	203	290	305	252	5.8	10.0	14.0	14.2	11.8
San Diego-Carlsbad-San Marcos, CA	156	179	80	177	162	5.2	6.0	2.6	5.7	5.2
San Francisco-Oakland-Fremont, CA	200	281	253	373	396	4.8	6.6	5.9	8.6	9.1
San Jose-Sunnyvale-Santa Clara, CA	25	25	22	29	35	1.4	1.4	1.2	1.6	1.9
Seattle-Tacoma-Bellevue, WA	70	91	56	91	134	2.1	2.7	1.6	2.6	3.9
St. Louis, MO-IL	57	70	90	106	84	2.0	2.5	3.2	3.8	3.0
Tampa-St. Petersburg-Clearwater, FL	294	275	225	117	139	10.8	10.1	8.2	4.2	5.0
Virginia Beach-Norfolk-Newport News, VA-NC	54	69	78	84	108	3.3	4.2	4.7	5.0	6.5
Washington-Arlington-Alexandria, DC-VA-MD-WV	265	224	306	441	402	5.0	4.2	5.6	7.9	7.2
U.S. MSAs TOTAL	**8,034**	**9,201**	**9,551**	**10,097**	**9,868**	**4.9**	**5.6**	**5.7**	**6.1**	**5.9**

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

Table 38. Late and Late Latent Syphilis* — Reported Cases and Rates by State/Area and Region in Alphabetical Order, United States and Outlying Areas, 2007–2011

State/Area	Cases					Rates per 100,000 Population				
	2007	2008	2009	2010	2011	2007	2008	2009	2010	2011
Alabama	254	286	289	235	252	5.5	6.1	6.1	4.9	5.3
Alaska	6	6	4	7	3	0.9	0.9	0.6	1.0	0.4
Arizona	650	789	629	493	431	10.3	12.1	9.5	7.7	6.7
Arkansas	122	149	95	116	100	4.3	5.2	3.3	4.0	3.4
California	2,777	2,995	2,449	2,223	2,269	7.6	8.1	6.6	6.0	6.1
Colorado	63	133	101	75	80	1.3	2.7	2.0	1.5	1.6
Connecticut	87	109	72	83	67	2.5	3.1	2.0	2.3	1.9
Delaware	31	20	36	19	48	3.6	2.3	4.1	2.1	5.3
District of Columbia	153	147	110	121	164	26.0	24.8	18.3	20.1	27.3
Florida	1,830	2,272	1,547	1,572	1,641	10.0	12.4	8.3	8.4	8.7
Georgia	1,142	1,345	982	898	771	12.0	13.9	10.0	9.3	8.0
Hawaii	38	30	39	23	13	3.0	2.3	3.0	1.7	1.0
Idaho	10	13	24	9	18	0.7	0.9	1.6	0.6	1.1
Illinois	522	720	805	799	946	4.1	5.6	6.2	6.2	7.4
Indiana	121	128	110	134	200	1.9	2.0	1.7	2.1	3.1
Iowa	37	48	33	45	39	1.2	1.6	1.1	1.5	1.3
Kansas	44	41	58	28	18	1.6	1.5	2.1	1.0	0.6
Kentucky	63	77	81	84	95	1.5	1.8	1.9	1.9	2.2
Louisiana	516	485	413	1,163	1,090	12.0	11.0	9.2	25.7	24.0
Maine	7	7	1	3	4	0.5	0.5	0.1	0.2	0.3
Maryland	482	374	387	386	470	8.6	6.6	6.8	6.7	8.1
Massachusetts	128	114	100	158	271	2.0	1.8	1.5	2.4	4.1
Michigan	262	227	246	322	338	2.6	2.3	2.5	3.3	3.4
Minnesota	72	102	99	128	107	1.4	2.0	1.9	2.4	2.0
Mississippi	305	320	188	200	238	10.4	10.9	6.4	6.7	8.0
Missouri	124	171	189	225	153	2.1	2.9	3.2	3.8	2.6
Montana	0	2	1	0	1	0.0	0.2	0.1	0.0	0.1
Nebraska	23	21	34	20	23	1.3	1.2	1.9	1.1	1.3
Nevada	104	71	75	99	125	4.1	2.7	2.8	3.7	4.6
New Hampshire	9	17	17	16	10	0.7	1.3	1.3	1.2	0.8
New Jersey	345	364	270	314	282	4.0	4.2	3.1	3.6	3.2
New Mexico	62	96	107	57	85	3.1	4.8	5.3	2.8	4.1
New York	2,766	2,903	2,160	2,387	2,436	14.3	14.9	11.1	12.3	12.6
North Carolina	516	480	578	499	485	5.7	5.2	6.2	5.2	5.1
North Dakota	1	2	3	3	3	0.2	0.3	0.5	0.4	0.4
Ohio	219	185	206	349	341	1.9	1.6	1.8	3.0	3.0
Oklahoma	33	51	25	31	39	0.9	1.4	0.7	0.8	1.0
Oregon	33	53	46	69	92	0.9	1.4	1.2	1.8	2.4
Pennsylvania	264	313	321	280	335	2.1	2.5	2.5	2.2	2.6
Rhode Island	30	30	29	18	18	2.8	2.9	2.8	1.7	1.7
South Carolina	176	120	100	80	73	4.0	2.7	2.2	1.7	1.6
South Dakota	1	2	8	8	14	0.1	0.2	1.0	1.0	1.7
Tennessee	537	548	568	542	483	8.7	8.8	9.0	8.5	7.6
Texas	2,780	3,071	3,271	3,204	3,312	11.6	12.6	13.2	12.7	13.2
Utah	23	5	17	47	42	0.9	0.2	0.6	1.7	1.5
Vermont	0	1	0	0	0	0.0	0.2	0.0	0.0	0.0
Virginia	328	281	221	245	224	4.3	3.6	2.8	3.1	2.8
Washington	135	159	118	159	236	2.1	2.4	1.8	2.4	3.5
West Virginia	11	14	16	16	5	0.6	0.8	0.9	0.9	0.3
Wisconsin	12	43	56	84	80	0.2	0.8	1.0	1.5	1.4
Wyoming	2	5	4	3	6	0.4	0.9	0.7	0.5	1.1
U.S. TOTAL	**18,256**	**19,945**	**17,338**	**18,079**	**18,576**	**6.1**	**6.6**	**5.6**	**5.9**	**6.0**
Northeast	3,636	3,858	2,970	3,259	3,423	6.6	7.0	5.4	5.9	6.2
Midwest	1,438	1,690	1,847	2,145	2,262	2.2	2.5	2.8	3.2	3.4
South	9,279	10,040	8,907	9,411	9,490	8.4	9.0	7.9	8.2	8.3
West	3,903	4,357	3,614	3,264	3,401	5.6	6.1	5.0	4.5	4.7
Guam	24	37	9	10	17	13.8	21.0	5.0	5.5	9.4
Puerto Rico	682	381	328	302	204	17.3	9.6	8.3	8.1	5.5
Virgin Islands	4	1	2	1	7	3.6	0.9	1.8	0.9	6.4
OUTLYING AREAS	**710**	**419**	**339**	**313**	**228**	**16.8**	**9.9**	**8.0**	**7.8**	**5.7**
TOTAL	**18,966**	**20,364**	**17,677**	**18,392**	**18,804**	**6.2**	**6.6**	**5.7**	**5.9**	**6.0**

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

Table 39. Late and Late Latent Syphilis* — Reported Cases and Rates in Selected Metropolitan Statistical Areas (MSAs)† in Alphabetical Order, United States, 2007–2011

MSAs	Cases					Rates per 100,000 Population				
	2007	2008	2009	2010	2011	2007	2008	2009	2010	2011
Atlanta-Sandy Springs-Marietta, GA	929	1,068	756	723	611	17.6	19.9	13.8	13.7	11.6
Austin-Round Rock, TX	94	127	116	118	168	5.9	7.7	6.8	6.9	9.8
Baltimore-Towson, MD	236	186	193	162	196	8.8	7.0	7.2	6.0	7.2
Birmingham-Hoover, AL	93	110	112	84	95	8.4	9.8	9.9	7.4	8.4
Boston-Cambridge-Quincy, MA-NH	98	86	92	142	240	2.2	1.9	2.0	3.1	5.3
Buffalo-Cheektowaga-Tonawanda, NY	9	7	27	32	27	0.8	0.6	2.4	2.8	2.4
Charlotte-Gastonia-Concord, NC-SC	133	100	127	91	106	8.1	5.9	7.3	5.2	6.0
Chicago-Naperville-Joliet, IL-IN-WI	469	650	727	703	866	4.9	6.8	7.6	7.4	9.2
Cincinnati-Middletown, OH-KY-IN	31	20	58	117	131	1.5	0.9	2.7	5.5	6.1
Cleveland-Elyria-Mentor, OH	33	15	29	79	70	1.6	0.7	1.4	3.8	3.4
Columbus, OH	99	84	71	82	76	5.6	4.7	3.9	4.5	4.1
Dallas-Fort Worth-Arlington, TX	881	934	1,020	941	979	14.3	14.8	15.8	14.8	15.4
Denver-Aurora, CO	43	98	74	64	64	1.7	3.9	2.9	2.5	2.5
Detroit-Warren-Livonia, MI	187	154	171	232	229	4.2	3.5	3.9	5.4	5.3
Hartford-West Hartford-East Hartford, CT	27	51	29	34	22	2.3	4.3	2.4	2.8	1.8
Houston-Baytown-Sugar Land, TX	1,032	1,024	1,139	1,149	1,168	18.3	17.9	19.4	19.3	19.6
Indianapolis, IN	49	53	48	55	111	2.9	3.1	2.8	3.1	6.3
Jacksonville, FL	102	153	95	87	89	7.8	11.7	7.2	6.5	6.6
Kansas City, MO-KS	49	55	70	43	44	2.5	2.7	3.4	2.1	2.2
Las Vegas-Paradise, NV	85	52	49	85	111	4.6	2.8	2.6	4.4	5.7
Los Angeles-Long Beach-Santa Ana, CA	1,588	1,722	1,332	1,238	1,222	12.3	13.4	10.3	9.7	9.5
Louisville, KY-IN	33	34	48	46	50	2.7	2.7	3.8	3.6	3.9
Memphis, TN-MS-AR	326	306	316	326	278	25.5	23.8	24.2	24.8	21.1
Miami-Fort Lauderdale-Miami Beach, FL	997	1,326	797	853	984	18.4	24.5	14.4	15.3	17.7
Milwaukee-Waukesha-West Allis, WI	9	32	43	57	49	0.6	2.1	2.8	3.7	3.1
Minneapolis-St. Paul-Bloomington, MN-WI	59	75	70	101	87	1.8	2.3	2.1	3.1	2.7
Nashville-Davidson-Murfreesboro, TN	100	138	145	115	105	6.6	8.9	9.2	7.2	6.6
New Orleans-Metairie-Kenner, LA	157	75	78	391	453	15.2	6.6	6.6	33.5	38.8
New York-Newark-Edison, NY-NJ-PA	2,913	3,089	2,237	2,502	2,522	15.5	16.3	11.7	13.2	13.3
Oklahoma City, OK	12	26	16	17	10	1.0	2.2	1.3	1.4	0.8
Orlando, FL	277	184	165	149	166	13.6	9.0	7.9	7.0	7.8
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	253	287	304	271	325	4.3	4.9	5.1	4.5	5.4
Phoenix-Mesa-Scottsdale, AZ	486	468	368	345	299	11.6	10.9	8.4	8.2	7.1
Pittsburgh, PA	17	17	16	9	13	0.7	0.7	0.7	0.4	0.6
Portland-Vancouver-Beaverton, OR-WA	34	32	39	54	72	1.6	1.4	1.7	2.4	3.2
Providence-New Bedford-Fall River, RI-MA	44	33	31	22	30	2.7	2.1	1.9	1.4	1.9
Richmond, VA	46	53	50	47	36	3.8	4.3	4.0	3.7	2.9
Riverside-San Bernardino-Ontario, CA	194	202	210	185	201	4.8	4.9	5.1	4.4	4.8
Rochester, NY	55	37	34	43	31	5.3	3.6	3.3	4.1	2.9
Sacramento-Arden-Arcade-Roseville, CA	40	100	94	81	69	1.9	4.7	4.4	3.8	3.2
Salt Lake City, UT	14	2	8	29	32	1.3	0.2	0.7	2.6	2.8
San Antonio, TX	142	190	221	232	286	7.1	9.4	10.7	10.8	13.3
San Diego-Carlsbad-San Marcos, CA	273	292	211	148	154	9.2	9.7	6.9	4.8	5.0
San Francisco-Oakland-Fremont, CA	263	277	239	230	244	6.3	6.5	5.5	5.3	5.6
San Jose-Sunnyvale-Santa Clara, CA	76	84	58	62	54	4.2	4.6	3.2	3.4	2.9
Seattle-Tacoma-Bellevue, WA	99	115	84	112	177	3.0	3.4	2.5	3.3	5.1
St. Louis, MO-IL	82	129	120	177	94	2.9	4.6	4.2	6.3	3.3
Tampa-St. Petersburg-Clearwater, FL	119	212	223	195	175	4.4	7.8	8.1	7.0	6.3
Virginia Beach-Norfolk-Newport News, VA-NC	89	80	55	59	40	5.4	4.8	3.3	3.5	2.4
Washington-Arlington-Alexandria, DC-VA-MD-WV	514	425	362	425	536	9.7	7.9	6.6	7.6	9.6
U.S. MSAs TOTAL	**13,990**	**15,069**	**12,977**	**13,544**	**14,197**	**8.6**	**9.2**	**7.8**	**8.2**	**8.6**

* 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 40. Congenital Syphilis—Reported Cases and Rates in Infants by Year of Birth, by State, Ranked by Rates, United States, 2011

Rank*	State†	Cases	Rate per 100,000 Live Births
1	Arkansas	15	36.9
2	Maryland	24	31.1
3	Louisiana	18	27.6
4	Texas	107	26.4
5	Alabama	10	15.5
6	Arizona	14	14.1
7	Florida	32	13.8
8	Mississippi	6	13.3
9	Illinois	18	10.2
10	Tennessee	8	9.4
	YEAR 2020 TARGET		**9.1**
11	Ohio	13	8.7
	U.S. TOTAL‡	**360**	**8.5**
12	Nevada	3	7.6
13	California	40	7.2
14	Georgia	10	6.8
15	New York	13	5.2
16	Michigan	6	5.0
17	New Jersey	5	4.4
18	North Carolina	5	3.8
19	Oklahoma	2	3.7
20	Kentucky	2	3.4
21	Pennsylvania	5	3.3
22	Washington	2	2.2
23	Missouri	1	1.2
	Alaska	0	0.0
	Colorado	0	0.0
	Connecticut	0	0.0
	Delaware	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
	Massachusetts	0	0.0
	Minnesota	0	0.0
	Montana	0	0.0
	Nebraska	0	0.0
	New Hampshire	0	0.0
	New Mexico	0	0.0
	North Dakota	0	0.0
	Oregon	0	0.0
	Rhode Island	0	0.0
	South Carolina	0	0.0
	South Dakota	0	0.0
	Utah	0	0.0
	Vermont	0	0.0
	Virginia	0	0.0
	West Virginia	0	0.0
	Wisconsin	0	0.0
	Wyoming	0	0.0

* States were ranked by rate, then case count, with rates shown rounded to the nearest tenth. States with no cases were not ranked.

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

‡ Total includes cases reported by the District of Columbia, with 1 case and a rate of 11.0, but excludes outlying areas (Guam with 0 cases and rate of 0.0, Puerto Rico with 2 cases and rate of 4.4, and Virgin Islands with 0 cases and rate of 0.0).

Table 41. 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, 2007–2011

State/Area*	Cases					Rates per 100,000 Live Births				
	2007	2008	2009	2010	2011	2007	2008	2009	2010	2011
Alabama	9	12	13	9	10	13.9	18.6	20.1	13.9	15.5
Alaska	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Arizona	30	30	28	16	14	29.1	30.2	28.2	16.1	14.1
Arkansas	12	9	10	11	15	29.0	22.1	24.6	27.0	36.9
California	87	64	63	39	40	15.4	11.6	11.4	7.1	7.2
Colorado	2	0	0	0	0	2.8	0.0	0.0	0.0	0.0
Connecticut	2	2	2	2	0	4.8	5.0	5.0	5.0	0.0
Delaware	0	1	1	2	0	0.0	8.3	8.3	16.5	0.0
District of Columbia	1	0	0	1	1	11.3	0.0	0.0	11.0	11.0
Florida	20	17	18	20	32	8.4	7.3	7.8	8.6	13.8
Georgia	9	11	14	18	10	6.0	7.5	9.5	12.3	6.8
Hawaii	0	0	1	0	0	0.0	0.0	5.1	0.0	0.0
Idaho	0	0	1	1	0	0.0	0.0	4.0	4.0	0.0
Illinois	10	20	16	27	18	5.5	11.3	9.1	15.3	10.2
Indiana	2	0	1	0	0	2.2	0.0	1.1	0.0	0.0
Iowa	1	0	0	0	0	2.4	0.0	0.0	0.0	0.0
Kansas	0	0	3	0	0	0.0	0.0	7.2	0.0	0.0
Kentucky	0	1	2	0	2	0.0	1.7	3.4	0.0	3.4
Louisiana	37	23	11	33	18	55.8	35.2	16.9	50.6	27.6
Maine	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Maryland	24	23	31	22	24	30.7	29.8	40.1	28.5	31.1
Massachusetts	0	0	0	1	0	0.0	0.0	0.0	1.3	0.0
Michigan	15	10	4	5	6	12.0	8.3	3.3	4.1	5.0
Minnesota	0	1	1	0	0	0.0	1.4	1.4	0.0	0.0
Mississippi	1	9	8	9	6	2.2	20.0	17.8	20.0	13.3
Missouri	1	2	6	2	1	1.2	2.5	7.4	2.5	1.2
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	7	9	3	5	3	17.0	22.8	7.6	12.7	7.6
New Hampshire	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
New Jersey	11	4	7	3	5	9.5	3.5	6.2	2.7	4.4
New Mexico	6	4	0	0	0	19.6	13.3	0.0	0.0	0.0
New York	18	23	15	17	13	7.1	9.2	6.0	6.8	5.2
North Carolina	7	11	10	10	5	5.3	8.4	7.6	7.6	3.8
North Dakota	0	0	1	0	0	0.0	0.0	11.2	0.0	0.0
Ohio	1	3	8	10	13	0.7	2.0	5.4	6.7	8.7
Oklahoma	3	3	2	0	2	5.4	5.5	3.7	0.0	3.7
Oregon	2	0	0	0	0	4.1	0.0	0.0	0.0	0.0
Pennsylvania	8	8	4	3	5	5.3	5.4	2.7	2.0	3.3
Rhode Island	0	0	1	0	0	0.0	0.0	8.3	0.0	0.0
South Carolina	1	2	0	1	0	1.6	3.2	0.0	1.6	0.0
South Dakota	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Tennessee	4	11	13	11	8	4.6	12.9	15.2	12.9	9.4
Texas	99	127	128	105	107	24.3	31.3	31.6	25.9	26.4
Utah	0	0	0	1	0	0.0	0.0	0.0	1.8	0.0
Vermont	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Virginia	1	4	2	1	0	0.9	3.7	1.9	0.9	0.0
Washington	2	0	1	1	2	2.2	0.0	1.1	1.1	2.2
West Virginia	1	1	0	0	0	4.5	4.7	0.0	0.0	0.0
Wisconsin	1	1	0	1	0	1.4	1.4	0.0	1.4	0.0
Wyoming	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
U.S. TOTAL	**435**	**446**	**429**	**387**	**360**	**10.1**	**10.5**	**10.1**	**9.1**	**8.5**
Northeast	39	37	29	26	23	5.7	5.5	4.3	3.8	3.4
Midwest	31	37	40	45	38	3.4	4.2	4.5	5.0	4.3
South	229	265	263	253	240	13.9	16.4	16.3	15.6	14.8
West	136	107	97	63	59	12.6	10.1	9.1	5.9	5.6
Guam	2	0	0	0	0	57.5	0.0	0.0	0.0	0.0
Puerto Rico	10	8	6	2	2	21.4	17.5	13.2	4.4	4.4
Virgin Islands	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
OUTLYING AREAS	**12**	**8**	**6**	**2**	**2**	**23.2**	**15.7**	**11.8**	**3.9**	**3.9**
TOTAL	**447**	**454**	**435**	**389**	**362**	**10.2**	**10.6**	**10.1**	**9.0**	**8.4**

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

Table 42. Congenital Syphilis—Reported Cases and Rates in Infants by Year of Birth by Race/Ethnicity of Mother, United States, 2007–2011

Year of Birth	Race/Ethnicity	Cases	Rates per 100,000 Live Births
2007	Whites, Non-Hispanic	53	2.3
	Blacks, Non-Hispanic	192	30.4
	Hispanics	144	13.5
	Asians/Pacific Islanders	20	8.2
	American Indians/Alaska Natives	8	18.3
	Other	4	NA
	Unknown	14	NA
	Total	**435**	**10.1**
2008	Whites, Non-Hispanic	67	2.9
	Blacks, Non-Hispanic	226	35.9
	Hispanics	135	13.0
	Asians/Pacific Islanders	7	2.9
	American Indians/Alaska Natives	6	13.8
	Other	1	NA
	Unknown	4	NA
	Total	**446**	**10.5**
2009	Whites, Non-Hispanic	65	2.8
	Blacks, Non-Hispanic	215	34.1
	Hispanics	128	12.3
	Asians/Pacific Islanders	11	4.5
	American Indians/Alaska Natives	5	11.5
	Other	2	NA
	Unknown	3	NA
	Total	**429**	**10.1**
2010	Whites, Non-Hispanic	63	2.8
	Blacks, Non-Hispanic	216	34.3
	Hispanics	91	8.7
	Asians/Pacific Islanders	9	3.7
	American Indians/Alaska Natives	1	2.3
	Other	3	NA
	Unknown	4	NA
	Total	**387**	**9.1**
2011	Whites, Non-Hispanic	50	2.2
	Blacks, Non-Hispanic	208	33.0
	Hispanics	79	7.6
	Asians/Pacific Islanders	14	5.7
	American Indians/Alaska Natives	2	4.6
	Other	3	NA
	Unknown	4	NA
	Total	**360**	**8.5**

NA = Not applicable.

Table 43. Chancroid—Reported Cases and Rates by State/Area in Alphabetical Order, United States and Outlying Areas, 2007–2011

State/Area	Cases					Rates per 100,000 Population				
	2007	2008	2009	2010	2011	2007	2008	2009	2010	2011
Alabama	0	0	0	1	0	0.0	0.0	0.0	0.0	0.0
Alaska	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Arizona	0	0	0	0	1	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	1	2	1	5	1	0.0	0.0	0.0	0.0	0.0
Colorado	0	2	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	3	0	1	1	0	0.0	0.0	0.0	0.0	0.0
Georgia	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Hawaii	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Idaho	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Illinois	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Indiana	0	0	1	0	0	0.0	0.0	0.0	0.0	0.0
Iowa	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Kansas	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Kentucky	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Louisiana	4	0	0	0	0	0.1	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	0	0.0	0.0	0.0	0.0	0.0
Massachusetts	1	4	3	1	2	0.0	0.1	0.0	0.0	0.0
Michigan	0	0	0	0	1	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	5	2	0	0	0	0.0	0.0	0.0	0.0	0.0
North Carolina	2	4	6	1	0	0.0	0.0	0.1	0.0	0.0
North Dakota	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Ohio	0	1	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	0	1	1	1	2	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	0	1	0	0.0	0.0	0.0	0.0	0.0
Texas	5	8	8	12	1	0.0	0.0	0.0	0.0	0.0
Utah	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Vermont	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Virginia	0	0	1	0	0	0.0	0.0	0.0	0.0	0.0
Washington	0	1	0	1	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	2	0	6	0	0	0.0	0.0	0.1	0.0	0.0
Wyoming	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
U.S. TOTAL	**23**	**25**	**28**	**24**	**8**	**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	**23**	**25**	**28**	**24**	**8**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Table 44. Selected STDs and Complications—Initial Visits to Physicians' Offices, National Disease and Therapeutic Index, United States, 1966-2011

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

* 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 2011 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 continues to be used 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 (42 reporting areas submit congenital syphilis surveillance data through NETSS). Puerto Rico converted to electronic reporting in 2006. Guam and the Virgin Islands continue to report STD data through summary hard copy forms.

Surveillance data and updates sent to CDC through NETSS and on hard copy forms through June 7, 2012, 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

2000–2011 Rates and Population

CDC's National Center for Health Statistics (NCHS) released bridged-race population counts for the 2000–2010 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 2010, thus 2010 population estimates were used to calculate 2010 and 2011 rates. Once published, the 2011 population estimates will be used to calculate rates in the upcoming 2012 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 2010 population estimates.

Because of the use of the updated population data, rates for 2000–2010 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.

1941–2011 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 1941–2011. 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 2011, 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 2011 were calculated by using live birth data for 2008.

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 2011 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.

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 2011.

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 1984–2011 are presented as STD clinic or non-STD clinic only (Table A2).

Definition of HHS Regions

The 10 regions of the U.S. Department of Health and Human Services (HHS) include the following jurisdictions: Region I = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont; Region II = New Jersey, New York, Puerto Rico, and U.S. Virgin Islands; Region III = Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, and West Virginia; Region IV = Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee; Region V= Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin; Region VI = Arkansas, Louisiana, New Mexico, Oklahoma, and Texas; Region VII = Iowa, Kansas, Missouri, and Nebraska; Region VIII = Colorado, Montana, North Dakota, South Dakota, Utah, and Wyoming; Region IX = Arizona, California, Guam, Hawaii, and Nevada; and Region X = Alaska, Idaho, Oregon, and Washington.

Chlamydia Morbidity

Trends in chlamydia morbidity reporting from many state and local jurisdictions are more 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.[5] 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 1995–2011.

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 test positivity were calculated for women visiting family planning clinics and prenatal clinics, men and women entering NJTP, and men and women entering corrections facilities. These data sources may include more than one test from the same person if that person was tested more than once during a year.

Chlamydia and gonorrhea prevalence were calculated for men and women entering 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.

Various laboratory test methods were used for all of these data sources. No adjustments for laboratory test type and sensitivity were made to any figures that present test positivity or prevalence data.

Positivity and prevalence data for region- and state-specific figures were published with permission from the regional infertility prevention infrastructure and NJTP.

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 participate in SSuN: 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 in the 3 months 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 within the 3 months 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 2011, the antimicrobial agents tested by GISP were ceftriaxone, cefixime, cefpodoxime, azithromycin, spectinomycin, ciprofloxacin, penicillin, and tetracycline.

The antimicrobial susceptibility criteria used in GISP for 2011 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).[6]

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 2011). 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.[7] 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

* 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*.

from a diverse group of individuals and organizations. HP2020 is organized into 42 topic areas, with more than 1,200 measures designed drive action that will support its four overarching goals:

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

The topic area, Sexually Transmitted Diseases, contains objectives and measures related to STDs. Baselines, HP2020 targets, and annual progress toward the targets are reported in Table 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] 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.

[6] Clinical and Laboratory Standards Institute. Performance standards for antimicrobial susceptibility testing; twentieth informational supplement. M100-S20, 30(1). Wayne (PA): Clinical and Laboratory Standards Institute; 2010.

[7] U.S. Department of Health and Human Services. Healthy People 2020 Web site. 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, 2011

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	0.4	0.0	0.0	34.6	27.6	0.1	2.2	32.8	0.1	2.6
Alaska*	0.0	0.0	0.0	100.0	1.2	0.0	0.0	2.8	0.0	0.0
Arizona	0.4	0.0	0.7	53.3	15.6	0.0	0.0	20.4	0.0	0.0
Arkansas	0.5	0.0	0.0	12.6	9.6	0.0	0.1	12.8	0.1	0.0
California	3.7	0.0	0.5	7.1	28.0	0.5	0.4	36.0	0.4	0.3
Colorado	0.0	0.0	0.0	0.0	18.2	0.0	0.0	36.6	0.0	0.0
Connecticut	0.0	0.0	0.0	26.2	27.8	0.1	0.0	34.4	0.4	0.0
Delaware	0.0	0.0	0.0	81.5	2.1	0.0	0.0	4.5	0.0	0.0
District of Columbia	3.0	0.0	0.0	20.6	29.3	0.0	0.0	31.3	0.2	0.0
Florida	2.7	0.0	0.0	4.8	10.4	0.0	0.1	13.8	0.0	0.1
Georgia	3.4	0.0	0.0	21.8	33.8	0.1	0.9	44.1	0.1	1.1
Hawaii	0.0	0.0	0.0	7.1	36.8	0.0	0.0	49.3	0.0	0.0
Idaho	23.1	0.0	0.0	0.0	41.4	0.0	0.0	34.5	0.2	0.1
Illinois	2.6	0.0	0.0	13.5	11.4	0.0	0.1	14.2	0.0	0.2
Indiana	2.3	0.0	0.0	4.0	14.7	0.0	0.2	22.3	0.0	0.2
Iowa	0.0	0.0	0.0	10.0	8.8	0.0	0.0	11.7	0.0	0.0
Kansas	0.0	0.0	0.0	0.0	20.6	0.1	0.0	38.4	0.1	0.0
Kentucky	0.0	0.0	0.0	3.9	21.0	0.5	0.3	27.3	0.4	0.4
Louisiana	0.9	0.2	0.0	8.5	24.3	0.1	1.8	28.5	0.1	2.1
Maine	25.0	0.0	0.0	25.0	12.5	0.0	0.0	26.3	0.3	0.0
Maryland	1.8	0.0	0.0	5.8	22.2	0.3	0.1	32.8	0.2	0.0
Massachusetts	4.5	0.0	0.0	14.7	23.0	0.2	0.0	34.5	0.2	0.1
Michigan	1.0	0.0	0.0	4.5	37.5	0.2	0.2	38.2	0.2	0.2
Minnesota	0.7	0.0	0.0	10.1	8.9	0.0	0.0	12.9	0.0	0.0
Mississippi	1.0	0.0	0.0	4.2	15.7	0.1	0.0	18.5	0.1	0.0
Missouri	0.0	0.0	0.0	2.9	16.0	0.0	0.0	26.1	0.0	0.0
Montana*	0.0	0.0	0.0	85.7	11.8	0.0	0.0	6.1	0.9	0.0
Nebraska	30.0	0.0	0.0	30.0	22.0	0.1	0.1	28.9	0.1	0.1
Nevada	7.4	0.0	0.0	5.1	24.7	0.1	0.0	30.8	0.0	0.0
New Hampshire	0.0	0.0	0.0	16.7	6.2	0.0	0.0	20.2	0.0	0.0
New Jersey	1.7	0.0	0.0	21.1	42.3	0.6	0.4	55.5	0.4	0.4
New Mexico	16.9	0.0	0.0	7.0	29.9	0.0	0.0	29.5	0.1	0.1
New York	6.1	0.0	0.1	19.7	36.9	0.4	0.1	42.6	0.6	0.2
North Carolina	0.0	0.0	0.0	100.0	12.6	0.1	0.4	16.2	0.1	0.4
North Dakota*	0.0	0.0	0.0	0.0	31.1	0.0	0.4	31.0	0.0	0.0
Ohio	0.5	0.0	0.0	10.5	21.1	0.1	0.0	28.7	0.2	0.0
Oklahoma	1.2	0.0	0.0	14.3	3.4	0.2	2.7	3.9	0.1	2.7
Oregon	2.1	0.0	0.0	15.5	8.5	0.0	0.0	27.2	0.0	0.0
Pennsylvania	3.8	0.0	0.0	16.9	26.3	0.0	0.0	31.6	0.0	0.1
Rhode Island	10.9	0.0	0.0	0.0	19.2	0.0	0.0	22.4	0.0	0.0
South Carolina	0.5	0.0	0.0	1.4	34.6	0.1	0.2	37.4	0.1	0.2
South Dakota*	0.0	0.0	0.0	0.0	3.3	0.0	0.2	26.0	0.2	0.1
Tennessee	2.5	0.0	0.0	3.6	2.6	0.0	0.0	4.3	0.0	0.0
Texas	0.1	0.0	0.0	1.9	5.0	0.0	0.0	6.3	0.0	0.0
Utah	0.0	0.0	0.0	14.3	0.7	0.0	0.0	0.9	0.0	0.0
Vermont*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.5	0.0	0.0
Virginia	0.0	0.0	0.0	4.2	19.8	0.0	0.2	28.9	0.1	0.3
Washington	17.7	0.0	0.0	2.1	18.4	0.0	0.0	22.8	0.0	0.0
West Virginia*	0.0	0.0	0.0	0.0	8.7	0.3	0.0	20.1	0.0	0.0
Wisconsin	0.0	0.0	0.0	13.8	0.2	0.2	0.0	0.2	0.2	0.1
Wyoming*	0.0	0.0	0.0	0.0	28.3	0.0	0.0	18.6	0.0	0.0
U.S. TOTAL	**2.9**	**0.0**	**0.1**	**13.6**	**20.4**	**0.2**	**0.3**	**26.1**	**0.2**	**0.3**

* 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, 2011

Disease	Non-STD Clinic			STD Clinic			Total		
	Male	Female	Total*	Male	Female	Total*	Male†	Female†	Total‡
Chlamydia	265,114	835,170	1,103,267	81,886	70,025	152,324	389,970	1,018,552	1,412,791
Gonorrhea	98,272	132,179	231,142	35,274	17,577	52,957	149,835	171,005	321,849
Primary Syphilis	2,253	213	2,469	1,138	60	1,199	3,535	284	3,823
Secondary Syphilis	6,273	906	7,190	2,278	274	2,553	8,918	1,217	10,147
Early Latent Syphilis	7,498	1,573	9,079	2,729	635	3,366	10,833	2,293	13,136
Late and Late Latent Syphilis§	9,946	4,589	14,556	2,196	858	3,057	12,780	5,768	18,576
Chancroid	2	4	6	1	0	1	4	4	8

* 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	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%	6.7%
	b. Among females aged 24 years and under enrolled in a National Job Training Program	2008	12.8%	11.4%	10.3%	11.5%
	c. Among males aged 24 years and under enrolled in a National Job Training Program	2008	7.0%	7.2%	8.0%	6.3%
2	**Reduce Chlamydia rates among females aged 15 to 44 years (DEVELOPMENTAL)**	N/A		1,493.3	1,591.0	N/A
3	**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%	N/A	74.4%
	b. Females aged 21 to 24 years	2008	59.4%	62.3%	N/A	80.0%
4	**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%	N/A	65.9%
	b. Females aged 21 to 24 years	2008	43.5%	45.7%	N/A	78.3%
5	**Reduce the proportion of females aged 15 to 44 who have ever required treatment for pelvic inflammatory disease (PID)**	2006-2008	3.99%	4.2%	NA	3.59%
6	**Reduce gonorrhea rates**					
	a. Females aged 15 to 44 years	2008	285.0	258.7	264.8	257.0
	b. Males aged 15 to 44 years	2008	220.4	205.4	217.7	198.0
7	**Reduce sustained domestic transmission of primary and secondary syphilis**					
	a. Among females	2008	1.5	1.1	1.0	1.4
	b. Among males	2008	7.5	7.9	8.2	6.8
8	**Reduce congenital syphilis**	2008	10.5	9.1	8.5	9.1
9	**Reduce the proportion of females with human papillomavirus (HPV) infection (DEVELOPMENTAL)**					
	a. Females with types 6 and 11	N/A		N/A	N/A	N/A
	b. Females with types 16 and 18	N/A		N/A	N/A	N/A
	c. Females with other types	N/A		N/A	N/A	N/A
10	**Reduce the proportion of young adults with genital herpes infection due to herpes simplex type 2**	2005-2008	10.5%	N/A	N/A	9.5%

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

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

GPRA Goals	Actual			Target
	2009	2010	2011	2012
Goal 1: Reduction in PID (as measured by initial visits to physicians in women 15–44 years of age)	**100,000**	**113,000**	**90,000**	**100,533**
a. Proportion of high-risk women aged 16–20 infected with chlamydia*	12.90	12.65	11.61	12.53
b. Proportion of high-risk women aged 21–24 infected with chlamydia*	8.51	7.69	7.69	7.97
c. Rate of Gonorrhea/100,000 population in women aged 16-20	664.8	658.8	663	714.56
d. Rate of Gonorrhea/100,000 population in women aged 21-24	491.7	505.4	536.9	533.41
e. Black: white ratio of gonorrhea in women 16-24	14.6	13.9	13.6	13.16
f. Proportion of sexually active females 16-20 enrolled in Medicaid who are screened for chlamydia infections	54.4	54.6	N/A	60.0
g. Proportion of sexually active females 21-24 enrolled in Medicaid who are screened for chlamydia infections	61.6	62.3	N/A	69.4
h. Proportion of sexually active females 16-20 enrolled in commercial health insurance plans who are screened for chlamydia infections	41.0	40.8	N/A	48.7
i. Proportion of sexually active females 21-24 enrolled in commercial health insurance plans who are screened for chlamydia infections	45.4	45.7	N/A	54.8
Goal 2: Elimination of Congenital Syphilis				
a. Incidence of P&S syphilis/100,000 population in women aged 15-44	3.1	2.5	2.1	3.0
b. Incidence of congenital syphilis/100,000 live births	10.1	9.1	8.5	10.05
c. Proportion of pregnant women that are screened for syphilis at least one month before delivery	N/A	84.8	N/A	80.60

GPRA Goals	
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.
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, between 1996 and 2005, it was classified and reported 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.

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* 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 August 27, 2012.

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