Sexually Transmitted Disease Surveillance 2010

STDs

National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention
Division of STD Prevention

Sexually Transmitted Disease Surveillance 2010

Division of STD Prevention
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U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
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NATIONAL CENTER FOR HIV/AIDS, VIRAL HEPATITIS, STD, AND TB PREVENTION
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Web Site

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

Selected STD Surveillance and Prevention References and Web Sites

STD Surveillance Reports 1993–2010
http://www.cdc.gov/std/stats/

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
Chandra A, Mosher WD, Copen C, Sionean C. Sexual behavior, sexual attraction, and sexual idenity in the United States: Data from the 2006-2008 National Survey of Family Growth. National health statistics reports; no36. Hyattsville, MD: National Center for Health Statistics. 2011
http://www.cdc.gov/nchs/data/nhsr/nhsr036.pdf

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 to 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). The hidden epidemic: confronting sexually transmitted diseases. Washington (DC): National Academy Press; 1997. p. 43.

Preface

Sexually Transmitted Disease Surveillance 2010 presents statistics and trends for sexually transmitted diseases (STDs) in the United States through 2010. 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 2010.

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 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 2010 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
IPP	Infertility Prevention Project
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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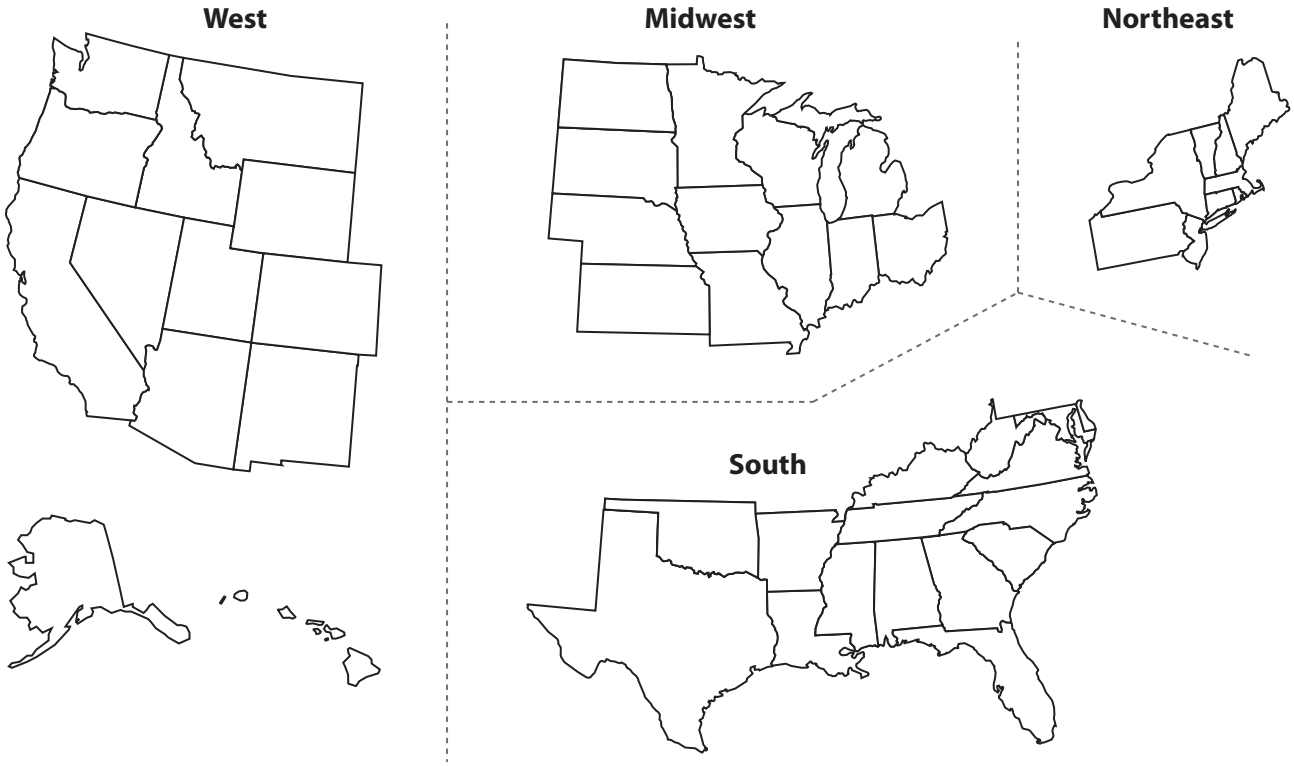

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National Overview of Sexually Transmitted Diseases (STDs), 2010

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 2010 on the three notifiable diseases for which there are federally funded control programs: chlamydia, gonorrhea, and syphilis. Several observations for 2010 are worthy of note.

Chlamydia

In 2010, a total of 1,307,893 cases of sexually transmitted *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 426.0 cases per 100,000 population, an increase of 5.1% compared with the rate in 2009. 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 2010 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 2010, the overall rate of chlamydial infection in the United States among women (610.6 cases per 100,000 females) was over two and a half times the rate among men (233.7 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 2006–2010, the chlamydia rate in men increased 36.4%, compared with a 19.5% increase in women during this period. Rates also varied among different racial and ethnic minority populations. For example, in 2010, the chlamydia rate in blacks was over eight times the rate in whites.

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

In 2010, the median state-specific chlamydia test positivity was 8.0% (range: 3.8% to 13.7%) 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 10 and 11).

At selected prenatal clinics in 16 states, Puerto Rico, and the Virgin Islands, the median state-specific chlamydia positivity was 7.2% (range: 2.7% to 21.2%) (Figure B).

The prevalence of infection was greater among economically disadvantaged women aged 16–24 years who entered the National Job Training Program (NJTP) in 2010 in 44 states, the District of Columbia, and Puerto Rico. The median state-specific prevalence was 11.4% (range: 5.2% to 21.3%) (Figure K). Among men entering the program in 2010 in 48 states, the District of Columbia, and Puerto Rico, the median state-specific chlamydia prevalence was 7.2% (range: 1.8% to 12.7%) (Figure L).

Among adolescent females entering selected juvenile corrections facilities, the median facility-specific chlamydia positivity was 14.5% (range: 4.0% to 26.5%). Among adolescent males entering selected juvenile corrections facilities, the median facility-specific chlamydia positivity was 6.5% (range: 0.5% to 13.8%).

Gonorrhea

Following a 74% decline in the rate of reported gonorrhea during 1975–1996, overall gonorrhea rates plateaued for 10 years; it decreased during 2006–2009 to the lowest rate since national reporting began and then increased 2.8% between 2009 and 2010. In 2010, a total of 309,341 cases of gonorrhea were reported in the United States, which corresponds to a rate of 100.8 cases per 100,000 population (Figure 14, Table 1).

In 2010, as in previous years, the South had the highest gonorrhea rate among the four regions of the country (Table 14). Rates in the South and Midwest remained higher than rates in the Northeast and West. During 2009–2010 rates increased in the Northeast, South, and West, but decreased in the Midwest (Figure 16).

During 1997–2006, gonorrhea rates in men and women were similar. Since 2002, the rates in women have been slightly higher than rates in men (Figure 15). In 2010, the gonorrhea rate in women was 106.5 cases per 100,000 population compared with a rate of 94.1 in men (Figure 15). 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 19). In 2010, the gonorrhea rate in blacks was 18.7 times the rate in whites. As with chlamydia, data on gonorrhea prevalence in defined populations were available from several sources in 2010. 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 now endemic in the United States, the cephalosporins remain the only class of antibiotics recommended for the treatment of gonorrhea. Continued monitoring of susceptibility patterns to these antibiotics is critical. No isolates with decreased susceptibility to ceftriaxone were seen in 2010 in CDC's sentinel surveillance system, the Gonococcal Isolate Surveillance Project (GISP). In 2010, 9 isolates with decreased susceptibility to cefixime were reported, 7 from the West, and 8 in men who have sex with men (MSM). The percentage of isolates with elevated mean inhibitory concentrations (MICs) to cefixime increased during 2009–2010, particularly among isolates from the West and from MSM.

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.[2] 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. The rate decreased 21% in women but increased slightly, 1.3%, in men. In 2010, a total of 13,774 cases of P&S syphilis were reported to CDC. 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 377 cases reported in 2010, a 15% 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 2010, the P&S syphilis rate among blacks was eight times the rate among whites, which is substantially lower than the disparity observed in 1999, when the rate among blacks was 24 times higher than the rate among whites.

During 2006–2010, however, syphilis rates increased 75% among black men aged 15–19 years and 134% among those aged 20–24 years. The 2010 rate among black men aged 15–19 years was 25 times the rate for white men of that age. Among black women aged 15–19 years, rates increased 46% during 2006–2010 and 59% among those aged 20–24 years. In 2010, rates for black women aged 15–19 years were 38 times the rate for white women of the same age.

Although efforts to eliminate syphilis have focused on racial and ethnic minority populations, the syphilis rates among all MSM have increased since 2001, especially among young MSM.[3,4] While some decreases were observed this year, 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.

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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 an annual chlamydia screening.[4]

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. However, 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.

Chlamydia screening and reporting are likely to continue to expand in response to the Healthcare Effectiveness Data and Information Set (HEDIS) annual measure, which assesses chlamydia screening coverage of sexually active young women who receive medical care through commercial or Medicaid managed care organizations.[5] The annual chlamydia screening rate increased from 25.3% in 2000 to 41.6% in 2007 among sexually active females aged 16–25 years (or aged 16–26 years during 2000–2002) who were enrolled in commercial or Medicaid health plans in the United States during 2000–2007.[6] In 2009, women aged 16–20 years in commercial plans had a chlamydia screening coverage rate of 41.0%, while those in Medicaid had a rate of 54.4%.[7]

To better monitor trends in disease burden in defined populations during the expansion of chlamydia screening activities, data on chlamydia positivity and prevalence among people screened in a variety of settings are used. In most instances, test positivity serves as a reasonable approximation of prevalence.[8]

Chlamydia—United States

In 2010, a total of 1,307,893 chlamydial infections were reported to CDC in 50 states and the District of Columbia (Table 1). This case count corresponds to a rate of 426.0 cases per 100,000 population, which is an increase of 5.1% compared with the rate of 405.3 in 2009. During 1990–2010, the rate of reported chlamydial infection increased from 160.2 to 426.0 cases per 100,000 population (Figure 1, Table 1).

Chlamydia by Region

During 2001–2010, chlamydia rates increased in all regions (Figure 2). In 2010, rates were highest in the South (468.9 per 100,000 population), followed by the Midwest (418.3), the Northeast (392.7), and the West (391.2) (Table 3).

Chlamydia by State

In 2010, chlamydia rates by state ranged from 185.9 cases per 100,000 population in New Hampshire to 861.7 cases in Alaska (Figure 3, Table 2).

Chlamydia by Metropolitan Statistical Area

In 2010, the chlamydia rate per 100,000 population in the 50 most populous metropolitan statistical areas (MSAs) increased (Table 6). In 2010, 57.5% of chlamydia cases were reported by these MSAs. Among women, the 2010 rate of 638.4 cases per 100,000 was a 3.8% increase over the 2009 rate of 614.9 cases (Table 7). The 2010 rate among men (259.2) increased 6.8% from the 2009 rate (242.6) (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 2010, 762 (24.3%) of 3,142 counties had rates higher than 400.0 cases per 100,000 population. Fifty-four counties and independent cities reported 40% of all chlamydia cases in 2010 (Table 9).

Chlamydia by Sex

In 2010, the overall rate of reported chlamydial infection among women in all 50 states and the District of Columbia (610.6 cases per 100,000 females) was over two and a half times the rate among men (233.7 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 2006–2010, the reported chlamydial infection rate among men increased 36.4% (from 171.3 to 233.7 cases per 100,000 males) compared with a 19.5% increase among women during the same period (from 510.8 to 610.6 cases per 100,000 females).

Chlamydia by Age

Among women, the highest age-specific rates of reported chlamydia in 2010 were among those aged 15–19 years (3,378.2 cases per 100,000 females) and 20–24 years (3,407.9 cases per 100,000 females) (Figure 5, Table 10). Within these age ranges, reported rates were highest among women aged 18 years (4,700.5 cases per 100,000 females), aged 19 years (4,917.3 cases per 100,000 females), and aged 20 years (4,705.9 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 (1,187.0 cases per 100,000 males) (Figure 5, Table 10).

Chlamydia by Race/Ethnicity

In 2010, chlamydia rates were highest among black men and women (Figure 6, Table 11B). The rate of chlamydia among blacks was more than eight times the rate among whites (1,167.5 and 138.7 cases per 100,000 population, respectively). The rate among American Indians/Alaska Natives (592.8 cases per 100,000) was 4.3 times the rate among whites. The rate among Hispanics (369.6 cases per 100,000) was 2.7 times the rate among whites.

During 2006–2010, rates among blacks increased 26.9% (from 919.8 to 1,167.5 cases per 100,000). Among whites, rates increased 25.3% (from 110.7 to 138.7 cases per 100,000).

Chlamydia by Reporting Source

Most chlamydia cases reported in 2010 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 2010, among women, only 9.5% of chlamydia cases were reported through an STD clinic (Figure 8). Most cases among women were reported from private physicians/health maintenance organizations (HMOs) (37.5%). In contrast, among men, 28.7% of chlamydia cases were reported from an STD clinic in 2010 and 26.0% 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. During 1999–2002, the overall prevalence of chlamydial infection was 2.2% and was similar in males and females (2.0% and 2.5%, respectively).[9] Prevalence was higher among non-Hispanic blacks than non-Hispanic whites in all age groups (Figure 9).

Prevalence Monitoring

Chlamydia screening and prevalence monitoring activities were initiated in Region X of the U.S. Department of Health and Human Services (HHS) in 1988 as a CDC-supported demonstration project. In 1993, chlamydia screening services for women were expanded to three additional HHS regions (III, VII, and VIII) and in 1995, to the remaining HHS regions (I, II, IV, V, VI, and IX). In some regions, federally funded chlamydia screening supplements 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 2010, 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, the District of Columbia, Puerto Rico, and the Virgin Islands was 8.0% (range: 3.8% to 13.7%) (Figures 10 and 11).

Chlamydia test positivity among women aged 15–24 years screened in family planning clinics increased in most HHS regions during 2006–2010 (Figure 12). In region IX, positivity increased through 2009 and then decreased in 2010, which may be attributable to an increase in reported tests in 2010 due to the implementation of an electronic data system.

The positivity trend data in Figure 10 and Figure 12 are not adjusted for changes in laboratory test methods and associated increases in test sensitivity. Using more sensitive tests has been shown to affect positivity.[10] Use of NAATs in family planning clinics to screen women aged 15–24 years for chlamydia is increasingly widespread (Figure 13). In five HHS regions (I, IV, V, VII, and VIII), NAATs were used nearly exclusively during 2006–2010. In three other regions (III, VI, and X), NAATs usage was 98% or higher in 2010. The remaining two regions (II and IX) used NAATs more than 93% of the time in 2010.

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; rates among blacks continue to be substantially higher than rates among other racial/ethnic groups.

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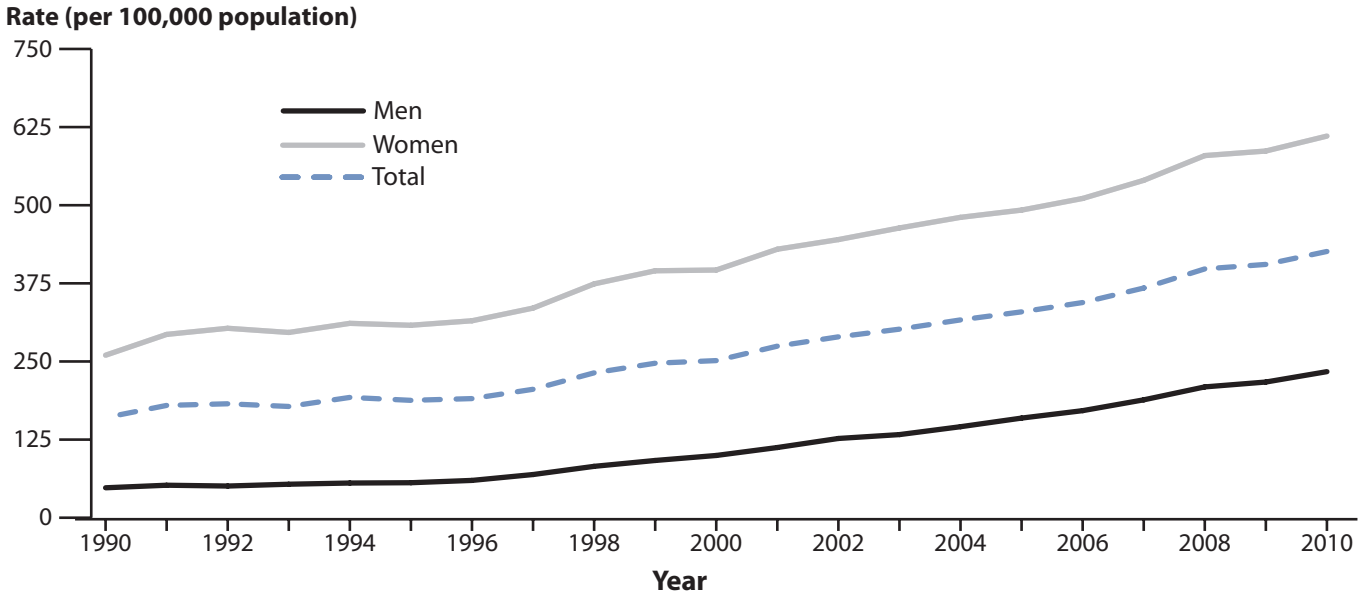
Figure 1. Chlamydia—Rates by Sex, United States, 1990–2010



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, 2001–2010

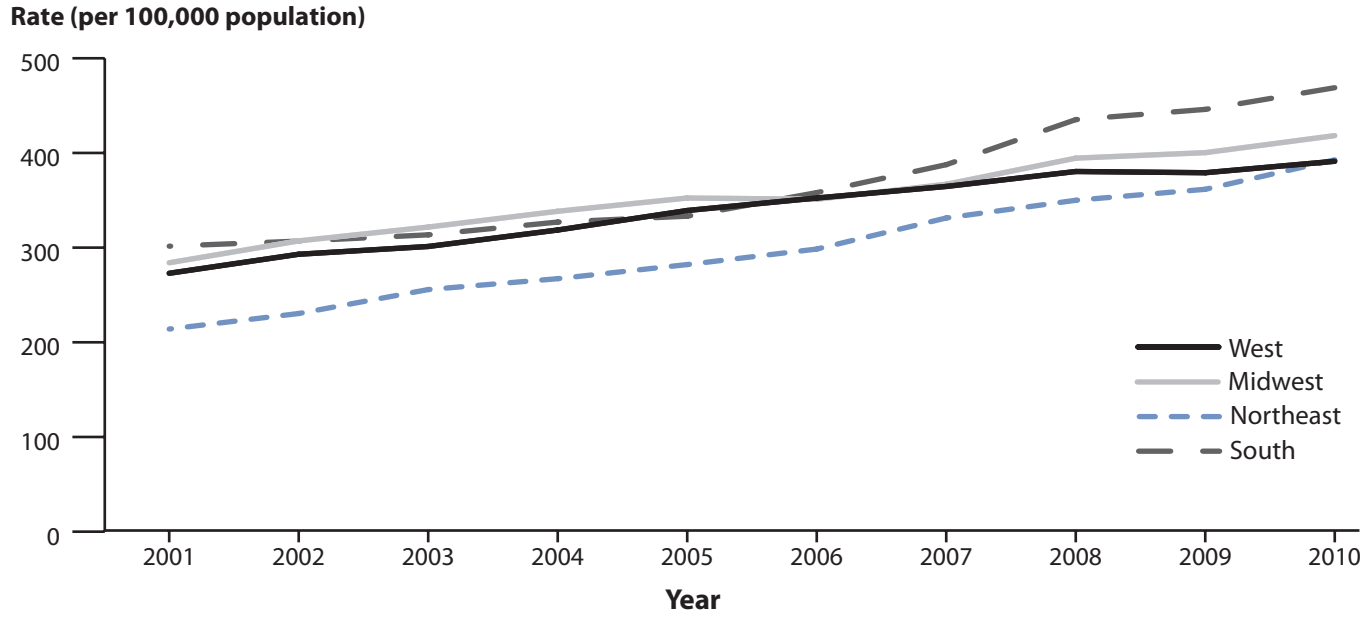
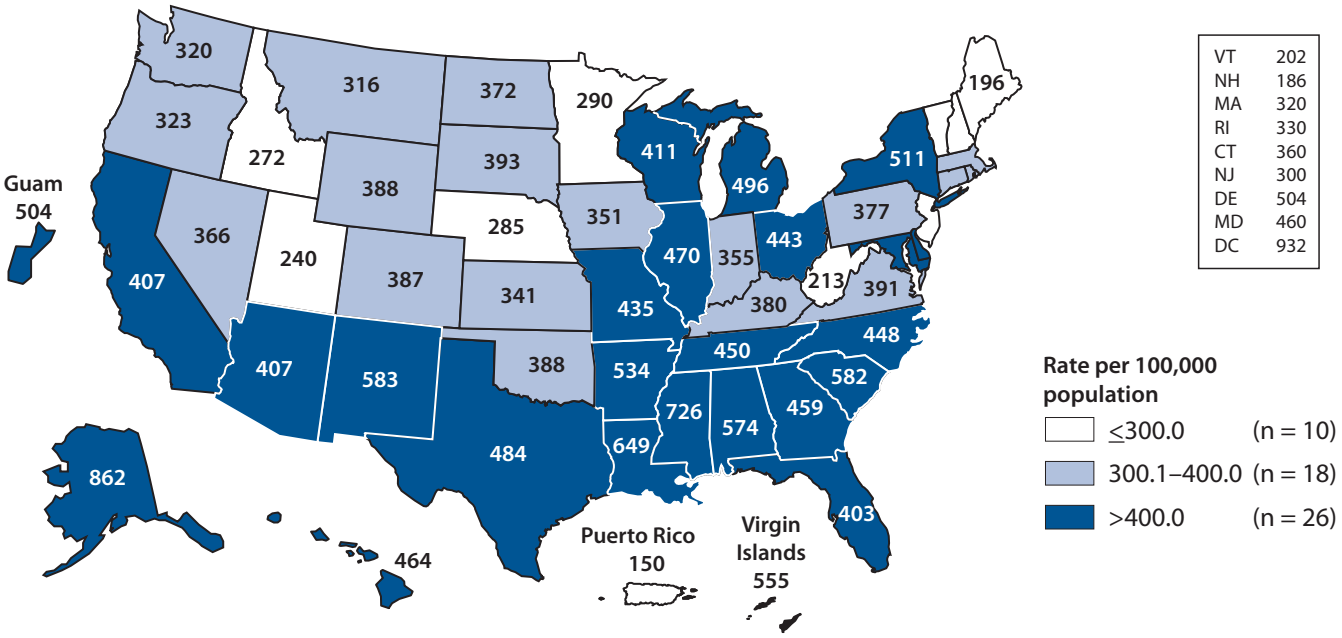


Figure 3. Chlamydia—Rates by State, United States and Outlying Areas, 2010



NOTE: The total rate of chlamydia for the United States and outlying areas (Guam, Puerto Rico, and Virgin Islands) was 422.6 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, 2010

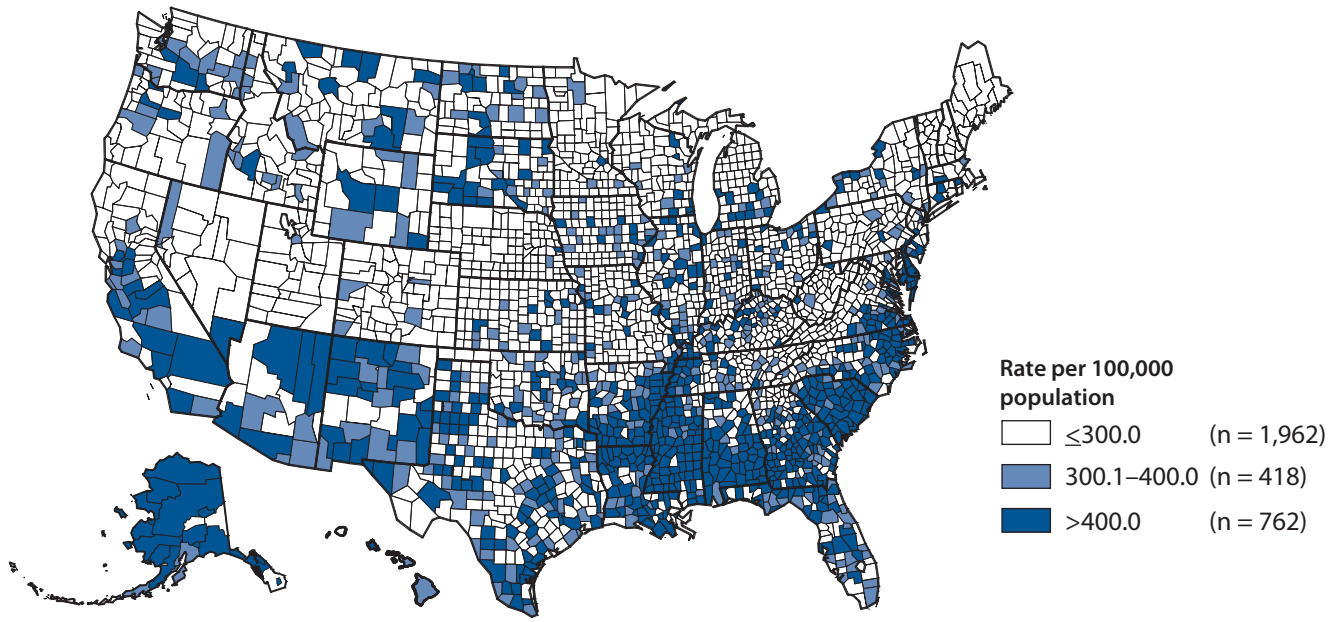


Figure 5. Chlamydia—Rates by Age and Sex, United States, 2010

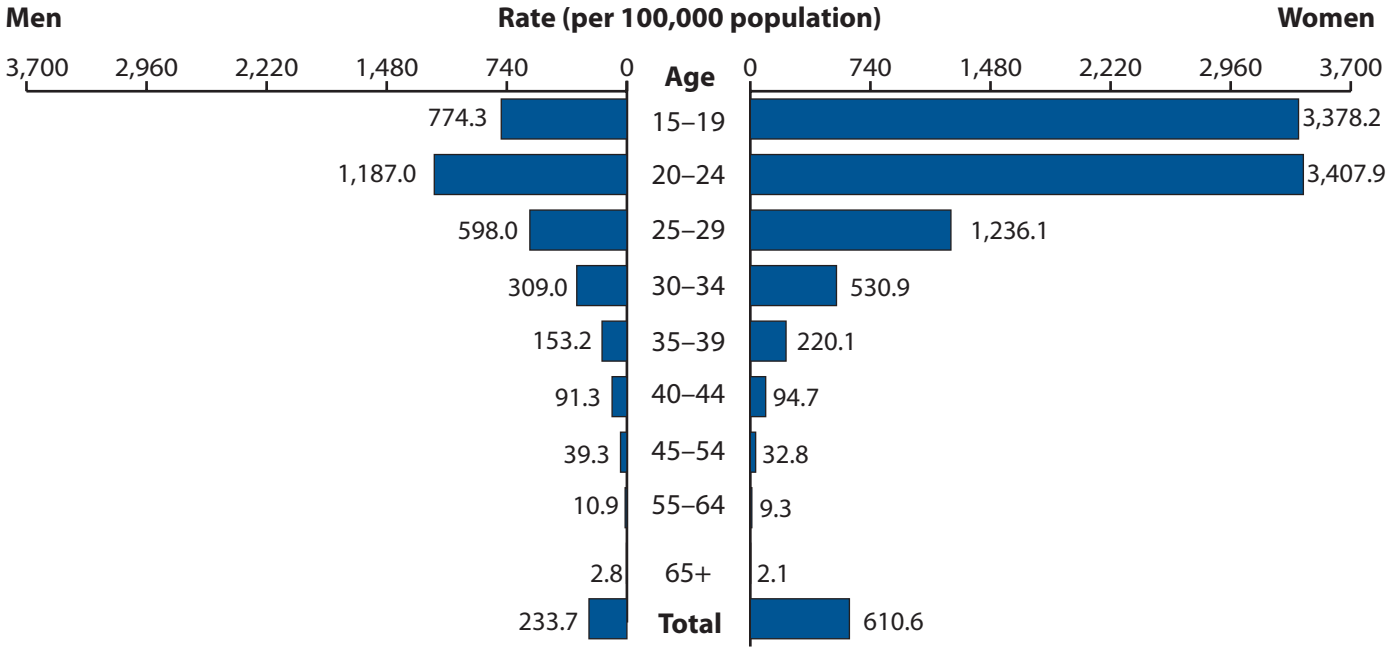


Figure 6. Chlamydia—Rates by Race/Ethnicity, United States, 2001–2010

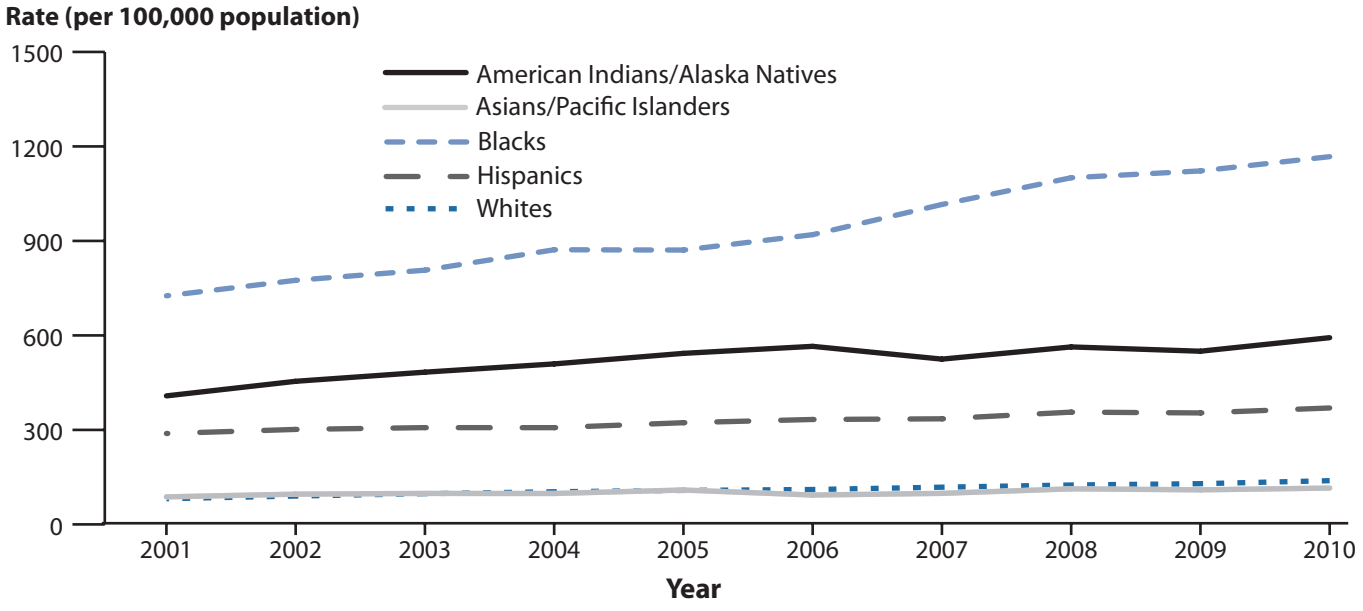


Figure 7. Chlamydia—Cases by Reporting Source and Sex, United States, 2001–2010

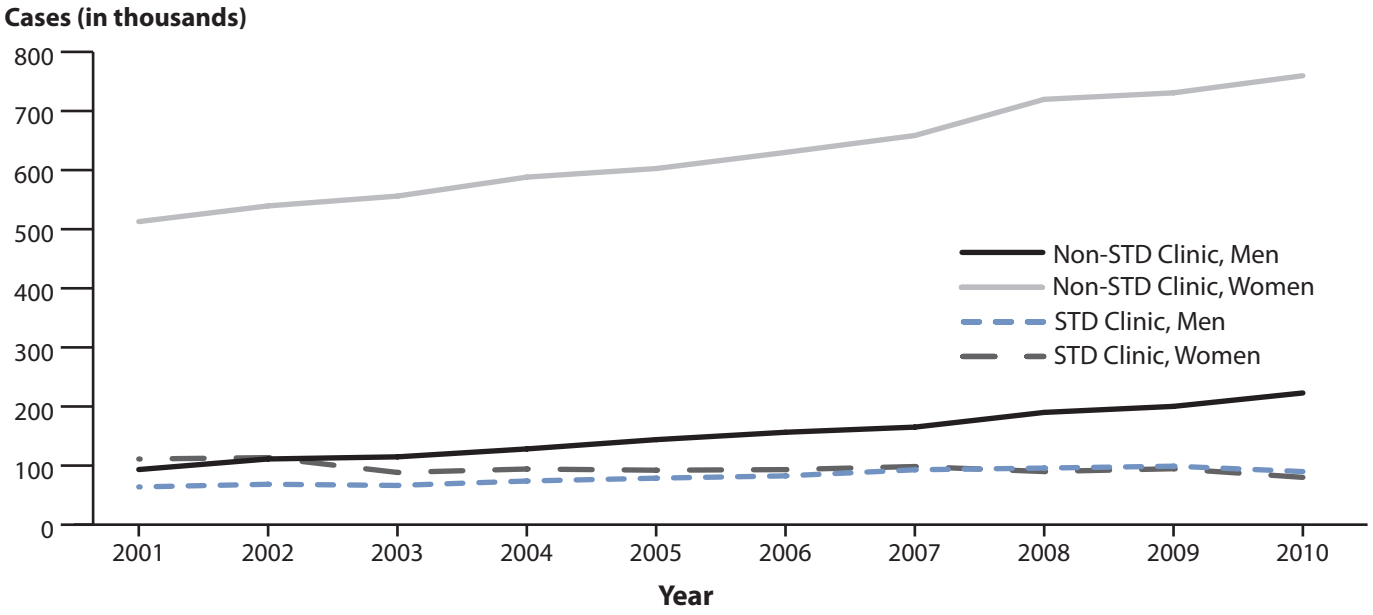
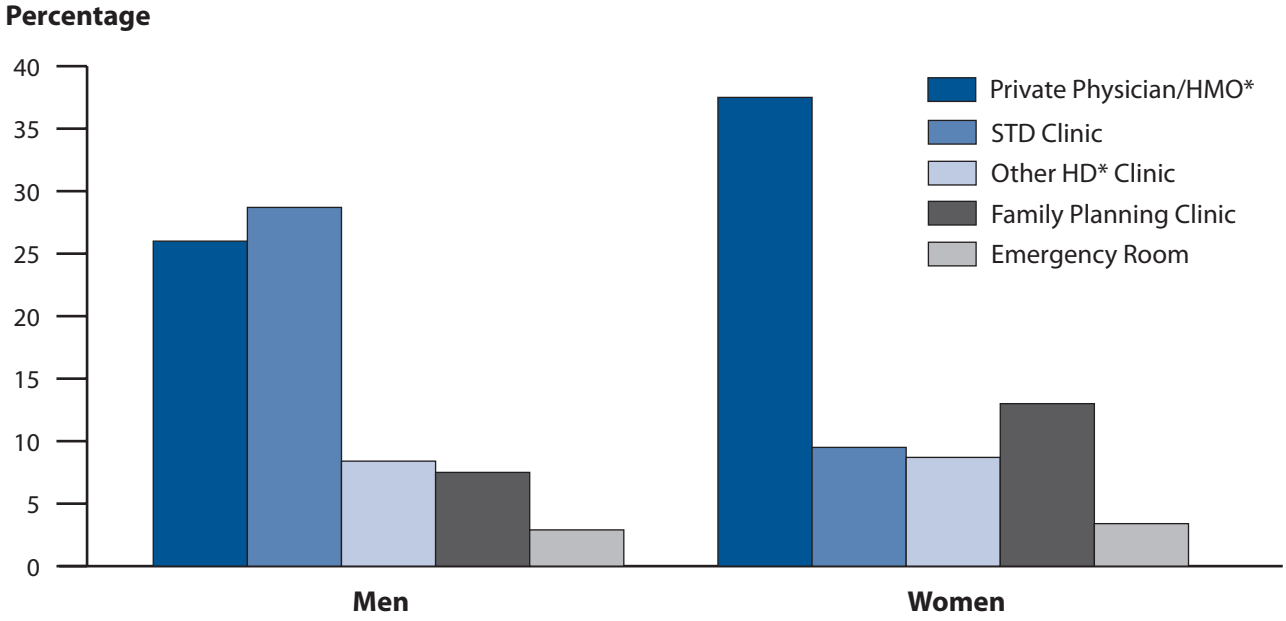
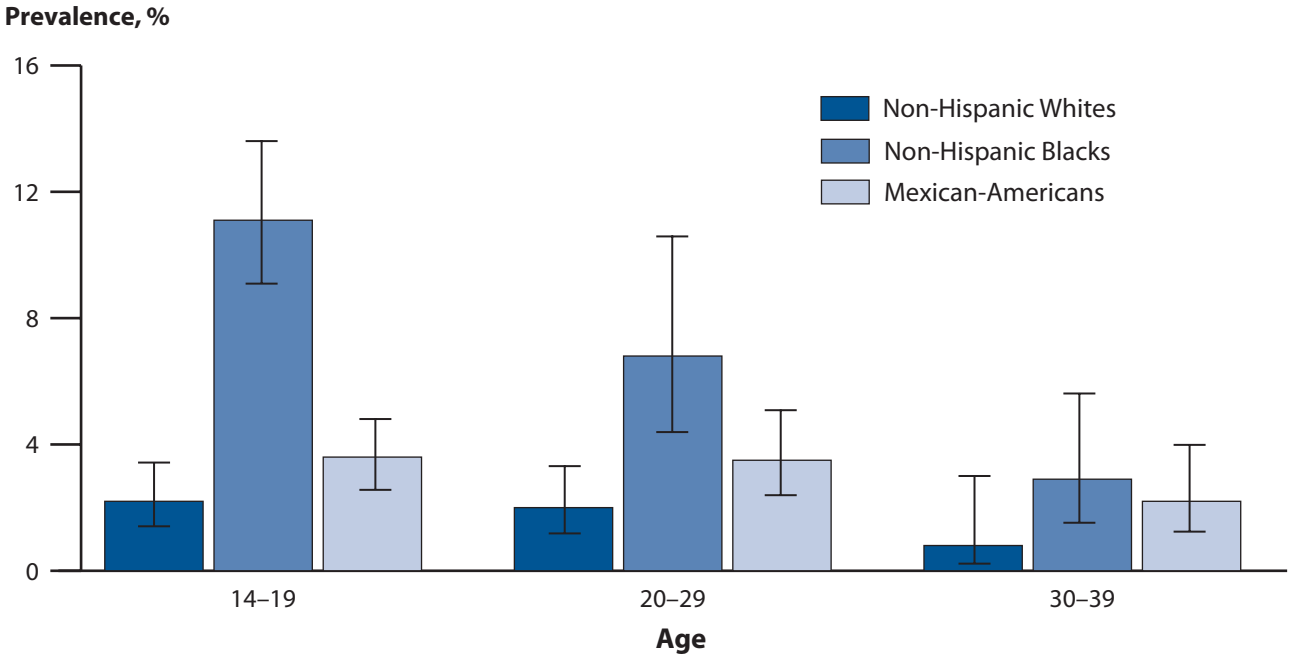


Figure 8. Chlamydia—Percentage of Reported Cases by Sex and Selected Reporting Sources, United States, 2010



* HMO = health maintenance organization; HD = health department.
NOTE: These categories represent 72.5% of cases with a known reporting source. Of all cases, 11.6% had a missing or unknown reporting source.

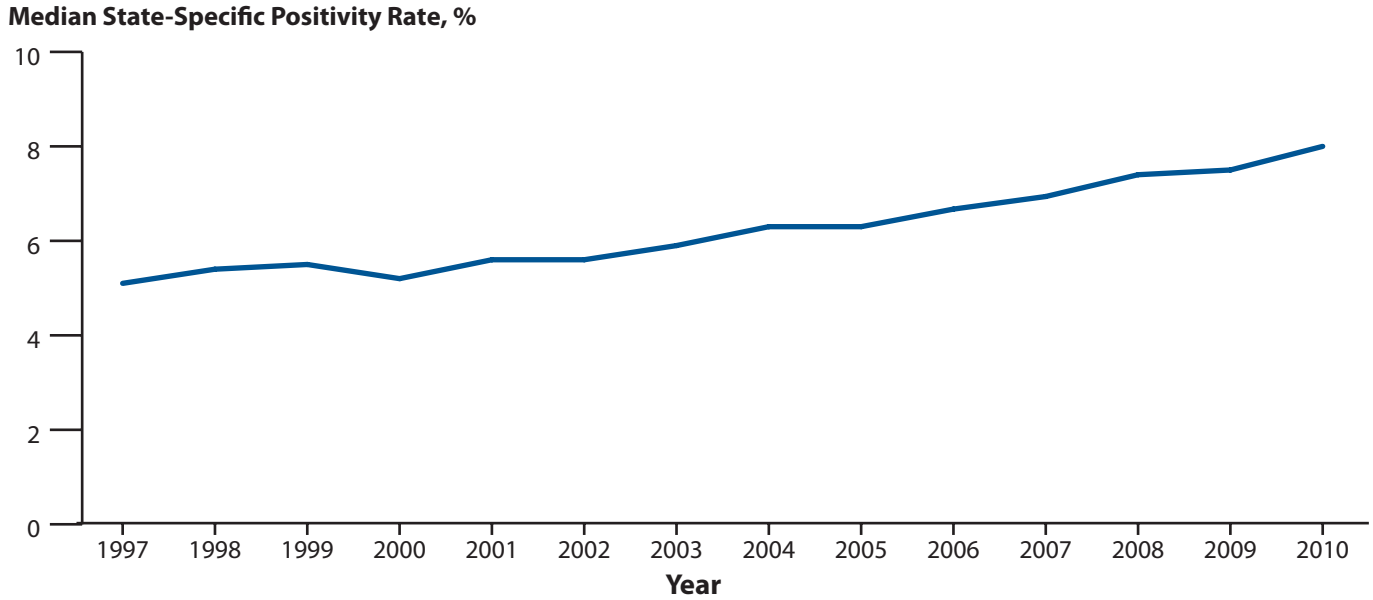
Figure 9. Chlamydia—Prevalence by Age Group and Race/Ethnicity, National Health and Nutrition Examination Survey, 1999–2002



NOTE: Error bars indicate 95% confidence interval.

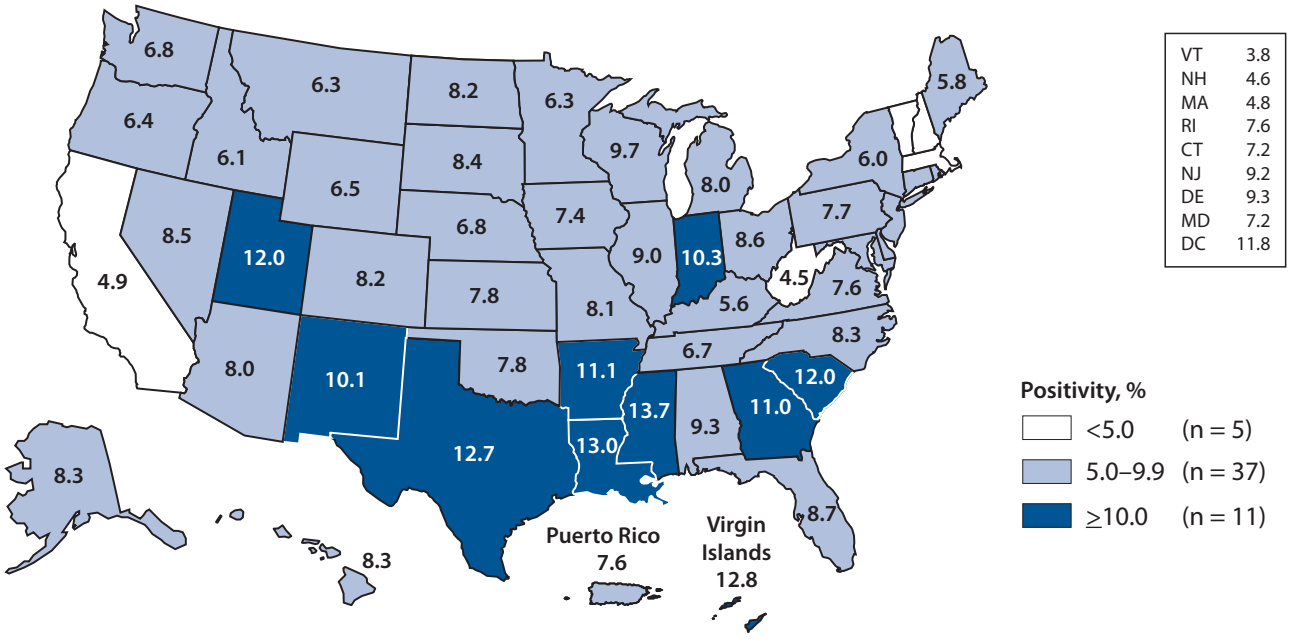
SOURCE: Datta SD, Sternberg M, Johnson RE, Berman S, Papp JR, McQuillan G, et al. Gonorrhea and chlamydia in the United States among persons 14 to 39 years of age, 1999 to 2002. Ann Intern Med. 2007;147(2):89-96.

Figure 10. Chlamydia—Median State-specific Positivity Rates Among Women Aged 15–24 Years Tested in Family Planning Clinics, Infertility Prevention Project, United States, 1997–2010



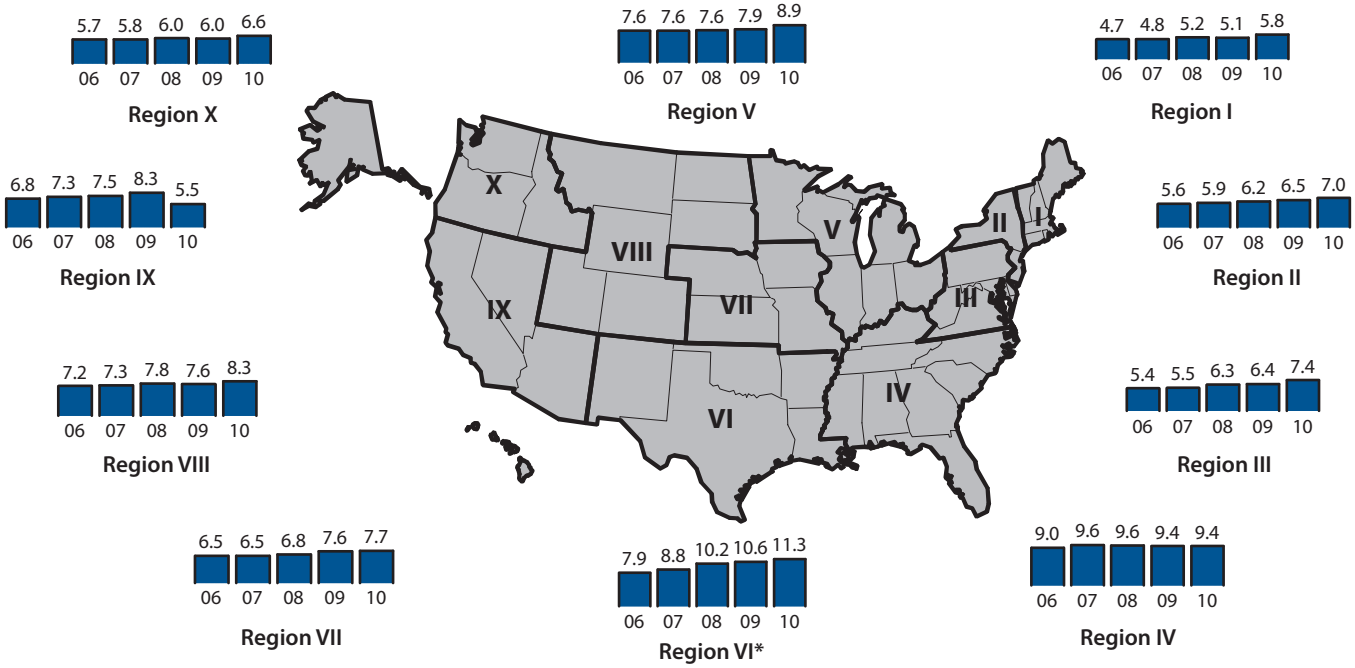
NOTE: As of 1997, all 10 U.S. Department of Health and Human Services (HHS) regions, which represent all 50 states, the District of Columbia, and outlying areas, reported chlamydia positivity data. See Definition of HHS Regions in the Appendix for definitions.

Figure 11. Chlamydia—Positivity Among Women Aged 15–24 Years Tested in Family Planning Clinics, by State, Infertility Prevention Project, United States and Outlying Areas, 2010



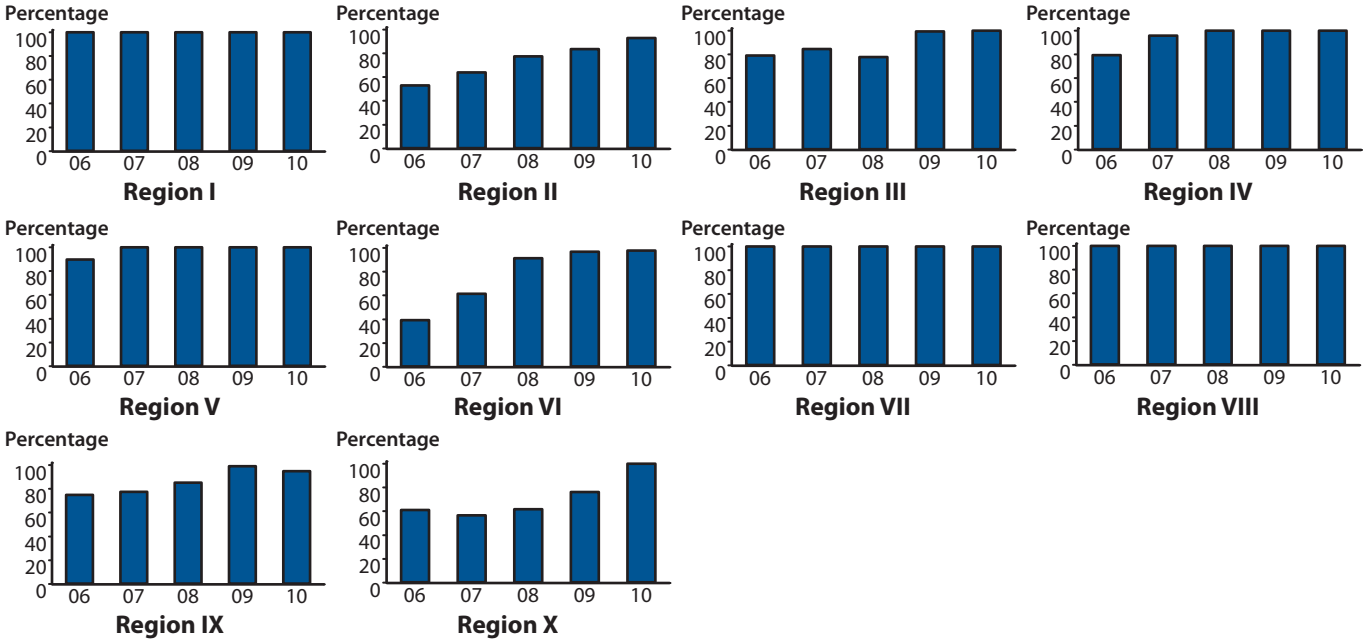
NOTE: Includes states and outlying areas that reported chlamydia positivity data on at least 500 women aged 15–24 years screened during 2010.

Figure 12. 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, 2006–2010



* 2009 percent positivity for Region VI previously published in the 2009 Surveillance report has been corrected.
NOTE: See Definition of HHS Regions in the Appendix for definitions.

Figure 13. 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, 2006–2010



NOTE: 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 poverty, 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 14). After the decline halted for several years, gonorrhea rates decreased further to 98.1 cases in 2009. This is the lowest rate since recording of gonorrhea rates began. The rate increased slightly in 2010 to 100.8 per 100,000 population, with 309,341 cases reported in the United States (Figure 14 and Table 1).

The increase in gonorrhea rates during 2009–2010 was observed among men and women (Figure 15) and among all racial/ethnic groups (Figure 22). During 2009–2010, rates increased in the Northeast, South, and West; gonorrhea rates decreased in the Midwest (Figure 16).

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. Most recently, fluoroquinolone resistance emerged and resulted in the availability of only a single class of antibiotics that meet CDC's efficacy standards—the cephalosporins.[4,5] The 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 2010, a total of 309,341 cases of gonorrhea were reported in the United States, yielding a rate of 100.8 cases per 100,000 population (Table 1). The rate increased 2.8% since 2009; however, the rate decreased 15.8% overall during 2006–2010.

Gonorrhea by Region

In 2010, as in previous years, the South had the highest gonorrhea rate (134.2 cases per 100,000 population) among the four regions of the United States, followed by the Midwest (108.5), Northeast (77.4), and West (58.7) (Table 14). During 2009–2010, rates increased in the Northeast (15.5%), West (11.4%), and South (2.1%), and decreased 6.5% in the Midwest (Figure 16, Table 14).

Gonorrhea by State

In 2010, gonorrhea rates per 100,000 population ranged by state from 7.3 in Wyoming to 209.9 in Mississippi (Figure 17, Table 13). During 2009–2010, 59% (30/51) of states, plus the District of Columbia, reported an increase in gonorrhea rates (Table 14).

Gonorrhea by Metropolitan Statistical Area

The overall gonorrhea rate in the 50 most populous MSAs was 113.9 cases per 100,000 population in 2010 (Table 17), representing a 4.4% rate increase from 2009 (109.1). In 2010, 61.2% of gonorrhea cases were reported by these MSAs (Table 17). The total gonorrhea rate among women in these MSAs in 2010 (113.6) was similar to rates among men (113.7) (Tables 18 and 19).

Gonorrhea by County

In 2010, 50% of reported gonorrhea cases occurred in just 63 counties or independent cities (Table 20). In 2010, 1,408 counties (44.8%) in the United States had a rate less than or equal to 19 cases per 100,000 population (Figure 18). Rates ranged from 19.1 to 100 per 100,000 population in 1,107 counties (35.2%) and more than 100 cases per 100,000 population in 627 counties (19.9%). Most counties with more than 100 cases per 100,000 population were located in the South. Ten counties in Alaska had rates greater than 100 cases per 100,000 population.

Gonorrhea by Sex

Before 1996, gonorrhea rates were higher among men than women (Figure 15). During 1997–2001, rates were similar among women and men. Rates have been higher among women since 2002. In 2010, the gonorrhea rate was 106.5 cases per 100,000 population among women and 94.1 per 100,000 population among men (Tables 15 and 16).

Gonorrhea by Age

In 2010, gonorrhea rates were highest among adolescents and young adults. In 2010, the highest rates were observed among women aged 15–19 years (570.9) and 20–24 years (560.7). Among men, the rate was highest among those aged 20–24 years (421.0) (Figure 19, Table 21).

During 2009–2010, gonorrhea rates increased among most age groups. The largest increases were observed among those aged 20–24 years (4.9%) and 30–34 years (3.2%). Decreases were observed among those aged 35–39 years (1.5%), 55–64 years (1.6%), and 65 years and greater (7.1%) (Table 21).

Among men and women, the largest increases were among those aged 20–24 years (6.2% for men and 3.8% for women) (Figures 20 and 21).

Gonorrhea by Race/Ethnicity

In 2010, gonorrhea rates remained highest among blacks (432.5 cases per 100,000 population) (Figure 22). The rate among blacks was 18.7 times the rate among whites (23.1 per 100,000 population). Gonorrhea rates among American Indians/Alaska Natives (105.7) were 4.6 times those of whites, and rates among Hispanics (49.9) were 2.2 times those of whites (Figure 22, Figure P).

During 2009–2010, gonorrhea rates increased among American Indians/Alaska Natives (21.5%), Asian/Pacific Islanders (13.1%), Hispanics (11.9%), whites (9.0%), and blacks (0.3%) (Figure 22).

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

Gonorrhea by Region and Sex

During 2009–2010, gonorrhea rates among women and men increased in the Northeast, South, and West, and decreased in the Midwest (Tables 15 and 16). In 2010, women (145.2) and men (121.1) in the South had the highest gonorrhea rates.

Gonorrhea by Race/Ethnicity and Sex

Gonorrhea rates were higher in women than men among whites, Hispanics, and American Indians/Alaska Natives in 2010 (Figure Q). Gonorrhea rates were highest among black men (433.6) and black women (430.8) and American Indian/Alaska Native women (133.5) and American Indian/Alaska Native men (77.0).

Among blacks, Hispanics, and Asians/Pacific Islanders aged 15–24 years, rates were higher among women than men (Table 22B). Among blacks, Hispanics, and Asian/Pacific Islanders, aged 25 years and older, rates were higher among men than women. Among whites aged 15–29 years, rates were higher among women than men; men had higher rates than women among those aged 30 years and older. Among American Indians/Alaska Natives, aged 15–39 years, women had higher rates than men.

Gonorrhea by Reporting Source

The number of gonorrhea cases reported by STD clinics declined during 2001–2010 (Figure 23). In 2010, 21.5% of gonorrhea cases were reported by STD clinics (Table A2). This is a decrease from 2009, when 22.6% of gonorrhea cases were reported by STD clinics. In 2010, among women, private physicians or HMOs (29.0%) were the most common reporting source, followed by STD clinics (13.8%), family planning clinics (10.6%), other health department clinics (8.6%), and emergency rooms (5.6%) (Figure 24). Among men, STD clinics were the most common reporting source (30.4%) (Figure 24). Other common reporting sources for males were private physicians/HMOs (22.0%), other health department clinics (9.0%), emergency rooms (5.3%), and family planning clinics (4.6%) (Figure 24).

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 2010, SSuN collaborators interviewed 3,446 gonorrhea cases representing 5% 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 25). San Francisco County, had the highest proportion of estimated MSM cases (83%), while the lowest proportion of morbidity estimated to be attributed to MSM was found in Jefferson County (Birmingham), Alabama at 2.9%. Across all SSuN jurisdictions in 2010, 23.2% of gonorrhea cases were estimated to be among MSM, 28.8% among MSW, and 46.7% among women.

Prevalence Monitoring

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

In 2010, the median state-specific gonorrhea test positivity among women aged 15–24 years screened in selected family planning clinics in 47 states, the District of Columbia, Puerto Rico, and the Virgin Islands was 0.8% (range: 0.0% to 4.1%) (Figure 26).

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 strains of *N. gonorrhoeae* in the United States.[10] Data are collected from selected STD clinics at 25–30 GISP sentinel sites and from 4–5 regional laboratories (Figure 27).

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 2010 GISP data can be found at http://www.cdc.gov/std/GISP.

Susceptibility to Ceftriaxone

Susceptibility testing for ceftriaxone began in 1987. Figure 28 displays the distribution of minimum inhibitory concentrations (MICs) to ceftriaxone among GISP isolates during 2006–2010. During 2009–2010, the proportion of isolates with MICs of 0.06 µg/ml and 0.125 µg/ml did not change. The proportion of isolates with MICs of 0.25 µg/ml increased slightly from 0% in 2009 to 0.05% (n = 3) in 2010.

No isolates with decreased susceptibility to ceftriaxone (MIC ≥ 0.5 µg/ml) were seen in 2010. 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 elevated MICs (≥ 0.25 µg/ml) to cefixime increased during 2006–2010, particularly among isolates from the West and men who have sex with men (MSM).[8] Figure 29 displays the distribution of MICs to cefixime among GISP isolates in 2006, 2009, and 2010. During 2009–2010, increases were observed in the proportion of isolates with MICs of 0.125 µg/ml (1.4% to 1.6%), 0.25 µg/ml (0.7% to 1.2%), and 0.5 µg/ml (0.1% to 0.2%).

Since 2000, GISP has reported 20 isolates with decreased susceptibility to cefixime (MICs of 0.5 µg/ml). Nine isolates with decreased susceptibility to cefixime were reported in 2010—seven were from the West (Honolulu, Los Angeles, Portland, and San Francisco) and 2 were from the Midwest (Chicago and Cleveland). In 2010, eight (88.9%) isolates with decreased susceptibility to cefixime were from MSM.

Susceptibility to Cefpodoxime

GISP began monitoring cefpodoxime susceptibility in 2009. Of 5,693 GISP isolates tested for cefpodoxime susceptibility in 2010, 58.9% had MICs to cefpodoxime less than or equal to 0.015 µg/ml, 37.9% had MICs of 0.03–0.125 µg/ml, and 1.9% had MICs of 0.250–0.5 µg/ml. There were 70 (1.2%) isolates with decreased susceptibility to cefpodoxime (MICs of 1.0–4.0 µg/ml).

Susceptibility to Azithromycin

GISP began monitoring azithromycin susceptibility in 1992. Figure 30 displays the distribution of MICs to azithromycin among GISP isolates during 2006–2010. The proportion of GISP isolates with MICs of ≥ 2.0 µg/ml to azithromycin decreased from 0.5% in 2007 to 0.2% during 2008–2009, and increased to 0.5% in 2010. In 2010, 9 (0.2%) isolates had MICs to azithromycin of 8.0 µg/ml, and 8 (0.1%) isolates had MICs of 16.0 µg/ml. Of these 17 isolates, 76.5% were from the West and 82.4% were from MSM.

Susceptibility to Spectinomycin

All isolates were susceptible to spectinomycin in 2010. GISP has reported 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% (Figure 31). The proportion decreased to 9.6% by 2009, and increased to 12.5% in 2010.

Quinolone-resistant Neisseria gonorrhoeae by Sex of Sex Partner

The prevalence of QRNG in isolates from MSM peaked at 38.9% in 2006 and then decreased to 20.1% by 2009. In 2010, 23.9% of isolates from MSM and 7.9% of isolates from men who have sex exclusively with women were identified as QRNG.

Other Antimicrobial Susceptibility Testing

Overall in 2010, 27.2% of isolates collected from GISP sites were resistant to penicillin, tetracycline, ciprofloxacin, or some combination of those antibiotics (Figure 32).

Antimicrobial Treatments Given for Gonorrhea

The antimicrobial agents given to GISP patients for gonorrhea therapy are shown in Figure 33. In 2010, 96.5% of GISP patients were treated with cephalosporins, similar to the proportion in 2009 (96.2%). The proportion treated with ceftriaxone 250 mg increased from 21.6% in 2009 to 37.4% in 2010; the proportion treated with ceftriaxone 125 mg decreased from 53.9% in 2009 to 46.9% in 2010. The proportion treated with cefixime decreased from 13.2% in 2008 to 7.8% in 2010. Among patients treated with a cephalosporin, 75.3% were also treated with azithromycin, 23.6% were also treated with doxycycline, 0.1% were also treated with another antibiotic, and 1.1% did not receive a second antibiotic.

During 2010, 0.5% of GISP patients were treated with fluoroquinolones (ciprofloxacin, ofloxacin, or levofloxacin) and 1.7% were treated with azithromycin monotherapy.

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 cases per 100,000 population for 10 years during 1996–2006, decreased during 2006–2009, and increased slightly in 2010. High rates persist in some geographic areas, among adolescents and young adults, and 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] Wang SA, Harvey AB, Conner SM, Zaidi AA, Knapp JS, Whittington WL, et al. Antimicrobial resistance for *Neisseria gonorrhoeae* in the United States, 1988 to 2003: the spread of fluoroquinolone resistance. Ann Intern Med. 2007;147:81-9.

[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.

[11] Centers for Disease Control and Prevention. Increases in fluoroquinolone-resistant *Neisseria gonorrhoeae* — Hawaii and California, 2001. MMWR Morb Mortal Wkly Rep. 2002;51:1041-4.

[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 14. Gonorrhea—Rates, United States, 1941–2010

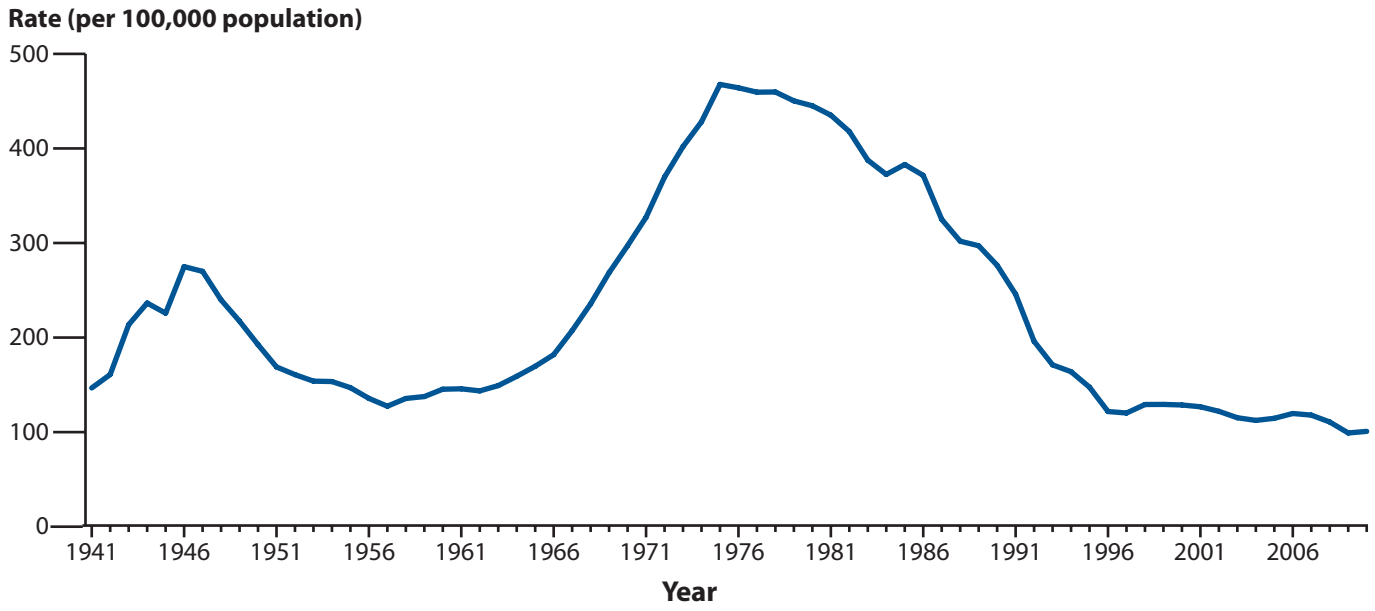


Figure 15. Gonorrhea—Rates by Sex, United States, 1990–2010

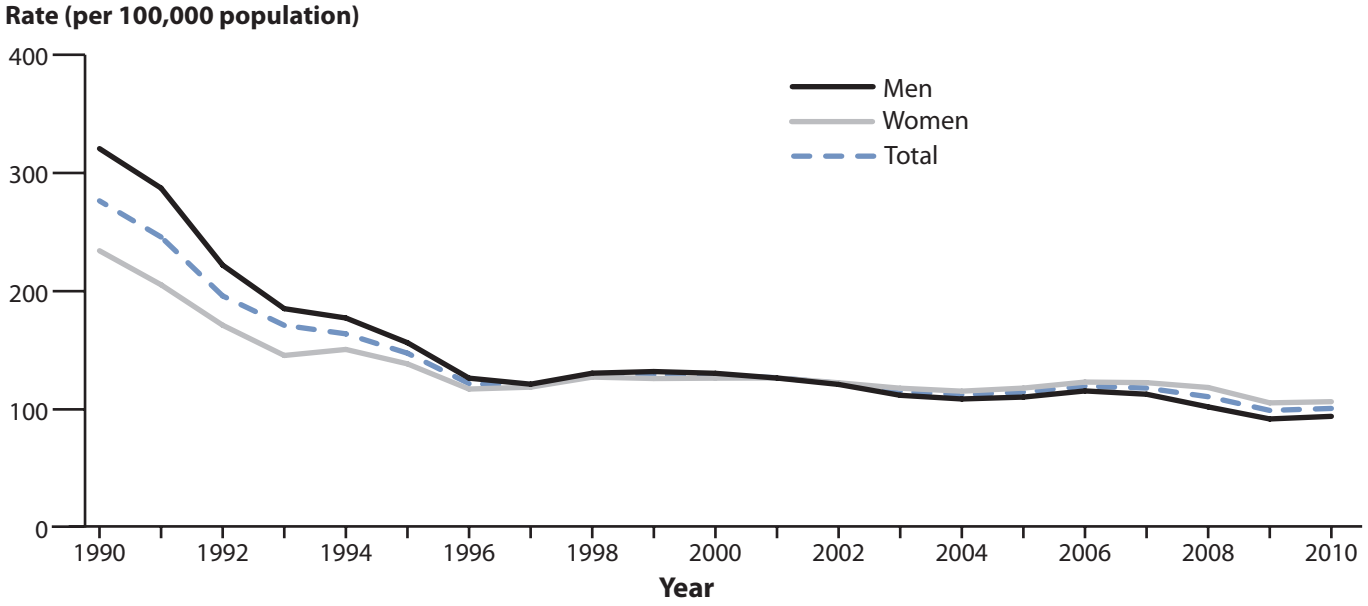


Figure 16. Gonorrhea—Rates by Region, United States, 2001–2010

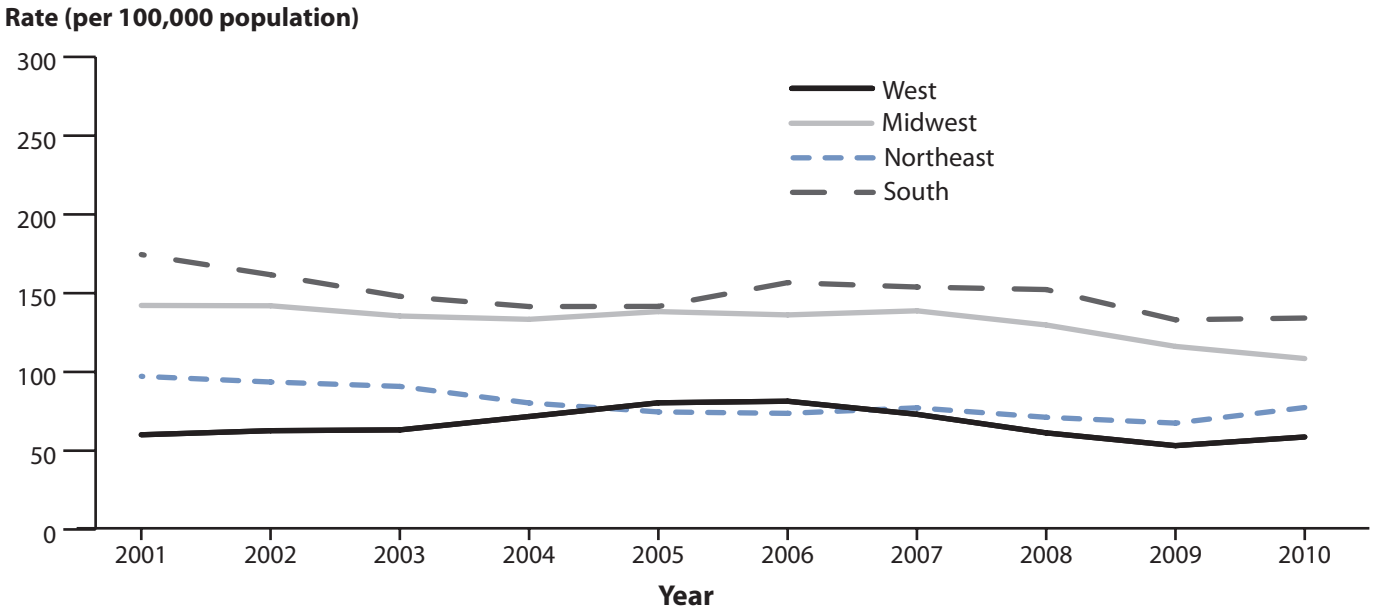
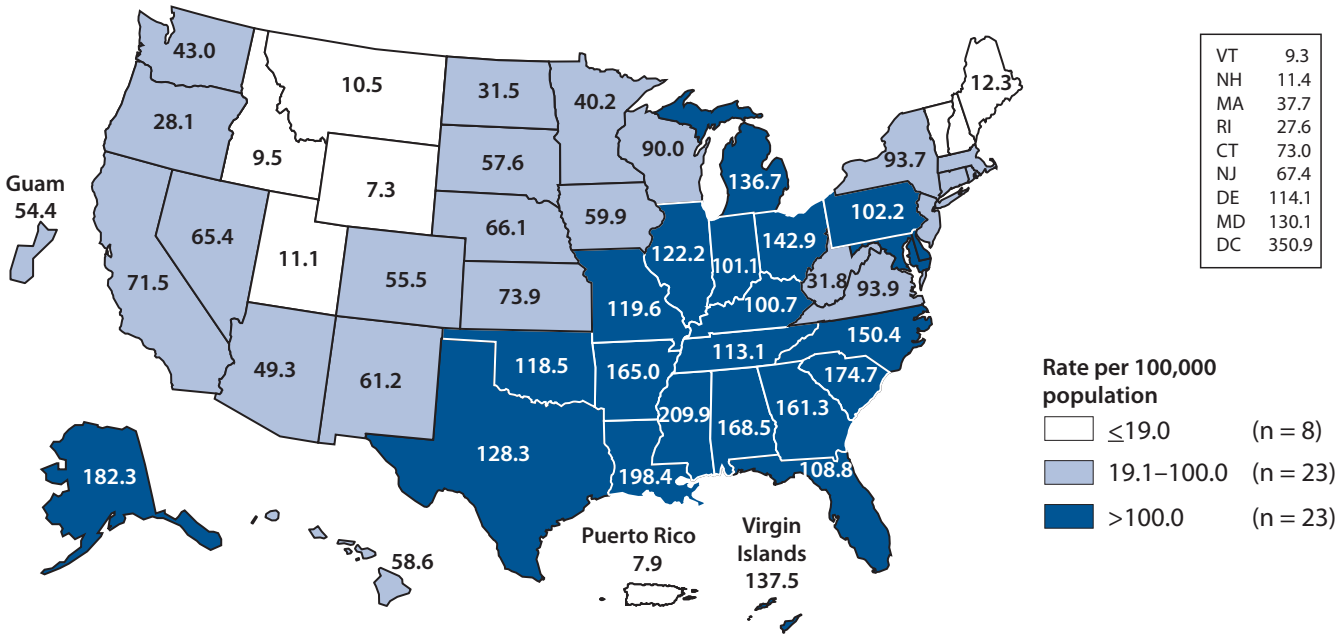


Figure 17. Gonorrhea—Rates by State, United States and Outlying Areas, 2010



NOTE: The total rate of gonorrhea for the United States and outlying areas (Guam, Puerto Rico, and Virgin Islands) was 99.6 per 100,000 population.

Figure 18. Gonorrhea—Rates by County, United States, 2010

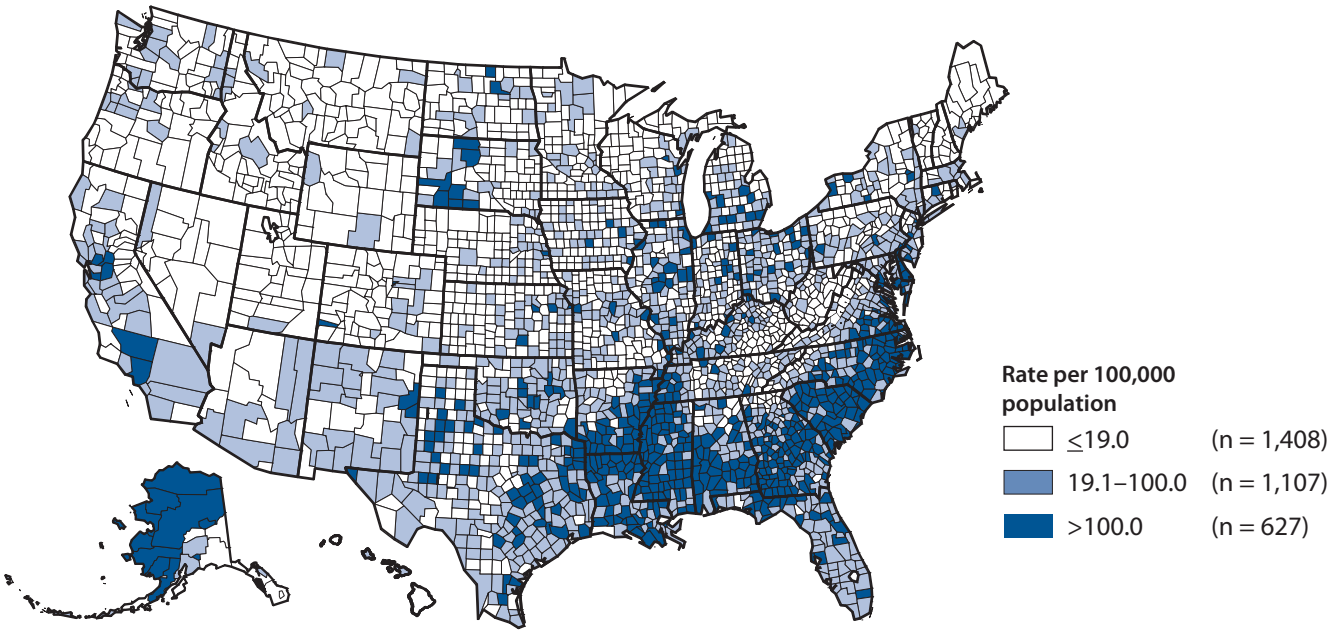


Figure 19. Gonorrhea—Rates by Age and Sex, United States, 2010

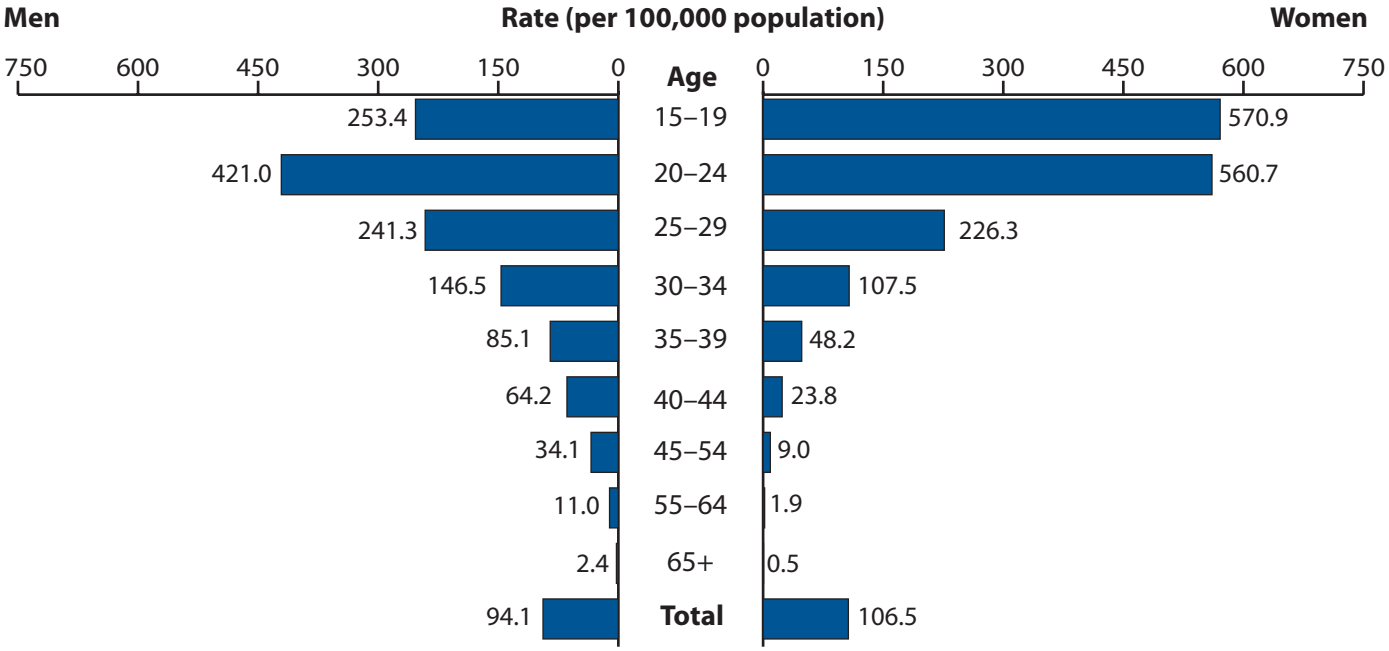


Figure 20. Gonorrhea—Rates by Age Among Women Aged 15–44 Years, United States, 2001–2010

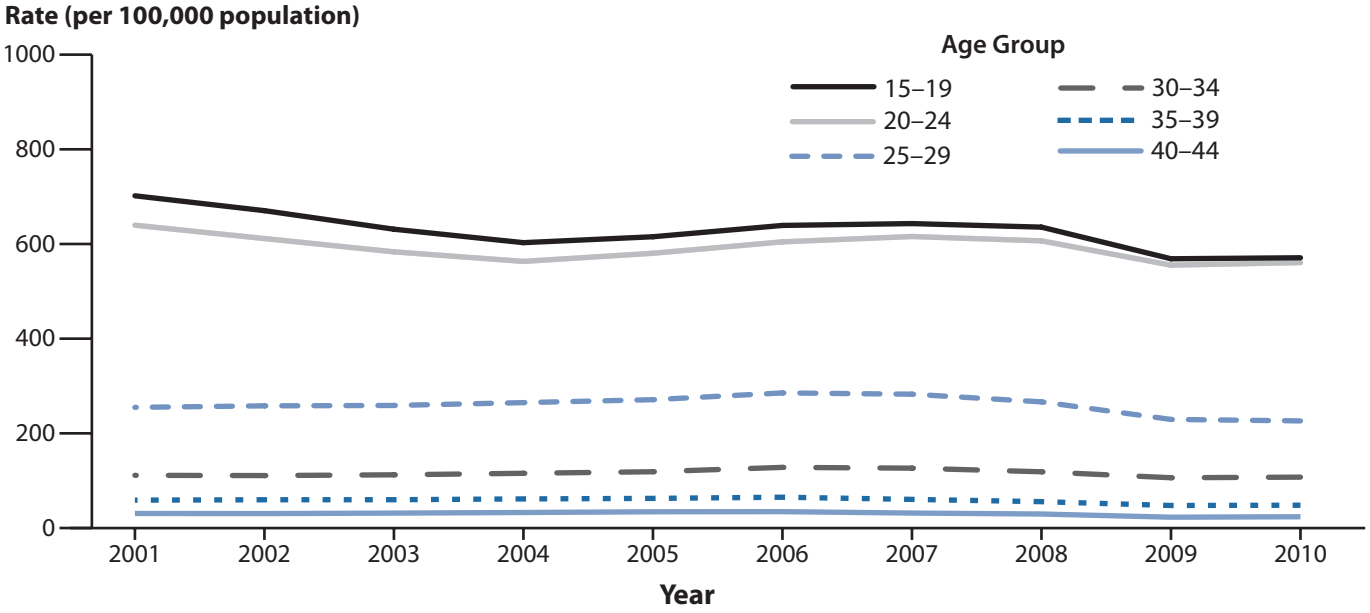


Figure 21. Gonorrhea—Rates by Age Among Men Aged 15–44 Years, United States, 2001–2010

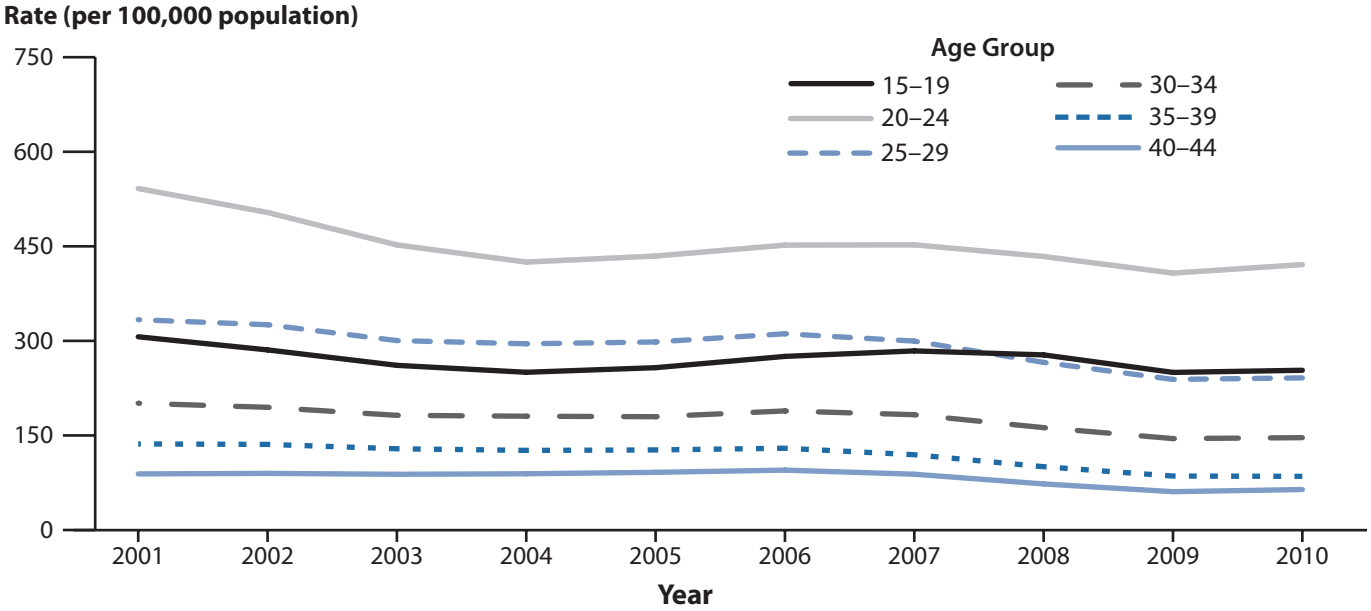


Figure 22. Gonorrhea—Rates by Race/Ethnicity, United States, 2001–2010

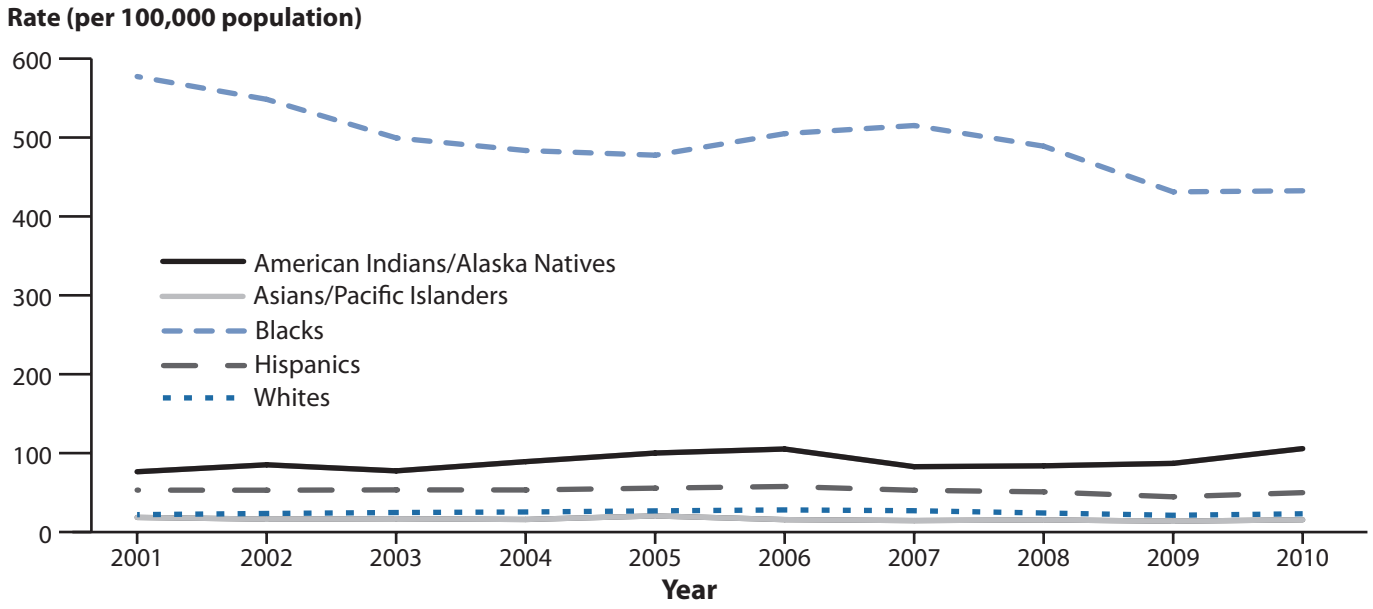


Figure 23. Gonorrhea—Cases by Reporting Source and Sex, United States, 2001–2010

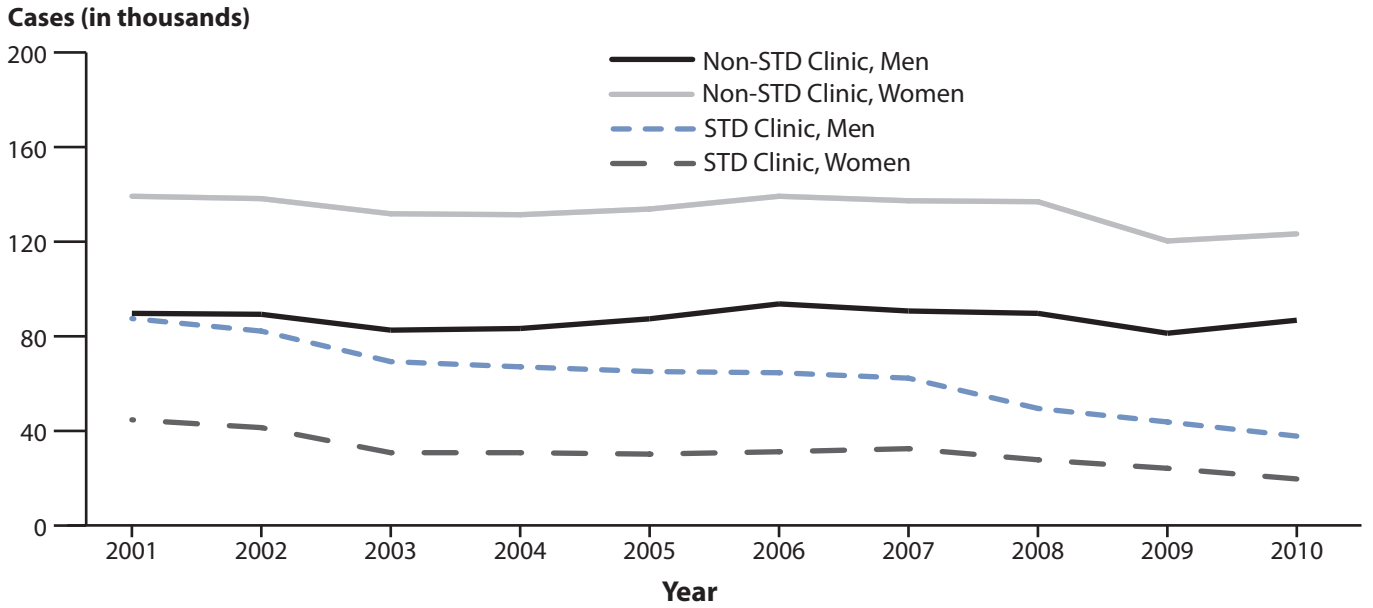
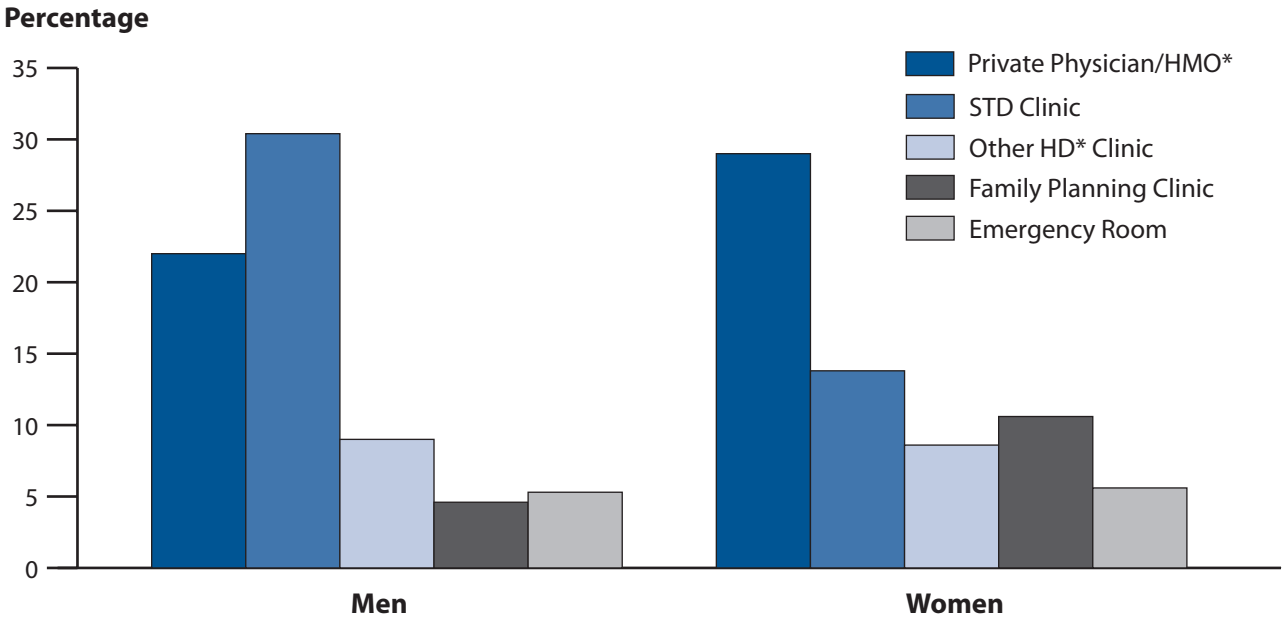
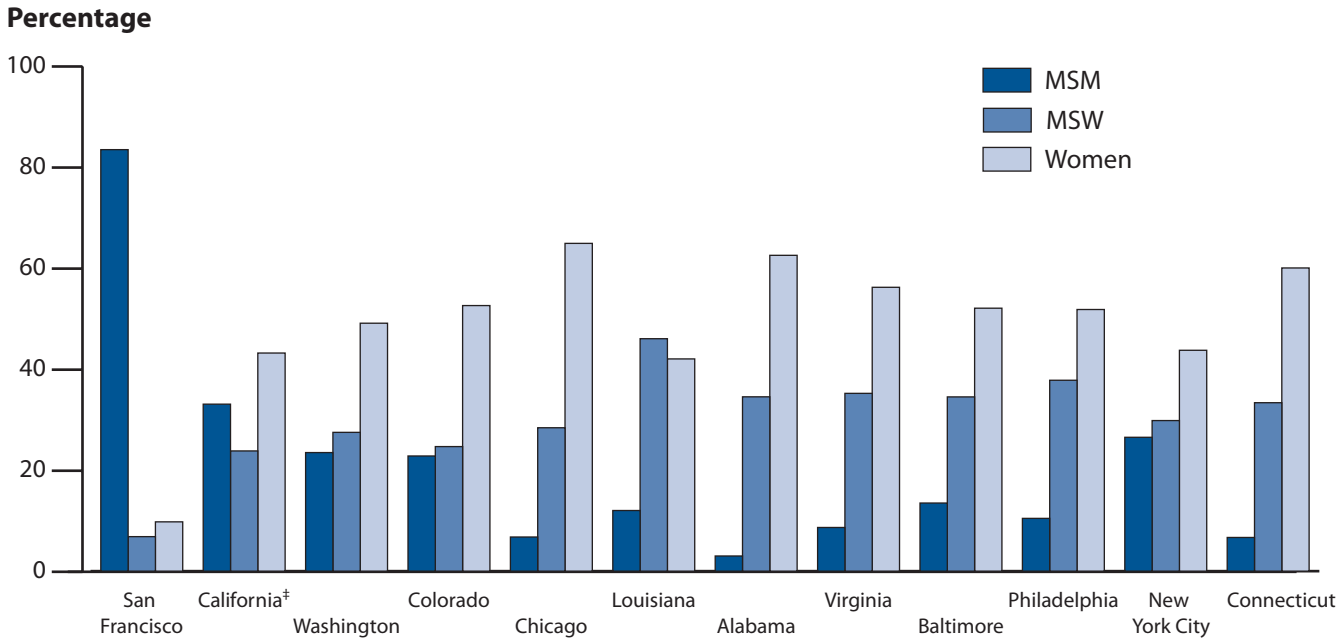


Figure 24. Gonorrhea—Percentage of Reported Cases by Sex and Selected Reporting Sources, United States, 2010



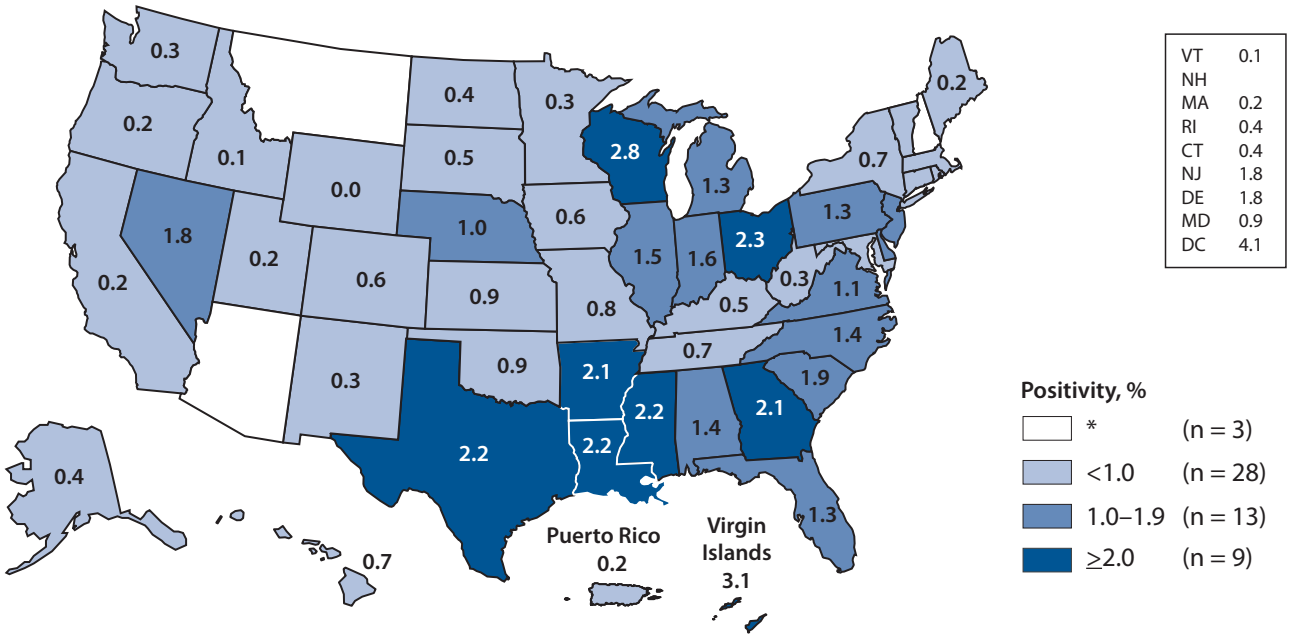
* HMO = health maintenance organization; HD = health department.
NOTE: These categories represent 69.5% of cases with known reporting source. Of all cases, 13.2% had a missing or unknown reporting source.

Figure 25. STD Surveillance Network (SSuN)—Proportion of MSM,* MSW,* and Women Among Interviewed† Gonorrhea Cases by Site, 2010



* MSM = men who have sex with men; MSW = men who have sex with women only.
† SSuN interviews conducted from a randomly selected patient population with gonorrhea (n = 3,446).
‡ California data excludes San Francisco.
Note: See Appendix for included jurisdictions within each state.

Figure 26. Gonorrhea—Positivity Among Women Aged 15–24 Years Tested in Family Planning Clinics, by State, Infertility Prevention Project, United States and Outlying Areas, 2010



* States/areas not meeting minimum inclusion criteria.

NOTE: Includes states and outlying areas that reported positivity data on at least 500 women aged 15–24 years who were screened during 2010.

Figure 27. Gonococcal Isolate Surveillance Project (GISP)—Location of Participating Sentinel Sites and Regional Laboratories, United States, 2010

Figure 28. Gonococcal Isolate Surveillance Project (GISP)—Distribution of Minimum Inhibitory Concentrations (MICs) to Ceftriaxone Among GISP Isolates, 2006–2010

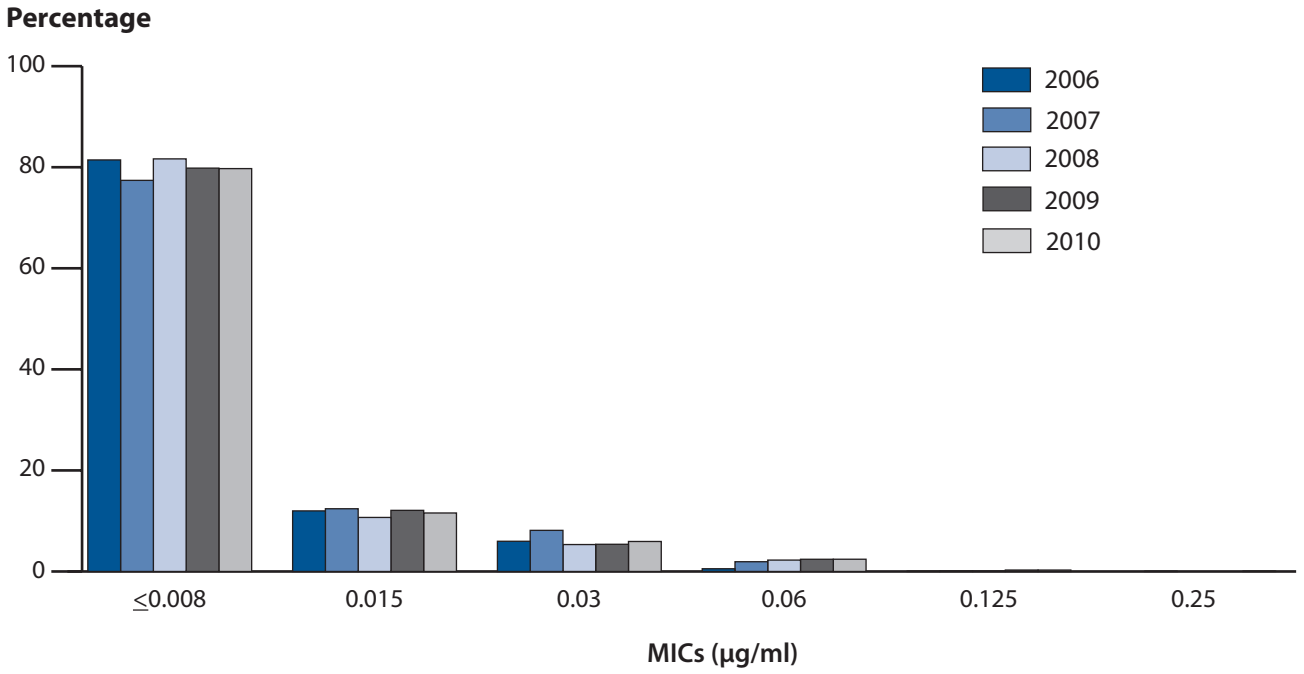
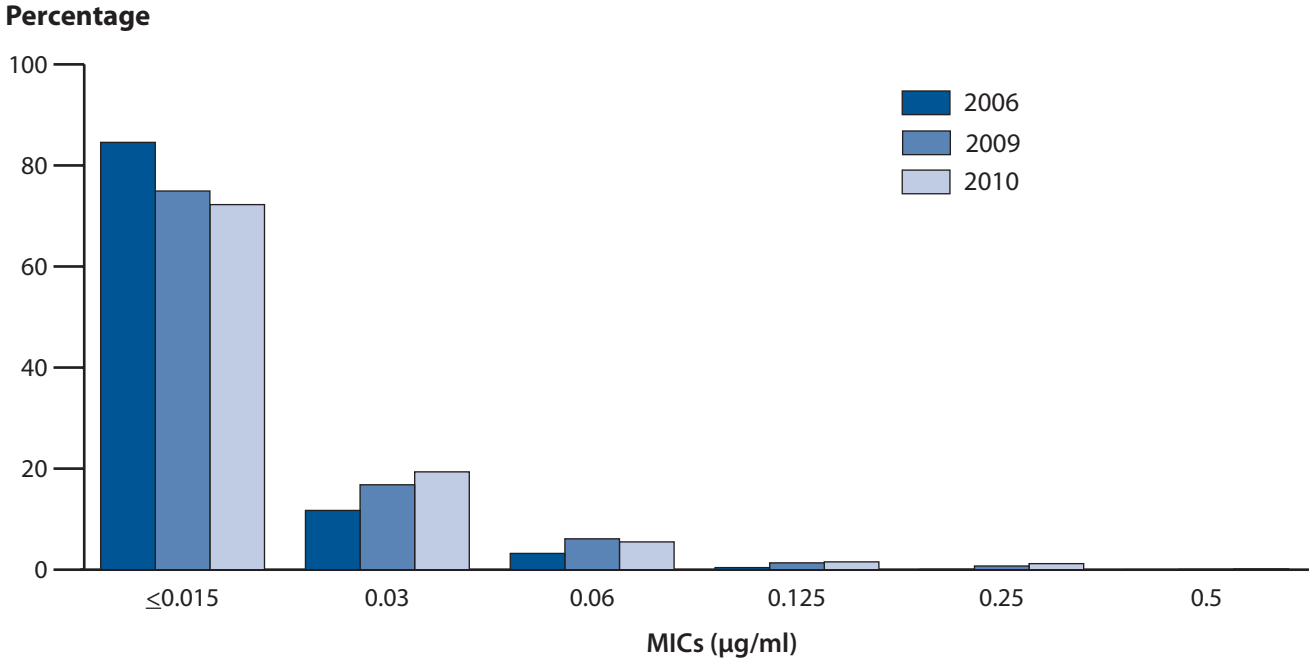


Figure 29. Gonococcal Isolate Surveillance Project (GISP)—Distribution of Minimum Inhibitory Concentrations (MICs) to Cefixime Among GISP Isolates, 2006 and 2009–2010



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

Figure 30. Gonococcal Isolate Surveillance Project (GISP)—Distribution of Minimum Inhibitory Concentrations (MICs) to Azithromycin Among GISP Isolates, 2006–2010

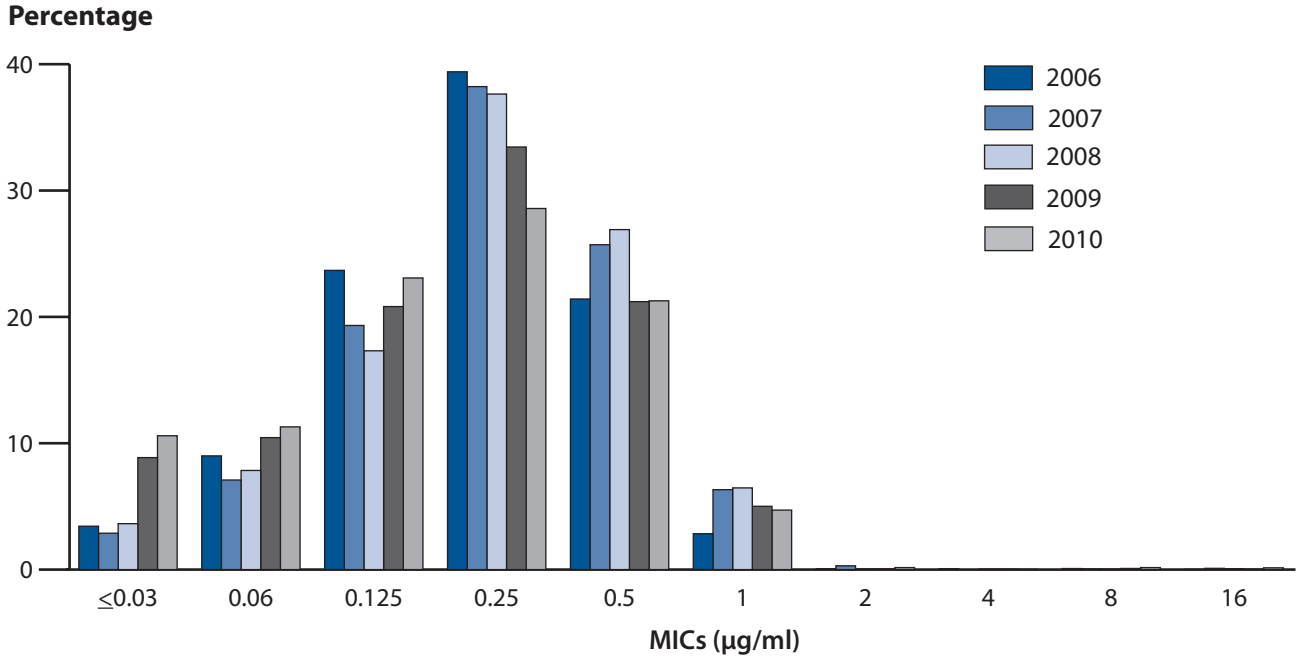
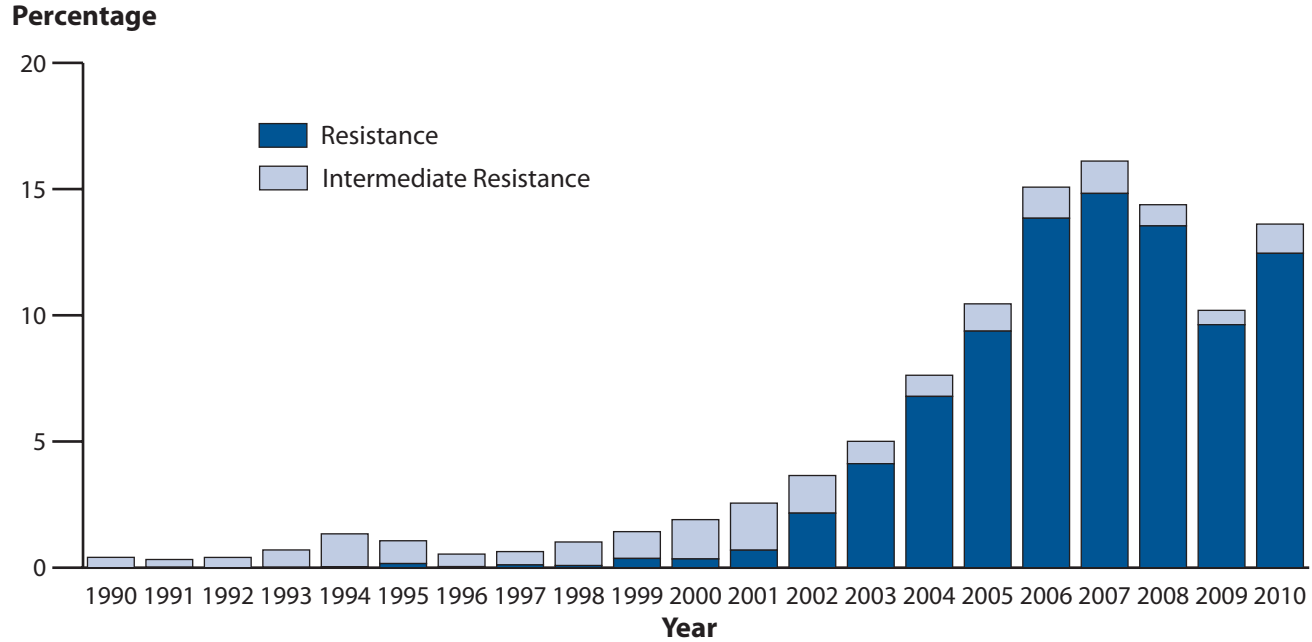
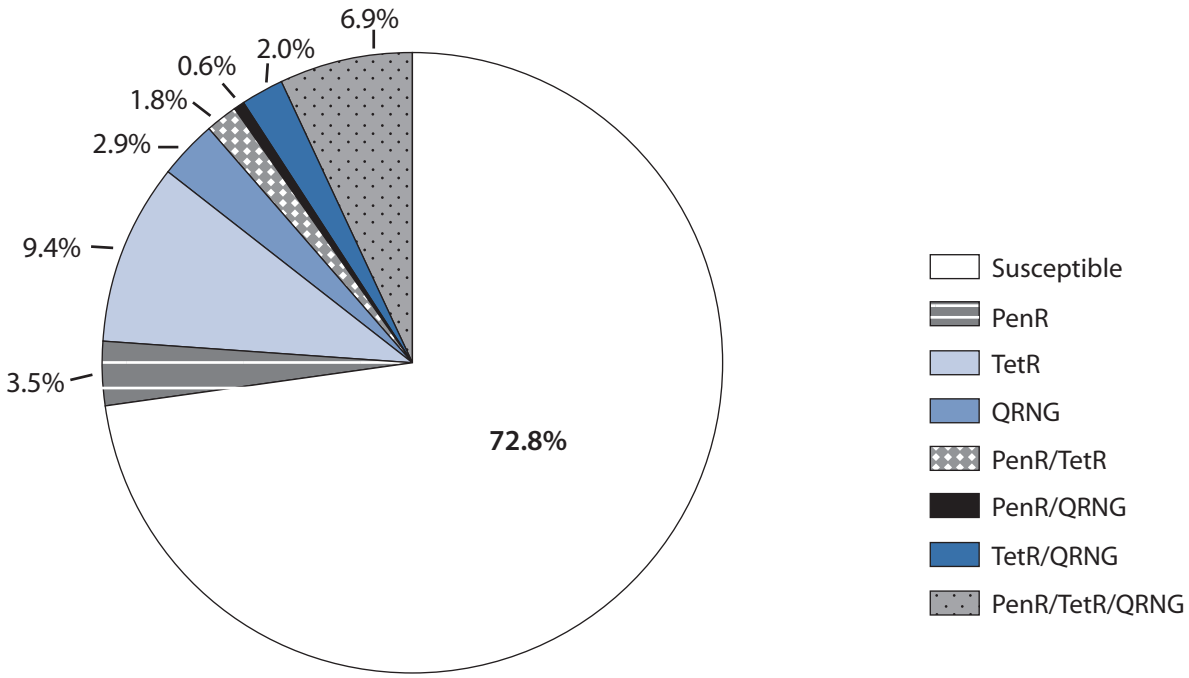


Figure 31. Gonococcal Isolate Surveillance Project (GISP)—Percentage of *Neisseria gonorrhoeae* Isolates with Resistance or Intermediate Resistance to Ciprofloxacin, 1990–2010



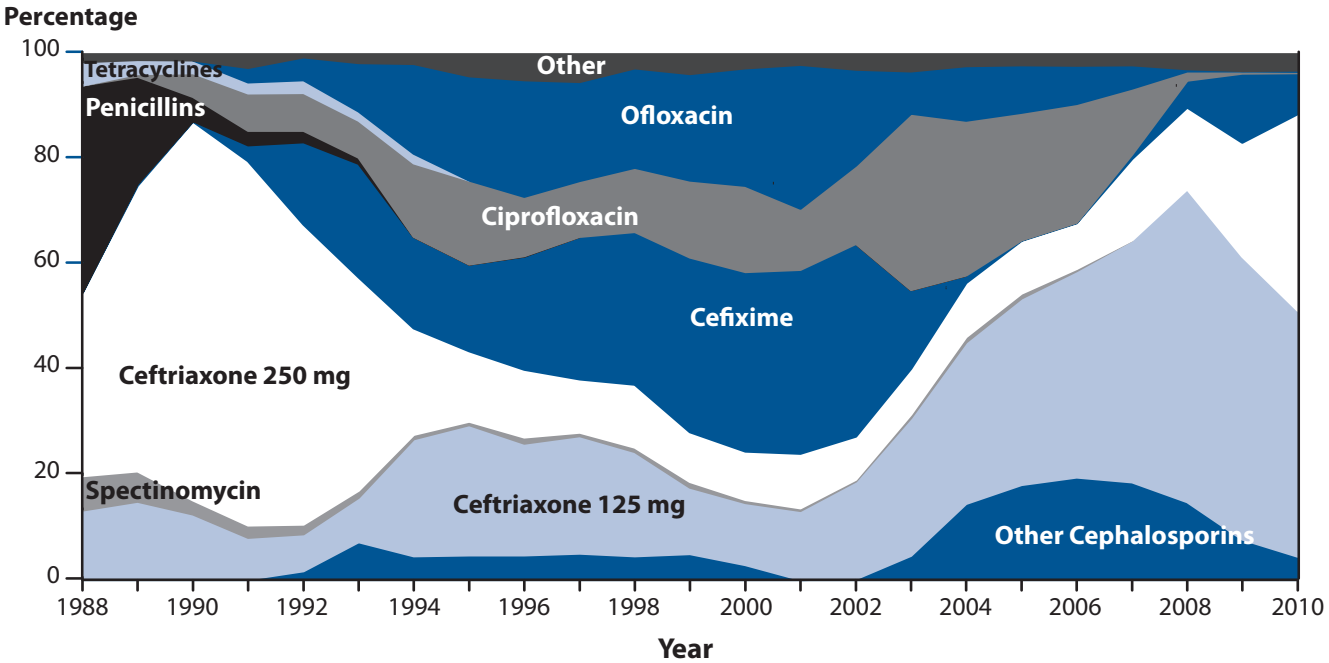
NOTE: Resistant isolates have ciprofloxacin minimum inhibitory concentrations (MICs) ≥1 µg/ml. Isolates with intermediate resistance have ciprofloxacin MICs of 0.125–0.5 µg/ml. Susceptibility to ciprofloxacin was first measured in GISP in 1990.

Figure 32. Gonococcal Isolate Surveillance Project (GISP)—Penicillin, Tetracycline, and Ciprofloxacin Resistance Among GISP Isolates, 2010



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 33. Gonococcal Isolate Surveillance Project (GISP)—Drugs Used to Treat Gonorrhea Among GISP Participants, 1988–2010



NOTE: For 2010, "Other" includes no therapy (1.2%), azithromycin 2 g (1.7%), 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 34). 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. Overall increases in rates were observed primarily among men (increasing from 3.0 cases per 100,000 population in 2001 to 7.9 cases in 2010). 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.

Syphilis remains a major health problem in the South and in urban areas in other regions of the country. Increases in cases among MSM (including men having sex with both men and women) have occurred and 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 2010 was available for 82%.

In 2010, 67% of P&S syphilis cases in 44 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 2009–2010, the number of cases of early latent syphilis reported to CDC increased 4.1% (from 13,066 to 13,604 cases), and the number of cases of late and late latent syphilis increased 4.3% (from 17,338 to 18,079 cases) (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 2.2% (from 44,830 to 45,834 cases) during 2009–2010 (Table 1).

P&S Syphilis—United States

P&S syphilis cases reported to CDC decreased from 13,997 in 2009 to 13,774 in 2010, a decrease of 1.6%. The rate of P&S syphilis in the United States in 2010 (4.5 cases per 100,000 population) was 2.2% lower than the rate in 2009 (4.6 cases) (Figure 34, Table 1). This is the first overall decrease in P&S syphilis in 10 years.

P&S Syphilis by Region

The South accounted for 45.5% of P&S syphilis cases in 2010 and 53.0% in 2009. During 2009–2010, rates decreased 15.4% in the South (from 6.5 to 5.5 cases per 100,000 population) and increased 5.3% in the Northeast (from 3.8 to 4.0 cases), 21.4% in the Midwest (from 2.8 to 3.4 cases), and 16.2% in the West (from 3.7 to 4.3 cases) (Figure 36, Table 26).

P&S Syphilis by State

In 2010, the 15 states and areas (including the District of Columbia) with the highest rates of P&S syphilis accounted for 72% of all U.S. cases of P&S syphilis. The rate of P&S syphilis in 14 of these 15 states and areas (including the District of Columbia) exceeded the national rate of 4.5 cases per 100,000 population; of these 14 states and areas (including the District of Columbia), 9 were in the South (Figure 37, Table 25).

P&S Syphilis by Metropolitan Statistical Area

The rate of P&S syphilis in 2010 for the 50 most populous MSAs (6.3 cases per 100,000 population) (Table 29) exceeded the overall rate for the United States (4.5 cases) (Table 26). The rate increased in 29 of these 50 MSAs (58%) during 2009–2010.

P&S Syphilis by County

In 2010, 2,167 of 3,141 counties (69.0%) in the United States reported no cases of P&S syphilis, compared with 2,194 counties (69.9%) in 2009 (Figure 38). In 2010, half of the total number of P&S syphilis cases was reported from 27 counties and two cities (Table 32).

P&S Syphilis by Sex

The rate of P&S syphilis increased 1.3% among men (from 7.8 to 7.9 cases per 100,000 men) during 2009–2010 (Figure 35, Table 28). During this same period, the rate decreased 21.4% among women (from 1.4 to 1.1 cases per 100,000 women) (Figure 35, Table 27).

P&S Syphilis by Age

In 2010, the rate of P&S syphilis was highest among persons aged 20–24 years and 25–29 years (13.5 and 11.3 cases per 100,000 population, respectively) (Table 34).

During 2009–2010, rates for men increased the most in those aged 20–24 years and 25–29 years (Figures 39 and 41, Table 34). Rates for men are now highest in those aged 20–24 years, and the rates decrease with age. These data indicate a major shift since 2006, when the highest rates were in men aged 35–39 years. Rates among women decreased in all age groups in 2010 (except for women aged 55 years and older), with the largest decrease in women aged 40–44 years. Rates remained highest among women aged 20–24 years (Figures 39 and 40).

P&S Syphilis by Race/Ethnicity

During 2009–2010, the rate of P&S syphilis increased 9.5% among Hispanics (from 4.2 to 4.6 cases per 100,000 population), 8.7% among American Indians/Alaska Natives (from 2.3 to 2.5 cases per 100,000 population), and 5.0% among non-Hispanic whites (from 2.0 to 2.1 cases per 100,000 population) (Figure 42). The rate decreased 8.7% among non-Hispanic blacks (from 18.4 to 16.8 cases per 100,000 population) and 13.3% among Asian/Pacific Islanders (from 1.5 to 1.3 cases per 100,000 population).

P&S Syphilis by Sex and Sex Behavior

The male-to-female ratio for P&S syphilis rates has risen steadily since 1996, when it was 1.2, reflecting higher rates in men than women (Figure 35). This increase supports analyses of case report data showing increases in P&S syphilis among MSM during 2005–2008.[10] In 2008, this ratio decreased to 5.0, but increased to 5.6 in 2009, and 7.2 in 2010.

In 2005, CDC began collecting information on the sex partners of patients with P&S syphilis. In 2010, this information was available for 82% of male cases.

In 2010, among men who have sex with women only (MSW) with P&S syphilis, 35.8% had primary syphilis, and 64.2% had secondary syphilis. Among women with P&S syphilis, 16.0% had primary syphilis, and 84.0% had secondary syphilis. Among MSM, 25.0% had primary syphilis, and 75.0% had secondary syphilis (Figure 43).

Among women with P&S syphilis, 16.8% were white, 72.8% were black, 6.6% were Hispanic, and 1.6% were of other races/ethnicities. Among MSW, 14.8% were white, 67.0% were black, 13.8% were Hispanic, and 2.5% were of other races/ethnicities. Among MSM, 38.1% were white, 37.0% were black, 19.8% were Hispanic, and 3.1% were of other races/ethnicities (Figure 44).

P&S Syphilis by Race/Ethnicity and Sex

In 2010, rates of P&S syphilis among men were highest among non-Hispanic black men (28.2 cases per 100,000 population), followed by Hispanic (8.5 cases per 100,000 population), American Indians/Alaska Natives (4.3 cases per 100,000 population), non-Hispanic white (4.0 cases per 100,000 population), and Asian/Pacific Islander (2.6 per 100,000 population) men (Figure S).

In 2010, rates of P&S syphilis among women were highest among non-Hispanic black women (6.4 per 100,000 population), followed by American Indians/Alaska Natives (0.7 cases per 100,000 population), Hispanic (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).

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

In 2010, the rate of P&S syphilis among non-Hispanic blacks was highest among women aged 20–24 years (23.2 cases per 100,000 women) and among men aged 20–24 years (92.5 cases per 100,000 men) and 25–29 years (74.8 cases). For non-Hispanic whites, the rate was highest among women aged 20–24 years (0.9 cases) and among men aged 40–44 years (9.1 cases).

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 (19.8 cases per 100,000 men). For Asians/Pacific Islanders, the rate was highest among women aged 20–24 years (1.2 cases) and among men aged 20–24 years (6.5 cases). For American Indians/Alaska Natives, the rate was highest among women aged 30–34 years and 35–39 years (2.4 cases for both) and among men aged 20–24 years (15.6 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 1998–2010, the proportion of cases reported from sources other than STD clinics increased from 39.2% to 68.1% (Figure 45, Table A2). During 2001–2010, 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 45).

During 2010, patients with P&S syphilis usually sought care from private physicians or STD clinics. More cases of syphilis among MSM were reported from private physicians (33.5%) than STD clinics (30.3%) (Figure 46). More cases among women and MSW were reported from STD clinics than from private physicians.

Congenital Syphilis—United States

After an 18% increase in the rate of congenital syphilis during 2006–2008, the rate of congenital syphilis decreased during 2009–2010 (from 9.9 to 8.7 cases per 100,000 live births) (Table 41). In 2010, a total of 377 cases were reported, a decrease from 429 cases in 2009 and 446 cases in 2008. 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 47).[11]

In 2010, a total of 28 states, the District of Columbia, and 1 outlying area had 1 or more cases of congenital syphilis (Tables 40 and 41).

In 2009, a total of 33 states and 1 outlying area had 1 or more cases of congenital syphilis (Tables 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, younger men and MSM have accounted for an increasing number of syphilis cases in the United States.[9] According to information reported in 44 states and the District of Columbia, 67% of P&S syphilis cases are among MSM. Although the majority of U.S. syphilis cases have occurred among MSM, syphilis among MSW continues to be a problem.[12]

[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.

[12] Centers for Disease Control and Prevention. Primary and secondary syphilis — Jefferson County, Alabama, 2002–2007. MMWR Morb Mortal Wkly Rep. 2009;58:463-7.

Figure 34. Syphilis—Reported Cases by Stage of Infection, United States, 1941–2010

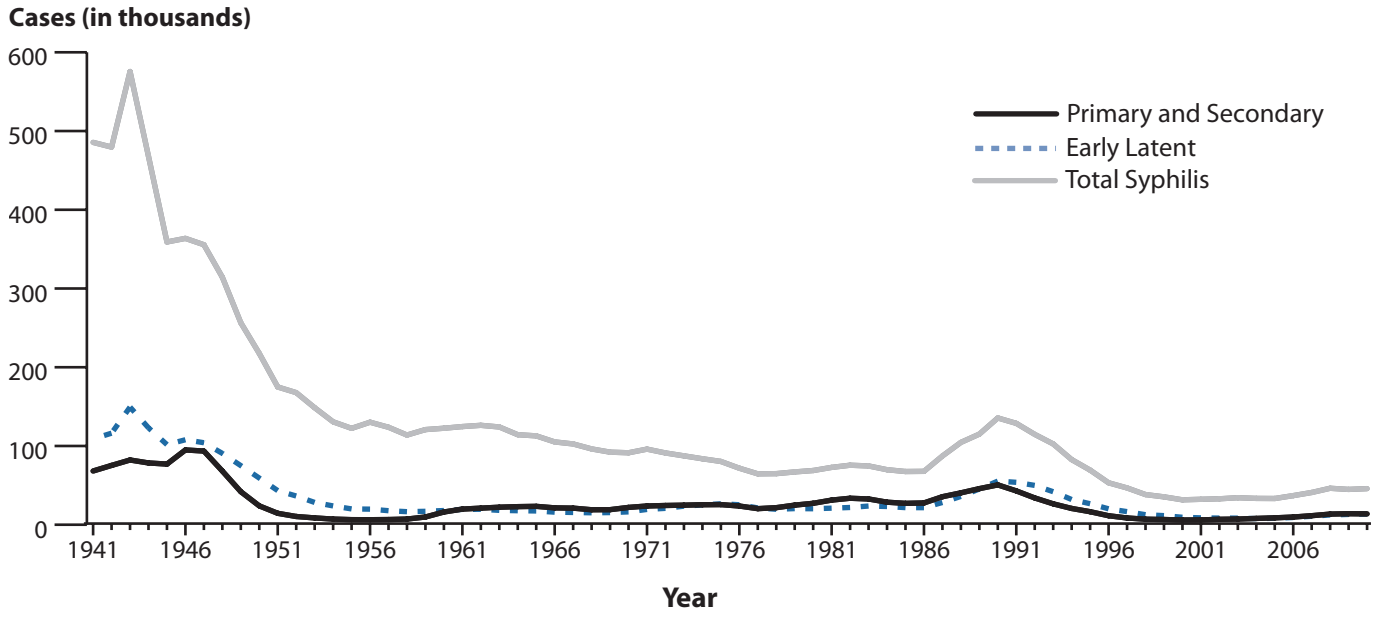


Figure 35. Primary and Secondary Syphilis—Rates by Sex and Male-to-Female Rate Ratios, United States, 1990–2010

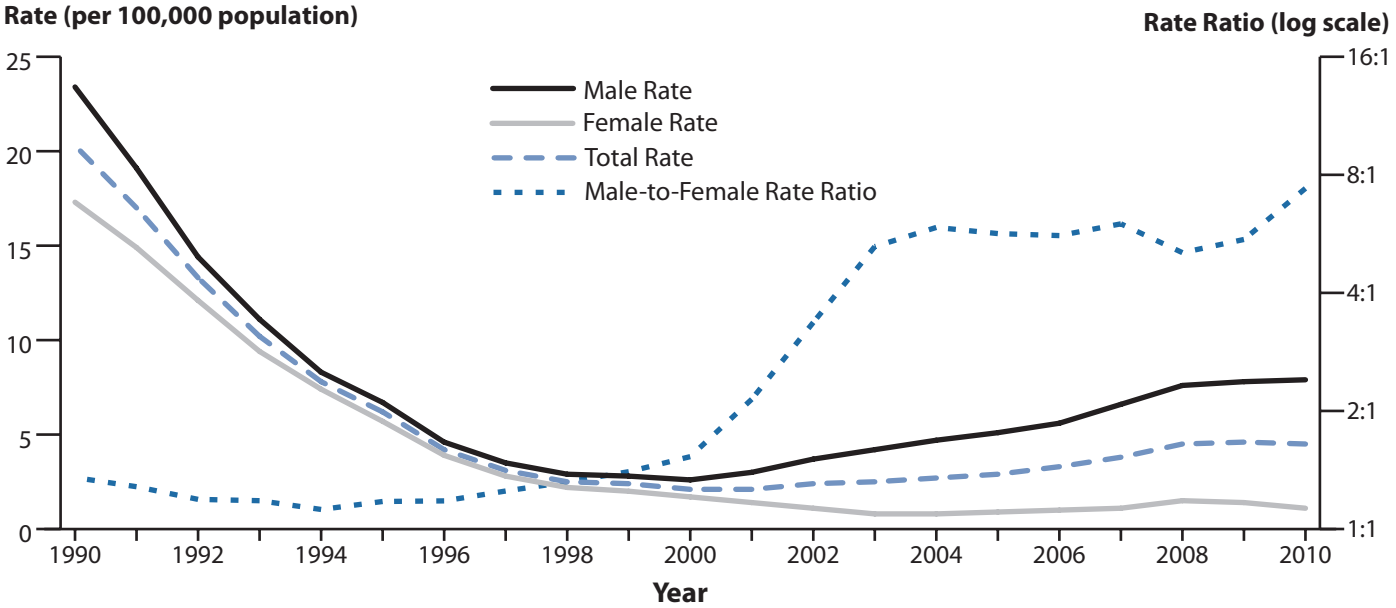


Figure 36. Primary and Secondary Syphilis—Rates by Region, United States, 2001–2010

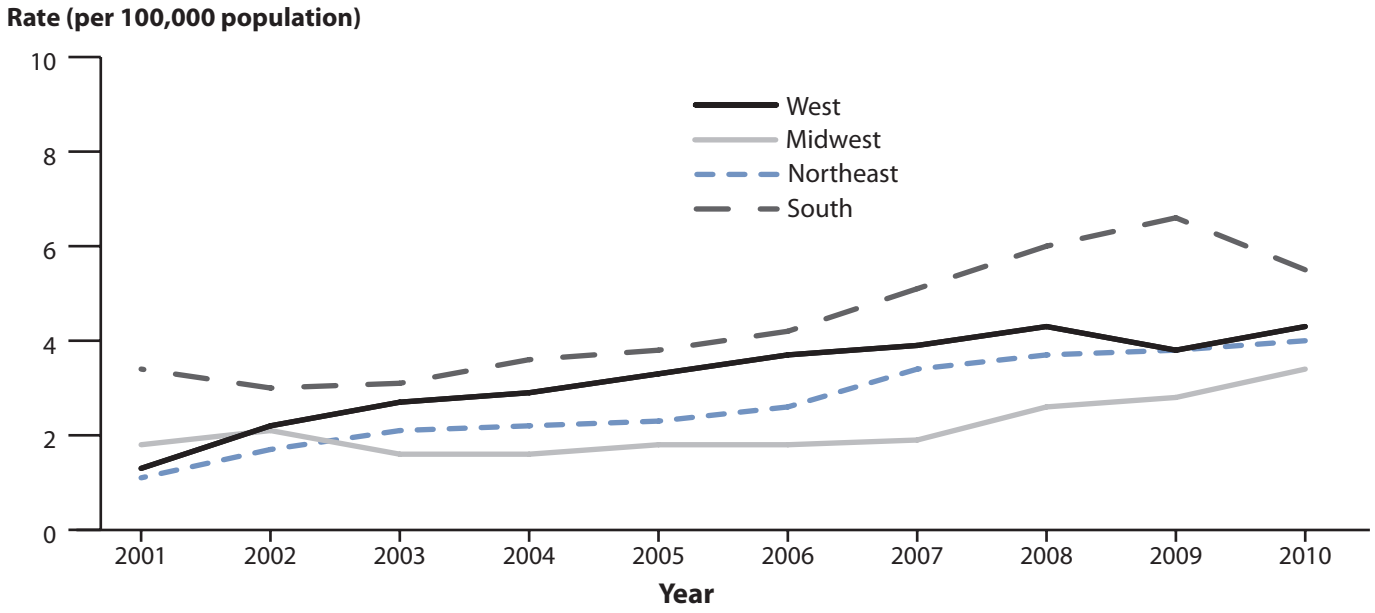
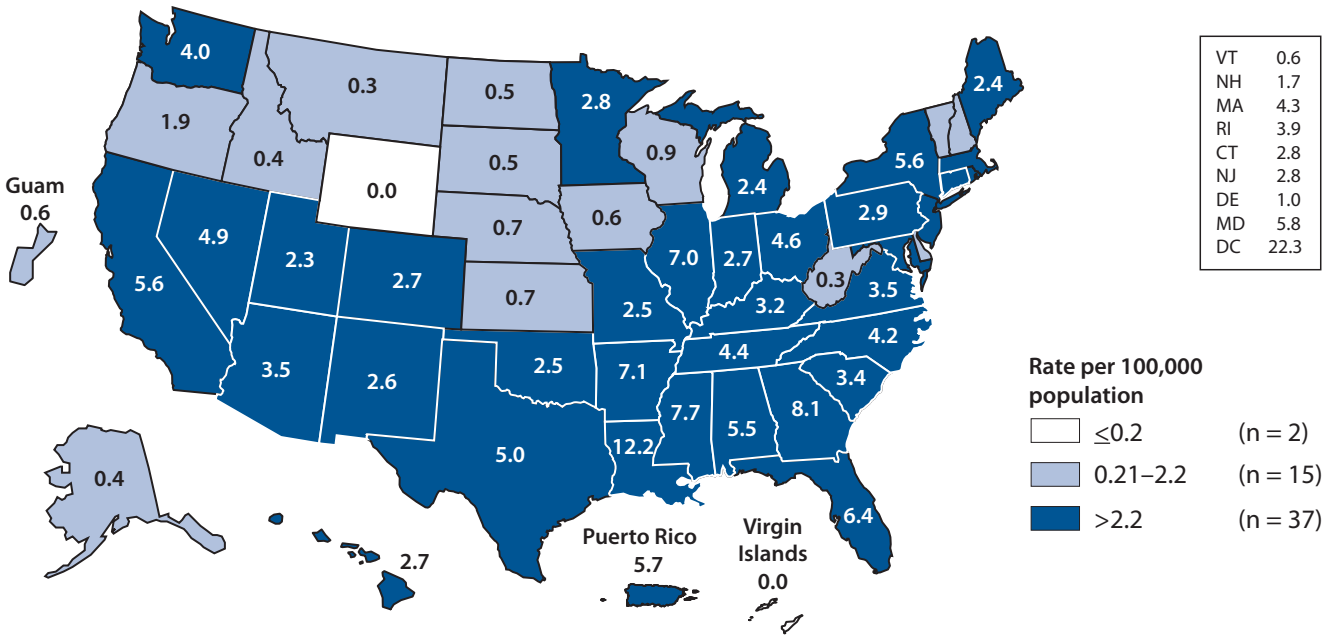
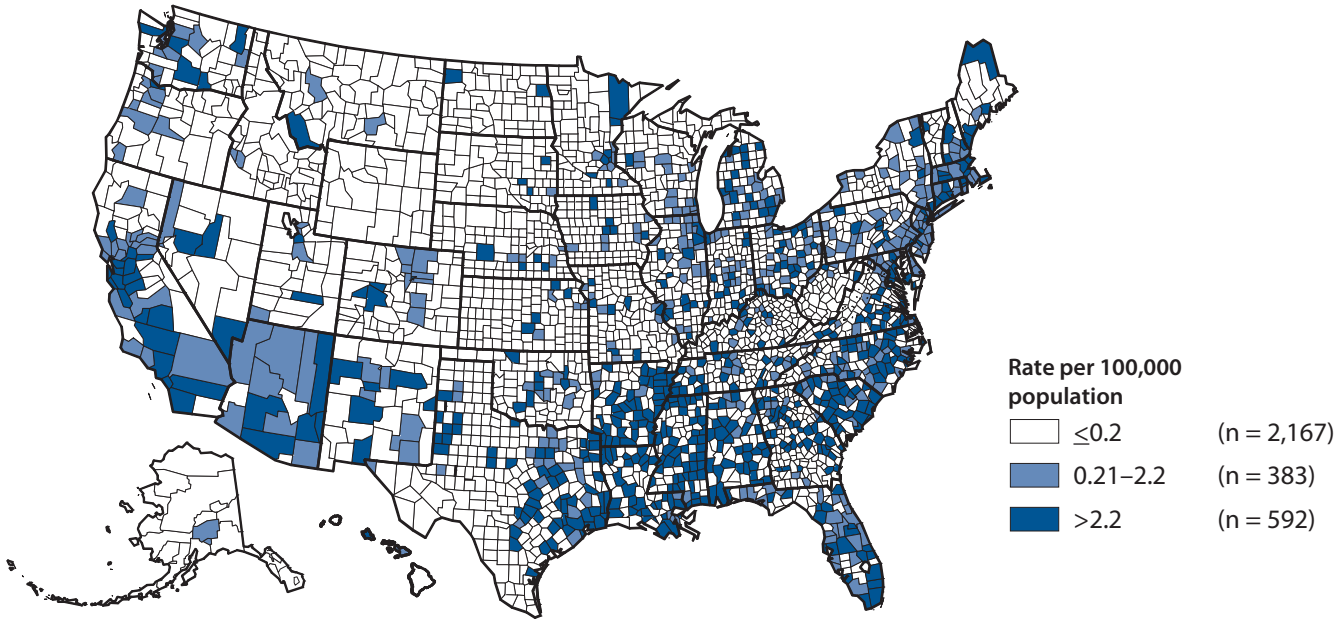


Figure 37. Primary and Secondary Syphilis—Rates by State, United States and Outlying Areas, 2010



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 38. Primary and Secondary Syphilis—Rates by County, United States, 2010



NOTE: In 2010, 2,167 (69.0%) of 3,141 counties in the United States reported no cases of primary and secondary syphilis.

Figure 39. Primary and Secondary Syphilis—Rates by Age and Sex, United States, 2010

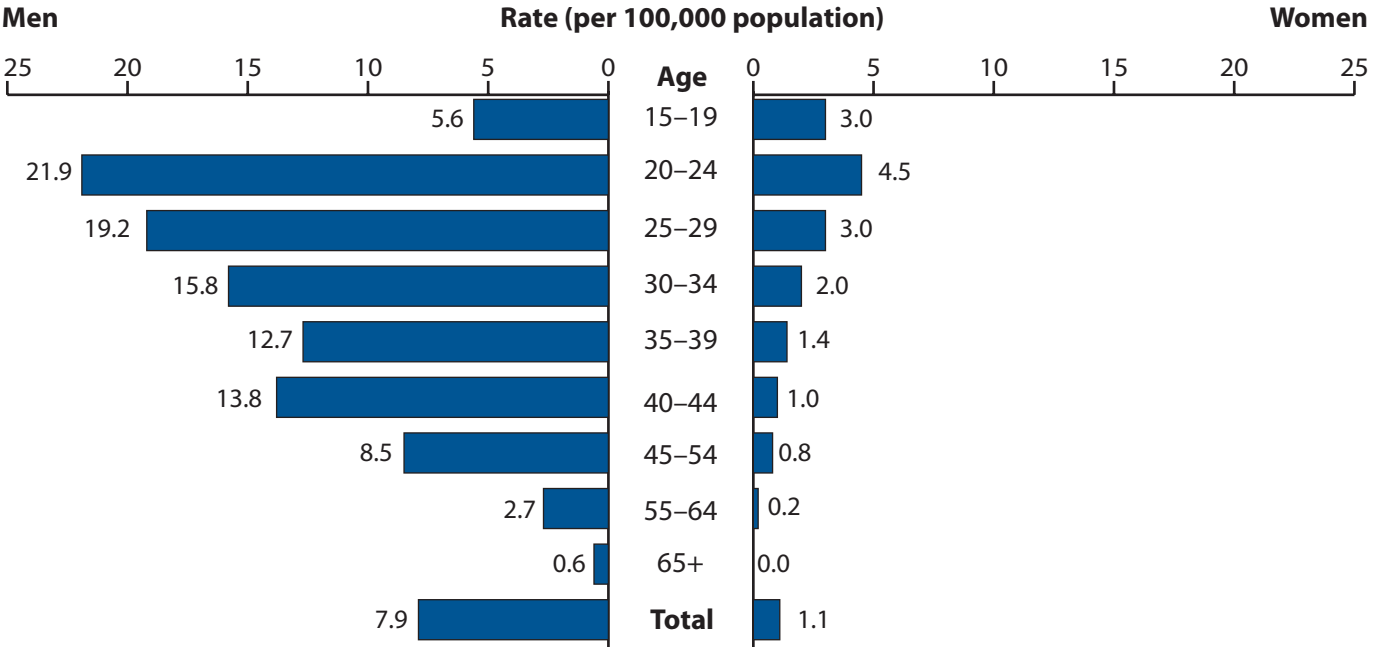


Figure 40. Primary and Secondary Syphilis—Rates by Age Among Women Aged 15–44 Years, United States, 2001–2010

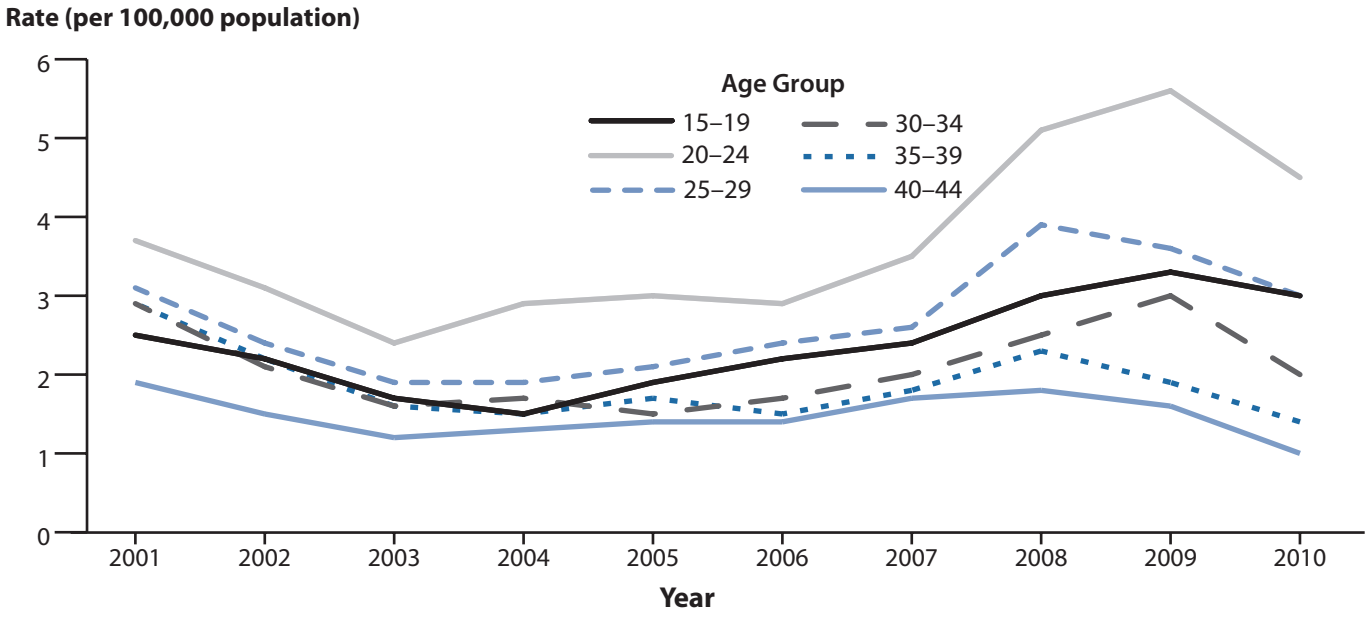


Figure 41. Primary and Secondary Syphilis—Rates by Age Among Men Aged 15–44 Years, United States, 2001–2010

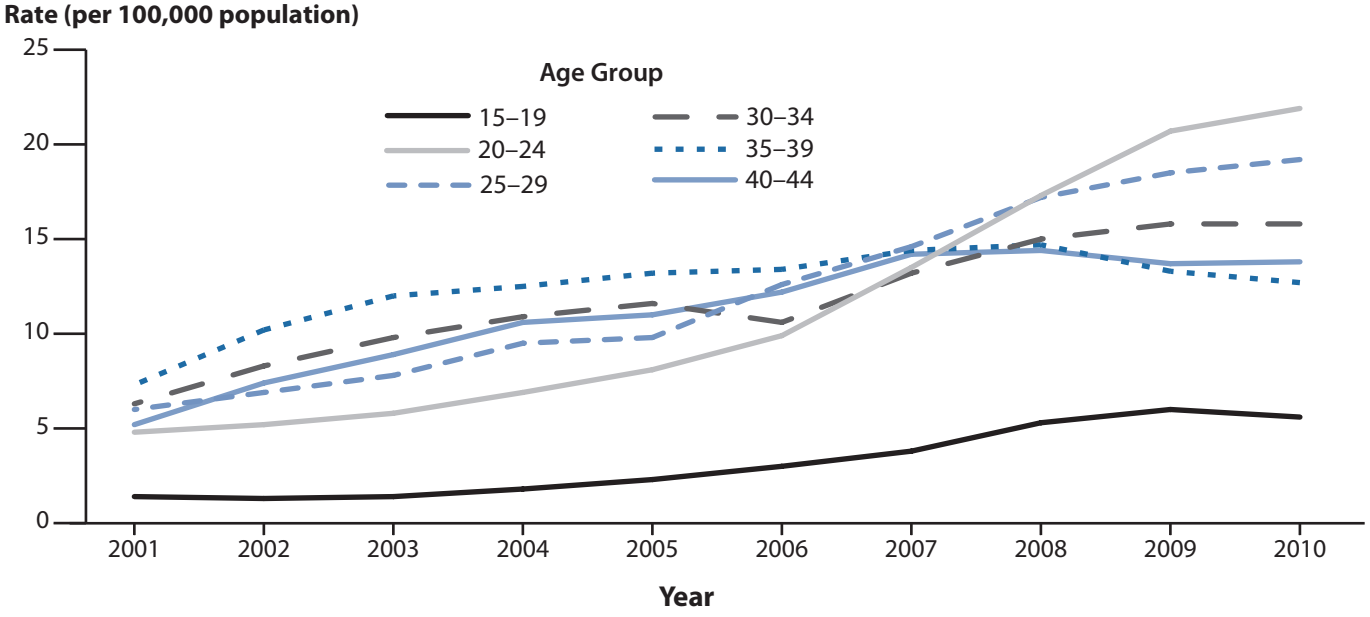


Figure 42. Primary and Secondary Syphilis—Rates by Race/Ethnicity, United States, 2001–2010

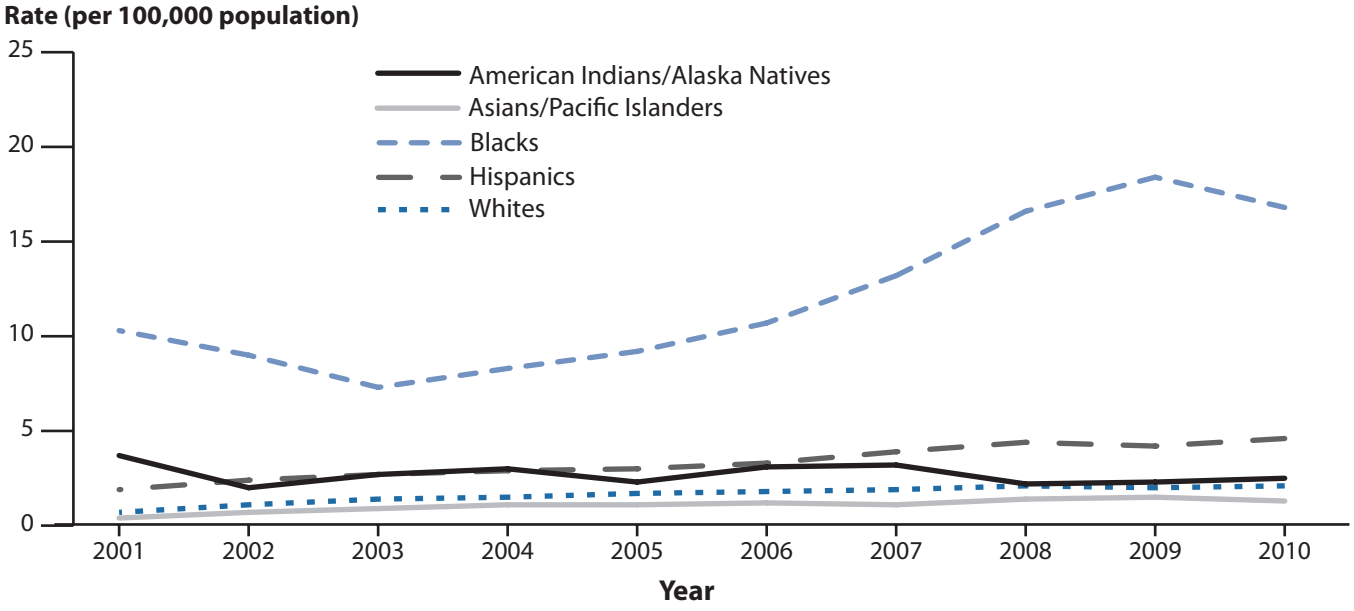
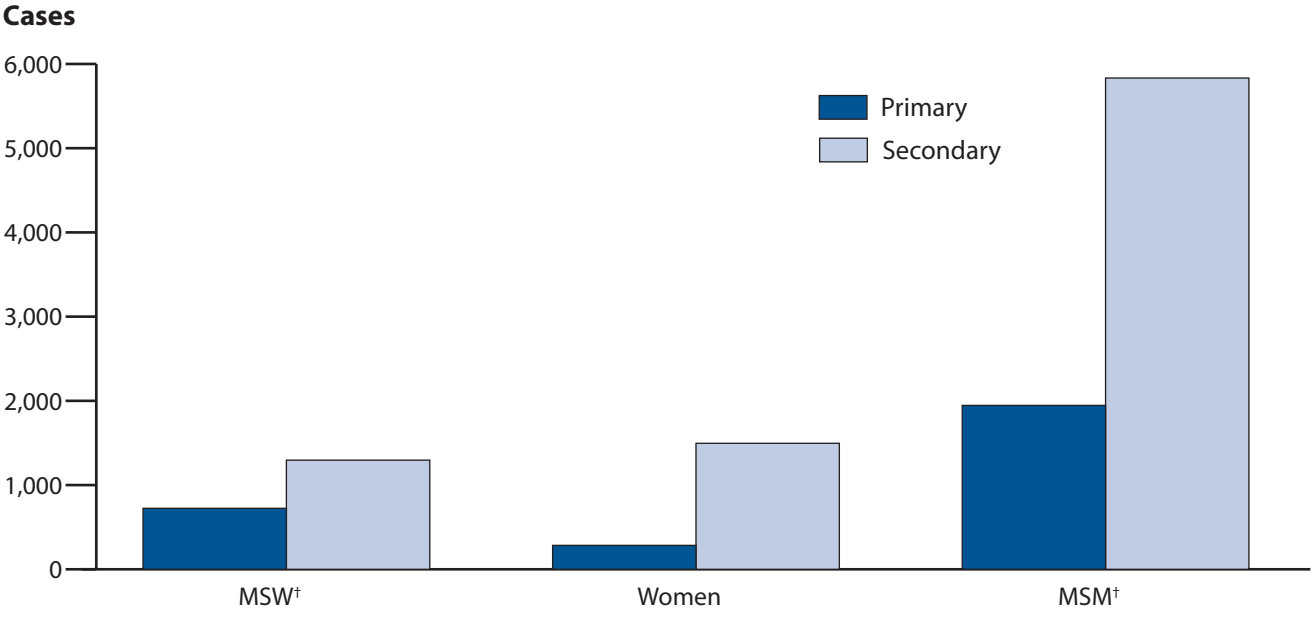
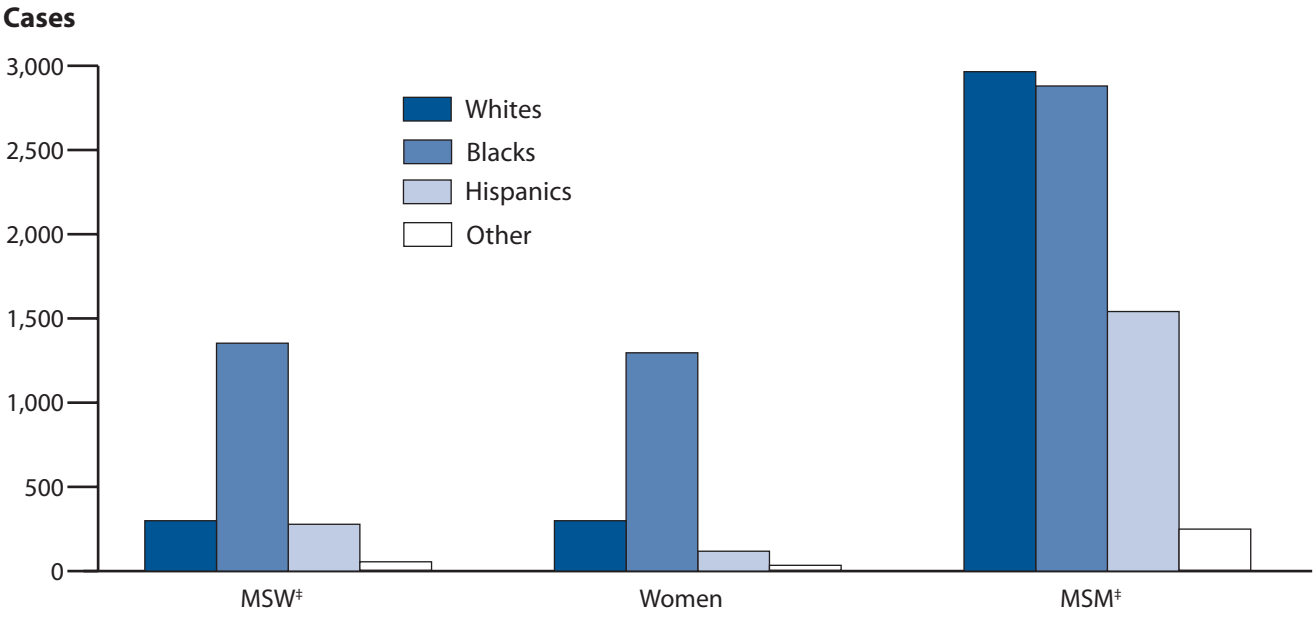


Figure 43. Primary and Secondary Syphilis—Reported Cases* by Stage, Sex, and Sexual Behavior, United States, 2010



* Of the reported male cases of primary and secondary syphilis, 18.3% were missing sex of sex partner information.
† MSW = men who have sex with women only; MSM = men who have sex with men.

Figure 44. Primary and Secondary Syphilis—Reported Cases* by Sex, Sexual Behavior, and Race/Ethnicity,† United States, 2010



* Of the reported male cases of primary and secondary syphilis, 18.3% were missing sex of sex partner information; 2.0% of reported male cases with sex of sex partner data were missing race/ethnicity data.
† No imputation was done for race/ethnicity.
‡ MSW = men who have sex with women only; MSM = men who have sex with men.

Figure 45. Primary and Secondary Syphilis—Reported Cases by Reporting Source and Sex, United States, 2001–2010

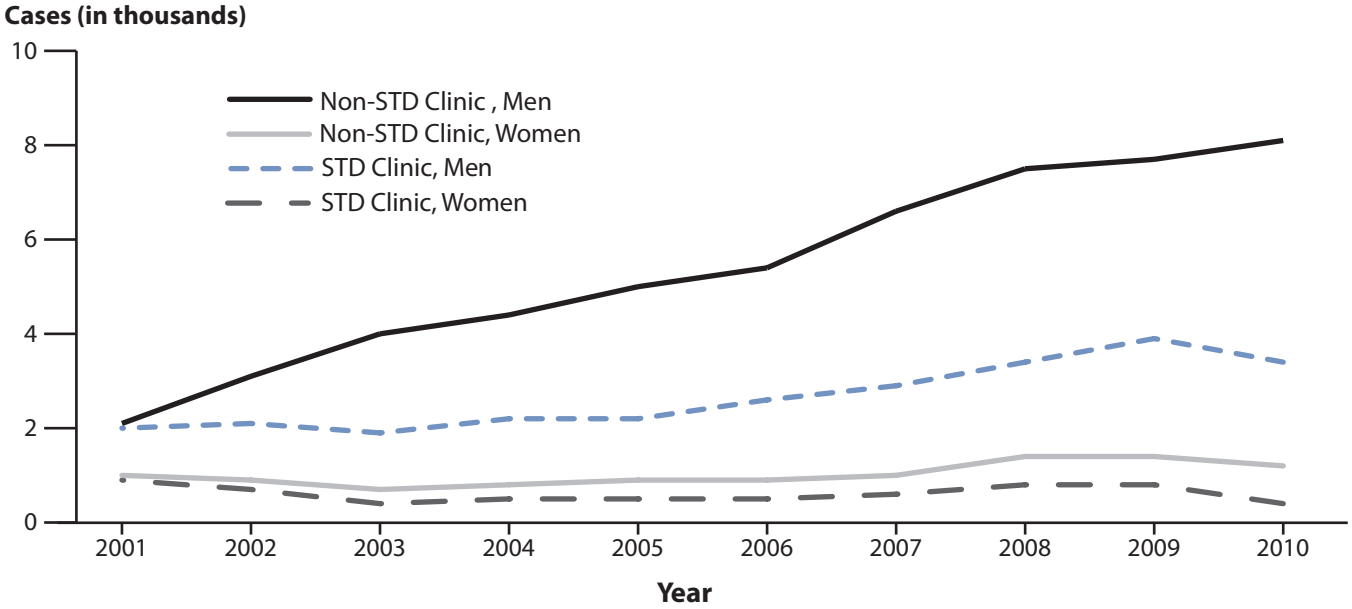
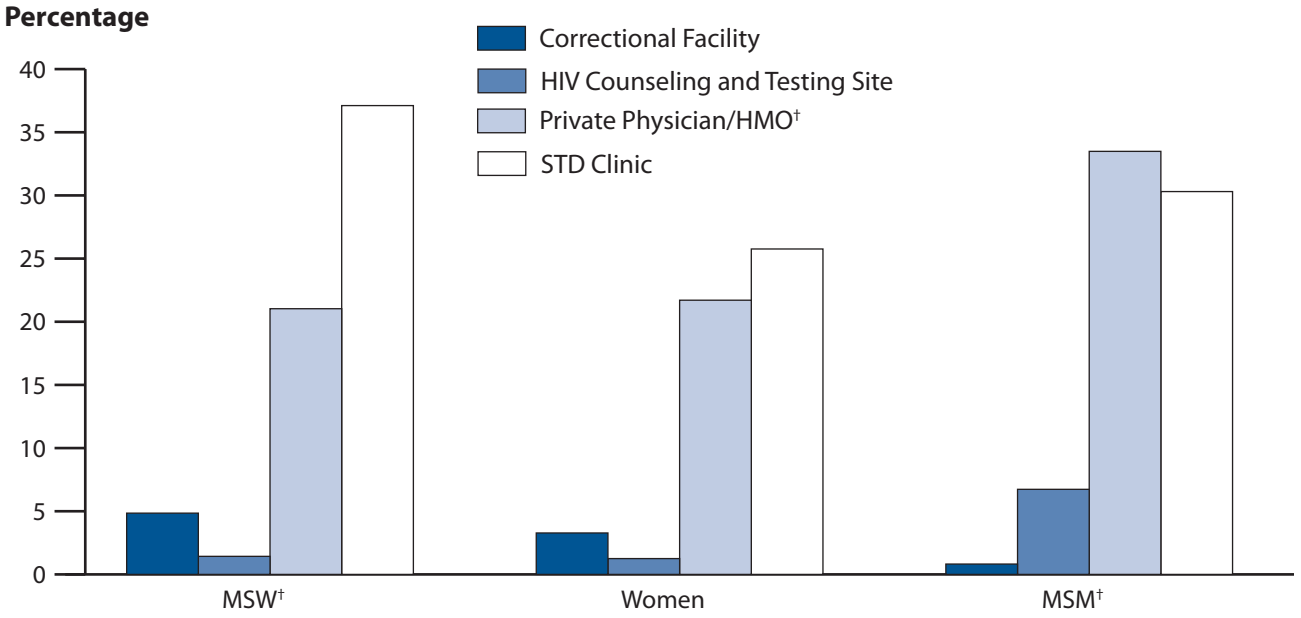


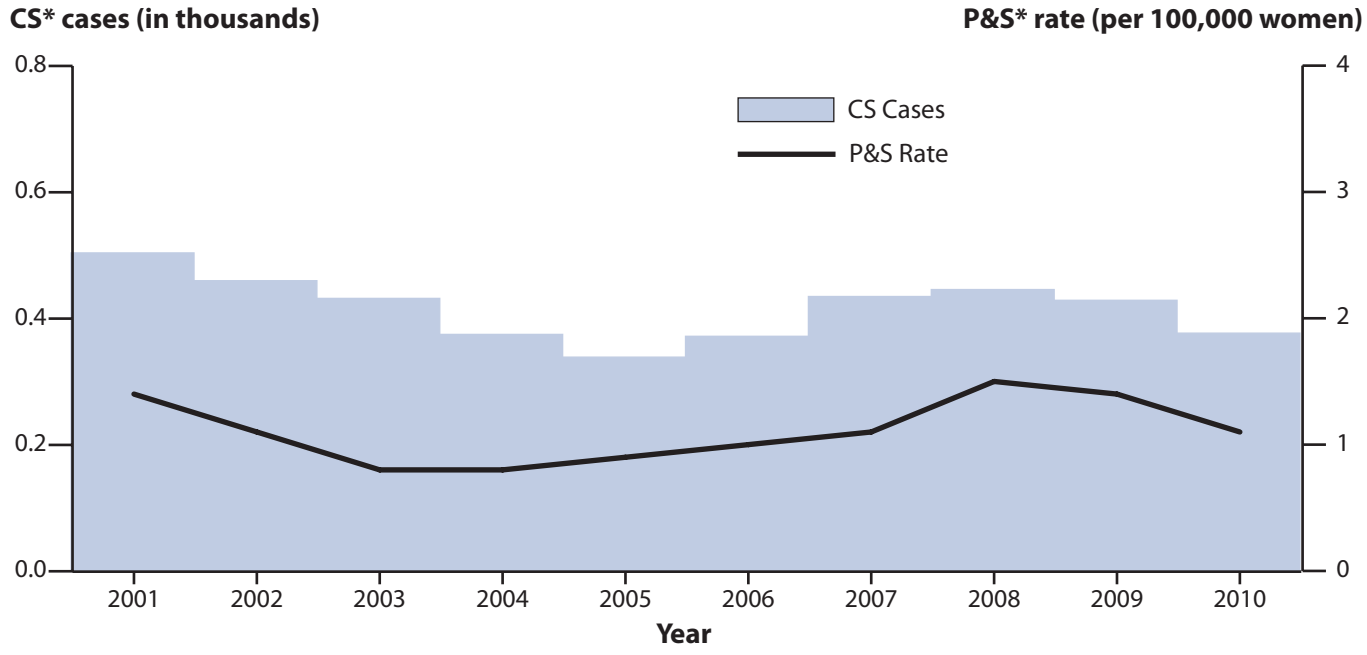
Figure 46. Primary and Secondary Syphilis—Percentage of Reported Cases* by Sex, Sexual Behavior, and Selected Reporting Sources, 2010



* Of the reported male cases of primary and secondary syphilis, 18.3% were missing sex of sex partner information, and 2.7% of reported male cases with sex of sex partner data were missing source of information data.

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

Figure 47. Congenital Syphilis—Reported Cases Among Infants by Year of Birth and Rates of Primary and Secondary Syphilis Among Women, United States, 2001–2010



* 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 48, Table 1). In 2010, a total of 24 cases of chancroid were reported in the United States. Only nine states reported one or more cases of chancroid in 2010 (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 by using a commercially available test for high-risk HPV DNA (Hybrid Capture 2, Digene, Gaithersburg, Maryland).

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 6.3% 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 49). 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 U.S. females aged 14–59 years.[4] HPV vaccine-preventable types 6 or 11 (low-risk types) or 16 or 18 (high-risk types) 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 50, 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 51, enhanced behavioral and demographic information on patients who presented for care in 2010 at the 41 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 2010 is presented separately for MSM, MSW, and women by SSuN site. Prevalence was lowest in women for all sites and ranged from 1.1% to 4.0%. Prevalence was higher among MSM compared with MSW in Chicago, Birmingham, Richmond, Hartford/New Haven, Baltimore, Philadelphia, and New York City. Prevalence at these sites ranged from 2.9% to 9.2% for MSM and from 2.6% to 7.2% for MSW. Prevalence was higher in MSW compared with MSM in the remaining areas (San Francisco, Los Angeles, Seattle, Denver, and New Orleans), ranging from 4.3% to 12.7% for MSW and 3.6% to 9.9% for MSM.

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 52, 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% (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 53). During 2005–2008, the percentage of NHANES survey participants aged 20–49 years who reported a diagnosis of genital herpes was 18.9%.

Although HSV-2 seroprevalence is decreasing, most persons with HSV-2 have not received a diagnosis. An increase in the number of visits for genital herpes, 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 54, 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.

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[5] Dunne EF, Sternberg M, Markowitz LE, McQuillan G, Swan DC, Patel SS, et al. Human papillomavirus (HPV) 6, 11, 16 and 18 prevalence among females in the United States-National Health and Nutrition Examination Survey, 2003–2006: opportunity to measure HPV vaccine impact? J Infect Dis. 2011;204(4):562-5.

[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.

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Figure 48. Chancroid—Reported Cases, United States, 1981–2010

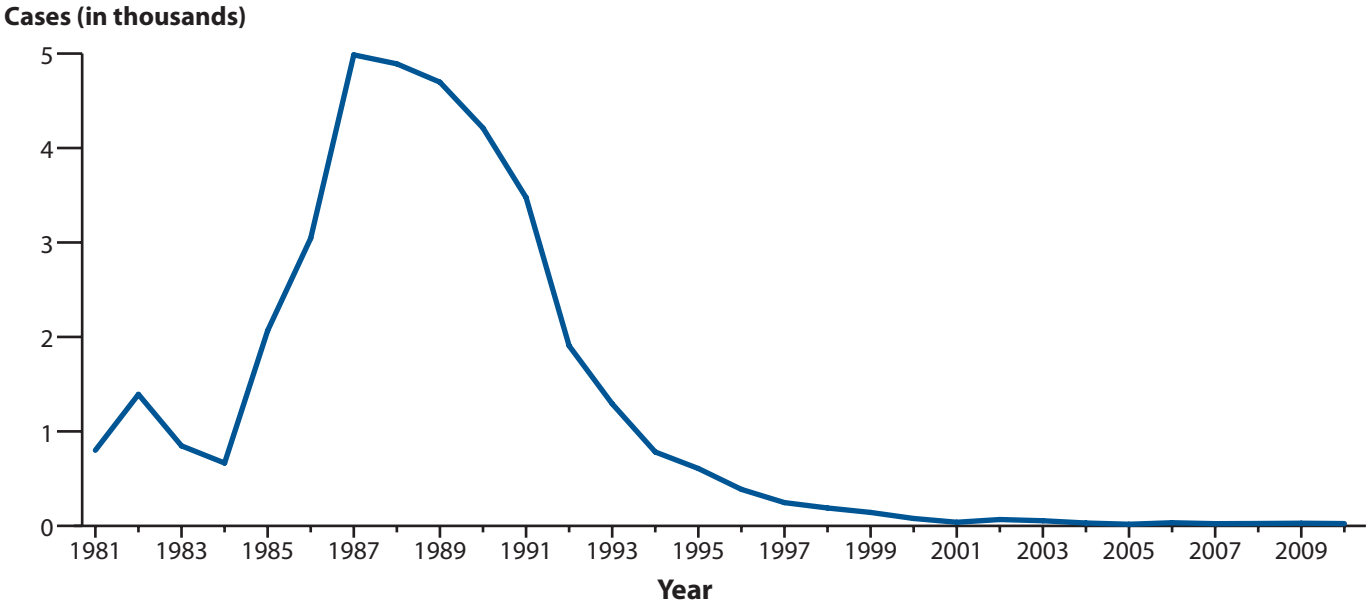
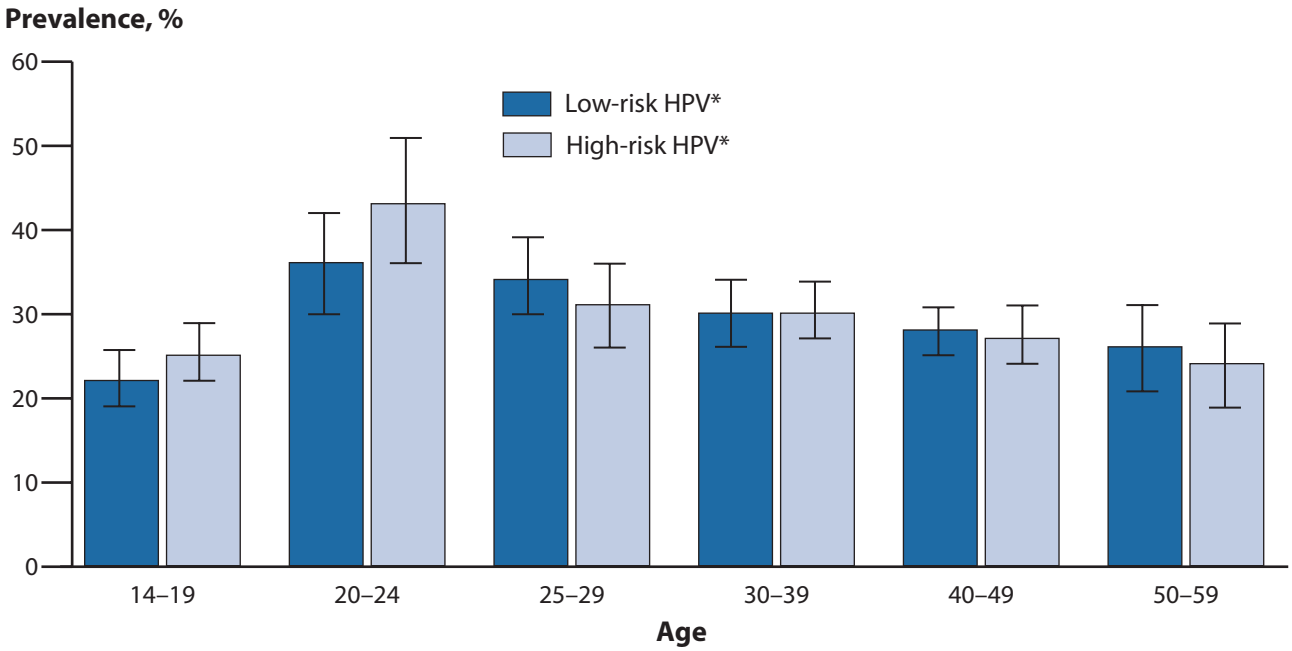


Figure 49. Human Papillomavirus—Prevalence of High-risk and Low-risk Types Among Females Aged 14–59 Years, National Health and Nutrition Examination Survey, 2003–2006

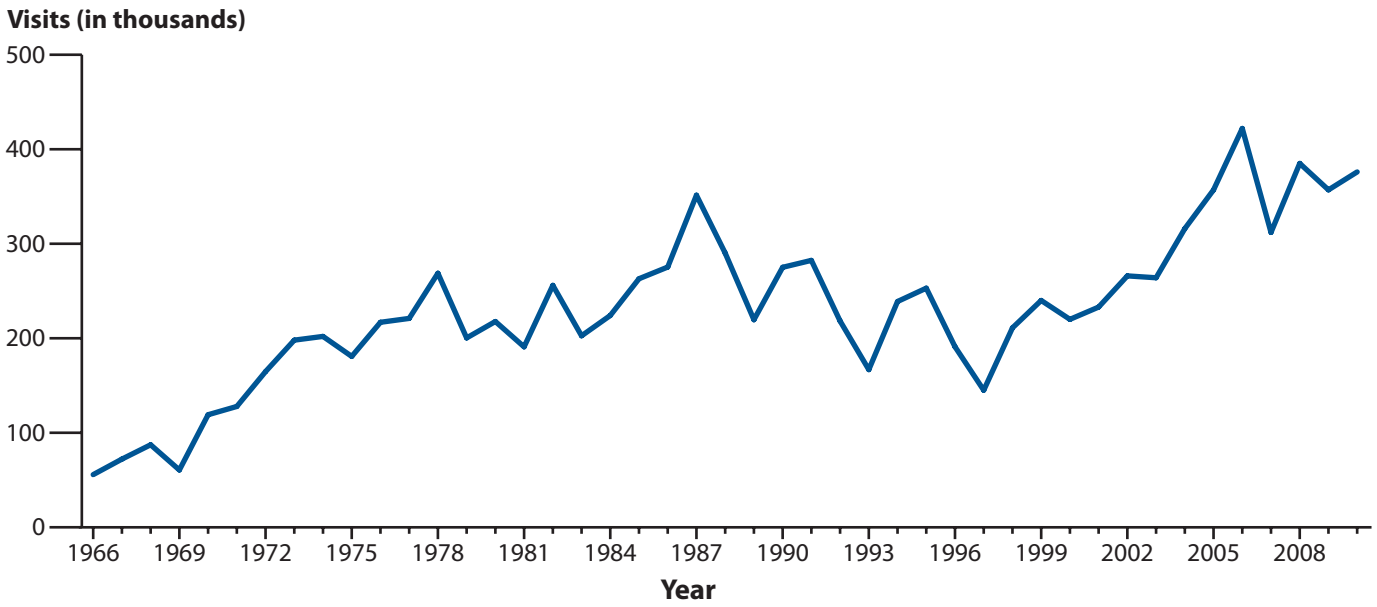


* HPV = human papillomavirus.

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

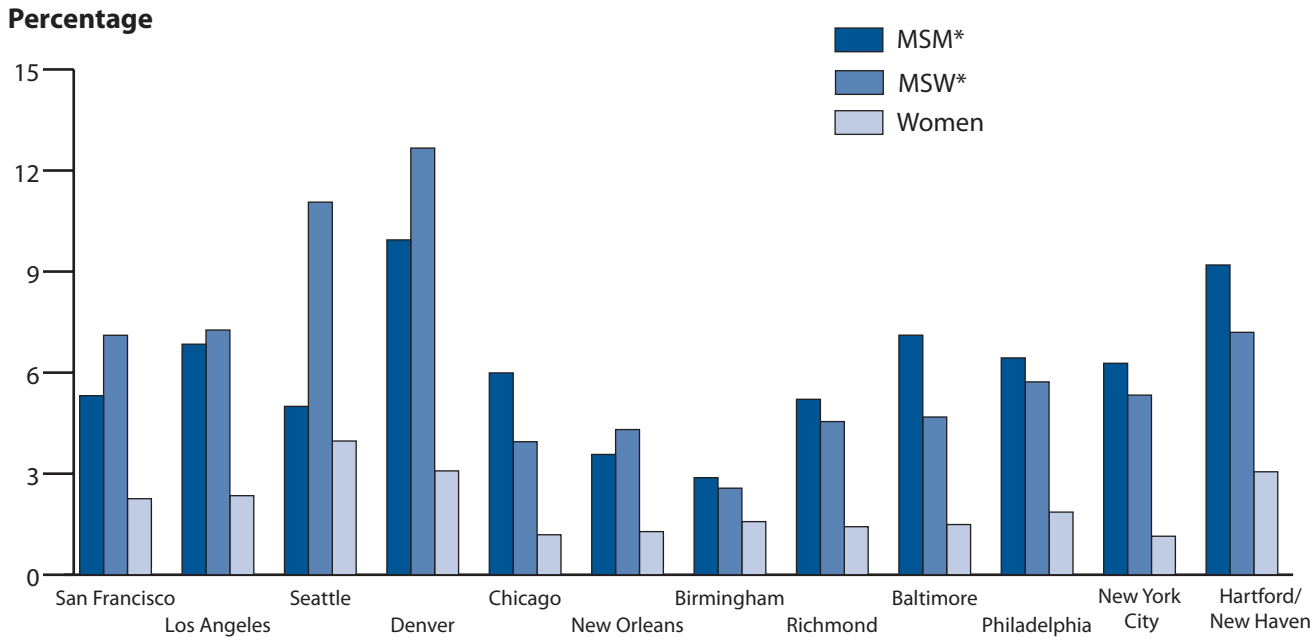
Figure 50. Genital Warts—Initial Visits to Physicians' Offices, United States, 1966–2010



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.

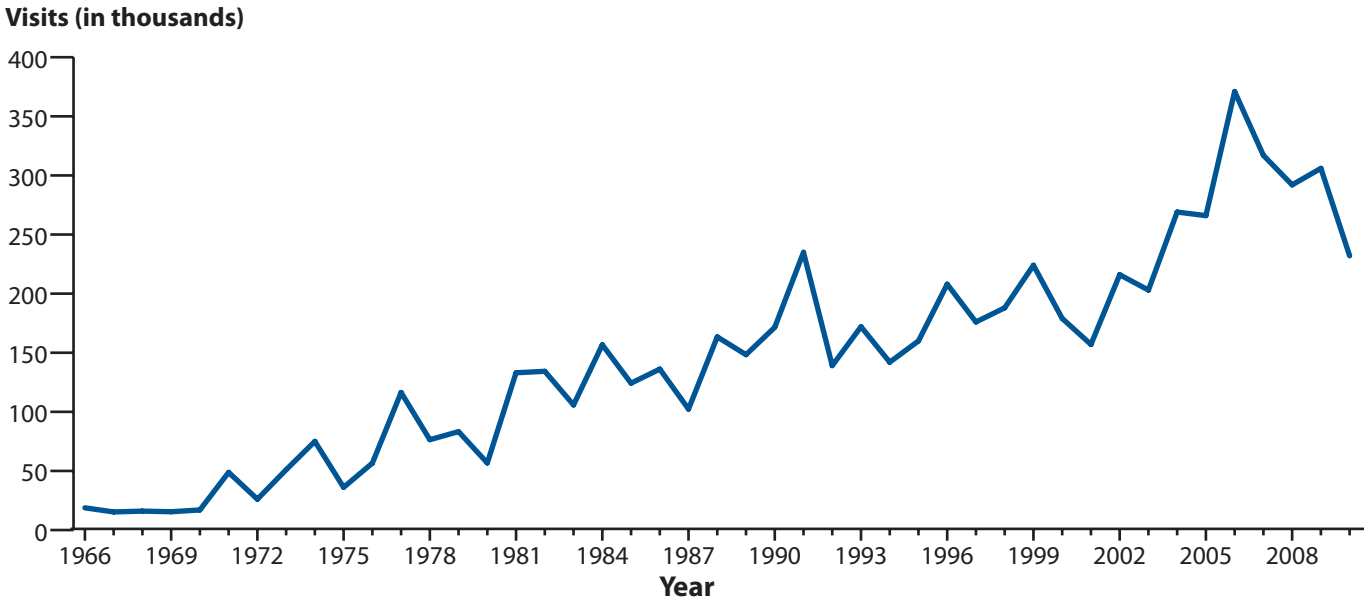
SOURCE: IMS Health, Integrated Promotional Services™. IMS Health Report, 1966–2010.

Figure 51. STD Surveillance Network (SSuN)—Genital Warts—Prevalence Among Sexually Transmitted Disease (STD) Clinic Patients by Sex, Sex of Partners, and Site, 2010



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

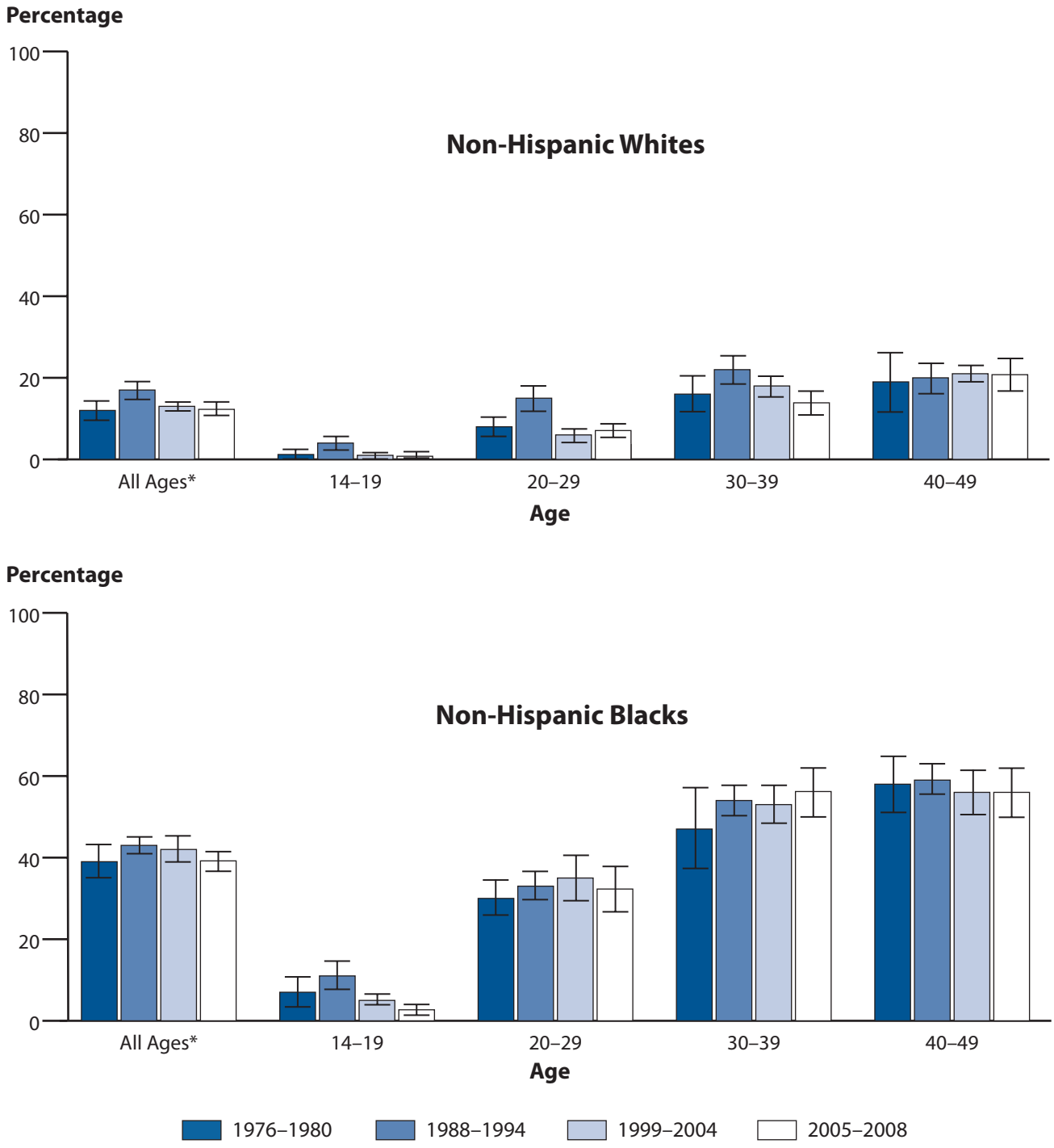
Figure 52. Genital Herpes—Initial Visits to Physicians' Offices, United States, 1966–2010



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.

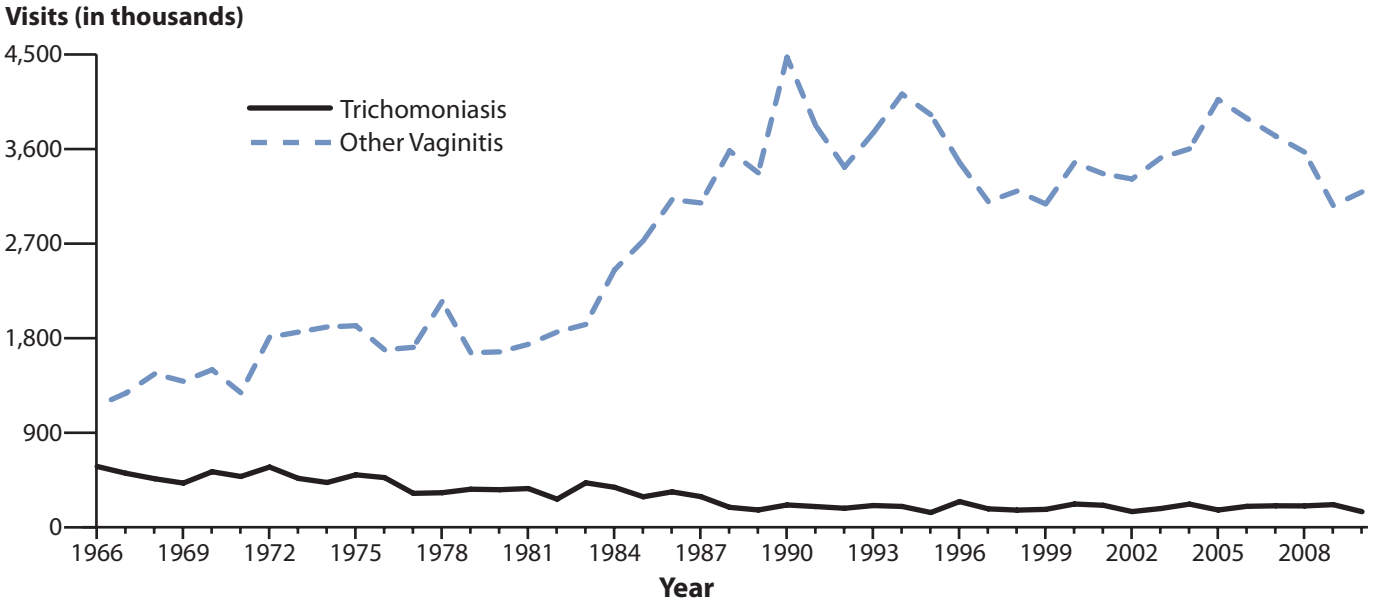
SOURCE: IMS Health, Integrated Promotional Services™. IMS Health Report, 1966–2010.

Figure 53. 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 54. Trichomoniasis and Other Vaginal Infections—Women—Initial Visits to Physicians' Offices, United States, 1966–2010



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, 1966–2010.

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 is often 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] Among women with PID, tubal scarring can cause infertility in 20% of women, ectopic pregnancy in 9%, and chronic pelvic pain in 18%.[8]

About 80%–90% of chlamydial infections and 50% of gonococcal infections in women are asymptomatic.[9–11] 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 2009–2010, the rate of reported chlamydial infections in women increased from 586.7 to 610.6 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).

Prevalence Monitoring Project

Prenatal Clinics—In 2010, the median state-specific chlamydia test positivity among women aged 15–24 years who were screened in selected prenatal clinics in 16 states, Puerto Rico, and the Virgin Islands was 7.2% (range: 2.7% to 21.2%) (Figure B).

Family Planning Clinics—In 2010, 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, the District of Columbia, Puerto Rico, and the Virgin Islands was 8.0% (range: 3.8% to 13.7%) (Figure 11).

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 15). After declining during 2006–2009, the gonorrhea rate for women (106.5 cases per 100,000 females) increased slightly in 2010 (Figure 15, 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 9 consecutive years (Figure 15, Tables 15 and 16).

Prevalence Monitoring Project

Prenatal Clinics—In 2010, the median state-specific gonorrhea test positivity among women aged 15–24 years who were screened in selected prenatal clinics in 16 states, Puerto Rico, and the Virgin Islands was 0.9% (range: 0.0% to 4.2%) (Figure D).

Family Planning Clinics—In 2010, the median state-specific gonorrhea test positivity among women aged 15–24 years who were screened during visits to selected family planning clinics in 47 states, the District of Columbia, Puerto Rico, and the Virgin Islands was 0.8% (range 0.0% to 4.1%) (Figure 26).

Congenital Syphilis

Trends in congenital syphilis usually follow trends in P&S syphilis among women, with a lag of 1–2 years (Figure 47). 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 34). 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 1.1 cases per 100,000 women in 2010 (Table 27), and the rate of congenital syphilis was 8.7 cases per 100,000 live births in 2010 (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.[17]

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 early 1990s.[18,19] However, hospitalizations for acute PID show modest declines in the last decade whereas hospitalizations for chronic PID have remained relatively constant (Figure G).

The estimated number of initial visits to physicians' offices for PID from NDTI generally declined during 2000–2009 (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.[19]

Ectopic Pregnancy

Evidence suggests that health care practices associated with clinical management of ectopic pregnancy changed in the late 1980s and early 1990s. Before that time, treatment of ectopic pregnancy usually required admission to a hospital. Hospitalization statistics were therefore useful for monitoring trends in ectopic pregnancy. Data from the National Hospital Discharge Survey (NHDS) suggest that hospitalizations for ectopic pregnancy are decreasing. Over the last decade, hospitalizations have decreased from 34.7 per 100,000 in 2000 to 18.3 per 100,000 in 2009 (Figure I).[20] The data that are available suggest that nearly half of all ectopic pregnancies are treated on an outpatient basis.[21]

[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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[11] Johnson RE, Berman SM. Sexual transmission: *Chlamydia trachomatis*. In: Krämer A, Kretzschmar M, Krickeberg K, (editors). Modern infectious disease epidemiology. New York: Springer; 2009:357-80.

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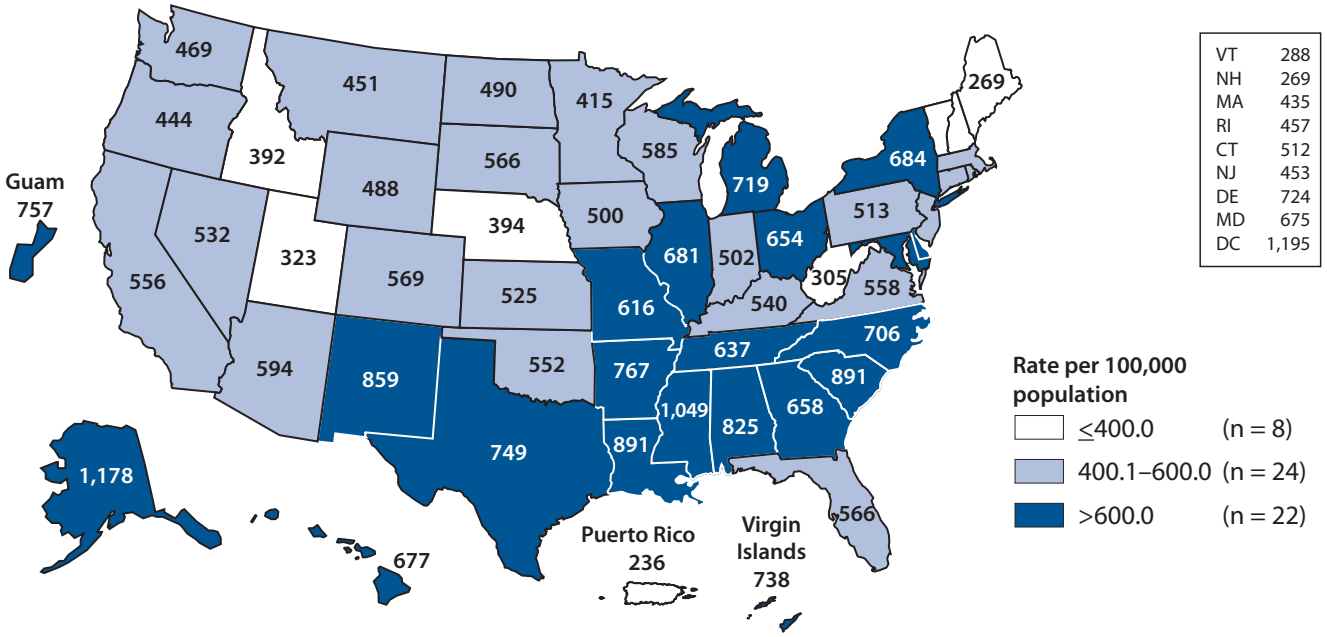
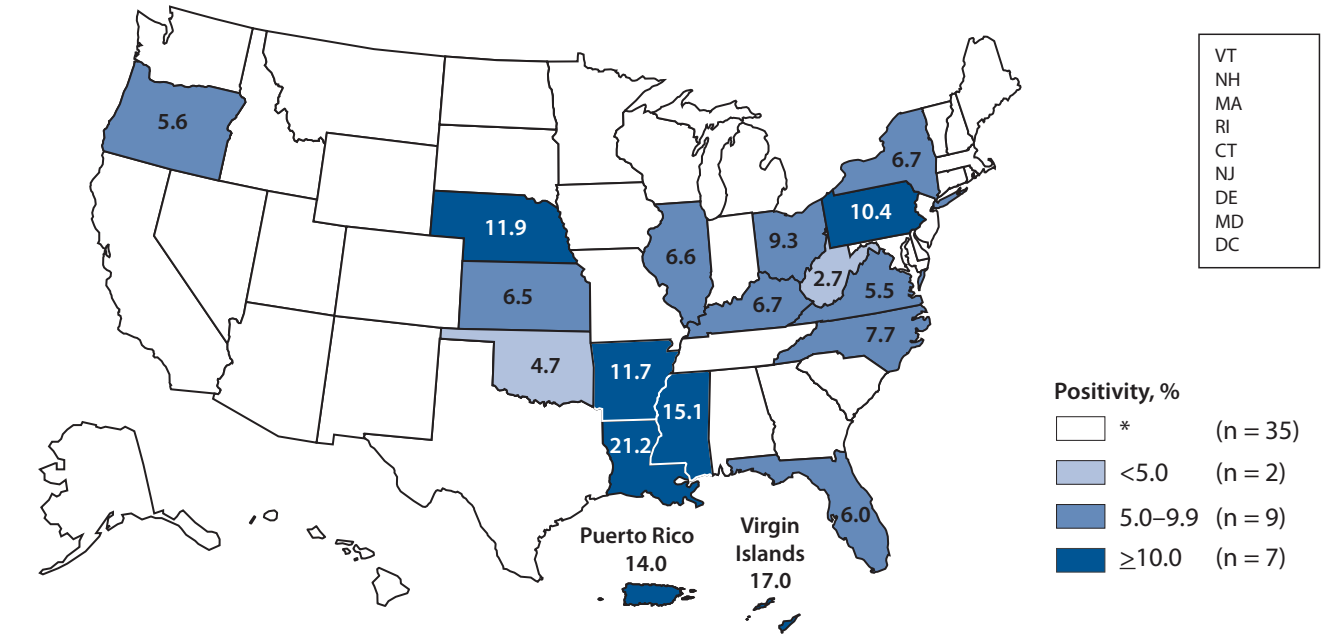
Figure A. Chlamydia—Women—Rates by State, United States and Outlying Areas, 2010



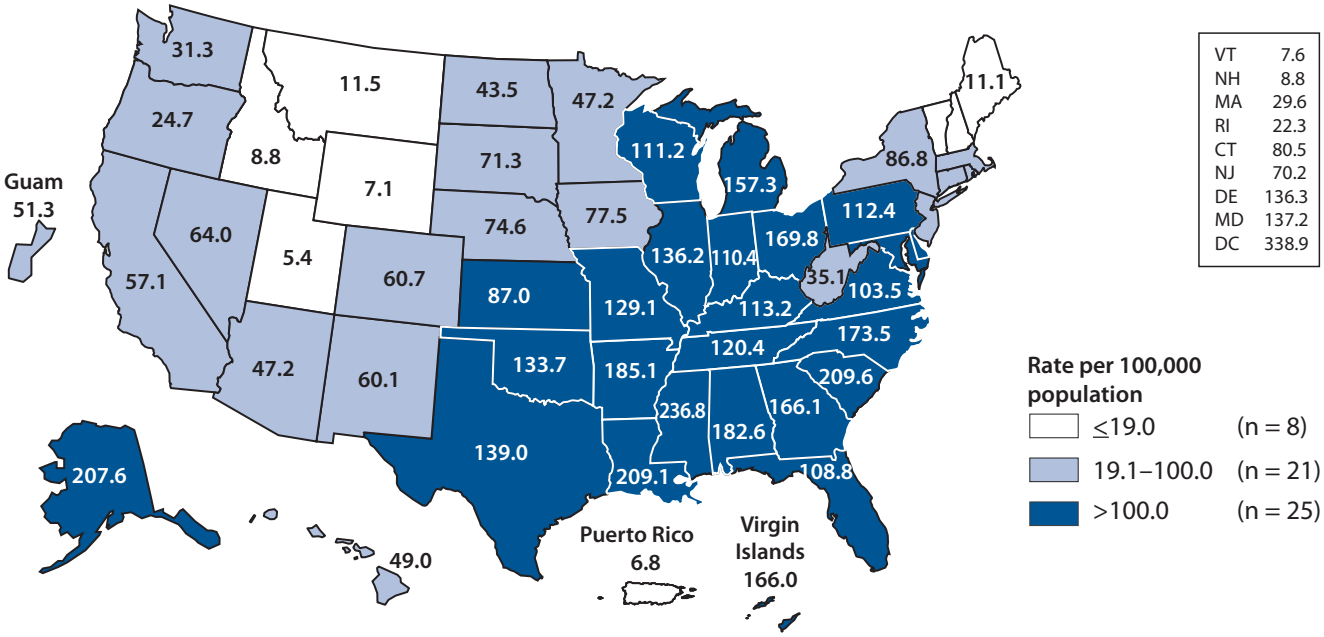
NOTE: The total chlamydial infection rate among women in the United States and outlying areas (Guam, Puerto Rico, and Virgin Islands) was 605.8 per 100,000 female population.

Figure B. Chlamydia—Positivity Among Women Aged 15–24 Years Tested in Prenatal Clinics, by State, Infertility Prevention Project, United States and Outlying Areas, 2010



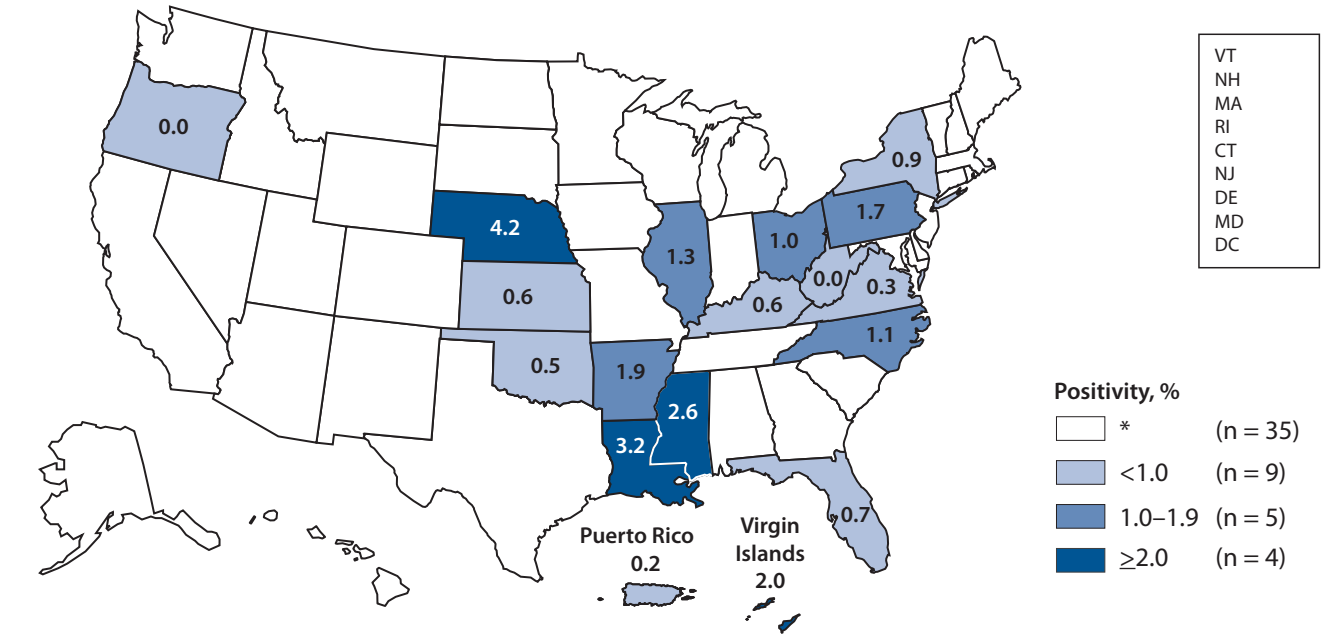
* States/areas not meeting minimum inclusion criteria in prenatal clinics.
NOTE: Includes states and outlying areas that reported chlamydia positivity data on at least 100 women aged 15–24 years during 2010.

Figure C. Gonorrhea—Women—Rates by State, United States and Outlying Areas, 2010



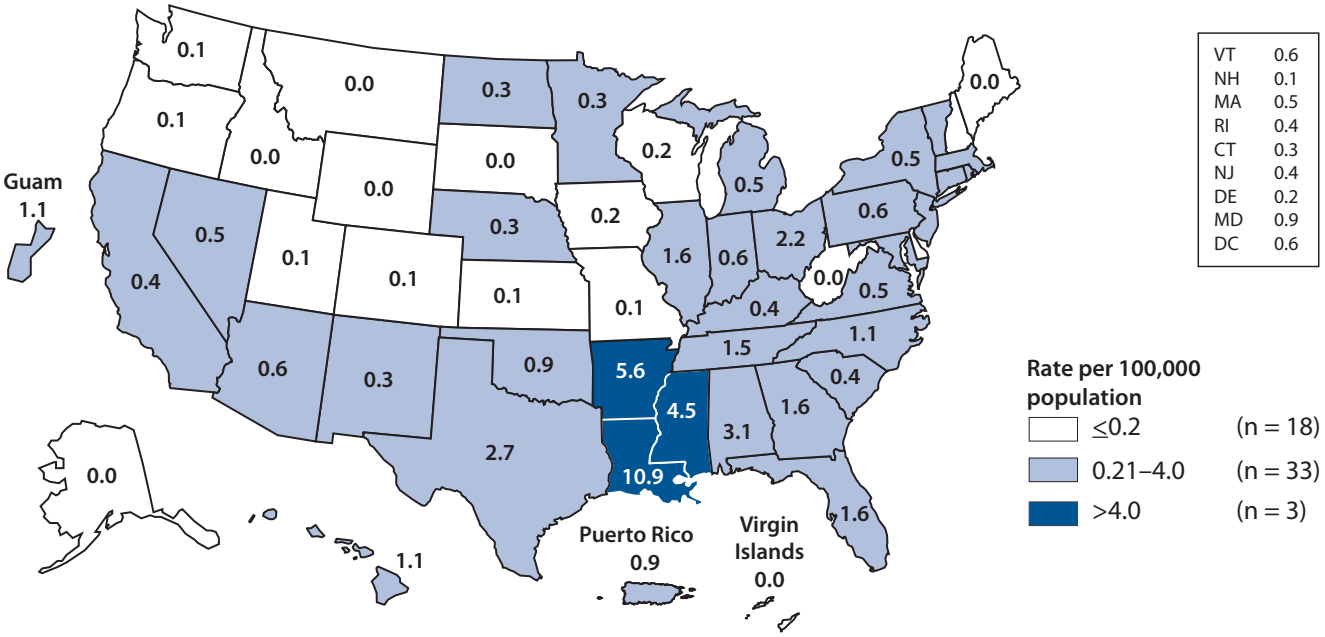
NOTE: The total gonorrhea infection rate among women in the United States and outlying areas (Guam, Puerto Rico, and Virgin Islands) was 105.2 per 100,000 female population.

Figure D. Gonorrhea—Positivity Among Women Aged 15–24 Years Tested in Prenatal Clinics, by State, Infertility Prevention Project, United States and Outlying Areas, 2010



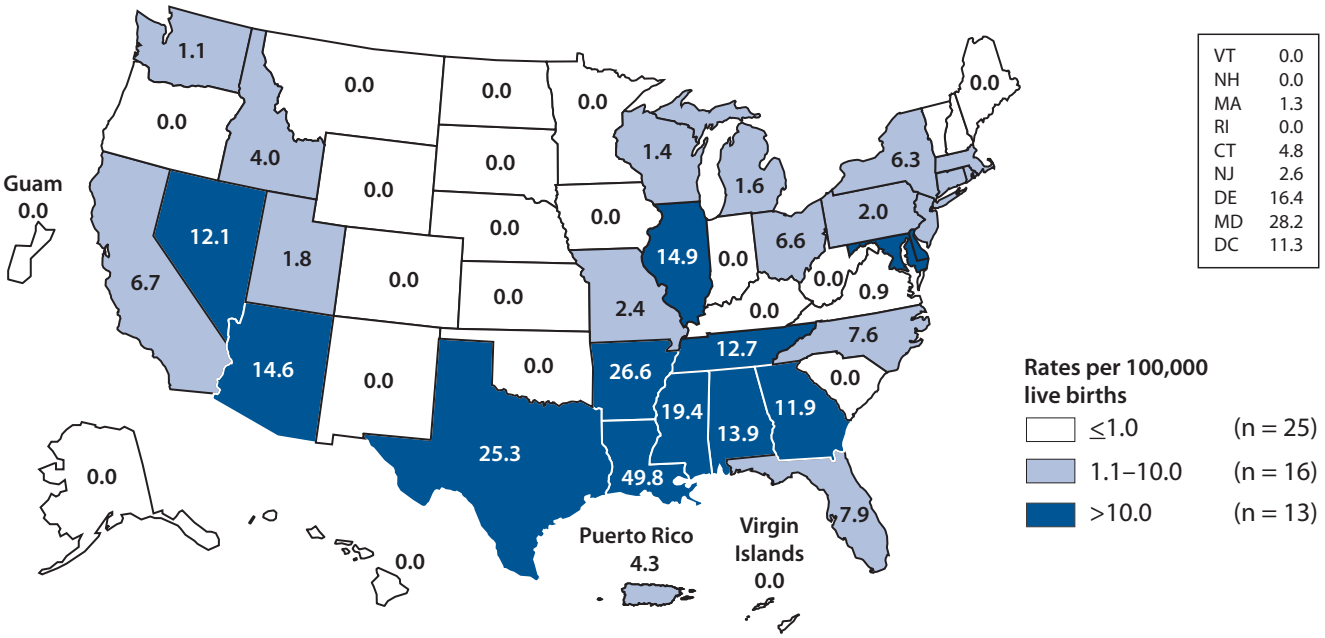
* States/areas not meeting minimum inclusion criteria in prenatal clinics.
NOTE: Includes states and outlying areas that reported gonorrhea positivity data on at least 100 women aged 15–24 years during 2010.

Figure E. Primary and Secondary Syphilis—Women—Rates by State, United States and Outlying Areas, 2010



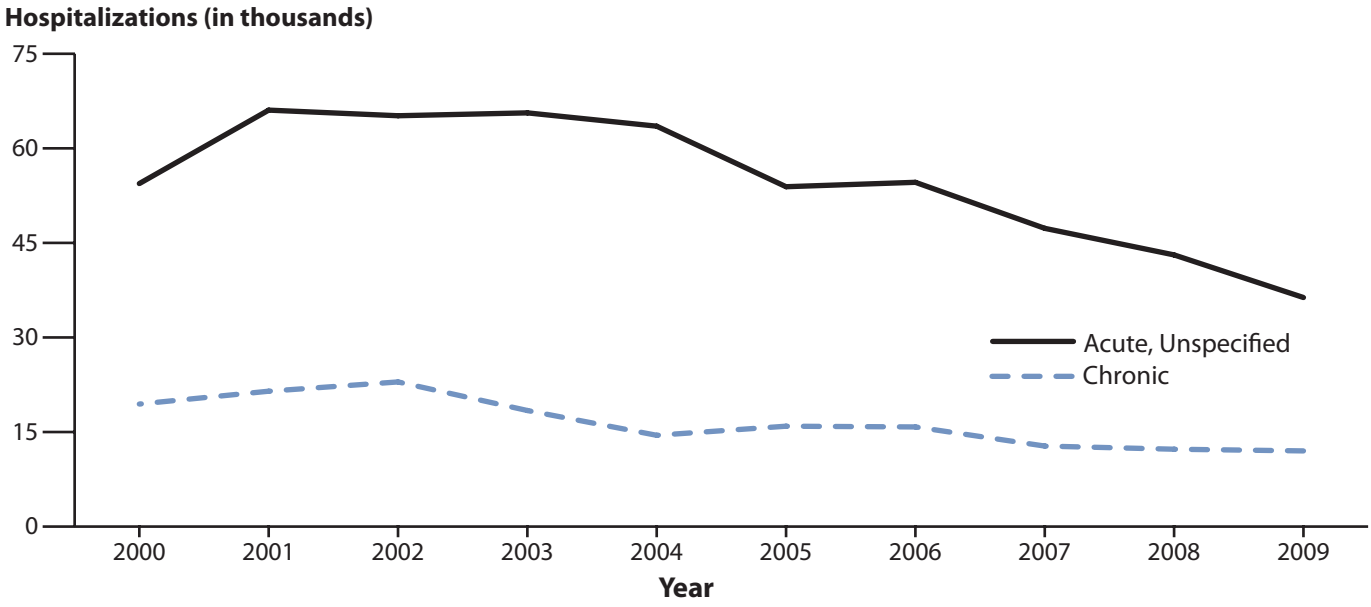
NOTE: The total rate of primary and secondary syphilis among women in the United States and outlying areas (Guam, Puerto Rico, and Virgin Islands) was 1.1 per 100,000 females.

Figure F. Congenital Syphilis—Infants—Rates by Year of Birth and State, United States and Outlying Areas, 2010



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 8.7 per 100,000 live births.

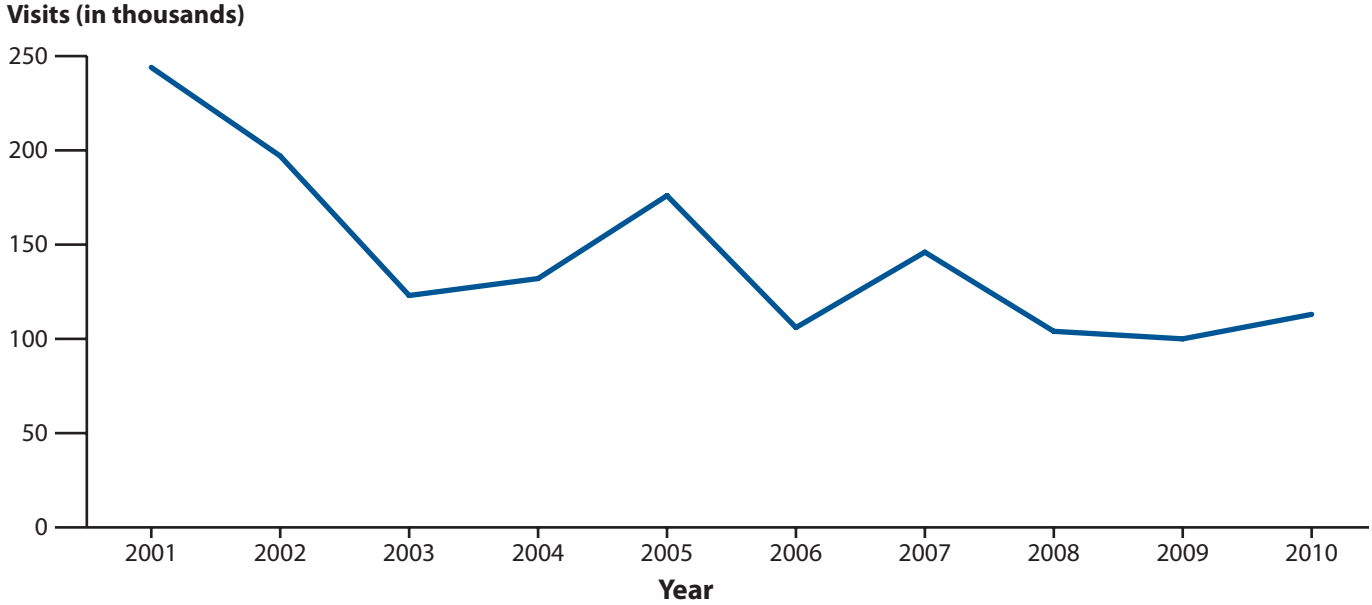
Figure G. Pelvic Inflammatory Disease—Hospitalizations of Women Aged 15–44 Years, United States, 2000–2009



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 2009.

SOURCE: 2009 National Hospital Discharge Survey [Internet]. Atlanta: Centers for Disease Control and Prevention. Available from: http://www.cdc.gov/nchs/nhds/about/nhds.htm.

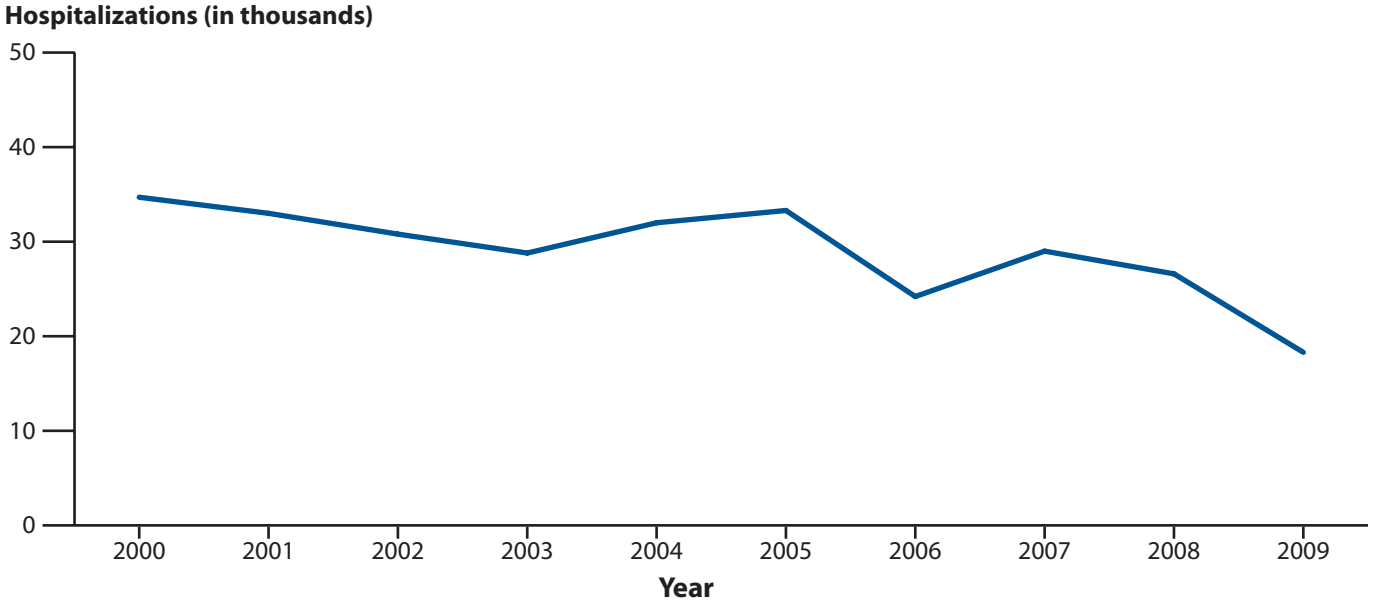
Figure H. Pelvic Inflammatory Disease—Initial Visits to Physicians' Offices by Women Aged 15–44 Years, United States, 2001–2010



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, 1966–2010.

Figure I. Ectopic Pregnancy—Hospitalizations of Women Aged 15–44 Years, United States, 2000–2009



NOTE: The relative standard errors for these estimates are 10%–23%. Data only available through 2009.

SOURCE: 2009 National Hospital Discharge Survey [Internet]. Atlanta: Centers for Disease Control and Prevention. Available from: http://www.cdc.gov/nchs/nhds/about/nhds.htm.

STDs in Adolescents and Young Adults

Public Health Impact

Estimates suggest that even though young people aged 15–24 years represent only 25% of the sexually experienced population, they 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 2009–2010, rates increased 2.8% for those aged 15–19 years and 7.5% for those aged 20–24 years (Table 10).

15- to 19-Year-Old Women—In 2010, the rate among women aged 15–19 years was 3,378.2 cases per 100,000 females, a 1.9% increase from the 2009 rate of 3,314.7 cases per 100,000 (Figure 5, Table 10).

20- to 24-Year-Old Women—In 2010, women aged 20–24 years had the highest rate of chlamydia (3,407.9 cases per 100,000 females) compared with any other age or sex group. Chlamydia rates for women in this age group increased 6.9% during 2009–2010.

15- to 19-Year-Old Men—Chlamydia rates for men aged 15–19 years increased 6.0% from 730.5 cases per 100,000 males in 2009 to 774.3 cases per 100,000 in 2010.

20- to 24-Year-Old Men—In 2010, as in previous years, men aged 20–24 years had the highest rate of chlamydia (1,187.0 cases per 100,000 males). Chlamydia rates for men in this age group increased 8.8% during 2009–2010.

Gonorrhea

During 2009–2010, gonorrhea rates increased for persons aged 15–19 years (1.4%) and 20–24 years (4.9%).

15- to 19-Year-Old Women—In 2010, as in previous years, women aged 15–19 years had the highest rate of gonorrhea (570.9 cases per 100,000 females) compared with any other age or sex group (Figure 19, Table 21). During 2009–2010, gonorrhea rates for women of this age group increased 0.9%.

20- to 24-Year-Old Women—In 2010, as in previous years, women aged 20–24 years had the second highest rate of gonorrhea (560.7 cases per 100,000 females) compared with any other age or sex group (Figure 19, Table 21). During 2009–2010, gonorrhea rates for women in this age group increased 3.8%.

15- to 19-Year-Old Men—In 2010, as in previous years, men aged 15–19 years had the second highest rate of gonorrhea (253.4 cases per 100,000 males) (Figure 19, Table 21). During 2009–2010, gonorrhea rates for men in this age group increased 2.1% (Figure 21, Table 20).

20- to 24-Year-Old Men—In 2010, as in previous years, men aged 20–24 years had the highest rate of gonorrhea (421.0 cases per 100,000 males) (Figure 19, Table 21). During 2009–2010, gonorrhea rates for men in this age group increased 6.2%.

Primary and Secondary Syphilis

Syphilis rates among women aged 15–19 years increased annually from 2004–2009 from 1.5 cases per 100,000 females to 3.3 cases in 2009, but decreased to 3.0 in 2010. Rates in women have been highest each year

among those aged 20–24 years with 4.5 cases per 100,000 females in 2010 (Figures 39 and 40, Table 34).

Rates among men aged 15–19 years are much lower than the rates among men in older age groups (Figure 39). However, rates in this group have increased since 2002, from 1.3 cases per 100,000 males to 5.6 cases in 2010. Rates among men aged 20–24 years have also increased since 2002, from 5.2 cases per 100,000 males to 21.9 cases in 2010. Not only did men aged 20–24 years see large increases in rates, they also had the highest rate of syphilis among men of any age group since 2008 (Table 34). These changes reflect a significant shift in the age distribution of syphilis; rates were highest among men aged 35–39 years during 2002–2005.

Prevalence Monitoring

Chlamydia test positivity among women aged 15–19 years screened in selected family planning clinics increased in most of the 10 HHS regions during 2006–2010 (Figure J). In region IX, positivity increased through 2009 and then decreased in 2010, which may be attributable to an increase in reported tests in 2010 due to the implementation of an electronic data system. Test positivity data presented in Figure J are not adjusted for changes in laboratory test methods and associated increases in test sensitivity.

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 2010.

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 44 states, the District of Columbia, and Puerto Rico, the median state-specific chlamydia prevalence was 11.4% (range: 5.2% to 21.3%) (Figure K). Among men entering the program in 48 states, the District of Columbia, and Puerto Rico, the median state-specific chlamydia prevalence was 7.2% (range: 1.8% to 12.7%) (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 43 states, the District of Columbia, and Puerto Rico, the median state-specific gonorrhea prevalence in 2010 was 1.9% (range: 0.0% to 4.7%) (Figure M). Among men entering the program in 33 states, the District of Columbia, and Puerto Rico, the median state-specific gonorrhea prevalence was 0.8% (range: 0.0% to 2.7%) (Figure N).

Juvenile Corrections Facilities

Among adolescent females entering selected juvenile corrections facilities, the median facility-specific chlamydia positivity was 14.5% (range: 4.0% to 26.5%); the median gonorrhea positivity was 4.1% (range: 0.0% to 8.9%). Among adolescent males entering selected juvenile corrections facilities, the median facility-specific chlamydia positivity was 6.5% (range: 0.5 to 13.8%); the median gonorrhea positivity rate was 0.6% (range: 0.0% to 4.8%). See the STDs in Persons Entering Corrections Facilities section for more details.

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* Laboratory data are provided by the Center for Disease Detection, 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.

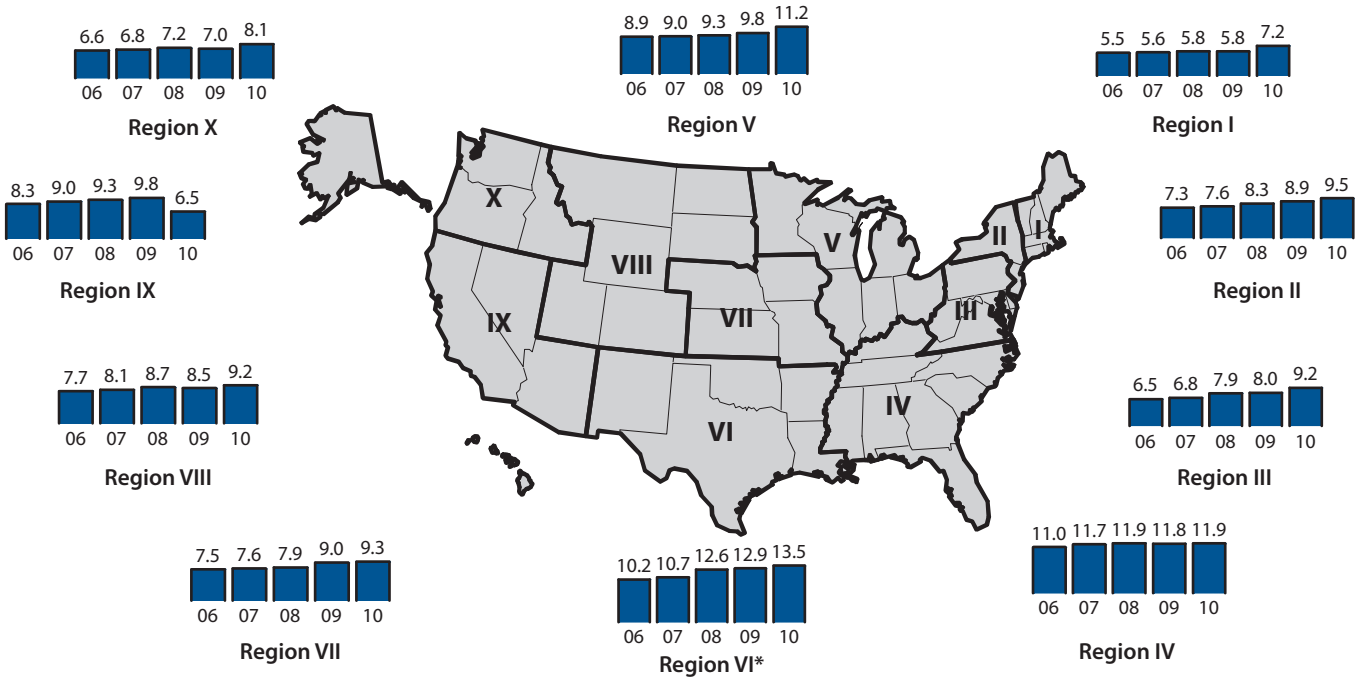
2 DiClemente RJ, Salazar LF, Crosby RA. A review of STD/HIV preventive interventions for adolescents: sustaining effects using an ecological approach. J. Pediatr. Psychol. 2007;32 (8): 888-906.

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.

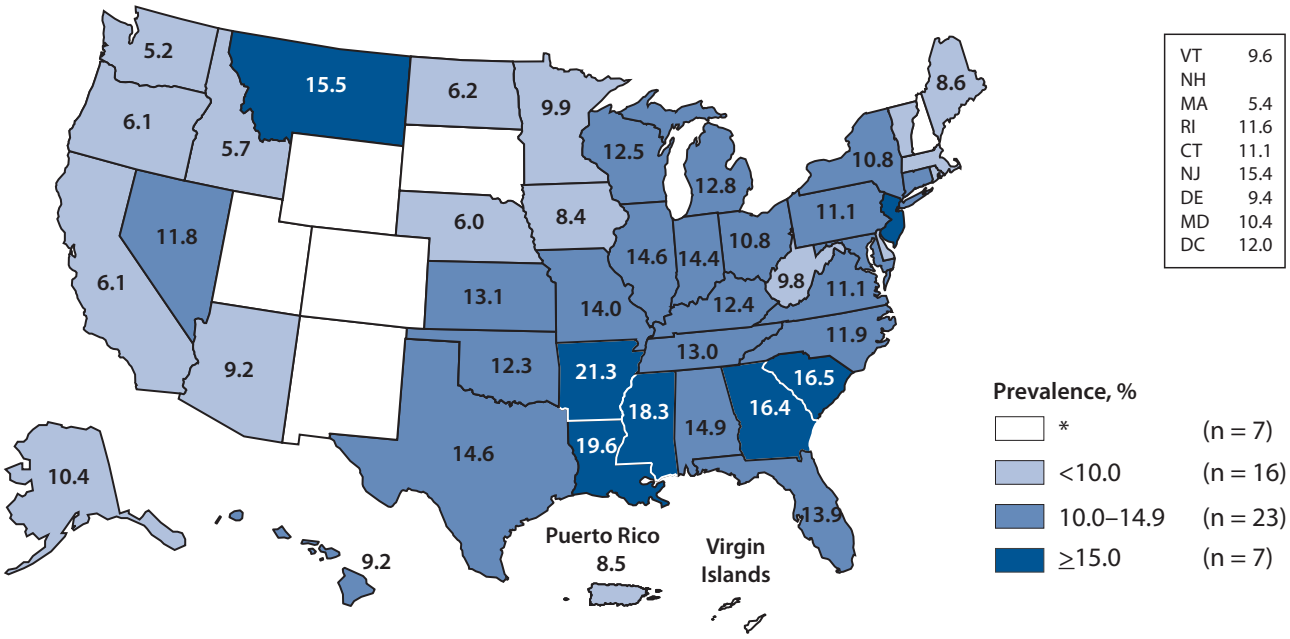
5 Satterwhite CL, Tian LH, Braxton J, Weinstock H. Chlamydia prevalence among women and men entering the National Job Training Program: United States, 2003–2007. Sex Transm Dis. 2010;37(2):63-7.

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, 2006–2010**



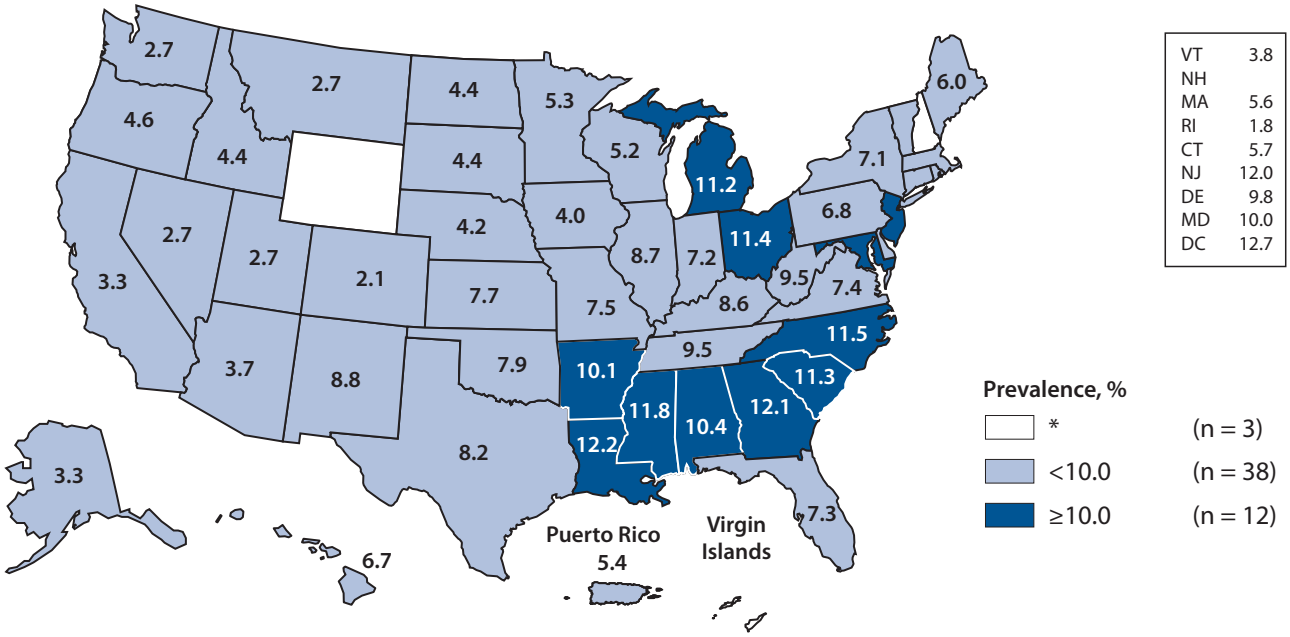
* 2009 percent positivity for Region VI previously published in the 2009 Surveillance report has been corrected.
NOTE: See Definition of HHS Regions in the Appendix for definitions.

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, 2010**



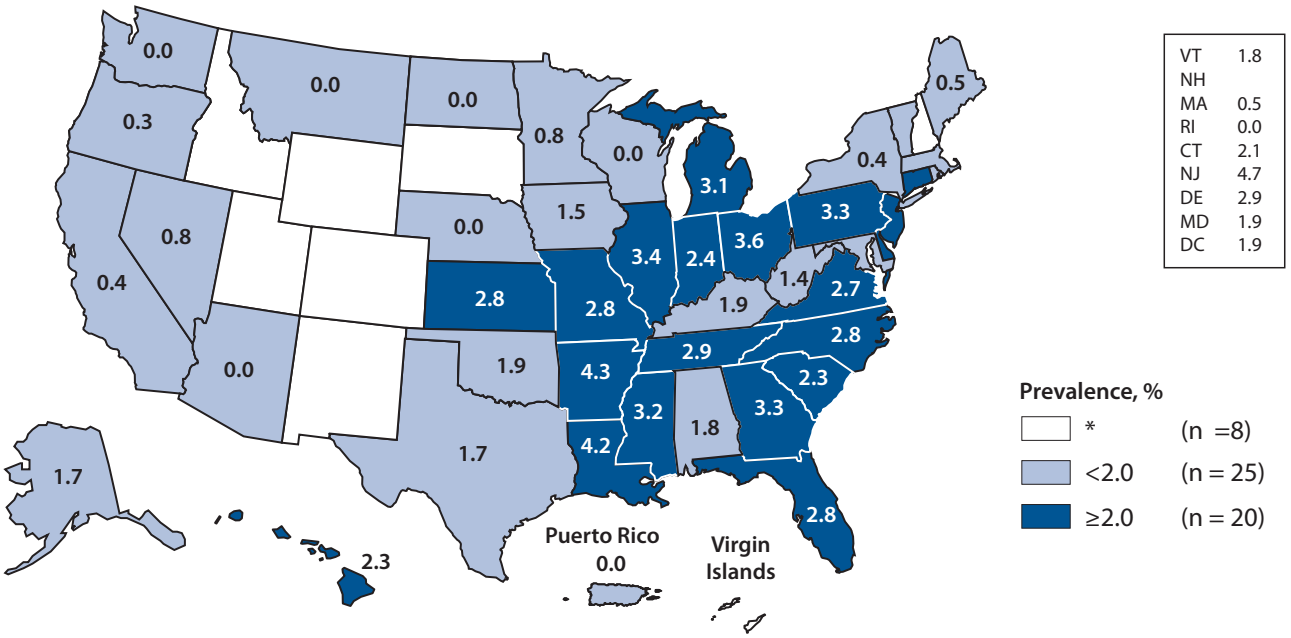
* Fewer than 100 women who resided in these states/areas and entered the National Job Training Program were screened for chlamydia in 2010.

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, 2010



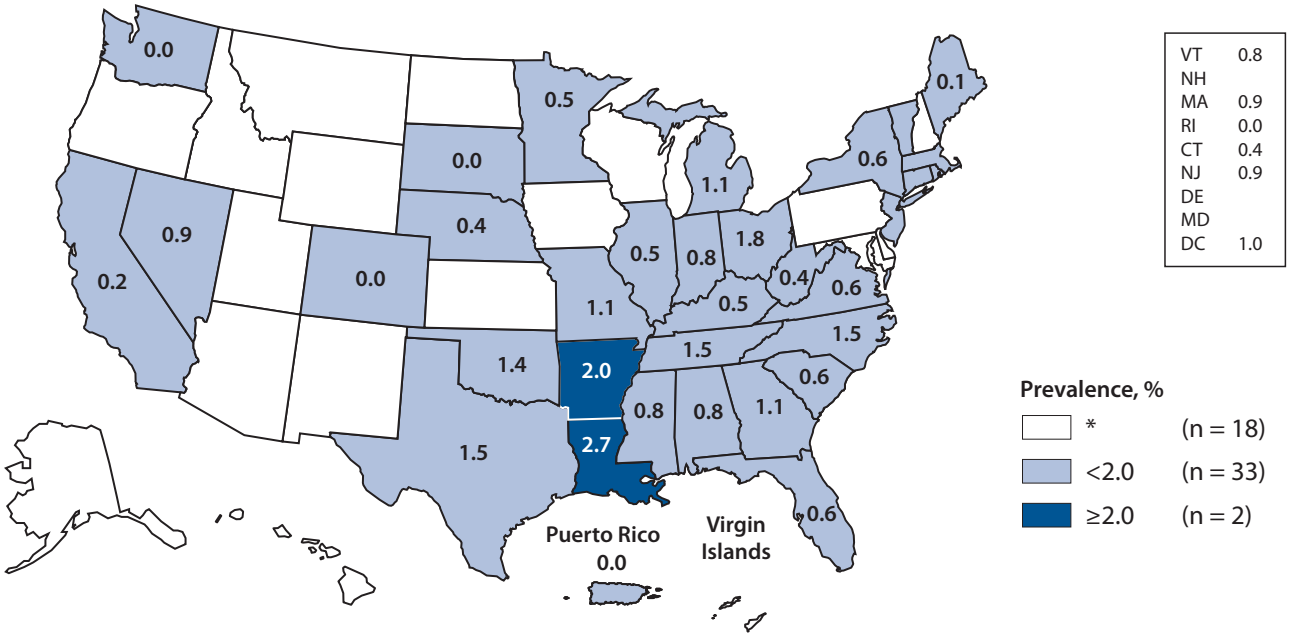
* Fewer than 100 men who resided in these states/areas and entered the National Job Training Program were screened for chlamydia in 2010.

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, 2010



* Fewer than 100 women who resided in these states/areas and entered the National Job Training Program were screened for gonorrhea in 2010.
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, 2010



* Fewer than 100 men who resided in these states/areas and entered the National Job Training Program were screened for gonorrhea in 2010.
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 2009, the poverty rates, unemployment rates, and high school drop-out rates for blacks, American Indians/Alaska Natives, and Hispanics were higher than for whites, differences commensurate with observed disparities in STD burden.[6–8] Recent data show that nearly one-fifth of blacks 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.[9,10] Even when health care is available, fear and distrust of health care institutions can negatively affect the health care-seeking experience for many racial/ethnic minorities when there is social discrimination, provider bias, or the perception that these may exist.[11]

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.[12] 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.[13] 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.[14,15]

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 2010, 26.2% of chlamydia case reports were missing race or ethnicity data, ranging by state from 0.5% to 55.9% (Table A1).

Gonorrhea—In 2010, 20.0% of gonorrhea case reports were missing information on race or ethnicity data, ranging by state from 0.0% to 42.9% (Table A1).

Syphilis—In 2010, 2.5% of syphilis case reports were missing information on race or ethnicity data, ranging from 0.0% to 19.2% among states with 10 or more cases of P&S syphilis (Table A1).

Observations

Chlamydia

Chlamydia rates based on reported cases increased during 2009–2010 among all racial and ethnic groups (Figure 6). During 2006–2010, chlamydia rates increased by 26.9% among blacks, 4.9% among American Indians/Alaska Natives, 11.0% among Hispanics, 23.7% among Asians/Pacific Islanders, and 25.3% among whites.

Blacks—In 2010, the overall rate among blacks in the United States was 1,167.5 cases per 100,000, a 4.0% increase from the 2009 rate of 1,122.2 cases per 100,000. The rate of chlamydia among black women was over seven times the rate among white women (1,536.5 and 205.1 per 100,000 women, respectively)

(Figure O). The chlamydia rate among black men was almost 11 times the rate among white men (761.8 and 69.9 cases per 100,000 men, respectively).

Chlamydia rates were highest for blacks aged 15–19 and 20–24 years in 2010 (Table 11B). The chlamydia rate among black females aged 15–19 years was 7,719.1 cases per 100,000 women, which was 6.6 times the rate among white females in the same age group (1,172.1). The rate among black women aged 20–24 years was over five 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 13.1 times the rate among whites (Table 11B). The chlamydia rate among black men aged 20–24 years was almost eight times the rate among white men of the same age group (3,292.5 and 415.4 cases per 100,000 men, respectively).

American Indians/Alaska Natives—In 2010, the chlamydia rate among American Indians/Alaska Natives was 592.8 cases per 100,000 population, an increase of 7.8% from the 2009 rate of 549.8 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 2010, the chlamydia rate among Asians/Pacific Islanders was 115.3 cases per 100,000 population, an increase of 5.1% from the 2009 rate of 109.7 cases per 100,000. The overall rate among Asians/Pacific Islanders was lower than the rate among whites.

Hispanics—In 2010, the chlamydia rate among Hispanics was 369.6 cases per 100,000 population, which is a 4.4% increase from the 2009 rate of 353.9 cases per 100,000 and nearly three times the rate among whites.

Gonorrhea

During 2009–2010, gonorrhea rates increased 21.5% among American Indians/Alaska Natives (87.0 to 105.7), 13.1% among Asians/Pacific Islanders (13.7 to 15.5), 11.9% among Hispanics (44.6 to 49.9), 9.0% among whites (21.2 to 23.1) and 0.3% among blacks (431.1 to 432.5) (Figure 22).

Blacks—In 2010, 69% of all reported cases of gonorrhea occurred among blacks. The rate of gonorrhea among blacks in 2010 was 432.5 cases per 100,000 population (Figure 22), which was 18.7 times the rate among whites (23.1). This disparity has changed little in recent years (Figure P). This disparity was larger for black men (22.2 times) than for black women (16.2 times) (Figure Q).

As in 2009, the disparity in gonorrhea rates for blacks in 2010 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 2010 (Table 22B). Black women aged 15–19 years had a gonorrhea rate of 2,032.4 cases per 100,000 women. This rate was 17.1 times the rate among white women in the same age group (119.0). Black women aged 20–24 had a gonorrhea rate of 1,997.6 cases per 100,000 women, which was 12.7 times the rate among white women in the same age group (156.7) (Table 22B).

Black men aged 15–19 years had a gonorrhea rate of 1,024.7 cases per 100,000 men, which was 37.4 times the rate among white men in the same age group (27.4). Black men aged 20–24 years had a gonorrhea rate of 1,768.8 cases per 100,000 men, which was 22.6 times the rate among white men in the same age group (78.2) (Table 22B).

American Indians/Alaska Natives—In 2010, the gonorrhea rate among American Indians/Alaska Natives was 105.7 cases per 100,000 population, which was 4.6 times the rate among whites (Figure 22, Figure P). The disparity between gonorrhea rates for American Indians/Alaska Natives and whites was larger for American Indian/Alaska Native women (5.0 times) than for American Indian/Alaska Native men (3.9 times) (Figure Q). In 2010, the disparity in gonorrhea rates for American Indians/Alaska Natives was higher in the West and Midwest than in the Northeast or South (Figure R).

Asians/Pacific Islanders—In 2010, the gonorrhea rate among Asians/Pacific Islanders was 15.5 cases per 100,000 population, which was lower than the rate among whites (Figure 22, Figure P). This difference is larger for Asian/Pacific Islander women than for Asian/Pacific Islander men (Figure Q). In 2010, rates among

Asians/Pacific Islanders were again lower than rates among whites in all four regions of the United States (Figure R).

Hispanics—In 2010, the gonorrhea rate among Hispanics was 49.9 cases per 100,000 population, which was 2.2 times the rate among whites (Figures 22 and P). This disparity between Hispanics and whites was similar to that in recent years and was higher for Hispanic men than for Hispanic women (Figure Q). 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.[16,17] During the 1990s, the rate of P&S syphilis declined among all racial and ethnic groups (Figure 42). During 2006–2010, the rate increased among all racial and ethnic groups except American Indians/Alaska Natives (Figure 42).

Blacks—During 2009–2010, the rate of P&S syphilis among blacks decreased 8.7% (from 18.4 to 16.8 cases per 100,000 population). In 2010, 47.4% of all cases reported to CDC were among blacks and 31.0% of all cases were among whites.

The overall 2010 rate for blacks was eight times the rate for whites, while the 2009 rate was 9.2 times the rate for whites (Figure 42). In 2010, the rate of P&S syphilis among black men was 7.1 times the rate among white men; the rate among black women was 21 times the rate among white women (Figure S).

In some age groups, particularly black men (including men who have sex with men) and women aged 15–19 and 20–24 years, disparities have increased markedly in recent years as rates of disease have increased (Figures T and U).[18] During 2006–2010, rates among men aged 15–19 years increased the most among black men (from 14.0 to 24.5 cases per 100,000 population) (Table 35B). During the same period, rates among black men aged 20–24 years increased from 39.6 to 92.5 cases per 100,000 population (134%); the magnitude of this increase (52.9 cases per 100,000 population) was the greatest reported regardless of age, sex, or race/ethnicity. The 2010 rate among black men aged 15–19 years was 25 times the rate for whites.

The largest rate increases among black women during 2006–2010 occurred among women aged 20–24 and 25-29 years (by 8.6 and 6.0 cases per 100,000 population, respectively). In 2010, rates for black women aged 15–19 years were 38 times the rate for white women of the same age.

Recent trends in syphilis rates in young black men are of particular concern given data indicating high HIV incidence in this population.[19,20]

American Indians/Alaska Natives—During 2009–2010, the rate of P&S syphilis among American Indians/Alaska Natives increased 8.7% (from 2.3 to 2.5 cases per 100,000 population). In 2010, 0.5% of all cases reported to CDC were among American Indians/Alaska Natives. The 2010 rate of P&S syphilis for American Indians/Alaska Natives was 1.2 times the rate for whites (Figure 42).

Asians/Pacific Islanders—During 2009–2010, the rate of P&S syphilis among Asians/Pacific Islanders decreased 13.3% (from 1.5 to 1.3 cases per 100,000 population). In 2010, 1.5% of all cases reported to CDC were among Asians/Pacific Islanders. The 2010 rate of P&S syphilis for Asians/Pacific Islanders was 0.6 times the rate for whites (Figure 42).

Hispanics—During 2009–2010, the rate of P&S syphilis among Hispanics increased 9.5% (from 4.2 to 4.6 cases per 100,000 population). In 2010, 16.2% of all cases reported to CDC were among Hispanics. The 2010 rate of P&S syphilis for Hispanics was 2.2 times the rate for whites (Figure 42).

Congenital Syphilis

In 2010, the rate of congenital syphilis was 33.1 cases per 100,000 live births among blacks and 8.4 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 12.3 and 3.1 times, respectively, the rate among whites (2.7 cases per 100,000 live births).

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

[2] Cunningham PJ, Cornelius LJ. Access to ambulatory care for American Indians and Alaska Natives; the relative importance of personal and community resources. Soc Sci Med. 1995:40(3): 393-407.

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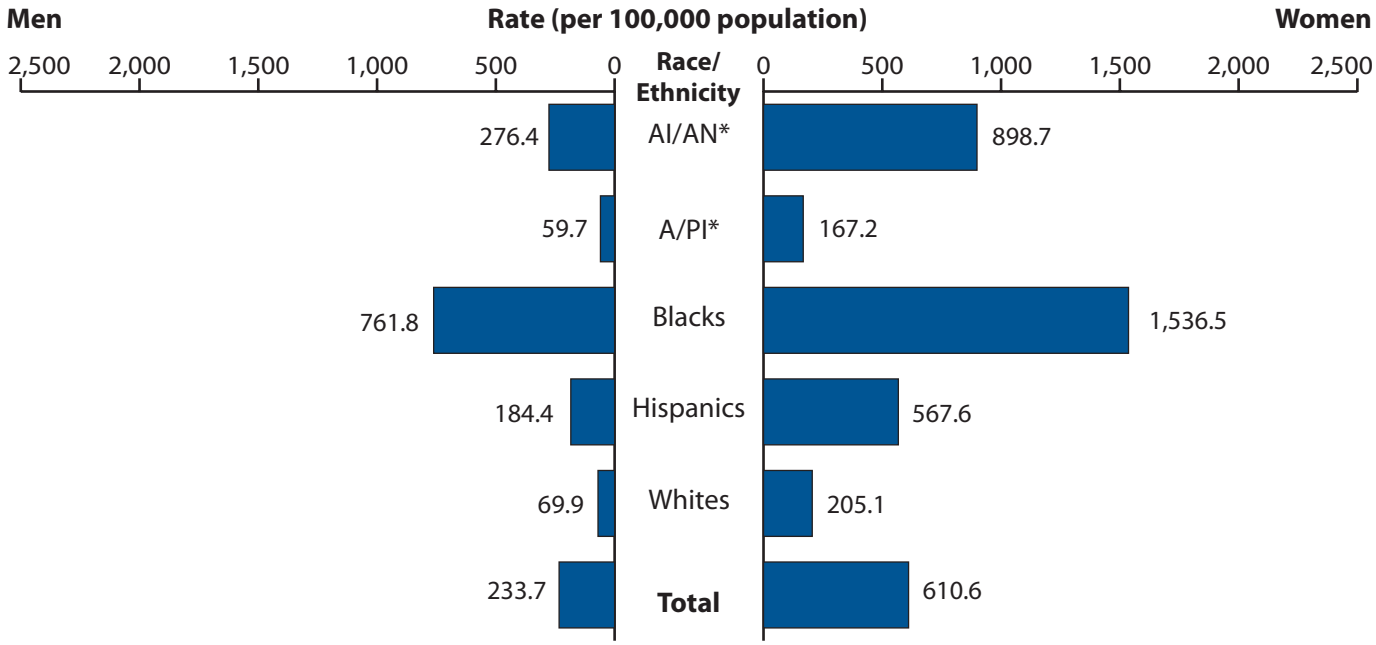
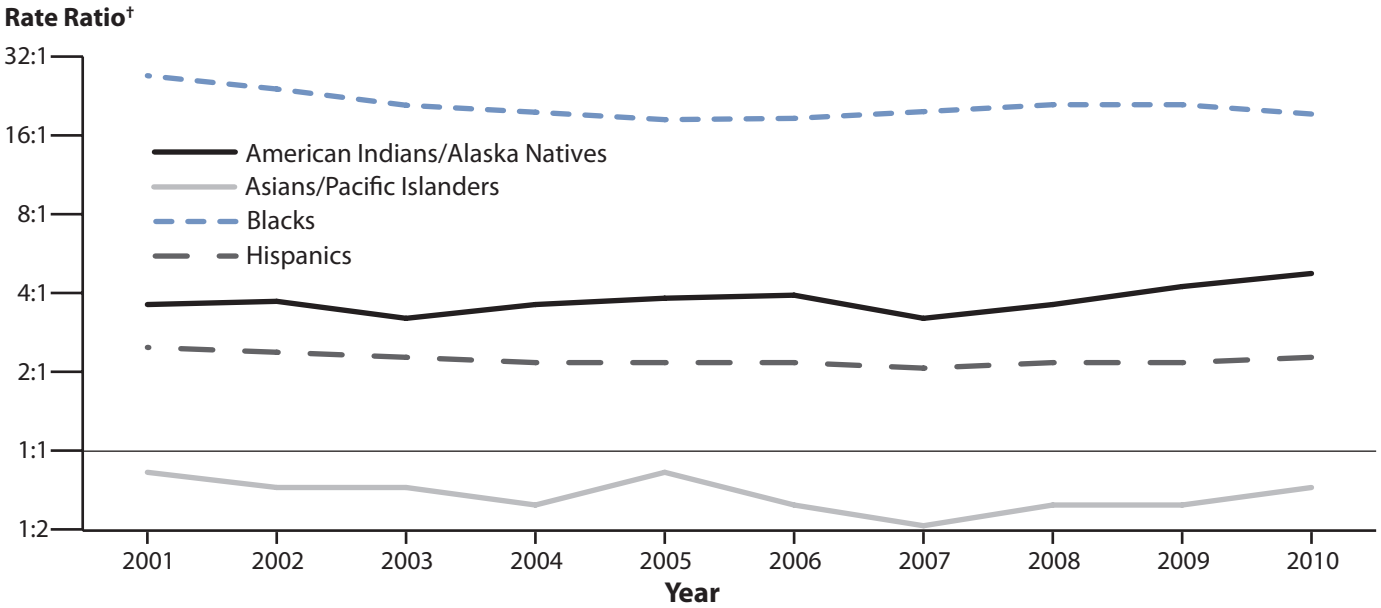
Figure O. Chlamydia—Rates by Race/Ethnicity and Sex, United States, 2010



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

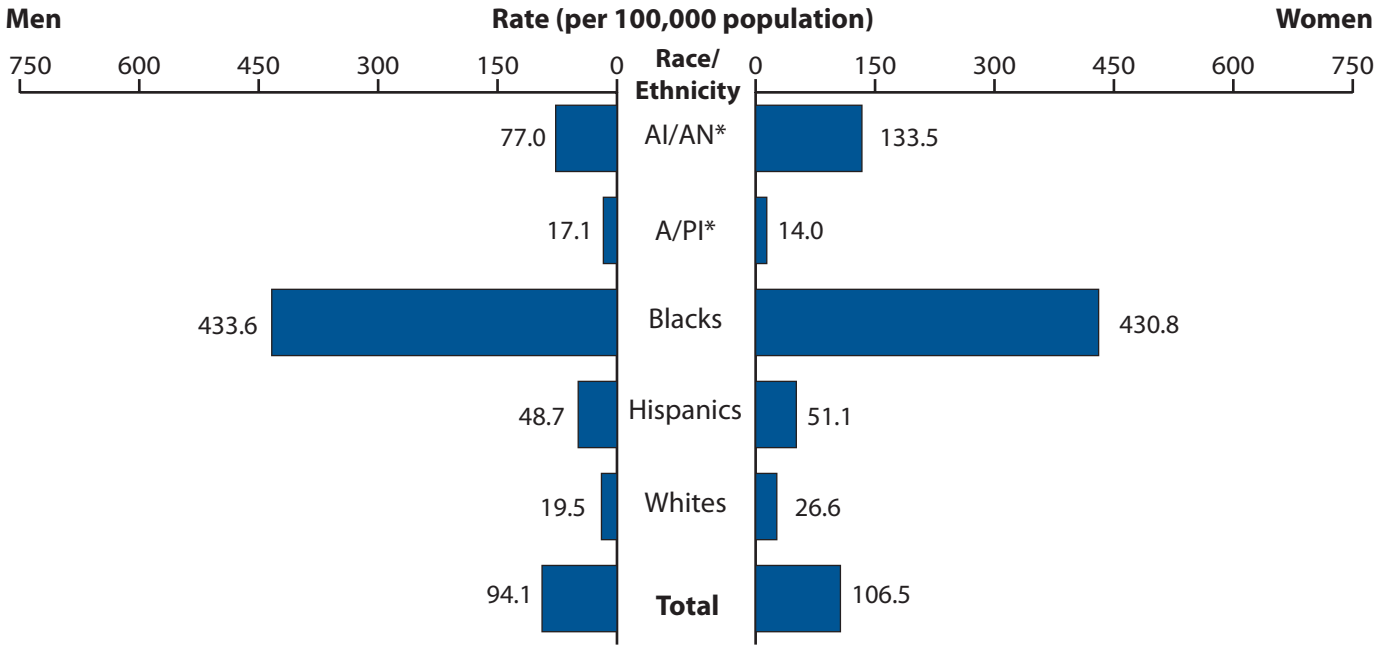
Figure P. Gonorrhea—Rate Ratios* by Race/Ethnicity, United States, 2001–2010



* 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.

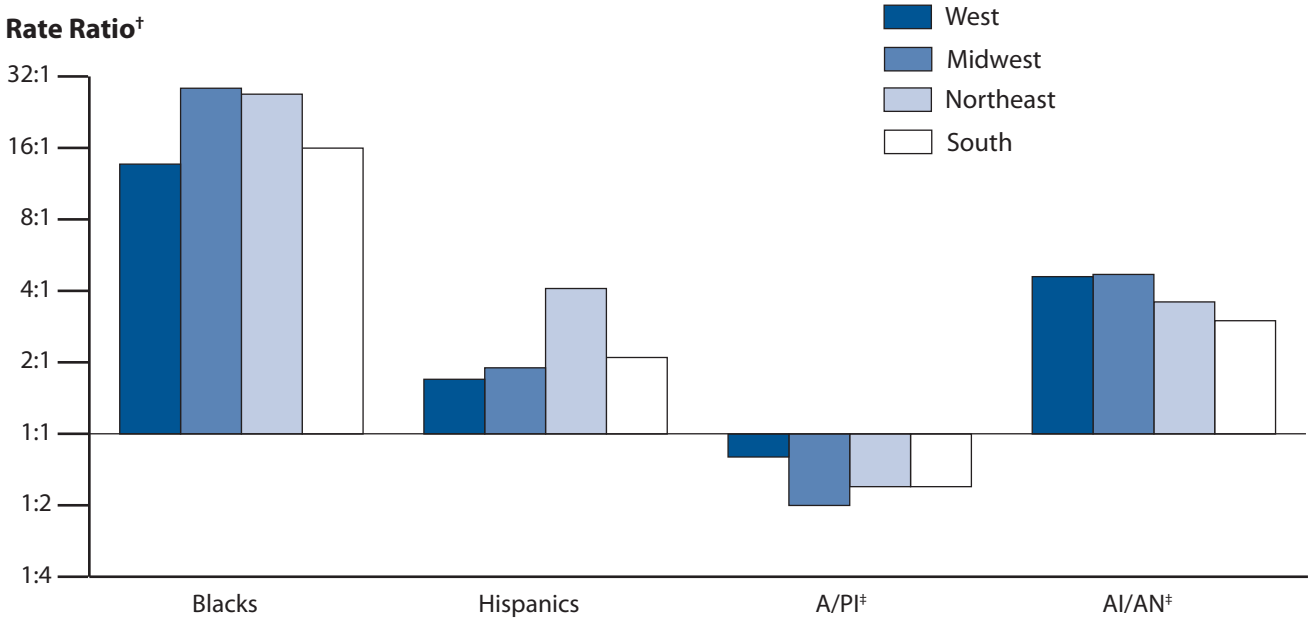
† Y-axis is log scale.

Figure Q. Gonorrhea—Rates by Race/Ethnicity and Sex, United States, 2010



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

Figure R. Gonorrhea—Rate Ratios* by Race/Ethnicity and Region, United States, 2010

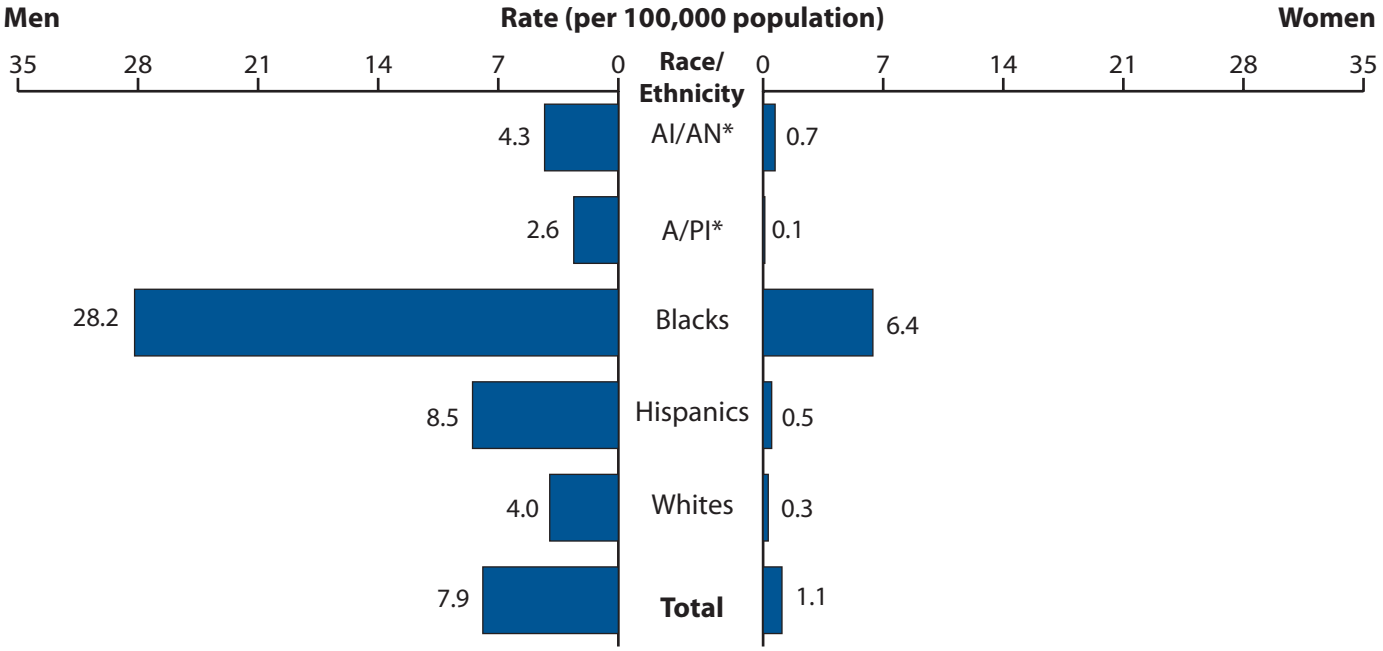


* Rate ratios are calculated as the gonorrhea rate per 100,000 population for a given racial or ethnic minority population divided by the gonorrhea rate per 100,000 population for non-Hispanic whites. Any population with a lower rate of gonorrhea than the non-Hispanic white population will have a rate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

† Y-axis is log scale.

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

Figure S. Primary and Secondary Syphilis—Rates by Race/Ethnicity and Sex, United States, 2010



* 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, 2001–2010

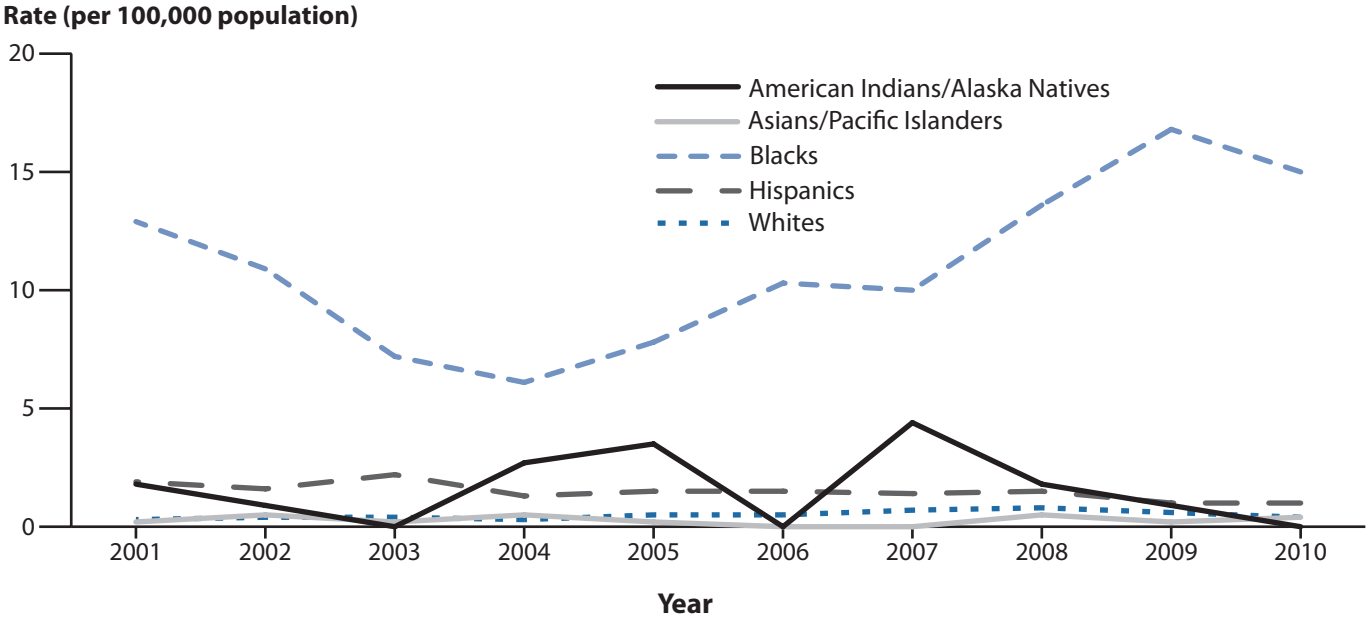


Figure U. Primary and Secondary Syphilis—Rates Among Males Aged 15–19 Years by Race/Ethnicity, United States, 2001–2010

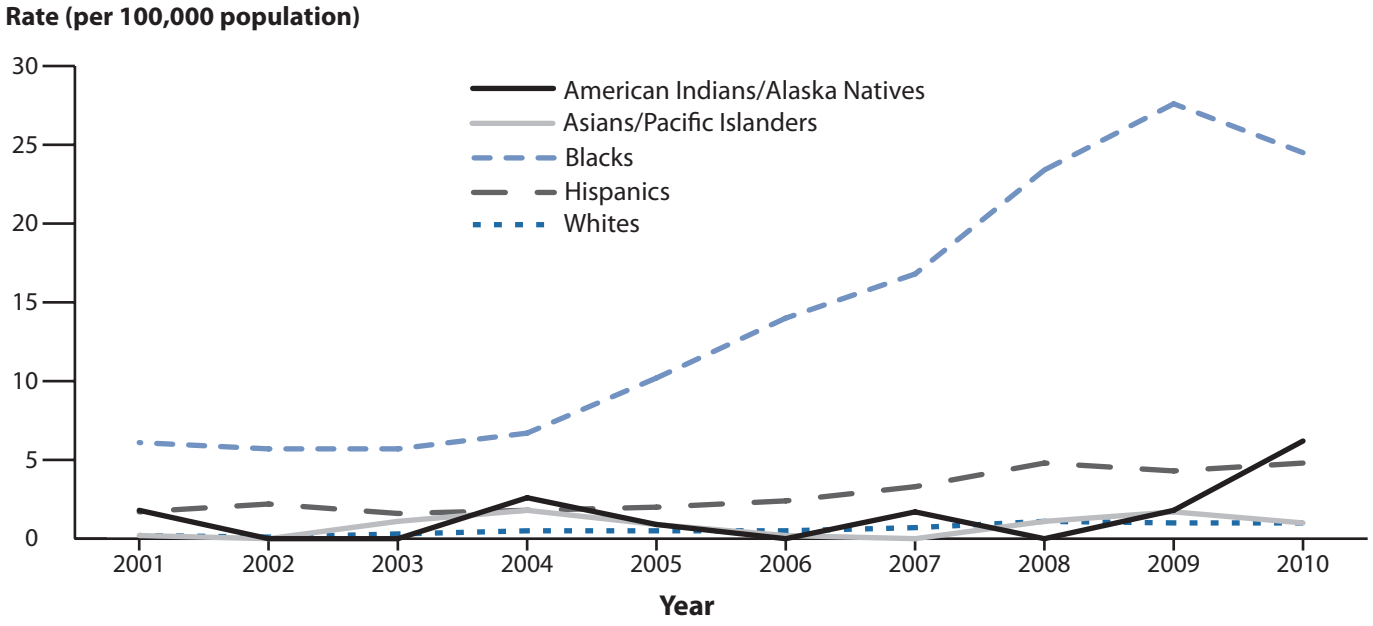
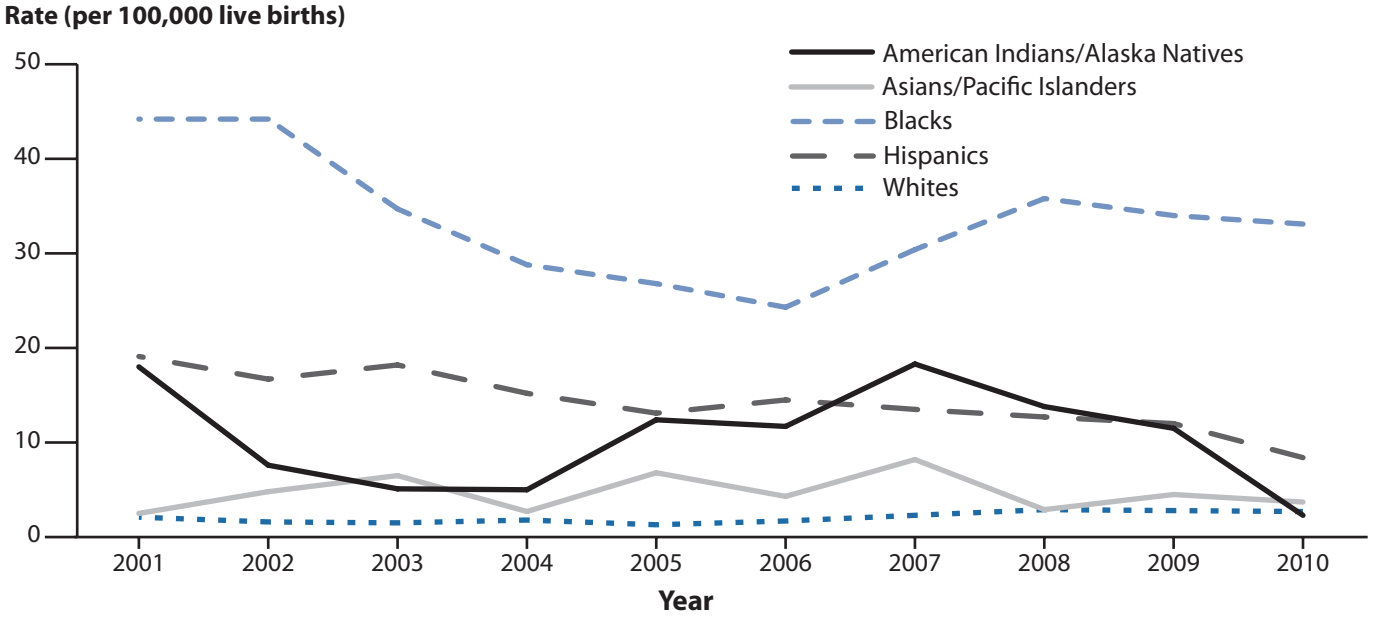


Figure V. Congenital Syphilis—Infants—Rates by Year of Birth and Mother's Race/Ethnicity, United States, 2001–2010



NOTE: Less than 1% of cases had missing maternal race/ethnicity information and were excluded.

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, data on national trends in STDs among MSM in the United States are not currently available. 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, 2010

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 2010, a total of 41 STD clinics at these 12 sites collected enhanced behavioral and demographic information on patients who presented for care to these clinics. During 1999–2008, similar enhanced surveillance data were collected in eight STD clinics, including three community-based gay men's health clinics, through the MSM Prevalence Monitoring Project.[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 2010, the proportion of MSM who tested positive for gonorrhea and chlamydia at SSuN STD clinics varied by city (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 Birmingham (where the proportions were equal), Baltimore, and Hartford/New Haven (where the proportion for chlamydia was higher).

Across the participating sites, about the same number of MSM were tested for gonorrhea (18,462) and chlamydia (17,915). The median site-specific gonorrhea prevalence was 15.5% (range by site: 9.4%–25.8%). The median site-specific chlamydia prevalence was 13.0% (range by site: 7.5%–19.2%). For this report, a person who tested positive for gonorrhea or chlamydia more than one time was counted only once for each disease.

Co-infection with P&S Syphilis and HIV

In 2010, the proportion of MSM who presented to SSuN clinics with P&S syphilis infection who also were infected with HIV ranged from 25% in Hartford/New Haven to 54% in San Francisco (Figure X). The median site-specific proportion was 38.0%. 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 or MSM of unknown status than among HIV-positive MSM (Figure Y). The prevalence of P&S syphilis was 2.6% among HIV-negative MSM or MSM of unknown status and 10.5% among HIV-positive MSM. Urethral gonorrhea positivity was 10.3% in MSM who were HIV-negative or of unknown status and 15.2% in HIV-positive MSM. Rectal gonorrhea positivity was 8.1% in MSM who were HIV-negative or of unknown status and 14.4% in HIV-positive MSM; pharyngeal gonorrhea positivity was 6.3% in MSM who were HIV-negative or of unknown status and 7.6% in HIV-positive MSM. Urethral chlamydia was 7.8% in MSM who were HIV-negative or of unknown status and 8.4% in HIV-positive MSM; rectal chlamydia positivity was 11.7% in MSM who were HIV-negative or of unknown HIV status and 19.6% in HIV-positive MSM.

Nationally Notifiable Syphilis Surveillance Data

In 2008, the male-female rate ratio decreased to 5.0, but increased to 5.6 in 2009, increasing to 7.2 in 2010 (Figure 35). These increases support analyses of case report data showing increases in P&S syphilis among MSM during 2005–2008, particularly among black and Hispanic MSM, and MSM aged 15–29 years.[14]

In 2010, MSM accounted for 67% of all P&S syphilis cases in 44 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 43). 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.[4,15] 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 28.9% in 2010 (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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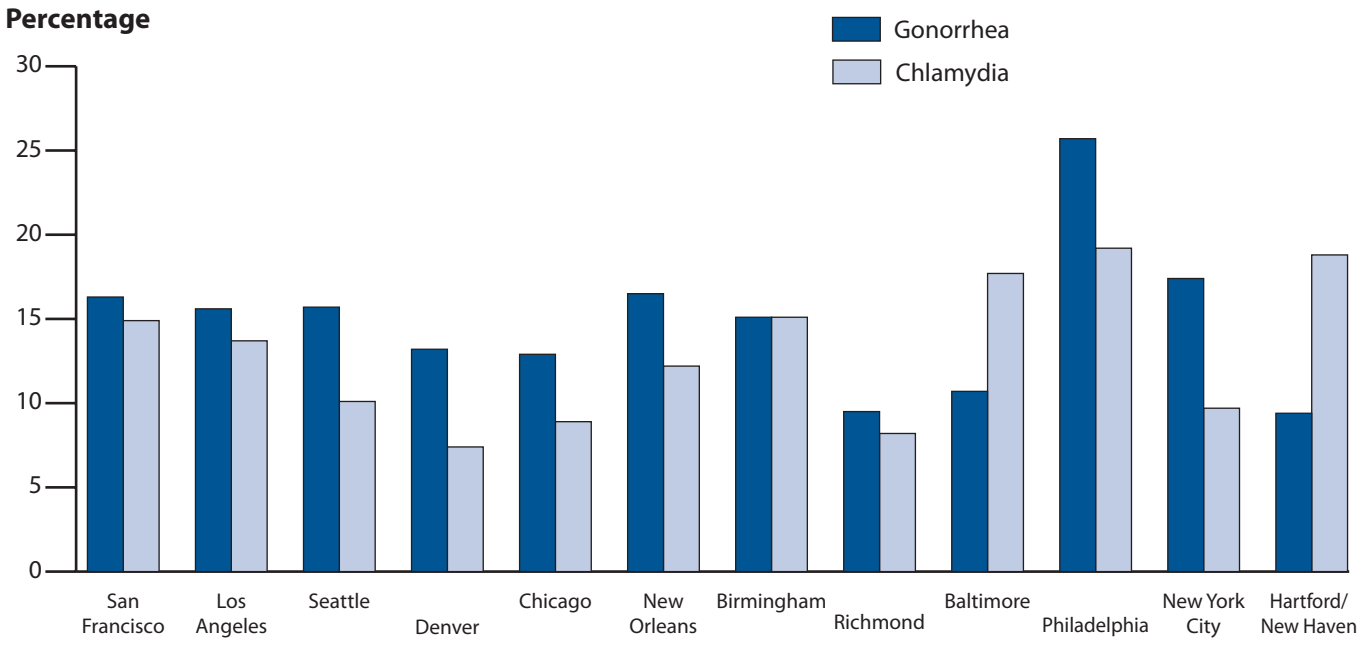
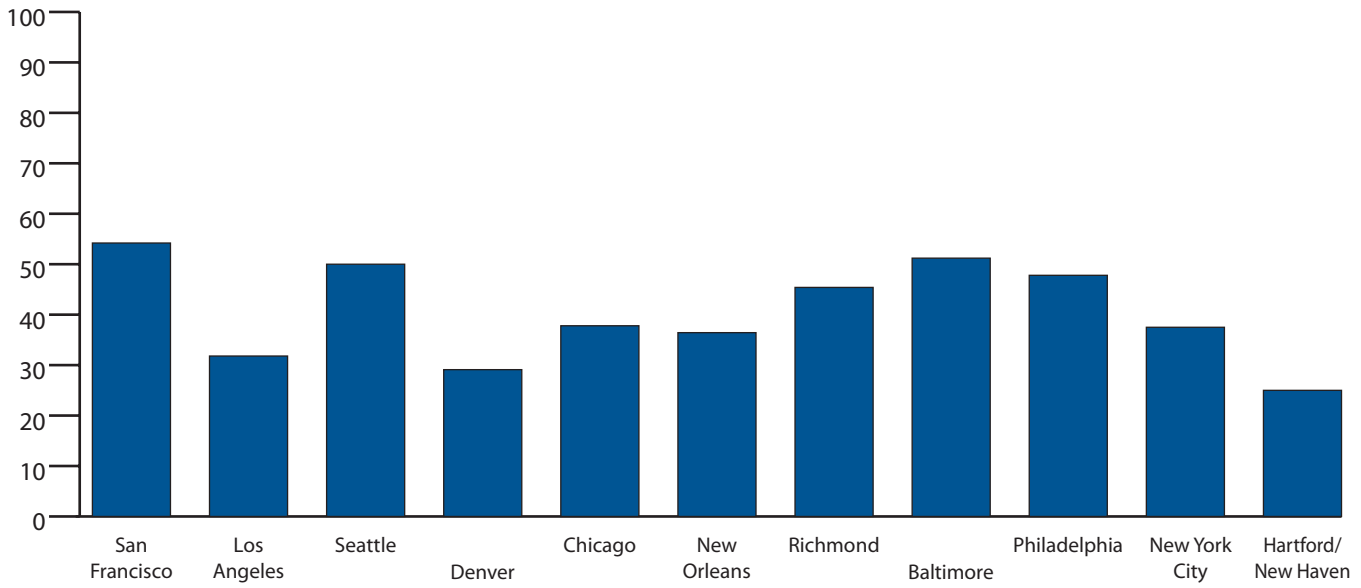
Figure W. STD Surveillance Network (SSuN)—Gonorrhea and Chlamydia—Proportion of MSM* Testing Positive for Gonorrhea and Chlamydia, by Site, 2010



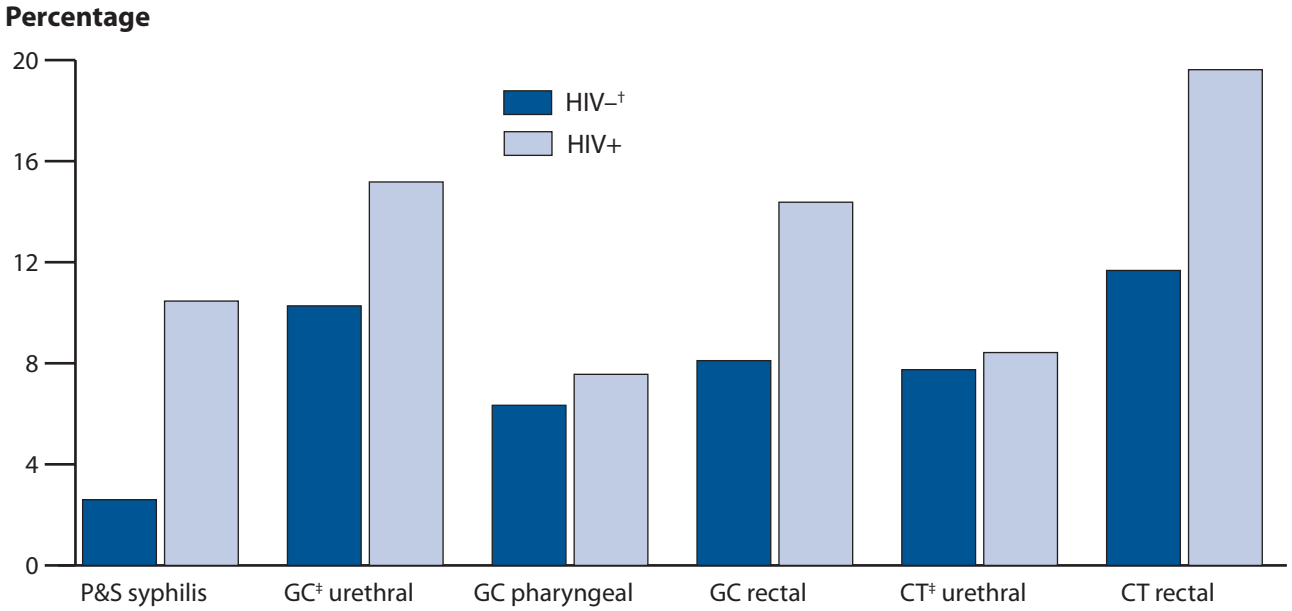
* MSM = men who have sex with men.

Figure X. STD Surveillance Network (SSuN)—Primary and Secondary Syphilis and HIV—Proportion of MSM* with Primary and Secondary Syphilis Who Are Co-infected with HIV, 2010



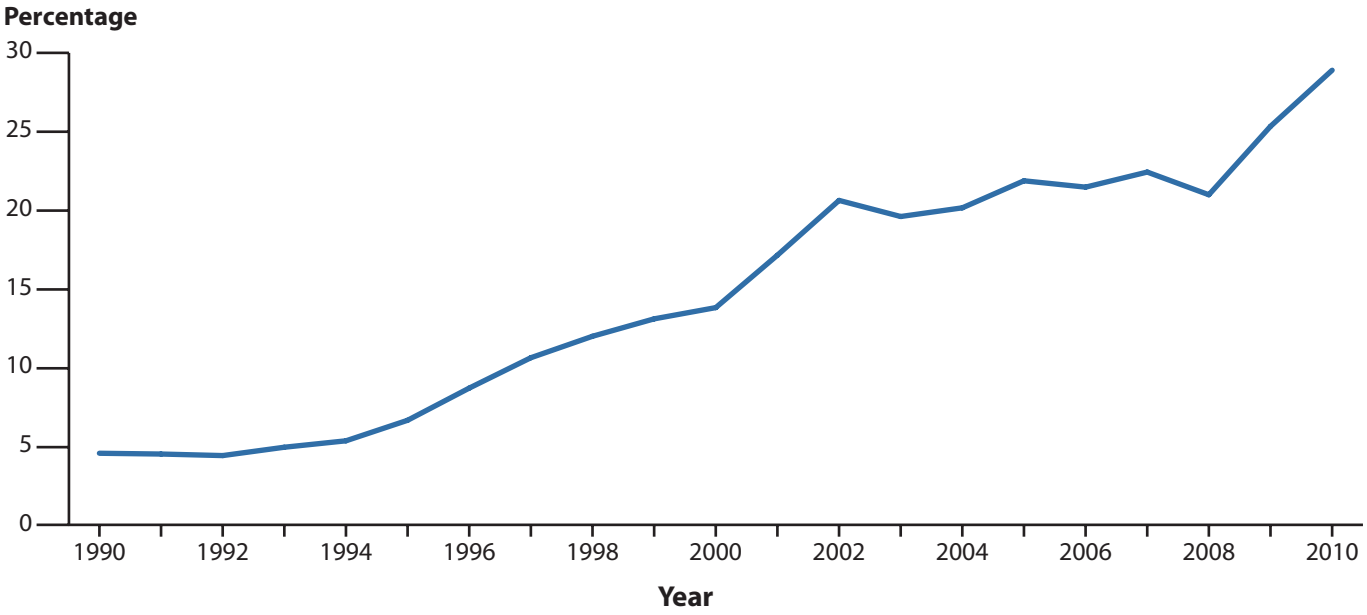
* MSM = men who have sex with men.
NOTE: Includes sites that reported data on at least 5 MSM with P&S syphilis in 2010.

Figure Y. STD Surveillance Network (SSuN)—Proportion of MSM* Attending STD Clinics with Primary and Secondary Syphilis, Gonorrhea or Chlamydia by HIV Status, 2010



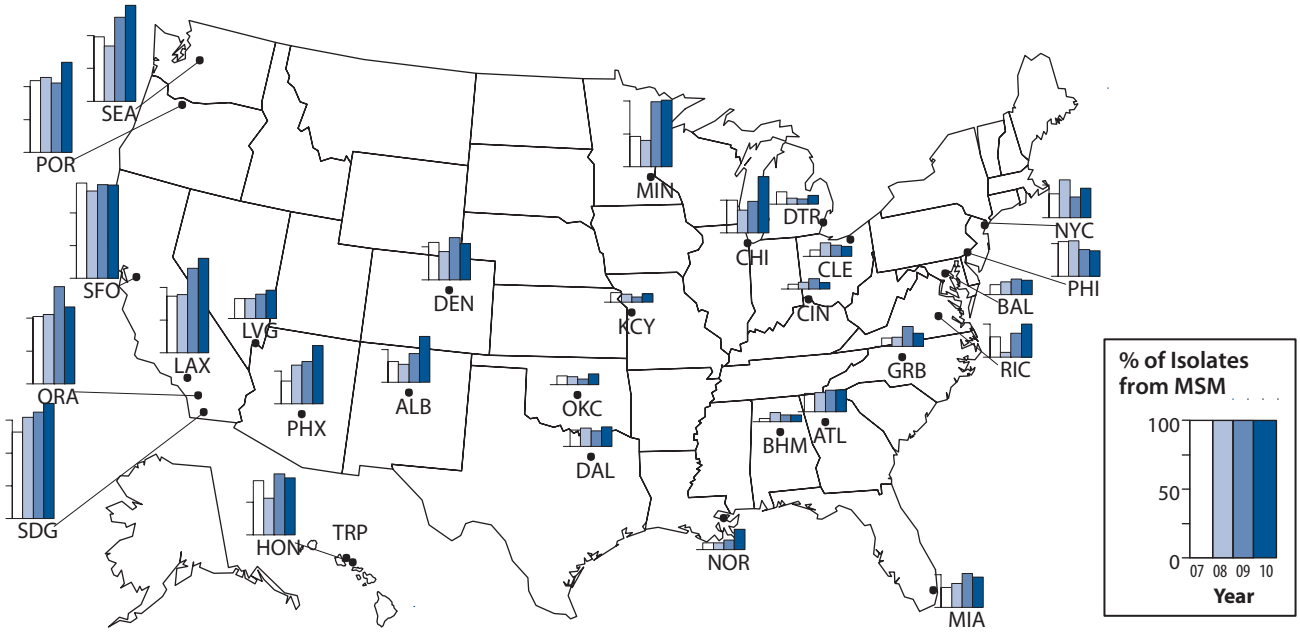
* MSM = men who have sex with men.
† HIV negative status includes persons of unknown status for this analysis.
‡ GC urethral and CT urethral include results from both urethral and urine specimens.

Figure Z. Gonococcal Isolate Surveillance Project (GISP)—Percentage of Urethral *Neisseria gonorrhoeae* Isolates Obtained from MSM* Attending STD Clinics, 1990–2010



* MSM = men who have sex with men.

Figure AA. Gonococcal Isolate Surveillance Project (GISP)—Percentage of Urethral *Neisseria gonorrhoeae* Isolates Obtained from MSM* Attending STD Clinics, by Site, 2007–2010



* MSM = men who have sex with men.

NOTE: Participating sites include ALB = Albuquerque, NM; ATL = Atlanta, GA; BAL = Baltimore, MD; BHM = Birmingham, AL; CHI = Chicago, IL; 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 2010, STD screening data from corrections facilities were reported in 36 states and Puerto Rico for chlamydia and gonorrhea. Line-listed (i.e., case-specific) data for chlamydia and gonorrhea are provided to CDC through the Infertility Prevention Project (IPP). The figures and tables presented in this section represent 47,489 chlamydia tests of women (25,089 from juvenile corrections facilities and 22,400 from adult facilities), 112,133 chlamydia tests of men (77,027 from juvenile facilities and 35,106 from adult facilities), 43,319 gonorrhea tests of women (21,401 from juvenile facilities and 21,918 from adult facilities), and 106,371 gonorrhea tests of men (72,446 from juvenile facilities and 33,925 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 128 juvenile corrections facilities, the overall chlamydia positivity was 6.9% (Figure BB). Chlamydia positivity ranged from 1.5% for adolescent males aged 12 years to 10.0% for those aged 18 years.

Females in Juvenile Corrections Facilities—Among females aged 12–18 years entering 73 juvenile corrections facilities, the overall chlamydia positivity was 15.3% (Figure BB). Positivity ranged from 7.2% for females aged 12 years to 17.0% for those aged 16 years.

Men in Adult Corrections Facilities—Among men entering 55 adult corrections facilities in 2010, positivity in men aged younger than 20 years (11.7%) was higher than the overall prevalence observed in adolescent males entering juvenile facilities (6.9%) (Figure CC). Chlamydia positivity decreased with age, from 11.7% for those aged younger than 20 years to 1.9% for those aged older than 34 years. Overall chlamydia positivity among adult men entering corrections facilities in 2010 was 6.7%.

Women in Adult Corrections Facilities—Among women entering 32 adult corrections facilities in 2010, positivity was 6.9% (Figure CC). Chlamydia positivity decreased with age, from 15.3% for those aged younger than 20 years to 2.4% for those aged older than 34 years. Overall chlamydia positivity in women entering adult corrections facilities (6.9%) was substantially lower than that in adolescent females entering juvenile corrections facilities (15.3%). However, chlamydia positivity among women aged younger than 20 years entering adult corrections facilities was similar to that among women 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 123 juvenile corrections facilities in 2010 was 1.1% (Figure DD). Positivity increased with age, from 0.1% for those aged 12 years to 2.1% for those aged 18 years.

Females in Juvenile Corrections Facilities—The overall gonorrhea positivity for adolescent females entering 60 juvenile corrections facilities in 2010 was 4.2% (Figure DD). Positivity generally increased with increasing age, from 2.8% for those aged 12 years to 5.1% of those aged 18 years.

Men in Adult Corrections Facilities—The overall gonorrhea positivity for men entering 55 adult corrections facilities in 2010 was 1.0% (Figure EE). Positivity was highest in men aged younger than 20 years (1.6%) and declined with age to 0.4% in men aged older than 34 years. Men aged younger than 20 years entering adult facilities (1.6%) had higher gonorrhea positivity than males entering juvenile corrections facilities (1.1%).

Women in Adult Corrections Facilities—Among women entering 32 adult corrections facilities in 2010, overall gonorrhea positivity was 1.9% (Figure EE). Positivity decreased with age, from 3.7% among those aged younger than 20 years to 0.9% among those aged older than 34 years. Women aged younger than 20 years entering adult facilities (3.7%) had lower gonorrhea positivity than females entering juvenile corrections facilities (4.2%).

Syphilis

In 2010, reports of P&S syphilis cases from correctional facilities accounted for 5% of P&S syphilis among MSW, 3% among women, and 1% among MSM (Figure 46).

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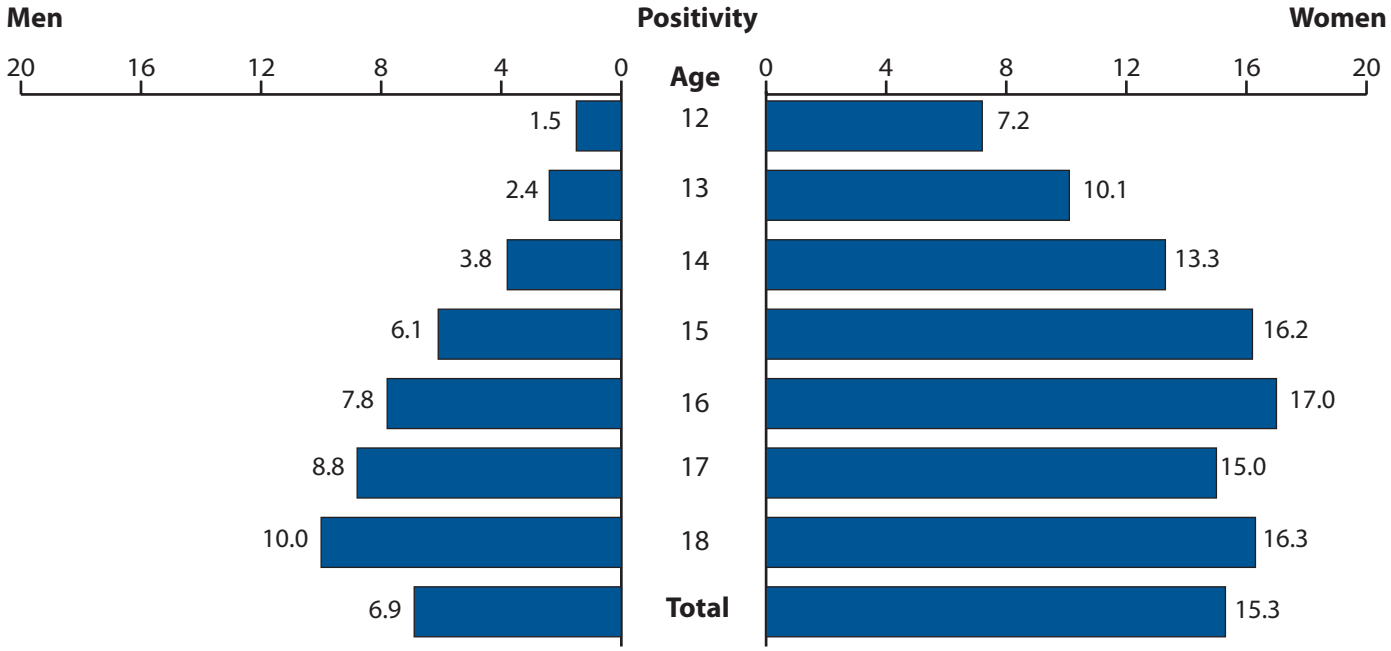
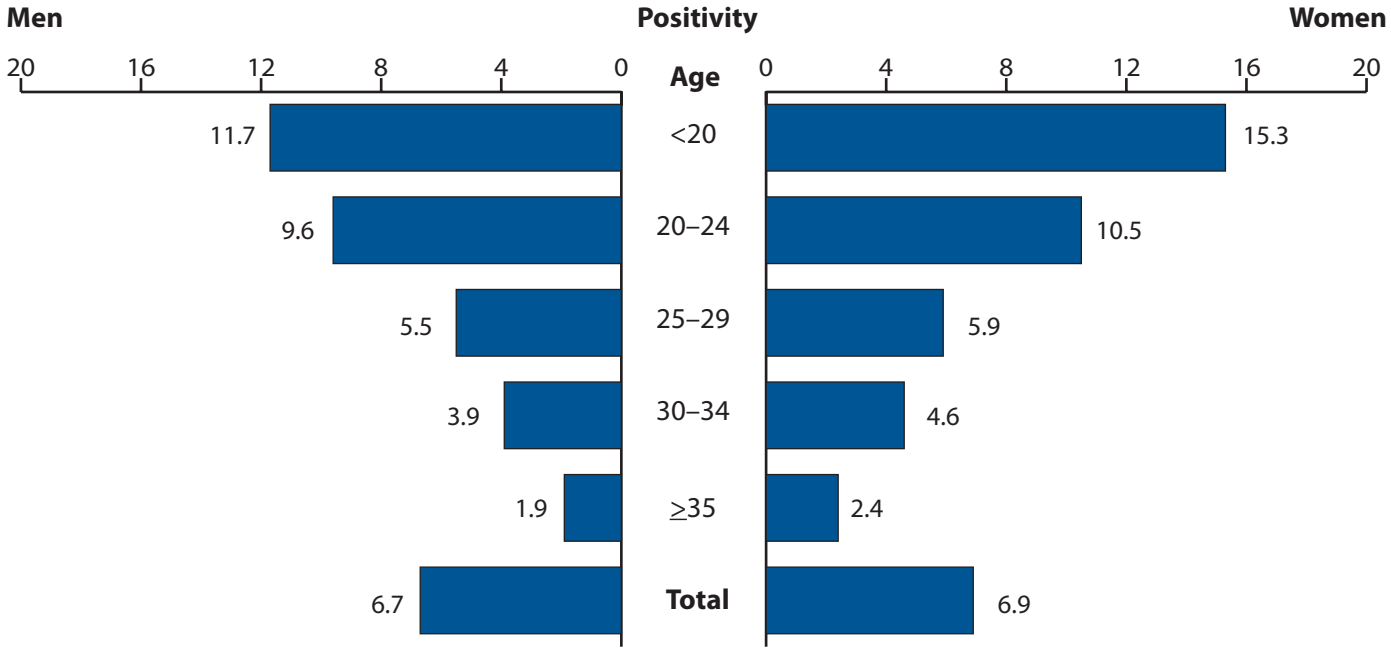
Figure BB. Chlamydia—Positivity by Age and Sex, Juvenile Corrections Facilities, 2010



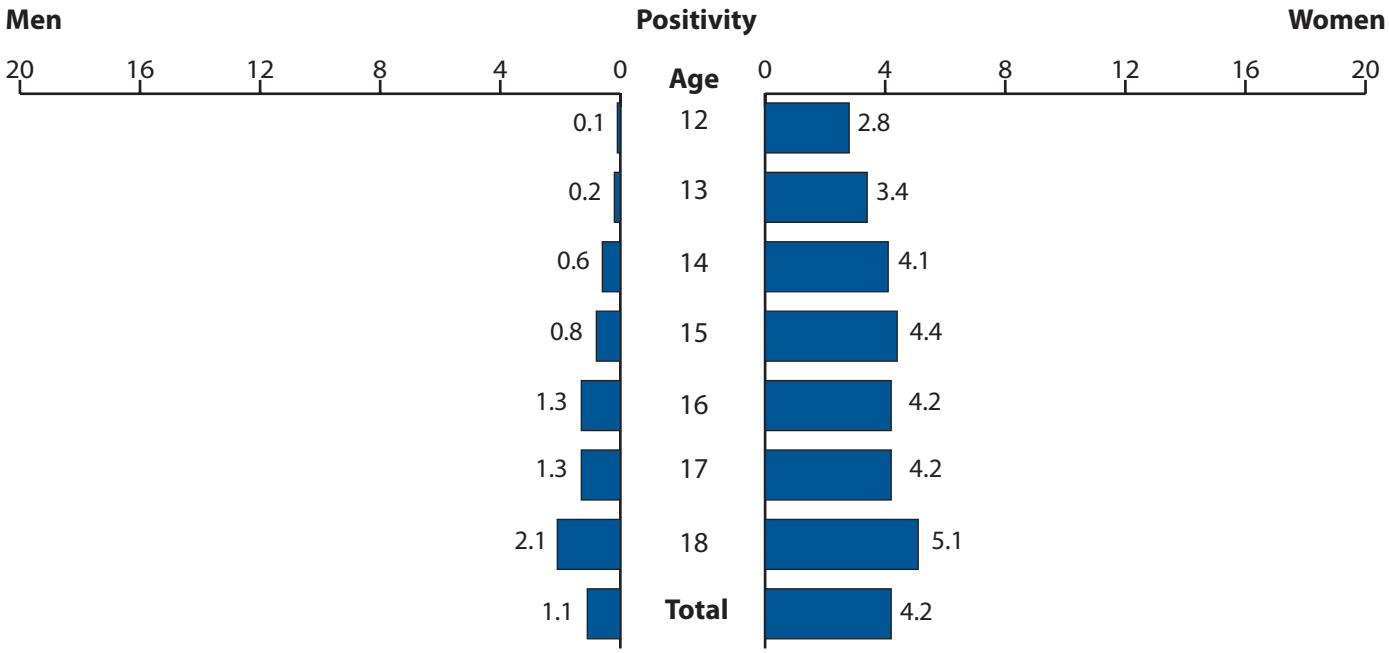
NOTE: Positivity percentage is presented from facilities reporting more than 100 test results.

Figure CC. Chlamydia—Positivity by Age Group and Sex, Adult Corrections Facilities, 2010



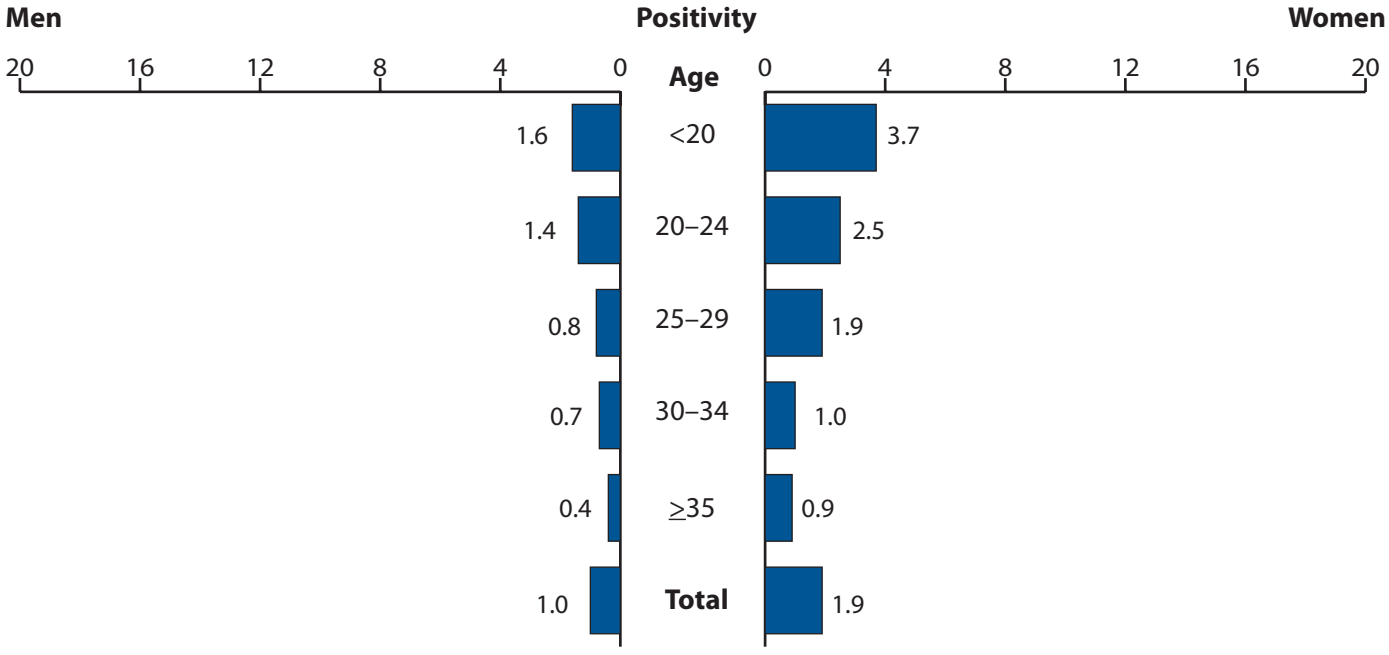
NOTE: Positivity percentage is presented from facilities reporting more than100 test results.

Figure DD. Gonorrhea—Positivity by Age and Sex, Juvenile Corrections Facilities, 2010



NOTE: Positivity percentage is presented from facilities reporting more than 100 test results.

Figure EE. Gonorrhea—Positivity by Age Group and Sex, Adult Corrections Facilities, 2010



NOTE: Positivity percentage is presented from facilities reporting more than 100 test results.

TABLES

TABLES

Table 1. Cases of Sexually Transmitted Diseases Reported by State Health Departments and Rates per 100,000 Population, United States, 1941–2010

	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
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	35,385	12.7	6,617	2.4	11,534	4.1	16,655	6.0	579	14.6	662,647	247.2	360,813	129.3	110	0.0

Table 1. Cases of Sexually Transmitted Diseases Reported by State Health Departments and Rates per 100,000 Population, United States, 1941–2010 (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
1984	69,872	29.6	28,607	12.1	23,131	9.8	17,829	7.6	305	8.3	7,594	6.5	878,556	372.5	665	0.3
1985	67,563	28.4	27,131	11.4	21,689	9.1	18,414	7.7	329	8.7	25,848	17.4	911,419	383.0	2,067	0.9
1986	67,779	28.2	27,667	11.5	21,656	9.0	18,046	7.5	410	10.9	58,001	35.2	892,229	371.5	3,045	1.3
1987	87,286	36.0	35,585	14.7	28,233	11.7	22,988	9.5	480	12.6	91,913	50.8	787,532	325.0	4,986	2.1
1988	104,546	42.8	40,474	16.6	35,968	14.7	27,363	11.2	741	19.0	157,854	87.1	738,160	301.9	4,891	2.0
1989	115,089	46.6	45,826	18.6	45,394	18.4	22,032	8.9	1,837	45.5	200,904	102.5	733,294	297.1	4,697	1.9
1990	135,590	54.3	50,578	20.3	55,397	22.2	25,750	10.3	3,865	92.9	323,663	160.2	690,042	276.4	4,212	1.7
1991	128,719	50.9	42,950	17.0	53,855	21.3	27,490	10.9	4,424	107.6	381,228	179.7	621,918	245.8	3,476	1.4
1992	114,730	44.7	34,009	13.3	49,929	19.5	26,725	10.4	4,067	100.0	409,694	182.3	502,858	196.0	1,906	0.7
1993	102,612	39.5	26,527	10.2	41,919	16.1	30,746	11.8	3,420	85.5	405,332	178.0	444,649	171.1	1,292	0.5
1994	82,713	31.4	20,641	7.8	32,017	12.2	27,603	10.5	2,452	62.0	451,785	192.5	419,602	163.9	782	0.3
1995	69,359	26.0	16,543	6.2	26,657	10.0	24,296	9.1	1,863	47.8	478,577	187.8	392,651	147.5	607	0.2
1996	53,240	19.8	11,405	4.2	20,187	7.5	20,366	7.6	1,282	32.9	492,631	190.6	328,169	121.8	386	0.1
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	35,385	12.7	6,617	2.4	11,534	4.1	16,655	6.0	579	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	32,284	11.3	6,103	2.1	8,701	3.0	16,976	5.9	504	12.5	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	10.3	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	9.9	1,244,180	405.3	301,174	98.1	28	0.0
2010	45,834	14.9	13,774	4.5	13,604	4.4	18,079	5.9	377	8.7	1,307,893	426.0	309,341	100.8	24	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 8, 2011 (see Appendix). The number of cases and the rates shown here supersede those published in previous reports. For more information regarding reporting, see Interpreting STD Surveillance Data in the Appendix. 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, 2010

Rank*	State	Cases	Rate per 100,000 Population
1	Alaska	6,019	861.7
2	Mississippi	21,417	725.5
3	Louisiana	29,151	648.9
4	New Mexico	11,706	582.5
5	South Carolina	26,525	581.5
6	Alabama	27,041	574.3
7	Arkansas	15,424	533.8
8	New York	99,920	511.3
9	Delaware	4,464	504.3
10	Michigan	49,478	496.3
11	Texas	119,872	483.7
12	Illinois	60,672	469.9
13	Hawaii	6,015	464.4
14	Maryland	26,192	459.6
15	Georgia	45,147	459.3
16	Tennessee	28,327	449.9
17	North Carolina	42,048	448.2
18	Ohio	51,150	443.1
19	Missouri	26,049	435.1
	U.S. TOTAL†	**1,307,893**	**426.0**
20	Wisconsin	23,236	410.9
21	Arizona	26,861	407.2
22	California	150,443	407.0
23	Florida	74,744	403.2
24	South Dakota	3,192	392.9
25	Virginia	30,797	390.7
26	Wyoming	2,113	388.2
27	Oklahoma	14,302	387.9
28	Colorado	19,447	387.0
29	Kentucky	16,376	379.6
30	Pennsylvania	47,518	377.0
31	North Dakota	2,404	371.7
32	Nevada	9,666	365.7
33	Connecticut	12,649	359.5
34	Indiana	22,825	355.4
35	Iowa	10,542	350.5
36	Kansas	9,601	340.6
37	Rhode Island	3,480	330.4
38	Oregon	12,352	322.9
39	Washington	21,348	320.3
40	Massachusetts	21,080	319.7
41	Montana	3,082	316.1
42	New Jersey	26,142	300.2
43	Minnesota	15,294	290.4
44	Nebraska	5,114	284.6
45	Idaho	4,208	272.2
46	Utah	6,690	240.3
47	West Virginia	3,876	213.0
48	Vermont	1,257	202.2
49	Maine	2,586	196.2
50	New Hampshire	2,462	185.9

* States were ranked in descending order by rate (rounded to the nearest tenth) and by number of cases.

† Total includes cases reported by the District of Columbia with 5,589 cases and a rate of 932.0, but excludes outlying areas (Guam with 899 cases and rate of 503.8, Puerto Rico with 5,960 cases and rate of 150.2, and Virgin Islands with 609 cases and rate of 554.6).

Table 3. Chlamydia—Reported Cases and Rates by State/Area and Region in Alphabetical Order, United States and Outlying Areas, 2006–2010

State/Area	Cases					Rates per 100,000 Population				
	2006	2007	2008	2009	2010	2006	2007	2008	2009	2010
Alabama	22,915	25,153	24,760	25,929	27,041	498.3	543.5	531.1	550.7	574.3
Alaska	4,525	4,911	4,861	5,166	6,019	675.3	718.5	708.3	739.6	861.7
Arizona	24,090	24,866	24,769	26,002	26,861	390.7	392.3	381.1	394.2	407.2
Arkansas	8,259	9,954	14,136	14,354	15,424	293.8	351.1	495.1	496.8	533.8
California	135,827	141,928	148,798	146,796	150,443	372.6	388.3	404.8	397.2	407.0
Colorado	16,313	17,186	19,180	19,998	19,447	343.2	353.5	388.3	398.0	387.0
Connecticut	10,946	11,454	12,519	12,127	12,649	312.3	327.0	357.6	344.7	359.5
Delaware	3,615	3,479	3,868	4,718	4,464	423.6	402.3	443.0	533.0	504.3
District of Columbia	3,368	6,029	6,924	6,549	5,589	579.2	1,024.8	1,169.9	1,092.1	932.0
Florida	48,955	57,575	71,017	72,931	74,744	270.6	315.5	387.5	393.4	403.2
Georgia	38,972	42,913	42,629	39,828	45,147	416.2	449.6	440.1	405.2	459.3
Hawaii	5,548	5,659	5,982	6,026	6,015	431.6	440.9	464.4	465.3	464.4
Idaho	3,345	3,722	4,194	3,842	4,208	228.1	248.2	275.2	248.5	272.2
Illinois	53,586	55,470	59,169	60,542	60,672	417.6	431.6	458.6	468.9	469.9
Indiana	19,859	20,712	22,154	21,732	22,825	314.5	326.4	347.4	338.3	355.4
Iowa	8,390	8,643	9,372	9,406	10,542	281.3	289.3	312.1	312.7	350.5
Kansas	7,829	8,180	9,208	10,510	9,601	283.2	294.7	328.6	372.9	340.6
Kentucky	8,940	8,798	12,163	13,293	16,376	212.5	207.4	284.9	308.1	379.6
Louisiana	17,885	19,362	22,659	27,628	29,151	417.1	451.0	513.7	615.0	648.9
Maine	2,306	2,541	2,608	2,431	2,586	174.5	192.9	198.1	184.4	196.2
Maryland	21,859	23,150	24,669	23,747	26,192	389.2	412.0	437.9	416.7	459.6
Massachusetts	15,394	16,145	17,503	19,315	21,080	239.1	250.3	269.4	292.9	319.7
Michigan	36,753	37,353	44,923	45,714	49,478	364.0	370.9	449.1	458.5	496.3
Minnesota	12,935	13,413	14,351	14,197	15,294	250.3	258.1	274.9	269.6	290.4
Mississippi	19,002	21,686	21,253	23,589	21,417	652.9	743.0	723.2	799.1	725.5
Missouri	22,982	23,308	24,817	25,868	26,049	393.3	396.5	419.8	432.0	435.1
Montana	2,650	2,748	3,101	2,988	3,082	280.5	286.9	320.5	306.5	316.1
Nebraska	5,428	5,132	5,573	5,443	5,114	307.0	289.2	312.5	303.0	284.6
Nevada	8,398	9,514	9,670	10,045	9,666	336.5	370.9	371.9	380.0	365.7
New Hampshire	1,997	2,055	2,109	2,102	2,462	151.9	156.2	160.3	158.7	185.9
New Jersey	20,194	21,536	22,405	23,974	26,142	231.5	247.9	258.0	275.3	300.2
New Mexico	9,829	9,460	9,262	9,493	11,706	502.9	480.2	466.8	472.4	582.5
New York	68,720	80,717	88,359	92,069	99,920	355.9	418.3	453.3	471.1	511.3
North Carolina	33,615	30,611	37,516	41,045	42,048	379.6	337.8	406.8	437.5	448.2
North Dakota	1,820	1,789	1,921	1,957	2,404	286.2	279.7	299.5	302.5	371.7
Ohio	40,106	47,434	47,117	48,239	51,150	349.4	413.7	410.2	417.9	443.1
Oklahoma	12,992	12,529	14,803	15,023	14,302	363.0	346.4	406.4	407.5	387.9
Oregon	9,577	9,849	10,744	11,497	12,352	258.8	262.8	283.5	300.5	322.9
Pennsylvania	39,487	42,469	42,233	43,068	47,518	317.4	341.6	339.3	341.7	377.0
Rhode Island	3,142	3,177	3,317	3,615	3,480	294.3	300.3	315.7	343.2	330.4
South Carolina	22,351	26,431	26,323	26,654	26,525	517.2	599.7	587.6	584.4	581.5
South Dakota	2,633	2,620	2,956	3,015	3,192	336.7	329.1	367.6	371.1	392.9
Tennessee	25,320	26,866	28,038	29,711	28,327	419.3	436.4	451.1	471.9	449.9
Texas	75,543	85,786	100,870	105,910	119,872	321.4	358.9	414.6	427.4	483.7
Utah	5,092	5,721	6,021	6,145	6,690	199.7	216.3	220.0	220.7	240.3
Vermont	1,191	1,057	1,190	1,186	1,257	190.9	170.1	191.5	190.7	202.2
Virginia	24,087	24,579	31,218	30,903	30,797	315.2	318.7	401.8	392.0	390.7
Washington	17,819	18,784	21,402	21,387	21,348	278.6	290.4	326.8	320.9	320.3
West Virginia	2,910	3,168	3,316	3,604	3,876	160.0	174.8	182.8	198.0	213.0
Wisconsin	20,190	19,555	20,996	20,906	23,236	363.4	349.1	373.1	369.7	410.9
Wyoming	1,422	1,197	1,577	1,963	2,113	276.1	228.9	296.1	360.7	388.2
U.S. TOTAL	**1,030,911**	**1,108,374**	**1,210,523**	**1,244,180**	**1,307,893**	**344.3**	**367.5**	**398.1**	**405.3**	**426.0**
Northeast	163,377	181,151	192,243	199,887	217,094	298.5	331.3	350.0	361.6	392.7
Midwest	232,511	243,609	262,557	267,529	279,557	351.1	366.9	394.5	400.3	418.3
South	390,588	428,069	486,162	505,416	531,292	358.1	387.6	435.2	446.0	468.9
West	244,435	255,545	269,561	271,348	279,950	352.4	364.6	380.4	379.1	391.2
Guam	832	822	687	620	899	486.5	473.7	390.4	347.5	503.8
Puerto Rico	5,102	7,909	6,874	7,302	5,960	129.9	200.6	173.8	184.1	150.2
Virgin Islands	203	348	587	488	609	186.9	316.9	534.4	444.4	554.6
OUTLYING AREAS	**6,137**	**9,079**	**8,148**	**8,410**	**7,468**	**145.8**	**214.8**	**192.2**	**197.6**	**175.5**
TOTAL	**1,037,048**	**1,117,453**	**1,218,671**	**1,252,590**	**1,315,361**	**341.6**	**365.4**	**395.3**	**402.4**	**422.6**

Table 4. Chlamydia—Women—Reported Cases and Rates by State/Area and Region in Alphabetical Order, United States and Outlying Areas, 2006–2010

State/Area	Cases					Rates per 100,000 Population				
	2006	2007	2008	2009	2010	2006	2007	2008	2009	2010
Alabama	17,915	19,186	18,744	19,413	20,030	756.0	804.2	779.8	799.8	825.3
Alaska	3,067	3,295	3,253	3,364	3,960	947.7	1,002.6	989.7	1,000.5	1,177.7
Arizona	18,485	18,794	18,358	19,097	19,529	600.1	593.7	566.0	580.6	593.8
Arkansas	6,604	7,893	10,643	10,689	11,303	460.8	546.0	730.6	725.2	766.9
California	97,170	101,175	104,201	101,716	102,645	532.9	553.6	567.3	551.1	556.1
Colorado	12,037	12,707	13,825	14,765	14,188	510.0	527.1	564.7	592.1	569.0
Connecticut	8,205	8,577	9,239	8,937	9,223	456.2	477.7	515.0	496.3	512.2
Delaware	2,625	2,554	2,789	3,573	3,296	597.6	573.3	620.1	784.5	723.7
District of Columbia	2,510	3,970	4,438	4,153	3,782	812.7	1,279.9	1,422.7	1,311.8	1,194.6
Florida	38,536	42,173	52,206	52,747	53,318	418.6	454.3	560.0	560.3	566.4
Georgia	30,546	31,827	31,515	29,074	32,863	642.7	656.1	640.4	582.2	658.1
Hawaii	4,161	4,228	4,422	4,399	4,340	648.0	663.1	692.4	686.5	677.3
Idaho	2,435	2,660	3,048	2,768	3,014	334.4	357.1	402.5	359.5	391.5
Illinois	39,705	41,733	43,112	44,560	44,598	609.5	640.2	659.0	680.2	680.8
Indiana	14,907	15,576	16,513	16,150	16,344	465.4	483.9	510.6	495.6	501.6
Iowa	6,157	6,310	6,882	6,785	7,612	407.9	416.9	452.9	445.7	500.1
Kansas	6,286	6,629	7,401	8,209	7,449	451.4	473.6	524.8	578.5	525.0
Kentucky	6,336	6,184	8,622	9,621	11,859	295.4	285.9	395.3	438.0	539.9
Louisiana	14,290	15,334	17,260	20,719	20,564	649.0	694.6	760.4	898.1	891.4
Maine	1,672	1,831	1,847	1,705	1,814	247.6	271.5	274.0	252.7	268.9
Maryland	17,339	18,230	19,337	18,782	19,827	598.1	628.7	665.4	639.8	675.4
Massachusetts	11,175	11,671	12,646	13,786	14,753	336.6	351.2	378.1	406.8	435.4
Michigan	27,915	28,341	33,719	33,860	36,431	544.6	554.4	663.8	668.3	719.0
Minnesota	9,243	9,681	10,266	10,204	10,965	355.7	371.0	391.8	385.7	414.5
Mississippi	14,853	16,718	16,323	17,829	15,958	989.4	1,110.8	1,077.6	1,172.2	1,049.2
Missouri	16,938	17,080	18,116	18,825	18,867	566.9	567.9	599.1	614.9	616.3
Montana	1,932	2,024	2,227	2,134	2,194	409.3	423.2	461.1	438.2	450.5
Nebraska	3,956	3,755	4,123	3,884	3,561	443.7	419.5	458.5	429.2	393.5
Nevada	6,185	7,044	7,131	7,112	6,897	504.2	559.7	559.0	548.3	531.7
New Hampshire	1,484	1,533	1,548	1,542	1,808	222.7	230.0	232.2	229.6	269.2
New Jersey	16,560	17,355	18,001	18,757	20,128	371.1	391.1	406.3	422.5	453.4
New Mexico	7,456	7,044	6,986	6,987	8,718	753.3	705.7	694.4	688.3	858.9
New York	48,568	56,590	61,280	63,882	68,693	488.1	569.5	611.1	636.1	684.0
North Carolina	27,301	25,110	30,693	33,002	33,836	604.6	541.9	652.3	688.9	706.3
North Dakota	1,231	1,194	1,291	1,297	1,577	389.0	374.7	404.0	403.0	490.0
Ohio	30,483	36,143	35,021	36,724	38,636	518.4	615.1	595.4	621.5	653.8
Oklahoma	9,678	9,130	11,117	11,101	10,297	533.3	499.0	603.0	595.2	552.1
Oregon	6,585	6,890	7,433	8,136	8,565	353.8	365.5	389.7	421.9	444.1
Pennsylvania	28,503	30,511	30,509	30,335	33,175	445.8	477.9	477.6	469.1	513.1
Rhode Island	2,175	2,282	2,400	2,603	2,478	394.5	418.0	442.7	480.5	457.4
South Carolina	19,055	20,793	20,492	21,124	20,842	859.3	919.8	891.5	902.7	890.6
South Dakota	1,923	1,894	2,185	2,214	2,300	491.4	474.2	541.7	544.7	565.9
Tennessee	18,352	19,604	20,479	21,655	20,559	594.3	622.2	642.8	671.1	637.1
Texas	60,327	67,966	79,002	82,551	92,847	511.5	567.4	648.4	665.5	748.5
Utah	3,457	3,926	3,982	4,019	4,473	272.7	299.8	293.8	290.5	323.3
Vermont	897	812	896	889	910	283.1	257.4	284.0	281.6	288.2
Virginia	17,682	18,136	23,172	22,390	22,348	455.0	461.8	586.3	558.7	557.6
Washington	13,021	13,793	15,581	15,741	15,634	406.1	425.0	475.1	472.0	468.8
West Virginia	2,208	2,423	2,490	2,684	2,832	238.0	262.0	269.0	289.3	305.3
Wisconsin	14,606	14,438	15,229	15,038	16,657	522.5	512.4	538.1	528.4	585.3
Wyoming	1,051	913	1,011	1,187	1,305	413.8	354.2	385.2	444.2	488.3
U.S. TOTAL	**775,788**	**825,660**	**893,004**	**912,718**	**949,802**	**510.8**	**539.8**	**579.4**	**586.7**	**610.6**
Northeast	119,239	131,162	138,366	142,436	152,982	423.8	467.1	490.9	502.6	539.8
Midwest	173,350	182,774	193,858	197,750	204,997	515.8	542.6	574.2	583.1	604.5
South	306,157	327,231	369,322	381,107	396,361	551.6	582.3	649.8	661.6	688.1
West	177,042	184,493	191,458	191,425	195,462	511.0	527.2	541.5	536.2	547.5
Guam	692	669	574	512	664	824.7	785.4	664.1	583.9	757.2
Puerto Rico	4,091	6,781	5,834	6,336	4,878	200.3	330.8	283.7	307.0	236.3
Virgin Islands	144	267	448	435	427	253.6	462.5	775.2	752.2	738.3
OUTLYING AREAS	**4,927**	**7,717**	**6,856**	**7,283**	**5,969**	**225.7**	**351.9**	**311.5**	**329.6**	**270.2**
TOTAL	**780,715**	**833,377**	**899,860**	**920,001**	**955,771**	**506.7**	**537.1**	**575.6**	**583.1**	**605.8**

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, 2006–2010

State/Area	Cases					Rates per 100,000 Population				
	2006	2007	2008	2009	2010	2006	2007	2008	2009	2010
Alabama	4,985	5,955	6,007	6,508	6,877	223.6	265.6	266.0	285.2	301.4
Alaska	1,458	1,616	1,608	1,802	2,058	420.9	455.4	449.7	497.5	568.2
Arizona	5,588	6,055	6,401	6,904	7,331	181.1	190.8	196.5	208.8	221.7
Arkansas	1,655	2,060	3,491	3,664	4,112	120.1	148.3	249.6	258.8	290.5
California	38,003	40,213	44,060	44,592	47,239	208.5	220.0	239.6	241.0	255.3
Colorado	4,276	4,479	5,319	5,228	5,259	178.7	182.8	213.5	206.6	207.8
Connecticut	2,741	2,877	3,264	3,190	3,426	160.7	168.5	191.2	185.7	199.5
Delaware	990	925	1,079	1,145	1,168	239.0	220.6	254.9	266.5	271.8
District of Columbia	819	2,034	2,438	2,390	1,789	300.4	731.4	871.1	844.3	632.0
Florida	10,410	15,376	18,593	20,069	21,362	117.2	171.4	206.5	220.0	234.1
Georgia	8,089	10,808	10,690	10,513	11,965	175.4	230.3	224.3	217.4	247.5
Hawaii	1,384	1,431	1,560	1,626	1,675	215.1	221.6	240.2	248.5	256.0
Idaho	895	1,030	1,133	1,051	1,183	121.2	136.5	147.8	135.5	152.5
Illinois	13,881	13,736	16,052	15,964	15,957	219.7	216.9	252.4	251.0	250.9
Indiana	4,849	5,032	5,572	5,502	6,451	155.9	160.9	177.3	173.9	203.8
Iowa	2,233	2,333	2,490	2,621	2,930	151.6	158.2	167.9	176.4	197.2
Kansas	1,543	1,551	1,807	2,301	2,152	112.5	112.7	129.8	164.4	153.7
Kentucky	2,580	2,605	3,508	3,647	4,488	125.2	125.3	168.0	172.2	212.0
Louisiana	3,372	3,758	5,226	6,841	6,658	161.7	180.2	244.1	313.1	304.7
Maine	634	708	761	726	768	98.1	110.1	118.5	112.8	119.3
Maryland	4,439	4,907	5,307	4,885	6,336	163.4	180.5	194.6	176.7	229.2
Massachusetts	4,193	4,457	4,839	5,490	6,302	134.5	142.6	153.5	171.3	196.6
Michigan	8,724	8,845	11,007	11,675	12,926	175.5	178.3	223.5	238.1	263.6
Minnesota	3,692	3,732	4,085	3,993	4,329	143.7	144.2	157.1	152.4	165.2
Mississippi	4,149	4,968	4,930	5,760	5,459	294.4	351.4	346.2	402.5	381.5
Missouri	6,044	6,228	6,701	7,043	7,182	211.7	216.9	232.0	240.7	245.5
Montana	709	716	865	851	888	150.0	149.3	178.5	174.4	182.0
Nebraska	1,401	1,363	1,441	1,549	1,548	159.8	155.0	163.0	173.7	173.6
Nevada	2,211	2,460	2,539	2,931	2,768	174.2	188.3	191.7	217.7	205.6
New Hampshire	513	522	561	560	654	79.1	80.4	86.4	85.8	100.2
New Jersey	3,606	4,169	4,390	5,200	5,874	84.6	98.1	103.3	121.8	137.6
New Mexico	2,368	2,415	2,272	2,500	2,986	245.4	248.5	232.2	251.3	300.2
New York	20,148	24,045	27,056	28,171	31,224	215.4	256.9	285.9	296.6	328.7
North Carolina	6,314	5,493	6,656	7,798	8,030	145.4	124.1	147.4	169.9	174.9
North Dakota	588	594	629	654	822	184.1	185.0	195.4	201.2	252.9
Ohio	9,039	10,852	10,847	10,978	12,320	161.5	194.1	193.6	194.9	218.7
Oklahoma	3,314	3,399	3,606	3,879	3,997	187.8	190.2	200.5	212.9	219.4
Oregon	2,992	2,959	3,311	3,361	3,786	162.6	158.9	175.9	177.2	199.6
Pennsylvania	10,981	11,934	11,722	12,700	14,297	181.6	197.3	193.4	206.9	232.9
Rhode Island	962	892	915	1,012	1,002	186.4	174.3	179.9	197.9	195.9
South Carolina	3,272	5,549	5,723	5,418	5,653	155.5	258.4	262.4	243.9	254.5
South Dakota	709	725	767	788	883	181.5	182.7	191.3	194.1	217.5
Tennessee	6,968	7,262	7,559	8,055	7,748	236.1	241.6	249.5	262.4	252.4
Texas	15,178	17,687	21,812	23,302	26,966	129.6	148.3	179.6	188.3	217.9
Utah	1,635	1,795	2,039	2,126	2,215	127.5	134.4	147.6	151.8	158.1
Vermont	294	245	294	297	347	95.8	80.1	96.2	97.1	113.4
Virginia	6,384	6,433	7,985	8,442	8,397	169.9	170.0	209.2	217.9	216.7
Washington	4,798	4,991	5,767	5,645	5,711	150.4	154.9	176.4	169.6	171.6
West Virginia	698	744	825	920	1,044	78.4	83.9	92.8	103.1	117.0
Wisconsin	5,551	5,090	5,707	5,740	6,573	201.1	182.8	204.0	204.3	234.0
Wyoming	371	284	563	776	808	142.1	107.2	208.4	280.1	291.7
U.S. TOTAL	**252,630**	**280,337**	**313,779**	**328,783**	**353,923**	**171.3**	**188.6**	**209.3**	**217.1**	**233.7**
Northeast	44,072	49,849	53,802	57,346	63,894	165.6	187.4	201.2	212.8	237.1
Midwest	58,254	60,081	67,105	68,808	74,073	178.6	183.7	204.6	209.0	225.0
South	83,616	99,963	115,435	123,236	132,049	156.0	184.3	210.3	221.2	237.0
West	66,688	70,444	77,437	79,393	83,907	192.1	200.7	218.1	221.3	233.9
Guam	140	153	113	108	235	160.7	173.1	126.2	119.0	259.0
Puerto Rico	1,007	1,125	1,034	957	1,076	53.4	59.4	54.5	50.3	56.5
Virgin Islands	55	81	139	53	182	106.1	155.5	267.1	102.0	350.2
OUTLYING AREAS	**1,202**	**1,359**	**1,286**	**1,118**	**1,493**	**59.3**	**66.8**	**63.1**	**54.6**	**73.0**
TOTAL	**253,832**	**281,696**	**315,065**	**329,901**	**355,416**	**169.7**	**186.9**	**207.3**	**214.9**	**231.5**

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, 2006–2010

MSAs	Cases					Rates per 100,000 Population				
	2006	2007	2008	2009	2010	2006	2007	2008	2009	2010
Atlanta-Sandy Springs-Marietta, GA	20,979	21,609	20,722	20,292	22,144	408.3	409.3	385.4	370.6	404.4
Austin-Round Rock, TX	7,325	6,814	8,413	8,456	8,511	484.0	426.4	509.1	495.9	499.2
Baltimore-Towson, MD	11,617	13,053	13,537	12,883	13,988	437.0	489.2	507.6	478.8	519.8
Birmingham-Hoover, AL	5,338	6,913	6,690	6,120	6,126	485.3	623.8	598.6	541.1	541.6
Boston-Cambridge-Quincy, MA-NH	9,918	10,697	11,854	13,285	14,291	222.6	238.6	262.1	289.5	311.4
Buffalo-Cheektowaga-Tonawanda, NY	4,992	5,078	5,561	5,769	5,938	438.8	450.1	494.6	513.3	528.4
Charlotte-Gastonia-Concord, NC-SC	5,076	4,216	7,046	8,869	7,458	320.7	255.3	414.0	508.1	427.3
Chicago-Naperville-Joliet, IL-IN-WI	41,521	41,403	45,803	46,505	45,726	436.8	434.7	478.6	485.4	477.3
Cincinnati-Middletown, OH-KY-IN	8,616	10,080	10,016	8,872	9,805	409.5	472.4	464.8	408.5	451.4
Cleveland-Elyria-Mentor, OH	7,462	9,351	8,731	10,439	11,608	353.0	446.0	418.1	499.2	555.1
Columbus, OH	5,843	7,157	8,314	9,015	9,545	338.6	408.0	468.9	500.3	529.7
Dallas-Fort Worth-Arlington, TX	17,035	22,292	26,090	27,142	29,314	283.7	362.8	414.1	421.0	454.6
Denver-Aurora, CO	7,934	9,539	10,996	11,803	14,320	329.4	387.0	438.7	462.5	561.1
Detroit-Warren-Livonia, MI	17,201	17,934	24,987	25,347	27,751	384.9	401.4	564.7	575.6	630.2
Hartford-West Hartford-East Hartford, CT	3,799	4,300	4,781	4,467	4,616	319.6	361.6	401.6	373.5	386.0
Houston-Baytown-Sugar Land, TX	14,641	17,196	21,100	21,032	27,522	264.3	305.5	368.4	358.4	469.1
Indianapolis, IN	7,780	8,173	8,814	7,716	8,274	467.0	482.2	513.8	442.5	474.5
Jacksonville, FL	5,582	6,501	7,318	6,745	7,093	436.8	499.8	557.3	507.9	534.1
Kansas City, MO-KS	7,825	8,358	9,559	9,892	9,443	397.7	421.0	477.5	478.4	456.7
Las Vegas-Paradise, NV	6,592	7,333	7,753	8,177	7,614	370.8	399.3	415.5	429.7	400.1
Los Angeles-Long Beach-Santa Ana, CA	50,913	52,352	55,276	54,892	56,033	393.1	406.6	429.4	426.4	435.2
Louisville, KY-IN	3,319	3,493	4,953	5,294	6,344	271.6	283.1	397.9	420.6	504.1
Memphis, TN-MS-AR	10,224	11,349	11,896	13,368	12,463	802.1	886.3	925.2	1,024.4	955.1
Miami-Fort Lauderdale-Miami Beach, FL	12,142	13,761	18,128	19,101	19,095	222.2	254.2	334.8	344.3	344.2
Milwaukee-Waukesha-West Allis, WI	10,498	10,150	1,441	10,588	11,512	695.2	657.2	93.0	678.9	738.1
Minneapolis-St. Paul-Bloomington, MN-WI	9,271	9,514	10,093	9,925	10,870	292.0	296.6	312.5	303.5	332.4
Nashville-Davidson-Murfreesboro, TN	4,910	4,972	5,574	5,816	5,705	337.4	326.8	359.4	367.6	360.6
New Orleans-Metairie-Kenner, LA	3,401	4,573	5,109	6,701	6,947	331.9	443.8	450.5	563.1	583.8
New York-Newark-Edison, NY-NJ-PA	62,334	74,071	80,306	83,904	90,704	331.2	393.7	422.5	440.0	475.6
Oklahoma City, OK	4,627	4,646	5,650	5,475	4,704	394.7	389.4	468.4	446.1	383.3
Orlando, FL	6,579	6,825	8,287	9,199	9,491	331.5	335.8	403.3	441.7	455.8
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	27,417	28,116	28,749	30,449	33,050	470.5	482.4	492.4	510.2	553.8
Phoenix-Mesa-Scottsdale, AZ	15,278	15,245	14,314	15,615	16,519	378.2	364.8	334.3	357.8	378.5
Pittsburgh, PA	5,789	6,616	6,920	6,597	7,096	244.2	280.8	294.3	280.1	301.3
Portland-Vancouver-Beaverton, OR-WA	5,654	5,970	6,499	7,215	7,415	264.5	274.5	294.4	321.8	330.8
Providence-New Bedford-Fall River, RI-MA	4,197	4,297	4,551	4,865	4,759	260.2	268.4	285.0	303.9	297.3
Richmond, VA	5,044	5,294	6,783	6,681	7,065	422.4	436.4	553.4	539.6	570.6
Riverside-San Bernardino-Ontario, CA	12,472	14,316	13,557	16,934	12,263	309.8	350.8	329.4	408.7	296.0
Rochester, NY	4,168	4,833	5,294	5,767	6,575	402.5	469.0	511.9	556.9	634.9
Sacramento-Arden-Arcade-Roseville, CA	9,094	8,770	8,395	6,320	8,084	439.9	419.4	397.9	297.1	380.0
Salt Lake City, UT	2,910	3,395	3,562	3,424	3,717	272.5	308.6	319.3	302.9	328.9
San Antonio, TX	8,338	8,727	9,734	11,555	12,430	429.3	438.4	479.2	557.6	599.9
San Diego-Carlsbad-San Marcos, CA	11,980	12,693	14,373	14,169	15,341	407.3	426.7	478.9	464.0	502.4
San Francisco-Oakland-Fremont, CA	15,565	16,710	17,555	16,642	17,686	372.4	397.5	410.7	385.4	409.6
San Jose-Sunnyvale-Santa Clara, CA	5,898	5,892	5,796	5,537	5,691	330.0	326.7	318.6	301.0	309.3
Seattle-Tacoma-Bellevue, WA	9,778	10,397	11,532	11,533	11,510	299.6	314.2	344.8	338.4	337.7
St. Louis, MO-IL	13,509	13,710	14,092	14,546	14,691	483.1	489.0	500.3	514.2	519.3
Tampa-St. Petersburg-Clearwater, FL	7,475	9,501	11,230	11,835	12,158	277.1	348.8	410.8	430.8	442.5
Virginia Beach-Norfolk-Newport News, VA-NC	9,139	9,383	11,867	11,954	11,388	554.1	565.7	715.6	713.9	680.1
Washington-Arlington-Alexandria, DC-VA-MD-WV	15,456	18,069	20,943	20,116	19,870	292.2	340.5	390.9	367.3	362.8
U.S. MSAs TOTAL	**584,455**	**635,637**	**690,544**	**718,843**	**752,263**	**362.3**	**390.6**	**420.4**	**432.5**	**452.6**

* 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.

Table 7. Chlamydia—Women—Reported Cases and Rates in Selected Metropolitan Statistical Areas (MSAs)* in Alphabetical Order, United States, 2006–2010

MSAs	Cases					Rates per 100,000 Population				
	2006	2007	2008	2009	2010	2006	2007	2008	2009	2010
Atlanta-Sandy Springs-Marietta, GA	16,165	15,553	14,898	14,208	15,508	622.2	582.4	547.7	512.7	559.6
Austin-Round Rock, TX	5,170	4,753	5,933	6,020	6,212	699.1	609.2	735.3	721.0	744.0
Baltimore-Towson, MD	9,344	10,416	10,774	10,187	10,744	677.9	753.5	779.9	730.8	770.7
Birmingham-Hoover, AL	4,277	5,165	4,948	4,530	4,525	751.3	900.4	855.2	774.5	773.7
Boston-Cambridge-Quincy, MA-NH	7,140	7,721	8,458	9,369	9,937	311.7	335.2	364.3	398.0	422.1
Buffalo-Cheektowaga-Tonawanda, NY	3,762	3,818	4,076	4,254	4,386	637.8	653.5	700.2	731.7	754.4
Charlotte-Gastonia-Concord, NC-SC	4,189	3,430	5,469	6,747	5,764	520.7	407.4	631.5	758.0	647.5
Chicago-Naperville-Joliet, IL-IN-WI	30,600	31,134	33,220	34,202	33,360	633.8	644.2	684.4	702.6	685.3
Cincinnati-Middletown, OH-KY-IN	6,871	8,082	8,031	7,243	7,749	638.2	740.4	728.5	652.1	697.7
Cleveland-Elyria-Mentor, OH	5,458	7,023	6,487	7,755	8,556	497.2	645.2	598.6	714.7	788.5
Columbus, OH	4,549	5,428	6,027	6,619	6,886	520.7	611.1	671.6	725.2	754.4
Dallas-Fort Worth-Arlington, TX	13,466	17,251	20,125	21,235	22,876	450.4	564.5	642.8	662.9	714.1
Denver-Aurora, CO	5,827	7,020	7,824	8,617	10,458	485.8	572.1	627.4	677.3	822.0
Detroit-Warren-Livonia, MI	13,096	13,580	18,826	18,870	20,530	572.9	594.5	831.9	836.7	910.4
Hartford-West Hartford-East Hartford, CT	2,786	3,122	3,474	3,250	3,324	456.5	511.7	569.4	530.6	542.7
Houston-Baytown-Sugar Land, TX	12,178	14,170	17,287	16,737	21,925	439.8	504.4	605.0	572.0	749.3
Indianapolis, IN	5,596	5,808	6,352	5,430	5,632	660.3	673.8	727.9	611.8	634.6
Jacksonville, FL	4,273	4,627	5,392	4,874	5,191	654.9	695.7	803.3	716.5	763.1
Kansas City, MO-KS	5,791	6,231	7,115	7,278	6,852	578.2	616.2	698.4	691.8	651.3
Las Vegas-Paradise, NV	5,014	5,620	5,842	5,874	5,537	573.3	623.0	637.5	628.5	592.4
Los Angeles-Long Beach-Santa Ana, CA	35,826	36,520	38,100	36,965	37,486	549.2	563.3	588.0	571.1	579.1
Louisville, KY-IN	2,344	2,482	3,504	3,821	4,646	374.3	392.6	548.5	593.3	721.4
Memphis, TN-MS-AR	7,935	8,846	9,199	10,170	9,529	1,202.2	1,332.7	1,377.8	1,501.5	1,406.8
Miami-Fort Lauderdale-Miami Beach, FL	9,553	9,985	13,144	13,788	13,566	340.1	359.0	472.2	485.5	477.7
Milwaukee-Waukesha-West Allis, WI	7,761	7,653	1,116	7,747	8,376	1,004.8	968.8	140.9	970.2	1,049.0
Minneapolis-St. Paul-Bloomington, MN-WI	6,462	6,727	7,037	7,028	7,710	404.3	417.2	433.7	427.0	468.5
Nashville-Davidson-Murfreesboro, TN	3,413	3,445	3,916	4,136	4,027	462.7	446.5	497.1	514.1	500.6
New Orleans-Metairie-Kenner, LA	2,673	3,503	3,722	4,875	5,065	503.2	653.5	630.1	789.5	820.3
New York-Newark-Edison, NY-NJ-PA	45,007	52,815	56,829	59,274	63,280	462.7	543.6	579.7	603.3	644.0
Oklahoma City, OK	3,394	3,262	4,119	3,912	3,292	570.1	539.5	673.4	627.6	528.1
Orlando, FL	5,326	5,203	6,160	6,740	6,777	531.7	507.6	594.1	640.8	644.3
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	19,813	20,132	20,708	21,297	22,863	658.0	668.7	686.9	690.9	741.7
Phoenix-Mesa-Scottsdale, AZ	11,859	11,675	10,725	11,405	11,892	592.7	564.2	506.4	529.1	551.7
Pittsburgh, PA	4,267	4,870	5,092	4,884	5,146	346.5	398.4	417.7	400.3	421.8
Portland-Vancouver-Beaverton, OR-WA	3,769	4,109	4,468	5,069	5,091	351.7	376.7	403.7	450.0	451.9
Providence-New Bedford-Fall River, RI-MA	2,967	3,116	3,327	3,503	3,433	355.8	376.8	403.6	425.1	416.6
Richmond, VA	3,617	3,778	4,981	4,843	5,282	590.0	605.1	790.6	760.1	829.0
Riverside-San Bernardino-Ontario, CA	9,426	10,773	10,009	12,305	8,810	468.5	528.4	486.8	595.5	426.4
Rochester, NY	2,890	3,337	3,594	3,859	4,448	544.7	632.2	679.0	728.8	840.1
Sacramento-Arden-Arcade-Roseville, CA	6,614	6,310	5,997	4,589	5,754	629.1	594.0	559.6	425.7	533.7
Salt Lake City, UT	1,941	2,299	2,254	2,173	2,434	368.8	425.3	411.0	389.2	436.0
San Antonio, TX	6,232	6,567	7,206	8,566	8,972	628.0	646.8	695.8	811.6	850.1
San Diego-Carlsbad-San Marcos, CA	8,620	9,187	10,257	10,050	10,538	590.4	620.4	688.0	660.5	692.5
San Francisco-Oakland-Fremont, CA	10,418	11,118	11,514	10,618	10,940	495.3	525.7	536.0	489.6	504.5
San Jose-Sunnyvale-Santa Clara, CA	4,128	4,232	4,218	3,989	3,951	472.4	480.4	475.3	443.2	438.9
Seattle-Tacoma-Bellevue, WA	6,915	7,412	7,975	8,062	8,000	423.6	447.2	477.1	473.1	469.5
St. Louis, MO-IL	9,952	10,012	10,166	10,481	10,489	689.2	691.6	699.4	718.4	718.9
Tampa-St. Petersburg-Clearwater, FL	5,936	6,841	8,099	8,323	8,527	428.6	489.4	577.2	590.9	605.4
Virginia Beach-Norfolk-Newport News, VA-NC	6,651	6,884	8,789	8,503	8,098	789.6	811.7	1,037.4	992.8	945.5
Washington-Arlington-Alexandria, DC-VA-MD-WV	11,722	13,194	14,967	14,429	14,146	432.7	485.5	545.7	516.1	506.0
U.S. MSAs TOTAL	**432,983**	**466,239**	**501,750**	**518,703**	**538,520**	**528.1**	**564.1**	**601.7**	**614.9**	**638.4**

* 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, 2006–2010

MSAs	Cases					Rates per 100,000 Population				
	2006	2007	2008	2009	2010	2006	2007	2008	2009	2010
Atlanta-Sandy Springs-Marietta, GA	4,574	5,896	5,585	5,923	6,471	180.1	226.0	210.3	219.0	239.3
Austin-Round Rock, TX	2,147	2,053	2,472	2,430	2,290	277.4	251.0	292.3	279.3	263.2
Baltimore-Towson, MD	2,250	2,624	2,754	2,665	3,231	175.8	204.1	214.2	205.5	249.1
Birmingham-Hoover, AL	1,058	1,745	1,740	1,588	1,545	199.4	326.4	322.8	290.7	282.9
Boston-Cambridge-Quincy, MA-NH	2,762	2,966	3,383	3,891	4,334	127.6	136.1	153.7	174.1	193.9
Buffalo-Cheektowaga-Tonawanda, NY	1,229	1,260	1,485	1,515	1,552	224.4	231.7	273.9	279.3	286.1
Charlotte-Gastonia-Concord, NC-SC	887	786	1,549	2,102	1,684	113.9	97.1	185.3	245.7	196.9
Chicago-Naperville-Joliet, IL-IN-WI	10,905	10,259	12,578	12,273	12,250	233.1	218.7	266.7	260.4	259.9
Cincinnati-Middletown, OH-KY-IN	1,691	1,935	1,963	1,565	2,022	164.6	185.7	186.5	147.5	190.5
Cleveland-Elyria-Mentor, OH	1,953	2,285	2,216	2,579	3,016	192.2	226.7	220.6	256.3	299.8
Columbus, OH	1,272	1,706	2,275	2,319	2,627	149.3	197.0	259.8	260.8	295.5
Dallas-Fort Worth-Arlington, TX	3,558	4,987	5,962	5,903	6,432	118.0	161.5	188.1	182.0	198.3
Denver-Aurora, CO	2,107	2,519	3,161	3,184	3,862	174.2	203.5	250.9	248.8	301.7
Detroit-Warren-Livonia, MI	4,027	4,220	5,996	6,329	7,134	184.5	193.3	277.3	294.6	332.1
Hartford-West Hartford-East Hartford, CT	1,013	1,178	1,303	1,217	1,292	175.1	203.5	224.5	208.6	221.4
Houston-Baytown-Sugar Land, TX	2,449	2,963	3,776	4,259	5,560	88.4	105.1	131.5	144.8	189.0
Indianapolis, IN	2,167	2,340	2,451	2,275	2,636	264.7	280.9	290.8	265.7	307.9
Jacksonville, FL	1,309	1,873	1,912	1,868	1,893	209.3	294.6	297.8	288.3	292.2
Kansas City, MO-KS	2,034	2,127	2,444	2,614	2,591	210.6	218.3	248.5	257.4	255.1
Las Vegas-Paradise, NV	1,576	1,704	1,911	2,301	2,076	174.5	182.4	201.3	237.7	214.4
Los Angeles-Long Beach-Santa Ana, CA	14,921	15,639	16,886	17,728	18,343	232.2	244.7	264.1	276.9	286.5
Louisville, KY-IN	961	1,011	1,436	1,460	1,686	161.3	168.1	237.0	237.6	274.4
Memphis, TN-MS-AR	2,289	2,503	2,697	3,197	2,928	372.4	405.8	436.4	509.4	466.6
Miami-Fort Lauderdale-Miami Beach, FL	2,588	3,771	4,934	5,304	5,523	97.5	143.3	187.5	195.9	204.0
Milwaukee-Waukesha-West Allis, WI	2,720	2,473	321	2,767	3,134	368.8	327.8	42.4	363.5	411.7
Minneapolis-St. Paul-Bloomington, MN-WI	2,809	2,787	3,056	2,897	3,160	178.2	174.6	190.1	178.4	194.6
Nashville-Davidson-Murfreesboro, TN	1,497	1,527	1,658	1,680	1,670	208.6	203.7	217.3	216.0	214.7
New Orleans-Metairie-Kenner, LA	676	985	1,349	1,804	1,687	137.0	199.3	248.3	315.1	294.7
New York-Newark-Edison, NY-NJ-PA	17,301	21,165	23,441	24,602	27,324	190.3	232.6	254.7	266.1	295.6
Oklahoma City, OK	1,233	1,384	1,473	1,536	1,410	213.7	235.2	247.8	254.3	233.5
Orlando, FL	1,252	1,620	2,117	2,452	2,705	127.3	160.8	208.0	237.9	262.5
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	7,600	7,972	8,040	9,129	10,146	269.9	283.0	284.7	316.4	351.6
Phoenix-Mesa-Scottsdale, AZ	3,410	3,569	3,586	4,210	4,626	167.3	169.1	165.7	190.6	209.5
Pittsburgh, PA	1,522	1,745	1,828	1,712	1,947	133.6	154.0	161.4	150.8	171.6
Portland-Vancouver-Beaverton, OR-WA	1,885	1,861	2,029	2,146	2,323	176.9	171.6	184.3	192.4	208.3
Providence-New Bedford-Fall River, RI-MA	1,223	1,178	1,222	1,360	1,325	157.0	152.2	158.2	175.1	170.6
Richmond, VA	1,423	1,514	1,793	1,817	1,759	244.9	257.2	301.0	302.3	292.7
Riverside-San Bernardino-Ontario, CA	3,029	3,532	3,548	4,622	3,437	150.4	172.9	172.2	222.5	165.5
Rochester, NY	1,278	1,496	1,700	1,908	2,127	253.1	297.6	336.8	377.0	420.3
Sacramento-Arden-Arcade-Roseville, CA	2,431	2,387	2,346	1,682	2,287	239.3	232.0	226.0	160.3	218.0
Salt Lake City, UT	969	1,096	1,308	1,251	1,283	179.0	195.9	230.6	218.7	224.3
San Antonio, TX	2,104	2,160	2,527	2,986	3,458	221.5	221.5	253.8	293.7	340.1
San Diego-Carlsbad-San Marcos, CA	3,134	3,457	4,078	4,097	4,785	211.6	231.4	270.0	267.4	312.3
San Francisco-Oakland-Fremont, CA	5,058	5,465	5,968	5,909	6,645	243.6	261.6	280.7	274.9	309.2
San Jose-Sunnyvale-Santa Clara, CA	1,723	1,633	1,558	1,513	1,649	188.7	177.0	167.2	161.0	175.5
Seattle-Tacoma-Bellevue, WA	2,863	2,985	3,538	3,471	3,509	175.5	180.7	211.4	203.7	205.9
St. Louis, MO-IL	3,557	3,698	3,925	4,065	4,200	263.0	272.7	287.9	296.7	306.6
Tampa-St. Petersburg-Clearwater, FL	1,535	2,652	3,050	3,441	3,601	116.9	200.0	229.2	257.0	269.0
Virginia Beach-Norfolk-Newport News, VA-NC	2,481	2,494	3,064	3,422	3,284	307.4	307.7	377.8	418.3	401.5
Washington-Arlington-Alexandria, DC-VA-MD-WV	3,637	4,849	5,897	5,623	5,680	140.9	187.3	225.5	209.8	211.9
U.S. MSAs TOTAL	**150,077**	**168,034**	**187,289**	**198,591**	**212,139**	**189.2**	**209.9**	**231.6**	**242.6**	**259.2**

* 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—Counties and Independent Cities* Ranked by Number of Reported Cases, United States, 2010

Rank†	County/Independent City	Cases	Rates per 100,000 Population	Cumulative Percentage
1	Los Angeles County, CA	47,544	482.8	3
2	Cook County, IL	34,664	655.6	6
3	Harris County, TX	22,322	548.3	7
4	Wayne County, MI	21,155	1,098.5	9
5	Kings County, NY	20,790	809.9	11
6	Philadelphia County, PA	19,428	1,255.6	12
7	Bronx County, NY	18,465	1,321.5	14
8	Maricopa County, AZ	15,567	386.9	15
9	Dallas County, TX	15,557	634.5	16
10	San Diego County, CA	15,341	502.4	17
11	Queens County, NY	11,667	505.8	18
12	Bexar County, TX	11,441	692.8	19
13	New York County, NY	11,328	695.4	20
14	Milwaukee County, WI	10,707	1,115.9	21
15	Denver County, CO	10,496	1,719.7	21
16	Shelby County, TN	9,978	1,084.3	22
17	Cuyahoga County, OH	9,865	773.3	23
18	Miami-Dade County, FL	8,655	346.1	24
19	San Bernardino County, CA	8,515	422.0	24
20	Orange County, CA	8,489	280.5	25
21	Baltimore (City), MD	8,247	1,293.8	26
22	Franklin County, OH	8,184	711.6	26
23	Tarrant County, TX	8,034	448.9	27
24	Clark County, NV	7,614	400.1	27
25	Marion County, IN	7,298	819.2	28
26	Hillsborough County, FL	7,020	587.3	28
27	Broward County, FL	6,956	393.8	29
28	Alameda County, CA	6,610	443.2	29
29	Sacramento County, CA	6,585	470.0	30
30	Hamilton County, OH	6,377	745.8	30
31	Fulton County, GA	6,160	595.9	31
32	Orange County, FL	6,095	561.0	31
33	King County, WA	6,053	315.8	32
34	Fresno County, CA	6,025	658.3	32
35	Suffolk County, MA	6,017	798.5	33
36	Prince George's County, MD	5,884	705.0	33
37	Travis County, TX	5,832	568.3	34
38	Duval County, FL	5,745	670.3	34
39	Monroe County, NY	5,744	782.9	35
40	Washington, D.C.	5,589	932.0	35
41	Santa Clara County, CA	5,518	309.2	35
42	Jackson County, MO	5,507	780.4	36
43	Kern County, CA	5,457	675.9	36
44	Essex County, NJ	5,340	693.8	37
45	Jefferson County, AL	5,268	792.1	37
46	Hennepin County, MN	5,242	453.4	37
47	St. Louis County, MO	5,233	527.3	38
48	Erie County, NY	5,080	558.7	38
49	Allegheny County, PA	5,042	413.8	39
50	Honolulu County, HI	4,827	531.9	39
51	Jefferson County, KY	4,732	655.8	39
52	Mecklenburg County, NC	4,628	506.5	40
53	Orleans County, LA	4,626	1,303.6	40
54	San Francisco County, CA	4,596	563.7	40

* Accounting for 40% of reported chlamydia cases.

† Counties and independent cities were ranked in descending order by number of cases reported in 2010.

Table 10. Chlamydia—Reported Cases and Rates per 100,000 Population by Age Group and Sex, United States, 2006–2010

Age Group	Cases				Rates*				
	Total	Male	Female	Unknown Sex	Total	Male	Female	Unknown Sex	
10–14	13,542	1,227	12,279	36	65.7	11.6	122.0		2006
15–19	350,627	58,332	291,493	802	1,644.3	533.4	2,805.7		
20–24	376,042	92,295	283,018	729	1,781.2	846.0	2,774.4		
25–29	160,411	48,977	111,125	309	774.6	462.7	1,097.5		
30–34	63,501	22,377	40,996	128	322.2	224.2	421.5		
35–39	30,794	12,656	18,064	74	145.4	118.8	171.5		
40–44	15,251	7,350	7,870	31	67.8	65.6	69.8		
45–54	11,293	5,767	5,495	31	26.1	27.1	25.0		
55–64	2,398	1,323	1,070	5	7.6	8.7	6.5		
65+	889	420	465	4	2.4	2.7	2.2		
Unknown Age	4,789	1,444	3,009	336					
10–14	13,583	1,242	12,303	38	66.9	11.9	124.1		2007
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					
10–14	14,297	1,441	12,816	40	71.3	14.0	130.9		2008
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					
10–14	13,899	1,405	12,447	47	69.6	13.7	127.6		2009
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					
10–14	14,531	1,590	12,860	81	72.8	15.6	131.9		2010
15–19	441,342	85,570	354,252	1,520	2,049.1	774.3	3,378.2		
20–24	488,996	131,686	355,994	1,316	2,270.2	1,187.0	3,407.9		
25–29	197,525	66,470	130,561	494	911.2	598.0	1,236.1		
30–34	83,408	31,230	51,925	253	419.4	309.0	530.9		
35–39	38,384	15,861	22,421	102	186.9	153.2	220.1		
40–44	19,614	9,594	9,931	89	93.4	91.3	94.7		
45–54	16,106	8,635	7,423	48	36.1	39.3	32.8		
55–64	3,523	1,834	1,674	15	10.1	10.9	9.3		
65+	954	464	481	9	2.4	2.8	2.1		
Unknown Age	2,358	636	1,503	219					

* No population data are available for unknown sex and age; therefore, rates are not calculated. The 0- to 9-year age group is not shown because some of these cases may not be due to sexual transmission.

NOTE: This table should be used only for age comparisons.

Table 11A. Chlamydia—Reported Cases by Race/Ethnicity, Age Group, and Sex, United States, 2006–2010

	Age Group	Whites, Non-Hispanic			Blacks, Non-Hispanic			Hispanics			Asians/Pacific Islanders			American Indians/ Alaska Natives		
		Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
2006	10–14	1,948	60	1,888	5,784	633	5,151	1,514	168	1,346	76	2	74	221	13	208
	15–19	71,844	7,924	63,920	132,857	27,806	105,051	43,701	7,337	36,364	2,717	337	2,380	4,599	769	3,830
	20–24	90,730	20,735	69,995	122,504	35,497	87,007	54,538	13,246	41,292	4,722	955	3,767	4,960	1,022	3,938
	25–29	34,057	10,332	23,725	49,106	17,506	31,600	26,866	7,711	19,155	2,525	666	1,859	2,230	534	1,696
	30–34	11,509	4,064	7,445	18,487	8,088	10,399	11,495	3,397	8,098	1,392	405	987	985	240	745
	35–39	5,524	2,352	3,172	8,644	4,542	4,102	5,115	1,658	3,457	724	228	496	468	121	347
	40–44	2,840	1,486	1,354	4,281	2,519	1,762	2,125	812	1,313	426	140	286	267	73	194
	45–54	2,207	1,268	939	3,318	1,994	1,324	1,258	483	775	336	139	197	175	58	117
	55–64	482	306	176	561	370	191	226	98	128	77	30	47	36	10	26
	65+	135	77	58	156	90	66	78	28	50	12	7	5	12	3	9
	TOTAL	**221,276**	**48,604**	**172,672**	**345,698**	**99,045**	**246,653**	**146,916**	**34,938**	**111,978**	**13,007**	**2,909**	**10,098**	**13,953**	**2,843**	**11,110**
2007	10–14	1,860	75	1,785	5,935	682	5,253	1,554	167	1,387	93	6	87	184	13	171
	15–19	76,230	9,047	67,183	147,660	32,378	115,282	45,799	7,979	37,820	3,045	430	2,615	4,313	700	3,613
	20–24	96,161	22,184	73,977	136,611	40,976	95,635	55,604	13,591	42,013	4,830	1,015	3,815	4,671	1,014	3,657
	25–29	37,190	11,492	25,698	55,155	20,271	34,884	27,786	7,991	19,795	2,818	746	2,072	2,160	493	1,667
	30–34	12,585	4,441	8,144	21,181	9,228	11,953	11,897	3,576	8,321	1,446	440	1,006	917	241	676
	35–39	6,278	2,563	3,715	9,737	5,030	4,707	5,275	1,763	3,512	823	272	551	431	110	321
	40–44	3,148	1,597	1,551	4,845	2,793	2,052	2,248	858	1,390	452	189	263	245	75	170
	45–54	2,621	1,578	1,043	3,942	2,415	1,527	1,414	564	850	349	141	208	159	51	108
	55–64	566	381	185	716	449	267	244	90	154	109	51	58	16	5	11
	65+	149	99	50	163	88	75	75	33	42	16	8	8	6	3	3
	TOTAL	**236,788**	**53,457**	**183,331**	**385,945**	**114,310**	**271,635**	**151,896**	**36,612**	**115,284**	**13,981**	**3,298**	**10,683**	**13,102**	**2,705**	**10,397**
2008	10–14	1,902	102	1,800	6,142	721	5,421	1,698	171	1,527	79	9	70	152	10	142
	15–19	80,792	10,062	70,730	162,945	36,861	126,084	50,849	9,166	41,683	3,513	460	3,053	4,682	758	3,924
	20–24	101,469	24,144	77,325	148,914	45,631	103,283	60,850	15,577	45,273	5,768	1,276	4,492	5,149	1,127	4,022
	25–29	39,575	12,593	26,982	59,263	22,118	37,145	29,819	8,969	20,850	3,246	890	2,356	2,474	597	1,877
	30–34	13,839	4,954	8,885	22,436	9,749	12,687	12,897	3,995	8,902	1,671	517	1,154	1,009	253	756
	35–39	6,652	2,752	3,900	10,252	5,279	4,973	6,037	1,987	4,050	933	316	617	473	121	352
	40–44	3,408	1,774	1,634	5,144	2,921	2,223	2,619	1,010	1,609	453	177	276	263	89	174
	45–54	2,799	1,653	1,146	4,173	2,525	1,648	1,553	630	923	420	181	239	208	60	148
	55–64	645	411	234	800	495	305	278	117	161	132	48	84	30	7	23
	65+	163	107	56	173	92	81	82	32	50	28	14	14	10	5	5
	TOTAL	**251,244**	**58,552**	**192,692**	**420,242**	**126,392**	**293,850**	**166,682**	**41,654**	**125,028**	**16,243**	**3,888**	**12,355**	**14,450**	**3,027**	**11,423**
2009	10–14	1,728	90	1,638	5,957	731	5,226	1,647	179	1,468	75	6	69	166	15	151
	15–19	82,536	11,007	71,529	167,131	39,037	128,094	52,022	9,420	42,602	3,462	470	2,992	4,469	735	3,734
	20–24	106,086	25,653	80,433	156,996	49,312	107,684	62,384	16,222	46,162	5,862	1,323	4,539	5,289	1,204	4,085
	25–29	41,177	13,399	27,778	60,479	23,007	37,472	30,627	9,342	21,285	3,290	891	2,399	2,422	571	1,851
	30–34	14,917	5,501	9,416	23,433	10,302	13,131	13,194	4,229	8,965	1,606	457	1,149	1,016	279	737
	35–39	6,593	2,797	3,796	10,380	5,326	5,054	6,096	2,012	4,084	920	320	600	475	113	362
	40–44	3,377	1,697	1,680	5,100	2,965	2,135	2,714	1,062	1,652	526	197	329	238	71	167
	45–54	3,084	1,890	1,194	4,156	2,455	1,701	1,727	714	1,013	447	186	261	181	62	119
	55–64	720	481	239	861	514	347	313	125	188	117	46	71	36	13	23
	65+	165	106	59	184	96	88	78	34	44	32	19	13	8	4	4
	TOTAL	**260,383**	**62,621**	**197,762**	**434,677**	**133,745**	**300,932**	**170,802**	**43,339**	**127,463**	**16,337**	**3,915**	**12,422**	**14,300**	**3,067**	**11,233**
2010	10–14	1,913	116	1,797	6,044	783	5,261	1,593	198	1,395	87	4	83	171	12	159
	15–19	85,578	11,855	73,723	170,734	40,666	130,068	53,075	9,773	43,302	3,498	486	3,012	4,483	793	3,690
	20–24	115,757	28,197	87,560	168,099	53,317	114,782	66,532	17,220	49,312	6,252	1,386	4,866	5,847	1,402	4,445
	25–29	44,460	14,886	29,574	61,748	23,694	38,054	31,261	9,873	21,388	3,501	1,004	2,497	2,777	720	2,057
	30–34	16,770	6,237	10,533	24,916	11,025	13,891	14,205	4,641	9,564	1,688	587	1,101	1,146	320	826
	35–39	7,213	3,148	4,065	10,627	5,500	5,127	6,514	2,169	4,345	1,017	368	649	522	157	365
	40–44	3,804	2,022	1,782	5,287	3,075	2,212	2,967	1,198	1,769	546	225	321	234	74	160
	45–54	3,427	2,153	1,274	4,229	2,504	1,725	1,900	840	1,060	462	198	264	203	48	155
	55–64	717	492	225	814	461	353	325	140	185	106	37	69	43	12	31
	65+	179	126	53	165	85	80	78	34	44	31	17	14	4	2	2
	TOTAL	**279,818**	**69,232**	**210,586**	**452,663**	**141,110**	**311,553**	**178,450**	**46,086**	**132,364**	**17,188**	**4,312**	**12,876**	**15,430**	**3,540**	**11,890**

NOTE: These tables should be used only for race/ethnicity comparisons. The 0- to 9-year age group is not shown because some of these cases may not be due to sexual transmission, and they are not included in the totals. In 2010, race/ethnicity was unknown (i.e., unknown, missing, or invalid data values) for 26.2% of reported chlamydia cases, age was unknown for 0.2% of cases, and sex was unknown for 0.3% of cases. **See Table 10 for age-specific cases and rates and Tables 3-5 for total and sex-specific cases and rates.**

Table 11B. Chlamydia—Rates per 100,000 Population by Race/Ethnicity, Age Group, and Sex, United States, 2006–2010

Age Group	Whites, Non-Hispanic			Blacks, Non-Hispanic			Hispanics			Asians/Pacific Islanders			American Indians/ Alaska Natives			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
10–14	15.8	0.9	31.4	179.3	38.6	324.4	38.4	8.3	69.9	8.5	0.4	16.9	105.4	12.2	200.9	
15–19	542.2	116.5	991.5	4,003.9	1,653.8	6,417.8	1,206.3	392.9	2,071.7	301.7	72.6	545.4	1,987.7	655.1	3,360.1	
20–24	691.8	308.5	1,094.9	4,031.9	2,310.2	5,793.2	1,453.6	650.1	2,408.5	479.2	190.4	778.8	2,246.3	909.8	3,630.2	
25–29	275.2	166.0	385.7	1,747.6	1,282.3	2,187.1	645.4	332.2	1,040.3	215.0	115.2	311.8	1,193.4	565.9	1,833.7	
30–34	98.1	68.8	127.7	730.0	672.8	781.7	292.6	159.1	451.3	103.2	61.5	143.1	603.1	293.7	913.1	
35–39	40.7	34.5	47.0	326.4	364.1	292.8	144.8	87.9	209.9	56.7	36.6	75.8	281.0	146.7	413.0	
40–44	18.6	19.5	17.8	153.2	192.6	118.5	67.9	49.5	88.3	37.1	25.1	48.5	147.5	82.6	209.3	
45–54	7.0	8.1	5.9	66.2	86.2	49.1	27.8	21.1	34.7	17.3	15.2	19.2	51.8	36.1	66.1	
55–64	2.0	2.6	1.4	18.0	26.6	11.0	8.9	8.0	9.7	6.0	5.1	6.8	16.3	9.5	22.5	
65+	0.4	0.6	0.3	5.0	7.5	3.4	3.3	2.7	3.6	1.0	1.3	0.7	6.3	3.6	8.4	
TOTAL	**124.4**	**56.0**	**189.6**	**1,093.3**	**665.6**	**1,473.5**	**413.6**	**189.6**	**655.0**	**106.7**	**49.5**	**160.1**	**661.8**	**275.5**	**1,032.2**	**2006**
10–14	15.4	1.2	30.3	188.9	42.7	339.8	39.2	8.2	71.6	10.3	1.3	19.6	91.2	12.7	171.9	
15–19	576.9	133.4	1,044.6	4,376.7	1,893.9	6,927.5	1,222.6	413.6	2,081.5	335.2	91.8	594.2	1,863.6	598.0	3,159.0	
20–24	733.5	329.8	1,158.8	4,471.8	2,650.4	6,338.0	1,506.9	686.3	2,457.4	506.2	208.6	816.0	2,097.0	894.0	3,345.3	
25–29	294.1	180.4	409.4	1,911.0	1,435.5	2,366.5	665.4	343.6	1,070.2	243.8	130.6	354.3	1,115.4	503.8	1,740.0	
30–34	109.1	76.5	142.0	841.1	770.8	904.9	298.0	164.2	458.4	109.6	68.3	149.0	558.6	293.0	825.4	
35–39	46.9	38.1	55.8	366.4	401.4	335.1	144.8	90.6	207.1	61.9	42.0	80.9	258.1	132.5	382.2	
40–44	21.4	21.7	21.1	176.5	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	77.1	102.3	55.5	29.8	23.4	36.4	17.5	15.0	19.8	46.2	31.1	59.9	
55–64	2.2	3.1	1.4	21.9	30.9	14.8	9.1	7.0	11.0	8.1	8.2	8.0	6.9	4.5	9.0	
65+	0.5	0.8	0.3	5.1	7.2	3.8	3.0	3.1	2.9	1.2	1.4	1.1	3.0	3.4	2.7	
TOTAL	**132.8**	**61.4**	**200.9**	**1,208.5**	**760.2**	**1,607.4**	**417.7**	**194.2**	**658.2**	**113.0**	**55.3**	**166.8**	**614.0**	**259.1**	**954.0**	**2007**
10–14	16.0	1.7	31.1	200.4	46.3	359.4	42.6	8.4	78.4	8.8	2.0	15.7	77.0	10.0	146.0	
15–19	616.0	149.4	1,108.1	4,781.5	2,132.7	7,507.3	1,320.7	462.7	2,229.8	385.7	98.0	691.3	2,042.4	654.9	3,457.4	
20–24	772.6	358.3	1,209.2	4,809.6	2,915.4	6,746.1	1,661.2	800.5	2,636.4	612.0	264.9	974.9	2,296.8	987.9	3,653.2	
25–29	306.8	193.2	422.9	2,003.9	1,515.4	2,480.0	720.2	390.5	1,130.9	285.9	157.8	412.4	1,219.4	581.5	1,873.0	
30–34	119.6	85.1	154.5	884.8	806.0	956.6	319.1	180.2	487.9	130.6	82.7	176.3	606.4	303.3	911.0	
35–39	50.8	41.8	59.9	386.9	422.3	355.4	161.8	99.5	233.7	68.8	47.7	88.9	283.3	145.6	419.7	
40–44	24.0	25.0	23.0	190.9	231.5	155.2	79.9	58.3	104.0	38.5	31.0	45.7	153.4	106.2	198.6	
45–54	8.8	10.5	7.2	80.1	105.0	58.8	31.2	24.8	37.8	20.5	18.6	22.2	59.5	36.0	81.0	
55–64	2.5	3.3	1.8	23.5	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	
TOTAL	**140.5**	**67.0**	**210.6**	**1,301.8**	**831.0**	**1,721.2**	**448.2**	**216.1**	**697.7**	**129.7**	**64.4**	**190.5**	**668.6**	**286.2**	**1,035.1**	**2008**
10–14	14.7	1.5	28.6	196.8	47.5	350.8	40.6	8.6	74.1	8.1	1.3	15.1	85.3	15.2	157.6	
15–19	638.5	165.9	1,137.3	4,887.9	2,250.9	7,602.0	1,290.2	451.4	2,190.4	369.9	97.8	656.9	1,985.2	646.6	3,350.5	
20–24	801.5	377.9	1,247.4	4,906.5	3,045.2	6,813.7	1,606.2	784.7	2,541.0	590.2	262.5	927.7	2,330.6	1,043.1	3,663.2	
25–29	314.6	202.0	430.2	2,000.7	1,528.7	2,468.5	738.1	409.1	1,140.5	273.1	151.4	389.3	1,150.8	537.2	1,776.9	
30–34	126.8	93.0	160.9	893.6	819.7	961.5	327.4	190.4	495.7	123.8	73.0	171.2	593.4	324.0	866.1	
35–39	52.1	44.0	60.3	394.6	428.7	364.0	162.2	99.4	235.7	68.7	49.0	87.3	286.1	136.9	433.8	
40–44	24.6	24.7	24.5	194.0	240.6	153.0	82.1	60.4	106.6	44.8	34.8	54.1	142.7	86.5	197.2	
45–54	9.7	12.0	7.5	78.7	100.8	59.8	33.4	27.0	40.2	21.7	19.0	24.1	51.0	36.6	64.3	
55–64	2.7	3.7	1.8	24.1	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	
TOTAL	**145.3**	**71.5**	**215.8**	**1,328.0**	**866.3**	**1,740.2**	**447.8**	**218.8**	**695.2**	**127.5**	**63.6**	**186.4**	**653.6**	**286.5**	**1,005.4**	**2009**
10–14	16.3	1.9	31.4	199.7	50.9	353.2	39.2	9.5	70.5	9.4	0.9	18.1	87.9	12.1	166.0	
15–19	662.1	178.6	1,172.1	4,993.3	2,344.9	7,719.1	1,316.3	468.3	2,226.4	373.7	101.2	661.3	1,991.5	697.7	3,311.1	
20–24	874.6	415.4	1,357.9	5,253.5	3,292.5	7,262.8	1,713.0	833.0	2,714.4	629.5	275.0	994.6	2,576.5	1,214.7	3,986.0	
25–29	339.6	224.4	458.0	2,042.6	1,574.4	2,506.9	753.3	432.4	1,146.0	290.6	170.6	405.2	1,319.5	677.4	1,974.7	
30–34	142.5	105.4	180.0	950.1	877.3	1,017.2	352.5	208.9	528.9	130.1	93.7	164.0	669.4	371.6	970.7	
35–39	57.0	49.6	64.6	404.0	442.8	369.3	173.4	107.1	250.8	75.9	56.4	94.4	314.4	190.1	437.4	
40–44	27.7	29.4	26.0	201.2	249.5	158.5	89.7	68.2	114.2	46.5	39.7	52.8	140.3	90.2	188.9	
45–54	10.8	13.7	8.0	80.1	102.8	60.7	36.8	31.7	42.1	22.4	20.2	24.4	57.2	28.3	83.7	
55–64	2.7	3.8	1.7	22.8	29.0	17.8	10.9	9.6	12.0	7.2	5.5	8.6	16.9	10.0	23.2	
65+	0.6	0.9	0.3	4.9	6.6	3.9	2.8	2.9	2.8	2.2	2.8	1.8	1.8	2.1	1.6	
TOTAL	**156.1**	**79.1**	**229.7**	**1,383.0**	**914.0**	**1,801.6**	**467.9**	**232.7**	**721.9**	**134.1**	**70.1**	**193.2**	**705.2**	**330.6**	**1,064.2**	**2010**

NOTE: These tables should be used only for race/ethnicity comparisons. The 0- to 9-year age group is not shown because some of these cases may not be due to sexual transmission, and they are not included in the totals. In 2010, race/ethnicity was unknown (i.e., unknown, missing, or invalid data values) for 26.2% of reported chlamydia cases, age was unknown for 0.2% of cases, and sex was unknown for 0.3% of cases. **See Table 10 for age-specific cases and rates and Tables 3-5 for total and sex-specific cases and rates.**

Table 12. Chlamydia—Women 15–25 Years of Age, United States, 2006–2010

	Age	Cases	Rates per 100,000 Population
2006	15	23,893	1,131.6
	16	43,568	2,029.6
	17	62,260	3,008.2
	18	80,157	3,929.2
	19	81,615	4,037.4
	20	75,752	3,724.9
	21	65,778	3,215.7
	22	55,275	2,752.2
	23	46,624	2,283.2
	24	39,589	1,911.1
	25	32,390	1,532.0
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	1,261.6
	16	48,233	2,344.7
	17	73,089	3,481.0
	18	100,399	4,700.5
	19	107,099	4,917.3
	20	99,175	4,705.9
	21	84,674	4,064.3
	22	69,755	3,370.1
	23	56,264	2,697.2
	24	46,126	2,197.2
	25	37,155	1,801.9

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, 2010

Rank*	State	Cases	Rates per 100,000 Population
1	Mississippi	6,195	209.9
2	Louisiana	8,912	198.4
3	Alaska	1,273	182.3
4	South Carolina	7,970	174.7
5	Alabama	7,933	168.5
6	Arkansas	4,769	165.0
7	Georgia	15,852	161.3
8	North Carolina	14,111	150.4
9	Ohio	16,496	142.9
10	Michigan	13,627	136.7
11	Maryland	7,413	130.1
12	Texas	31,788	128.3
13	Illinois	15,777	122.2
14	Missouri	7,159	119.6
15	Oklahoma	4,369	118.5
16	Delaware	1,010	114.1
17	Tennessee	7,121	113.1
18	Florida	20,163	108.8
19	Pennsylvania	12,883	102.2
20	Indiana	6,496	101.1
	U.S. TOTAL†	**309,341**	**100.8**
21	Kentucky	4,345	100.7
22	Virginia	7,402	93.9
23	New York	18,320	93.7
24	Wisconsin	5,091	90.0
25	Kansas	2,084	73.9
26	Connecticut	2,569	73.0
27	California	26,441	71.5
28	New Jersey	5,872	67.4
29	Nebraska	1,187	66.1
30	Nevada	1,728	65.4
31	New Mexico	1,229	61.2
32	Iowa	1,803	59.9
33	Hawaii	759	58.6
34	South Dakota	468	57.6
35	Colorado	2,787	55.5
36	Arizona	3,249	49.3
37	Washington	2,864	43.0
38	Minnesota	2,119	40.2
39	Massachusetts	2,483	37.7
40	West Virginia	579	31.8
41	North Dakota	204	31.5
42	Oregon	1,076	28.1
43	Rhode Island	291	27.6
44	Maine	162	12.3
45	New Hampshire	151	11.4
46	Utah	310	11.1
47	Montana	102	10.5
48	Idaho	147	9.5
49	Vermont	58	9.3
50	Wyoming	40	7.3

* States were ranked in descending order by rate (rounded to the nearest tenth) and by number of cases.

† Total includes cases reported by the District of Columbia with 2,104 cases and a rate of 350.9, but excludes outlying areas (Guam with 97 cases and a rate of 54.4, Puerto Rico with 312 cases and a rate of 7.9, and Virgin Islands with 151 cases and a rate of 137.5).

Table 14. Gonorrhea—Reported Cases and Rates by State/Area and Region in Alphabetical Order, United States and Outlying Areas, 2006–2010

State/Area	Cases					Rates per 100,000 Population				
	2006	2007	2008	2009	2010	2006	2007	2008	2009	2010
Alabama	10,665	10,885	9,740	7,498	7,933	231.9	235.2	208.9	159.2	168.5
Alaska	630	579	578	990	1,273	94.0	84.7	84.2	141.7	182.3
Arizona	5,949	5,062	3,449	3,250	3,249	96.5	79.9	53.1	49.3	49.3
Arkansas	4,306	4,168	4,514	4,460	4,769	153.2	147.0	158.1	154.4	165.0
California	33,740	31,294	25,787	23,228	26,441	92.5	85.6	70.2	62.8	71.5
Colorado	3,695	3,376	3,757	2,823	2,787	77.7	69.4	76.1	56.2	55.5
Connecticut	2,610	2,327	2,801	2,558	2,569	74.5	66.4	80.0	72.7	73.0
Delaware	1,485	1,293	1,045	971	1,010	174.0	149.5	119.7	109.7	114.1
District of Columbia	1,887	2,373	2,656	2,561	2,104	324.5	403.4	448.8	427.1	350.9
Florida	23,976	23,327	23,326	20,878	20,163	132.5	127.8	127.3	112.6	108.8
Georgia	19,669	17,835	16,272	13,687	15,852	210.1	186.9	168.0	139.2	161.3
Hawaii	885	659	610	631	759	68.8	51.3	47.4	48.7	58.6
Idaho	206	269	187	110	147	14.0	17.9	12.3	7.1	9.5
Illinois	20,186	20,813	20,674	19,962	15,777	157.3	161.9	160.2	154.6	122.2
Indiana	8,732	8,790	8,769	6,835	6,496	138.3	138.5	137.5	106.4	101.1
Iowa	1,966	1,928	1,700	1,658	1,803	65.9	64.5	56.6	55.1	59.9
Kansas	2,210	2,282	2,274	2,505	2,084	80.0	82.2	81.2	88.9	73.9
Kentucky	3,277	3,449	4,548	3,827	4,345	77.9	81.3	106.5	88.7	100.7
Louisiana	10,883	11,137	9,455	8,996	8,912	253.8	259.4	214.4	200.3	198.4
Maine	137	118	96	143	162	10.4	9.0	7.3	10.8	12.3
Maryland	7,328	6,768	6,666	6,395	7,413	130.5	120.5	118.3	112.2	130.1
Massachusetts	2,429	2,695	2,129	1,976	2,483	37.7	41.8	32.8	30.0	37.7
Michigan	15,677	15,482	17,064	14,704	13,627	155.3	153.7	170.6	147.5	136.7
Minnesota	3,303	3,459	3,037	2,303	2,119	63.9	66.5	58.2	43.7	40.2
Mississippi	7,511	8,314	7,494	7,241	6,195	258.1	284.8	255.0	245.3	209.9
Missouri	10,204	9,876	8,014	6,488	7,159	174.6	168.0	135.6	108.4	119.6
Montana	194	122	122	80	102	20.5	12.7	12.6	8.2	10.5
Nebraska	1,433	1,434	1,460	1,376	1,187	81.0	80.8	81.9	76.6	66.1
Nevada	2,791	2,357	2,172	1,726	1,728	111.8	91.9	83.5	65.3	65.4
New Hampshire	180	138	100	113	151	13.7	10.5	7.6	8.5	11.4
New Jersey	5,492	6,076	5,298	4,762	5,872	62.9	70.0	61.0	54.7	67.4
New Mexico	1,733	1,796	1,403	1,082	1,229	88.7	91.2	70.7	53.8	61.2
New York	17,459	17,697	17,108	17,004	18,320	90.4	91.7	87.8	87.0	93.7
North Carolina	17,312	16,666	15,972	13,870	14,111	195.5	183.9	173.2	147.9	150.4
North Dakota	153	116	143	151	204	24.1	18.1	22.3	23.3	31.5
Ohio	19,190	21,066	16,803	15,988	16,496	167.2	183.7	146.3	138.5	142.9
Oklahoma	4,951	4,827	5,185	4,673	4,369	138.3	133.4	142.4	126.7	118.5
Oregon	1,461	1,236	1,225	1,113	1,076	39.5	33.0	32.3	29.1	28.1
Pennsylvania	11,466	12,706	11,071	10,138	12,883	92.2	102.2	88.9	80.4	102.2
Rhode Island	508	402	307	322	291	47.6	38.0	29.2	30.6	27.6
South Carolina	10,320	10,326	9,442	8,318	7,970	238.8	234.3	210.8	182.4	174.7
South Dakota	367	261	375	344	468	46.9	32.8	46.6	42.3	57.6
Tennessee	9,694	9,564	8,780	7,926	7,121	160.5	155.3	141.3	125.9	113.1
Texas	30,449	32,073	32,199	29,295	31,788	129.5	134.2	132.4	118.2	128.3
Utah	888	821	477	341	310	34.8	31.0	17.4	12.2	11.1
Vermont	72	64	37	50	58	11.5	10.3	6.0	8.0	9.3
Virginia	6,476	6,269	10,337	7,789	7,402	84.7	81.3	133.1	98.8	93.9
Washington	4,231	3,653	3,127	2,285	2,864	66.2	56.5	47.7	34.3	43.0
West Virginia	953	930	746	475	579	52.4	51.3	41.1	26.1	31.8
Wisconsin	6,927	6,752	6,087	5,201	5,091	124.7	120.5	108.2	92.0	90.0
Wyoming	120	81	124	74	40	23.3	15.5	23.3	13.6	7.3
U.S. TOTAL	**358,366**	**355,991**	**336,742**	**301,174**	**309,341**	**119.7**	**118.0**	**110.7**	**98.1**	**100.8**
Northeast	40,353	42,223	38,947	37,066	42,789	73.7	77.2	70.9	67.0	77.4
Midwest	90,348	92,259	86,400	77,515	72,511	136.4	139.0	129.8	116.0	108.5
South	171,142	170,204	168,377	148,860	152,036	156.9	154.1	150.7	131.4	134.2
West	56,523	51,305	43,018	37,733	42,005	81.5	73.2	60.7	52.7	58.7
Guam	98	141	109	59	97	57.3	81.2	61.9	33.1	54.4
Puerto Rico	302	323	273	230	312	7.7	8.2	6.9	5.8	7.9
Virgin Islands	34	69	120	115	151	31.3	62.8	109.2	104.7	137.5
OUTLYING AREAS	**434**	**533**	**502**	**404**	**560**	**10.3**	**12.6**	**11.8**	**9.5**	**13.2**
TOTAL	**358,800**	**356,524**	**337,244**	**301,578**	**309,901**	**118.2**	**116.6**	**109.4**	**96.9**	**99.6**

Table 15. Gonorrhea—Women—Reported Cases and Rates by State/Area and Region in Alphabetical Order, United States and Outlying Areas, 2006–2010

State/Area	Cases					Rates per 100,000 Population				
	2006	2007	2008	2009	2010	2006	2007	2008	2009	2010
Alabama	5,983	6,095	5,582	4,240	4,432	252.5	255.5	232.2	174.7	182.6
Alaska	356	326	321	516	698	110.0	99.2	97.7	153.5	207.6
Arizona	2,847	2,342	1,577	1,475	1,553	92.4	74.0	48.6	44.8	47.2
Arkansas	2,182	2,275	2,520	2,562	2,729	152.3	157.4	173.0	173.8	185.1
California	15,688	14,533	11,625	9,430	10,546	86.0	79.5	63.3	51.1	57.1
Colorado	1,879	1,807	1,978	1,502	1,514	79.6	75.0	80.8	60.2	60.7
Connecticut	1,478	1,372	1,686	1,491	1,449	82.2	76.4	94.0	82.8	80.5
Delaware	829	699	606	564	621	188.7	156.9	134.7	123.8	136.3
District of Columbia	808	1,077	1,259	1,233	1,073	261.6	347.2	403.6	389.5	338.9
Florida	12,427	11,793	12,279	10,745	10,240	135.0	127.0	131.7	114.1	108.8
Georgia	10,002	9,334	8,687	7,253	8,297	210.4	192.4	176.5	145.2	166.1
Hawaii	476	295	298	264	314	74.1	46.3	46.7	41.2	49.0
Idaho	113	152	90	51	68	15.5	20.4	11.9	6.6	8.8
Illinois	10,926	11,312	11,342	11,248	8,924	167.7	173.5	173.4	171.7	136.2
Indiana	4,806	4,884	5,056	3,985	3,598	150.0	151.7	156.3	122.3	110.4
Iowa	1,179	1,121	1,024	1,049	1,179	78.1	74.1	67.4	68.9	77.5
Kansas	1,327	1,401	1,459	1,541	1,235	95.3	100.1	103.5	108.6	87.0
Kentucky	1,709	1,887	2,511	2,132	2,487	79.7	87.2	115.1	97.1	113.2
Louisiana	5,605	5,822	5,177	5,125	4,824	254.5	263.7	228.1	222.2	209.1
Maine	54	45	43	62	75	8.0	6.7	6.4	9.2	11.1
Maryland	3,850	3,529	3,604	3,457	4,028	132.8	121.7	124.0	117.8	137.2
Massachusetts	1,214	1,282	1,100	976	1,004	36.6	38.6	32.9	28.8	29.6
Michigan	8,900	8,984	10,047	8,536	7,971	173.6	175.7	197.8	168.5	157.3
Minnesota	1,814	1,930	1,657	1,270	1,248	69.8	74.0	63.2	48.0	47.2
Mississippi	4,400	4,901	4,357	4,335	3,602	293.1	325.6	287.6	285.0	236.8
Missouri	5,752	5,481	4,542	3,585	3,951	192.5	182.3	150.2	117.1	129.1
Montana	123	75	92	46	56	26.1	15.7	19.0	9.4	11.5
Nebraska	865	847	891	821	675	97.0	94.6	99.1	90.7	74.6
Nevada	1,257	1,066	1,012	826	830	102.5	84.7	79.3	63.7	64.0
New Hampshire	97	63	49	54	59	14.6	9.5	7.3	8.0	8.8
New Jersey	2,829	3,059	2,813	2,435	3,115	63.4	68.9	63.5	54.8	70.2
New Mexico	1,003	974	783	570	610	101.3	97.6	77.8	56.2	60.1
New York	8,479	8,324	8,349	7,927	8,718	85.2	83.8	83.3	78.9	86.8
North Carolina	8,718	8,941	8,876	7,868	8,314	193.1	193.0	188.6	164.2	173.5
North Dakota	86	66	93	88	140	27.2	20.7	29.1	27.3	43.5
Ohio	10,508	11,771	9,784	9,766	10,034	178.7	200.3	166.3	165.3	169.8
Oklahoma	2,780	2,606	2,964	2,809	2,493	153.2	142.4	160.8	150.6	133.7
Oregon	609	564	553	505	477	32.7	29.9	29.0	26.2	24.7
Pennsylvania	6,219	6,945	6,210	5,650	7,268	97.3	108.8	97.2	87.4	112.4
Rhode Island	273	169	135	146	121	49.5	31.0	24.9	27.0	22.3
South Carolina	5,406	5,640	5,704	5,004	4,905	243.8	249.5	248.2	213.8	209.6
South Dakota	215	153	247	190	290	54.9	38.3	61.2	46.7	71.3
Tennessee	5,104	5,247	4,801	4,365	3,884	165.3	166.5	150.7	135.3	120.4
Texas	15,619	16,192	17,029	16,071	17,246	132.4	135.2	139.8	129.6	139.0
Utah	369	345	137	70	75	29.1	26.3	10.1	5.1	5.4
Vermont	39	30	19	29	24	12.3	9.5	6.0	9.2	7.6
Virginia	3,287	3,369	5,847	4,314	4,146	84.6	85.8	147.9	107.6	103.5
Washington	1,938	1,858	1,522	949	1,044	60.4	57.2	46.4	28.5	31.3
West Virginia	488	504	425	281	326	52.6	54.5	45.9	30.3	35.1
Wisconsin	4,047	4,066	3,744	3,113	3,164	144.8	144.3	132.3	109.4	111.2
Wyoming	71	41	71	44	19	28.0	15.9	27.0	16.5	7.1
U.S. TOTAL	**187,033**	**187,594**	**182,577**	**162,568**	**165,693**	**123.1**	**122.6**	**118.5**	**104.5**	**106.5**
Northeast	20,682	21,289	20,404	18,770	21,833	73.5	75.8	72.4	66.2	77.0
Midwest	50,425	52,016	49,886	45,192	42,409	150.0	154.4	147.7	133.3	125.1
South	89,197	89,911	92,228	82,358	83,647	160.7	160.0	162.3	143.0	145.2
West	26,729	24,378	20,059	16,248	17,804	77.2	69.7	56.7	45.5	49.9
Guam	49	66	58	32	45	58.4	77.5	67.1	36.5	51.3
Puerto Rico	152	165	128	126	141	7.4	8.0	6.2	6.1	6.8
Virgin Islands	23	51	86	90	96	40.5	88.3	148.8	155.6	166.0
OUTLYING AREAS	**224**	**282**	**272**	**248**	**282**	**10.3**	**12.9**	**12.4**	**11.2**	**12.8**
TOTAL	**187,257**	**187,876**	**182,849**	**162,816**	**165,975**	**121.5**	**121.1**	**117.0**	**103.2**	**105.2**

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, 2006–2010

State/Area	Cases					Rates per 100,000 Population				
	2006	2007	2008	2009	2010	2006	2007	2008	2009	2010
Alabama	4,678	4,786	4,151	3,250	3,430	209.8	213.5	183.8	142.4	150.3
Alaska	274	253	257	474	575	79.1	71.3	71.9	130.9	158.7
Arizona	3,097	2,718	1,869	1,775	1,696	100.4	85.7	57.4	53.7	51.3
Arkansas	2,122	1,890	1,993	1,898	2,038	154.0	136.0	142.5	134.1	144.0
California	17,856	16,632	14,025	13,705	15,773	98.0	91.0	76.3	74.1	85.2
Colorado	1,816	1,569	1,777	1,319	1,273	75.9	64.0	71.3	52.1	50.3
Connecticut	1,132	955	1,113	1,067	1,120	66.3	55.9	65.2	62.1	65.2
Delaware	656	594	439	407	389	158.4	141.7	103.7	94.7	90.5
District of Columbia	1,072	1,284	1,383	1,328	1,028	393.2	461.7	494.1	469.2	363.2
Florida	11,546	11,527	10,995	10,099	9,906	130.0	128.5	122.1	110.7	108.6
Georgia	9,510	8,401	7,465	6,368	7,421	206.2	179.0	156.7	131.7	153.5
Hawaii	409	364	312	367	445	63.6	56.4	48.0	56.1	68.0
Idaho	92	112	97	58	78	12.5	14.8	12.7	7.5	10.1
Illinois	9,260	9,501	9,331	8,710	6,824	146.6	150.0	146.7	137.0	107.3
Indiana	3,895	3,880	3,693	2,831	2,884	125.2	124.1	117.5	89.5	91.1
Iowa	787	807	676	609	624	53.4	54.7	45.6	41.0	42.0
Kansas	883	881	815	964	849	64.4	64.0	58.6	68.9	60.7
Kentucky	1,561	1,559	2,030	1,690	1,854	75.7	75.0	97.2	79.8	87.6
Louisiana	5,186	5,201	4,233	3,849	3,540	248.6	249.4	197.7	176.1	162.0
Maine	83	73	53	81	86	12.8	11.4	8.3	12.6	13.4
Maryland	3,461	3,238	3,054	2,922	3,377	127.4	119.1	112.0	105.7	122.2
Massachusetts	1,212	1,412	1,026	996	1,479	38.9	45.2	32.5	31.1	46.1
Michigan	6,738	6,447	6,876	6,004	5,634	135.6	130.0	139.6	122.5	114.9
Minnesota	1,489	1,529	1,380	1,033	871	58.0	59.1	53.1	39.4	33.2
Mississippi	3,111	3,413	3,135	2,906	2,593	220.7	241.4	220.2	203.1	181.2
Missouri	4,452	4,395	3,472	2,903	3,208	156.0	153.1	120.2	99.2	109.6
Montana	71	47	29	34	46	15.0	9.8	6.0	7.0	9.4
Nebraska	552	583	568	553	512	63.0	66.3	64.2	62.0	57.4
Nevada	1,533	1,291	1,160	900	898	120.8	98.8	87.6	66.9	66.7
New Hampshire	83	75	51	59	92	12.8	11.6	7.9	9.0	14.1
New Jersey	2,657	3,014	2,483	2,326	2,727	62.3	70.9	58.4	54.5	63.9
New Mexico	730	822	619	512	619	75.7	84.6	63.3	51.5	62.2
New York	8,976	9,363	8,751	9,072	9,601	95.9	100.0	92.5	95.5	101.1
North Carolina	8,594	7,725	7,023	5,902	5,712	198.0	174.5	155.5	128.6	124.4
North Dakota	67	50	50	62	64	21.0	15.6	15.5	19.1	19.7
Ohio	8,493	9,164	6,693	6,068	6,421	151.7	163.9	119.4	107.7	114.0
Oklahoma	2,171	2,221	2,212	1,857	1,873	123.0	124.3	123.0	101.9	102.8
Oregon	852	672	672	608	599	46.3	36.1	35.7	32.0	31.6
Pennsylvania	5,247	5,758	4,860	4,484	5,615	86.8	95.2	80.2	73.0	91.5
Rhode Island	235	232	172	176	170	45.5	45.3	33.8	34.4	33.2
South Carolina	4,899	4,665	3,712	3,289	3,056	232.9	217.3	170.2	148.1	137.6
South Dakota	152	107	128	153	177	38.9	27.0	31.9	37.7	43.6
Tennessee	4,590	4,317	3,979	3,560	3,235	155.5	143.6	131.4	116.0	105.4
Texas	14,812	15,819	15,150	13,215	14,524	126.4	132.6	124.8	106.8	117.3
Utah	519	476	340	271	235	40.5	35.6	24.6	19.3	16.8
Vermont	33	34	18	21	33	10.7	11.1	5.9	6.9	10.8
Virginia	3,187	2,895	4,477	3,465	3,248	84.8	76.5	117.3	89.4	83.8
Washington	2,293	1,795	1,600	1,334	1,818	71.9	55.7	48.9	40.1	54.6
West Virginia	465	426	321	194	253	52.2	48.0	36.1	21.7	28.4
Wisconsin	2,870	2,673	2,332	2,061	1,926	104.0	96.0	83.4	73.4	68.6
Wyoming	49	40	53	30	21	18.8	15.1	19.6	10.8	7.6
U.S. TOTAL	**170,508**	**167,685**	**153,103**	**137,819**	**142,470**	**115.6**	**112.8**	**102.1**	**91.0**	**94.1**
Northeast	19,658	20,916	18,527	18,282	20,923	73.9	78.6	69.3	67.9	77.7
Midwest	39,638	40,017	36,014	31,951	29,994	121.5	122.4	109.8	97.0	91.1
South	81,621	79,961	75,752	66,199	67,477	152.3	147.4	138.0	118.8	121.1
West	29,591	26,791	22,810	21,387	24,076	85.3	76.3	64.3	59.6	67.1
Guam	49	75	51	27	52	56.2	84.9	56.9	29.8	57.3
Puerto Rico	150	158	145	104	171	8.0	8.3	7.6	5.5	9.0
Virgin Islands	11	18	34	25	55	21.2	34.6	65.3	48.1	105.8
OUTLYING AREAS	**210**	**251**	**230**	**156**	**278**	**10.4**	**12.3**	**11.3**	**7.6**	**13.6**
TOTAL	**170,718**	**167,936**	**153,333**	**137,975**	**142,748**	**114.2**	**111.4**	**100.9**	**89.9**	**93.0**

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, 2006–2010

MSAs	Cases					Rates per 100,000 Population				
	2006	2007	2008	2009	2010	2006	2007	2008	2009	2010
Atlanta-Sandy Springs-Marietta, GA	10,223	9,060	8,084	7,466	8,337	199.0	171.6	150.4	136.4	152.3
Austin-Round Rock, TX	2,446	2,075	2,388	1,973	1,932	161.6	129.8	144.5	115.7	113.3
Baltimore-Towson, MD	4,653	4,156	4,146	3,869	4,369	175.0	155.8	155.4	143.8	162.4
Birmingham-Hoover, AL	2,444	3,129	2,891	1,970	2,363	222.2	282.3	258.7	174.2	208.9
Boston-Cambridge-Quincy, MA-NH	1,542	1,770	1,464	1,352	1,881	34.6	39.5	32.4	29.5	41.0
Buffalo-Cheektowaga-Tonawanda, NY	2,068	2,289	1,898	1,574	1,227	181.8	202.9	168.8	140.1	109.2
Charlotte-Gastonia-Concord, NC-SC	3,388	2,388	3,249	3,165	2,424	214.0	144.6	190.9	181.3	138.9
Chicago-Naperville-Joliet, IL-IN-WI	15,127	14,979	16,181	15,864	12,380	159.1	157.3	169.1	165.6	129.2
Cincinnati-Middletown, OH-KY-IN	3,862	4,583	3,926	3,219	3,379	183.5	214.8	182.2	148.2	155.6
Cleveland-Elyria-Mentor, OH	4,663	4,286	2,770	3,089	3,608	220.6	204.4	132.6	147.7	172.5
Columbus, OH	3,303	4,136	3,853	3,192	3,351	191.4	235.8	217.3	177.2	186.0
Dallas-Fort Worth-Arlington, TX	8,365	10,064	9,197	7,930	8,766	139.3	163.8	146.0	123.0	136.0
Denver-Aurora, CO	2,253	2,238	2,625	1,995	2,344	93.5	90.8	104.7	78.2	91.8
Detroit-Warren-Livonia, MI	8,535	8,554	10,850	9,366	9,160	191.0	191.5	245.2	212.7	208.0
Hartford-West Hartford-East Hartford, CT	988	920	1,029	961	1,126	83.1	77.4	86.4	80.4	94.1
Houston-Baytown-Sugar Land, TX	7,318	7,757	7,290	6,232	7,652	132.1	137.8	127.3	106.2	130.4
Indianapolis, IN	4,410	4,543	4,194	2,975	2,969	264.7	268.0	244.5	170.6	170.3
Jacksonville, FL	2,954	3,113	2,979	2,015	2,128	231.1	239.3	226.8	151.7	160.2
Kansas City, MO-KS	3,822	3,683	3,268	3,192	3,213	194.3	185.5	163.2	154.4	155.4
Las Vegas-Paradise, NV	2,478	2,112	1,918	1,553	1,604	139.4	115.0	102.8	81.6	84.3
Los Angeles-Long Beach-Santa Ana, CA	12,210	11,059	9,832	9,774	11,156	94.3	85.9	76.4	75.9	86.6
Louisville, KY-IN	1,749	1,908	2,300	2,125	2,272	143.1	154.7	184.8	168.8	180.5
Memphis, TN-MS-AR	4,665	4,756	4,475	4,536	4,086	366.0	371.4	348.1	347.6	313.1
Miami-Fort Lauderdale-Miami Beach, FL	5,356	5,152	5,471	5,239	5,506	98.0	95.2	101.0	94.4	99.3
Milwaukee-Waukesha-West Allis, WI	5,006	4,960	446	3,588	3,425	331.5	321.2	28.8	230.0	219.6
Minneapolis-St. Paul-Bloomington, MN-WI	2,780	2,834	2,345	1,800	1,665	87.6	88.3	72.6	55.0	50.9
Nashville-Davidson-Murfreesboro, TN	1,734	1,692	1,541	1,225	1,292	119.2	111.2	99.4	77.4	81.7
New Orleans-Metairie-Kenner, LA	1,962	2,713	2,045	2,082	1,991	191.5	263.3	180.3	175.0	167.3
New York-Newark-Edison, NY-NJ-PA	14,949	15,396	15,116	15,254	17,507	79.4	81.8	79.5	80.0	91.8
Oklahoma City, OK	2,315	2,373	2,403	2,066	1,700	197.5	198.9	199.2	168.3	138.5
Orlando, FL	3,393	2,743	2,704	2,663	2,495	170.9	135.0	131.6	127.9	119.8
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	8,163	8,669	7,724	7,407	9,694	140.1	148.7	132.3	124.1	162.4
Phoenix-Mesa-Scottsdale, AZ	4,260	3,333	2,211	2,317	2,335	105.5	79.7	51.6	53.1	53.5
Pittsburgh, PA	2,057	2,599	2,569	1,866	2,069	86.8	110.3	109.3	79.2	87.9
Portland-Vancouver-Beaverton, OR-WA	1,128	1,053	1,033	826	926	52.8	48.4	46.8	36.8	41.3
Providence-New Bedford-Fall River, RI-MA	693	621	455	427	382	43.0	38.8	28.5	26.7	23.9
Richmond, VA	1,778	2,199	2,698	1,900	1,742	148.9	181.3	220.1	153.5	140.7
Riverside-San Bernardino-Ontario, CA	2,994	3,166	2,199	1,921	1,924	74.4	77.6	53.4	46.4	46.4
Rochester, NY	1,457	1,207	1,345	1,465	1,319	140.7	117.1	130.1	141.5	127.4
Sacramento-Arden-Arcade-Roseville, CA	2,235	2,315	1,771	1,124	1,676	108.1	110.7	83.9	52.8	78.8
Salt Lake City, UT	623	573	346	244	204	58.3	52.1	31.0	21.6	18.0
San Antonio, TX	2,701	2,601	3,113	3,697	3,729	139.1	130.7	153.2	178.4	180.0
San Diego-Carlsbad-San Marcos, CA	2,767	2,385	2,066	1,829	2,021	94.1	80.2	68.8	59.9	66.2
San Francisco-Oakland-Fremont, CA	6,029	5,695	5,065	4,375	4,867	144.2	135.5	118.5	101.3	112.7
San Jose-Sunnyvale-Santa Clara, CA	1,065	893	712	563	586	59.6	49.5	39.1	30.6	31.9
Seattle-Tacoma-Bellevue, WA	3,079	2,572	2,182	1,700	2,189	94.3	77.7	65.2	49.9	64.2
St. Louis, MO-IL	6,547	6,483	5,003	3,620	4,137	234.1	231.2	177.6	128.0	146.2
Tampa-St. Petersburg-Clearwater, FL	3,667	3,819	3,852	3,818	3,516	135.9	140.2	140.9	139.0	128.0
Virginia Beach-Norfolk-Newport News, VA-NC	2,544	2,504	4,935	3,647	3,429	154.2	151.0	297.6	217.8	204.8
Washington-Arlington-Alexandria, DC-VA-MD-WV	4,358	4,665	5,557	5,321	5,234	82.4	87.9	103.7	97.2	95.6
U.S. MSAs TOTAL	**209,106**	**208,773**	**197,714**	**181,371**	**189,287**	**129.6**	**128.3**	**120.4**	**109.1**	**113.9**

* 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, 2006–2010

MSAs	Cases					Rates per 100,000 Population				
	2006	2007	2008	2009	2010	2006	2007	2008	2009	2010
Atlanta-Sandy Springs-Marietta, GA	5,026	4,515	3,967	3,633	3,954	193.5	169.1	145.8	131.1	142.7
Austin-Round Rock, TX	1,134	992	1,177	980	910	153.3	127.1	145.9	117.4	109.0
Baltimore-Towson, MD	2,470	2,179	2,302	2,181	2,397	179.2	157.6	166.6	156.5	171.9
Birmingham-Hoover, AL	1,511	1,761	1,655	1,056	1,323	265.4	307.0	286.0	180.6	226.2
Boston-Cambridge-Quincy, MA-NH	728	773	720	624	708	31.8	33.6	31.0	26.5	30.1
Buffalo-Cheektowaga-Tonawanda, NY	1,153	1,258	1,059	878	669	195.5	215.3	181.9	151.0	115.1
Charlotte-Gastonia-Concord, NC-SC	1,584	1,188	1,697	1,750	1,334	196.9	141.1	196.0	196.6	149.9
Chicago-Naperville-Joliet, IL-IN-WI	7,853	7,813	8,594	8,712	6,741	162.7	161.7	177.1	179.0	138.5
Cincinnati-Middletown, OH-KY-IN	2,465	2,884	2,696	2,181	2,330	229.0	264.2	244.5	196.4	209.8
Cleveland-Elyria-Mentor, OH	2,277	2,180	1,469	1,808	2,082	207.4	200.3	135.5	166.6	191.9
Columbus, OH	1,758	2,142	2,062	1,873	1,917	201.2	241.1	229.8	205.2	210.0
Dallas-Fort Worth-Arlington, TX	4,129	4,905	4,953	4,556	4,788	138.1	160.5	158.2	142.2	149.5
Denver-Aurora, CO	1,044	1,128	1,345	1,035	1,261	87.0	91.9	107.9	81.4	99.1
Detroit-Warren-Livonia, MI	4,613	4,721	6,226	5,204	5,217	201.8	206.7	275.1	230.8	231.3
Hartford-West Hartford-East Hartford, CT	521	522	609	551	633	85.4	85.6	99.8	90.0	103.3
Houston-Baytown-Sugar Land, TX	3,806	3,805	3,749	3,302	4,174	137.5	135.5	131.2	112.8	142.6
Indianapolis, IN	2,297	2,385	2,290	1,603	1,545	271.1	276.7	262.4	180.6	174.1
Jacksonville, FL	1,506	1,532	1,587	1,048	1,152	230.8	230.4	236.4	154.1	169.3
Kansas City, MO-KS	2,099	2,040	1,888	1,821	1,810	209.6	201.8	185.3	173.1	172.1
Las Vegas-Paradise, NV	1,123	954	880	746	779	128.4	105.8	96.0	79.8	83.3
Los Angeles-Long Beach-Santa Ana, CA	5,657	5,001	4,214	3,641	3,947	86.7	77.1	65.0	56.2	61.0
Louisville, KY-IN	887	1,026	1,228	1,133	1,263	141.6	162.3	192.2	175.9	196.1
Memphis, TN-MS-AR	2,548	2,789	2,472	2,537	2,285	386.0	420.2	370.2	374.6	337.3
Miami-Fort Lauderdale-Miami Beach, FL	2,708	2,444	2,661	2,439	2,480	96.4	87.9	95.6	85.9	87.3
Milwaukee-Waukesha-West Allis, WI	2,923	2,972	300	2,098	2,070	378.4	376.2	37.9	262.8	259.2
Minneapolis-St. Paul-Bloomington, MN-WI	1,486	1,500	1,210	928	950	93.0	93.0	74.6	56.4	57.7
Nashville-Davidson-Murfreesboro, TN	794	800	783	625	597	107.6	103.7	99.4	77.7	74.2
New Orleans-Metairie-Kenner, LA	965	1,322	984	1,098	1,014	181.7	246.6	166.6	177.8	164.2
New York-Newark-Edison, NY-NJ-PA	7,015	6,979	7,089	6,886	8,124	72.1	71.8	72.3	70.1	82.7
Oklahoma City, OK	1,275	1,202	1,294	1,188	962	214.2	198.8	211.5	190.6	154.3
Orlando, FL	1,688	1,377	1,424	1,364	1,171	168.5	134.3	137.3	129.7	111.3
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	4,257	4,416	4,098	3,811	5,125	141.4	146.7	135.9	123.6	166.3
Phoenix-Mesa-Scottsdale, AZ	2,014	1,497	988	1,022	1,071	100.7	72.3	46.7	47.4	49.7
Pittsburgh, PA	1,174	1,530	1,524	1,161	1,274	95.3	125.2	125.0	95.2	104.4
Portland-Vancouver-Beaverton, OR-WA	436	446	420	322	371	40.7	40.9	38.0	28.6	32.9
Providence-New Bedford-Fall River, RI-MA	374	282	209	196	159	44.9	34.1	25.4	23.8	19.3
Richmond, VA	824	1,122	1,436	1,010	994	134.4	179.7	227.9	158.5	156.0
Riverside-San Bernardino-Ontario, CA	1,602	1,705	1,237	1,024	976	79.6	83.6	60.2	49.6	47.2
Rochester, NY	748	608	744	744	714	141.0	115.2	140.6	140.5	134.9
Sacramento-Arden-Arcade-Roseville, CA	1,164	1,190	917	557	907	110.7	112.0	85.6	51.7	84.1
Salt Lake City, UT	246	229	88	37	41	46.7	42.4	16.0	6.6	7.3
San Antonio, TX	1,412	1,279	1,557	1,921	1,886	142.3	126.0	150.3	182.0	178.7
San Diego-Carlsbad-San Marcos, CA	1,158	961	803	620	535	79.3	64.9	53.9	40.7	35.2
San Francisco-Oakland-Fremont, CA	2,122	2,174	1,863	1,421	1,710	100.9	102.8	86.7	65.5	78.9
San Jose-Sunnyvale-Santa Clara, CA	488	385	312	248	249	55.8	43.7	35.2	27.6	27.7
Seattle-Tacoma-Bellevue, WA	1,300	1,205	965	604	686	79.6	72.7	57.7	35.4	40.3
St. Louis, MO-IL	3,718	3,539	2,756	1,908	2,188	257.5	244.5	189.6	130.8	150.0
Tampa-St. Petersburg-Clearwater, FL	2,064	1,973	2,006	1,907	1,834	149.0	141.1	143.0	135.4	130.2
Virginia Beach-Norfolk-Newport News, VA-NC	1,305	1,355	2,875	2,008	1,858	154.9	159.8	339.3	234.4	216.9
Washington-Arlington-Alexandria, DC-VA-MD-WV	2,048	2,268	2,711	2,637	2,673	75.6	83.5	98.8	94.3	95.6
U.S. MSAs TOTAL	**105,497**	**105,253**	**102,093**	**92,637**	**95,838**	**128.7**	**127.3**	**122.4**	**109.8**	**113.6**

* 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, 2006–2010

MSAs	Cases					Rates per 100,000 Population				
	2006	2007	2008	2009	2010	2006	2007	2008	2009	2010
Atlanta-Sandy Springs-Marietta, GA	5,083	4,484	4,054	3,786	4,306	200.1	171.9	152.6	140.0	159.2
Austin-Round Rock, TX	1,310	1,081	1,208	991	1,022	169.2	132.2	142.8	113.9	117.5
Baltimore-Towson, MD	2,180	1,976	1,841	1,675	1,968	170.3	153.7	143.2	129.2	151.7
Birmingham-Hoover, AL	932	1,367	1,235	913	1,024	175.6	255.7	229.1	167.2	187.5
Boston-Cambridge-Quincy, MA-NH	812	996	742	726	1,173	37.5	45.7	33.7	32.5	52.5
Buffalo-Cheektowaga-Tonawanda, NY	913	1,031	839	696	558	166.7	189.6	154.7	128.3	102.9
Charlotte-Gastonia-Concord, NC-SC	1,804	1,199	1,542	1,405	1,083	231.7	148.1	184.5	164.3	126.6
Chicago-Naperville-Joliet, IL-IN-WI	7,267	7,161	7,586	7,141	5,610	155.4	152.6	160.9	151.5	119.0
Cincinnati-Middletown, OH-KY-IN	1,373	1,674	1,224	1,019	1,043	133.6	160.6	116.3	96.0	98.3
Cleveland-Elyria-Mentor, OH	2,366	2,091	1,295	1,254	1,517	232.8	207.4	128.9	124.6	150.8
Columbus, OH	1,537	1,985	1,788	1,289	1,431	180.4	229.2	204.2	145.0	161.0
Dallas-Fort Worth-Arlington, TX	4,230	5,123	4,243	3,374	3,975	140.3	165.9	133.9	104.0	122.5
Denver-Aurora, CO	1,209	1,110	1,278	958	1,083	100.0	89.7	101.5	74.8	84.6
Detroit-Warren-Livonia, MI	3,890	3,786	4,502	4,005	3,924	178.2	173.4	208.2	186.4	182.7
Hartford-West Hartford-East Hartford, CT	467	398	418	410	493	80.7	68.7	72.0	70.3	84.5
Houston-Baytown-Sugar Land, TX	3,504	3,930	3,525	2,926	3,465	126.4	139.4	122.8	99.5	117.8
Indianapolis, IN	2,106	2,150	1,902	1,369	1,421	257.3	258.1	225.7	159.9	166.0
Jacksonville, FL	1,448	1,581	1,392	966	973	231.5	248.7	216.8	149.1	150.2
Kansas City, MO-KS	1,723	1,643	1,380	1,371	1,403	178.4	168.6	140.3	135.0	138.1
Las Vegas-Paradise, NV	1,354	1,158	1,038	807	825	149.9	123.9	109.3	83.3	85.2
Los Angeles-Long Beach-Santa Ana, CA	6,505	6,023	5,543	6,081	7,156	101.2	94.2	86.7	95.0	111.8
Louisville, KY-IN	858	881	1,070	990	1,007	144.0	146.5	176.6	161.1	163.9
Memphis, TN-MS-AR	2,117	1,967	2,003	1,998	1,800	344.4	318.9	324.1	318.4	286.8
Miami-Fort Lauderdale-Miami Beach, FL	2,648	2,706	2,801	2,799	3,024	99.7	102.8	106.4	103.4	111.7
Milwaukee-Waukesha-West Allis, WI	2,080	1,975	145	1,470	1,354	282.0	261.8	19.1	193.1	177.9
Minneapolis-St. Paul-Bloomington, MN-WI	1,294	1,334	1,135	872	715	82.1	83.6	70.6	53.7	44.0
Nashville-Davidson-Murfreesboro, TN	940	892	758	600	694	131.0	119.0	99.4	77.1	89.2
New Orleans-Metairie-Kenner, LA	981	1,352	1,050	976	919	198.8	273.5	193.2	170.5	160.5
New York-Newark-Edison, NY-NJ-PA	7,929	8,406	8,017	8,363	9,358	87.2	92.4	87.1	90.5	101.2
Oklahoma City, OK	1,040	1,171	1,103	876	736	180.2	199.0	185.5	145.0	121.9
Orlando, FL	1,704	1,366	1,277	1,297	1,320	173.3	135.6	125.5	125.8	128.1
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	3,904	4,250	3,626	3,593	4,565	138.6	150.9	128.4	124.5	158.2
Phoenix-Mesa-Scottsdale, AZ	2,242	1,834	1,222	1,295	1,264	110.0	86.9	56.5	58.6	57.2
Pittsburgh, PA	883	1,069	1,045	704	795	77.5	94.3	92.3	62.0	70.0
Portland-Vancouver-Beaverton, OR-WA	692	607	611	504	555	64.9	56.0	55.5	45.2	49.8
Providence-New Bedford-Fall River, RI-MA	318	338	246	231	223	40.8	43.7	31.9	29.7	28.7
Richmond, VA	954	1,074	1,261	886	745	164.2	182.4	211.7	147.4	123.9
Riverside-San Bernardino-Ontario, CA	1,390	1,450	961	895	944	69.0	71.0	46.7	43.1	45.5
Rochester, NY	709	599	601	721	605	140.4	119.2	119.1	142.5	119.5
Sacramento-Arden-Arcade-Roseville, CA	1,046	1,098	835	558	756	103.0	106.7	80.4	53.2	72.0
Salt Lake City, UT	377	344	258	207	163	69.6	61.5	45.5	36.2	28.5
San Antonio, TX	1,289	1,322	1,556	1,775	1,843	135.7	135.5	156.3	174.6	181.3
San Diego-Carlsbad-San Marcos, CA	1,531	1,415	1,254	1,206	1,482	103.4	94.7	83.0	78.7	96.7
San Francisco-Oakland-Fremont, CA	3,882	3,493	3,179	2,933	3,127	186.9	167.2	149.5	136.5	145.5
San Jose-Sunnyvale-Santa Clara, CA	570	506	398	314	333	62.4	54.8	42.7	33.4	35.4
Seattle-Tacoma-Bellevue, WA	1,779	1,367	1,216	1,094	1,501	109.1	82.7	72.7	64.2	88.1
St. Louis, MO-IL	2,829	2,944	2,247	1,712	1,949	209.2	217.1	164.8	125.0	142.3
Tampa-St. Petersburg-Clearwater, FL	1,602	1,842	1,822	1,887	1,678	122.0	138.9	136.9	141.0	125.3
Virginia Beach-Norfolk-Newport News, VA-NC	1,237	1,148	2,058	1,633	1,569	153.3	141.6	253.7	199.6	191.8
Washington-Arlington-Alexandria, DC-VA-MD-WV	2,291	2,385	2,823	2,681	2,554	88.8	92.1	107.9	100.0	95.3
U.S. MSAs TOTAL	**103,129**	**103,082**	**95,153**	**88,232**	**93,031**	**130**	**128.8**	**117.7**	**107.8**	**113.7**

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

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

Table 20. Gonorrhea—Counties and Independent Cities* Ranked by Number of Reported Cases, United States, 2010

Rank†	County/Independent City	Cases	Rates per 100,000 Population	Cumulative Percentage
1	Cook County, IL	10,123	191.5	3
2	Los Angeles County, CA	9,993	101.5	6
3	Wayne County, MI	7,495	389.2	8
4	Philadelphia County, PA	6,533	422.2	11
5	Harris County, TX	6,529	160.4	13
6	Dallas County, TX	5,033	205.3	14
7	Kings County, NY	3,957	154.1	16
8	Bexar County, TX	3,544	214.6	17
9	Shelby County, TN	3,479	378.1	18
10	Milwaukee County, WI	3,309	344.9	19
11	Bronx County, NY	3,301	236.2	20
12	Cuyahoga County, OH	3,170	248.5	21
13	Baltimore (City), MD	3,163	496.2	22
14	Franklin County, OH	3,149	273.8	23
15	Fulton County, GA	3,093	299.2	24
16	New York County, NY	2,877	176.6	25
17	Marion County, IN	2,838	318.6	26
18	Tarrant County, TX	2,566	143.4	27
19	Hamilton County, OH	2,511	293.7	28
20	Miami-Dade County, FL	2,444	97.7	28
21	Maricopa County, AZ	2,281	56.7	29
22	Jefferson County, AL	2,257	339.4	30
23	Jackson County, MO	2,188	310.0	30
24	Broward County, FL	2,146	121.5	31
25	Washington, D.C.	2,104	350.9	32
26	Queens County, NY	2,027	87.9	33
27	San Diego County, CA	2,021	66.2	33
28	Jefferson County, KY	1,992	276.1	34
29	Hillsborough County, FL	1,951	163.2	34
30	San Francisco County, CA	1,936	237.4	35
31	Duval County, FL	1,895	221.1	36
32	DeKalb County, GA	1,862	249.2	36
33	Alameda County, CA	1,824	122.3	37
34	Denver County, CO	1,732	283.8	37
35	Prince George's County, MD	1,727	206.9	38
36	Essex County, NJ	1,711	222.3	39
37	St. Louis (City), MO	1,694	475.1	39
38	Orange County, FL	1,674	154.1	40
39	Allegheny County, PA	1,648	135.2	40
40	King County, WA	1,611	84.1	41
41	Clark County, NV	1,604	84.3	41
42	Sacramento County, CA	1,536	109.6	42
43	Orleans County, LA	1,516	427.2	42
44	Mecklenburg County, NC	1,516	165.9	43
45	Caddo County, LA	1,495	589.5	43
46	Oklahoma County, OK	1,460	203.7	44
47	Travis County, TX	1,445	140.8	44
48	St. Louis County, MO	1,437	144.8	45
49	Pulaski County, AR	1,368	358.2	45
50	Tulsa County, OK	1,329	220.8	45
51	Pinellas County, FL	1,329	146.2	46
52	Montgomery County, OH	1,327	249.2	46
53	Monroe County, NY	1,263	172.1	47
54	Wake County, NC	1,251	139.4	47
55	Bell County, TX	1,178	412.2	47
56	Orange County, CA	1,163	38.4	48
57	San Bernardino County, CA	1,146	56.8	48
58	Mobile County, AL	1,138	276.4	49
59	Richland County, SC	1,126	302.7	49
60	Erie County, NY	1,109	122.0	49
61	Hinds County, MS	1,102	445.0	50
62	Lucas County, OH	1,099	237.1	50
63	Hennepin County, MN	1,073	92.8	50

* Accounting for 50% of reported gonorrhea cases.

† Counties and independent cities were ranked in descending order by number of cases reported in 2010.

Table 21. Gonorrhea—Reported Cases and Rates per 100,000 Population by Age Group, and Sex, United States, 2006–2010

Age Group	Cases				Rates*				
	Total	Male	Female	Unknown Sex	Total	Male	Female	Unknown Sex	
10–14	4,232	671	3,556	5	20.5	6.4	35.3		2006
15–19	96,104	29,899	66,015	190	450.7	273.4	635.4		
20–24	110,465	48,951	61,313	201	523.3	448.7	601.0		
25–29	61,554	32,717	28,738	99	297.2	309.1	283.8		
30–34	31,164	18,721	12,383	60	158.1	187.6	127.3		
35–39	20,573	13,712	6,821	40	97.1	128.8	64.7		
40–44	14,462	10,558	3,875	29	64.3	94.3	34.4		
45–54	13,777	10,983	2,766	28	31.8	51.6	12.6		
55–64	3,121	2,668	449	4	9.9	17.5	2.7		
65+	796	639	150	7	2.1	4.1	0.7		
Unknown Age	1,644	838	648	158					
10–14	3,946	619	3,313	14	19.4	6.0	33.4		2007
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					
10–14	3,660	596	3,059	5	18.3	5.8	31.2		2008
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					
10–14	2,983	507	2,471	5	14.9	5.0	25.3		2009
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					
10–14	3,016	486	2,498	32	15.1	4.8	25.6		2010
15–19	88,250	28,002	59,867	381	409.7	253.4	570.9		
20–24	105,619	46,708	58,574	337	490.3	421.0	560.7		
25–29	50,890	26,818	23,907	165	234.8	241.3	226.3		
30–34	25,401	14,809	10,510	82	127.7	146.5	107.5		
35–39	13,769	8,812	4,907	50	67.0	85.1	48.2		
40–44	9,262	6,745	2,495	22	44.1	64.2	23.8		
45–54	9,555	7,490	2,043	22	21.4	34.1	9.0		
55–64	2,194	1,852	338	4	6.3	11.0	1.9		
65+	520	411	105	4	1.3	2.4	0.5		
Unknown Age	554	257	229	68					

* No population data are available for unknown sex and age; therefore, rates are not calculated. The 0- to 9-year age group is not shown because some of these cases may not be due to sexual transmission.

NOTE: This table should be used only for age comparisons.

Table 22A. Gonorrhea—Reported Cases by Race/Ethnicity, Age Group, and Sex, United States, 2006–2010

	Age Group	Whites, Non-Hispanic			Blacks, Non-Hispanic			Hispanics			Asians/Pacific Islanders			American Indians/ Alaska Natives		
		Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
2006	10–14	442	37	405	2,386	385	2,001	271	49	222	17	1	16	26	1	25
	15–19	12,196	2,015	10,181	54,194	19,050	35,144	6,137	1,889	4,248	423	97	326	667	193	474
	20–24	17,022	5,413	11,609	61,318	30,149	31,169	8,197	3,835	4,362	640	272	368	825	288	537
	25–29	9,998	4,119	5,879	32,364	19,114	13,250	5,003	2,740	2,263	434	223	211	490	190	300
	30–34	5,239	2,588	2,651	15,531	10,446	5,085	2,531	1,453	1,078	276	162	114	243	89	154
	35–39	4,112	2,498	1,614	9,382	6,878	2,504	1,551	967	584	182	117	65	141	68	73
	40–44	3,108	2,108	1,000	6,521	5,147	1,374	913	635	278	106	77	29	85	44	41
	45–54	2,938	2,206	732	6,605	5,709	896	662	474	188	91	53	38	93	56	37
	55–64	721	609	112	1,356	1,241	115	119	85	34	21	10	11	19	14	5
	65+	171	152	19	284	249	35	38	29	9	4	2	2	5	4	1
	TOTAL	**55,947**	**21,745**	**34,202**	**189,941**	**98,368**	**91,573**	**25,422**	**12,156**	**13,266**	**2,194**	**1,014**	**1,180**	**2,594**	**947**	**1,647**
2007	10–14	353	15	338	2,265	395	1,870	269	47	222	16	0	16	22	2	20
	15–19	12,049	2,101	9,948	57,387	20,121	37,266	5,818	1,896	3,922	384	95	289	515	114	401
	20–24	16,642	5,173	11,469	63,917	30,729	33,188	7,832	3,703	4,129	614	242	372	707	209	498
	25–29	9,829	4,037	5,792	33,322	19,108	14,214	4,657	2,574	2,083	411	230	181	381	150	231
	30–34	4,999	2,382	2,617	15,591	10,306	5,285	2,410	1,443	967	273	164	109	173	67	106
	35–39	3,757	2,141	1,616	9,056	6,611	2,445	1,395	902	493	141	92	49	123	60	63
	40–44	2,757	1,864	893	6,207	4,894	1,313	785	539	246	89	62	27	72	21	51
	45–54	2,866	2,156	710	6,503	5,513	990	623	456	167	85	49	36	61	37	24
	55–64	712	611	101	1,361	1,231	130	133	97	36	33	24	9	10	9	1
	65+	187	167	20	250	219	31	34	30	4	9	7	2	3	3	0
	TOTAL	**54,151**	**20,647**	**33,504**	**195,859**	**99,127**	**96,732**	**23,956**	**11,687**	**12,269**	**2,055**	**965**	**1,090**	**2,067**	**672**	**1,395**
2008	10–14	330	26	304	2,086	355	1,731	229	31	198	20	3	17	24	4	20
	15–19	10,862	1,917	8,945	57,157	19,657	37,500	5,883	1,861	4,022	406	100	306	522	122	400
	20–24	15,635	4,715	10,920	62,799	29,555	33,244	7,754	3,640	4,114	675	284	391	726	245	481
	25–29	8,921	3,494	5,427	30,939	17,151	13,788	4,644	2,494	2,150	440	225	215	405	145	260
	30–34	4,390	2,043	2,347	14,295	9,221	5,074	2,343	1,370	973	247	133	114	187	71	116
	35–39	2,988	1,672	1,316	7,789	5,478	2,311	1,387	887	500	160	111	49	111	50	61
	40–44	2,234	1,478	756	5,054	3,813	1,241	820	570	250	101	76	25	78	34	44
	45–54	2,366	1,753	613	5,231	4,322	909	594	430	164	121	85	36	76	42	34
	55–64	586	503	83	1,162	1,028	134	119	84	35	33	22	11	16	14	2
	65+	172	147	25	204	185	19	28	21	7	8	4	4	7	6	1
	TOTAL	**48,484**	**17,748**	**30,736**	**186,716**	**90,765**	**95,951**	**23,801**	**11,388**	**12,413**	**2,211**	**1,043**	**1,168**	**2,152**	**733**	**1,419**
2009	10–14	253	22	231	1,728	300	1,428	171	31	140	12	1	11	18	3	15
	15–19	9,423	1,802	7,621	51,156	17,688	33,468	5,361	1,728	3,633	412	92	320	556	128	428
	20–24	13,889	4,456	9,433	58,645	27,754	30,891	7,174	3,434	3,740	601	265	336	725	228	497
	25–29	7,845	3,415	4,430	27,229	15,186	12,043	4,081	2,288	1,793	398	214	184	408	160	248
	30–34	4,025	2,045	1,980	12,624	7,998	4,626	2,128	1,282	846	228	132	96	229	97	132
	35–39	2,597	1,496	1,101	6,579	4,641	1,938	1,170	737	433	149	109	40	137	62	75
	40–44	1,866	1,307	559	3,861	2,945	916	730	524	206	100	75	25	78	38	40
	45–54	2,125	1,669	456	3,982	3,284	698	562	421	141	103	73	30	81	48	33
	55–64	532	450	82	896	800	96	110	78	32	30	17	13	25	19	6
	65+	157	138	19	176	145	31	29	19	10	7	6	1	4	3	1
	TOTAL	**42,712**	**16,800**	**25,912**	**166,876**	**80,741**	**86,135**	**21,516**	**10,542**	**10,974**	**2,040**	**984**	**1,056**	**2,261**	**786**	**1,475**
2010	10–14	268	22	246	1,691	300	1,391	181	26	155	6	1	5	15	3	12
	15–19	9,307	1,821	7,486	52,017	17,771	34,246	5,669	1,928	3,741	406	126	280	660	168	492
	20–24	15,415	5,308	10,107	60,213	28,643	31,570	8,266	3,957	4,309	724	337	387	900	290	610
	25–29	8,768	3,939	4,829	26,618	14,860	11,758	4,593	2,666	1,927	467	286	181	546	215	331
	30–34	4,637	2,407	2,230	12,480	7,702	4,778	2,414	1,547	867	271	172	99	278	121	157
	35–39	2,785	1,693	1,092	6,105	4,175	1,930	1,336	853	483	197	141	56	151	72	79
	40–44	2,231	1,565	666	3,731	2,883	848	851	611	240	114	78	36	100	52	48
	45–54	2,508	1,968	540	3,817	3,121	696	629	478	151	100	77	23	79	48	31
	55–64	582	489	93	847	766	81	117	90	27	25	16	9	18	15	3
	65+	133	117	16	136	118	18	37	29	8	4	4	0	4	2	2
	TOTAL	**46,634**	**19,329**	**27,305**	**167,655**	**80,339**	**87,316**	**24,093**	**12,185**	**11,908**	**2,314**	**1,238**	**1,076**	**2,751**	**986**	**1,765**

NOTE: These tables should be used only for race/ethnicity comparisons. The 0- to 9-year age group is not shown because some of these cases may not be due to sexual transmission, and they are not included in the totals. In 2010, race/ethnicity was unknown (i.e., unknown, missing, or invalid data values) for 20.0% of reported gonorrhea cases, age was unknown for 0.2% of cases, and sex was unknown for 0.4% of cases. **See Table 21 for age-specific cases and rates and Tables 14-16 for total and sex-specific cases and rates.**

Table 22B. Gonorrhea—Rates per 100,000 Population by Race/Ethnicity, Age Group, and Sex, United States, 2006–2010

Age Group	Whites, Non-Hispanic			Blacks, Non-Hispanic			Hispanics			Asians/Pacific Islanders			American Indians/ Alaska Natives			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
10–14	3.6	0.6	6.7	73.9	23.5	126.0	6.9	2.4	11.5	1.9	0.2	3.6	12.4	0.9	24.1	2006
15–19	92.0	29.6	157.9	1,633.2	1,133.0	2,147.0	169.4	101.2	242.0	47.0	20.9	74.7	288.3	164.4	415.8	
20–24	129.8	80.5	181.6	2,018.1	1,962.2	2,075.3	218.5	188.2	254.4	65.0	54.2	76.1	373.6	256.4	495.0	
25–29	80.8	66.2	95.6	1,151.7	1,400.1	917.1	120.2	118.0	122.9	37.0	38.6	35.4	262.2	201.3	324.4	
30–34	44.6	43.8	45.5	613.3	869.0	382.3	64.4	68.1	60.1	20.5	24.6	16.5	148.8	108.9	188.7	
35–39	30.3	36.7	23.9	354.3	551.3	178.8	43.9	51.3	35.5	14.2	18.8	9.9	84.7	82.4	86.9	
40–44	20.4	27.7	13.1	233.3	393.6	92.4	29.2	38.7	18.7	9.2	13.8	4.9	47.0	49.8	44.2	
45–54	9.3	14.1	4.6	131.9	246.9	33.2	14.7	20.7	8.4	4.7	5.8	3.7	27.6	34.9	20.9	
55–64	3.0	5.1	0.9	43.4	89.2	6.6	4.7	7.0	2.6	1.6	1.7	1.6	8.6	13.3	4.3	
65+	0.6	1.2	0.1	9.1	20.8	1.8	1.6	2.8	0.7	0.3	0.4	0.3	2.6	4.8	0.9	
TOTAL	**31.5**	**25.1**	**37.6**	**600.7**	**661.0**	**547.1**	**71.6**	**66.0**	**77.6**	**18.0**	**17.2**	**18.7**	**123.0**	**91.8**	**153.0**	
10–14	2.9	0.2	5.7	72.1	24.7	121.0	6.8	2.3	11.5	1.8	0.0	3.6	10.9	2.0	20.1	2007
15–19	91.2	31.0	154.7	1,701.0	1,176.9	2,239.4	155.3	98.3	215.9	42.3	20.3	65.7	222.5	97.4	350.6	
20–24	126.9	76.9	179.7	2,092.3	1,987.6	2,199.5	212.2	187.0	241.5	64.4	49.7	79.6	317.4	184.3	455.5	
25–29	77.7	63.4	92.3	1,154.5	1,353.2	964.3	111.5	110.7	112.6	35.6	40.3	31.0	196.7	153.3	241.1	
30–34	43.3	41.0	45.6	619.1	860.8	400.1	60.4	66.3	53.3	20.7	25.5	16.1	105.4	81.4	129.4	
35–39	28.1	31.8	24.3	340.7	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	226.2	381.1	89.9	24.5	32.0	16.2	7.7	11.0	4.5	40.8	24.4	56.5	
45–54	9.0	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	41.7	84.7	7.2	4.9	7.5	2.6	2.4	3.8	1.2	4.3	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	
TOTAL	**30.4**	**23.7**	**36.7**	**613.3**	**659.3**	**572.4**	**65.9**	**62.0**	**70.1**	**16.6**	**16.2**	**17.0**	**96.9**	**64.4**	**128.0**	
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	2008
15–19	82.8	28.5	140.1	1,677.2	1,137.3	2,232.8	152.8	93.9	215.2	44.6	21.3	69.3	227.7	105.4	352.4	
20–24	119.0	70.0	170.8	2,028.3	1,888.3	2,171.4	211.7	187.1	239.6	71.6	59.0	84.9	323.9	214.8	436.9	
25–29	69.2	53.6	85.1	1,046.2	1,175.1	920.6	112.2	108.6	116.6	38.8	39.9	37.6	199.6	141.2	259.4	
30–34	37.9	35.1	40.8	563.7	762.3	382.6	58.0	61.8	53.3	19.3	21.3	17.4	112.4	85.1	139.8	
35–39	22.8	25.4	20.2	294.0	438.2	165.1	37.2	44.4	28.8	11.8	16.8	7.1	66.5	60.2	72.7	
40–44	15.7	20.8	10.7	187.6	302.2	86.6	25.0	32.9	16.2	8.6	13.3	4.1	45.5	40.6	50.2	
45–54	7.4	11.1	3.8	100.4	179.7	32.4	11.9	16.9	6.7	5.9	8.8	3.4	21.7	25.2	18.6	
55–64	2.3	4.0	0.6	34.1	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	
TOTAL	**27.1**	**20.3**	**33.6**	**578.4**	**596.8**	**562.0**	**64.0**	**59.1**	**69.3**	**17.6**	**17.3**	**18.0**	**99.6**	**69.3**	**128.6**	
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	2009
15–19	72.9	27.2	121.2	1,496.1	1,019.9	1,986.2	133.0	82.8	186.8	44.0	19.1	70.3	247.0	112.6	384.0	
20–24	104.9	65.6	146.3	1,832.8	1,713.9	1,954.6	184.7	166.1	205.9	60.5	52.6	68.7	319.5	197.5	445.7	
25–29	59.9	51.5	68.6	900.7	1,009.1	793.3	98.3	100.2	96.1	33.0	36.4	29.9	193.9	150.5	238.1	
30–34	34.2	34.6	33.8	481.4	636.4	338.7	52.8	57.7	46.8	17.6	21.1	14.3	133.8	112.6	155.1	
35–39	20.5	23.6	17.5	250.1	373.6	139.6	31.1	36.4	25.0	11.1	16.7	5.8	82.5	75.1	89.9	
40–44	13.6	19.0	8.2	146.9	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	75.4	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	
TOTAL	**23.8**	**19.2**	**28.3**	**509.8**	**523.0**	**498.1**	**56.4**	**53.2**	**59.9**	**15.9**	**16.0**	**15.8**	**103.3**	**73.4**	**132.0**	
10–14	2.3	0.4	4.3	55.9	19.5	93.4	4.5	1.3	7.8	0.6	0.2	1.1	7.7	3.0	12.5	2010
15–19	72.0	27.4	119.0	1,521.3	1,024.7	2,032.4	140.6	92.4	192.3	43.4	26.2	61.5	293.2	147.8	441.5	
20–24	116.5	78.2	156.7	1,881.8	1,768.8	1,997.6	212.8	191.4	237.2	72.9	66.9	79.1	396.6	251.3	547.0	
25–29	67.0	59.4	74.8	880.5	987.4	774.6	110.7	116.8	103.3	38.8	48.6	29.4	259.4	202.3	317.8	
30–34	39.4	40.7	38.1	475.9	612.9	349.9	59.9	69.6	47.9	20.9	27.5	14.8	162.4	140.5	184.5	
35–39	22.0	26.7	17.4	232.1	336.1	139.0	35.6	42.1	27.9	14.7	21.6	8.1	91.0	87.2	94.7	
40–44	16.3	22.8	9.7	142.0	233.9	60.8	25.7	34.8	15.5	9.7	13.8	5.9	60.0	63.4	56.7	
45–54	7.9	12.5	3.4	72.3	128.1	24.5	12.2	18.0	6.0	4.8	7.9	2.1	22.3	28.3	16.7	
55–64	2.2	3.8	0.7	23.8	48.2	4.1	3.9	6.2	1.8	1.7	2.4	1.1	7.1	12.4	2.2	
65+	0.4	0.9	0.1	4.1	9.2	0.9	1.3	2.4	0.5	0.3	0.7	0.0	1.8	2.1	1.6	
TOTAL	**26.0**	**22.1**	**29.8**	**512.2**	**520.4**	**504.9**	**63.2**	**61.5**	**64.9**	**18.1**	**20.1**	**16.1**	**125.7**	**92.1**	**158.0**	

NOTE: These tables should be used only for race/ethnicity comparisons. The 0- to 9-year age group is not shown because some of these cases may not be due to sexual transmission, and they are not included in the totals. In 2010, race/ethnicity was unknown (i.e., unknown, missing, or invalid data values) for 20.0% of reported gonorrhea cases, age was unknown for 0.2% of cases, and sex was unknown for 0.4% of cases. **See Table 21 for age-specific cases and rates and Tables 14-16 for total and sex-specific cases and rates.**

Table 23. All Stages of Syphilis* — Reported Cases and Rates by State/Area and Region in Alphabetical Order, United States and Outlying Areas, 2006–2010

State/Area	Cases					Rates per 100,000 Population				
	2006	2007	2008	2009	2010	2006	2007	2008	2009	2010
Alabama	931	1,006	1,187	1,138	781	20.2	21.7	25.5	24.2	16.6
Alaska	25	16	9	4	15	3.7	2.3	1.3	0.6	2.1
Arizona	926	1,245	1,394	1,084	904	15.0	19.6	21.4	16.4	13.7
Arkansas	246	371	508	552	534	8.8	13.1	17.8	19.1	18.5
California	6,046	6,323	6,911	6,033	6,114	16.6	17.3	18.8	16.3	16.5
Colorado	182	157	352	269	342	3.8	3.2	7.1	5.4	6.8
Connecticut	197	148	173	179	234	5.6	4.2	4.9	5.1	6.7
Delaware	74	63	60	87	44	8.7	7.3	6.9	9.8	5.0
District of Columbia	314	416	370	431	495	54.0	70.7	62.5	71.9	82.5
Florida	2,945	3,918	4,585	3,860	4,069	16.3	21.5	25.0	20.8	21.9
Georgia	1,933	2,254	2,833	2,717	2,347	20.6	23.6	29.2	27.6	23.9
Hawaii	66	58	68	88	73	5.1	4.5	5.3	6.8	5.6
Idaho	12	14	26	31	20	0.8	0.9	1.7	2.0	1.3
Illinois	1,473	1,220	1,565	1,915	2,236	11.5	9.5	12.1	14.8	17.3
Indiana	250	216	351	324	412	4.0	3.4	5.5	5.0	6.4
Iowa	68	65	75	65	68	2.3	2.2	2.5	2.2	2.3
Kansas	87	97	125	151	110	3.1	3.5	4.5	5.4	3.9
Kentucky	188	153	218	239	311	4.5	3.6	5.1	5.5	7.2
Louisiana	1,390	1,808	2,024	1,964	2,484	32.4	42.1	45.9	43.7	55.3
Maine	22	21	27	15	41	1.7	1.6	2.1	1.1	3.1
Maryland	1,038	1,171	1,088	993	1,015	18.5	20.8	19.3	17.4	17.8
Massachusetts	378	399	479	473	639	5.9	6.2	7.4	7.2	9.7
Michigan	384	473	546	635	680	3.8	4.7	5.5	6.4	6.8
Minnesota	189	186	266	217	350	3.7	3.6	5.1	4.1	6.6
Mississippi	520	708	745	745	823	17.9	24.3	25.4	25.2	27.9
Missouri	430	484	542	514	512	7.4	8.2	9.2	8.6	8.6
Montana	2	8	10	5	5	0.2	0.8	1.0	0.5	0.5
Nebraska	34	30	36	45	33	1.9	1.7	2.0	2.5	1.8
Nevada	389	396	325	306	412	15.6	15.4	12.5	11.6	15.6
New Hampshire	35	52	41	37	43	2.7	4.0	3.1	2.8	3.2
New Jersey	799	926	1,009	890	947	9.2	10.7	11.6	10.2	10.9
New Mexico	237	180	189	208	151	12.1	9.1	9.5	10.3	7.5
New York	4,586	5,001	5,515	4,623	4,859	23.8	25.9	28.3	23.7	24.9
North Carolina	962	1,093	999	1,524	1,233	10.9	12.1	10.8	16.2	13.1
North Dakota	3	2	4	8	6	0.5	0.3	0.6	1.2	0.9
Ohio	491	549	763	795	1,076	4.3	4.8	6.6	6.9	9.3
Oklahoma	251	216	257	296	272	7.0	6.0	7.1	8.0	7.4
Oregon	99	59	97	132	173	2.7	1.6	2.6	3.5	4.5
Pennsylvania	888	844	902	1,027	1,007	7.1	6.8	7.2	8.1	8.0
Rhode Island	71	76	55	64	79	6.7	7.2	5.2	6.1	7.5
South Carolina	397	411	412	507	579	9.2	9.3	9.2	11.1	12.7
South Dakota	29	12	6	10	12	3.7	1.5	0.7	1.2	1.5
Tennessee	1,015	1,212	1,284	1,317	1,193	16.8	19.7	20.7	20.9	18.9
Texas	4,956	5,506	6,336	6,975	6,411	21.1	23.0	26.0	28.1	25.9
Utah	68	45	40	55	133	2.7	1.7	1.5	2.0	4.8
Vermont	7	11	18	1	4	1.1	1.8	2.9	0.2	0.6
Virginia	701	736	789	755	800	9.2	9.5	10.2	9.6	10.1
Washington	423	367	438	322	535	6.6	5.7	6.7	4.8	8.0
West Virginia	30	27	44	32	26	1.6	1.5	2.4	1.8	1.4
Wisconsin	170	170	187	166	186	3.1	3.0	3.3	2.9	3.3
Wyoming	1	6	9	7	6	0.2	1.1	1.7	1.3	1.1
U.S. TOTAL	**36,958**	**40,925**	**46,292**	**44,830**	**45,834**	**12.3**	**13.6**	**15.2**	**14.6**	**14.9**
Northeast	6,983	7,478	8,219	7,309	7,853	12.8	13.7	15.0	13.2	14.2
Midwest	3,608	3,504	4,466	4,845	5,681	5.4	5.3	6.7	7.2	8.5
South	17,891	21,069	23,739	24,132	23,417	16.4	19.1	21.2	21.3	20.7
West	8,476	8,874	9,868	8,544	8,883	12.2	12.7	13.9	11.9	12.4
Guam	13	37	45	12	11	7.6	21.3	25.6	6.7	6.2
Puerto Rico	1,068	1,269	797	725	723	27.2	32.2	20.2	18.3	18.2
Virgin Islands	5	5	1	2	4	4.6	4.6	0.9	1.8	3.6
OUTLYING AREAS	**1,086**	**1,311**	**843**	**739**	**738**	**25.8**	**31.0**	**19.9**	**17.4**	**17.3**
TOTAL	**38,044**	**42,236**	**47,135**	**45,569**	**46,572**	**12.5**	**13.8**	**15.3**	**14.6**	**15.0**

* 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, 2006–2010

MSAs	Cases					Rates per 100,000 Population				
	2006	2007	2008	2009	2010	2006	2007	2008	2009	2010
Atlanta-Sandy Springs-Marietta, GA	1,641	1,904	2,243	2,187	1,916	31.9	36.1	41.7	39.9	35.0
Austin-Round Rock, TX	212	234	344	352	362	14.0	14.6	20.8	20.6	21.2
Baltimore-Towson, MD	642	650	685	567	531	24.1	24.4	25.7	21.1	19.7
Birmingham-Hoover, AL	561	483	504	412	234	51.0	43.6	45.1	36.4	20.7
Boston-Cambridge-Quincy, MA-NH	329	324	383	411	544	7.4	7.2	8.5	9.0	11.9
Buffalo-Cheektowaga-Tonawanda, NY	42	28	20	40	43	3.7	2.5	1.8	3.6	3.8
Charlotte-Gastonia-Concord, NC-SC	303	301	224	345	287	19.1	18.2	13.2	19.8	16.4
Chicago-Naperville-Joliet, IL-IN-WI	1,386	1,116	1,452	1,797	2,085	14.6	11.7	15.2	18.8	21.8
Cincinnati-Middletown, OH-KY-IN	58	77	105	227	484	2.8	3.6	4.9	10.5	22.3
Cleveland-Elyria-Mentor, OH	53	83	127	170	182	2.5	4.0	6.1	8.1	8.7
Columbus, OH	229	222	311	252	245	13.3	12.7	17.5	14.0	13.6
Dallas-Fort Worth-Arlington, TX	1,678	1,643	1,780	2,148	1,955	27.9	26.7	28.3	33.3	30.3
Denver-Aurora, CO	141	120	269	223	293	5.9	4.9	10.7	8.7	11.5
Detroit-Warren-Livonia, MI	284	339	304	411	456	6.4	7.6	6.9	9.3	10.4
Hartford-West Hartford-East Hartford, CT	65	51	71	67	85	5.5	4.3	6.0	5.6	7.1
Houston-Baytown-Sugar Land, TX	1,570	2,048	2,088	2,038	1,891	28.3	36.4	36.5	34.7	32.2
Indianapolis, IN	121	95	189	156	233	7.3	5.6	11.0	8.9	13.4
Jacksonville, FL	165	198	308	235	228	12.9	15.2	23.5	17.7	17.2
Kansas City, MO-KS	228	268	237	220	145	11.6	13.5	11.8	10.6	7.0
Las Vegas-Paradise, NV	355	364	299	273	389	20.0	19.8	16.0	14.3	20.4
Los Angeles-Long Beach-Santa Ana, CA	3,594	3,581	3,572	3,278	3,003	27.8	27.8	27.7	25.5	23.3
Louisville, KY-IN	101	77	91	123	197	8.3	6.2	7.3	9.8	15.7
Memphis, TN-MS-AR	612	761	748	777	758	48.0	59.4	58.2	59.5	58.1
Miami-Fort Lauderdale-Miami Beach, FL	1,455	1,863	2,408	1,969	2,259	26.6	34.4	44.5	35.5	40.7
Milwaukee-Waukesha-West Allis, WI	100	127	138	117	121	6.6	8.2	8.9	7.5	7.8
Minneapolis-St. Paul-Bloomington, MN-WI	161	170	223	182	309	5.1	5.3	6.9	5.6	9.5
Nashville-Davidson-Murfreesboro, TN	194	240	277	302	258	13.3	15.8	17.9	19.1	16.3
New Orleans-Metairie-Kenner, LA	352	560	491	462	684	34.4	54.3	43.3	38.8	57.5
New York-Newark-Edison, NY-NJ-PA	4,924	5,503	6,097	5,087	5,334	26.2	29.2	32.1	26.7	28.0
Oklahoma City, OK	116	114	161	210	148	9.9	9.6	13.3	17.1	12.1
Orlando, FL	403	583	460	408	391	20.3	28.7	22.4	19.6	18.8
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	773	778	812	959	930	13.3	13.3	13.9	16.1	15.6
Phoenix-Mesa-Scottsdale, AZ	757	866	857	682	644	18.7	20.7	20.0	15.6	14.8
Pittsburgh, PA	152	122	98	70	72	6.4	5.2	4.2	3.0	3.1
Portland-Vancouver-Beaverton, OR-WA	74	51	64	114	153	3.5	2.3	2.9	5.1	6.8
Providence-New Bedford-Fall River, RI-MA	92	100	71	76	95	5.7	6.2	4.4	4.7	5.9
Richmond, VA	106	129	226	207	213	8.9	10.6	18.4	16.7	17.2
Riverside-San Bernardino-Ontario, CA	376	340	452	416	428	9.3	8.3	11.0	10.0	10.3
Rochester, NY	90	76	51	52	66	8.7	7.4	4.9	5.0	6.4
Sacramento-Arden-Arcade-Roseville, CA	136	117	243	212	183	6.6	5.6	11.5	10.0	8.6
Salt Lake City, UT	41	35	35	40	95	3.8	3.2	3.1	3.5	8.4
San Antonio, TX	473	420	598	739	730	24.4	21.1	29.4	35.7	35.2
San Diego-Carlsbad-San Marcos, CA	572	788	828	495	607	19.4	26.5	27.6	16.2	19.9
San Francisco-Oakland-Fremont, CA	741	783	1,044	932	1,150	17.7	18.6	24.4	21.6	26.6
San Jose-Sunnyvale-Santa Clara, CA	94	159	156	141	183	5.3	8.8	8.6	7.7	9.9
Seattle-Tacoma-Bellevue, WA	356	309	359	256	439	10.9	9.3	10.7	7.5	12.9
St. Louis, MO-IL	186	252	322	294	403	6.7	9.0	11.4	10.4	14.2
Tampa-St. Petersburg-Clearwater, FL	428	612	680	631	502	15.9	22.5	24.9	23.0	18.3
Virginia Beach-Norfolk-Newport News, VA-NC	245	232	248	236	236	14.9	14.0	15.0	14.1	14.1
Washington-Arlington-Alexandria, DC-VA-MD-WV	928	1,163	956	1,004	1,191	17.5	21.9	17.8	18.3	21.7
U.S. MSAs TOTAL	**28,695**	**31,459**	**34,709**	**33,002**	**34,370**	**17.8**	**19.3**	**21.1**	**19.9**	**20.7**

* 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, 2010

Rank*	State	Cases	Rate per 100,000 Population
1	Louisiana	546	12.2
2	Georgia	795	8.1
3	Mississippi	228	7.7
4	Arkansas	205	7.1
5	Illinois	908	7.0
6	Florida	1,184	6.4
7	Maryland	328	5.8
8	New York	1,098	5.6
9	California	2,065	5.6
10	Alabama	260	5.5
11	Texas	1,230	5.0
12	Nevada	130	4.9
13	Ohio	528	4.6
	U.S. TOTAL†	**13,774**	**4.5**
14	Tennessee	277	4.4
15	Massachusetts	285	4.3
16	North Carolina	396	4.2
17	Washington	266	4.0
18	Rhode Island	41	3.9
19	Virginia	279	3.5
20	Arizona	230	3.5
21	South Carolina	155	3.4
22	Kentucky	139	3.2
23	Pennsylvania	369	2.9
24	Minnesota	149	2.8
25	New Jersey	244	2.8
26	Connecticut	98	2.8
27	Colorado	138	2.7
28	Indiana	175	2.7
29	Hawaii	35	2.7
30	New Mexico	53	2.6
31	Missouri	152	2.5
32	Oklahoma	92	2.5
33	Maine	32	2.4
34	Michigan	235	2.4
35	Utah	65	2.3
36	Oregon	71	1.9
37	New Hampshire	22	1.7
38	Delaware	9	1.0
39	Wisconsin	49	0.9
40	Kansas	19	0.7
41	Nebraska	12	0.7
42	Vermont	4	0.6
43	Iowa	19	0.6
44	South Dakota	4	0.5
45	North Dakota	3	0.5
46	Alaska	3	0.4
47	Idaho	6	0.4
48	West Virginia	6	0.3
49	Montana	3	0.3
	Wyoming	0	0.0

* States were ranked in descending order by rate (rounded to the nearest tenth) and by number of cases.

† Total includes cases reported by the District of Columbia with 134 cases and a rate of 22.3, but excludes outlying areas (Guam with 1 case and rate of 0.6, Puerto Rico with 228 cases and rate of 5.7, 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, 2006–2010

State/Area	Cases					Rates per 100,000 Population				
	2006	2007	2008	2009	2010	2006	2007	2008	2009	2010
Alabama	319	380	449	417	260	6.9	8.2	9.6	8.9	5.5
Alaska	11	7	1	0	3	1.6	1.0	0.1	0.0	0.4
Arizona	203	296	317	231	230	3.3	4.7	4.9	3.5	3.5
Arkansas	77	122	206	275	205	2.7	4.3	7.2	9.5	7.1
California	1,835	2,038	2,204	1,900	2,065	5.0	5.6	6.0	5.1	5.6
Colorado	69	57	128	105	138	1.5	1.2	2.6	2.1	2.7
Connecticut	64	39	34	65	98	1.8	1.1	1.0	1.8	2.8
Delaware	20	18	16	27	9	2.3	2.1	1.8	3.1	1.0
District of Columbia	116	178	146	163	134	19.9	30.3	24.7	27.2	22.3
Florida	719	913	1,044	1,041	1,184	4.0	5.0	5.7	5.6	6.4
Georgia	581	680	914	953	795	6.2	7.1	9.4	9.7	8.1
Hawaii	18	9	29	33	35	1.4	0.7	2.3	2.5	2.7
Idaho	3	1	7	3	6	0.2	0.1	0.5	0.2	0.4
Illinois	431	464	554	750	908	3.4	3.6	4.3	5.8	7.0
Indiana	93	54	140	158	175	1.5	0.9	2.2	2.5	2.7
Iowa	19	21	16	23	19	0.6	0.7	0.5	0.8	0.6
Kansas	27	28	30	32	19	1.0	1.0	1.1	1.1	0.7
Kentucky	73	56	93	92	139	1.7	1.3	2.2	2.1	3.2
Louisiana	342	533	707	741	546	8.0	12.4	16.0	16.5	12.2
Maine	9	9	10	4	32	0.7	0.7	0.8	0.3	2.4
Maryland	300	345	378	314	328	5.3	6.1	6.7	5.5	5.8
Massachusetts	124	155	216	238	285	1.9	2.4	3.3	3.6	4.3
Michigan	118	123	210	230	235	1.2	1.2	2.1	2.3	2.4
Minnesota	47	59	116	71	149	0.9	1.1	2.2	1.3	2.8
Mississippi	86	133	184	237	228	3.0	4.6	6.3	8.0	7.7
Missouri	168	239	224	173	152	2.9	4.1	3.8	2.9	2.5
Montana	1	8	7	4	3	0.1	0.8	0.7	0.4	0.3
Nebraska	7	4	15	5	12	0.4	0.2	0.8	0.3	0.7
Nevada	137	111	77	91	130	5.5	4.3	3.0	3.4	4.9
New Hampshire	13	30	20	14	22	1.0	2.3	1.5	1.1	1.7
New Jersey	173	227	226	212	244	2.0	2.6	2.6	2.4	2.8
New Mexico	79	46	44	61	53	4.0	2.3	2.2	3.0	2.6
New York	736	1,068	1,217	1,182	1,098	3.8	5.5	6.2	6.0	5.6
North Carolina	309	323	287	579	396	3.5	3.6	3.1	6.2	4.2
North Dakota	1	1	0	4	3	0.2	0.2	0.0	0.6	0.5
Ohio	184	194	351	360	528	1.6	1.7	3.1	3.1	4.6
Oklahoma	70	65	86	97	92	2.0	1.8	2.4	2.6	2.5
Oregon	29	18	26	57	71	0.8	0.5	0.7	1.5	1.9
Pennsylvania	264	263	272	341	369	2.1	2.1	2.2	2.7	2.9
Rhode Island	14	36	18	20	41	1.3	3.4	1.7	1.9	3.9
South Carolina	66	91	98	123	155	1.5	2.1	2.2	2.7	3.4
South Dakota	13	7	1	0	4	1.7	0.9	0.1	0.0	0.5
Tennessee	249	367	413	403	277	4.1	6.0	6.6	6.4	4.4
Texas	1,064	1,160	1,405	1,644	1,230	4.5	4.9	5.8	6.6	5.0
Utah	21	20	25	31	65	0.8	0.8	0.9	1.1	2.3
Vermont	3	10	11	0	4	0.5	1.6	1.8	0.0	0.6
Virginia	190	230	266	299	279	2.5	3.0	3.4	3.8	3.5
Washington	182	154	181	139	266	2.8	2.4	2.8	2.1	4.0
West Virginia	11	6	13	8	6	0.6	0.3	0.7	0.4	0.3
Wisconsin	68	66	65	44	49	1.2	1.2	1.2	0.8	0.9
Wyoming	0	4	3	3	0	0.0	0.8	0.6	0.6	0.0
U.S. TOTAL	**9,756**	**11,466**	**13,500**	**13,997**	**13,774**	**3.3**	**3.8**	**4.4**	**4.6**	**4.5**
Northeast	1,400	1,837	2,024	2,076	2,193	2.6	3.4	3.7	3.8	4.0
Midwest	1,176	1,260	1,722	1,850	2,253	1.8	1.9	2.6	2.8	3.4
South	4,592	5,600	6,705	7,413	6,263	4.2	5.1	6.0	6.5	5.5
West	2,588	2,769	3,049	2,658	3,065	3.7	4.0	4.3	3.7	4.3
Guam	3	8	6	2	1	1.8	4.6	3.4	1.1	0.6
Puerto Rico	150	169	167	227	228	3.8	4.3	4.2	5.7	5.7
Virgin Islands	1	0	0	0	0	0.9	0.0	0.0	0.0	0.0
OUTLYING AREAS	**154**	**177**	**173**	**229**	**229**	**3.7**	**4.2**	**4.1**	**5.4**	**5.4**
TOTAL	**9,910**	**11,643**	**13,673**	**14,226**	**14,003**	**3.3**	**3.8**	**4.4**	**4.6**	**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, 2006–2010

State/Area	Cases					Rates per 100,000 Population				
	2006	2007	2008	2009	2010	2006	2007	2008	2009	2010
Alabama	116	143	171	137	75	4.9	6.0	7.1	5.6	3.1
Alaska	2	1	0	0	0	0.6	0.3	0.0	0.0	0.0
Arizona	33	64	56	22	20	1.1	2.0	1.7	0.7	0.6
Arkansas	35	50	81	104	82	2.4	3.5	5.6	7.1	5.6
California	128	115	110	79	74	0.7	0.6	0.6	0.4	0.4
Colorado	5	2	3	6	2	0.2	0.1	0.1	0.2	0.1
Connecticut	2	2	0	1	5	0.1	0.1	0.0	0.1	0.3
Delaware	4	1	6	11	1	0.9	0.2	1.3	2.4	0.2
District of Columbia	6	5	7	10	2	1.9	1.6	2.2	3.2	0.6
Florida	98	153	193	147	147	1.1	1.6	2.1	1.6	1.6
Georgia	41	53	96	101	82	0.9	1.1	2.0	2.0	1.6
Hawaii	1	1	7	6	7	0.2	0.2	1.1	0.9	1.1
Idaho	2	1	1	0	0	0.3	0.1	0.1	0.0	0.0
Illinois	37	39	38	55	108	0.6	0.6	0.6	0.8	1.6
Indiana	10	8	16	13	20	0.3	0.2	0.5	0.4	0.6
Iowa	6	3	3	6	3	0.4	0.2	0.2	0.4	0.2
Kansas	2	6	5	9	1	0.1	0.4	0.4	0.6	0.1
Kentucky	7	9	14	4	8	0.3	0.4	0.6	0.2	0.4
Louisiana	123	209	307	349	251	5.6	9.5	13.5	15.1	10.9
Maine	2	0	0	0	0	0.3	0.0	0.0	0.0	0.0
Maryland	61	47	77	42	26	2.1	1.6	2.6	1.4	0.9
Massachusetts	7	10	6	5	16	0.2	0.3	0.2	0.1	0.5
Michigan	26	27	60	40	23	0.5	0.5	1.2	0.8	0.5
Minnesota	4	1	5	0	9	0.2	0.0	0.2	0.0	0.3
Mississippi	36	35	66	73	69	2.4	2.3	4.4	4.8	4.5
Missouri	19	27	29	15	3	0.6	0.9	1.0	0.5	0.1
Montana	0	2	1	0	0	0.0	0.4	0.2	0.0	0.0
Nebraska	1	0	3	0	3	0.1	0.0	0.3	0.0	0.3
Nevada	34	12	14	7	7	2.8	1.0	1.1	0.5	0.5
New Hampshire	0	0	0	0	1	0.0	0.0	0.0	0.0	0.1
New Jersey	12	16	21	26	16	0.3	0.4	0.5	0.6	0.4
New Mexico	22	15	6	6	3	2.2	1.5	0.6	0.6	0.3
New York	29	32	52	55	47	0.3	0.3	0.5	0.5	0.5
North Carolina	67	60	44	108	55	1.5	1.3	0.9	2.3	1.1
North Dakota	0	0	0	1	1	0.0	0.0	0.0	0.3	0.3
Ohio	43	28	63	63	132	0.7	0.5	1.1	1.1	2.2
Oklahoma	19	24	25	24	16	1.0	1.3	1.4	1.3	0.9
Oregon	0	2	2	1	1	0.0	0.1	0.1	0.1	0.1
Pennsylvania	34	34	21	42	36	0.5	0.5	0.3	0.6	0.6
Rhode Island	0	2	0	1	2	0.0	0.4	0.0	0.2	0.4
South Carolina	11	10	12	10	9	0.5	0.4	0.5	0.4	0.4
South Dakota	5	2	1	0	0	1.3	0.5	0.2	0.0	0.0
Tennessee	73	113	119	122	49	2.4	3.6	3.7	3.8	1.5
Texas	261	297	450	490	333	2.2	2.5	3.7	4.0	2.7
Utah	3	0	1	0	2	0.2	0.0	0.1	0.0	0.1
Vermont	0	0	0	0	2	0.0	0.0	0.0	0.0	0.6
Virginia	23	16	25	22	20	0.6	0.4	0.6	0.5	0.5
Washington	4	6	5	6	5	0.1	0.2	0.2	0.2	0.1
West Virginia	1	2	4	2	0	0.1	0.2	0.4	0.2	0.0
Wisconsin	3	6	14	10	6	0.1	0.2	0.5	0.4	0.2
Wyoming	0	1	2	1	0	0.0	0.4	0.8	0.4	0.0
U.S. TOTAL	**1,458**	**1,692**	**2,242**	**2,232**	**1,780**	**1.0**	**1.1**	**1.5**	**1.4**	**1.1**
Northeast	86	96	100	130	125	0.3	0.3	0.4	0.5	0.4
Midwest	156	147	237	212	309	0.5	0.4	0.7	0.6	0.9
South	982	1,227	1,697	1,756	1,225	1.8	2.2	3.0	3.0	2.1
West	234	222	208	134	121	0.7	0.6	0.6	0.4	0.3
Guam	1	4	1	1	1	1.2	4.7	1.2	1.1	1.1
Puerto Rico	46	56	29	23	18	2.3	2.7	1.4	1.1	0.9
Virgin Islands	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
OUTLYING AREAS	**47**	**60**	**30**	**24**	**19**	**2.2**	**2.7**	**1.4**	**1.1**	**0.9**
TOTAL	**1,505**	**1,752**	**2,272**	**2,256**	**1,799**	**1.0**	**1.1**	**1.5**	**1.4**	**1.1**

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, 2006–2010

State/Area	Cases					Rates per 100,000 Population				
	2006	2007	2008	2009	2010	2006	2007	2008	2009	2010
Alabama	203	237	278	280	185	9.1	10.6	12.3	12.3	8.1
Alaska	9	6	1	0	3	2.6	1.7	0.3	0.0	0.8
Arizona	166	230	261	208	210	5.4	7.2	8.0	6.3	6.4
Arkansas	42	72	125	171	123	3.0	5.2	8.9	12.1	8.7
California	1,706	1,921	2,092	1,821	1,990	9.4	10.5	11.4	9.8	10.8
Colorado	64	55	125	99	136	2.7	2.2	5.0	3.9	5.4
Connecticut	62	37	34	64	93	3.6	2.2	2.0	3.7	5.4
Delaware	16	17	10	16	8	3.9	4.1	2.4	3.7	1.9
District of Columbia	110	173	139	153	132	40.3	62.2	49.7	54.1	46.6
Florida	621	760	850	894	1,037	7.0	8.5	9.4	9.8	11.4
Georgia	540	626	818	852	713	11.7	13.3	17.2	17.6	14.7
Hawaii	17	8	22	27	28	2.6	1.2	3.4	4.1	4.3
Idaho	1	0	6	3	6	0.1	0.0	0.8	0.4	0.8
Illinois	394	425	516	695	800	6.2	6.7	8.1	10.9	12.6
Indiana	83	46	124	145	155	2.7	1.5	3.9	4.6	4.9
Iowa	13	18	13	17	16	0.9	1.2	0.9	1.1	1.1
Kansas	25	22	25	23	18	1.8	1.6	1.8	1.6	1.3
Kentucky	66	47	79	88	131	3.2	2.3	3.8	4.2	6.2
Louisiana	219	324	400	392	284	10.5	15.5	18.7	17.9	13.0
Maine	7	9	10	4	32	1.1	1.4	1.6	0.6	5.0
Maryland	239	298	301	272	302	8.8	11.0	11.0	9.8	10.9
Massachusetts	117	145	210	233	269	3.8	4.6	6.7	7.3	8.4
Michigan	92	96	150	190	212	1.9	1.9	3.0	3.9	4.3
Minnesota	43	58	111	71	140	1.7	2.2	4.3	2.7	5.3
Mississippi	50	98	118	164	159	3.5	6.9	8.3	11.5	11.1
Missouri	149	212	195	158	149	5.2	7.4	6.8	5.4	5.1
Montana	1	6	6	4	3	0.2	1.3	1.2	0.8	0.6
Nebraska	6	4	12	5	9	0.7	0.5	1.4	0.6	1.0
Nevada	103	99	63	84	123	8.1	7.6	4.8	6.2	9.1
New Hampshire	13	30	20	14	21	2.0	4.6	3.1	2.1	3.2
New Jersey	161	211	205	186	228	3.8	5.0	4.8	4.4	5.3
New Mexico	57	31	38	55	50	5.9	3.2	3.9	5.5	5.0
New York	707	1,036	1,165	1,127	1,051	7.6	11.1	12.3	11.9	11.1
North Carolina	242	263	243	471	341	5.6	5.9	5.4	10.3	7.4
North Dakota	1	1	0	3	2	0.3	0.3	0.0	0.9	0.6
Ohio	141	166	288	297	396	2.5	3.0	5.1	5.3	7.0
Oklahoma	51	41	61	73	76	2.9	2.3	3.4	4.0	4.2
Oregon	29	16	24	56	70	1.6	0.9	1.3	3.0	3.7
Pennsylvania	230	229	251	299	333	3.8	3.8	4.1	4.9	5.4
Rhode Island	14	34	18	19	39	2.7	6.6	3.5	3.7	7.6
South Carolina	55	81	86	113	146	2.6	3.8	3.9	5.1	6.6
South Dakota	8	5	0	0	4	2.0	1.3	0.0	0.0	1.0
Tennessee	176	254	294	281	228	6.0	8.4	9.7	9.2	7.4
Texas	803	863	955	1,154	896	6.9	7.2	7.9	9.3	7.2
Utah	18	20	24	31	63	1.4	1.5	1.7	2.2	4.5
Vermont	3	10	11	0	2	1.0	3.3	3.6	0.0	0.7
Virginia	167	214	241	277	259	4.4	5.7	6.3	7.1	6.7
Washington	178	148	176	133	261	5.6	4.6	5.4	4.0	7.8
West Virginia	10	4	9	6	6	1.1	0.5	1.0	0.7	0.7
Wisconsin	65	60	51	34	43	2.4	2.2	1.8	1.2	1.5
Wyoming	0	3	1	2	0	0.0	1.1	0.4	0.7	0.0
U.S. TOTAL	**8,293**	**9,769**	**11,255**	**11,764**	**11,981**	**5.6**	**6.6**	**7.5**	**7.8**	**7.9**
Northeast	1,314	1,741	1,924	1,946	2,068	4.9	6.5	7.2	7.2	7.7
Midwest	1,020	1,113	1,485	1,638	1,944	3.1	3.4	4.5	5.0	5.9
South	3,610	4,372	5,007	5,657	5,026	6.7	8.1	9.1	10.2	9.0
West	2,349	2,543	2,839	2,523	2,943	6.8	7.2	8.0	7.0	8.2
Guam	2	4	5	1	0	2.3	4.5	5.6	1.1	0.0
Puerto Rico	104	113	138	204	210	5.5	6.0	7.3	10.7	11.0
Virgin Islands	1	0	0	0	0	1.9	0.0	0.0	0.0	0.0
OUTLYING AREAS	**107**	**117**	**143**	**205**	**210**	**5.3**	**5.8**	**7.0**	**10.0**	**10.3**
TOTAL	**8,400**	**9,886**	**11,398**	**11,969**	**12,191**	**5.6**	**6.6**	**7.5**	**7.8**	**7.9**

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, 2006–2010

MSAs	Cases					Rates per 100,000 Population				
	2006	2007	2008	2009	2010	2006	2007	2008	2009	2010
Atlanta-Sandy Springs-Marietta, GA	529	608	765	809	651	10.3	11.5	14.2	14.8	11.9
Austin-Round Rock, TX	84	74	107	99	107	5.5	4.6	6.5	5.8	6.3
Baltimore-Towson, MD	213	211	270	204	212	8.0	7.9	10.1	7.6	7.9
Birmingham-Hoover, AL	244	189	188	145	82	22.2	17.1	16.8	12.8	7.2
Boston-Cambridge-Quincy, MA-NH	117	131	173	203	240	2.6	2.9	3.8	4.4	5.2
Buffalo-Cheektowaga-Tonawanda, NY	18	11	3	10	11	1.6	1.0	0.3	0.9	1.0
Charlotte-Gastonia-Concord, NC-SC	121	103	58	138	106	7.6	6.2	3.4	7.9	6.1
Chicago-Naperville-Joliet, IL-IN-WI	416	427	535	732	881	4.4	4.5	5.6	7.6	9.2
Cincinnati-Middletown, OH-KY-IN	13	34	62	124	272	0.6	1.6	2.9	5.7	12.5
Cleveland-Elyria-Mentor, OH	18	29	64	71	82	0.9	1.4	3.1	3.4	3.9
Columbus, OH	107	76	135	115	120	6.2	4.3	7.6	6.4	6.7
Dallas-Fort Worth-Arlington, TX	320	265	328	502	342	5.3	4.3	5.2	7.8	5.3
Denver-Aurora, CO	56	46	103	92	120	2.3	1.9	4.1	3.6	4.7
Detroit-Warren-Livonia, MI	82	91	100	151	146	1.8	2.0	2.3	3.4	3.3
Hartford-West Hartford-East Hartford, CT	23	15	8	25	32	1.9	1.3	0.7	2.1	2.7
Houston-Baytown-Sugar Land, TX	396	501	456	432	330	7.1	8.9	8.0	7.4	5.6
Indianapolis, IN	47	26	80	81	108	2.8	1.5	4.7	4.6	6.2
Jacksonville, FL	41	44	67	57	49	3.2	3.4	5.1	4.3	3.7
Kansas City, MO-KS	112	149	102	80	43	5.7	7.5	5.1	3.9	2.1
Las Vegas-Paradise, NV	132	102	72	86	125	7.4	5.6	3.9	4.5	6.6
Los Angeles-Long Beach-Santa Ana, CA	945	1,061	920	858	766	7.3	8.2	7.1	6.7	5.9
Louisville, KY-IN	41	32	36	57	105	3.4	2.6	2.9	4.5	8.3
Memphis, TN-MS-AR	145	208	234	189	165	11.4	16.2	18.2	14.5	12.6
Miami-Fort Lauderdale-Miami Beach, FL	369	414	509	518	652	6.8	7.6	9.4	9.3	11.8
Milwaukee-Waukesha-West Allis, WI	38	53	45	28	29	2.5	3.4	2.9	1.8	1.9
Minneapolis-St. Paul-Bloomington, MN-WI	43	57	105	67	140	1.4	1.8	3.3	2.0	4.3
Nashville-Davidson-Murfreesboro, TN	40	84	85	92	73	2.7	5.5	5.5	5.8	4.6
New Orleans-Metairie-Kenner, LA	90	168	170	138	92	8.8	16.3	15.0	11.6	7.7
New York-Newark-Edison, NY-NJ-PA	811	1,208	1,353	1,301	1,219	4.3	6.4	7.1	6.8	6.4
Oklahoma City, OK	24	36	61	70	55	2.0	3.0	5.1	5.7	4.5
Orlando, FL	94	145	126	109	103	4.7	7.1	6.1	5.2	4.9
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	173	205	214	289	307	3.0	3.5	3.7	4.8	5.1
Phoenix-Mesa-Scottsdale, AZ	157	193	211	169	161	3.9	4.6	4.9	3.9	3.7
Pittsburgh, PA	91	60	38	29	36	3.8	2.5	1.6	1.2	1.5
Portland-Vancouver-Beaverton, OR-WA	25	11	21	53	66	1.2	0.5	1.0	2.4	2.9
Providence-New Bedford-Fall River, RI-MA	18	44	25	28	47	1.1	2.7	1.6	1.7	2.9
Richmond, VA	28	38	92	97	89	2.3	3.1	7.5	7.8	7.2
Riverside-San Bernardino-Ontario, CA	108	95	157	115	157	2.7	2.3	3.8	2.8	3.8
Rochester, NY	14	16	9	11	16	1.4	1.6	0.9	1.1	1.5
Sacramento-Arden-Arcade-Roseville, CA	32	59	102	73	57	1.5	2.8	4.8	3.4	2.7
Salt Lake City, UT	15	19	23	28	54	1.4	1.7	2.1	2.5	4.8
San Antonio, TX	136	157	195	216	183	7.0	7.9	9.6	10.4	8.8
San Diego-Carlsbad-San Marcos, CA	235	347	345	190	274	8.0	11.7	11.5	6.2	9.0
San Francisco-Oakland-Fremont, CA	363	308	478	438	543	8.7	7.3	11.2	10.1	12.6
San Jose-Sunnyvale-Santa Clara, CA	52	56	42	59	91	2.9	3.1	2.3	3.2	4.9
Seattle-Tacoma-Bellevue, WA	160	138	153	115	236	4.9	4.2	4.6	3.4	6.9
St. Louis, MO-IL	65	112	121	83	118	2.3	4.0	4.3	2.9	4.2
Tampa-St. Petersburg-Clearwater, FL	110	195	191	180	183	4.1	7.2	7.0	6.6	6.7
Virginia Beach-Norfolk-Newport News, VA-NC	84	88	98	102	92	5.1	5.3	5.9	6.1	5.5
Washington-Arlington-Alexandria, DC-VA-MD-WV	250	377	297	324	311	4.7	7.1	5.5	5.9	5.7
U.S. MSAs TOTAL	**7,845**	**9,116**	**10,132**	**10,182**	**10,479**	**4.9**	**5.6**	**6.2**	**6.1**	**6.3**

* 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, 2006–2010

MSAs	Cases					Rates per 100,000 Population				
	2006	2007	2008	2009	2010	2006	2007	2008	2009	2010
Atlanta-Sandy Springs-Marietta, GA	33	40	51	59	44	1.3	1.5	1.9	2.1	1.6
Austin-Round Rock, TX	11	12	16	14	18	1.5	1.5	2.0	1.7	2.2
Baltimore-Towson, MD	53	40	70	33	19	3.8	2.9	5.1	2.4	1.4
Birmingham-Hoover, AL	94	80	77	44	21	16.5	13.9	13.3	7.5	3.6
Boston-Cambridge-Quincy, MA-NH	7	10	4	3	12	0.3	0.4	0.2	0.1	0.5
Buffalo-Cheektowaga-Tonawanda, NY	2	0	0	0	0	0.3	0.0	0.0	0.0	0.0
Charlotte-Gastonia-Concord, NC-SC	28	20	9	14	6	3.5	2.4	1.0	1.6	0.7
Chicago-Naperville-Joliet, IL-IN-WI	43	31	40	46	107	0.9	0.6	0.8	0.9	2.2
Cincinnati-Middletown, OH-KY-IN	5	6	14	26	107	0.5	0.5	1.3	2.3	9.6
Cleveland-Elyria-Mentor, OH	2	5	13	14	6	0.2	0.5	1.2	1.3	0.6
Columbus, OH	30	11	19	15	11	3.4	1.2	2.1	1.6	1.2
Dallas-Fort Worth-Arlington, TX	112	93	116	153	103	3.7	3.0	3.7	4.8	3.2
Denver-Aurora, CO	3	1	1	3	0	0.3	0.1	0.1	0.2	0.0
Detroit-Warren-Livonia, MI	20	22	27	26	9	0.9	1.0	1.2	1.2	0.4
Hartford-West Hartford-East Hartford, CT	1	1	0	0	3	0.2	0.2	0.0	0.0	0.5
Houston-Baytown-Sugar Land, TX	65	108	114	113	77	2.3	3.8	4.0	3.9	2.6
Indianapolis, IN	1	3	8	6	12	0.1	0.3	0.9	0.7	1.4
Jacksonville, FL	11	11	16	11	11	1.7	1.7	2.4	1.6	1.6
Kansas City, MO-KS	17	25	20	8	1	1.7	2.5	2.0	0.8	0.1
Las Vegas-Paradise, NV	32	11	11	7	6	3.7	1.2	1.2	0.7	0.6
Los Angeles-Long Beach-Santa Ana, CA	72	58	31	22	17	1.1	0.9	0.5	0.3	0.3
Louisville, KY-IN	3	2	3	1	4	0.5	0.3	0.5	0.2	0.6
Memphis, TN-MS-AR	52	87	71	67	33	7.9	13.1	10.6	9.9	4.9
Miami-Fort Lauderdale-Miami Beach, FL	40	60	74	54	55	1.4	2.2	2.7	1.9	1.9
Milwaukee-Waukesha-West Allis, WI	2	5	11	9	5	0.3	0.6	1.4	1.1	0.6
Minneapolis-St. Paul-Bloomington, MN-WI	3	1	5	0	5	0.2	0.1	0.3	0.0	0.3
Nashville-Davidson-Murfreesboro, TN	2	13	14	23	10	0.3	1.7	1.8	2.9	1.2
New Orleans-Metairie-Kenner, LA	25	51	53	36	30	4.7	9.5	9.0	5.8	4.9
New York-Newark-Edison, NY-NJ-PA	31	42	60	69	52	0.3	0.4	0.6	0.7	0.5
Oklahoma City, OK	6	13	16	16	12	1.0	2.2	2.6	2.6	1.9
Orlando, FL	14	13	21	19	7	1.4	1.3	2.0	1.8	0.7
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	6	14	17	37	33	0.2	0.5	0.6	1.2	1.1
Phoenix-Mesa-Scottsdale, AZ	18	29	24	8	12	0.9	1.4	1.1	0.4	0.6
Pittsburgh, PA	28	25	6	4	2	2.3	2.0	0.5	0.3	0.2
Portland-Vancouver-Beaverton, OR-WA	0	1	0	0	2	0.0	0.1	0.0	0.0	0.2
Providence-New Bedford-Fall River, RI-MA	0	2	0	1	3	0.0	0.2	0.0	0.1	0.4
Richmond, VA	1	3	6	3	6	0.2	0.5	1.0	0.5	0.9
Riverside-San Bernardino-Ontario, CA	10	4	5	5	1	0.5	0.2	0.2	0.2	0.0
Rochester, NY	0	1	0	1	3	0.0	0.2	0.0	0.2	0.6
Sacramento-Arden-Arcade-Roseville, CA	3	2	18	16	12	0.3	0.2	1.7	1.5	1.1
Salt Lake City, UT	1	0	1	0	0	0.2	0.0	0.2	0.0	0.0
San Antonio, TX	32	35	58	42	28	3.2	3.4	5.6	4.0	2.7
San Diego-Carlsbad-San Marcos, CA	12	12	12	6	3	0.8	0.8	0.8	0.4	0.2
San Francisco-Oakland-Fremont, CA	7	12	12	9	20	0.3	0.6	0.6	0.4	0.9
San Jose-Sunnyvale-Santa Clara, CA	7	4	3	5	3	0.8	0.5	0.3	0.6	0.3
Seattle-Tacoma-Bellevue, WA	2	4	2	4	2	0.1	0.2	0.1	0.2	0.1
St. Louis, MO-IL	3	9	16	9	3	0.2	0.6	1.1	0.6	0.2
Tampa-St. Petersburg-Clearwater, FL	15	52	54	29	33	1.1	3.7	3.8	2.1	2.3
Virginia Beach-Norfolk-Newport News, VA-NC	18	10	12	11	3	2.1	1.2	1.4	1.3	0.4
Washington-Arlington-Alexandria, DC-VA-MD-WV	11	12	15	19	13	0.4	0.4	0.5	0.7	0.5
U.S. MSAs TOTAL	**994**	**1,106**	**1,246**	**1,120**	**985**	**1.2**	**1.3**	**1.5**	**1.3**	**1.2**

* 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, 2006–2010

MSAs	Cases					Rates per 100,000 Population				
	2006	2007	2008	2009	2010	2006	2007	2008	2009	2010
Atlanta-Sandy Springs-Marietta, GA	496	567	714	750	607	19.5	21.7	26.9	27.7	22.4
Austin-Round Rock, TX	73	62	91	85	89	9.4	7.6	10.8	9.8	10.2
Baltimore-Towson, MD	160	171	200	171	193	12.5	13.3	15.6	13.2	14.9
Birmingham-Hoover, AL	150	109	111	101	61	28.3	20.4	20.6	18.5	11.2
Boston-Cambridge-Quincy, MA-NH	110	121	169	200	228	5.1	5.6	7.7	8.9	10.2
Buffalo-Cheektowaga-Tonawanda, NY	16	11	3	10	11	2.9	2.0	0.6	1.8	2.0
Charlotte-Gastonia-Concord, NC-SC	93	83	49	124	100	11.9	10.3	5.9	14.5	11.7
Chicago-Naperville-Joliet, IL-IN-WI	373	396	495	686	774	8.0	8.4	10.5	14.6	16.4
Cincinnati-Middletown, OH-KY-IN	8	28	48	98	165	0.8	2.7	4.6	9.2	15.5
Cleveland-Elyria-Mentor, OH	16	24	51	57	76	1.6	2.4	5.1	5.7	7.6
Columbus, OH	77	65	116	100	109	9.0	7.5	13.2	11.2	12.3
Dallas-Fort Worth-Arlington, TX	208	172	212	349	239	6.9	5.6	6.7	10.8	7.4
Denver-Aurora, CO	53	45	102	89	120	4.4	3.6	8.1	7.0	9.4
Detroit-Warren-Livonia, MI	62	69	73	125	137	2.8	3.2	3.4	5.8	6.4
Hartford-West Hartford-East Hartford, CT	22	14	8	25	29	3.8	2.4	1.4	4.3	5.0
Houston-Baytown-Sugar Land, TX	331	393	342	319	253	11.9	13.9	11.9	10.8	8.6
Indianapolis, IN	46	23	72	75	96	5.6	2.8	8.5	8.8	11.2
Jacksonville, FL	30	33	51	46	38	4.8	5.2	7.9	7.1	5.9
Kansas City, MO-KS	95	124	82	72	42	9.8	12.7	8.3	7.1	4.1
Las Vegas-Paradise, NV	100	91	61	79	119	11.1	9.7	6.4	8.2	12.3
Los Angeles-Long Beach-Santa Ana, CA	873	1,002	889	836	749	13.6	15.7	13.9	13.1	11.7
Louisville, KY-IN	38	30	33	56	101	6.4	5.0	5.4	9.1	16.4
Memphis, TN-MS-AR	93	121	163	122	132	15.1	19.6	26.4	19.4	21.0
Miami-Fort Lauderdale-Miami Beach, FL	329	354	435	464	597	12.4	13.5	16.5	17.1	22.1
Milwaukee-Waukesha-West Allis, WI	36	48	34	19	24	4.9	6.4	4.5	2.5	3.2
Minneapolis-St. Paul-Bloomington, MN-WI	40	56	100	67	135	2.5	3.5	6.2	4.1	8.3
Nashville-Davidson-Murfreesboro, TN	38	71	71	69	63	5.3	9.5	9.3	8.9	8.1
New Orleans-Metairie-Kenner, LA	65	117	117	102	55	13.2	23.7	21.5	17.8	9.6
New York-Newark-Edison, NY-NJ-PA	780	1,166	1,293	1,232	1,167	8.6	12.8	14.0	13.3	12.6
Oklahoma City, OK	18	23	45	54	43	3.1	3.9	7.6	8.9	7.1
Orlando, FL	80	132	105	90	96	8.1	13.1	10.3	8.7	9.3
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	167	191	197	252	274	5.9	6.8	7.0	8.7	9.5
Phoenix-Mesa-Scottsdale, AZ	136	162	187	161	149	6.7	7.7	8.6	7.3	6.7
Pittsburgh, PA	63	35	32	25	34	5.5	3.1	2.8	2.2	3.0
Portland-Vancouver-Beaverton, OR-WA	25	10	21	53	64	2.3	0.9	1.9	4.8	5.7
Providence-New Bedford-Fall River, RI-MA	18	42	25	27	44	2.3	5.4	3.2	3.5	5.7
Richmond, VA	27	35	86	94	83	4.6	5.9	14.4	15.6	13.8
Riverside-San Bernardino-Ontario, CA	98	90	150	110	156	4.9	4.4	7.3	5.3	7.5
Rochester, NY	14	15	9	10	13	2.8	3.0	1.8	2.0	2.6
Sacramento-Arden-Arcade-Roseville, CA	29	57	84	57	45	2.9	5.5	8.1	5.4	4.3
Salt Lake City, UT	14	19	22	28	54	2.6	3.4	3.9	4.9	9.4
San Antonio, TX	104	122	137	174	155	10.9	12.5	13.8	17.1	15.2
San Diego-Carlsbad-San Marcos, CA	223	335	333	184	271	15.1	22.4	22.1	12.0	17.7
San Francisco-Oakland-Fremont, CA	355	296	466	429	523	17.1	14.2	21.9	20.0	24.3
San Jose-Sunnyvale-Santa Clara, CA	45	52	39	54	88	4.9	5.6	4.2	5.7	9.4
Seattle-Tacoma-Bellevue, WA	158	134	151	111	234	9.7	8.1	9.0	6.5	13.7
St. Louis, MO-IL	62	103	105	74	115	4.6	7.6	7.7	5.4	8.4
Tampa-St. Petersburg-Clearwater, FL	95	143	137	151	150	7.2	10.8	10.3	11.3	11.2
Virginia Beach-Norfolk-Newport News, VA-NC	66	78	86	91	89	8.2	9.6	10.6	11.1	10.9
Washington-Arlington-Alexandria, DC-VA-MD-WV	239	365	282	305	298	9.3	14.1	10.8	11.4	11.1
U.S. MSAs TOTAL	**6,847**	**8,005**	**8,884**	**9,062**	**9,487**	**8.6**	**10.0**	**11.0**	**11.1**	**11.6**

* 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—Counties and Independent Cities* Ranked by Number of Reported Cases, United States, 2010

Rank†	County/Independent City	Cases	Rates per 100,000 Population	Cumulative Percentage
1	Cook County, IL	799	15.1	5
2	Los Angeles County, CA	689	7.0	10
3	New York County, NY	415	25.5	13
4	San Francisco County, CA	375	46.0	16
5	Miami-Dade County, FL	373	14.9	19
6	Fulton County, GA	320	31.0	21
7	San Diego County, CA	274	9.0	23
8	Harris County, TX	272	6.7	25
9	Hamilton County, OH	245	28.7	27
10	Philadelphia County, PA	238	15.4	29
11	Kings County, NY	235	9.2	30
12	Broward County, FL	220	12.5	32
13	King County, WA	216	11.3	33
14	Caddo County, LA	180	71.0	35
15	Bexar County, TX	180	10.9	36
16	Dallas County, TX	176	7.2	37
17	Bronx County, NY	163	11.7	38
18	Baltimore (City), MD	162	25.4	40
19	DeKalb County, GA	160	21.4	41
20	Maricopa County, AZ	155	3.9	42
21	Tarrant County, TX	151	8.4	43
22	Shelby County, TN	141	15.3	44
23	Washington, D.C.	134	22.3	45
24	Queens County, NY	133	5.8	46
25	Suffolk County, MA	132	17.5	47
26	Clark County, NV	125	6.6	48
27	Hillsborough County, FL	118	9.9	49
28	Riverside County, CA	116	5.5	50
29	Alameda County, CA	112	7.5	50
30	Franklin County, OH	110	9.6	51
31	Denver County, CO	99	16.2	52
32	Hennepin County, MN	99	8.6	53
33	Marion County, IN	97	10.9	53
34	Wayne County, MI	97	5.0	54
35	Mecklenburg County, NC	93	10.2	55
36	Jefferson County, KY	90	12.5	55
37	Santa Clara County, CA	89	5.0	56
38	Orange County, FL	87	8.0	57
39	Travis County, TX	83	8.1	57
40	Prince George's County, MD	82	9.8	58
41	Orange County, CA	77	2.5	58
42	Orleans County, LA	71	20.0	59
43	Cuyahoga County, OH	70	5.5	59
44	Forsyth County, NC	68	18.9	60
45	Jefferson County, AL	65	9.8	60
46	Davidson County, TN	59	9.3	61
47	Palm Beach County, FL	59	4.6	61
48	Hinds County, MS	58	23.4	62
49	St. Louis (City), MO	57	16.0	62
50	Pinellas County, FL	57	6.3	62
51	Clayton County, GA	56	20.3	63
52	Salt Lake County, UT	54	5.2	63
53	Cobb County, GA	53	7.4	64
54	Middlesex County, MA	53	3.5	64
55	Richmond (City), VA	52	25.4	64
56	Jefferson County, TX	52	21.4	65
57	Hudson County, NJ	52	8.7	65
58	Lafayette County, LA	51	24.2	66
59	Pima County, AZ	51	5.0	66
60	Sacramento County, CA	50	3.6	66
61	Oklahoma County, OK	47	6.6	67
62	Essex County, NJ	47	6.1	67
63	Duval County, FL	46	5.4	67
64	Polk County, FL	45	7.7	68
65	Harrison County, MS	44	24.3	68
66	Multnomah County, OR	44	6.1	68
67	East Baton Rouge County, LA	42	9.7	69
68	Wake County, NC	41	4.6	69
69	San Bernardino County, CA	41	2.0	69
70	St. Louis County, MO	40	4.0	69
71	Miller County, AR	39	89.6	70
72	Escambia County, FL	39	12.9	70
73	Guilford County, NC	39	8.1	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 in 2010.

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 2010, United States, 2009–2010

	Male				Female				Male-to-Female Rate Ratio	
	2009		2010		2009		2010			
County/Independent City†	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates	2009	2010
Maricopa County, AZ	157	7.7	146	7.2	8	0.4	9	0.5	19.3	14.4
Alameda County, CA	65	8.8	104	14.1	4	0.5	8	1.1	17.6	12.8
Los Angeles County, CA	747	15.3	676	13.8	21	0.4	13	0.3	38.3	46.0
Riverside County, CA	87	8.2	116	10.9	4	0.4	0	0.0	20.5	22.8
San Diego County, CA	184	12.0	271	17.7	6	0.4	3	0.2	30.0	88.5
San Francisco County, CA	310	74.9	369	89.1	4	1.0	6	1.5	74.9	59.4
Washington, D.C.	153	54.1	132	46.6	10	3.2	2	0.6	16.9	77.7
Broward County, FL	154	17.9	208	24.2	18	2.0	12	1.3	9.0	18.6
Hillsborough County, FL	87	14.8	98	16.6	14	2.3	20	3.3	6.4	5.0
Miami-Dade County, FL	280	22.9	339	27.8	33	2.6	34	2.7	8.8	10.3
DeKalb County, GA	187	51.5	149	41.1	20	5.2	11	2.9	9.9	14.2
Fulton County, GA	368	72.3	302	59.3	28	5.3	18	3.4	13.6	17.4
Cook County, IL	594	23.1	705	27.4	40	1.5	94	3.5	15.4	7.8
Caddo County, LA	66	54.8	85	70.5	75	56.3	94	70.6	1.0	1.0
Baltimore (City), MD	118	39.7	148	49.8	23	6.8	14	4.1	5.8	12.1
Suffolk County, MA	112	30.7	125	34.3	1	0.3	7	1.8	102.0	19.1
Clark County, NV	79	8.2	119	12.3	7	0.7	6	0.6	11.7	20.5
Bronx County, NY	164	25.0	150	22.8	11	1.5	13	1.8	16.7	12.7
Kings County, NY	282	23.2	226	18.6	26	1.9	9	0.7	12.2	26.6
New York County, NY	430	55.4	406	52.3	9	1.1	9	1.1	50.4	47.5
Queens County, NY	118	10.5	130	11.6	1	0.1	3	0.3	105.0	38.7
Franklin County, OH	92	16.4	101	18.0	15	2.6	9	1.5	6.3	12.0
Hamilton County, OH	79	19.3	146	35.6	26	5.8	99	22.2	3.3	1.6
Philadelphia County, PA	191	26.4	212	29.3	27	3.3	26	3.2	8.0	9.2
Shelby County, TN	113	25.8	113	25.8	62	12.9	28	5.8	2.0	4.4
Bexar County, TX	172	21.3	153	18.9	40	4.7	27	3.2	4.5	5.9
Dallas County, TX	206	16.6	122	9.8	88	7.3	54	4.5	2.3	2.2
Harris County, TX	256	12.5	217	10.6	71	3.5	55	2.7	3.6	3.9
Tarrant County, TX	122	13.7	105	11.7	60	6.7	46	5.1	2.0	2.3
King County, WA	96	10.0	214	22.3	3	0.3	2	0.2	33.3	112.0

* 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, 2006–2010

Age Group	Cases				Rates*				
	Total	Male	Female	Unknown Sex	Total	Male	Female	Unknown Sex	
10–14	13	2	11	0	0.1	0.0	0.1		2006
15–19	565	332	233	0	2.6	3.0	2.2		
20–24	1,381	1,080	299	2	6.5	9.9	2.9		
25–29	1,573	1,330	241	2	7.6	12.6	2.4		
30–34	1,220	1,056	163	1	6.2	10.6	1.7		
35–39	1,580	1,426	154	0	7.5	13.4	1.5		
40–44	1,515	1,362	153	0	6.7	12.2	1.4		
45–54	1,442	1,277	165	0	3.3	6.0	0.8		
55–64	375	340	35	0	1.2	2.2	0.2		
65+	81	79	2	0	0.2	0.5	0.0		
Unknown Age	8	8	0	0					
10–14	13	5	8	0	0.1	0.0	0.1		2007
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					
10–14	27	8	19	0	0.1	0.1	0.2		2008
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					
10–14	19	4	15	0	0.1	0.0	0.2		2009
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					
10–14	18	7	11	0	0.1	0.1	0.1		2010
15–19	932	617	313	2	4.3	5.6	3.0		
20–24	2,907	2,429	474	4	13.5	21.9	4.5		
25–29	2,455	2,131	322	2	11.3	19.2	3.0		
30–34	1,794	1,597	197	0	9.0	15.8	2.0		
35–39	1,454	1,313	140	1	7.1	12.7	1.4		
40–44	1,553	1,448	104	1	7.4	13.8	1.0		
45–54	2,056	1,877	176	3	4.6	8.5	0.8		
55–64	493	457	36	0	1.4	2.7	0.2		
65+	107	102	5	0	0.3	0.6	0.0		
Unknown Age	4	3	1	0					

* No population data are available for unknown sex and age; therefore, rates are not calculated. The 0- to 9-year age group is not shown because some of these cases may not be due to sexual transmission.

NOTE: This table should be used only for age comparisons.

Table 35A. Primary and Secondary Syphilis—Reported Cases by Race/Ethnicity, Age Group, and Sex, United States, 2006–2010

	Age	Whites, Non-Hispanic			Blacks, Non-Hispanic			Hispanics			Asians/Pacific Islanders			American Indians/ Alaska Natives		
	Group	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
2006	10–14	1	0	1	11	2	9	0	0	0	0	0	0	1	0	1
	15–19	69	37	32	404	235	169	71	44	27	1	1	0	0	0	0
	20–24	282	239	43	827	608	219	210	180	30	12	11	1	7	6	1
	25–29	412	363	49	761	610	151	289	256	33	35	33	2	7	6	1
	30–34	409	372	37	471	374	97	230	210	20	32	29	3	13	10	3
	35–39	670	627	43	497	414	83	262	244	18	31	30	1	13	8	5
	40–44	756	711	45	420	335	85	214	200	14	28	27	1	14	9	5
	45–54	728	691	37	477	373	104	136	122	14	23	21	2	9	5	4
	55–64	182	174	8	131	108	23	33	31	2	2	2	0	5	4	1
	65+	33	33	0	24	22	2	16	16	0	0	0	0	5	5	0
	TOTAL	**3,542**	**3,247**	**295**	**4,023**	**3,081**	**942**	**1,461**	**1,303**	**158**	**164**	**154**	**10**	**74**	**53**	**20**
2007	10–14	0	0	0	12	4	8	0	0	0	0	0	0	0	0	0
	15–19	92	47	45	453	287	166	88	63	25	0	0	0	7	2	5
	20–24	326	260	66	1,085	848	237	316	277	39	14	12	2	13	6	7
	25–29	463	410	53	909	744	165	335	303	32	33	32	1	14	7	7
	30–34	479	430	49	583	478	105	308	282	26	36	33	3	18	14	4
	35–39	657	610	47	644	524	120	275	263	12	29	29	0	14	9	5
	40–44	787	731	56	570	454	116	248	237	11	25	24	1	6	4	2
	45–54	772	723	49	584	457	127	175	160	15	22	22	0	9	7	2
	55–64	204	201	3	148	124	24	39	36	3	2	2	0	0	0	0
	65+	44	42	2	36	29	7	5	5	0	1	1	0	0	0	0
	TOTAL	**3,824**	**3,454**	**370**	**5,024**	**3,949**	**1,075**	**1,789**	**1,626**	**163**	**162**	**155**	**7**	**81**	**49**	**32**
2008	10–14	2	1	1	22	7	15	2	0	2	0	0	0	0	0	0
	15–19	120	71	49	632	404	228	124	96	28	7	5	2	2	0	2
	20–24	440	354	86	1,499	1,123	376	346	298	48	33	33	0	11	8	3
	25–29	560	479	81	1,157	888	269	395	359	36	43	39	4	14	11	3
	30–34	525	473	52	736	585	151	332	300	32	46	46	0	11	8	3
	35–39	653	582	71	705	575	130	327	300	27	28	26	2	5	2	3
	40–44	740	677	63	652	531	121	267	252	15	23	22	1	5	4	1
	45–54	946	887	59	742	593	149	214	196	18	21	21	0	5	4	1
	55–64	218	209	9	176	144	32	34	32	2	7	7	0	2	1	1
	65+	58	55	3	28	23	5	10	10	0	2	2	0	0	0	0
	TOTAL	**4,262**	**3,788**	**474**	**6,349**	**4,873**	**1,476**	**2,051**	**1,843**	**208**	**210**	**201**	**9**	**55**	**38**	**17**
2009	10–14	1	0	1	16	3	13	2	1	1	0	0	0	0	0	0
	15–19	106	69	37	762	479	283	109	90	19	9	8	1	3	2	1
	20–24	431	352	79	1,885	1,439	446	392	358	34	36	34	2	12	10	2
	25–29	502	438	64	1,400	1,120	280	392	370	22	34	31	3	13	10	3
	30–34	508	452	56	896	697	199	333	315	18	43	41	2	9	7	2
	35–39	571	511	60	646	535	111	279	258	21	45	41	4	11	9	2
	40–44	707	665	42	586	478	108	257	245	12	22	21	1	5	5	0
	45–54	973	903	70	734	606	128	235	223	12	27	25	2	5	3	2
	55–64	276	267	9	178	151	27	42	37	5	2	2	0	1	1	0
	65+	45	45	0	34	27	7	6	6	0	0	0	0	0	0	0
	TOTAL	**4,120**	**3,702**	**418**	**7,137**	**5,535**	**1,602**	**2,047**	**1,903**	**144**	**218**	**203**	**15**	**59**	**47**	**12**
2010	10–14	0	0	0	15	5	10	2	2	0	0	0	0	0	0	0
	15–19	94	66	28	678	425	253	119	100	19	7	5	2	7	7	0
	20–24	476	420	56	1,865	1,498	367	441	409	32	39	33	6	19	18	1
	25–29	555	509	46	1,375	1,125	250	415	396	19	28	28	0	14	13	1
	30–34	530	496	34	833	693	140	319	304	15	42	40	2	7	5	2
	35–39	554	514	40	513	431	82	298	284	14	29	29	0	5	3	2
	40–44	649	625	24	491	426	65	314	303	11	25	25	0	4	4	0
	45–54	1,062	1,007	55	599	495	104	271	264	7	23	22	1	8	5	3
	55–64	286	274	12	139	117	22	42	41	1	7	7	0	0	0	0
	65+	64	62	2	22	19	3	15	15	0	1	1	0	0	0	0
	TOTAL	**4,270**	**3,973**	**297**	**6,530**	**5,234**	**1,296**	**2,236**	**2,118**	**118**	**201**	**190**	**11**	**64**	**55**	**9**

NOTE: These tables should be used only for race/ethnicity comparisons. The 0- to 9-year age group is not shown because some of these cases may not be due to sexual transmission, and they are not included in the totals. In 2010, race/ethnicity was unknown (i.e., unknown, missing, or invalid data values) for 2.5% of reported primary and secondary syphilis cases, age was unknown for 0.0% of cases, and sex was unknown for 0.1% of cases. **See Table 34 for age-specific cases and rates and Tables 26-28 for total and sex-specific cases and rates.**

Table 35B. Primary and Secondary Syphilis—Rates per 100,000 Population by Race/Ethnicity, Age Group, and Sex, United States, 2006–2010

Age Group	Whites, Non-Hispanic			Blacks, Non-Hispanic			Hispanics			Asians/Pacific Islanders			American Indians/ Alaska Natives			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
10–14	0.0	0.0	0.0	0.3	0.1	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	1.0	2006
15–19	0.5	0.5	0.5	12.2	14.0	10.3	2.0	2.4	1.5	0.1	0.2	0.0	0.0	0.0	0.0	
20–24	2.2	3.6	0.7	27.2	39.6	14.6	5.6	8.8	1.7	1.2	2.2	0.2	3.2	5.3	0.9	
25–29	3.3	5.8	0.8	27.1	44.7	10.5	6.9	11.0	1.8	3.0	5.7	0.3	3.7	6.4	1.1	
30–34	3.5	6.3	0.6	18.6	31.1	7.3	5.9	9.8	1.1	2.4	4.4	0.4	8.0	12.2	3.7	
35–39	4.9	9.2	0.6	18.8	33.2	5.9	7.4	12.9	1.1	2.4	4.8	0.2	7.8	9.7	6.0	
40–44	5.0	9.3	0.6	15.0	25.6	5.7	6.8	12.2	0.9	2.4	4.8	0.2	7.7	10.2	5.4	
45–54	2.3	4.4	0.2	9.5	16.1	3.9	3.0	5.3	0.6	1.2	2.3	0.2	2.7	3.1	2.3	
55–64	0.7	1.5	0.1	4.2	7.8	1.3	1.3	2.5	0.2	0.2	0.3	0.0	2.3	3.8	0.9	
65+	0.1	0.3	0.0	0.8	1.8	0.1	0.7	1.6	0.0	0.0	0.0	0.0	2.6	6.0	0.0	
TOTAL	**2.0**	**3.7**	**0.3**	**12.7**	**20.7**	**5.6**	**4.1**	**7.1**	**0.9**	**1.3**	**2.6**	**0.2**	**3.5**	**5.1**	**2.0**	
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	2007
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	
TOTAL	**2.1**	**4.0**	**0.4**	**15.7**	**26.3**	**6.4**	**4.9**	**8.6**	**0.9**	**1.3**	**2.6**	**0.1**	**3.8**	**4.7**	**2.9**	
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	2008
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	
TOTAL	**2.4**	**4.3**	**0.5**	**19.7**	**32.0**	**8.6**	**5.5**	**9.6**	**1.2**	**1.7**	**3.3**	**0.1**	**2.5**	**3.6**	**1.5**	
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	2009
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	
TOTAL	**2.3**	**4.2**	**0.5**	**21.8**	**35.9**	**9.3**	**5.4**	**9.6**	**0.8**	**1.7**	**3.3**	**0.2**	**2.7**	**4.4**	**1.1**	
10–14	0.0	0.0	0.0	0.5	0.3	0.7	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2010
15–19	0.7	1.0	0.4	19.8	24.5	15.0	3.0	4.8	1.0	0.7	1.0	0.4	3.1	6.2	0.0	
20–24	3.6	6.2	0.9	58.3	92.5	23.2	11.4	19.8	1.8	3.9	6.5	1.2	8.4	15.6	0.9	
25–29	4.2	7.7	0.7	45.5	74.8	16.5	10.0	17.3	1.0	2.3	4.8	0.0	6.7	12.2	1.0	
30–34	4.5	8.4	0.6	31.8	55.1	10.3	7.9	13.7	0.8	3.2	6.4	0.3	4.1	5.8	2.4	
35–39	4.4	8.1	0.6	19.5	34.7	5.9	7.9	14.0	0.8	2.2	4.4	0.0	3.0	3.6	2.4	
40–44	4.7	9.1	0.4	18.7	34.6	4.7	9.5	17.2	0.7	2.1	4.4	0.0	2.4	4.9	0.0	
45–54	3.3	6.4	0.3	11.3	20.3	3.7	5.2	10.0	0.3	1.1	2.2	0.1	2.3	2.9	1.6	
55–64	1.1	2.1	0.1	3.9	7.4	1.1	1.4	2.8	0.1	0.5	1.0	0.0	0.0	0.0	0.0	
65+	0.2	0.5	0.0	0.7	1.5	0.1	0.5	1.3	0.0	0.1	0.2	0.0	0.0	0.0	0.0	
TOTAL	**2.4**	**4.5**	**0.3**	**20.0**	**33.9**	**7.5**	**5.9**	**10.7**	**0.6**	**1.6**	**3.1**	**0.2**	**2.9**	**5.1**	**0.8**	

NOTE: These tables should be used only for race/ethnicity comparisons. The 0- to 9-year age group is not shown because some of these cases may not be due to sexual transmission, and they are not included in the totals. In 2010, race/ethnicity was unknown (i.e., unknown, missing, or invalid data values) for 2.5% of reported primary and secondary syphilis cases, age was unknown for 0.0% of cases, and sex was unknown for 0.1% of cases. **See Table 34 for age-specific cases and rates and Tables 26-28 for total and sex-specific cases and rates.**

Table 36. Early Latent Syphilis—Reported Cases and Rates by State/Area and Region in Alphabetical Order, United States and Outlying Areas, 2006–2010

State/Area	Cases					Rates per 100,000 Population				
	2006	2007	2008	2009	2010	2006	2007	2008	2009	2010
Alabama	341	363	440	419	277	7.4	7.8	9.4	8.9	5.9
Alaska	6	3	2	0	5	0.9	0.4	0.3	0.0	0.7
Arizona	186	269	258	196	166	3.0	4.2	4.0	3.0	2.5
Arkansas	67	115	144	172	202	2.4	4.1	5.0	6.0	7.0
California	1,369	1,421	1,648	1,621	1,788	3.8	3.9	4.5	4.4	4.8
Colorado	38	35	91	63	129	0.8	0.7	1.8	1.3	2.6
Connecticut	27	20	28	40	51	0.8	0.6	0.8	1.1	1.4
Delaware	16	14	23	23	14	1.9	1.6	2.6	2.6	1.6
District of Columbia	77	84	77	158	239	13.2	14.3	13.0	26.3	39.9
Florida	760	1,155	1,252	1,254	1,294	4.2	6.3	6.8	6.8	7.0
Georgia	366	423	563	768	636	3.9	4.4	5.8	7.8	6.5
Hawaii	2	11	9	15	15	0.2	0.9	0.7	1.2	1.2
Idaho	3	3	6	3	4	0.2	0.2	0.4	0.2	0.3
Illinois	267	224	271	344	502	2.1	1.7	2.1	2.7	3.9
Indiana	46	39	83	55	103	0.7	0.6	1.3	0.9	1.6
Iowa	6	6	11	9	4	0.2	0.2	0.4	0.3	0.1
Kansas	18	25	54	58	63	0.7	0.9	1.9	2.1	2.2
Kentucky	36	34	47	64	88	0.9	0.8	1.1	1.5	2.0
Louisiana	481	722	809	799	742	11.2	16.8	18.3	17.8	16.5
Maine	7	5	10	10	6	0.5	0.4	0.8	0.8	0.5
Maryland	193	320	313	261	279	3.4	5.7	5.6	4.6	4.9
Massachusetts	82	116	149	135	195	1.3	1.8	2.3	2.0	3.0
Michigan	43	73	99	155	121	0.4	0.7	1.0	1.6	1.2
Minnesota	58	55	47	46	73	1.1	1.1	0.9	0.9	1.4
Mississippi	197	269	232	312	386	6.8	9.2	7.9	10.6	13.1
Missouri	93	120	145	146	133	1.6	2.0	2.5	2.4	2.2
Montana	0	0	1	0	2	0.0	0.0	0.1	0.0	0.2
Nebraska	1	3	0	6	1	0.1	0.2	0.0	0.3	0.1
Nevada	119	174	168	137	178	4.8	6.8	6.5	5.2	6.7
New Hampshire	2	13	4	6	5	0.2	1.0	0.3	0.5	0.4
New Jersey	314	343	415	401	386	3.6	3.9	4.8	4.6	4.4
New Mexico	85	66	45	40	41	4.3	3.4	2.3	2.0	2.0
New York	993	1,149	1,372	1,266	1,358	5.1	6.0	7.0	6.5	6.9
North Carolina	294	247	221	357	328	3.3	2.7	2.4	3.8	3.5
North Dakota	0	0	2	0	0	0.0	0.0	0.3	0.0	0.0
Ohio	115	135	224	221	189	1.0	1.2	2.0	1.9	1.6
Oklahoma	121	115	117	172	149	3.4	3.2	3.2	4.7	4.0
Oregon	19	6	18	29	33	0.5	0.2	0.5	0.8	0.9
Pennsylvania	286	309	309	361	355	2.3	2.5	2.5	2.9	2.8
Rhode Island	6	10	7	14	20	0.6	0.9	0.7	1.3	1.9
South Carolina	174	143	192	284	344	4.0	3.2	4.3	6.2	7.5
South Dakota	6	4	3	2	0	0.8	0.5	0.4	0.2	0.0
Tennessee	233	304	312	333	363	3.9	4.9	5.0	5.3	5.8
Texas	1,312	1,467	1,733	1,932	1,874	5.6	6.1	7.1	7.8	7.6
Utah	7	2	10	7	20	0.3	0.1	0.4	0.3	0.7
Vermont	2	1	6	1	0	0.3	0.2	1.0	0.2	0.0
Virginia	165	177	238	233	275	2.2	2.3	3.1	3.0	3.5
Washington	81	76	98	64	109	1.3	1.2	1.5	1.0	1.6
West Virginia	6	9	16	8	4	0.3	0.5	0.9	0.4	0.2
Wisconsin	60	91	78	66	52	1.1	1.6	1.4	1.2	0.9
Wyoming	0	0	1	0	3	0.0	0.0	0.2	0.0	0.6
U.S. TOTAL	**9,186**	**10,768**	**12,401**	**13,066**	**13,604**	**3.1**	**3.6**	**4.1**	**4.3**	**4.4**
Northeast	1,719	1,966	2,300	2,234	2,376	3.1	3.6	4.2	4.0	4.3
Midwest	713	775	1,017	1,108	1,241	1.1	1.2	1.5	1.7	1.9
South	4,839	5,961	6,729	7,549	7,494	4.4	5.4	6.0	6.7	6.6
West	1,915	2,066	2,355	2,175	2,493	2.8	2.9	3.3	3.0	3.5
Guam	3	3	2	1	0	1.8	1.7	1.1	0.6	0.0
Puerto Rico	368	408	241	164	191	9.4	10.3	6.1	4.1	4.8
Virgin Islands	0	1	0	0	3	0.0	0.9	0.0	0.0	2.7
OUTLYING AREAS	**371**	**412**	**243**	**165**	**194**	**8.8**	**9.7**	**5.7**	**3.9**	**4.6**
TOTAL	**9,557**	**11,180**	**12,644**	**13,231**	**13,798**	**3.1**	**3.7**	**4.1**	**4.3**	**4.4**

Table 37. Early Latent Syphilis—Reported Cases and Rates in Selected Metropolitan Statistical Areas (MSAs)* in Alphabetical Order, United States, 2006–2010

MSAs	Cases					Rates per 100,000 Population				
	2006	2007	2008	2009	2010	2006	2007	2008	2009	2010
Atlanta-Sandy Springs-Marietta, GA	293	363	402	613	529	5.7	6.9	7.5	11.2	9.7
Austin-Round Rock, TX	51	66	109	135	137	3.4	4.1	6.6	7.9	8.0
Baltimore-Towson, MD	136	185	214	153	148	5.1	6.9	8.0	5.7	5.5
Birmingham-Hoover, AL	220	196	199	150	67	20.0	17.7	17.8	13.3	5.9
Boston-Cambridge-Quincy, MA-NH	65	95	124	116	161	1.5	2.1	2.7	2.5	3.5
Buffalo-Cheektowaga-Tonawanda, NY	14	6	10	3	0	1.2	0.5	0.9	0.3	0.0
Charlotte-Gastonia-Concord, NC-SC	98	63	62	78	90	6.2	3.8	3.6	4.5	5.2
Chicago-Naperville-Joliet, IL-IN-WI	269	209	251	324	476	2.8	2.2	2.6	3.4	5.0
Cincinnati-Middletown, OH-KY-IN	7	12	23	42	88	0.3	0.6	1.1	1.9	4.1
Cleveland-Elyria-Mentor, OH	11	21	48	70	20	0.5	1.0	2.3	3.3	1.0
Columbus, OH	55	47	89	64	42	3.2	2.7	5.0	3.6	2.3
Dallas-Fort Worth-Arlington, TX	532	468	496	592	647	8.9	7.6	7.9	9.2	10.0
Denver-Aurora, CO	32	30	68	57	109	1.3	1.2	2.7	2.2	4.3
Detroit-Warren-Livonia, MI	34	47	45	88	76	0.8	1.1	1.0	2.0	1.7
Hartford-West Hartford-East Hartford, CT	10	8	10	13	18	0.8	0.7	0.8	1.1	1.5
Houston-Baytown-Sugar Land, TX	291	468	555	421	370	5.3	8.3	9.7	7.2	6.3
Indianapolis, IN	18	20	56	27	70	1.1	1.2	3.3	1.5	4.0
Jacksonville, FL	56	51	86	82	91	4.4	3.9	6.5	6.2	6.9
Kansas City, MO-KS	41	70	79	64	59	2.1	3.5	3.9	3.1	2.9
Las Vegas-Paradise, NV	112	170	166	135	174	6.3	9.3	8.9	7.1	9.1
Los Angeles-Long Beach-Santa Ana, CA	851	893	910	1,070	991	6.6	6.9	7.1	8.3	7.7
Louisville, KY-IN	18	12	20	17	46	1.5	1.0	1.6	1.4	3.7
Memphis, TN-MS-AR	174	222	199	259	256	13.7	17.3	15.5	19.8	19.6
Miami-Fort Lauderdale-Miami Beach, FL	304	440	563	644	749	5.6	8.1	10.4	11.6	13.5
Milwaukee-Waukesha-West Allis, WI	46	65	60	46	35	3.0	4.2	3.9	2.9	2.2
Minneapolis-St. Paul-Bloomington, MN-WI	52	54	43	45	68	1.6	1.7	1.3	1.4	2.1
Nashville-Davidson-Murfreesboro, TN	42	56	54	64	70	2.9	3.7	3.5	4.0	4.4
New Orleans-Metairie-Kenner, LA	127	222	239	243	193	12.4	21.5	21.1	20.4	16.2
New York-Newark-Edison, NY-NJ-PA	1,178	1,360	1,628	1,530	1,595	6.3	7.2	8.6	8.0	8.4
Oklahoma City, OK	74	65	72	123	76	6.3	5.4	6.0	10.0	6.2
Orlando, FL	91	160	148	132	138	4.6	7.9	7.2	6.3	6.6
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	280	310	305	362	348	4.8	5.3	5.2	6.1	5.8
Phoenix-Mesa-Scottsdale, AZ	166	165	160	131	126	4.1	3.9	3.7	3.0	2.9
Pittsburgh, PA	43	45	43	25	27	1.8	1.9	1.8	1.1	1.1
Portland-Vancouver-Beaverton, OR-WA	9	5	11	22	33	0.4	0.2	0.5	1.0	1.5
Providence-New Bedford-Fall River, RI-MA	9	12	13	16	26	0.6	0.7	0.8	1.0	1.6
Richmond, VA	29	45	81	59	77	2.4	3.7	6.6	4.8	6.2
Riverside-San Bernardino-Ontario, CA	64	49	89	88	86	1.6	1.2	2.2	2.1	2.1
Rochester, NY	8	5	5	6	7	0.8	0.5	0.5	0.6	0.7
Sacramento-Arden-Arcade-Roseville, CA	23	16	39	38	43	1.1	0.8	1.8	1.8	2.0
Salt Lake City, UT	5	2	10	4	12	0.5	0.2	0.9	0.4	1.1
San Antonio, TX	172	115	203	290	305	8.9	5.8	10.0	14.0	14.7
San Diego-Carlsbad-San Marcos, CA	123	156	179	80	177	4.2	5.2	6.0	2.6	5.8
San Francisco-Oakland-Fremont, CA	220	200	281	253	373	5.3	4.8	6.6	5.9	8.6
San Jose-Sunnyvale-Santa Clara, CA	18	25	25	22	29	1.0	1.4	1.4	1.2	1.6
Seattle-Tacoma-Bellevue, WA	74	70	91	56	91	2.3	2.1	2.7	1.6	2.7
St. Louis, MO-IL	30	57	70	90	106	1.1	2.0	2.5	3.2	3.7
Tampa-St. Petersburg-Clearwater, FL	177	294	275	225	117	6.6	10.8	10.1	8.2	4.3
Virginia Beach-Norfolk-Newport News, VA-NC	74	54	69	78	84	4.5	3.3	4.2	4.7	5.0
Washington-Arlington-Alexandria, DC-VA-MD-WV	171	265	224	306	441	3.2	5.0	4.2	5.6	8.1
U.S. MSAs TOTAL	**6,997**	**8,034**	**9,201**	**9,551**	**10,097**	**4.3**	**4.9**	**5.6**	**5.7**	**6.1**

* 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, 2006–2010

State/Area	Cases					Rates per 100,000 Population				
	2006	2007	2008	2009	2010	2006	2007	2008	2009	2010
Alabama	262	254	286	289	235	5.7	5.5	6.1	6.1	5.0
Alaska	8	6	6	4	7	1.2	0.9	0.9	0.6	1.0
Arizona	521	650	789	629	493	8.4	10.3	12.1	9.5	7.5
Arkansas	92	122	149	95	116	3.3	4.3	5.2	3.3	4.0
California	2,773	2,777	2,995	2,449	2,223	7.6	7.6	8.1	6.6	6.0
Colorado	73	63	133	101	75	1.5	1.3	2.7	2.0	1.5
Connecticut	106	87	109	72	83	3.0	2.5	3.1	2.0	2.4
Delaware	38	31	20	36	19	4.5	3.6	2.3	4.1	2.1
District of Columbia	120	153	147	110	121	20.6	26.0	24.8	18.3	20.2
Florida	1,445	1,830	2,272	1,547	1,572	8.0	10.0	12.4	8.3	8.5
Georgia	977	1,142	1,345	982	898	10.4	12.0	13.9	10.0	9.1
Hawaii	46	38	30	39	23	3.6	3.0	2.3	3.0	1.8
Idaho	6	10	13	24	9	0.4	0.7	0.9	1.6	0.6
Illinois	760	522	720	805	799	5.9	4.1	5.6	6.2	6.2
Indiana	111	121	128	110	134	1.8	1.9	2.0	1.7	2.1
Iowa	43	37	48	33	45	1.4	1.2	1.6	1.1	1.5
Kansas	41	44	41	58	28	1.5	1.6	1.5	2.1	1.0
Kentucky	78	63	77	81	84	1.9	1.5	1.8	1.9	1.9
Louisiana	551	516	485	413	1,163	12.9	12.0	11.0	9.2	25.9
Maine	6	7	7	1	3	0.5	0.5	0.5	0.1	0.2
Maryland	526	482	374	387	386	9.4	8.6	6.6	6.8	6.8
Massachusetts	172	128	114	100	158	2.7	2.0	1.8	1.5	2.4
Michigan	210	262	227	246	322	2.1	2.6	2.3	2.5	3.2
Minnesota	83	72	102	99	128	1.6	1.4	2.0	1.9	2.4
Mississippi	237	305	320	188	200	8.1	10.4	10.9	6.4	6.8
Missouri	166	124	171	189	225	2.8	2.1	2.9	3.2	3.8
Montana	1	0	2	1	0	0.1	0.0	0.2	0.1	0.0
Nebraska	26	23	21	34	20	1.5	1.3	1.2	1.9	1.1
Nevada	117	104	71	75	99	4.7	4.1	2.7	2.8	3.7
New Hampshire	20	9	17	17	16	1.5	0.7	1.3	1.3	1.2
New Jersey	297	345	364	270	314	3.4	4.0	4.2	3.1	3.6
New Mexico	66	62	96	107	57	3.4	3.1	4.8	5.3	2.8
New York	2,833	2,766	2,903	2,160	2,387	14.7	14.3	14.9	11.1	12.2
North Carolina	352	516	480	578	499	4.0	5.7	5.2	6.2	5.3
North Dakota	2	1	2	3	3	0.3	0.2	0.3	0.5	0.5
Ohio	192	219	185	206	349	1.7	1.9	1.6	1.8	3.0
Oklahoma	58	33	51	25	31	1.6	0.9	1.4	0.7	0.8
Oregon	51	33	53	46	69	1.4	0.9	1.4	1.2	1.8
Pennsylvania	335	264	313	321	280	2.7	2.1	2.5	2.5	2.2
Rhode Island	51	30	30	29	18	4.8	2.8	2.9	2.8	1.7
South Carolina	155	176	120	100	80	3.6	4.0	2.7	2.2	1.8
South Dakota	10	1	2	8	8	1.3	0.1	0.2	1.0	1.0
Tennessee	527	537	548	568	542	8.7	8.7	8.8	9.0	8.6
Texas	2,501	2,780	3,071	3,271	3,204	10.6	11.6	12.6	13.2	12.9
Utah	38	23	5	17	47	1.5	0.9	0.2	0.6	1.7
Vermont	2	0	1	0	0	0.3	0.0	0.2	0.0	0.0
Virginia	343	328	281	221	245	4.5	4.3	3.6	2.8	3.1
Washington	160	135	159	118	159	2.5	2.1	2.4	1.8	2.4
West Virginia	13	11	14	16	16	0.7	0.6	0.8	0.9	0.9
Wisconsin	42	12	43	56	84	0.8	0.2	0.8	1.0	1.5
Wyoming	1	2	5	4	3	0.2	0.4	0.9	0.7	0.6
U.S. TOTAL	**17,644**	**18,256**	**19,945**	**17,338**	**18,079**	**5.9**	**6.1**	**6.6**	**5.6**	**5.9**
Northeast	3,822	3,636	3,858	2,970	3,259	7.0	6.6	7.0	5.4	5.9
Midwest	1,686	1,438	1,690	1,847	2,145	2.5	2.2	2.5	2.8	3.2
South	8,275	9,279	10,040	8,907	9,411	7.6	8.4	9.0	7.9	8.3
West	3,861	3,903	4,357	3,614	3,264	5.6	5.6	6.1	5.0	4.6
Guam	7	24	37	9	10	4.1	13.8	21.0	5.0	5.6
Puerto Rico	535	682	381	328	302	13.6	17.3	9.6	8.3	7.6
Virgin Islands	4	4	1	2	1	3.7	3.6	0.9	1.8	0.9
OUTLYING AREAS	**546**	**710**	**419**	**339**	**313**	**13.0**	**16.8**	**9.9**	**8.0**	**7.4**
TOTAL	**18,190**	**18,966**	**20,364**	**17,677**	**18,392**	**6.0**	**6.2**	**6.6**	**5.7**	**5.9**

* 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, 2006–2010

MSAs	Cases					Rates per 100,000 Population				
	2006	2007	2008	2009	2010	2006	2007	2008	2009	2010
Atlanta-Sandy Springs-Marietta, GA	814	929	1,068	756	723	15.8	17.6	19.9	13.8	13.2
Austin-Round Rock, TX	74	94	127	116	118	4.9	5.9	7.7	6.8	6.9
Baltimore-Towson, MD	283	236	186	193	162	10.6	8.8	7.0	7.2	6.0
Birmingham-Hoover, AL	94	93	110	112	84	8.5	8.4	9.8	9.9	7.4
Boston-Cambridge-Quincy, MA-NH	147	98	86	92	142	3.3	2.2	1.9	2.0	3.1
Buffalo-Cheektowaga-Tonawanda, NY	7	9	7	27	32	0.6	0.8	0.6	2.4	2.8
Charlotte-Gastonia-Concord, NC-SC	83	133	100	127	91	5.2	8.1	5.9	7.3	5.2
Chicago-Naperville-Joliet, IL-IN-WI	687	469	650	727	703	7.2	4.9	6.8	7.6	7.3
Cincinnati-Middletown, OH-KY-IN	37	31	20	58	117	1.8	1.5	0.9	2.7	5.4
Cleveland-Elyria-Mentor, OH	24	33	15	29	79	1.1	1.6	0.7	1.4	3.8
Columbus, OH	67	99	84	71	82	3.9	5.6	4.7	3.9	4.6
Dallas-Fort Worth-Arlington, TX	809	881	934	1,020	941	13.5	14.3	14.8	15.8	14.6
Denver-Aurora, CO	51	43	98	74	64	2.1	1.7	3.9	2.9	2.5
Detroit-Warren-Livonia, MI	155	187	154	171	232	3.5	4.2	3.5	3.9	5.3
Hartford-West Hartford-East Hartford, CT	32	27	51	29	34	2.7	2.3	4.3	2.4	2.8
Houston-Baytown-Sugar Land, TX	856	1,032	1,024	1,139	1,149	15.5	18.3	17.9	19.4	19.6
Indianapolis, IN	56	49	53	48	55	3.4	2.9	3.1	2.8	3.2
Jacksonville, FL	63	102	153	95	87	4.9	7.8	11.7	7.2	6.6
Kansas City, MO-KS	75	49	55	70	43	3.8	2.5	2.7	3.4	2.1
Las Vegas-Paradise, NV	95	85	52	49	85	5.3	4.6	2.8	2.6	4.5
Los Angeles-Long Beach-Santa Ana, CA	1,759	1,588	1,722	1,332	1,238	13.6	12.3	13.4	10.3	9.6
Louisville, KY-IN	42	33	34	48	46	3.4	2.7	2.7	3.8	3.7
Memphis, TN-MS-AR	287	326	306	316	326	22.5	25.5	23.8	24.2	25.0
Miami-Fort Lauderdale-Miami Beach, FL	773	997	1,326	797	853	14.1	18.4	24.5	14.4	15.4
Milwaukee-Waukesha-West Allis, WI	16	9	32	43	57	1.1	0.6	2.1	2.8	3.7
Minneapolis-St. Paul-Bloomington, MN-WI	65	59	75	70	101	2.0	1.8	2.3	2.1	3.1
Nashville-Davidson-Murfreesboro, TN	112	100	138	145	115	7.7	6.6	8.9	9.2	7.3
New Orleans-Metairie-Kenner, LA	133	157	75	78	391	13.0	15.2	6.6	6.6	32.9
New York-Newark-Edison, NY-NJ-PA	2,905	2,913	3,089	2,237	2,502	15.4	15.5	16.3	11.7	13.1
Oklahoma City, OK	18	12	26	16	17	1.5	1.0	2.2	1.3	1.4
Orlando, FL	217	277	184	165	149	10.9	13.6	9.0	7.9	7.2
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	315	253	287	304	271	5.4	4.3	4.9	5.1	4.5
Phoenix-Mesa-Scottsdale, AZ	424	486	468	368	345	10.5	11.6	10.9	8.4	7.9
Pittsburgh, PA	18	17	17	16	9	0.8	0.7	0.7	0.7	0.4
Portland-Vancouver-Beaverton, OR-WA	40	34	32	39	54	1.9	1.6	1.4	1.7	2.4
Providence-New Bedford-Fall River, RI-MA	65	44	33	31	22	4.0	2.7	2.1	1.9	1.4
Richmond, VA	49	46	53	50	47	4.1	3.8	4.3	4.0	3.8
Riverside-San Bernardino-Ontario, CA	203	194	202	210	185	5.0	4.8	4.9	5.1	4.5
Rochester, NY	68	55	37	34	43	6.6	5.3	3.6	3.3	4.2
Sacramento-Arden-Arcade-Roseville, CA	78	40	100	94	81	3.8	1.9	4.7	4.4	3.8
Salt Lake City, UT	21	14	2	8	29	2.0	1.3	0.2	0.7	2.6
San Antonio, TX	156	142	190	221	232	8.0	7.1	9.4	10.7	11.2
San Diego-Carlsbad-San Marcos, CA	202	273	292	211	148	6.9	9.2	9.7	6.9	4.8
San Francisco-Oakland-Fremont, CA	156	263	277	239	230	3.7	6.3	6.5	5.5	5.3
San Jose-Sunnyvale-Santa Clara, CA	22	76	84	58	62	1.2	4.2	4.6	3.2	3.4
Seattle-Tacoma-Bellevue, WA	122	99	115	84	112	3.7	3.0	3.4	2.5	3.3
St. Louis, MO-IL	89	82	129	120	177	3.2	2.9	4.6	4.2	6.3
Tampa-St. Petersburg-Clearwater, FL	140	119	212	223	195	5.2	4.4	7.8	8.1	7.1
Virginia Beach-Norfolk-Newport News, VA-NC	85	89	80	55	59	5.2	5.4	4.8	3.3	3.5
Washington-Arlington-Alexandria, DC-VA-MD-WV	496	514	425	362	425	9.4	9.7	7.9	6.6	7.8
U.S. MSAs TOTAL	**13,585**	**13,990**	**15,069**	**12,977**	**13,544**	**8.4**	**8.6**	**9.2**	**7.8**	**8.1**

* 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, 2010

Rank*	State†	Cases	Rates per 100,000 Live Births
1	Louisiana	33	49.8
2	Maryland	22	28.2
3	Arkansas	11	26.6
4	Texas	103	25.3
5	Mississippi	9	19.4
6	Delaware	2	16.4
7	Illinois	27	14.9
8	Arizona	15	14.6
9	Alabama	9	13.9
10	Tennessee	11	12.7
11	Nevada	5	12.1
12	Georgia	18	11.9
	YEAR 2020 TARGET		**9.1**
	U.S. TOTAL‡	**377**	**8.7**
13	Florida	19	7.9
14	North Carolina	10	7.6
15	California	38	6.7
16	Ohio	10	6.6
17	New York	16	6.3
18	Connecticut	2	4.8
19	Idaho	1	4.0
20	New Jersey	3	2.6
21	Missouri	2	2.4
22	Pennsylvania	3	2.0
23	Utah	1	1.8
24	Michigan	2	1.6
25	Wisconsin	1	1.4
26	Massachusetts	1	1.3
27	Washington	1	1.1
28	Virginia	1	0.9
	Alaska	0	0.0
	Colorado	0	0.0
	Hawaii	0	0.0
	Indiana	0	0.0
	Iowa	0	0.0
	Kansas	0	0.0
	Kentucky	0	0.0
	Maine	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
	Oklahoma	0	0.0
	Oregon	0	0.0
	Rhode Island	0	0.0
	South Carolina	0	0.0
	South Dakota	0	0.0
	Vermont	0	0.0
	West Virginia	0	0.0
	Wyoming	0	0.0

* States were ranked in descending order by rate (rounded to the nearest tenth) and by number of cases. 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 11.3, but excludes outlying areas (Guam with 0 cases and rate of 0.0, Puerto Rico with 2 cases and rate of 4.3, 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, 2006–2010

State/Area*	Cases					Rates per 100,000 Live Births				
	2006	2007	2008	2009	2010	2006	2007	2008	2009	2010
Alabama	9	9	12	13	9	14.2	13.9	18.5	20.1	13.9
Alaska	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Arizona	16	30	30	28	15	15.6	29.1	29.1	27.2	14.6
Arkansas	10	12	9	10	11	24.4	29.0	21.8	24.2	26.6
California	69	87	64	63	38	12.3	15.4	11.3	11.1	6.7
Colorado	2	2	0	0	0	2.8	2.8	0.0	0.0	0.0
Connecticut	0	2	2	2	2	0.0	4.8	4.8	4.8	4.8
Delaware	0	0	1	1	2	0.0	0.0	8.2	8.2	16.4
District of Columbia	1	1	0	0	1	11.7	11.3	0.0	0.0	11.3
Florida	21	20	17	18	19	8.9	8.4	7.1	7.5	7.9
Georgia	9	9	11	14	18	6.1	6.0	7.3	9.3	11.9
Hawaii	0	0	0	1	0	0.0	0.0	0.0	5.2	0.0
Idaho	0	0	0	1	1	0.0	0.0	0.0	4.0	4.0
Illinois	15	10	20	16	27	8.3	5.5	11.1	8.8	14.9
Indiana	0	2	0	1	0	0.0	2.2	0.0	1.1	0.0
Iowa	0	1	0	0	0	0.0	2.4	0.0	0.0	0.0
Kansas	1	0	0	3	0	2.4	0.0	0.0	7.1	0.0
Kentucky	1	0	1	2	0	1.7	0.0	1.7	3.4	0.0
Louisiana	16	37	23	11	33	25.2	55.8	34.7	16.6	49.8
Maine	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Maryland	19	24	23	31	22	24.5	30.7	29.5	39.7	28.2
Massachusetts	0	0	0	0	1	0.0	0.0	0.0	0.0	1.3
Michigan	13	15	10	4	2	10.2	12.0	8.0	3.2	1.6
Minnesota	1	0	1	1	0	1.4	0.0	1.4	1.4	0.0
Mississippi	0	1	9	8	9	0.0	2.2	19.4	17.2	19.4
Missouri	3	1	2	6	2	3.7	1.2	2.4	7.3	2.4
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	16	7	9	3	5	40.0	17.0	21.9	7.3	12.1
New Hampshire	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
New Jersey	15	11	4	7	3	13.0	9.5	3.4	6.0	2.6
New Mexico	7	6	4	0	0	23.4	19.6	13.1	0.0	0.0
New York	24	18	23	15	16	9.6	7.1	9.1	5.9	6.3
North Carolina	7	7	11	10	10	5.5	5.3	8.4	7.6	7.6
North Dakota	0	0	0	1	0	0.0	0.0	0.0	11.3	0.0
Ohio	0	1	3	8	10	0.0	0.7	2.0	5.3	6.6
Oklahoma	2	3	3	2	0	3.7	5.4	5.4	3.6	0.0
Oregon	0	2	0	0	0	0.0	4.1	0.0	0.0	0.0
Pennsylvania	3	8	8	4	3	2.0	5.3	5.3	2.7	2.0
Rhode Island	0	0	0	1	0	0.0	0.0	0.0	8.1	0.0
South Carolina	2	1	2	0	0	3.2	1.6	3.2	0.0	0.0
South Dakota	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Tennessee	6	4	11	13	11	7.1	4.6	12.7	15.0	12.7
Texas	79	99	127	128	103	19.8	24.3	31.2	31.4	25.3
Utah	2	0	0	0	1	3.7	0.0	0.0	0.0	1.8
Vermont	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Virginia	3	1	4	2	1	2.8	0.9	3.7	1.8	0.9
Washington	0	2	0	1	1	0.0	2.2	0.0	1.1	1.1
West Virginia	0	1	1	0	0	0.0	4.5	4.5	0.0	0.0
Wisconsin	0	1	1	0	1	0.0	1.4	1.4	0.0	1.4
Wyoming	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
U.S. TOTAL	**372**	**435**	**446**	**429**	**377**	**8.7**	**10.1**	**10.3**	**9.9**	**8.7**
Northeast	42	39	37	29	25	6.2	5.7	5.4	4.2	3.6
Midwest	33	31	37	40	42	3.7	3.4	4.1	4.4	4.6
South	185	229	265	263	249	11.5	13.9	16.1	16.0	15.2
West	112	136	107	97	61	10.5	12.6	9.9	9.0	5.6
Guam	0	2	0	0	0	0.0	57.5	0.0	0.0	0.0
Puerto Rico	15	10	8	6	2	30.9	21.4	17.2	12.9	4.3
Virgin Islands	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
OUTLYING AREAS	**15**	**12**	**8**	**6**	**2**	**27.9**	**23.2**	**15.4**	**11.6**	**3.9**
TOTAL	**387**	**447**	**454**	**435**	**379**	**9.0**	**10.2**	**10.4**	**10.0**	**8.7**

* 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, 2006–2010

Year of Birth	Race/Ethnicity	Cases	Rates per 100,000 Live Births
2006	Whites, Non-Hispanic	39	1.7
	Blacks, Non-Hispanic	151	24.3
	Hispanics	151	14.5
	Asians/Pacific Islanders	10	4.3
	American Indians/Alaska Natives	5	11.7
	Other	5	NA
	Unknown	11	NA
	Total	**372**	**8.7**
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	35.8
	Hispanics	135	12.7
	Asians/Pacific Islanders	7	2.9
	American Indians/Alaska Natives	6	13.8
	Other	1	NA
	Unknown	4	NA
	Total	**446**	**10.3**
2009	Whites, Non-Hispanic	65	2.8
	Blacks, Non-Hispanic	215	34.0
	Hispanics	128	12.0
	Asians/Pacific Islanders	11	4.5
	American Indians/Alaska Natives	5	11.5
	Other	2	NA
	Unknown	3	NA
	Total	**429**	**9.9**
2010	Whites, Non-Hispanic	62	2.7
	Blacks, Non-Hispanic	209	33.1
	Hispanics	89	8.4
	Asians/Pacific Islanders	9	3.7
	American Indians/Alaska Natives	1	2.3
	Other	3	NA
	Unknown	4	NA
	Total	**377**	**8.7**

NA = Not applicable.

Table 43. Chancroid—Reported Cases and Rates by State/Area in Alphabetical Order, United States and Outlying Areas, 2006-2010

State/Area	Cases					Rates per 100,000 Population				
	2006	2007	2008	2009	2010	2006	2007	2008	2009	2010
Alabama	0	0	0	0	1	0.0	0.0	0.0	0.0	0.0
Alaska	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Arizona	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Arkansas	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
California	0	1	2	1	5	0.0	0.0	0.0	0.0	0.0
Colorado	0	0	2	0	0	0.0	0.0	0.0	0.0	0.0
Connecticut	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Delaware	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
District of Columbia	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Florida	1	3	0	1	1	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	0	1	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	1	4	0	0	0	0.0	0.1	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	0	1	4	3	1	0.0	0.0	0.1	0.0	0.0
Michigan	1	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Minnesota	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Mississippi	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Missouri	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Montana	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Nebraska	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Nevada	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
New Hampshire	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
New Jersey	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
New Mexico	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
New York	5	5	2	0	0	0.0	0.0	0.0	0.0	0.0
North Carolina	5	2	4	6	1	0.1	0.0	0.0	0.1	0.0
North Dakota	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Ohio	0	0	1	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	0	1	1	1	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	0	1	0.0	0.0	0.0	0.0	0.0
Texas	5	5	8	8	12	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	1	0	0	1	0	0.0	0.0	0.0	0.0	0.0
Washington	0	0	1	0	1	0.0	0.0	0.0	0.0	0.0
West Virginia	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Wisconsin	0	2	0	6	0	0.0	0.0	0.0	0.1	0.0
Wyoming	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
U.S. TOTAL	**19**	**23**	**25**	**28**	**24**	**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	**19**	**23**	**25**	**28**	**24**	**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, 1966-2010

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

* 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 2010 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 of gonococcal antimicrobial resistance, 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.

Jurisdictions differ in their ability to resolve differences in total cases derived from summary hard copy monthly, quarterly, and annual reports, as well as from electronically submitted line-listed data. Thus, depending on the database used, discrepancies may exist in the total number of cases reported in the figures and tables in earlier STD surveillance reports. In most instances, these discrepancies are less than 5% of total reported cases and have minimal effect on national case totals and rates. However, for a specific jurisdiction, the discrepancies may be larger.

Surveillance data and updates sent to CDC through NETSS and on hard copy forms through June 8, 2011, 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

2000–2010 Rates and Population

CDC's National Center for Health Statistics (NCHS) released bridged-race population counts for the 2000–2009 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 2009, thus 2009 population estimates were used to calculate 2010 rates. Once published, the 2010 population estimates will be used to calculate rates in the upcoming 2011 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 2009–2010 rates for outlying areas were calculated by using the 2009 population estimates.

Because of the use of the updated population data, rates for 2001–2009 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.

1941–2010 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 1941–2010. 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 2010, 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 (i.e., case reports) 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 2005 were calculated by using live birth data that are based on information coded by the states and provided to the NCHS through the Vital Statistics Cooperative Program. Rates for 2006 through 2010 were calculated by using live birth data for 2007.

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. In many state and local STD jurisdictions, the reporting from publicly supported institutions (e.g., STD clinics) has been more complete than from other sources (e.g., private practitioners). Thus, trends may not be representative of all segments of the population.

Reporting of Surveillance Data by Metropolitan Statistical Area

Sexually Transmitted Disease Surveillance 2010 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 2010.

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 1984–2010 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 1995–2010.

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 Prevalence Monitoring

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

To increase the stability of the annual prevalence estimates from NJTP, 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.

Prevalence data for region- and state-specific figures were published with permission from the Infertility Prevention Project (IPP), selected state STD prevention programs, and NJTP.

STD Surveillance Network (SSuN)

In 2005, CDC established the STD Surveillance Network (SSuN) as a dynamic STD surveillance 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 41 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 (6 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 9 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 9 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 2010, the antimicrobial agents tested by GISP were ceftriaxone, cefixime, cefpodoxime, azithromycin, spectinomycin, ciprofloxacin, penicillin, and tetracycline.

The antimicrobial susceptibility criteria used in GISP for 2010 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]

* 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*.

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 2010). 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 2009. 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 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:

1. Attain high-quality, longer lives free of preventable disease, disability, injury, and premature death.
2. Achieve health equity, eliminate disparities, and improve the health of all groups.
3. Create social and physical environments that promote good health for all.
4. 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), 8.8 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.

An additional target is to reduce the *Chlamydia trachomatis* test positivity to 3% among females aged 15–24 years who visit family planning and STD clinics. 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 syphilis. Each of these goals has specific measures of progress, which are outlined in Table A4.

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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, 2010

State	Primary and Secondary Syphilis				Gonorrhea			Chlamydia		
	Percentage Unknown Race/ Ethnicity	Percentage Unknown Age	Percentage Unknown Sex	Percentage Unknown Sex Partner	Percentage Unknown Race/ Ethnicity	Percentage Unknown Age	Percentage Unknown Sex	Percentage Unknown Race/ Ethnicity	Percentage Unknown Age	Percentage Unknown Sex
Alabama	0.0	0.0	0.0	28.1	26.3	0.2	0.9	30.9	0.2	0.5
Alaska*	0.0	0.0	0.0	100.0	0.1	0.1	0.0	0.5	0.0	0.0
Arizona	3.0	0.0	0.0	40.0	14.2	0.0	0.0	19.2	0.0	0.0
Arkansas	0.0	0.0	0.0	8.8	8.8	0.0	0.0	9.2	0.0	0.1
California	2.3	0.1	0.0	8.9	28.6	0.3	0.5	35.5	0.3	0.4
Colorado	0.0	0.0	0.0	8.7	37.8	0.0	0.0	55.9	0.1	0.0
Connecticut	0.0	0.0	0.0	5.1	23.6	0.2	0.0	34.6	0.4	0.0
Delaware*	0.0	0.0	0.0	100.0	1.8	0.0	0.0	3.6	0.0	0.0
District of Columbia	1.5	0.0	0.0	23.1	22.3	0.1	0.1	28.4	0.1	0.3
Florida	3.1	0.0	0.0	4.6	6.9	0.0	0.1	9.2	0.0	0.1
Georgia	1.5	0.0	0.0	21.6	32.6	0.2	0.8	41.6	0.2	0.7
Hawaii	0.0	0.0	0.0	2.9	32.7	0.0	0.0	51.5	0.1	0.0
Idaho*	16.7	0.0	0.0	0.0	42.9	0.0	0.7	34.6	0.0	0.3
Illinois	1.5	0.0	0.0	26.2	17.4	0.0	0.2	18.8	0.0	0.2
Indiana	0.6	0.0	0.0	2.9	14.6	0.2	0.2	18.7	0.1	0.1
Iowa	0.0	0.0	0.0	5.3	11.1	0.0	0.0	12.7	0.0	0.0
Kansas	0.0	0.0	0.0	10.5	19.7	0.0	0.0	37.4	0.0	0.0
Kentucky	0.7	0.0	0.0	7.9	22.9	0.3	0.1	29.4	0.6	0.2
Louisiana	7.9	0.2	2.0	19.4	25.1	0.4	6.1	31.0	0.6	6.6
Maine	6.3	0.0	0.0	15.6	17.9	0.0	0.6	26.7	0.4	0.2
Maryland	2.7	0.0	0.0	7.3	24.1	0.4	0.1	32.2	0.2	0.1
Massachusetts	0.7	0.0	0.0	17.9	22.6	0.3	0.0	35.9	0.3	0.1
Michigan	0.9	0.0	0.0	1.7	36.9	0.1	0.2	39.5	0.2	0.2
Minnesota	0.0	0.0	0.0	12.1	10.9	0.0	0.0	15.2	0.0	0.0
Mississippi	0.4	0.0	0.0	4.8	16.6	0.1	0.0	20.3	0.1	0.0
Missouri	2.6	0.0	0.0	3.3	13.1	0.0	0.0	23.3	0.0	0.0
Montana*	0.0	0.0	0.0	66.7	15.7	2.9	0.0	12.0	0.5	0.0
Nebraska	16.7	0.0	0.0	58.3	21.4	0.1	0.0	32.4	0.0	0.1
Nevada	10.0	0.0	0.0	1.5	30.4	0.0	0.0	35.9	0.1	0.0
New Hampshire	0.0	0.0	0.0	9.1	18.5	0.0	0.0	28.7	0.0	0.0
New Jersey	0.0	0.0	0.0	11.1	33.1	0.6	0.5	46.3	0.5	0.5
New Mexico	18.9	0.0	0.0	47.2	20.9	0.2	0.0	33.0	0.1	0.0
New York	4.9	0.0	0.0	18.9	35.7	0.3	0.0	44.8	0.4	0.0
North Carolina	0.3	0.0	0.0	100.0	9.3	0.2	0.6	13.6	0.1	0.4
North Dakota*	33.3	0.0	0.0	100.0	21.6	0.0	0.0	41.6	0.0	0.2
Ohio	0.0	0.2	0.0	12.9	22.6	0.6	0.2	30.7	0.4	0.4
Oklahoma	0.0	0.0	0.0	4.3	4.2	0.0	0.1	6.2	0.0	0.1
Oregon	4.2	0.0	0.0	60.6	10.9	0.0	0.0	19.5	0.0	0.0
Pennsylvania	2.2	0.0	0.0	13.8	24.2	0.0	0.0	27.8	0.0	0.1
Rhode Island	2.4	0.0	0.0	2.4	21.6	0.0	0.0	21.2	0.0	0.0
South Carolina	0.6	0.0	0.0	4.5	28.4	0.0	0.1	32.3	0.0	0.1
South Dakota*	0.0	0.0	0.0	0.0	3.8	0.0	0.2	28.6	0.0	0.3
Tennessee	1.8	0.0	0.0	3.2	2.0	0.1	0.0	3.4	0.1	0.1
Texas	0.3	0.0	0.1	1.6	5.1	0.1	0.1	6.2	0.1	0.0
Utah	0.0	0.0	0.0	100.0	1.9	0.0	0.0	1.3	0.0	0.0
Vermont*	0.0	0.0	0.0	0.0	0.0	0.0	1.7	17.7	0.1	0.0
Virginia	0.0	0.0	0.0	3.9	17.0	0.1	0.1	30.0	0.1	0.2
Washington	19.2	0.0	0.0	5.6	19.7	0.0	0.1	24.2	0.0	0.0
West Virginia*	33.3	0.0	0.0	0.0	13.5	0.0	0.0	17.5	0.0	0.0
Wisconsin	0.0	0.0	0.0	40.8	18.2	0.2	0.0	17.2	0.4	0.0
Wyoming*	0.0	0.0	0.0	0.0	27.5	0.0	0.0	22.4	0.0	0.0
U.S. TOTAL	**2.5**	**0.0**	**0.1**	**15.4**	**20.0**	**0.2**	**0.4**	**26.2**	**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, 2010

Disease	Non-STD Clinic			STD Clinic			Total		
	Male	Female	Total*	Male	Female	Total*	Male†	Female†	Total‡
Chlamydia	222,899	759,728	985,034	89,902	80,091	170,149	353,923	949,802	1,307,893
Gonorrhea	86,808	123,302	210,732	37,832	19,681	57,568	142,470	165,693	309,341
Primary syphilis	2,029	190	2,221	1,100	73	1,173	3,250	284	3,537
Secondary syphilis	6,095	1,055	7,155	2,330	359	2,689	8,731	1,496	10,237
Early latent syphilis	7,359	2,058	9,431	2,762	785	3,550	10,561	3,007	13,604
Late and late latent syphilis§	9,166	4,598	13,827	2,169	885	3,062	12,096	5,861	18,079
Chancroid	8	11	19	2	2	4	10	13	24

* 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	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%	6.7%
	b. Among females aged 24 years and under enrolled in a National Job Training Program	2008	12.8%	11.4%	11.5%
	c. Among males aged 24 years and under enrolled in a National Job Training Program	2008	7.0%	7.2%	6.3%
2	**Reduce Chlamydia rates among females aged 15 to 44 years (DEVELOPMENTAL)**	N/A		1,493.3	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%	74.4%
	b. Females aged 21 to 24 years	2008	59.4%	62.3%	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%	65.9%
	b. Females aged 21 to 24 years	2008	43.5%	45.7%	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%	N/A	3.59%
6	**Reduce gonorrhea rates**				
	a. Females aged 15 to 44 years	2008	284.0	258.7	257.0
	b. Males aged 15 to 44 years	2008	219.4	205.4	198.0
7	**Reduce sustained domestic transmission of primary and secondary syphilis**				
	a. Among females	2008	1.5	1.1	1.4
	b. Among males	2008	7.6	7.9	6.8
8	**Reduce congenital syphilis**	2008	10.1	8.7	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
	b. Females with types 16 and 18	N/A		N/A	N/A
	c. Females with other types	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	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	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 and Measures

GPRA Goals	Actual Performance			Long-term Goal
	2008	2009	2010	2011
Goal 1: Reduction in PID (as measured by initial visits to physicians in women 15–44-years of age)	**104,000**	**100,000**	**113,000**	**89,000**
a. Prevalence of chlamydia in women ≤25 years at high-risk*	12.8%	11.3%	11.4%	11.7%
b. Incidence of gonorrhea/100, 000 population in women 15–44 years of age	285	255	259	288
Goal 2: Elimination of Syphilis (as measured by incidence of P&S Syphilis/100,000 population)	**4.5**	**4.6**	**4.5**	**6.0**
a. Incidence of P&S syphilis/100, 000 population, men	7.6	7.8	7.9	10.2
b. Incidence of P&S syphilis/100, 000 population, women	1.5	1.4	1.1	2.1
c. Incidence of congenital syphilis/100, 000 live births	10.4	10.0	8.7	17.7
d. Black:white rate ratio of P&S syphilis	8.1:1	9.0:1	8.0:1	9.5:1

GPRA Goals	Data Source
1	National Disease and Therapeutic Index (IMS Health)
1–a	National Job Training Program
1–b	Regional Infertility Prevention Projects (IPP), STD Surveillance System (STDSS), NCHHSTP, CDC
2	STD Surveillance System (STDSS), NCHHSTP, CDC
2–a	STD Surveillance System (STDSS), NCHHSTP, CDC
2–b	STD Surveillance System (STDSS), NCHHSTP, CDC
2–c	STD Surveillance System (STDSS), NCHHSTP, CDC
2–d	STD Surveillance System (STDSS), NCHHSTP, CDC

*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 probable neurosyphilis, the case should be reported as the appropriate state of syphilis and neurological manifestations should be noted.

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

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

Case classification
Probable: syphilis of any stage, a negative VDRL in CSF, and both of the following:
- Elevated CSF protein or leukocyte count in the absence of other known causes of these abnormalities
- Clinical symptoms or signs consistent with neurosyphilis without other known causes for these clinical abnormalities

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

Syphilis, late, with clinical manifestations other than neurosyphilis (late benign syphilis and cardiovascular syphilis)

Clinical description
Clinical manifestations of late syphilis other than neurosyphilis may include inflammatory lesions of the cardiovascular system, skin, and bone. Rarely, other structures (e.g., the upper and lower respiratory tracts, mouth, eye, abdominal organs, reproductive organs, lymph nodes, and skeletal muscle) may be involved. Late syphilis usually becomes clinically manifest only after a period of 15–30 years of untreated infection.

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

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

Confirmed: a clinically compatible case that is laboratory confirmed

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

Syphilitic Stillbirth

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

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

Syphilis, Congenital (Revised 9/96)

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

Laboratory criteria for diagnosis
- Demonstration of *T. pallidum* by darkfield microscopy, fluorescent antibody, or other specific stains in specimens from lesions, placenta, umbilical cord, or autopsy material

Case classification
Probable: a condition affecting an infant whose mother had untreated or inadequately treated* syphilis at delivery, regardless of signs in the infant, or an infant or child who has a reactive treponemal test for syphilis and any one of the following:
- Any evidence of congenital syphilis on physical examination
- Any evidence of congenital syphilis on radiographs of long bones
- A reactive cerebrospinal fluid (CSF) venereal disease research laboratory (VDRL)
- An elevated CSF cell count or protein (without other cause)
- A reactive fluorescent treponemal antibody absorbed—19S-IgM antibody test or IgM enzyme-linked immunosorbent assay

Confirmed: a case that is laboratory confirmed

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

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

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

Genital Herpes (Herpes Simplex Virus) (Revised 9/96)

Clinical description

A condition characterized by visible, painful genital or anal lesions

Laboratory criteria for diagnosis

- Isolation of herpes simplex virus from cervix, urethra, or anogenital lesion, or
- Demonstration of virus by antigen detection technique in clinical specimens from cervix, urethra, or anogenital lesion, or
- Demonstration of multinucleated giant cells on a Tzanck smear of scrapings from an anogenital lesion

Case classification

Probable: a clinically compatible case (in which primary and secondary syphilis have been excluded by appropriate serologic tests and darkfield microscopy, when available) with either a diagnosis of genital herpes based on clinical presentation (without laboratory confirmation) or a history of one or more previous episodes of similar genital lesions

Confirmed: a clinically compatible case that is laboratory confirmed

Comment

Genital herpes should be reported only once per patient. The first diagnosis for a patient with no previous diagnosis should be reported.

Genital Warts (Revised 9/96)

Clinical description

An infection characterized by the presence of visible, exophytic (raised) growths on the internal or external genitalia, perineum, or perianal region

Laboratory criteria for diagnosis

- Histopathologic changes characteristic of human papillomavirus infection in specimens obtained by biopsy or exfoliative cytology or
- Demonstration of virus by antigen or nucleic acid detection in a lesion biopsy

Case classification

Probable: a clinically compatible case without histopathologic diagnosis and without microscopic or serologic evidence that the growth is the result of secondary syphilis

Confirmed: a clinically compatible case that is laboratory confirmed

Comment

Genital warts should be reported only once per patient. The first diagnosis for a patient with no previous diagnosis should be reported.

[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.

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We gratefully acknowledge the contributions of state STD project directors, STD program managers, state and territorial epidemiologists, and laboratory directors. The persons listed were in the positions shown as of September 8, 2011.

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