

Sexually Transmitted Disease Surveillance 2007

**Division of STD Prevention
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Printed copies and the on-line version of this report can be obtained at the following web site:
<http://www.cdc.gov/std/pubs/>

Selected STD Surveillance and Prevention References and Websites

Supplemental STD Surveillance Reports – 2007

- 2007 Chlamydia Prevalence Monitoring Project: **<http://www.cdc.gov/std/chlamydia2007/>**
- 2007 Gonococcal Isolate Surveillance Project: **<http://www.cdc.gov/std/GISP2007/>**
- 2007 Syphilis Surveillance Project: **<http://www.cdc.gov/std/Syphilis2007/>**

STD Surveillance Reports 1993–2007

- **<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/default.htm>**

Recommendations for Public Health Surveillance of Syphilis in the United States

- **<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5233a7.htm>**

Behavioral Surveillance

- Youth Risk Behavior Surveillance System: **<http://www.cdc.gov/HealthyYouth/yrbs/index.htm>**
- National Survey of Family Growth: Advance Data 362. Sexual Behavior and Selected Health Measures: Men and Women 15–44 Years of Age, United States, 2002. 56 pp. (PHS) 2003–1250: **<http://www.cdc.gov/nchs/products/pubs/pubd/ad/361–370/ad362.htm>**

Foreword

“STDs are hidden epidemics of enormous health and economic consequence in the United States. They are hidden because many Americans are reluctant to address sexual health issues in an open way and because of the biologic and social characteristics of these diseases. All Americans have an interest in STD prevention because all communities are impacted by STDs and all individuals directly or indirectly pay for the costs of these diseases. STDs are public health problems that lack easy solutions because they are rooted in human behavior and fundamental societal problems. 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

¹Concluding statement from the Institute of Medicine’s Summary Report, *The Hidden Epidemic: Confronting Sexually Transmitted Diseases*, National Academy Press, Washington, DC, 1997, p.43.

Preface

Sexually Transmitted Disease Surveillance, 2007 presents statistics and trends for sexually transmitted diseases (STDs) in the United States through 2007. This annual publication is intended as a reference document for policy makers, program managers, health planners, researchers, and others who are concerned with the public health implications of these diseases. ***The figures and tables in this edition supersede those in earlier publications of these data.***

The surveillance information in this report is based on the following sources of data: (1) case reports from state and local STD programs; (2) the Regional Infertility Prevention Projects, the National Job Training Program, the Corrections STD Prevalence Monitoring Project, the Indian Health Service, and the Men Who Have Sex With Men (MSM) Prevalence Monitoring Project; (3) the Gonococcal Isolate Surveillance Project (GISP); and (4) 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 CDC is less than the actual number of cases occurring in the

United States population. Case report data for other STDs are not available because they are not nationally notifiable diseases.

Sexually Transmitted Disease Surveillance, 2007 consists of four parts. The **National Profile** 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** contain figures and text describing STDs in selected subgroups and populations that are a focus of national and state prevention efforts. The **Detailed Tables** provide statistical information about STDs at the county, metropolitan statistical area (MSA), regional, state, and national levels. The **Appendix** includes information on interpreting the STD surveillance data used to produce this report, Healthy People 2010 STD objectives, Government Performance and Results Act (GPRA) goals, and STD surveillance case definitions.

Selected figures and tables in this document identify goals that reflect progress towards some of the Healthy People 2010 (HP2010) national health status objectives for STDs.¹ **Appendix** Table A3 displays progress made towards the HP2010 targets for STDs. These targets are used as reference points throughout this edition of *Sexually Transmitted Disease Surveillance 2007*.

Any comments and suggestions that would improve the usefulness of future publications are appreciated and should be sent to Director, Division of STD Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention, Centers for Disease Control and Prevention, 1600 Clifton Road, Mailstop E-02, Atlanta, Georgia, 30333.

¹ U.S. Department of Health and Human Services. *Healthy People 2010*. 2nd ed. With Understanding and Improving Health and Objectives for Improving Health. 2 vols. Washington, DC: U.S. Government Printing Office, November 2000.

Acknowledgments

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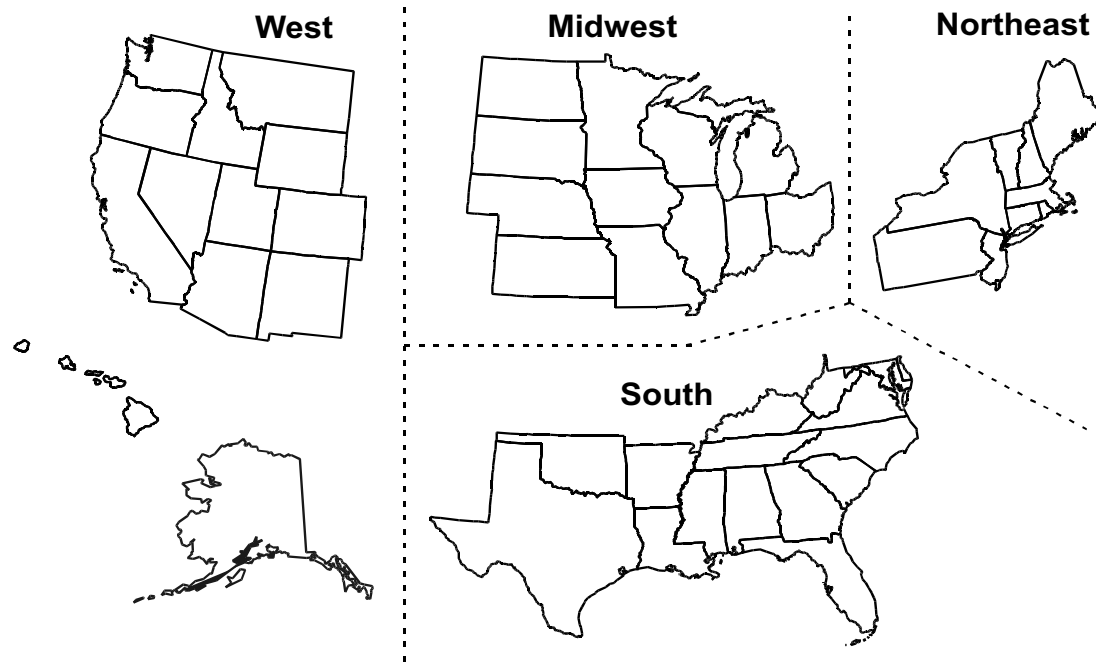
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Geographic Divisions of the United States



West

Alaska
Arizona
California
Colorado
Hawaii
Idaho
Montana
Nevada
New Mexico
Oregon
Utah
Washington
Wyoming

Midwest

Illinois
Indiana
Iowa
Kansas
Michigan
Minnesota
Missouri
Nebraska
North Dakota
Ohio
South Dakota
Wisconsin

South

Alabama
Arkansas
Delaware
District of Columbia
Florida
Georgia
Kentucky
Louisiana
Maryland
Mississippi
North Carolina
Oklahoma
South Carolina
Tennessee
Texas
Virginia
West Virginia

Northeast

Connecticut
Maine
Massachusetts
New Hampshire
New Jersey
New York
Pennsylvania
Rhode Island
Vermont

National Overview of Sexually Transmitted Diseases, 2007

The logo on the cover of *Sexually Transmitted Disease Surveillance, 2007* is a reminder of the multifaceted, national dimensions of the morbidity, mortality, and costs that result from sexually transmitted diseases (STDs) in the United States. It highlights the central role of STD prevention in improving health among women and infants and in promoting HIV prevention. Organized collaboration among interested, committed public and private organizations and communities is the key to reducing STDs and their related health burdens. As noted in the report of the Institute of Medicine, *The Hidden Epidemic: Confronting Sexually Transmitted Diseases*,¹ surveillance is a key component of our efforts to prevent and control these diseases.

This overview summarizes national surveillance data on the three notifiable diseases for which there are federally-funded control programs: chlamydia, gonorrhea, and syphilis. Several observations for 2007 are worthy of note.

Chlamydia

In 2007, 1,108,374 cases of sexually transmitted *Chlamydia trachomatis* infection were reported to 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 370.2 cases per 100,000 population, an increase of 7.5% compared with the rate in 2006. 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 and related complications. The continued increase in chlamydia case reports in 2007 most likely represents a continued increase in screening for this infection, more sensitive tests, and more complete national reporting, but it may also reflect a true increase in morbidity.

In 2007, the overall rate of chlamydial infection in the United States among women (543.6 cases per 100,000 females) was almost three times the rate among men (190.0 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. From 2003 through 2007, the chlamydia rate in men increased by 43% (compared with a 17% increase in women over this period).

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

In 2007, the median state-specific chlamydia test positivity among women 15 to 24 years of age who were screened at selected family planning clinics in all states, the District of Columbia, Puerto Rico, and the Virgin Islands was 6.9% (range: 2.9% to 16.8%) (Figures 9 and 10).

At selected prenatal clinics in 22 states, Puerto Rico, and the Virgin Islands the median state-specific chlamydia prevalence was 7.4% (range: 2.0% to 20.7%) (Figure B).

The prevalence of infection is greater among economically-disadvantaged women 16 to 24 years of age who entered the National Job Training Program in 2007 from 40 states, the District of Columbia, and Puerto Rico. The median state-specific prevalence was 13.2% (range: 3.8% to 23.5%) (Figure K). Among men entering the program in 2007 from 47 states, the District of Columbia, and Puerto Rico the median state-specific chlamydia prevalence was 7.2% (range: 2.0% to 14.5%) (Figure L).

The prevalence is also high among adolescent women entering juvenile detention centers. In 73 centers the median chlamydia positivity by facility was 14.3% (range: 2.5% to 32.1%) (Table A).

Among adolescent men entering 109 juvenile detention centers, the median chlamydia positivity by facility was 5.7% (range: 0.0% to 14.2%) (Table A).

Although these data on prevalence are not entirely comparable because of differences in the populations screened, in the performance characteristics of the screening tests, and variations in screening criteria, they provide important information on the continuing high burden of disease in the United States.

Gonorrhea

Following a 74% decline in the rate of reported gonorrhea from 1975 to 1997, overall gonorrhea rates appeared to plateau. In 2007, 355,991 cases of gonorrhea were reported in the United States, corresponding to a rate of 118.9 cases per 100,000 population, little change from the rate in 2006 of 119.7 cases (Figure 13 and Table 1). This rate considerably exceeds the Healthy People

2010 (HP2010) target of 19 cases per 100,000 population.

As in previous years, in 2007 the South had the highest gonorrhea rate among the four regions of the country (Table 13). Although the gonorrhea rate in the South declined for many years, it increased by 5.3% between 2003 and 2006. In 2007, the rate remained essentially unchanged from 2006. The rate in the West decreased slightly in 2007 after a 29% increase between 2003 and 2006. While rates increased slightly in the Northeast and Midwest from 2006 to 2007, they have remained relatively stable over the past five years.

For the sixth consecutive year, the gonorrhea rate in women in 2007 was higher (123.5 per 100,000 population) than the rate among men (113.7 per 100,000 population) (Figure 14). As with chlamydia, gonorrhea rates in women 15 to 24 years of age are particularly high. In men, they are highest among men 20 to 29 years of age (Figure 18). In 2007, the gonorrhea rate among black men was 26 times higher than that in white men; the gonorrhea rate for black women was 15 times higher than that in white women.

In 2007, data on gonorrhea prevalence in defined populations were available from several sources. These data showed a continuing high burden of disease in adolescents and young adults in parts of the United States.

For 16- to 24-year-old women entering the National Job Training Program in 36 states, and Puerto Rico in 2007, the median state-specific gonorrhea prevalence was 3.0% (range: 0.0% to 7.2%) (Figure M).

Among men entering the program from 32 states and Puerto Rico, the median state-specific gonorrhea prevalence was 1.1% (range: 0.0% to 4.4%) (Figure N).

Among women entering juvenile corrections facilities the median gonorrhea

positivity was 5.3% (range: 0.0% to 13.9%); the median gonorrhea positivity for men entering juvenile corrections facilities was 1.0% (range: 0.0% to 4.5%).

Among men who have sex with men (MSM) attending eight STD clinics, the median clinic urethral gonorrhea positivity was 8.0% (range: 5% to 15%).

In the Gonococcal Isolate Surveillance Project (GISP), a sentinel surveillance project in 30 STD clinics throughout the United States, 36% of the isolates from MSM were resistant to ciprofloxacin in 2007. The overall proportion of resistant isolates among heterosexuals was 8.7%. As a result of the high prevalence of quinolone resistant *N. gonorrhoeae* among MSM and heterosexuals, CDC revised the STD Treatment Guidelines in 2007. Fluoroquinolones are no longer recommended for the treatment of gonorrhea and associated conditions such as pelvic inflammatory disease.²

Syphilis

The rate of primary and secondary (P&S) syphilis reported in the United States decreased during the 1990s and in 2000 was the lowest since reporting began in 1941. The low rate of syphilis and the concentration of the majority of syphilis cases in a small number of geographic areas led to the development of the National Plan to Eliminate Syphilis, which was announced by the Surgeon General in 1999 and updated in 2006.³ The rate of P&S syphilis in the United States declined by 89.7% from 1990 through 2000. However, the rate of P&S syphilis has increased each year since 2001, mostly in men, but also in women for the past three years. In 2007, 11,466 cases of P&S syphilis were reported to CDC, corresponding to a rate of 3.8 cases per 100,000 population, a 15% increase from 2006. Since 2001, the rate of P&S syphilis has increased 81%. After 14 years of

decline, the rate of congenital syphilis increased in 2006 and again in 2007, a 28% increase since 2005. There were 430 cases of congenital syphilis reported in 2007 compared to 373 reported cases in 2006 and 339 in 2005.

Although wide disparities exist in the rates of STDs among racial and ethnic groups, there has been a reduction in these differences for syphilis over the past eight years. The P&S syphilis rate for 2007 in blacks was 7 times the rate in whites, which is substantially lower than the disparity observed in 1999, when the rate among blacks was 29 times greater than that among whites (Table 33B). However, with increases in syphilis among blacks occurring since 2003 at a greater rate than those among whites, we are no longer seeing declines in this health disparity. In 2007, increases were observed among both black men (23.2 cases per 100,000 population, up from 18.1 in 2006) and black women (5.6 cases per 100,000 population, up from 4.9 in 2006). Smaller increases were observed among white men (3.7 cases per 100,000 population, up from 3.5 in 2006) and white women (0.4 per 100,000 population, up from 0.3 per 100,000 in 2006).

While syphilis elimination efforts have successfully focused on heterosexual minority populations at risk for syphilis, increases in syphilis among MSM since 2001 and more recent increases among women and blacks highlight the importance of continually reassessing and refining surveillance, prevention, and control strategies.

¹ Institute of Medicine. *The Hidden Epidemic: Confronting Sexually Transmitted Diseases*, Committee on Prevention and Control of Sexually Transmitted Diseases, National Academy Press, Washington, DC, 1997.

² 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*, 2007;56:332-336.

³ Division of STD Prevention. *The National Plan to Eliminate Syphilis from the United States*. National Center for HIV, STD, and TB Prevention, Centers for Disease Control and Prevention, 2006

NATIONAL PROFILE

NATIONAL PROFILE

National Profile

The **National Profile** section contains figures showing trends and the distribution of nationally reportable sexually transmitted diseases (chlamydia, gonorrhea, syphilis and chancroid) by age, sex, race/ethnicity, and location for the United States. Where relevant, the figures illustrate progress towards specific Healthy People 2010 targets* for the nation.¹

* See the **Appendix** for a listing of the Healthy People 2010 objectives for the diseases addressed in this report.

¹ U.S. Department of Health and Human Services. *Healthy People 2010*. 2nd ed. With Understanding and Improving Health and Objectives for Improving Health. 2 vols. Washington, DC: U.S. Government Printing Office, November 2000.

Chlamydia

Background

Chlamydia trachomatis infections are the most commonly reported notifiable disease in the United States. They are among the most prevalent of all STDs and, since 1994, have comprised the largest proportion of all STDs reported to CDC (Table 1). Recent studies also demonstrate the high prevalence of chlamydial infections in the general U.S. population. Among young adults (18–26 years of age) participating in the nationally-representative National Longitudinal Study of Adolescent Health from 2001 to 2002, chlamydia prevalence was 4.2%.¹

In women, chlamydial infections, which are usually asymptomatic, may result in pelvic inflammatory disease (PID), which is a major cause of infertility, ectopic pregnancy, and chronic pelvic pain. Data from a randomized controlled trial of chlamydia screening in a managed care setting suggested that screening programs can lead to a reduction in the incidence of PID by as much as 60%.² As with other inflammatory STDs, chlamydial infection can facilitate the transmission of 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. Due to the large burden of disease and risks associated with infection, CDC recommends screening all sexually active women younger than 26 years of age for chlamydia annually.⁴

The increase in reported chlamydial infections during the last 10 years reflects the expansion of chlamydia screening activities, use of increasingly sensitive

diagnostic tests, an increased emphasis on case reporting from providers and laboratories, improvements in the information systems for reporting, and, possibly, true increases in disease. However, many women who are at risk are still not being tested, reflecting, in part, lack of awareness among some health care providers and limited resources available to support screening. Chlamydia screening and reporting are likely to continue to expand further in response to the Healthcare Effectiveness Data and Information Set (HEDIS) annual measure assessing chlamydia screening coverage of sexually active women 16 through 25 years of age who receive medical care through commercial or Medicaid managed care organizations.⁵ In 2007, 36.4% of women aged 16–20 years were screened in commercial care settings; in Medicaid populations, 48.8% of women aged 16–20 years were screened.⁶

To better monitor trends in disease burden in defined populations during the expansion of chlamydia screening activities, data on chlamydia positivity and prevalence among persons screened in a variety of settings are used. In most instances, test positivity serves as a reasonable approximation of prevalence.⁷

Chlamydia — United States

In 2000, for the first time, all 50 states and the District of Columbia had regulations requiring the reporting of chlamydia cases.

In 2007, 1,108,374 chlamydial infections were reported to CDC from 50 states and the District of Columbia (Table 1). This case

count corresponds to a rate of 370.2 cases per 100,000 population, an increase of 7.5% compared with the rate of 344.3 in 2006. The reported number of chlamydial infections was over three times the number of reported cases of gonorrhea (355,991 gonorrhea cases were reported in 2007) (Table 1).

From 1988 through 2007, the rate of reported chlamydial infection increased from 87.1 to 370.2 cases per 100,000 population (Figure 1, Table 1).

Chlamydia by Region

For the years 1998 to 2007, overall rates were similar in the Midwest, West, and South (Figure 2). Rates have consistently remained lowest in the Northeast. In 2007, reported cases continued to increase in all regions (Table 3).

Chlamydia by State

In 2007, chlamydia rates per 100,000 population by state ranged from 156.3 cases in New Hampshire to 745.1 cases in Mississippi (Figure 3, Table 2). Fifteen states, the District of Columbia, and Guam had chlamydia case rates higher than 400 cases per 100,000 population.

Chlamydia by Metropolitan Statistical Area (MSA)

In 2007, the chlamydia case rate per 100,000 population in the 50 most populous MSAs increased overall, among both women and men (Table 6). Among women, the 2007 case rate of 568.7 was a 7.7% increase over the 2006 case rate of 528.1 (Table 7). The 2007 case rate among men (211.8 per 100,000 population) increased 11.9% from the 2006 case rate (189.2) (Table 8). In 2007, 57.3% of chlamydia cases were reported by these MSAs.

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 2007, 597 (19.0%) of 3,140 counties had rates greater than 400.0 cases per 100,000 population. Rates per 100,000 population were 300.0 or less in 2,228 counties (71.0%) and between 300.1 and 400.0 in 315 counties (10.0%). Fifty-three counties and independent cities reported 40% of all chlamydia cases in 2007 (Table 9). Case rates ranged from 247.9 (Miami-Dade County, Florida) to 1,265.0 (St. Louis (City), Missouri) per 100,000 population.

Chlamydia by Sex

In 2007, the overall rate of reported chlamydial infection among women in all 50 states and the District of Columbia (543.6 cases per 100,000 females) was almost three times higher than the rate among men (190.0 cases per 100,000 males), likely reflecting a greater 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 being diagnosed or reported as having chlamydia. However, with the advent of highly sensitive nucleic acid amplification tests (NAATs) that can be performed on urine, symptomatic and asymptomatic men are increasingly being diagnosed with chlamydial infection. From 2003 through 2007, the chlamydial infection rate in men increased by 42.9% (from 133.0 to 190.0 cases per 100,000 males) compared with a 17.3% increase in women during the same period (from 463.6 to 543.6 cases per 100,000 females).

Chlamydia by Age

Among women, the highest age-specific rates of reported chlamydia in 2007 were

among those 15 to 19 years of age (3,004.7 cases per 100,000 females) and 20 to 24 years of age (2,948.8 cases per 100,000 females) (Figure 5, Table 10). When compared to 2003, case rates per 100,000 women have increased in these two age groups by 12.4% and 17.3%, respectively. These increased rates in women may, in part, reflect increased screening in this group. Age-specific rates among men, while substantially lower than the rates among women, were highest in the 20- to 24-year-old age group (932.9 cases per 100,000 males) (Figure 5, Table 10). Chlamydia case rates among men have increased in most age groups since 2003.

Chlamydia by Race/Ethnicity

In 2007, chlamydia rates increased for all racial and ethnic groups except American Indian/Alaska Natives. (Figure 6, Table 11B). The rate of chlamydia among blacks was over eight times higher than that of whites (1,398.7 and 162.3 cases per 100,000, respectively). The rates among American Indian/Alaska Natives (732.9) and Hispanics (473.2) were also higher than that of whites (4.5 and 2.9 times higher, respectively). In 2007, the chlamydia case rate per 100,000 population among Asian/Pacific Islanders was 139.5.

Chlamydia by Reporting Source

The majority of chlamydia cases reported in 2007 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 2007, among women, only 11.9% of chlamydia cases were reported through an STD clinic (98,382 of 825,660 total cases). In contrast, among men, 33.1% of chlamydia cases were reported through an STD clinic in 2007 (92,906 of 280,337 total cases).

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 14- to 39-year old population and provides an important measure of chlamydia disease burden. From 1999 to 2002, the overall prevalence of chlamydia infection was 2.2% and was similar between males and females (2.0% and 2.5%, respectively).⁸ Prevalence was higher among non-Hispanic blacks than non-Hispanic whites in all age groups (Figure 8).

Chlamydia Prevalence Monitoring Project

Chlamydia screening and prevalence monitoring activities were initiated in Health and Human Services (HHS) Region X (Alaska, Idaho, Oregon, Washington) 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.

Family Planning Clinics

In 2007, the median state-specific chlamydia test positivity among 15- to 24-year-old women who were screened during visits to selected family planning clinics in all 50 states, Puerto Rico, and the Virgin Islands was 6.9% (range: 2.9% to 16.8%) (Figures 9 and 10). Since 1997, the median chlamydia positivity rate has slightly increased over time. This increase is likely due primarily to increasing usage of more sensitive test technology. See

Appendix (Chlamydia, Gonorrhea, and Syphilis Prevalence Monitoring) for details.

Chlamydia test positivity among 15–24-year-old women screened in family planning clinics fluctuated in all 10 HHS regions between 2003 and 2007 (Figure 11). Positivity has remained fairly stable in four regions (I, III, V, X). From 2003 to 2006, slight decreases in positivity occurred in one region (II), followed by a small increase in 2007. In the remaining five regions (IV, VI, VII, VIII, IX), positivity rates increased slightly over the five-year time frame from 2003 to 2007. The positivity rates presented in Figure 11 are not adjusted for changes in laboratory test methods and associated increases in test sensitivity. Utilization of more sensitive tests has been shown to impact positivity rates.⁹ Usage of NAAT technology in family planning clinics to screen women aged 15–24 years for chlamydia is widespread (Figure 12). In four regions, NAATs were used nearly exclusively from 2003 to 2007 (I, V, VII, VIII). By 2007, five additional regions used NAATs over 50% of the time (II, III, IV, IX, X). Only one region (VI) reported a low NAAT-usage rate in 2007; however, usage increased from 2003 to 2007.

Chlamydia Among Special Populations

Additional information on chlamydia screening programs for women of reproductive age and chlamydia among adolescents, minority populations, and in corrections facilities can be found in the **Special Focus Profiles**.

Chlamydia Summary

Both prevalence and reported cases of genital *Chlamydia trachomatis* infections remain high across age groups, racial/ethnic groups, geographic locales, and both sexes. The burden of chlamydia appears higher among women, especially those of younger age (15 to 19 and 20 to 24 years of age), but this may be a reflection of persons recommended for screening. Racial differences also persist; case rates among blacks continue to be substantially higher than rates among other racial/ethnic groups.

¹ Miller WC, Ford CA, Morris M, Handcock MD, Schmitz JL, Hobbs MM, Cohen MS, Mullan Harris K, Udry JR. Prevalence of chlamydial and gonococcal infections among young adults in the United States. *JAMA* 2004;291(18):2229–36.

² Scholes D, Stergachis A, Heidrich FE, Andrilla H, Holmes KK, Stamm WE. Prevention of pelvic inflammatory disease by screening for cervical chlamydial infection. *N Engl J Med* 1996;34(21):1362–66.

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

⁴ Centers for Disease Control and Prevention. Sexually Transmitted Diseases Treatment Guidelines, 2006. *MMWR*, 2006;55(No.RR-11):38.

⁵ National Committee for Quality Assurance (NCQA). HEDIS 2000: Technical Specifications, Washington, DC, 1999, pp. 68–70, 285–286.

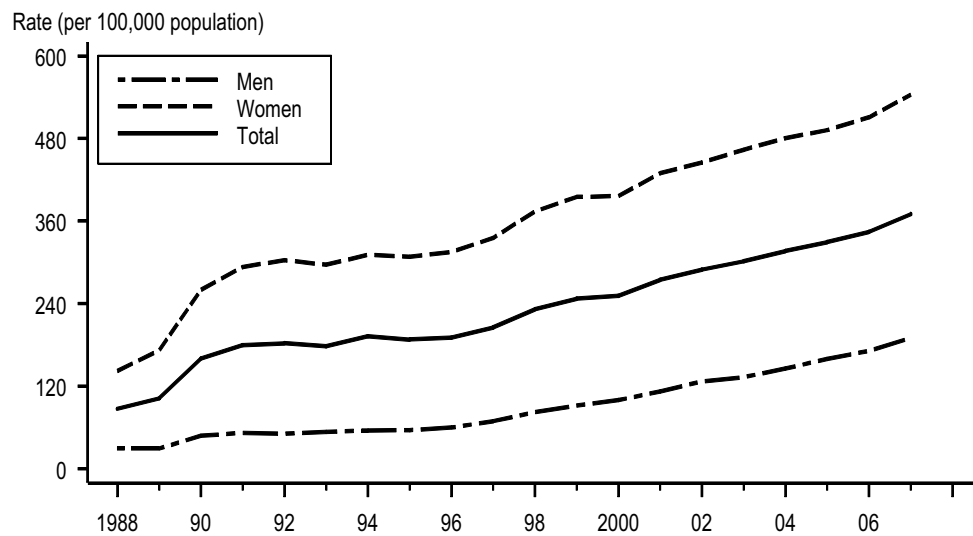
⁶ National Committee for Quality Assurance (NCQA). The state of healthcare quality 2008, Washington, DC, 2008, pp.39.

⁷ Dicker LW, Mosure DJ, Levine WC. Chlamydia positivity versus prevalence: what's the difference? *Sexually Transmitted Diseases* 1998;25:251–3.

⁸ Datta SD, Sternberg M, Johnson RE, Berman S, Papp JR, McQuillan G, Weinstock H. 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.

⁹ Dicker LW, Mosure DJ, Levine WC, et al. Impact of switching laboratory tests on reported trends in *Chlamydia trachomatis* infections. *Am J Epidemiol* 2000;51:430–5.

Figure 1. Chlamydia — Rates: Total and by sex: United States, 1988–2007



Note: As of January 2000, all 50 states and the District of Columbia had regulations requiring the reporting of chlamydia cases.

Figure 2. Chlamydia — Rates by region: United States, 1998–2007

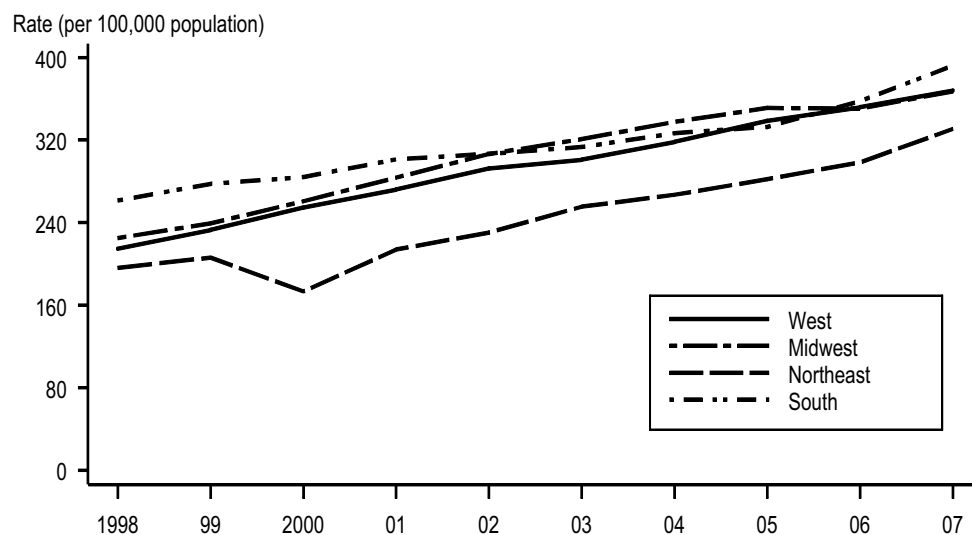
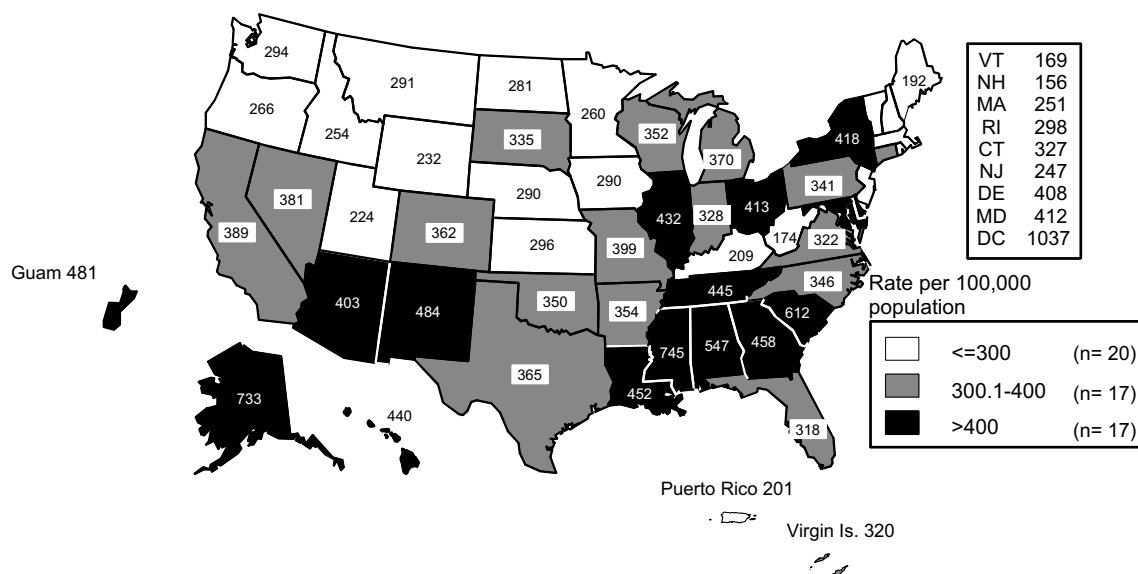


Figure 3. Chlamydia — Rates by state: United States and outlying areas, 2007



Note: The total rate of chlamydia for the United States and outlying areas (Guam, Puerto Rico and Virgin Islands) was 368.1 per 100,000 population. For further information on chlamydia reporting, see Appendix (Chlamydia Morbidity Reporting).

Figure 4. Chlamydia — Rates by county: United States, 2007

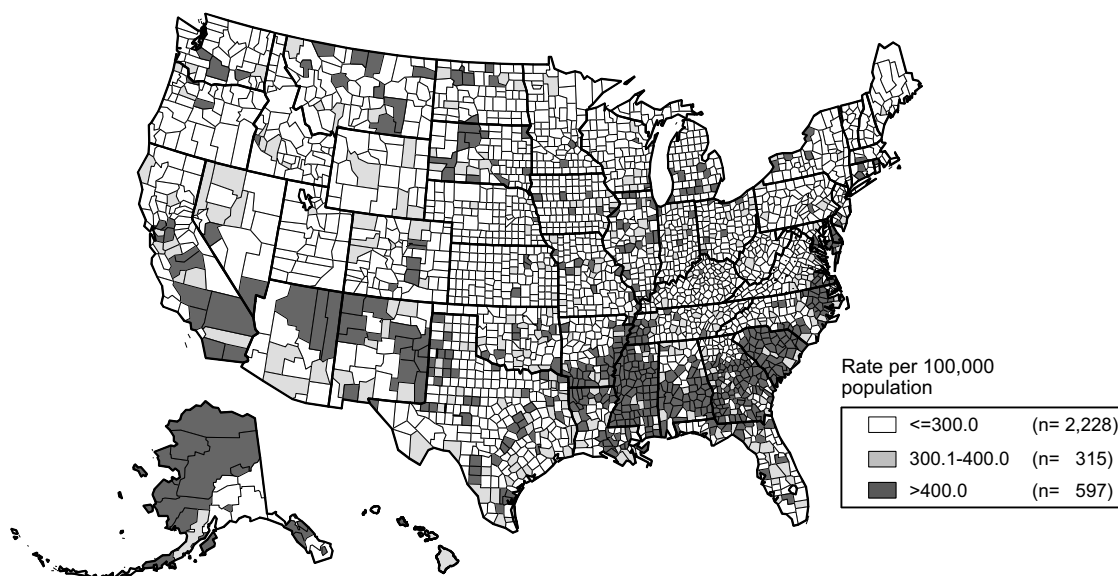


Figure 5. Chlamydia — Age- and sex-specific rates: United States, 2007

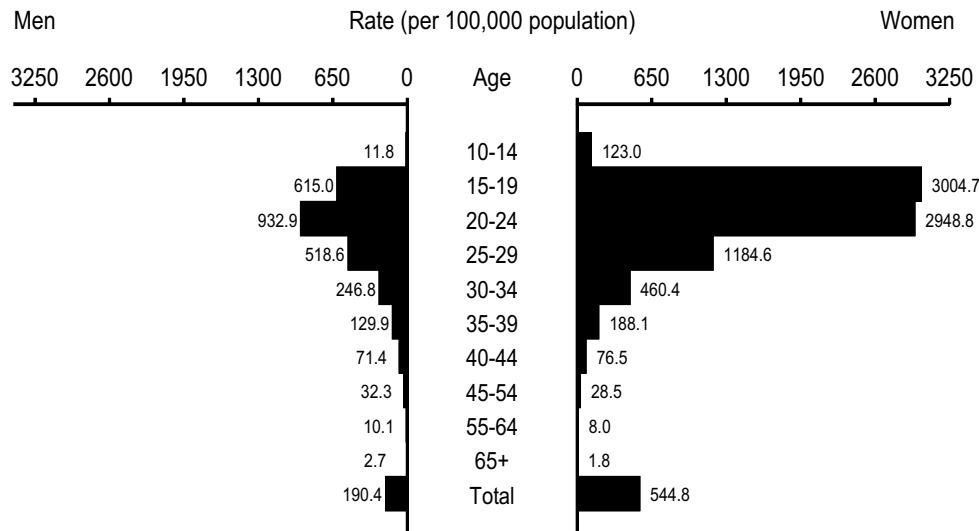


Figure 6. Chlamydia — Rates by race/ethnicity: United States, 1998–2007

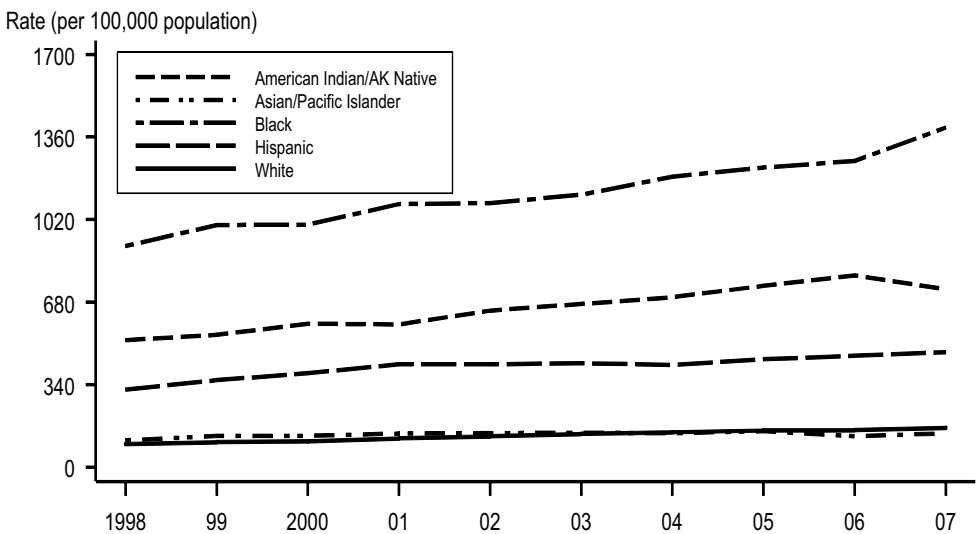


Figure 7. Chlamydia — Cases by reporting source and sex: United States, 1998–2007

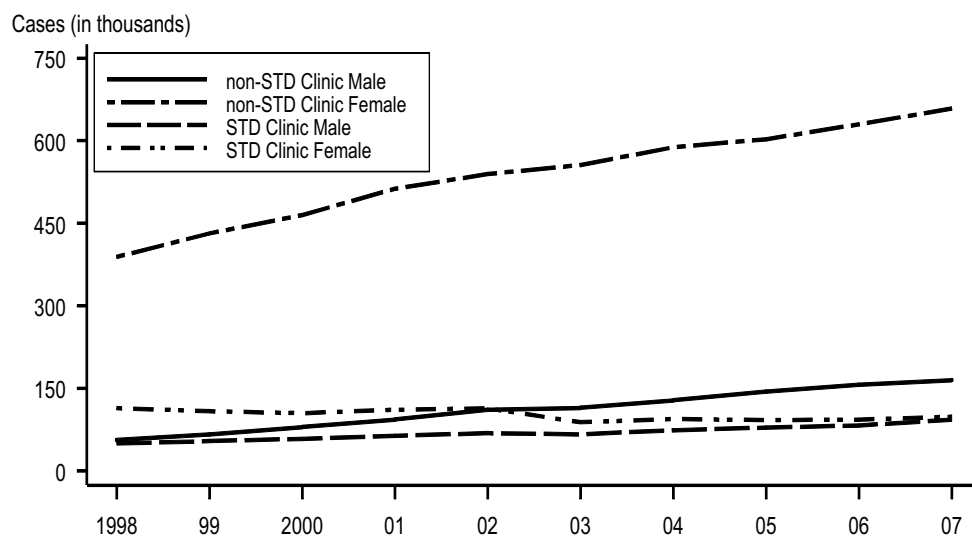
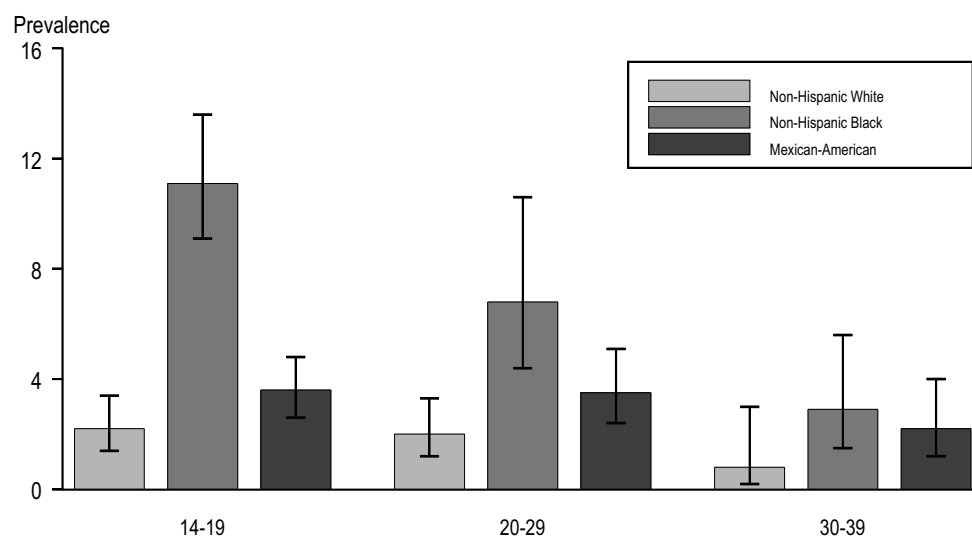


Figure 8. Chlamydia — Prevalence by age group and race/ethnicity reported from a national survey, 1999–2002

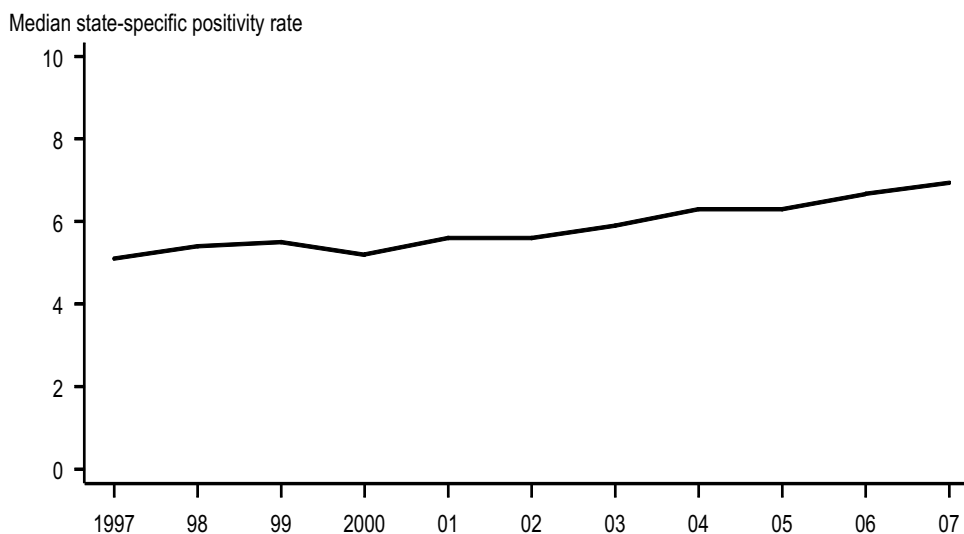


Note: Error bars indicate 95% confidence intervals.

SOURCE: National Health and Nutrition Examination Survey

Ann Intern Med. 2007 Jul 17;147(2):89–96.

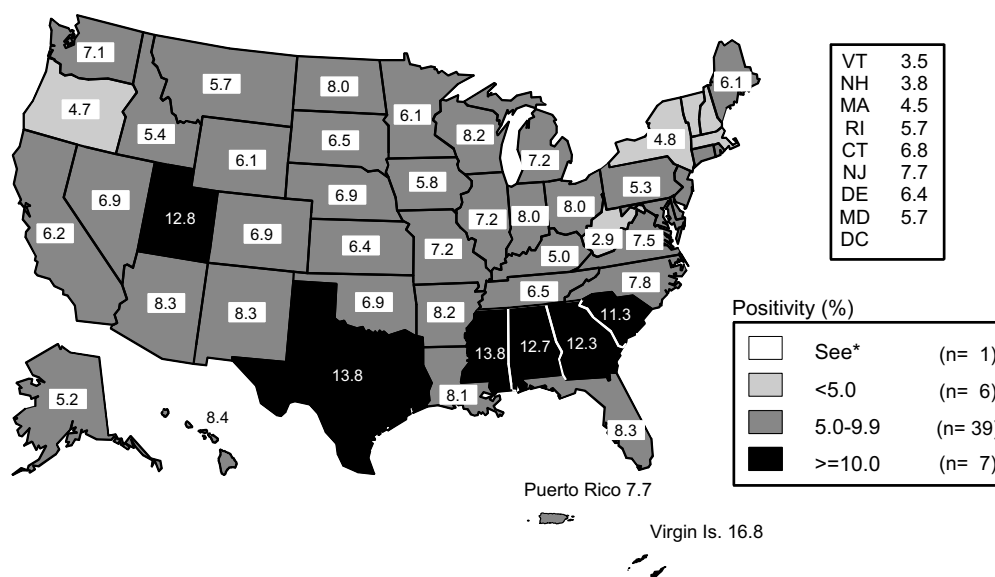
Figure 9. Chlamydia — Median state-specific positivity among 15- to 24-year-old women tested in family planning clinics: United States, 1997–2007



Note: As of 1997, all 10 Health and Human Services (HHS) regions, representing all 50 states, the District of Columbia, and outlying areas, reported chlamydia positivity data. See Appendix for definitions of HHS regions.

SOURCE: Chlamydia Prevalence Monitoring Project (Regional Infertility Prevention Projects); Office of Population Affairs; Local and State STD Control Programs; Centers for Disease Control and Prevention

Figure 10. Chlamydia — Positivity among 15- to 24-year-old women tested in family planning clinics by state: United States and outlying areas, 2007

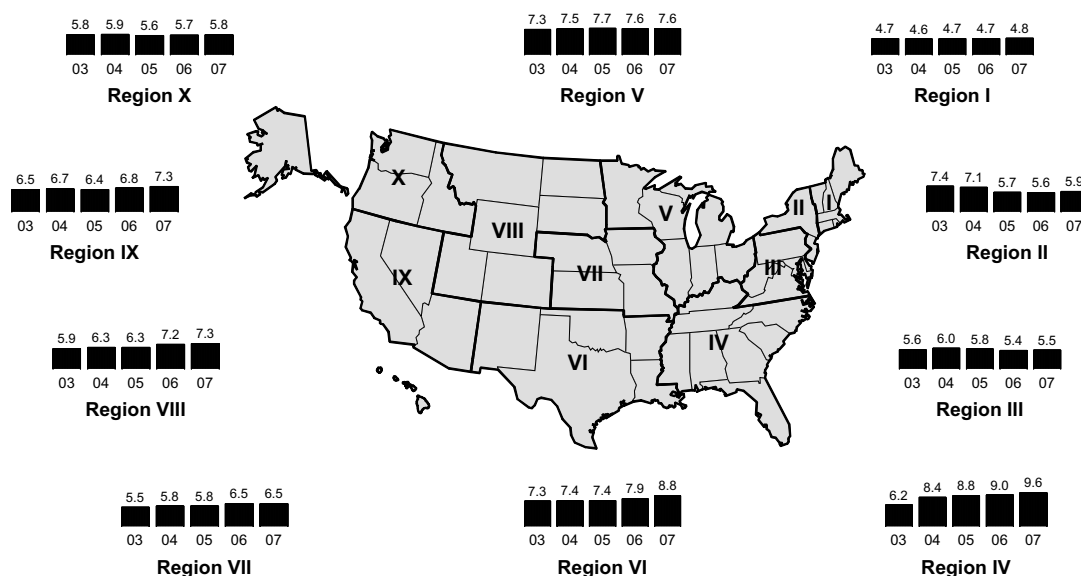


*Data not available in 2007.

Note: Includes states and outlying areas that reported chlamydia positivity data on at least 500 women aged 15–24 years screened during 2007.

SOURCE: Chlamydia Prevalence Monitoring Project (Regional Infertility Prevention Projects); Office of Population Affairs; Local and State STD Control Programs; Centers for Disease Control and Prevention

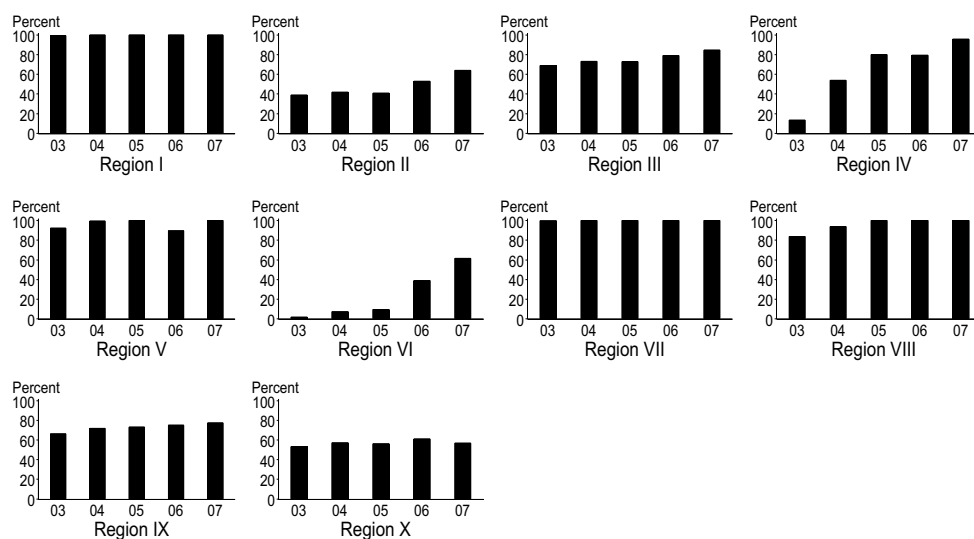
Figure 11. Chlamydia — Trends in positivity among 15- to 24-year-old women tested in family planning clinics by HHS region, 2003–2007



Note: See Appendix for definitions of HHS Regions.

SOURCE: Chlamydia Prevalence Monitoring Project (Regional Infertility Prevention Projects); Office of Population Affairs; Local and State STD Control Programs; Centers for Disease Control and Prevention

Figure 12. Chlamydia — Percent of tests that were nucleic acid amplification tests (NAATs) in family planning clinics among 15- to 24-year-old women by HHS region, 2003–2007



Note: See Appendix for definitions of HHS Regions.

SOURCE: Chlamydia Prevalence Monitoring Project (Regional Infertility Prevention Projects); Office of Population Affairs; Local and State STD Control Programs; Centers for Disease Control and Prevention

Gonorrhea

Background

Gonorrhea is the second most commonly-reported notifiable disease in the United States. Infections due to *Neisseria gonorrhoeae*, like those resulting from *Chlamydia trachomatis*, are a major cause of 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

From 1975 through 1997, the national gonorrhea rate declined 74% following implementation of the national gonorrhea control program in the mid-1970s (Figure 13). For the past ten years, however, gonorrhea rates appear to have reached a plateau, unfortunately still far from the Healthy People 2010 target of 19 cases per 100,000 population (Figure 14 and Table 1).

Increases in gonorrhea rates in eight western states from 2000 to 2005 have been described among a wide variety of populations in the affected states.² Increases in quinolone-resistant *Neisseria gonorrhoeae* (QRNG) in 2006 led to changes in national guidelines that now limit the recommended treatment of gonorrhea to a single class of drug, the cephalosporins.³ The combination of increases in gonorrhea morbidity in some populations with increases in resistance and decreased treatment options have reinforced the need for better understanding of the epidemiology of gonorrhea.

Although gonorrhea case reporting is useful for monitoring trends in gonorrhea, true increases or decreases in disease burden may be masked by changes in screening practices (affected by concomitant testing for chlamydia and broader use of urine-based testing), use of diagnostic tests with differing test performance, and changes in reporting practices.⁴

For most areas, the number of gonorrhea cases reported to CDC is affected by many factors, in addition to the occurrence of the infection within the population. As with reporting of other STDs, reporting of gonorrhea cases to CDC is incomplete.⁵ For these reasons, supplemental data on gonorrhea prevalence in persons screened in a variety of different settings are useful in assessing disease burden in selected populations.

Gonorrhea — United States

In 2007, 355,991 cases of gonorrhea were reported in the United States. The rate of reported gonorrhea in the United States was 118.9 cases per 100,000 population in 2007 (Figure 13 and Table 1), a decrease of 0.7% since 2006. Gonorrhea rates have remained relatively stable for over 10 years.

Gonorrhea by Region

As in previous years, in 2007 the South had the highest gonorrhea rate among the four regions of the country (156.0 cases per 100,000 population). Rates in the South and Midwest have remained substantially higher than rates in the Northeast and West. Rates in all regions over the last year

have shown little change (Figure 15 and Table 13).

An evaluation of increases in gonorrhea in eight western states from 2000 to 2005 suggested that increases were likely due to a variety of factors such as changes in testing practices (increased volume and use of more sensitive tests) as well as real increases in disease.²

Gonorrhea by State

In 2007, only seven states and Puerto Rico had gonorrhea rates below the HP2010 national target of 19 cases per 100,000 population (Figure 16 and Tables 12 and 13).⁶ This is an increase from 2006 of three states (Montana, North Dakota, and Wyoming) that now meet the HP2010 target.

Gonorrhea by Metropolitan Statistical Area (MSA)

The overall gonorrhea rate in the 50 most populous MSAs was 129.4 cases per 100,000 population in 2007. This is essentially unchanged from 2006. All of these MSAs had rates higher than the HP2010 target of 19 cases per 100,000 population. In 2007, 58.6% of gonorrhea cases were reported by these MSAs (Table 16). Similar to previous years, in 2007 the total gonorrhea rate among females in these MSAs (128.4) remained similar to that among males (129.9) (Tables 17 and 18).

Gonorrhea by County

In 2007, 1,305 (41.6%) of 3,140 counties in the United States had gonorrhea rates at or below the HP2010 national target of 19 cases per 100,000 population. Rates per 100,000 population were between 19 and 100 in 1,099 counties (35.0%), and greater than 100 in 736 counties (23.4%). The majority of counties with greater than 100

cases per 100,000 population were located in the South (Figure 17).

In 2007, 50% of reported gonorrhea cases occurred in just 69 counties or independent cities (Table 19).

Gonorrhea by Sex

Prior to 1996, rates of gonorrhea among men were higher than rates among women. For the seventh consecutive year, however, gonorrhea rates among women and men were similar with rates among women being slightly higher (Figure 14). In 2007, the gonorrhea rate among women was 123.5 and the rate among men was 113.7 cases per 100,000 population (Tables 14 and 15).

Gonorrhea by Age

In 2007, gonorrhea rates continued to be highest among adolescents and young adults. Among females in 2007, 15- to 19 and 20- to 24-year-old women had the highest rates of gonorrhea (647.9 and 614.5, respectively). Among males, the rate was highest in those 20 to 24 years of age (450.1) (Figure 18 and Table 20).

From 2003 to 2007, slight increases were seen among the age groups under 35 years (4.8% among those 15 to 19 years of age, 2.6% among those 20 to 24 years of age, 5.8% among those 25 to 29 years of age, and 4.3% among those 30 to 34 years of age) (Table 20). Slight decreases were seen among those 35 to 39 years of age (4.6%), and those 40 to 44 years of age (2.0%).

Among females between 15 and 44 years of age (from 2003 to 2007) increases were greatest in those 25 to 29 years of age (10.9%) and those 30 to 34 years of age (11.4%). Among males between 15 and 44 years of age, increases over that time period were seen among those 15 to 19 years of age (9.5%) and those 25 to 29 years of age (1.5%) (Figures 19 and 20, and Table 20).

Gonorrhea by Race/Ethnicity

In 2007, gonorrhea rates remained highest among blacks (662.9 cases per 100,000 population, Table 21B and Figure 21). Similar to recent years, the rate among blacks was 19.1 times greater than the rate among whites (34.7 cases per 100,000 population). Gonorrhea rates were 3.1 times greater among American Indian/Alaska Natives (107.1 cases per 100,000 population), and 2.0 times greater among Hispanics (69.2 cases per 100,000 population) than among whites in 2007. Rates among whites were 1.8 times higher than those among Asian Pacific Islanders (18.8 cases per 100,000 population in 2007 (Figure 21).

Between 2003 and 2007, gonorrhea rates showed no marked changes for any racial or ethnic group, except for a 14.9% decline among Asian Pacific Islanders. There was a 21.8% decline among American Indian/Alaska Natives from 2006 to 2007 (Figure 21 and Table 21B). Additional information on gonorrhea among minority populations can be found in the **Special Focus Profiles**.

Gonorrhea by Region and Sex

Between 2003 and 2007, gonorrhea rates among women increased 19.1% in the West, 8.7% in the South, and 5.5% in the Midwest. Gonorrhea rates among women decreased 19.7% in the Northeast during the same time period.

Between 2003 and 2007, gonorrhea rates among men increased 15.1% in the West and 1.7% in the South, and decreased 9.4% in the Northeast and 0.5% in the Midwest (Tables 14 and 15).

Gonorrhea by Race/Ethnicity and Sex

From 2003 to 2007, overall rates among white, Hispanic, American Indian/Alaska Native, and black men increased (2.7%, 2.6%, 1.0%, and 0.4% respectively).

Gonorrhea rates decreased only among Asian/Pacific Islander males (5.3%) (Table 21B).

Between 2003 and 2007 the overall rate among white, American Indian/Alaska Native, and black women increased (9.0%, 6.1%, and 3.8% respectively). However, decreases were seen among Asian/Pacific Islander and Hispanic women (21.8% and 3.4% respectively) (Table 21 B).

Currently, 15- to 19-year-old black women still have the highest gonorrhea rate of any group (2,955.7 per 100,000 population), closely followed by 20- to 24 year-old black women (2,789.2), and 20- to 24-year-old black men (2,451.3).

Gonorrhea by Reporting Source

In 2007, 26.7% of gonorrhea cases were reported by STD clinics (Table A2). This is a slight change from 2003, when 29.9% of gonorrhea cases were reported by STD clinics. In 2007, a higher proportion of male gonorrhea cases were reported from STD clinics than female cases (37.2% and 17.3% respectively) (Figure 22 and Table A2).

Gonorrhea Prevalence Monitoring Project

Gonorrhea test positivity data are available from a variety of settings. Screening criteria and practices may vary by state and over time.

Family Planning Clinics

In 2007, the median state-specific gonorrhea test positivity among 15- to 24-year-old women screened in selected family planning clinics in 43 states, Puerto Rico, and the Virgin Islands was 0.9% (range: 0.1% to 4.9%) (Figure 23). Median gonorrhea positivity in family planning clinics has shown minimal change in recent years (range: 0.8% to 1.1% between 2003 and 2007).

Prenatal Clinics

For women attending selected prenatal clinics in 19 states, Puerto Rico, and the Virgin Islands, the median positivity was 0.8% (range: 0.0% to 3.9%) (Figure D). Median gonorrhea positivity in prenatal clinics has shown minimal change in recent years (range: 0.8% to 1.0% between 2003 and 2007).

National Job Training Program

Among 16- to 24-year-old women entering the National Job Training Program in 36 states and Puerto Rico in 2007, the median state-specific gonorrhea prevalence was 3.0% (range: 0.0% to 7.2%) (Figure M). Among men entering the program from 32 states and Puerto Rico in 2007, the median state-specific gonorrhea positivity was 1.1% (range: 0.0% to 4.4%) (Figure N).

Juvenile Corrections

In 2007, the median positivity for gonorrhea by facility in women entering 52 juvenile corrections facilities was 5.3% (range: 0.0% to 13.9%). In men entering 90 juvenile corrections facilities in 2007, the median was 1.0% (range: 0.0% to 4.5%) (Table C).

Gonococcal Isolate Surveillance Project (GISP)

Antimicrobial resistance remains an important consideration in the treatment of gonorrhea.^{3,7-14} In 1986, the Gonococcal Isolate Surveillance Project (GISP), a national sentinel surveillance system, was established to monitor trends in antimicrobial susceptibilities of strains of *Neisseria gonorrhoeae* in the United States among selected STD clinics in approximately 25–30 GISP sentinel sites¹⁴ (Figure 24).

Overall in 2007, 27% of isolates collected from 29 of 30 GISP sites were resistant to penicillin, tetracycline, ciprofloxacin, or

some combination of those antibiotics (Figure 25).

Quinolone-resistant *N. Gonorrhoeae* (QRNG)

Resistance to ciprofloxacin (a fluoroquinolone in the quinolone family of antimicrobials) was first identified in GISP sites in 1991. From 1991 through 1998, fewer than nine quinolone-resistant *N. gonorrhoeae* (QRNG) isolates were identified each year, and such isolates were identified in only a few GISP clinics. However since 1999 QRNG prevalence has steadily increased, first in Hawaii and the Pacific Islands, then in the Western states, and then among MSM.^{7,9,10} In 2007, 891 (14.8%) of 6,009 GISP isolates collected were identified as QRNG, an increase from 2006, when 843/6,089 (13.8%) isolates were identified as QRNG (Figure 26). QRNG isolates were identified from all 29 GISP sites that submitted isolates in 2007. GISP did not receive any isolates from Tripler in 2007.

QRNG by Region

In 2007, QRNG increased most markedly in those regions where prevalence had been relatively low.

In 2007, 20 (28.6%) of 70 isolates submitted from Honolulu demonstrated ciprofloxacin-resistance, a decrease from 34 (35.8%) of 95 isolates in 2006.

From 2006 to 2007, several western sites demonstrated an increase in the number of isolates resistant to ciprofloxacin. In Albuquerque, the prevalence of QRNG more than doubled to 16.7% of isolates collected in 2007 from 7.3% in 2006; in Denver, 17% were resistant to fluoroquinolones in 2007 compared with 15.7% in 2006; in Las Vegas, the prevalence also doubled to 18.7% in 2007 from 8.7% in 2006; in Long Beach, 30.4% were resistant in 2007 compared to 28.4% in 2006; in Orange County, 41% were resistant in 2007 compared with 34.6% in 2006; in Portland, 28.6% were resistant in

2007 compared with 27.2% in 2006; and in San Diego, 36.3% were resistant in 2007 compared with 35.1% in 2006. The prevalence in Los Angeles was relatively the same at 22.4% in 2007. In other western sites such as Phoenix, San Francisco, and Seattle, the prevalence of QRNG decreased slightly during the same time period. In Phoenix, 8.7% of isolates were QRNG when compared with 11.9% in 2006; in San Francisco, the prevalence of QRNG decreased to 31.3% in 2007 from 44.5% in 2006; and in Seattle to 29.3% in 2007 from 31.8% in 2006.

In the South from 2006 to 2007, most of the sites continued to observe increases in the prevalence of QRNG. In Baltimore, QRNG resistance increased to 2% in 2007 from 1.4% in 2006; in Birmingham, the prevalence increased about eight fold to 9.4% in 2007 from 1.1% in 2006; in Dallas, the prevalence increased to 7.5% from 6.1%; in Greensboro, it tripled to 5.3% from 1.7%; in New Orleans it increased to 18.1% from 10.2%; and in Oklahoma City, it increased to 6% from 4.3%. However, in Atlanta, where isolates were submitted from January—April 2007 only, the prevalence of QRNG decreased to 2.6% in 2007 from 5.7% in 2006. In Miami, the prevalence of QRNG remained about the same in 2007 at 19.6%.

In the Midwest and Northeast there were dramatic increases in prevalence of QRNG from 2006 to 2007 among several sites. In Chicago, the prevalence of isolates that were resistant to ciprofloxacin doubled to 8.6% in 2007 from 4.1% in 2006; in Cincinnati, the prevalence almost doubled to 1.2% in 2007 from 0.7% in 2006; in Detroit, it increased by five fold to 1.7% in 2007 from 0.3% in 2006; in Minneapolis, it doubled to 10.7% in 2007 from 5.7% in 2006; and in New York City, it also almost doubled to 14.9% in 2007 from 7.6% in 2006. There was a decrease in QRNG prevalence in Cleveland to 0.7% in 2007

from 3.1% in 2006 and in Philadelphia to 29.1% from 30.3%, respectively.

New sites in GISP that identified ciprofloxacin-resistant isolates included Kansas City and Richmond. Kansas City rejoined GISP in September 2007 and observed a QRNG prevalence of 16.4% in 2007. Richmond started collection in November 2007 and QRNG was identified in 17.9% of isolates.

QRNG by Sexual Behavior

The prevalence of QRNG in isolates from MSM slightly decreased from 39% in 2006 to 36% in 2007. During the same time period, the prevalence of QRNG in isolates from heterosexuals increased from 7% to 9% (Figure 27).

As a result of high and continued widespread prevalence of QRNG among MSM and then more recently, among heterosexuals, CDC revised the *2006 CDC STD Treatment Guidelines* in April 2007.³ Therefore, CDC states that fluoroquinolones are no longer recommended for use in the United States for the treatment of gonococcal infections and associated conditions such as pelvic inflammatory disease.³

Other Antimicrobial Susceptibility Testing

The proportion of GISP isolates demonstrating decreased susceptibility to ceftriaxone or cefixime has remained very low over time. Overall in GISP, from 1987 to 2007, there have been a total of four isolates with decreased susceptibility to ceftriaxone (all four had minimum inhibitory concentrations (MICs) of 0.5 µg/ml) and 48 isolates with decreased susceptibility to cefixime (MIC range from 0.5–2.0 µg/ml) in GISP. In 2007, there were no isolates identified with decreased susceptibility to ceftriaxone. (Note: Cefixime was discontinued in 2007 from the GISP antibiotic susceptibility panel.)

The proportion of GISP isolates demonstrating elevated MICs to azithromycin has been increasing since GISP began monitoring azithromycin susceptibility in 1992. In 2005, there was a change in the media used for antimicrobial susceptibility testing which resulted in an observational shift of the MIC curve for azithromycin. Thus, the azithromycin MIC for decreased susceptibility was changed from 1.0 µg/ml to 2.0 µg/ml in 2005 and thereafter. In 2007, 0.5% (27/6,009) isolates had azithromycin MIC 2.0 µg/ml compared to 0.2% (14/6,089) in 2006.

Additional information on antimicrobial susceptibility data and on GISP may be found in the 2007 GISP report⁸ or the GISP website: <http://www.cdc.gov/std/GISP>

Gonorrhea Among Special Populations

Additional information about gonorrhea in racial and ethnic minority populations, adolescents, MSM, and other at risk populations can be found in the **Special Focus Profiles**.

Gonorrhea Summary

In summary, the national gonorrhea rate has remained relatively unchanged for approximately ten years. Unfortunately the 2007 rate of 118.9 cases per 100,000 population is still greater than the Healthy People 2010 goal of 19 cases per 100,000 population. Of particular concern are the persistent high rates in some geographic areas, adolescents and young adults, and some racial/ethnic groups.

Although fluoroquinolones are no longer recommended for treatment of gonococcal infections in the U.S., GISP data continues to show widespread increases in QRNG prevalence throughout the country. With only one class of antibiotics recommended for treating gonorrhea, continued monitoring for the emergence of decreased susceptibility and resistance to cephalosporins is critical.

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 Feb;75(1):3–17.

² Centers for Disease Control and Prevention. Increases in gonorrhea – Eight western states, 2000–2005. *MMWR* 2007;56:222–225.

³ 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*, 2007;56: 332–336.

⁴ Centers for Disease Control and Prevention. Gonorrhea – United States, 1998. *MMWR* 2000;49:538–42.

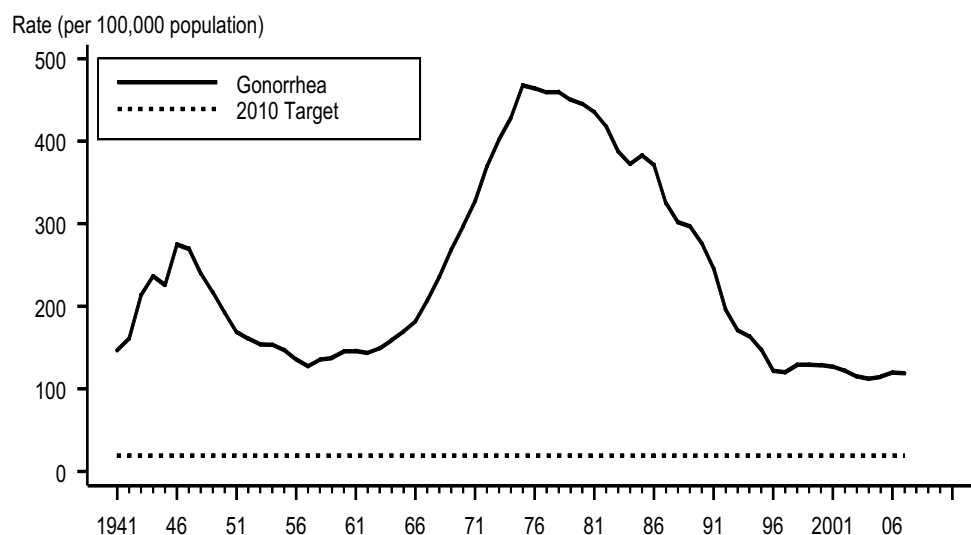
⁵ Sexually Transmitted Diseases in America: How Many Cases and At What Cost? Prepared for the Kaiser Family Foundation by: American Social Health Association, December 1998, ASHA: Research Triangle Park, NC, Kaiser Family Foundation: Menlo Park, CA 94025.

⁶ U.S. Department of Health and Human Services. *Healthy People 2010*. 2nd ed. With Understanding and Improving Health and Objectives for Improving Health. 2 vols. Washington, DC: U.S. Government Printing Office, November 2000.

⁷ Centers for Disease Control and Prevention. Fluoroquinolone-resistance in *Neisseria gonorrhoeae*, Hawaii, 1999, and decreased susceptibility to azithromycin in *N. gonorrhoeae*, Missouri, 1999. *MMWR* 2000;49:833–837.

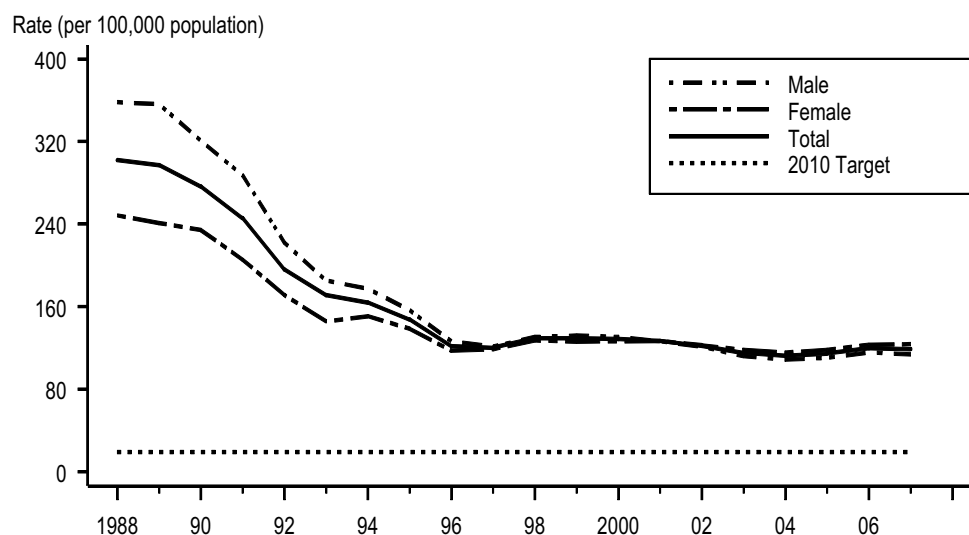
- ⁸ Centers for Disease Control and Prevention. *Sexually Transmitted Disease Surveillance 2007 Supplement: Gonococcal Isolate Surveillance Project (GISP) Annual Report 2007*. Atlanta, GA: U.S. Department of Health and Human Services (available first quarter 2009).
- ⁹ Centers for Disease Control and Prevention. Increases in fluoroquinolone-resistant *Neisseria gonorrhoeae* – Hawaii and California, 2001. *MMWR* 2002;51:1041–1044.
- ¹⁰ 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* 2004;53:335–338.
- ¹¹ Centers for Disease Control and Prevention. Sexually Transmitted Diseases Treatment Guidelines, 2006. *MMWR*, 2006;55(No.RR-11).
- ¹² Wang SA, Lee MV, Iverson CJ, Ohye RG, Whitticar PM, Hale JA, Trees DL, Knapp JS, Effler PV, Weinstock HS. Multi-drug resistant *Neisseria gonorrhoeae* with decreased susceptibility to cefixime, Hawaii, 2001. *CID* 2003;37:849–52.
- ¹³ Wang SA, Harvey AB, Conner SM, et al. Antimicrobial Resistance for *Neisseria gonorrhoeae* in the United States, 1988 to 2003: The Spread of Fluoroquinolone Resistance. *Annals of Internal Medicine* 2007;147:81–89.
- ¹⁴ Schwarcz S, Zenilman J, Schnell D, et al. National surveillance of antimicrobial resistance in *Neisseria gonorrhoeae*. *JAMA* 1990;264:1413–1417.

Figure 13. Gonorrhea — Rates: United States, 1941–2007 and the Healthy People 2010 target



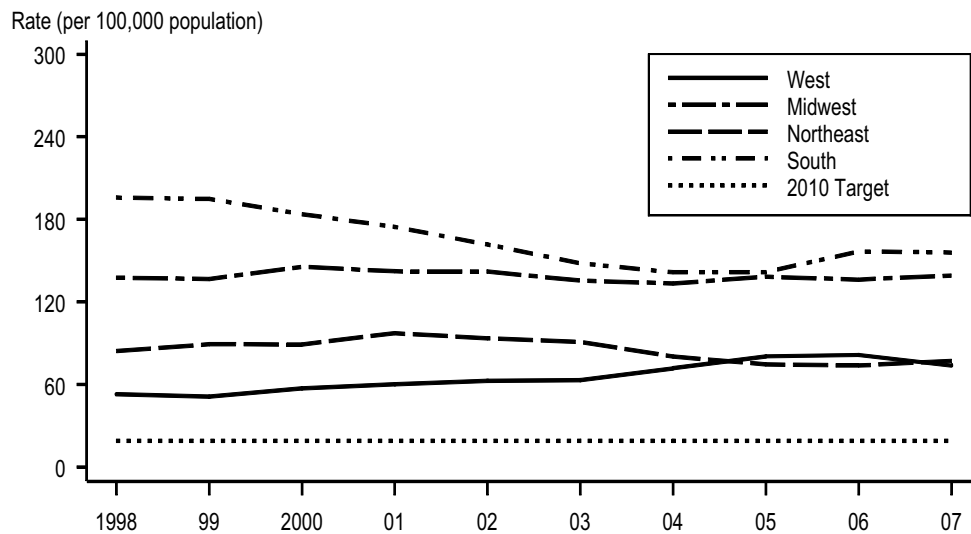
Note: The Healthy People 2010 target for gonorrhea is 19.0 cases per 100,000 population.

Figure 14. Gonorrhea — Rates: Total and by sex: United States, 1988–2007 and the Healthy People 2010 target



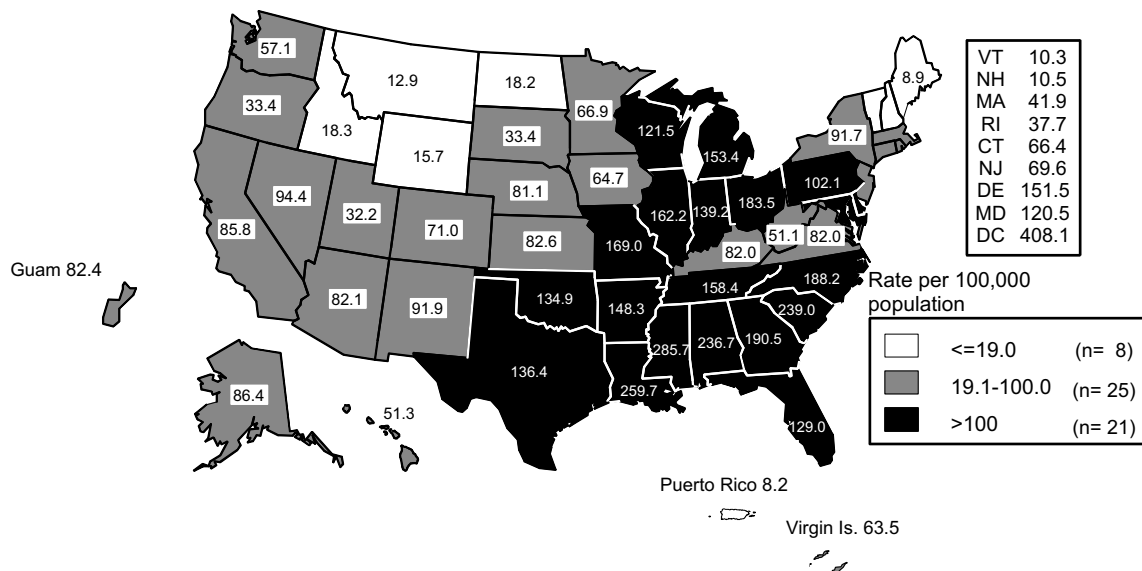
Note: The Healthy People 2010 target for gonorrhea is 19.0 cases per 100,000 population.

Figure 15. Gonorrhea — Rates by region: United States, 1998–2007 and the Healthy People 2010 target



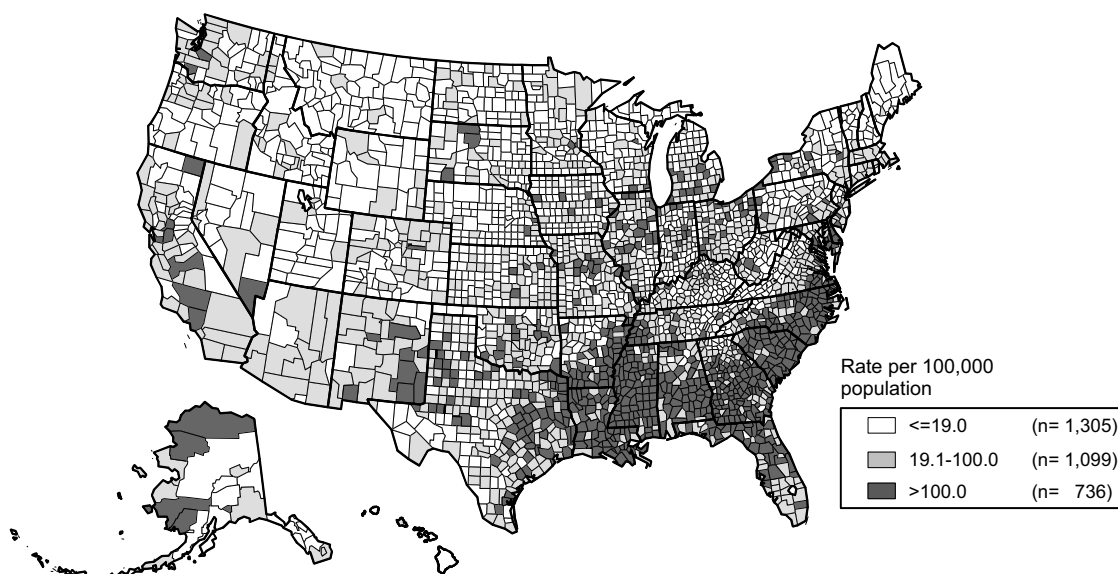
Note: The Healthy People 2010 target for gonorrhea is 19.0 cases per 100,000 population.

Figure 16. Gonorrhea — Rates by state: United States and outlying areas, 2007



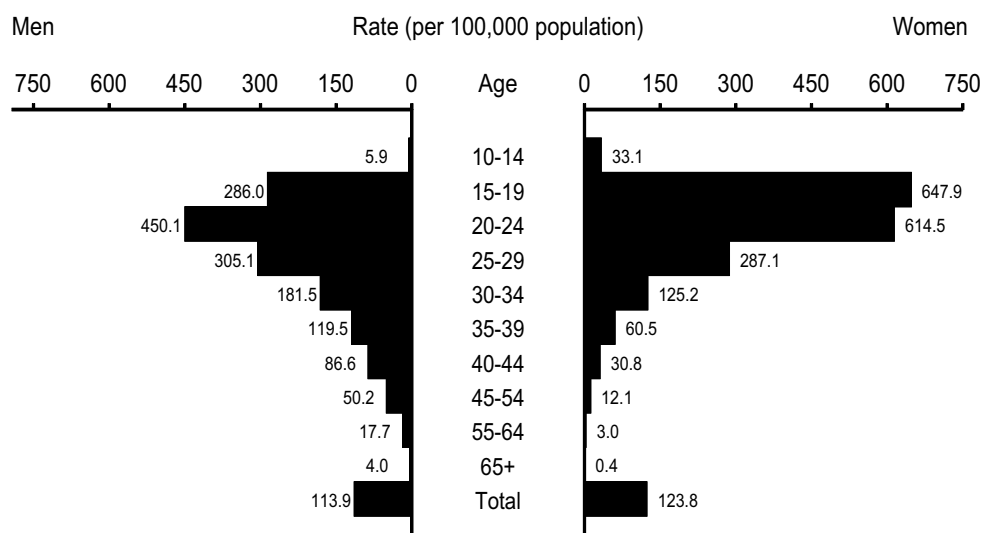
Note: The total rate of gonorrhea for the United States and outlying areas (Guam, Puerto Rico and Virgin Islands) was 117.4 per 100,000 population. The Healthy People 2010 target is 19.0 cases per 100,000 population.

Figure 17. Gonorrhea — Rates by county: United States, 2007

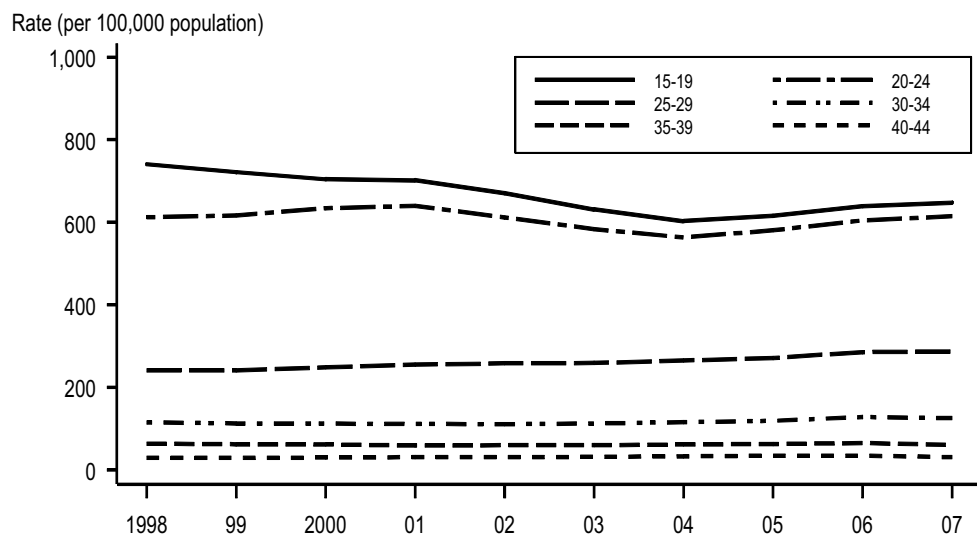


Note: The Healthy People 2010 target for gonorrhea is 19.0 cases per 100,000 population.

Figure 18. Gonorrhea — Age- and sex-specific rates: United States, 2007



**Figure 19. Gonorrhea — Age-specific rates among women 15 to 44 years of age:
United States, 1998–2007**



**Figure 20. Gonorrhea — Age-specific rates among men 15 to 44 years of age:
United States, 1998–2007**

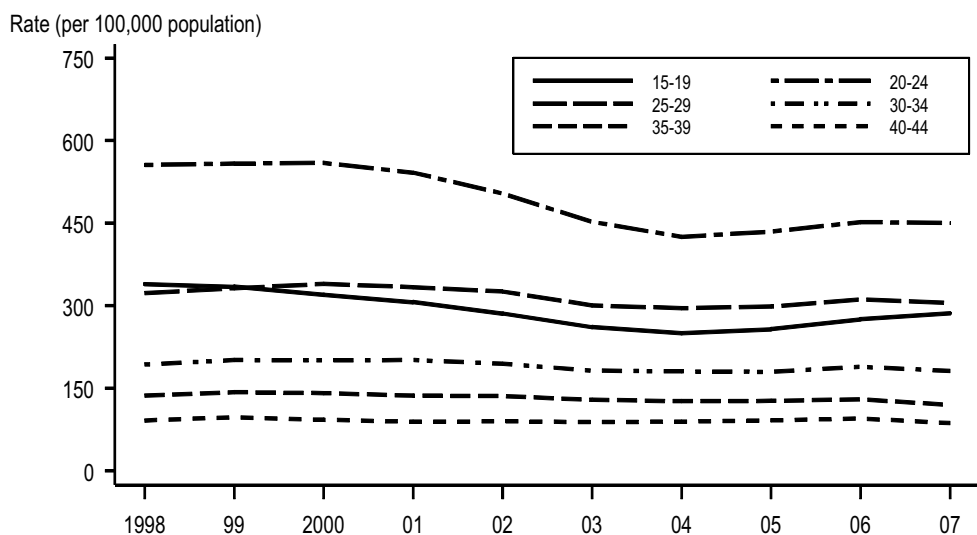


Figure 21. Gonorrhea — Rates by race/ethnicity: United States, 1998–2007

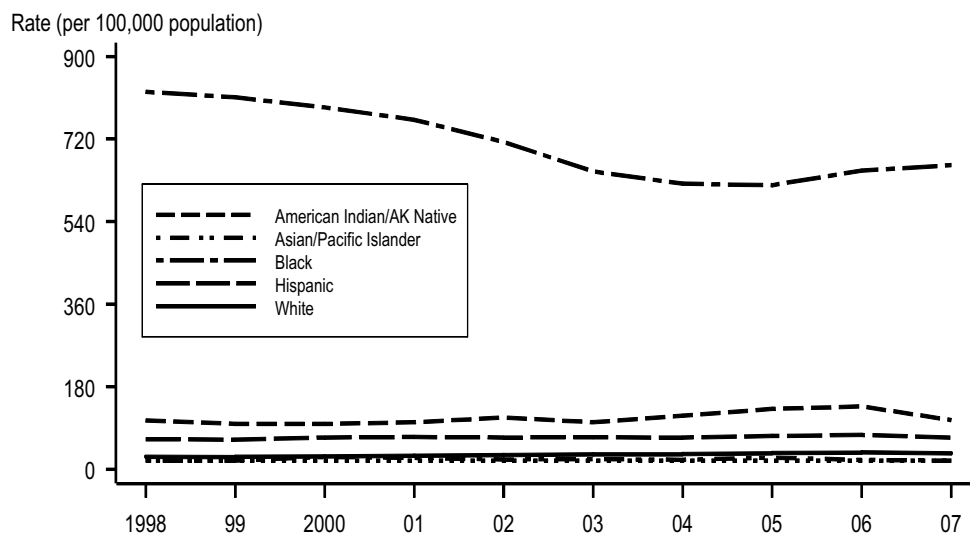


Figure 22. Gonorrhea — Cases by reporting source and sex: United States, 1998–2007

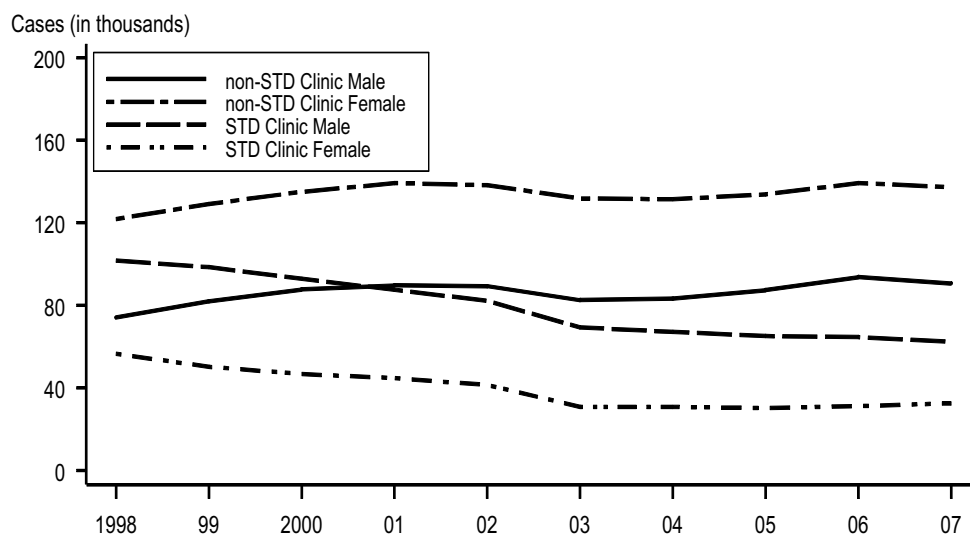
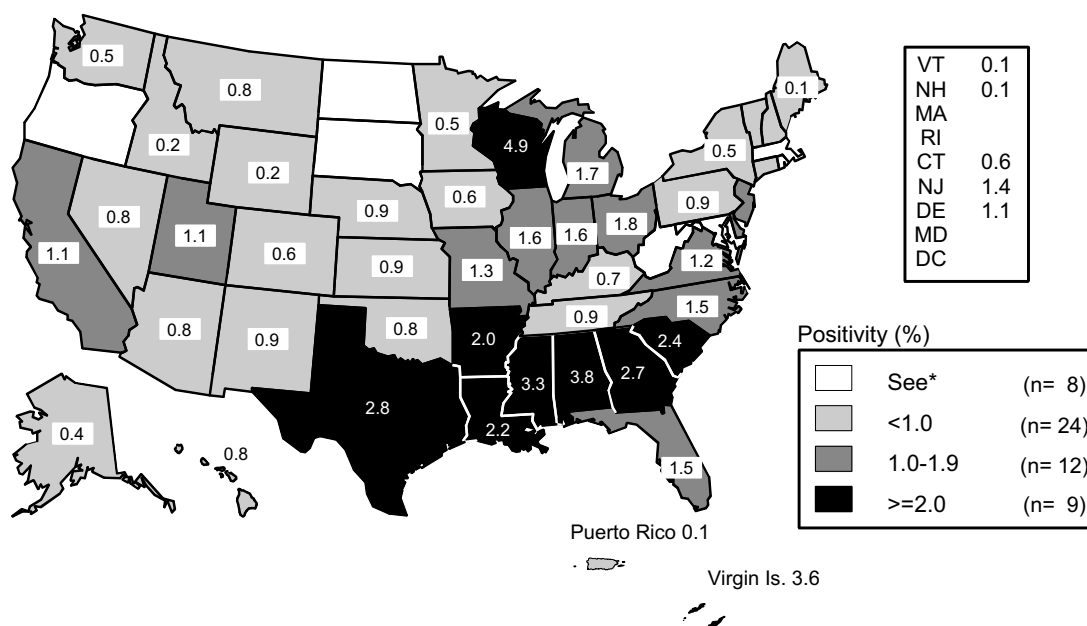


Figure 23. Gonorrhea — Positivity among 15- to 24-year-old women tested in family planning clinics by state: United States and outlying areas, 2007

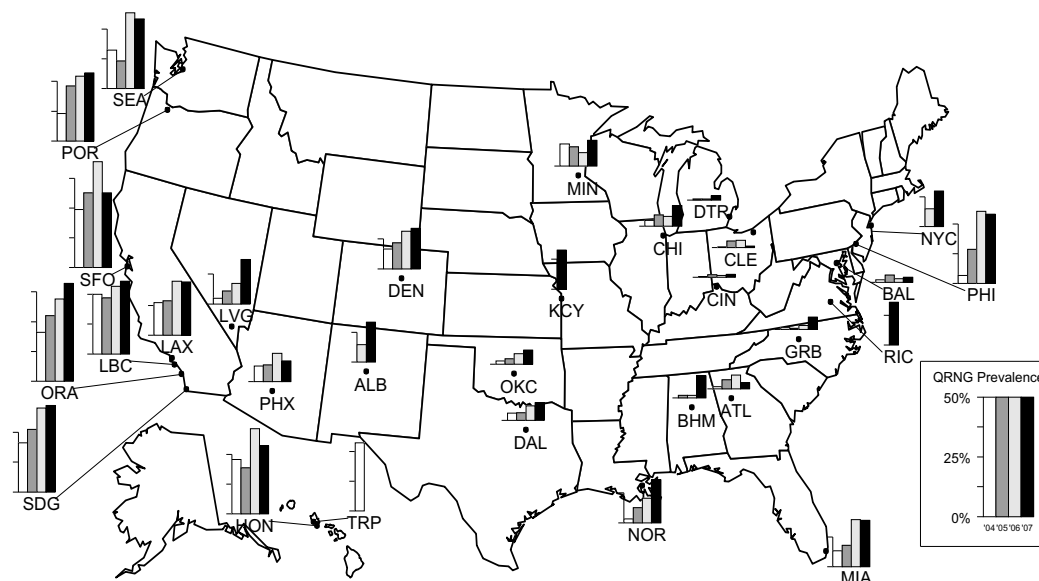


*States/areas not meeting minimum inclusion criteria.

Note: Includes states and outlying areas that reported positivity data on at least 500 women aged 15–24 years screened during 2007.

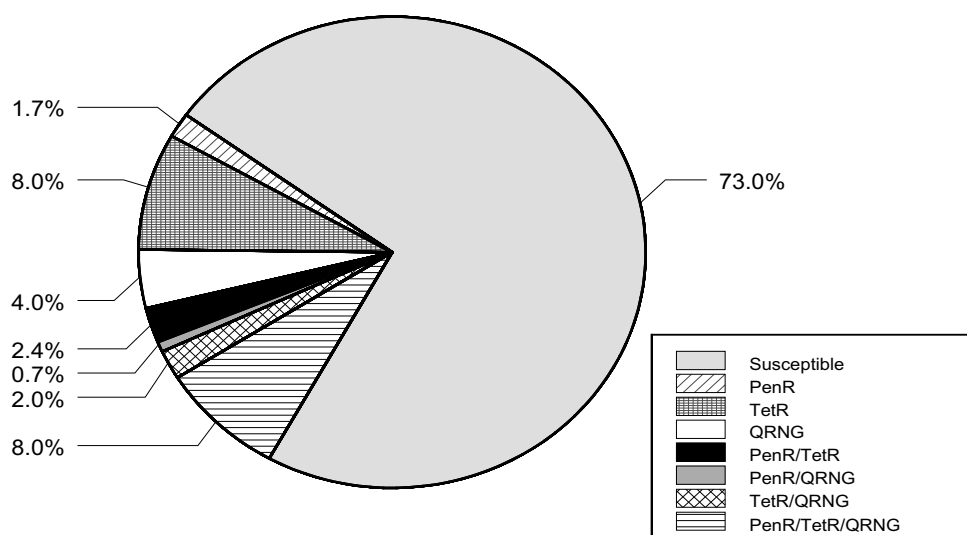
SOURCE: Gonorrhea Prevalence Monitoring Project (Regional Infertility Prevention Projects); Office of Population Affairs; Local and State STD Control Programs; Centers for Disease Control and Prevention

Figure 24. Gonococcal Isolate Surveillance Project (GISP) — Prevalence of ciprofloxacin resistant *Neisseria gonorrhoeae* by GISP site, 2004–2007



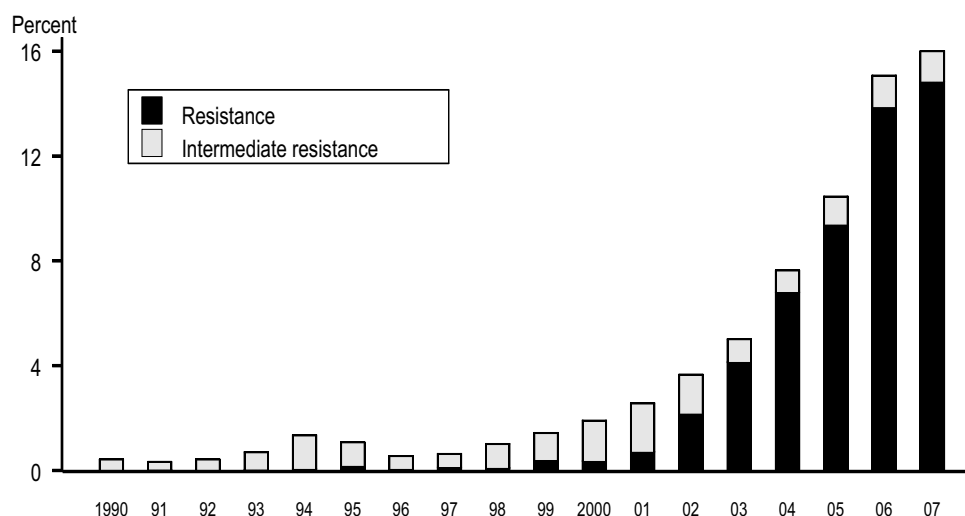
Note: Not all sites participated in GISP for the last 4 years. Sites include: ALB=Albuquerque, NM; ATL=Atlanta, GA; BAL=Baltimore, MD; BHM=Birmingham, AL; CHI=Chicago, IL; CIN=Cincinnati, OH; CLE=Cleveland, OH; DAL=Dallas, TX; DEN=Denver, CO; DTR=Detroit, MI; GRB=Greensboro, NC; HON=Honolulu, HI; KCY=Kansas City, MO; LAX=Los Angeles, CA; LBC=Long Beach, 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

Figure 25. Gonococcal Isolate Surveillance Project (GISP) — Penicillin, tetracycline, and ciprofloxacin resistance among GISP isolates, 2007



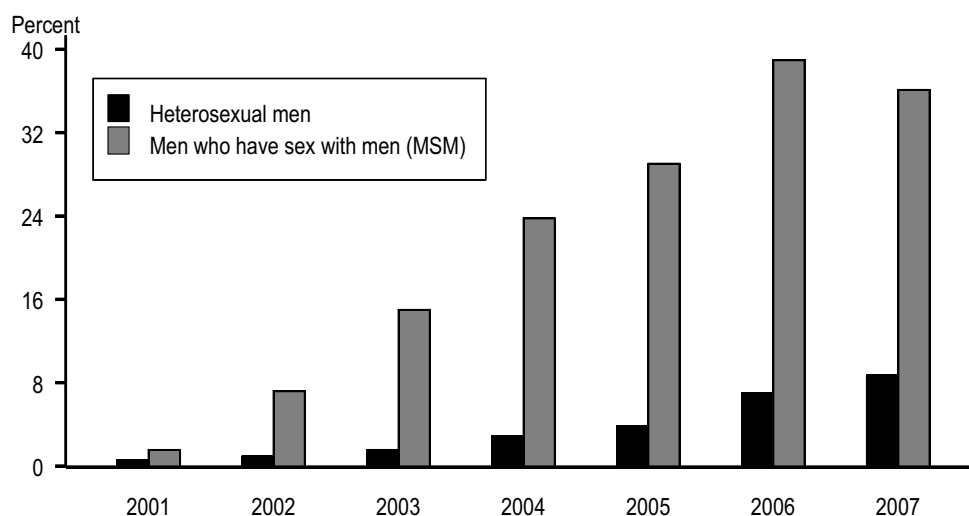
Note: PenR=penicillinase producing *N. gonorrhoeae* and chromosomally mediated penicillin-resistant *N. gonorrhoeae*; TetR=chromosomally and plasmid mediated tetracycline-resistant *N. gonorrhoeae*; QRNG=ciprofloxacin resistant *N. gonorrhoeae*.

Figure 26. Gonococcal Isolate Surveillance Project (GISP) — Percent of *Neisseria gonorrhoeae* isolates with resistance or intermediate resistance to ciprofloxacin, 1990–2007



Note: Resistant isolates have ciprofloxacin MICs ≥ 1 g/ml. Isolates with intermediate resistance have ciprofloxacin MICs of 0.125 – 0.5 μ g/ml. Susceptibility to ciprofloxacin was first measured in GISP in 1990.

Figure 27. Gonococcal Isolate Surveillance Project (GISP) — Percent of *Neisseria gonorrhoeae* isolates with resistance to ciprofloxacin by sexual behavior, 2001–2007



Syphilis

Background

Syphilis, a genital ulcerative disease, causes significant complications if untreated and facilitates the transmission of HIV. Untreated early syphilis in pregnant women results in perinatal death in up to 40% of cases and, if acquired during the four years preceding pregnancy, may lead to infection of the fetus in 80% of cases.¹

The rate of primary and secondary (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 28). The low rate of infectious 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 the CDC's *National Plan to Eliminate Syphilis*, which was announced by Surgeon General David Satcher in October 1999 and revised in May 2006.²

Although the rate of P&S syphilis in the United States declined 89.7% between 1990 and 2000, the rate of P&S syphilis increased annually between 2001 and 2007. Overall increases in rates between 2001 and 2007 were observed primarily among men (from 3.0 cases per 100,000 population to 6.6 cases per 100,000 population). After persistent declines from 1992 to 2003, the rate of P&S syphilis among women increased from 0.8 cases per 100,000 population in 2004 to 0.9 cases per 100,000 population in 2005 to 1.0 case per 100,000 population in 2006, to 1.1 case per 100,000 population in 2007.

Syphilis remains an important problem in the South and in urban areas in other regions of the country. Increases in cases among MSM have occurred and have been characterized by high rates of HIV co-infection and high-risk sexual behavior.³⁻⁷ The estimated proportion of P&S syphilis cases attributable to MSM increased from 4% in 2000 to 62% in 2004.^{8,9} In 2005, CDC requested that all state health departments report sex of sex partners for persons with syphilis. In 2007, 65% of those P&S syphilis cases in 44 states and Washington D.C. with available information were among MSM. Of reported male cases with P&S syphilis, sex of partner information in 2007 was available for 79%.

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

Between 2006 and 2007, the number of cases of early latent syphilis reported to CDC increased 17.2% (from 9,186 to 10,768), while the number of cases of late and late latent syphilis increased 3.5% (from 17,644 to 18,256) (Table 1). The total number of cases of syphilis (all stages: P&S, early latent, late, late latent, and congenital syphilis) reported to CDC increased 10.7% (from 36,959 to 40,920) between 2006 and 2007 (Table 1).

P&S Syphilis — United States

In 2007, P&S syphilis cases reported to CDC increased to 11,466 from 9,756 in 2006, an increase of 17.5%. The rate of P&S syphilis in the United States in 2007 (3.8 cases per 100,000 population) was

15.2% higher than the rate in 2006 (3.3 cases per 100,000 population), and it is greater than the HP 2010 target of 0.2 case per 100,000 population (Figure 29, Table 1).¹⁰

P&S Syphilis by Region

The South accounted for 48.8% of the P&S syphilis cases in 2007 and 47.1% in 2006. Between 2006 and 2007, rates increased 21.4% in the South (from 4.2 to 5.1 cases per 100,000 population), 30.8% in the Northeast (from 2.6 to 3.4), 8.1% in the West (from 3.7 to 4.0) and 5.6% in the Midwest (from 1.8 to 1.9). The 2007 rates in all regions were greater than the HP 2010 target of 0.2 cases per 100,000 population (Figure 30, Table 25).

P&S Syphilis by State

In 2007, P&S syphilis rates in three states were less than or equal to the HP 2010 target of 0.2 case per 100,000 population (Figure 31, Table 24). Four states and one outlying area reported five or fewer cases of P&S syphilis in 2007 (Table 24).

P&S Syphilis by Metropolitan Statistical Area (MSA)

The rate of P&S syphilis in 2007 for the 50 most populous MSAs (5.7) exceeded the HP 2010 target of 0.2 cases per 100,000 population (Table 28).

P&S Syphilis by County

In 2007, 2,275 of 3,140 counties (72.4%) in the United States reported no cases of P&S syphilis compared with 2,360 (75.2%) in 2006. Of 865 counties reporting at least one case of P&S syphilis in 2007, five (0.6%) had rates at or below the HP2010 target of 0.2 cases per 100,000 population. Rates of P&S syphilis were above the HP2010 target for 860 counties in 2007 (Figure 32). These 860 counties (27.4% of the total number of counties in the United

States) accounted for 99.9% of the total P&S syphilis cases reported in 2007. In 2007, half of the total number of P&S syphilis cases were reported from 23 counties and two cities (Table 31).

P&S Syphilis by Sex

The rate of P&S syphilis increased 17.9% among men (from 5.6 cases to 6.6 cases per 100,000 men) between 2006 and 2007 (Figure 29, Table 27). During this time, the rate increased 10.0% among women from 1.0 to 1.1 cases per 100,000 women (Figure 29, Table 26).

P&S Syphilis by Age

In 2007, the rate of P&S syphilis was highest in persons in the 25- to 29-year-old age group (8.9 cases per 100,000 population) (Figure 33 and Table 32).

Between 2006 and 2007, P&S syphilis rates in most age groups among men and women increased (Table 32 and Figures 34 and 35).

P&S Syphilis by Race/Ethnicity

From 2006 to 2007, the rate of P&S syphilis increased in all racial and ethnic groups except Asian/Pacific Islanders (Figure 36). The rate increased 5.3% among non-Hispanic whites (from 1.9 to 2.0), 25% among blacks (from 11.2 to 14.0), 22.9% among Hispanics (from 3.5 to 4.3), and 6.3% among American Indian/Alaska Natives (from 3.2 to 3.4). The rate remained the same at 1.2 cases per 100,000 population among Asian/Pacific Islanders (Table 33B).

P&S Syphilis by Sex and Sex Behavior

The male to female rate ratio for P&S syphilis has risen steadily since 1996 when it was 1.2, suggesting an increase among MSM. In 2007, the rate of P&S syphilis in

males was 6.0 times that in females, an increase from 5.7 in 2006.

In 2005, CDC began collecting information on the sexual orientation of patients with P&S syphilis. In 2007, this information was available for 79% of male cases.

In 2007, the stage of disease was reported as follows: among heterosexual men with P&S syphilis, 43.0% had primary syphilis and 57% had secondary syphilis. Among female patients, 17.9% had primary syphilis and 82.1% had secondary syphilis. Among men who had sex with men with P&S syphilis, 24.3% had primary syphilis and 75.7% had secondary syphilis (Figure 37).

Of females with P&S syphilis, 21.9% were white, 63.5% were black, 9.6% were Hispanic, and 5.0% were of other races/ethnicities. Of heterosexual men, 19.3% were white, 59.8% were black, 16.1% were Hispanic, and 4.8% were of other race/ethnicities. Of men who had sex with men, 40.8% were white, 33.2% were black, 19.3% were Hispanic, and 6.7% were of other races/ethnicities (Figure 38).

P&S Syphilis by Race/Ethnicity and Sex

From 2006 to 2007, the P&S syphilis rate among non-Hispanic white males increased 5.7% (from 3.5 to 3.7), and increased among non-Hispanic white females as well (from 0.3 to 0.4). The rate increased 28.2% among black males (from 18.1 to 23.2) and 14.3% among black females (from 4.9 to 5.6). The rate increased 25.0% among Hispanic males (from 6.0 to 7.5), but remained unchanged among Hispanic females (0.8). The rate remained unchanged for both Asian/Pacific Island males (2.4), and Asian/Pacific Island females (0.1). The rate increased 36.8% among American Indian/Alaska Native females (from 1.9 to 2.6), but decreased 8.5% among American Indian/Alaska Native males (from 4.7 to 4.3) (Table 33B).

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

In 2007, the rate of P&S syphilis among blacks was highest among women aged 20 to 24 years (16.0) and among men aged 20 to 24 years (57.5) and 25 to 29 years (57.4). For non-Hispanic whites, the rate was highest among women aged 20 to 24 years (1.1) and among men aged 40 to 44 years (10.4). For Hispanics, the rate was highest among women aged 20 to 24 years (2.3) and among men aged 40 to 44 years (15.5). For Asian/Pacific Islanders, the rate was highest among women aged 20 to 24 years and 30 to 34 years (both 0.4) and among men aged 25 to 29 years (5.8). For American Indian/Alaska Natives, the rate was highest among women aged 25 to 29 years (7.8) and among men aged 30 to 34 years (18.2) (Table 33B).

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. Between 1998 and 2007, the proportion of P&S syphilis cases reported from sources other than STD clinics increased from 39.2% to 68.7% (Figure 39 and Table A2). Between 2001 and 2007, the number of cases among males reported from non-STD clinic sources increased sharply while the number from STD clinics increased slightly (Figure 39).

During 2007, patients with P&S syphilis primarily sought care with private physicians or STD clinics. Men who have sex with men were more frequently reported from private physicians (36.7%) than STD clinics (27.1%) (Figure 40). More cases among women and heterosexual men were reported from STD clinics than private physicians.

Congenital Syphilis — United States

After 14 years of decline in the United States, the rate of congenital syphilis increased 15.4% between 2006 and 2007 (from 9.1 to 10.5 cases per 100,000 live births) (Table 39). In 2007, 430 cases were reported, an increase from 373 in 2006. This increase in the rate of congenital syphilis may relate to the increase in the rate of P&S syphilis among women that has occurred in recent years (Figure 41).

Congenital Syphilis by State

In 2007, 29 states, the District of Columbia, and two outlying area had rates of congenital syphilis that exceeded the HP 2010 target of one case per 100,000 live births (Tables 38 and 39).

Syphilis Among Special Populations

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

Syphilis Summary

In recent years, MSM have accounted for an increasing number of estimated syphilis cases in the United States⁹ and now account for 65% of syphilis cases in the United States based on information from 44 states and Washington, D.C. Despite the majority of U.S. syphilis cases occurring among MSM, syphilis cases among heterosexuals is an emerging problem given the recent increases among women and infants.

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 CDC. The National Plan to Eliminate Syphilis from the United States. Atlanta, GA: U.S. Department of Health and Human Services; May 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* 1999;48:773–777

⁴ Centers for Disease Control and Prevention. Outbreak of syphilis among men who have sex with men – Southern California, 2000. *MMWR* 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* 2002;51:853–6.

⁶ Chen SY, Gibson S, Katz MH, Klausner JD, Dilley JW, Schwarcz SK, Kellogg TA, McFarland W. 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. *Sexually Transmitted Diseases* 2003;30:872–3.

⁸ Centers for Disease Control and Prevention. Primary and secondary syphilis – United States, 2003–2004. *MMWR* 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;97:1076–1083.

¹⁰ U.S. Department of Health and Human Services. *Healthy People 2010*. 2nd ed. With Understanding and Improving Health and Objectives for Improving Health. 2 vols. Washington, DC: U.S. Government Printing Office, November 2000.

Figure 28. Syphilis — Reported cases by stage of infection: United States, 1941–2007

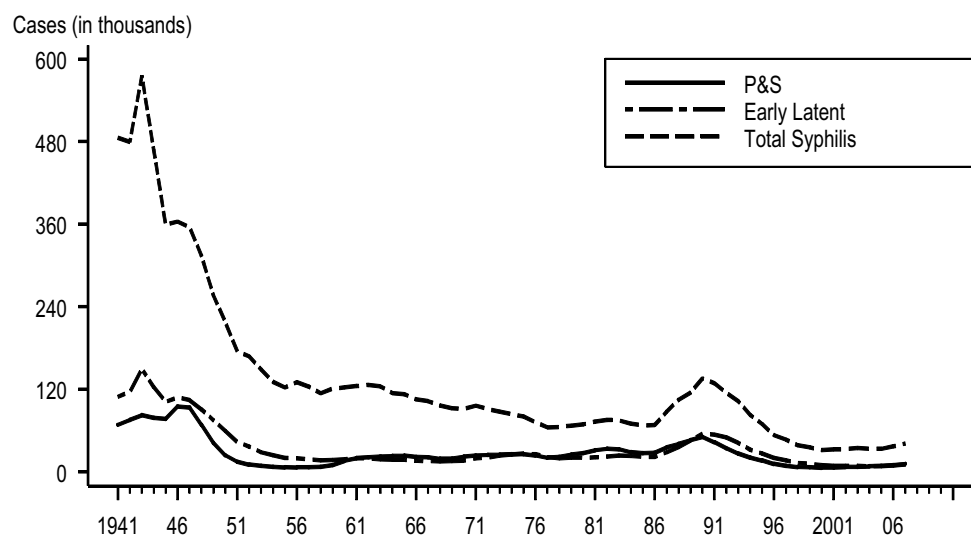
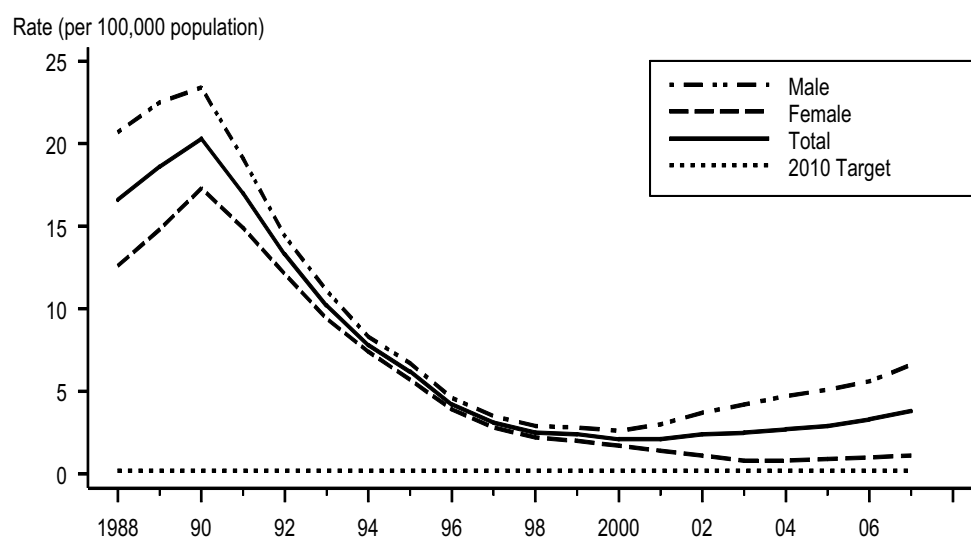
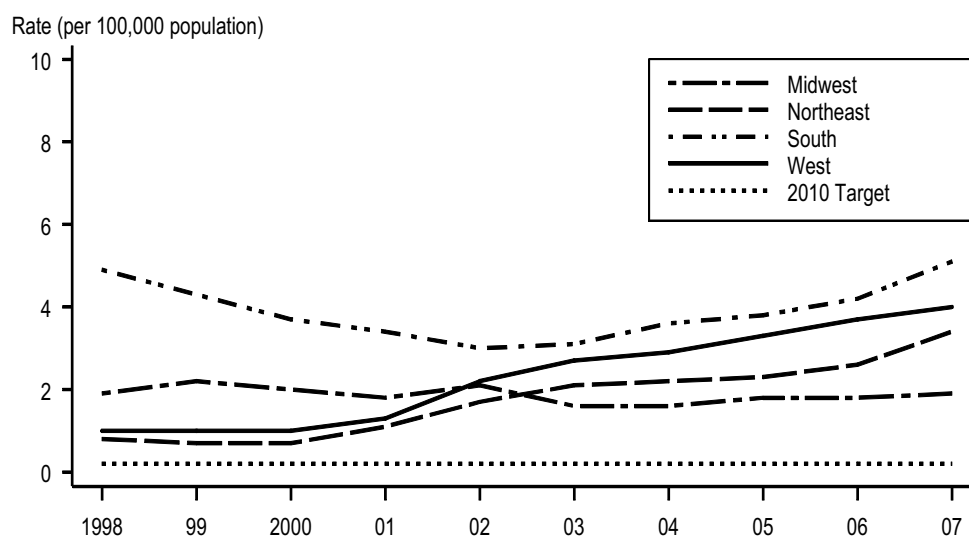


Figure 29. Primary and secondary syphilis — Rates: Total and by sex: United States, 1988–2007 and the Healthy People 2010 target



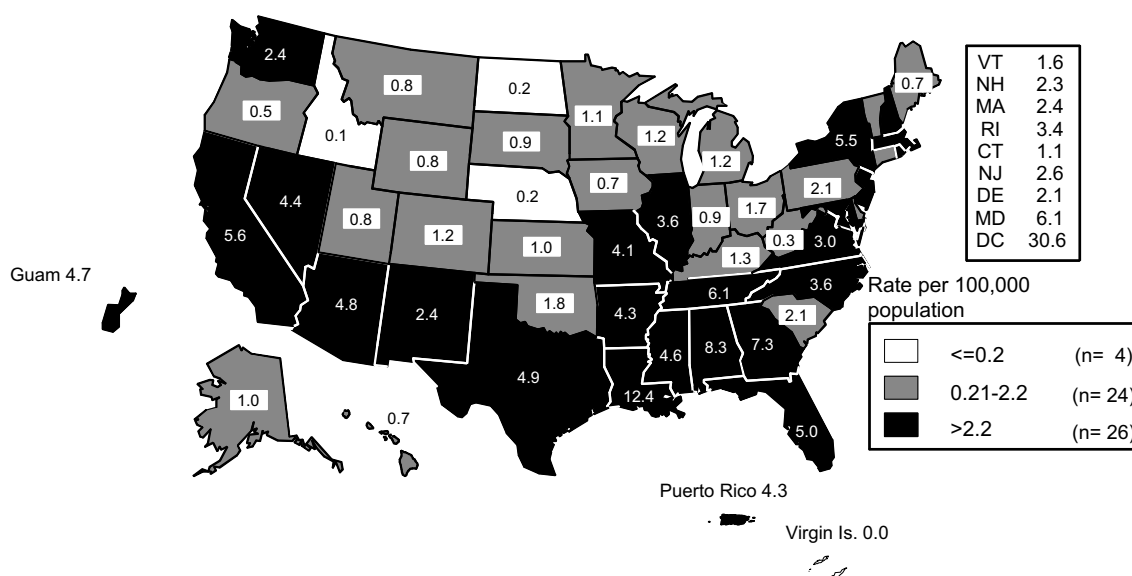
Note: The Healthy People 2010 target for P&S syphilis is 0.2 case per 100,000 population.

Figure 30. Primary and secondary syphilis — Rates by region: United States, 1998–2007 and the Healthy People 2010 target



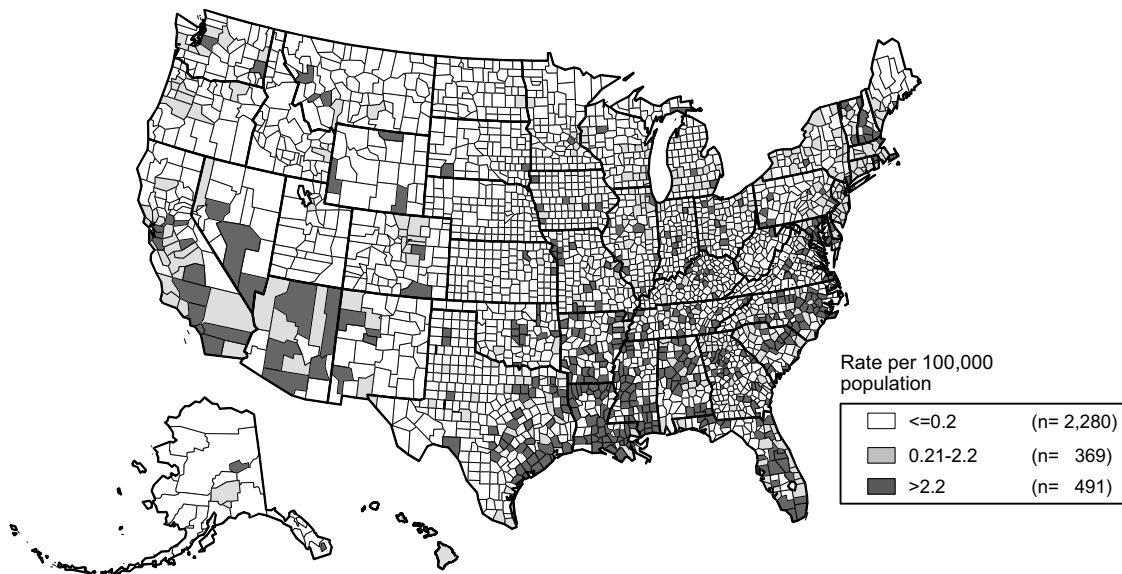
Note: The Healthy People 2010 target for P&S syphilis is 0.2 case per 100,000 population.

Figure 31. Primary and secondary syphilis — Rates by state: United States and outlying areas, 2007



Note: The total rate of P&S syphilis for the United States and outlying areas (Guam, Puerto Rico and Virgin Islands) was 3.8 per 100,000 population. The Healthy People 2010 target is 0.2 case per 100,000 population.

Figure 32. Primary and secondary syphilis — Rates by county: United States, 2007



Note: The Healthy People 2010 target for P&S syphilis is 0.2 case per 100,000 population. In 2007, 2,274 (72.4%) of 3,140 counties in the U.S. reported no cases of P&S syphilis.

Figure 33. Primary and secondary syphilis — Age- and sex-specific rates: United States, 2007

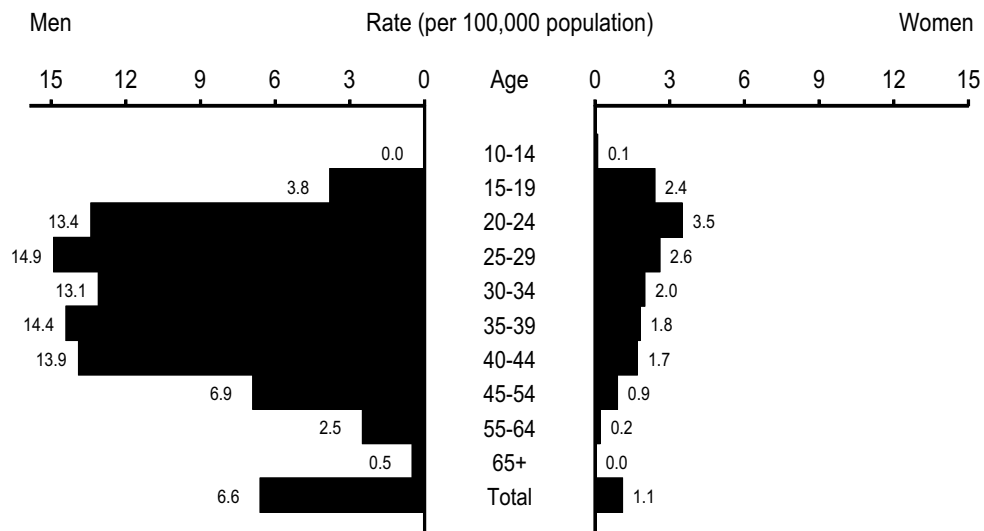


Figure 34. Primary and secondary syphilis — Age-specific rates among women 15 to 44 years of age: United States, 1998–2007

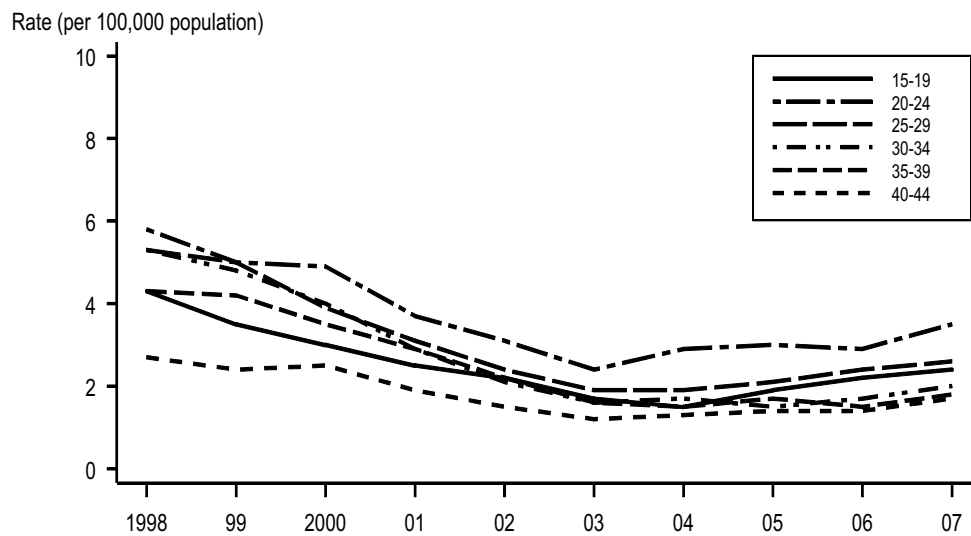


Figure 35. Primary and secondary syphilis — Age-specific rates among men 15 to 44 years of age: United States, 1998–2007

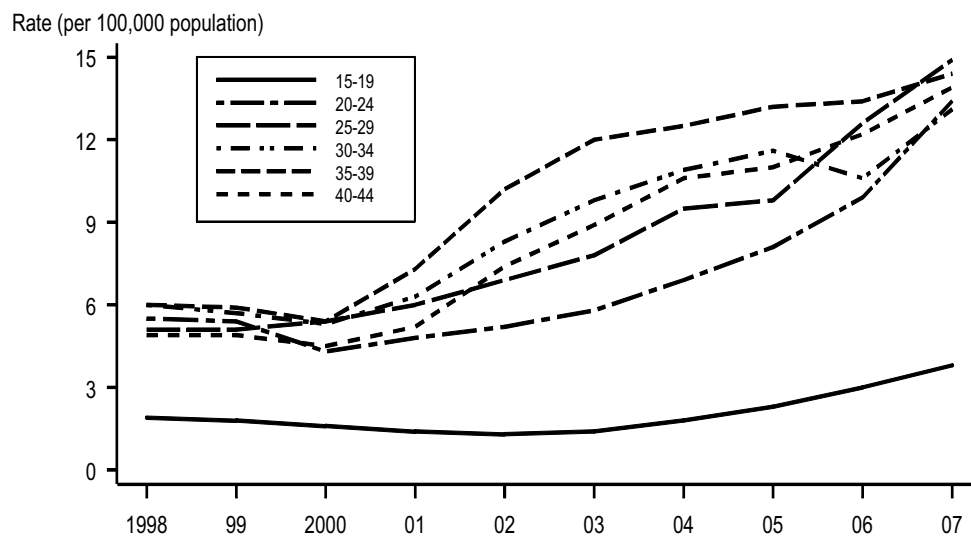


Figure 36. Primary and secondary syphilis — Rates by race/ethnicity: United States, 1998–2007

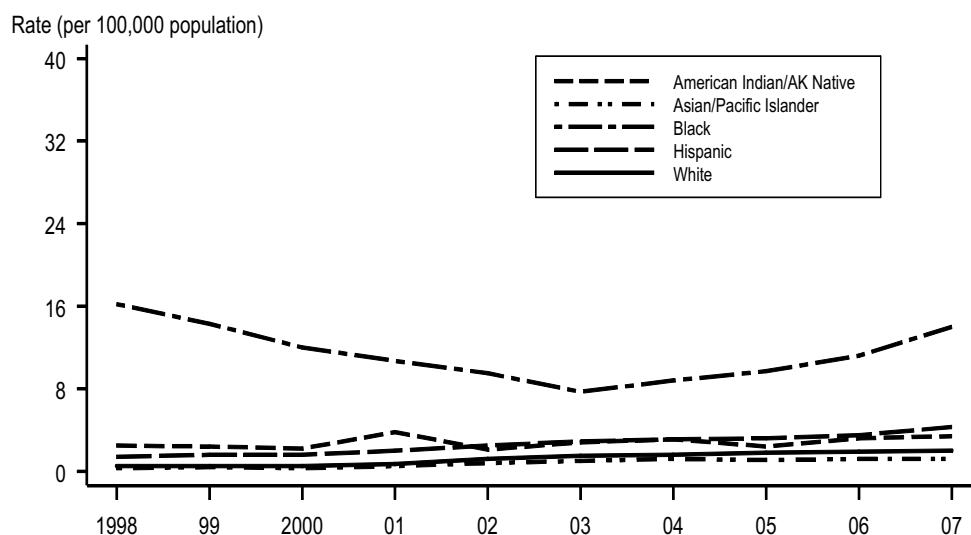
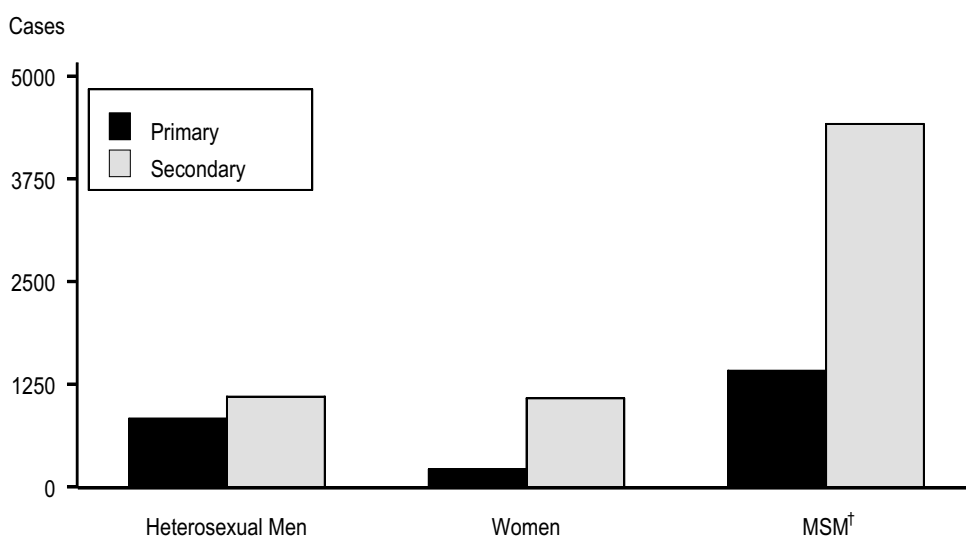


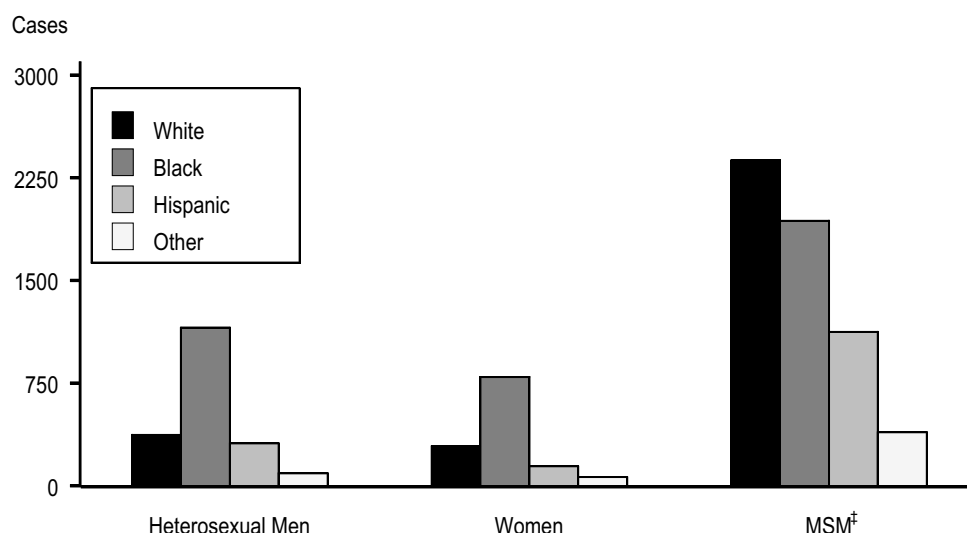
Figure 37. Primary and secondary syphilis — Reported cases* by stage and sexual orientation, 2007



*21% of reported male cases with P&S syphilis were missing sex of sex partner information.

†MSM denotes men who have sex with men.

Figure 38. Primary and secondary syphilis — Reported cases* by sexual orientation and race/ethnicity†, 2007



*21% of reported male cases with P&S syphilis were missing sex of sex partner information; 3% of reported males cases with sex of partner data were missing race/ethnicity data.

†No imputation was done for race/ethnicity.

*MSM denotes men who have sex with men.

Figure 39. Primary and secondary syphilis — Reported cases by reporting source and sex: United States, 1998–2007

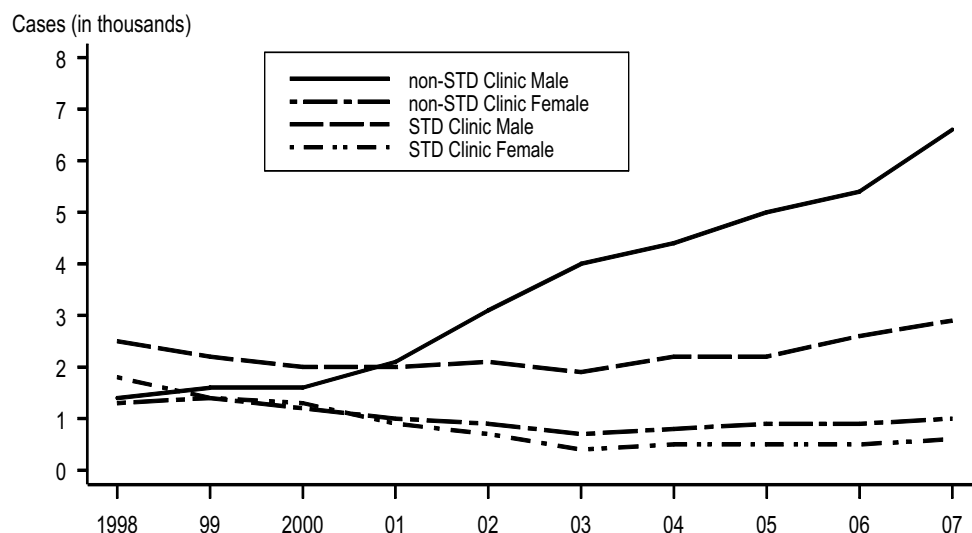
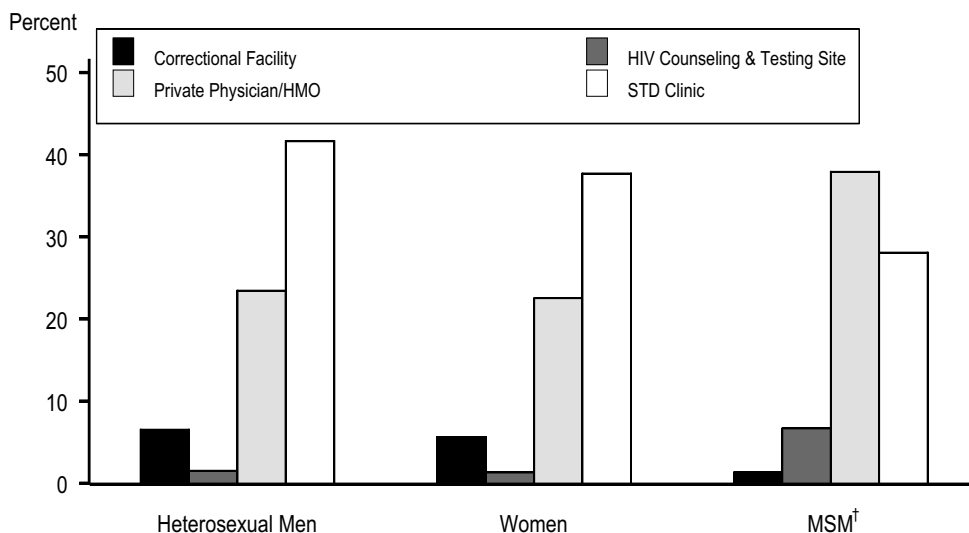


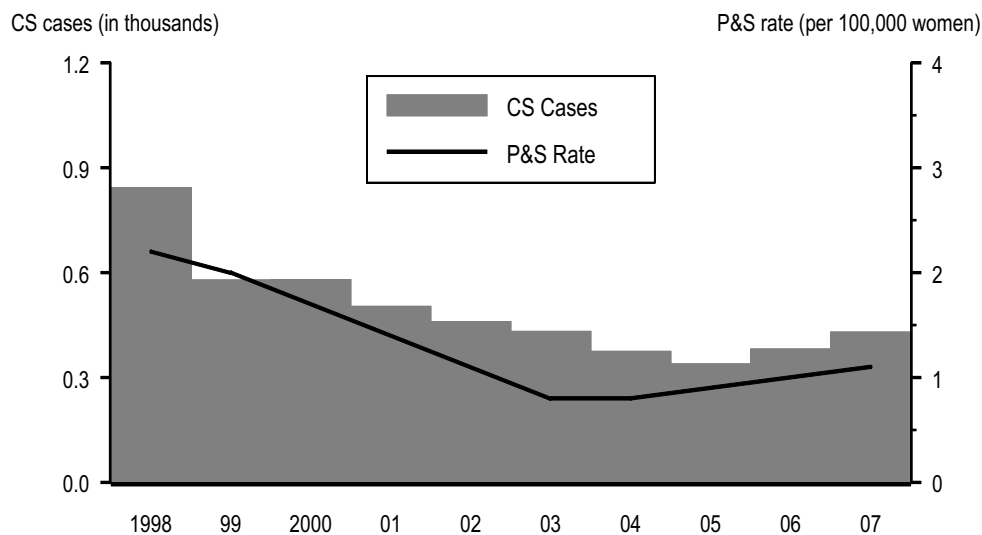
Figure 40. Primary and secondary syphilis — Percentage of reported cases* by sexual orientation and selected reporting sources, 2007



*21% of reported male cases with P&S syphilis were missing sex of sex partner information; 3.3% of reported male cases with sex of partner data were missing source of information data.

†MSM denotes men who have sex with men.

Figure 41. Congenital syphilis (CS) — Reported cases for infants < 1 year of age and rates of primary and secondary syphilis among women: United States, 1998–2007



Other Sexually Transmitted Diseases

Chancroid

Since 1987, reported cases of chancroid declined steadily until 2001. Since then, the number of cases reported has fluctuated (Figure 42, Table 1). In 2007, 23 cases of chancroid were reported in the United States. Only eight states reported one or more cases of chancroid in 2007 (Table 41). 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 since *Haemophilus ducreyi*, the causative organism of chancroid, is difficult to culture and, as a result, this condition may be substantially under-diagnosed.^{1,2}

Human Papillomavirus

Persistent infection with high risk human papillomavirus (HR-HPV) can lead to development of anogenital cancers (i.e., cervical cancer). In June 2006, a quadrivalent HPV vaccine was licensed for use in the United States. The vaccine provides protection against types 6, 11, 16, and 18. Types 6 and 11 are associated with genital warts while types 16 and 18 are oncogenic types associated with anogenital cancers.

Sentinel surveillance for cervical infection with high-risk human papillomavirus 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 six locations (Boston, Baltimore, New Orleans, Denver, Seattle and Los Angeles) as part of an effort to estimate national burden of

disease and inform prevention programs such as vaccine programs in the U.S. Testing was performed using a commercially available test for HR-HPV DNA (Hybrid Capture 2, Qiagen, Gaithersburg, MD). Results from 2003–2005 document an overall HR-HPV prevalence of 23%. Prevalence in STD clinics was 27%, 26% in family planning clinics, and 15% in primary care clinics. Prevalence by age group was: 14 to 19 years 35%; 20 to 29 years 29%; 30 to 39 years 13%; 40 to 49 years 11%; and 50 to 65 years 6%.³

Preliminary results from the sentinel surveillance project from 2003–2004 also report PCR-based HPV type-specific prevalence estimates for types 16 and 18. Overall prevalence of infection with HPV types 16 or 18 was 8%. Prevalence of HPV 16 or 18 by age group was: 16% in 14 to 19 year olds; 10% in 20 to 29 year olds; 3% in 30 to 39 year olds; 2% in 40 to 49 year olds and 1% in 50 to 65 year olds.⁴

National population-based data were also obtained from the National Health and Nutrition Examination Survey (NHANES) identifying prevalence of both HR-HPV and low-risk HPV (LR-HPV, which is associated with development of anogenital warts) in the civilian, non-institutionalized female population of the U.S., 2003–2004 (Figure 43). The overall HPV prevalence including high- and low-risk types, was 26.8% (95% confidence interval (CI): 23.3–30.9) among U.S. females aged 14 to 59 years. HPV vaccine preventable types 6 or 11 (low-risk types) or 16 or 18 (high-risk types) were

detected in 3.4% of female participants; HPV-6 was detected in 1.3% (95% CI: 0.8–2.3), HPV-11 in 0.1% (95% CI: 0.03–0.3), HPV-16 in 1.5% (95% CI: 0.9–2.6), and HPV-18 in 0.8% (95% CI: 0.4–1.5) of female participants.⁵

Data from the National Disease and Therapeutic Index (NDTI) suggest that genital warts (Figure 44) as measured by initial visits to physicians' offices, may be increasing. The NHANES 1999–2004 survey years demonstrated that 5.6% (95% CI: 4.9–6.4) of sexually active 18–59 year olds self-reported a history of a genital wart diagnosis.⁶

Pelvic Inflammatory Disease

For data on Pelvic Inflammatory Disease (PID), see the **Special Focus Profile** on Women and Infants.

Herpes Simplex Virus (HSV)

Case reporting data for genital herpes simplex virus are not available. Trend data are based on estimates of the initial office visits in physicians' office practices for these conditions from the National Disease and Therapeutic Index (NDTI) (Figure 45 and Table 42).

National trend data on the seroprevalence of HSV-2 among those aged 14 to 49 years from the NHANES survey years 1999–2004 were compared with survey years 1988–1994. 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. When including data on blacks and whites from NHANES survey years 1976–1980, blacks had higher seroprevalence than whites for each survey period and age group⁷ (Figure 46). In 1999–2004, the overall percentage of survey participants who reported having been diagnosed with genital herpes was 3.8%.⁷

While HSV-2 seroprevalence is decreasing, most persons with HSV-2 have not been diagnosed. Increasing visits for genital herpes, as suggested by NDTI data, may indicate increased recognition of infection.

Trichomoniasis

Case reporting data are not available for trichomoniasis and trend data for this infection is limited to estimates of initial physician office visits from NDTI (Figure 47 and Table 42). NHANES data from 2001–2004 demonstrated an overall prevalence of 3.1% (95% CI: 2.3–4.3), with highest prevalence observed among blacks 13.3% (95% CI: 10.0–17.7).⁸

¹ Schulte JM, Martich FA, Schmid GP. Chancroid in the United States, 1981–1990: Evidence for underreporting of cases. *MMWR* 1992;41(no. SS-3):57–61.

² Mertz KJ, Trees D, Levine WC, et al. Etiology of genital ulcers and prevalence of human immunodeficiency virus coinfection in 10 US cities. *J Infect Dis* 1998;178:1795–8.

³ Datta SD, Koutsky L, Ratelle S, et al. Human papillomavirus infection and cervical cytology in women screened for cervical cancer in the United States, 2003–2005. *Ann Intern Med* 2008 Apr 1;148(7):493–500.

⁴ Datta SD, Koutsky L, Ratelle S, et al. Type-Specific High-Risk HPV Prevalence from the HPV Sentinel Surveillance Project, US, 2003–2005 [Abstract no. P-099]. In Program and abstracts of the International Human Papillomavirus Meeting, Prague, Czech Republic, September 2006.

⁵ Dunne EF, Unger ER, Sternberg M, McQuillan G, Swan DC, Patel SS, Markowitz LE. Prevalence of HPV infection among females in the United States. *JAMA* 2007 Feb 28;297(8):813–9.

- 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 Apr;35(4):357–60.
- ⁷ Xu F, Sternberg MR, Kottiri BJ, McQuillan G, Lee FK, Nahmias AJ, Berman SM, Markowitz LE. Trends in Herpes Simplex Virus Type 1 and Type 2 seroprevalence in the United States. *JAMA* 2006 Aug 23/30 (8):964–973.
- ⁸ Sutton M, Sternberg M, Koumans EH, McQuillan G, Berman S, Markowitz LE. The prevalence of *Trichomonas vaginalis* infection among reproductive-age women in the United States, 2001–2004. *Clin Infect Dis* 2007 Nov 15;45(10):1319–26.

Figure 42. Chancroid — Reported cases: United States, 1981–2007

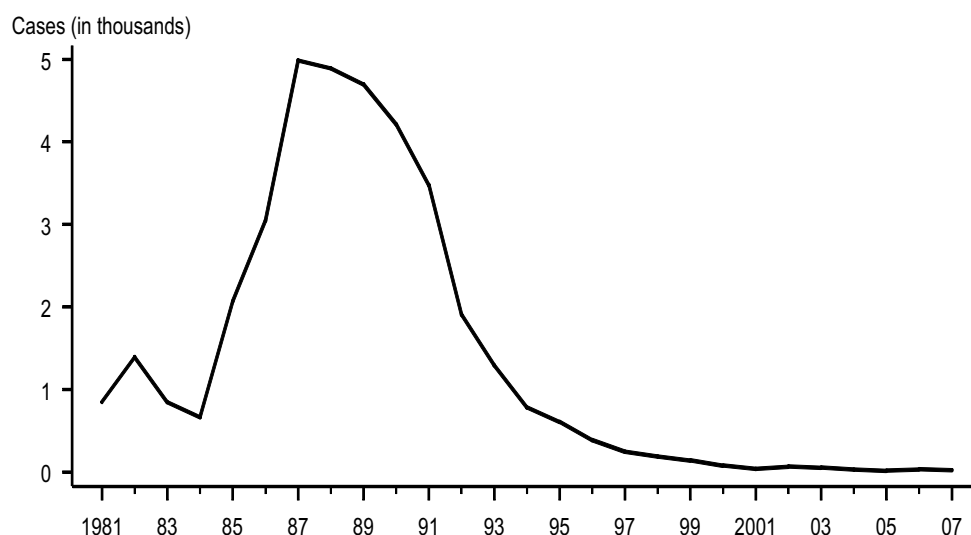
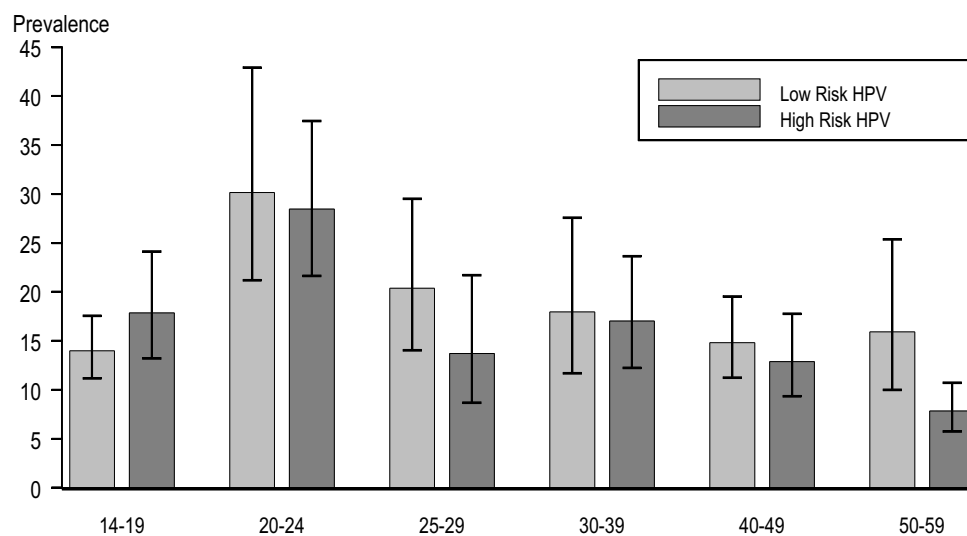


Figure 43. Human papillomavirus (HPV) — Prevalence of high-risk and low-risk types among females 14 to 59 years of age reported from a national survey, 2003–2004

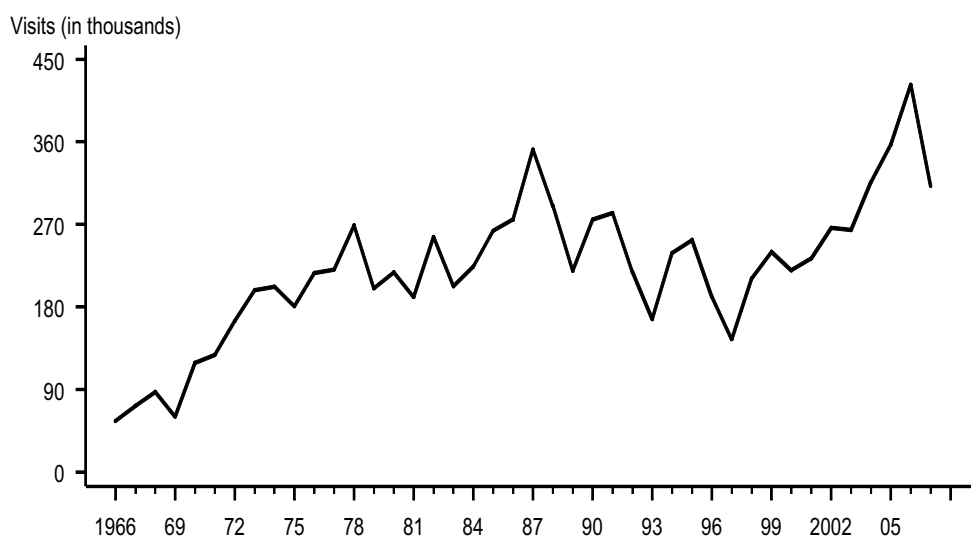


Note: Error bars indicate 95% confidence intervals. Both high-risk and low-risk HPV types were detected in some females.

SOURCE: National Health and Nutrition Examination Survey

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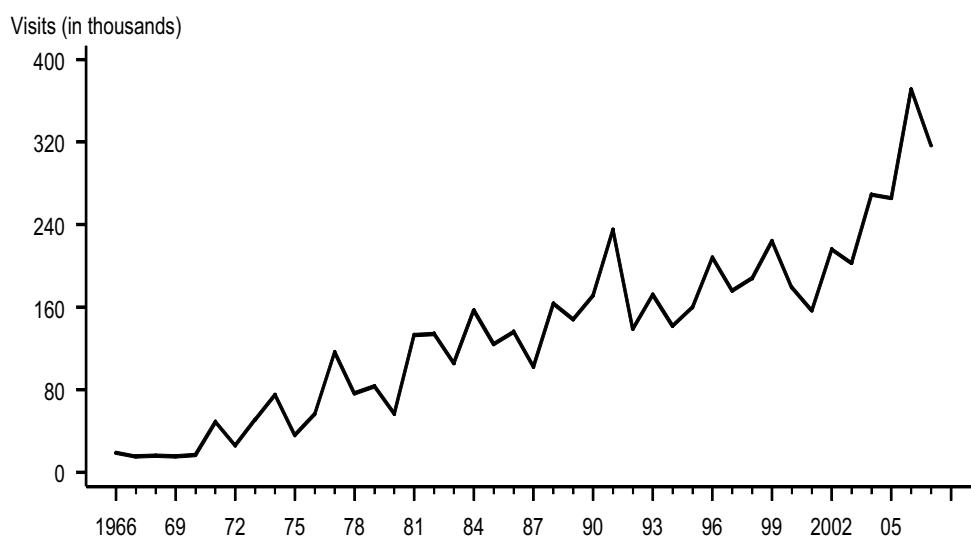
Figure 44. Genital warts — Initial visits to physicians' offices: United States, 1966–2007



Note: See Appendix (Other Data Sources) and Table 42. The relative standard error for genital warts estimates range from 17% to 29.3%.

SOURCE: National Disease and Therapeutic Index (IMS Health)

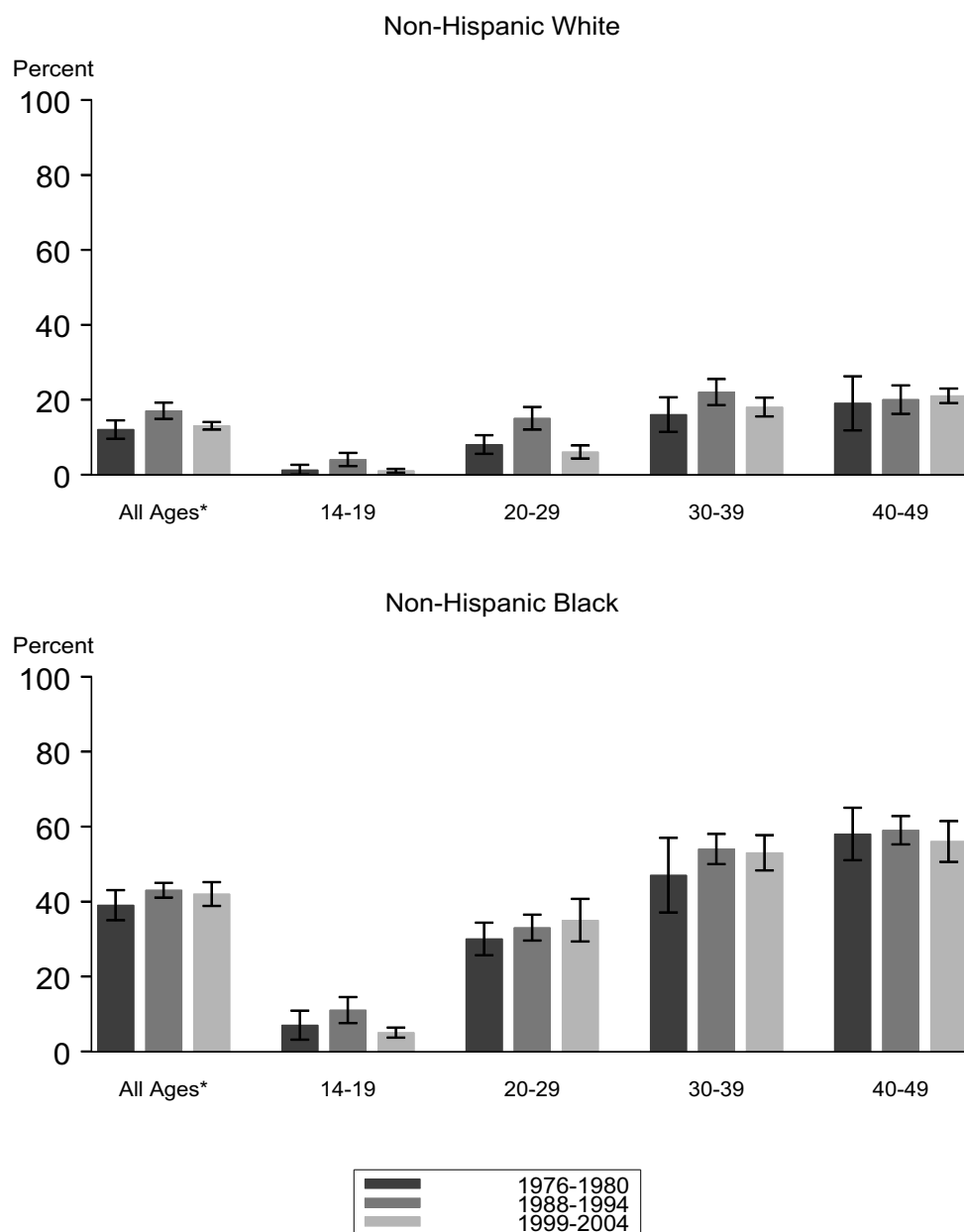
Figure 45. Genital herpes — Initial visits to physicians' offices: United States, 1966–2007



Note: See Appendix (Other Data Sources) and Table 42. The relative standard error for genital herpes estimates range from 17% to 29.3%.

SOURCE: National Disease and Therapeutic Index (IMS Health)

Figure 46. Genital herpes — Herpes simplex virus, type 2, seroprevalence in non-Hispanic whites and non-Hispanic blacks by age group reported from national surveys, 1976–1980, 1988–1994, 1999–2004

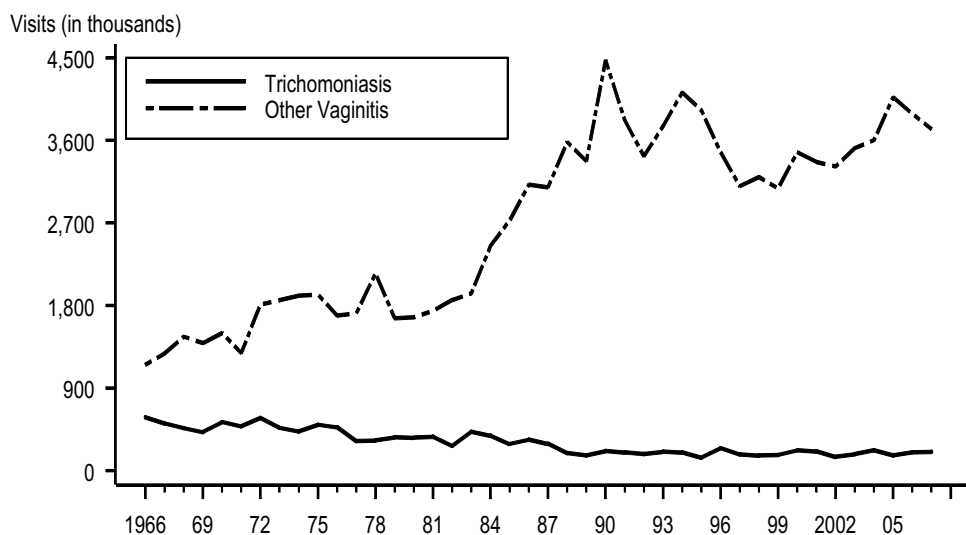


Note: Error bars indicate 95% confidence intervals.

SOURCE: National Health and Nutrition Examination Survey

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Figure 47. Trichomoniasis and other vaginal infections in women — Initial visits to physicians' offices: United States, 1966–2007



Note: See Appendix (Other Data Sources) and Table 42. The relative standard error for trichomoniasis estimates range from 16% to 29.3% and for other vaginitis estimates range from 8% to 13%.

SOURCE: National Disease and Therapeutic Index (IMS Health)

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: women and infants, adolescents and young adults, racial and ethnic minorities, MSM, and persons entering corrections facilities. The **Special Focus Profiles** refer to figures located in disease-specific sections in the **National Profile** and additional figures and tables (Figures A-EE and Tables A-F) that highlight specific points made in the text.

STDs in Women and Infants

Public Health Impact

Women and infants disproportionately bear the long term consequences of STDs.

Women infected with *Neisseria gonorrhoeae* or *Chlamydia trachomatis* can develop PID, which, in turn, may lead to reproductive system morbidity such as ectopic pregnancy and tubal factor infertility. If not adequately treated, up to 40% of women infected with chlamydia or gonorrhea may develop PID.^{1,2} Among women with PID, tubal scarring can cause involuntary infertility in 20%, ectopic pregnancy in 9%, and chronic pelvic pain in 18%.³ Approximately 70% of chlamydial infections and 50% of gonococcal infections in women are asymptomatic.^{4,6} These infections are detected primarily through screening programs. The vague symptoms associated with chlamydial and gonococcal PID cause 85% of women to delay seeking medical care, thereby increasing the risk of infertility and ectopic pregnancy.⁷ 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%.⁸

Human papillomavirus (HPV) infections are highly prevalent, especially among young sexually-active women. While the great majority of HPV infections in women resolve within one year, they are a major concern because persistent infection with specific types are causally related to cervical cancer; these types also cause Pap smear abnormalities. Other types cause genital warts, low grade Pap smear abnormalities and, rarely, recurrent respiratory

papillomatosis in infants born to infected mothers.⁹

Direct Impact on Pregnancy

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

Genital infections with herpes simplex virus are extremely common, may cause painful outbreaks, and may have serious consequences for pregnant women.¹⁰

When a woman has a syphilis infection during pregnancy, she may transmit the infection to the fetus *in utero*. This may 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.¹¹

Observations

Chlamydia — United States

Between 2006 and 2007, the rate of chlamydial infections in women increased from 510.8 to 543.6 per 100,000 females (Figure 1, Table 4). Chlamydia rates exceed gonorrhea rates among women in all states (Figures A and C, Tables 4 and 14).

Chlamydia Prevalence Monitoring Project

Prenatal Clinics — In 2007, the median state-specific chlamydia test positivity among 15- to 24-year-old women screened in selected prenatal clinics in 22 states, Puerto Rico, and the Virgin Islands was 7.4% (range: 2.0% to 20.7%) (Figure B).

Family Planning Clinics — In 2007, the median state-specific chlamydia test positivity among 15- to 24-year-old women who were screened during visits to selected family planning clinics in all 50 states, Puerto Rico, and the Virgin Islands was 6.9% (range: 2.9% to 16.8%) (Figures 9 and 10).

Gonorrhea — United States

Gonorrhea rates among women were higher than the overall HP 2010 target of 19.0 cases per 100,000 population¹² in 45 states, Washington D.C., Guam, and the Virgin Islands in 2007 (Figure C, Table 14).

Like chlamydia, gonorrhea is often asymptomatic in women. Gonorrhea screening, therefore, 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 13). The gonorrhea rate for women (123.5 per 100,000 females) increased slightly in 2007 for the third consecutive year (Figure 14).

Although the gonorrhea rate in men has historically been higher than the rate in women, the gonorrhea rate among women has been comparable to the rate among men for seven consecutive years (Figure 14 and Tables 14 and 15).

Gonorrhea Prevalence Monitoring Project

Prenatal Clinics — In 2007, the median state-specific gonorrhea test positivity among 15- to 24-year-old women screened in selected prenatal clinics in 19 states, Puerto Rico, and the Virgin Islands was 0.8% (range: 0.0% to 3.9%) (Figure D). Median gonorrhea positivity in prenatal clinics has shown minimal change in recent years.

Family Planning Clinics — In 2007, the median state-specific gonorrhea test positivity among 15- to 24-year-old women screened in selected family planning clinics in 43 states, Puerto Rico, and the Virgin Islands was 0.9% (range: 0.1% to 4.9%) (Figure 23). Median gonorrhea positivity in family planning clinics has shown minimal change in recent years.

Primary and Secondary Syphilis by State

The HP 2010 target for primary and secondary (P&S) syphilis is 0.2 case per 100,000 population. In 2007, 32 states and the District of Columbia had rates of P&S syphilis for women that were greater than 0.2 case per 100,000 population (Table 26).

Congenital Syphilis

The HP 2010 target for congenital syphilis is 1.0 case per 100,000 live births. In 2007, 29 states, the District of Columbia, Guam, and Puerto Rico had rates higher than this target (Table 38).

Trends in congenital syphilis usually follow trends in P&S syphilis among women, with a lag of one to two years (Figure 41). The congenital syphilis rate peaked in 1991 at 107.3 cases per 100,000 live births, and declined by 92.4% to 8.2 cases per 100,000 live births in 2005 (Table 39). The rate of P&S syphilis among women

declined 94.8% (from 17.3 to 0.9 cases per 100,000 females) during 1990–2005 (Figure 29).

After 14 years of decline in the United States, the rate of congenital syphilis increased 11.0% between 2005 and 2006 (from 8.2 to 9.1 cases per 100,000 live births) (Table 39). Rates increased again between 2006 and 2007 by 15.4% (from 9.1 to 10.5 cases per 100,000 live births) (Table 39).

The 2007 rate of congenital syphilis for the United States is currently 10.5 times higher than the HP 2010 target of 1.0 case per 100,000 live births (Table 38).

While 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.¹³

Pelvic Inflammatory Disease

Accurate estimates of pelvic inflammatory disease (PID) and tubal factor infertility resulting from gonococcal and chlamydial infections are difficult to obtain. Definitive diagnoses of these conditions can be complex. Hospitalizations for PID have declined steadily throughout the 1980s and early 1990s,^{14,15} but have remained relatively constant between 2000 and 2006 (Figure H).

The estimated number of initial visits to physicians' offices for PID from the National

Disease and Therapeutic Index (NDTI) has generally declined from 2000 through 2007 (Figure I and Table 42).

Since 2000, the number of cases of PID diagnosed in emergency departments among women 15 to 44 years of age has generally declined though cases increased from 2005–2006.

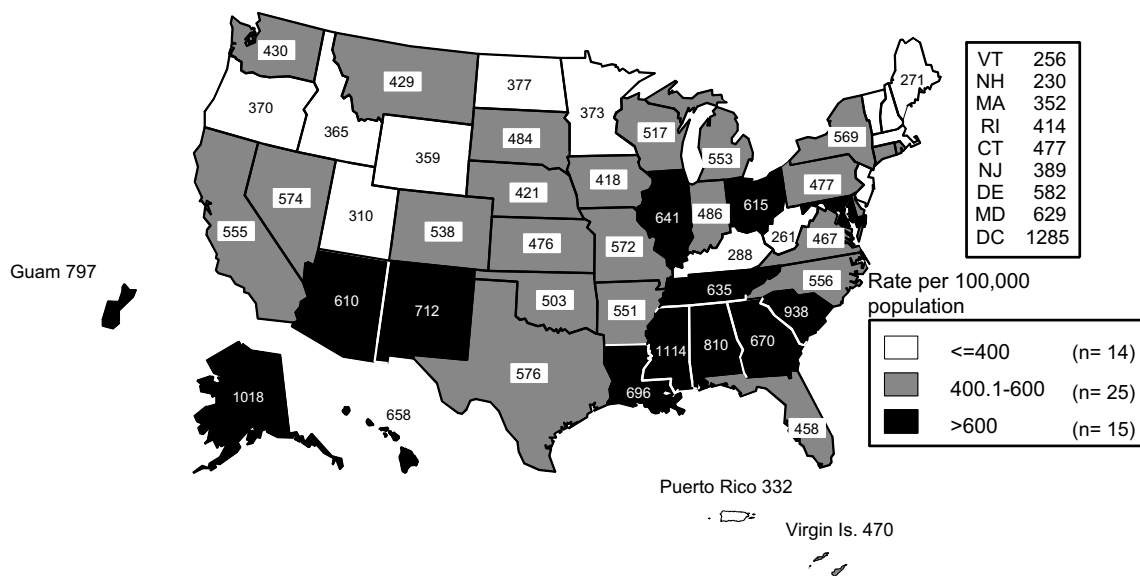
Racial disparities in diagnosed PID have been observed in both ambulatory and hospitalized settings. Black women had rates of disease that were two to three times those in white women. These disparities are consistent with the marked racial disparities observed for chlamydia and gonorrhea; however, because of the subjective methods by which PID is diagnosed, racial disparity data should be interpreted with caution.¹⁵

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. From 1997 to 2006, hospitalizations for ectopic pregnancy have remained generally stable (Figure G). As of the date of publication of this report, 2007 data are not available. Data suggest that nearly half of all ectopic pregnancies are treated on an outpatient basis.¹⁶

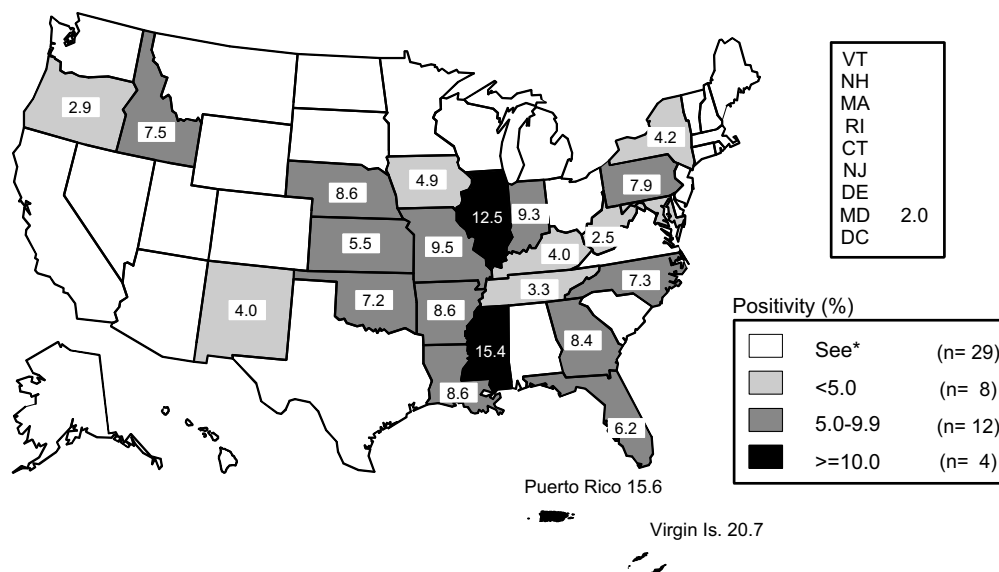
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Figure A. Chlamydia — Rates among women by state: United States and outlying areas, 2007



Note: The total chlamydial infection rate among women in the United States and outlying areas (Guam, Puerto Rico and Virgin Islands) was 540.9 per 100,000 female population.

Figure B. Chlamydia — Positivity in 15- to 24-year-old women tested in prenatal clinics by state: United States and outlying areas, 2007

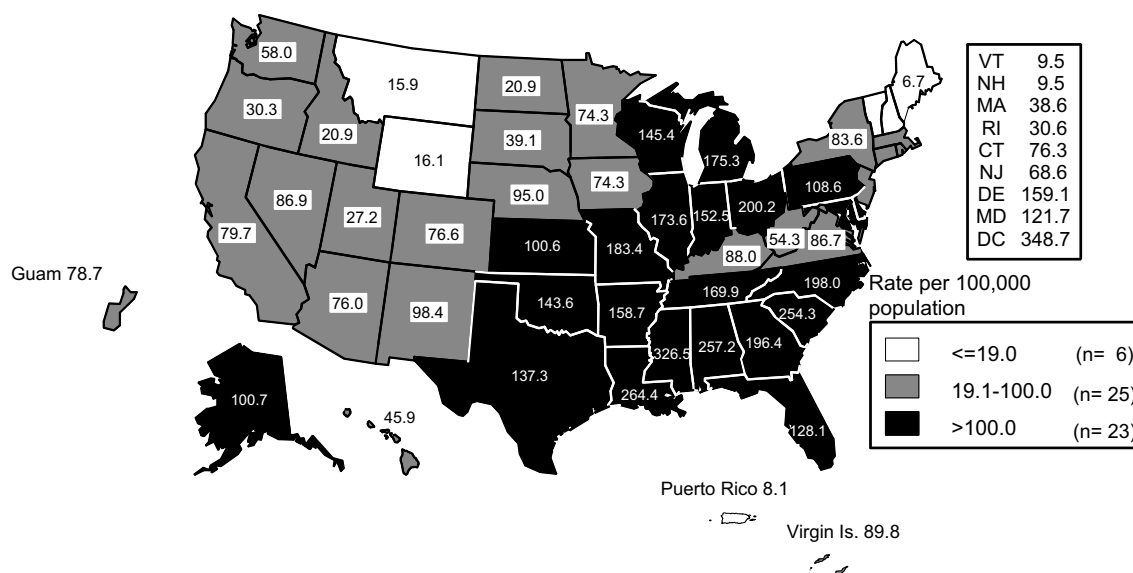


*States/areas not meeting minimum inclusion criteria in prenatal clinics.

Note: Includes states and outlying areas that reported chlamydia positivity data on at least 100 women aged 15 to 24 years during 2007.

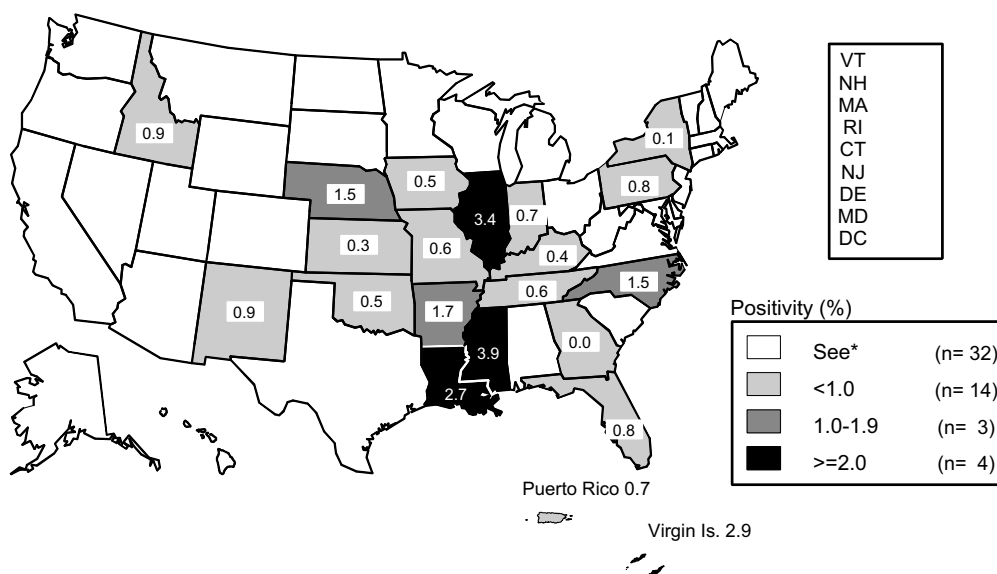
SOURCE: Chlamydia Prevalence Monitoring Project (Regional Infertility Prevention Projects); Office of Population Affairs; Local and State STD Control Programs; Centers for Disease Control and Prevention

Figure C. Gonorrhea — Rates among women by state: United States and outlying areas, 2007



Note: The total gonorrhea infection rate among women in the United States and outlying areas (Guam, Puerto Rico and Virgin Islands) was 121.9 per 100,000 female population.

Figure D. Gonorrhea — Positivity in 15- to 24-year-old women tested in prenatal clinics by state: United States and outlying areas, 2007

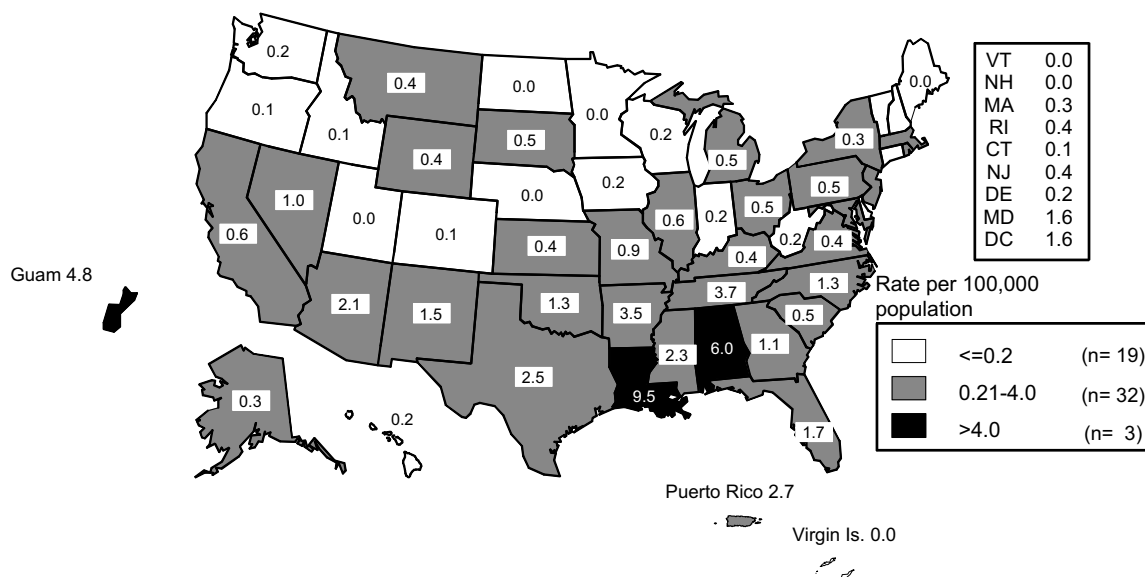


*States/areas not meeting minimum inclusion criteria in prenatal clinics.

Note: Includes states and outlying areas that reported gonorrhea positivity data on at least 100 women aged 15 to 24 years during 2007.

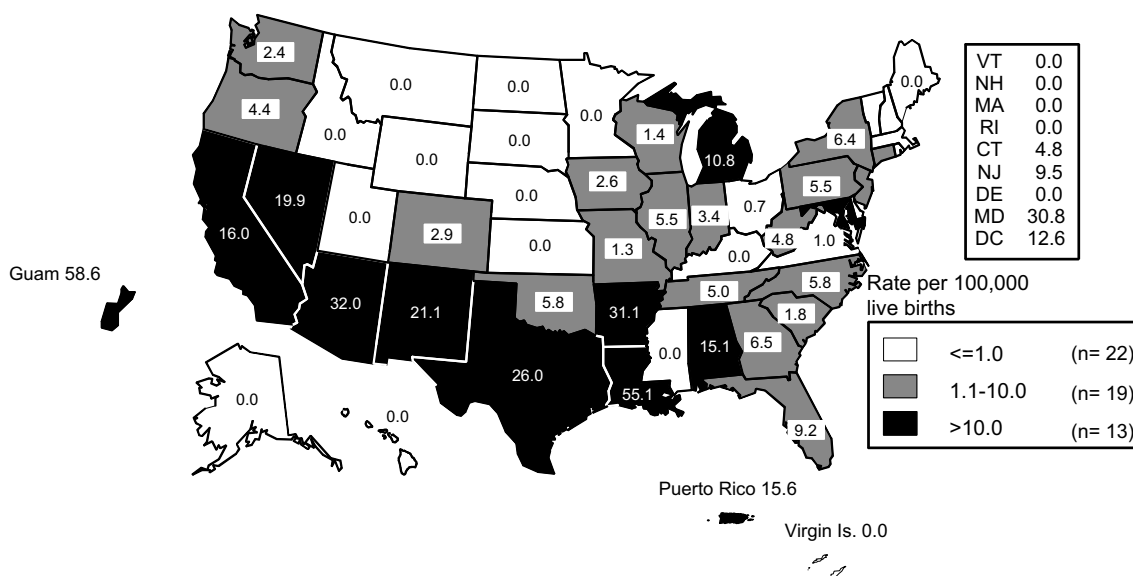
SOURCE: Gonorrhea Prevalence Monitoring Project (Regional Infertility Prevention Projects); Office of Population Affairs; Local and State STD Control Programs; Centers for Disease Control and Prevention

Figure E. Primary and secondary syphilis — Rates among women by state: United States and outlying areas, 2007



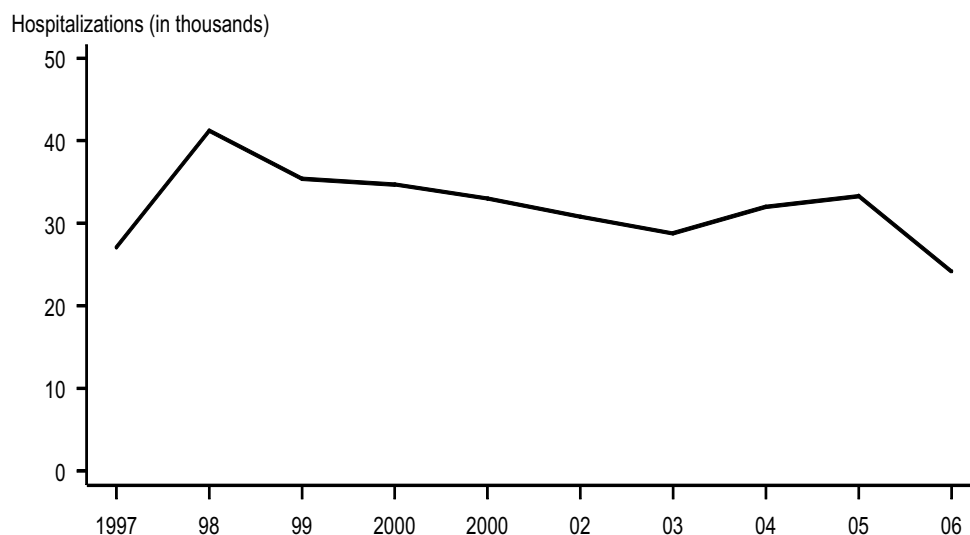
Note: The total rate of P&S syphilis among women in the United States and outlying areas (Guam, Puerto Rico, and Virgin Islands) was 1.1 per 100,000 female population.

Figure F. Congenital syphilis — Rates for infants < 1 year of age by state: United States and outlying areas, 2007



Note: The total rate of congenital syphilis for infants < 1 year of age for the United States and outlying areas (Guam, Puerto Rico, and Virgin Islands) was 10.5 per 100,000 live births. The Healthy People 2010 target is 1.0 case per 100,000 live births.

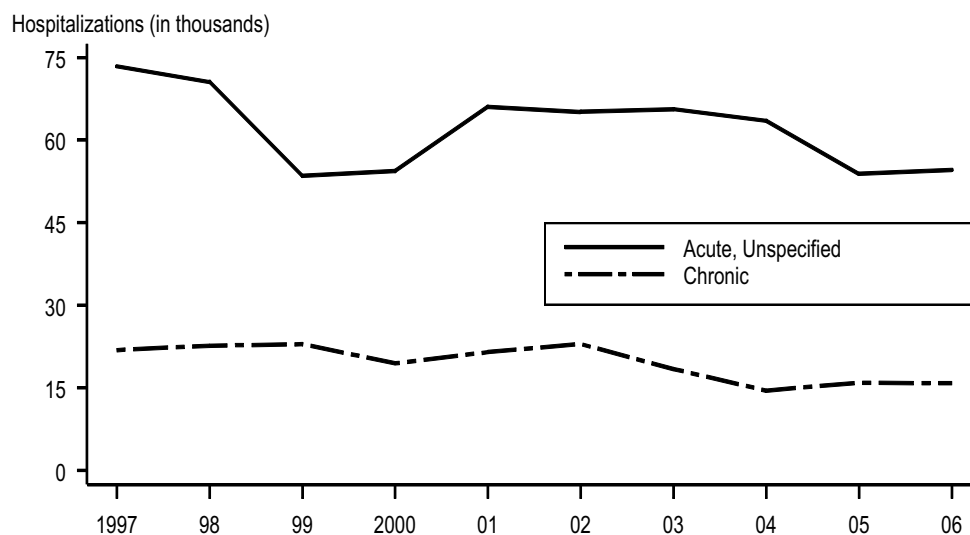
Figure G. Ectopic pregnancy — Hospitalizations of women 15 to 44 years of age: United States, 1997–2006



Note: The relative standard error for these estimates is 14.2%. Data only available through 2006.

SOURCE: National Hospital Discharge Survey (National Center for Health Statistics, CDC)

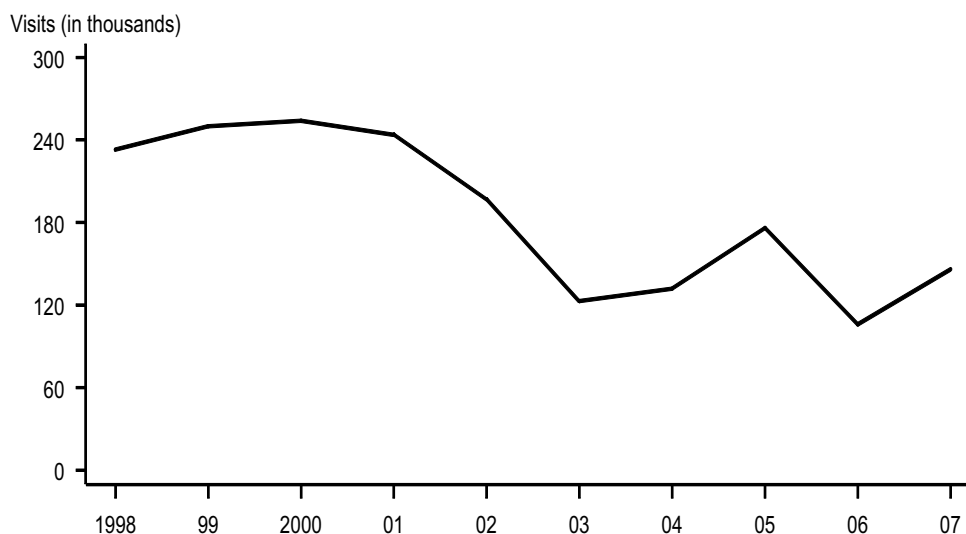
Figure H. Pelvic inflammatory disease — Hospitalizations of women 15 to 44 years of age: United States, 1997–2006



Note: The relative standard error for these estimates of the total number of acute unspecified PID cases ranges from 11.9% to 17.2%. The relative standard error for these estimates of the total number of chronic PID cases ranges from 11% to 18%. Data only available through 2006.

SOURCE: National Hospital Discharge Survey (National Center for Health Statistics, CDC)

Figure I. Pelvic inflammatory disease — Initial visits to physicians' offices by women 15 to 44 years of age: United States, 1998–2007



Note: The relative standard error for these estimates range from 21.6% to 29.3%. See Appendix (Other Data Sources) and Table 42.

SOURCE: National Disease and Therapeutic Index (IMS Health)

STDs in Adolescents and Young Adults

Public Health Impact

Compared to older adults, sexually-active adolescents 15 to 19 years of age and young adults 20 to 24 years of age are at higher risk for acquiring STDs for a combination of behavioral, biological, and cultural reasons. For some STDs, for example, *Chlamydia trachomatis*, adolescent women may have a physiologically increased susceptibility to infection due to increased cervical ectopy. The higher prevalence of STDs among adolescents also reflects multiple barriers to accessing quality STD prevention services, including lack of insurance or other ability to pay, lack of transportation, discomfort with facilities and services designed for adults, and concerns about confidentiality. Recent estimates suggest that while representing 25% of the ever sexually active population, 15 to 24 year-olds acquire nearly half of all new STDs.¹

Observations

Chlamydia

Chlamydia rates for persons 15 to 19 and 20 to 24 years of age continue to increase as they have for all age groups. Between 2006 and 2007, the increase for those 15 to 19 years of age was 7.7%, and for those 20 to 24 years of age was 6.6% (Table 10).

15- to 19-Year-Old Women — As in previous years, in 2007 15- to 19-year-old women had the highest rate of chlamydia (3,004.7 per 100,000 population) compared to any other age/sex group (Figure 5 and

Table 10). Chlamydia rates for 15- to 19-year-old women increased 6.4% from 2,824 per 100,000 population in 2006 to 3,004.7 per 100,000 population in 2007.

20- to 24-Year-Old Women — In 2007, as in previous years, 20- to 24-year-old women had the second highest rate of chlamydia (2,948.8 per 100,000 population) compared to any other age/sex group. Chlamydia rates in women of this age group increased 5.6% from 2006 to 2007.

15- to 19-Year-Old Men — Chlamydia rates for 15- to 19-year-old men increased 14.3% from 537.9 per 100,000 population in 2006 to 615.0 per 100,000 population in 2007.

20- to 24-Year-Old Men — As in previous years, in 2007, 20- to 24-year old men had the highest rate of chlamydia among men (932.9 per 100,000 population). Chlamydia rates in men of this age group increased 9.4% from 2006 to 2007.

Gonorrhea

For the third consecutive year, gonorrhea rates for persons 15 to 19 and 20 to 24 years of age increased. Between 2006 and 2007, the increase for those 15 to 19 years of age was 2.1%, and for those 20 to 24 years of age was 0.7% (Table 20).

15- to 19-Year-Old Women — As in previous years, in 2007 15- to 19-year-old women had the highest rate of gonorrhea

(647.9 per 100,000 population) compared to any other age/sex group (Figure 19 and Table 20). Gonorrhea rates in women of this age group have increased for the past three years.

20- to 24-Year-Old Women — In 2007, as in previous years, 20- to 24-year-old women had the second highest rate of gonorrhea (614.5 per 100,000 population) compared to any other age/sex group. Gonorrhea rates in women of this age group have also increased for the past three years.

15- to 19-Year-Old Men — Gonorrhea rates for 15- to 19-year-old men increased 3.8% from 275.4 per 100,000 population in 2006 to 286.0 per 100,000 population in 2007. Gonorrhea rates in men of this age group have increased for the past three years. (Figure 20, Table 20).

20- to 24-Year-Old Men — As in previous years, in 2007, 20- to 24-year old men had the highest rate of gonorrhea among men (450.1 per 100,000 population). Gonorrhea rates in men of this age group declined 0.4% from 2006 to 2007.

Primary and Secondary Syphilis

Syphilis rates among 15- to 19-year old women have increased annually since 2004 from 1.5 cases per 100,000 population to 2.4 per 100,000 population in 2007. Rates in women have been the highest each year in the 20 to 24 year age group. In this age group there were 3.5 cases per 100,000 population in 2007 (Figure 33, Table 32). Syphilis rates for women in these younger age groups are comparable to rates in older age groups.

In contrast, in men, rates among 15- to 19-years olds are much lower than those in men in older age groups. However, these rates have increased since 2002 from 1.3 cases per 100,000 population in 2002 to 3.0 in 2006 and 3.8 in 2007. During 2003 to 2006, rates in men had been the highest each year in the 35 to 39 year old age

group. In 2007, rates in men were highest in the 25 to 29 year old age group, with 14.9 cases per 100,000 population, and 14.4 cases per 100,000 population in the 35 to 39 year old age group (Figure 33, Table 32).

Chlamydia Prevalence Monitoring Project

Chlamydia test positivity among 15- to 19-year-old women screened in family planning clinics fluctuated in all 10 HHS regions between 2003 and 2007 (Figure J). Positivity has remained fairly stable in four regions (I, III, V, X). From 2003 to 2006, slight decreases in positivity occurred in one region (II), followed by a small increase in 2007. In the remaining five regions (IV, VI, VII, VIII, IX), positivity rates increased slightly over the five-year time frame from 2003 to 2007. The positivity rates 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, approximately 20,000 female National Job Training Program entrants have been screened each year for chlamydia. Since 2004, approximately 35,000 male entrants have been screened annually. This program, administered by the National Job Training Program at more than 100 sites throughout the country, is a job training program for socioeconomically-disadvantaged youth aged 16 to 24 years of age.

Chlamydial infection is widespread geographically and highly prevalent among socioeconomically-disadvantaged young women and men entering the National Job Training Program.²⁻⁴ Specimens from at least 100 students from each state and outlying area were tested by a single national contract laboratory.* Among women entering the program from

40 states, the District of Columbia, and Puerto Rico in 2007, based on their place of residence before program entry, the median state-specific chlamydia prevalence was 13.2% (range: 3.8% to 23.5%) (Figure K). Among men entering the program from 47 states, the District of Columbia, and Puerto Rico in 2007, the median state-specific chlamydia prevalence was 7.2% (range: 2.0% to 14.5%) (Figure L).

Data from National Job Training Program centers that submit gonorrhea specimens from female students aged 16 to 24 years to the national contract laboratory indicated a high prevalence of gonococcal infection in this population. Specimens from at least 100 students from each state and outlying area were tested by the contract laboratory. Among women entering the program from 36 states and Puerto Rico, the median state-specific gonorrhea prevalence was 3.0% (range: 0.0% to 7.2%) in 2007 (Figure M). Among men entering the program from 32 states and Puerto Rico in 2007, the median state-specific gonorrhea prevalence was 1.1% (range: 0.0% to 4.4%) (Figure N).

Juvenile Corrections Facilities

Among adolescent women entering juvenile corrections facilities, the Corrections STD Prevalence Monitoring Project identified a median facility-specific chlamydia positivity rate of 14.3% (range: 2.5% to 32.1%) (Table A) and a median gonorrhea positivity rate of 5.3% (range: 0.0% to 13.9%) (Table C). Among adolescent men entering juvenile corrections facilities, the median facility-specific chlamydia positivity rate was 5.7% (range: 0.0% to 14.2%) and the median gonorrhea positivity rate was 1.0% (range: 0.0% to 4.5%). See **Special Focus Profiles** (STDs in Persons Entering Corrections Facilities) for additional details.

*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 Mertz KJ, Ransom RL, St. Louis ME, Groseclose SL, Hadgu A, Levine WC, Hayman C. Decline in the prevalence of genital chlamydia infection in young women entering a National Job Training Program, 1990–1997. *Am J Pub Health* 2001;91(8):1287–1290.

³ Joesoef MR, Mosure DJ. Prevalence of chlamydia in young men in the United States from newly implemented universal screening in a National Job Training Program. *Sexually Transmitted Diseases* 2006;33(10):636–639.

⁴ Joesoef MR, Mosure DJ. Prevalence of chlamydia in young women entering the National Job Training Program 1998–2004. *Sexually Transmitted Diseases* 2006;33(9):571–575.

Figure 1 displays a map of the United States divided into ten regions (I-X) and corresponding bar charts showing the percentage of respondents in each region who believe the federal government should take action to reduce global warming. The data is presented for five years (03, 04, 05, 06, 07).

Region	03	04	05	06	07
Region I	5.1	4.9	5.4	5.5	5.6
Region II	9.3	9.1	7.3	7.3	7.6
Region III	6.8	7.3	7.1	6.5	6.8
Region IV	7.7	10.0	10.7	11.0	11.7
Region V	8.3	8.6	9.0	8.9	9.0
Region VI	8.7	9.0	9.2	10.2	10.7
Region VII	6.2	6.8	6.7	7.5	7.6
Region VIII	7.3	7.9	7.4	8.3	9.0
Region IX	7.3	7.9	7.4	8.3	9.0
Region X	6.8	6.9	6.5	6.6	6.8

SOURCE: Regional Infertility Prevention Projects; Office of Population Affairs; Local and State STD Control Programs; Centers for Disease Control and Prevention

Prevalence (%)

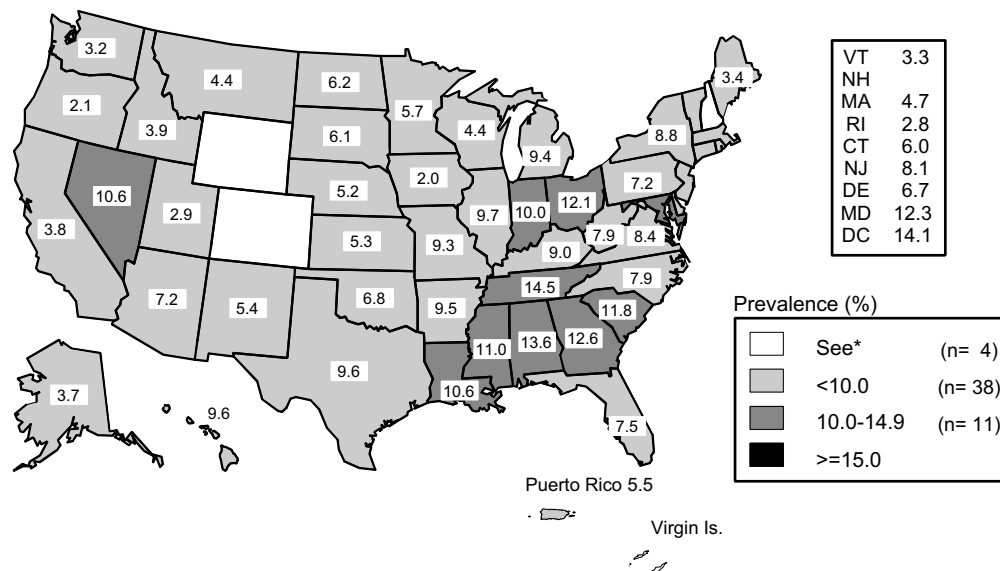
See*	(n= 11)
<10.0	(n= 8)
10.0-14.9	(n= 18)
≥15.0	(n= 16)

Puerto Rico 11.2

Virgin Is.

SOURCE: National Job Training Program; Department of Labor (in collaboration with the Center for Disease Detection, San Antonio, Texas)

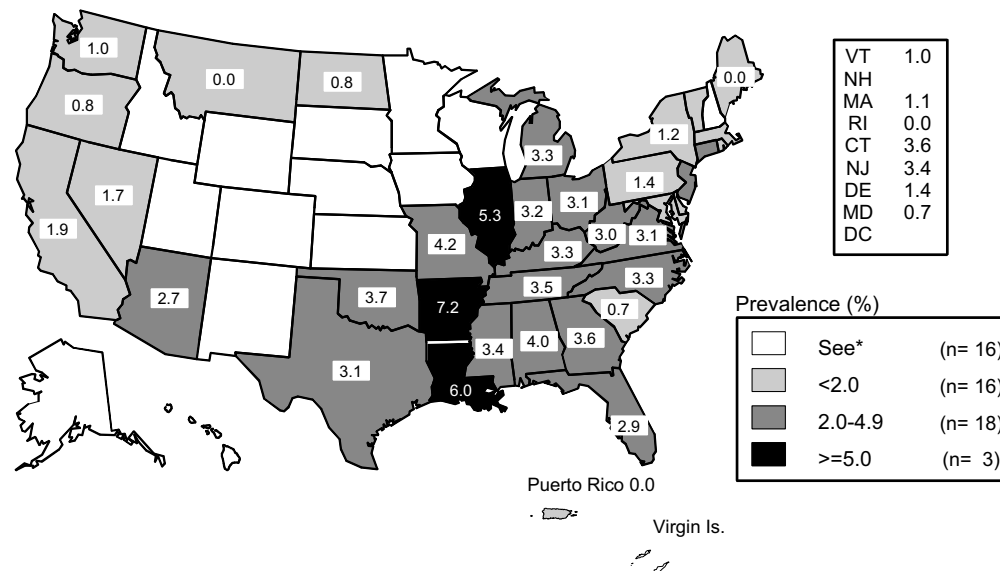
Figure L. Chlamydia — Prevalence among 16- to 24-year-old men entering the National Job Training Program by state of residence: United States and outlying areas, 2007



*Fewer than 100 men residing in these states/areas and entering the National Job Training Program were screened for chlamydia in 2007.

SOURCE: National Job Training Program; Department of Labor (in collaboration with the Center for Disease Detection, San Antonio, Texas)

Figure M. Gonorrhea — Prevalence among 16- to 24-year-old women entering the National Job Training Program by state of residence: United States and outlying areas, 2007

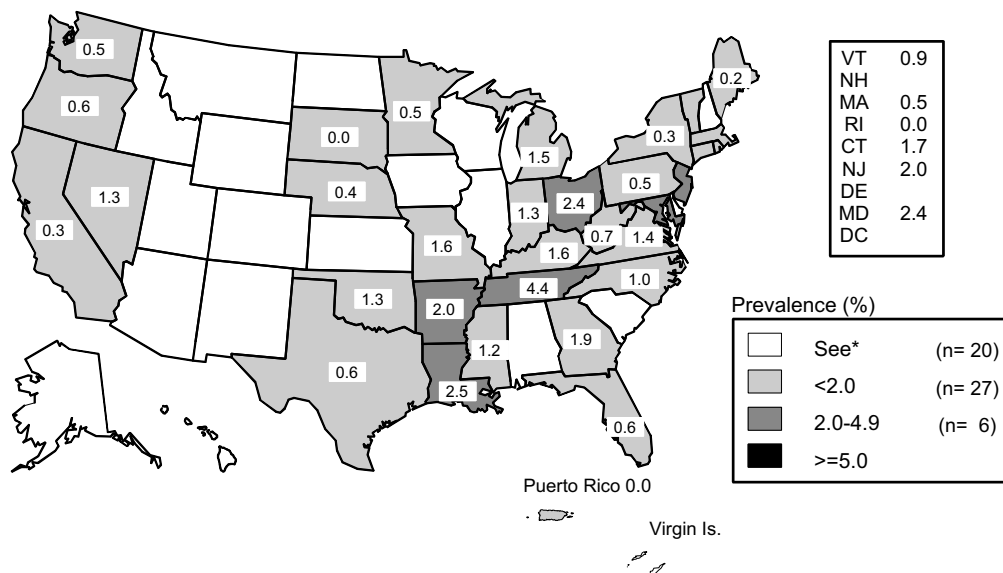


*Fewer than 100 women residing in these states/areas and entering the National Job Training Program were screened for gonorrhea by the national contract laboratory in 2007.

Note: Many training centers test female students for gonorrhea using local laboratories; these results are not available to CDC. For this map, gonorrhea test results for students at centers submitting 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.

SOURCE: National Job Training Program; Department of Labor (in collaboration with the Center for Disease Detection, San Antonio, Texas)

Figure N. Gonorrhea — Prevalence among 16- to 24-year-old men entering the National Job Training Program by state of residence: United States and outlying areas, 2007



*Fewer than 100 men residing in these states/areas and entering the National Job Training Program were screened for gonorrhea by the national contract laboratory in 2007.

Note: Many training centers test male students for gonorrhea using local laboratories; these results are not available to CDC. For this map, gonorrhea test results for students at centers submitting 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.

SOURCE: National Job Training Program; Department of Labor (in collaboration with the Center for Disease Detection, San Antonio, Texas)

STDs in Racial and Ethnic Minorities

Public Health Impact

Surveillance data show higher rates of reported STDs among some minority racial or ethnic groups when compared with rates among whites. Race and ethnicity in the United States are risk markers that correlate with other more fundamental determinants of health status such as poverty, access to quality health care, health care seeking behavior, illicit drug use, and living in communities with high prevalence of STDs. Acknowledging the disparity 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 **Appendix**). In many areas, reporting from public sources, (for example, STD clinics) is thought to be more complete than reporting from private sources. Since minority populations may utilize public clinics more than whites, differences in rates between minorities and whites may be increased by this reporting bias. However, prevalence data from population-based surveys such as the National Health and Nutrition Examination Survey (NHANES) and the National Longitudinal Study of Adolescent Health (Add Health) confirm the existence of marked STD disparities.^{1,2}

Completeness of Race/Ethnicity Data

To adjust for missing case report data, cases for which information is unknown are redistributed according to the distribution of cases in which race or ethnicity is known. This process may exacerbate any reporting bias.

Chlamydia — In 2007, 25.7% of reports on chlamydia cases were missing race or ethnicity (ranging by state from 0.0% to 55.5%) (Table A1).

Gonorrhea — In 2007, 20.3% of reports on gonorrhea cases were missing information on race or ethnicity (ranging by state from 0.0% to 40.2%).

Syphilis — In 2007, only 4.1% of reports on syphilis cases were missing information on race or ethnicity (ranging from 0.0% to 22.6% among states with 10 or more cases of P&S syphilis).

Observations

Chlamydia

All racial and ethnic groups except American Indian/Alaska Natives reported increases in chlamydia rates from 2006 to 2007 (Table 11B). From 2003 to 2007, chlamydia rates increased by 24.6% among blacks; 9.0% among American Indian/Alaska Natives; 10.5% among Hispanics; and 18.7% among whites. Over the same time period, rates decreased by 1.5% among Asian/Pacific Islanders.

Blacks — In 2007, approximately 48% of all chlamydia cases occurred among blacks (Table 11A). Overall, the rate of chlamydia among blacks in the United States was more than eight times that among whites. The rate of chlamydia among black women was more than seven times higher than the rate among white women (1,906.0 and 249.3 per 100,000 women, respectively) (Figure O, Table 11B). The chlamydia rate among black men was more than 11 times higher than that among white men (841.3 and 71.9 per 100,000 men, respectively).

American Indian/Alaska Natives — In 2007, the chlamydia rate among American Indian/Alaska Natives was 732.9 cases per 100,000 population, a decrease of 7.2% from the 2006 rate of 790.1. The chlamydia positivity rate among females aged 15–24 years screened in Indian Health Service (IHS) clinics ranged from 8.1% in HHS region V to 11.6% in region VIII (Figure P).

Asian/Pacific Islanders — In 2007, the chlamydia rate among Asian/Pacific Islanders was 139.5 cases per 100,000 population, a slight increase from the 2006 rate of 127.2.

Hispanics — In 2007, the chlamydia rate among Hispanics was 473.2 cases per 100,000 population, nearly three times higher than the rate among whites (162.3).

Gonorrhea

All racial and ethnic groups except blacks saw declines in gonorrhea rates from 2006 to 2007. In contrast, the gonorrhea rate among blacks increased by 1.8% from 2006 to 2007 (Table 21B and Figure 21).

Blacks — In 2007, approximately 70% of the total number of reported cases of gonorrhea occurred among blacks (Table 21A). In 2007, the rate of gonorrhea among blacks was 662.9 cases per 100,000 population. Overall, the rate of gonorrhea among blacks in the United States was 19 times greater than that among whites. This

disparity is unchanged from recent years (20 times higher in 2003) (Figure Q, Table 21B). This disparity was higher for black men (26.1 times higher) than for black women (14.9 times higher) (Figure R). The disparity in gonorrhea rates for blacks was higher in the Midwest and Northeast (27.2 and 24.8 times higher, respectively) than in the South or the West (15.6 and 12.4 times higher, respectively) (Figure S).

In 2007, gonorrhea rates were highest for blacks aged 15 to 19 and 20 to 24 years among all racial, ethnic, and age categories. Black women aged 15 to 19 years had a gonorrhea rate of 2,955.7 cases per 100,000 women. This rate was 14.7 times greater than the 2007 rate among white women of similar age (200.6). Black men in the 15- to 19-year-old age category had a 2007 gonorrhea rate of 1,537.8 cases per 100,000 men, which was 38.7 times higher than the rate among 15- to 19-year-old white men of 39.7 per 100,000 men. Among those aged 20 to 24 years, the gonorrhea rate among blacks was 16.5 times greater than that among whites (2,618.3 and 158.8 cases per 100,000 population, respectively) (Table 21B).

American Indian/Alaska Natives — In 2007 the gonorrhea rate among American Indian/Alaska Natives was 107.1 which was 3.1 times higher than the rate among whites. This disparity is similar to recent years (3.1 times higher in 2003) (Figure Q, Table 21B). This disparity was higher for American Indian/Alaska Native women (3.4 times higher) than for American Indian/Alaska Native men (2.6 times higher) (Figure R). The disparity in gonorrhea rates for American Indian/Alaska Natives was higher in the Northeast and the Midwest (3.9 and 3.3 times higher, respectively) than in the West or the South (2.9 and 2.6 times, respectively) (Figure S).

Asian/Pacific Islanders — In 2007 the gonorrhea rate among Asian/Pacific Islanders was 18.8 cases per 100,000 population which was lower than the rate among whites (Figure Q, Table 21B). This difference is greater for Asian/Pacific Islander women than for Asian/Pacific Islander men (Figure R). Rates among Asian/Pacific Islanders are consistently lower than among whites in all four regions of the U.S. (Figure S).

Hispanics — In 2007, the gonorrhea rate among Hispanics was 69.2 which was higher than the rate among whites. This disparity is similar to that in recent years (Figure Q, Table 21B). This disparity was higher for Hispanic men than for Hispanic women (Figure R). The disparity in gonorrhea rates for Hispanics was higher in the Northeast than in the West, the Midwest, or the South (Figure S).

Primary and Secondary Syphilis

The syphilis epidemic in the late 1980s occurred primarily among heterosexual and minority populations.^{3,4} During the 1990s, the rate of P&S syphilis declined among all racial and ethnic groups (Figure 36). Between 2003 and 2007, the rate of P&S syphilis increased among all racial and ethnic groups.

Blacks — Between 2006 and 2007, the rate of P&S syphilis among blacks increased 25.0% (from 11.2 to 14.0). In 2007, 46.0% of all cases of P&S syphilis reported to CDC were among blacks and 35.3% of all cases were among non-Hispanic whites (Table 33A). Compared to whites, the overall 2007 rate for blacks was 7.0 times higher. It was 5.9 times higher in 2006 (Table 33B). In 2007, the P&S rate among black men was more than 6.0 times higher than that among white men; the rate among black women was 14 times higher than that among white women. In some age groups, particularly 15–19 year

old black men, disparities have increased markedly in recent years as rates of disease have increased (Figure V).

Recent trends in young black men are of particular concern given data indicating high HIV incidence in this population.⁵

American Indian/Alaska Natives — Between 2006 and 2007, the rate of P&S syphilis among American Indian/Alaska Natives increased 6.3% (from 3.2 to 3.4). In 2007, 0.7% of all cases of P&S syphilis reported to CDC were among American Indian/Alaska Natives (Table 33A).

Compared to whites, the 2007 rate for American Indian/Alaska Natives was 1.7 times higher (Table 33B).

Asian/Pacific Islanders — Between 2006 and 2007, the rate of P&S syphilis among Asian/Pacific Islanders remained unchanged (1.2 per 100,000 population). In 2007, 1.2% of all cases of P&S syphilis reported to CDC were among Asian/Pacific Islanders (Table 33A). The 2007 rate for Asian/Pacific Islanders was 0.6 times the rate for whites (Table 33B).

Hispanics — Between 2006 and 2007, the rate of P&S syphilis among Hispanics increased 22.9% (from 3.5 to 4.3). In 2007, 16.5% of all cases of P&S syphilis reported to CDC were among Hispanics (Table 33A). Compared to whites, the 2007 rate for Hispanics was 2.2 times higher (Table 33B).

Congenital Syphilis

In 2007, the rate of congenital syphilis (based on the mother's race/ethnicity) was 32.3 cases per 100,000 live births among blacks and 15.3 cases per 100,000 live births among Hispanics. These rates are 14 and 6.6 times higher, respectively, than the 2007 rate among whites (2.3 cases per 100,000 live births) (Figure W, Table 40).

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Figure O. Chlamydia — Rates by race/ethnicity and sex: United States, 2007

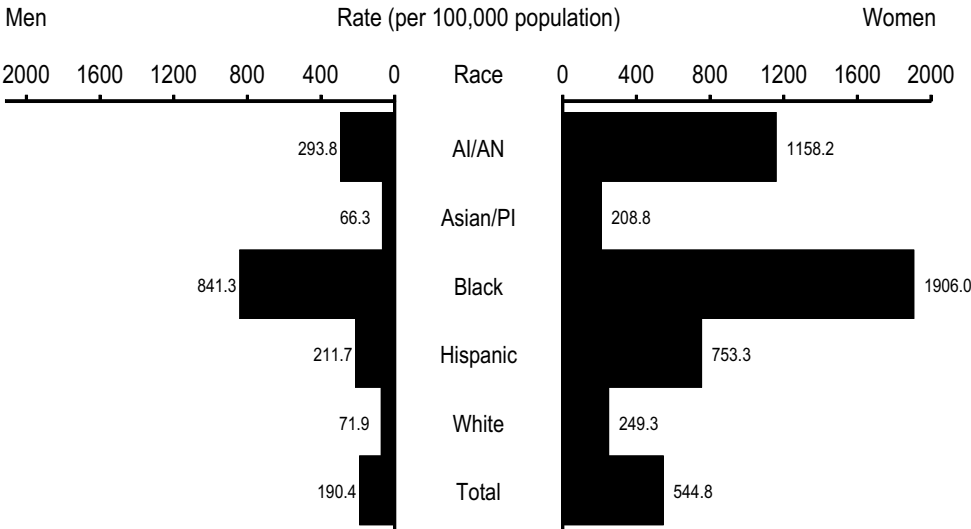
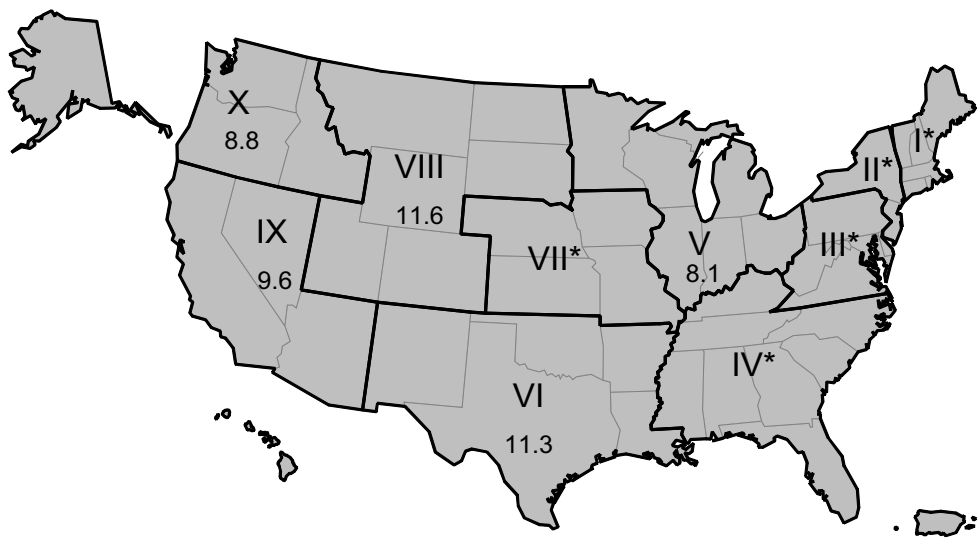
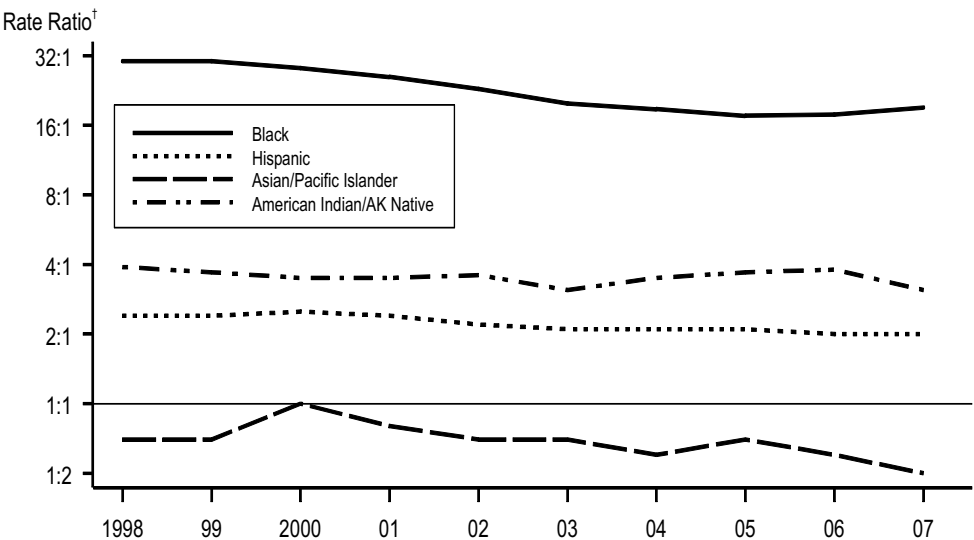


Figure P. Chlamydia — Positivity among 15- to 24-year-old women screened in Indian Health Service (IHS) clinics by HHS region, 2007



*Chlamydia positivity data not available. See Appendix for definitions of HHS Regions.

Figure Q. Gonorrhea — Rate ratios* by race/ethnicity: United States, 1998–2007



*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 less than 1:1.

†Y-axis is log scale.

Figure R. Gonorrhea — Rates by race/ethnicity and sex: United States, 2007

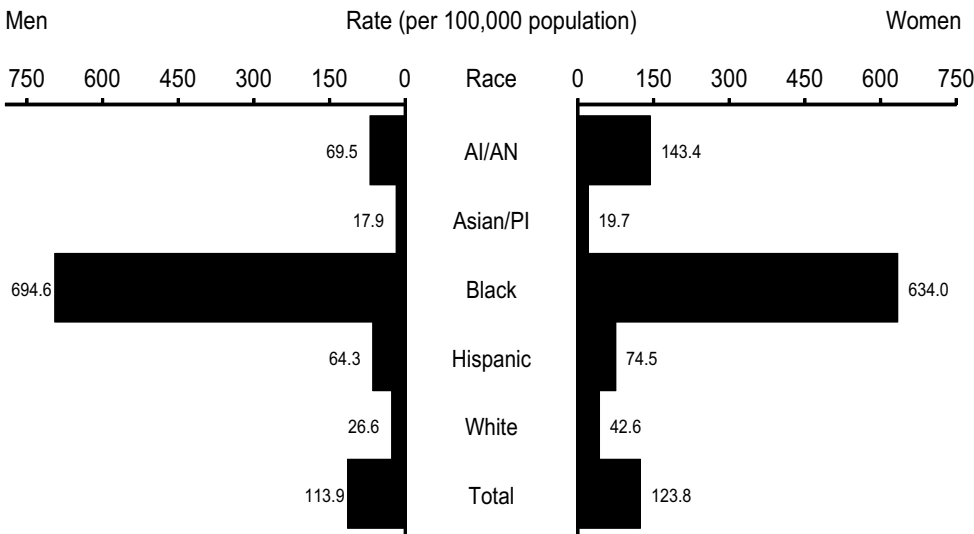
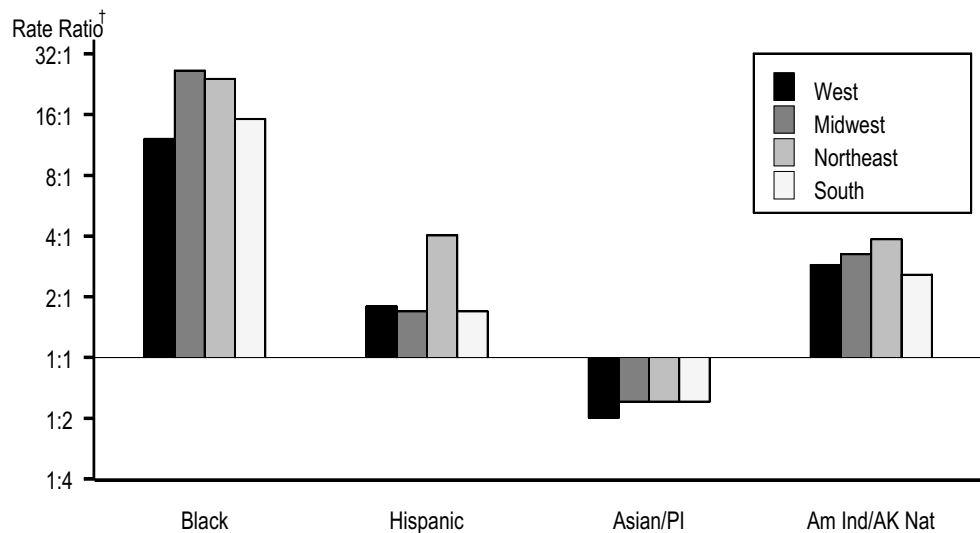


Figure S. Gonorrhea — Rate ratios* by race/ethnicity and region: United States, 2007



*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 less than 1:1.

[†]Y-axis is log scale.

Figure T. Primary and secondary syphilis — Rates by race/ethnicity and sex: United States, 2007

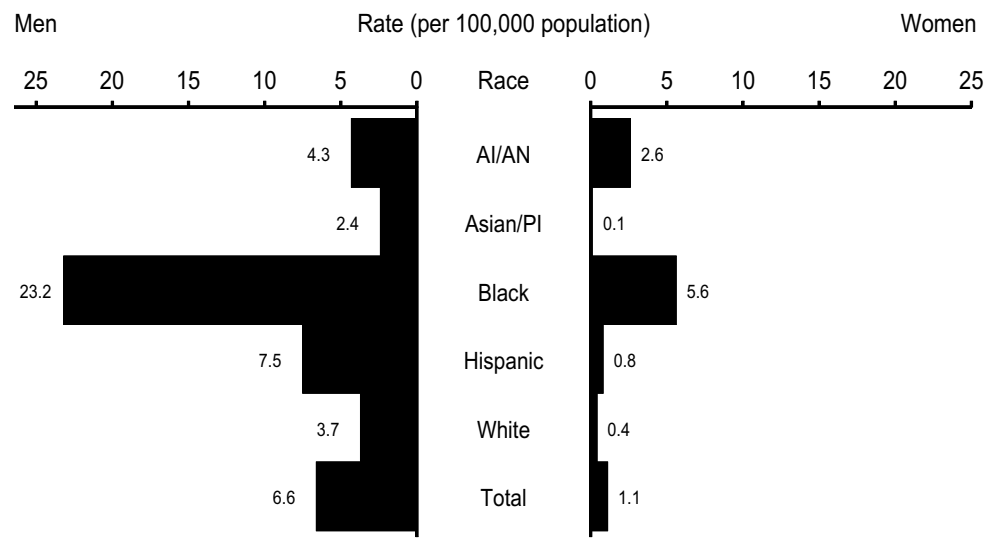


Figure U. Primary and secondary syphilis — Rates among 15- to 19-year-old females by race/ethnicity: United States, 1998–2007

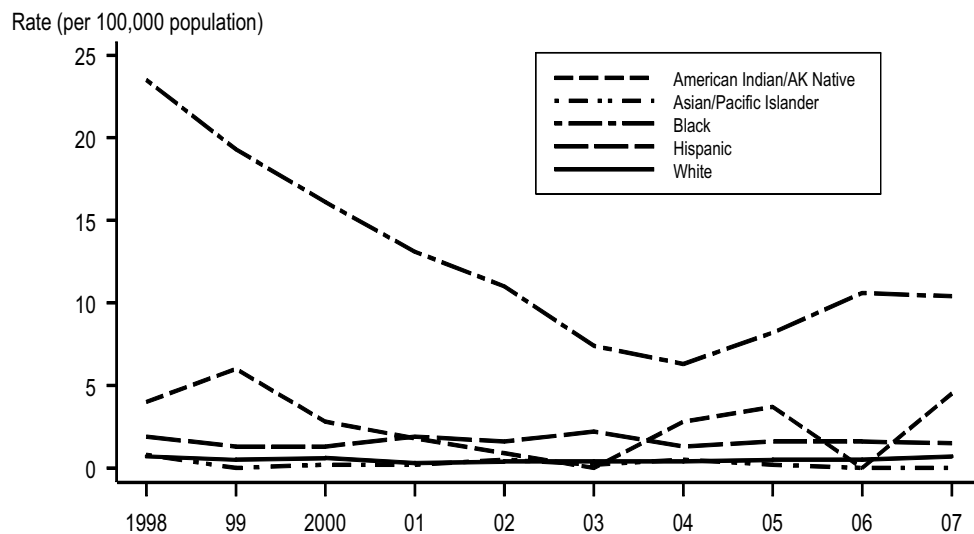


Figure V. Primary and secondary syphilis — Rates among 15- to 19-year-old males by race/ethnicity: United States, 1998–2007

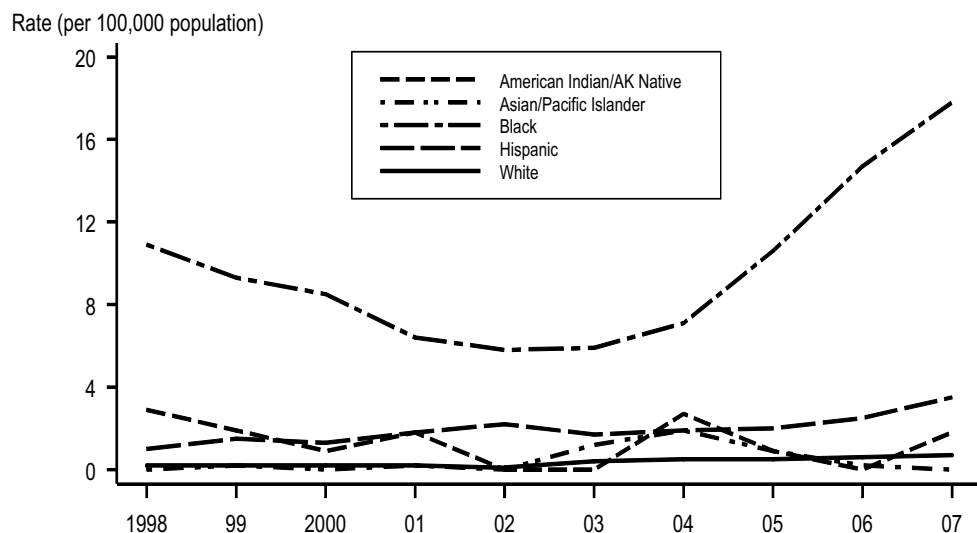
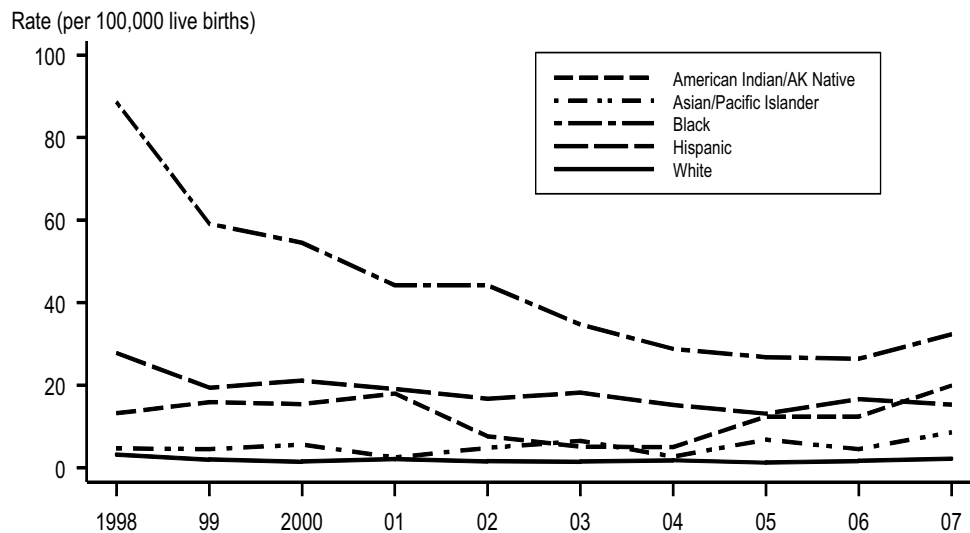


Figure W. Congenital syphilis — Rates among infants < 1 year of age by mother's race/ethnicity: United States, 1998–2007



Note: The Healthy People 2010 target for congenital syphilis is 1.0 case per 100,000 live births.
Less than 5% 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 the Gonococcal Isolate Surveillance Project (GISP) suggest that an increasing number of MSM are acquiring STDs.¹⁻⁷ Data also suggest that an increasing number of MSM engage in sexual behaviors that place them at risk for STDs and HIV infection.⁸ Several factors may be contributing to this change, including the availability of highly active antiretroviral therapy (HAART) for HIV infection.⁹ Because STDs and the behaviors associated with acquiring them increase the likelihood of acquiring and transmitting HIV infection,¹⁰ the rise in STDs among MSM may be associated with an increase in HIV diagnoses among MSM.¹¹

With the exception of reported syphilis cases, most nationally notifiable STD surveillance data do not include information regarding sexual behaviors; national trends in STDs among MSM in the United States are not currently available. Data from enhanced surveillance projects are presented in this section to provide information regarding STDs in MSM.

Monitoring Trends in Prevalence of STDs, HIV and Risk Behaviors among Men Who Have Sex with Men (MSM Prevalence Monitoring Project), STD Clinics, 1999–2007

From 1999 through 2007, eight U.S. cities participating in the MSM Prevalence Monitoring Project submitted syphilis, gonorrhea, chlamydia, and HIV test data to

CDC from 143,478 MSM visits to STD clinics; data from 121,353 MSM visits were submitted from five public STD clinics (Denver, New York City, Philadelphia, San Francisco, and Seattle) and data from 22,125 MSM visits were submitted from three STD clinics in community-based, gay men's health clinics (Chicago, the District of Columbia, and Houston).

Changes in testing technology for gonorrhea and chlamydia have occurred in recent years with the advent of nucleic acid amplification tests (NAATs) which achieve greater sensitivity than traditional culture methods.^{12,13} The MSM Prevalence Monitoring Project includes data from culture and non-culture tests collected during routine care and reflects testing practices at participating clinics. Tests for gonorrhea included culture, NAATs, or nucleic acid hybridization tests (DNA probes). Tests for chlamydia included culture, NAATs, DNA probes, or direct fluorescent antibody tests (DFAs). Nontreponemal syphilis tests included the Rapid Plasma Reagin (RPR) test and the Venereal Disease Research Laboratory (VDRL) test.

All statistics were based on data collected from clinic visits and may reflect multiple visits by a patient rather than unique individuals. City-specific medians and ranges were calculated for the proportion of tests done and for STD and HIV test positivity.

Gonorrhea

Between 1999 and 2007 the number of gonorrhea tests for all anatomic sites combined increased in all eight cities. The trend in the number of positive gonorrhea tests for all anatomic sites varied by city. For all cities, the number of positive gonorrhea tests in symptomatic men accounted for the majority of the overall positive tests (Figure X).

In 2007, 79% (range: 58–90%) of MSM were tested for urethral gonorrhea, 37% (range: 5–51%) were tested for rectal gonorrhea, and 58% (range: 5–83%) were tested for pharyngeal gonorrhea.

In 2007, median clinic urethral gonorrhea positivity in MSM was 8% (range: 5–15%), median rectal gonorrhea positivity was 7% (range: 3–11%), and median pharyngeal gonorrhea positivity was 6% (range: 1–13%).

Chlamydia

In 2007, a median of 79% (range: 59–90%) of MSM visiting participating STD clinics were tested for urethral chlamydia, compared to 65% (range: 57–68%) in 1999. In 2007, the median urethral chlamydia positivity was 7% (range: 5–9%).

Syphilis

In 2007, 79% (range: 60–96%) of MSM visiting participating STD clinics had a nontreponemal serologic test for syphilis (RPR or VDRL) performed, compared with 69% (range: 53–93%) in 1999 (Figure Y).

Overall, median seroreactivity among MSM tested for syphilis increased from 4% (range: 3–13%) in 1999 to 8% (range: 4–18%) in 2007.

Syphilis seroreactivity is used as a proxy for syphilis prevalence and has been correlated with prevalence of P&S syphilis in this population.¹⁴

HIV Infection

Overall, the percent of MSM tested for HIV in STD clinics increased between 1999 and 2007. In 2007, a median of 70% (range: 38–87%) of MSM visiting STD clinics who were not previously known to be HIV-positive were tested for HIV, while 44% (range: 23–55%) were tested in 1999. In 2007, median HIV positivity in MSM was 4% (range: 2–5%) (Figure Z).

In 2007, median HIV prevalence among MSM, including persons previously known to be HIV-positive and persons testing HIV-positive at their current visit, was 13% (range: 7–15%).

HIV/STDs by Race/Ethnicity

HIV positivity among persons tested for HIV during 2007 varied by race/ethnicity, but was highest in black MSM. HIV positivity was 2% (range: 2–3%) in whites, 8% (range: 2–10%) in blacks, and 5% (range: 2–7%) in Hispanics (Figure AA).

HIV positivity was 9% (range: 6–15%) in whites, 17% (range: 15–24%) in blacks, and 14% (range: 6–16%) in Hispanics.

In 2007, urethral gonorrhea positivity was 6% (range: 5–14%) in whites, 15% (range: 7–27) in blacks, and 6% (range: 4–14%) in Hispanics. Rectal gonorrhea positivity was 6% (range: 2–10%) in whites, 7% (range: 2–11%) in blacks, and 5% (range: 1–7%) in Hispanics. Pharyngeal gonorrhea positivity was 6% (range: 1–15%) in whites, 6% (range: 1–13%) in blacks, and 5% (range: 1–10%) in Hispanics (Figure AA).

Urethral chlamydia positivity was 6% (range: 3–8%) in whites; 8% (range: 5–10%) in blacks, and 5% (range: 3–13%) in Hispanics (Figure AA).

Median syphilis seroreactivity was 7% (range: 4–12%) in whites; 14% (range:

8–30%) in blacks, and 11% (range: 3–22%) in Hispanics (Figure AA).

STDs by HIV Status, STD Clinics

In 2007, urethral gonorrhea positivity was 11% (range: 8–16%) in HIV-positive MSM and 7% (range: 5–15%) in MSM who were HIV-negative or of unknown HIV status; rectal gonorrhea positivity was 10% (range: 4–14%) in HIV-positive MSM and 4% (range: 3–10%) in MSM who were HIV-negative or of unknown HIV status; pharyngeal gonorrhea positivity was 4% (range: 2–12%) in HIV-positive MSM and 5% (range: 1–13%) in MSM who were HIV-negative or of unknown HIV status.

Median urethral chlamydia positivity was 6% (range: 3–12%) in HIV-positive MSM and 7% (range: 4–9%) in MSM who were HIV-negative or of unknown HIV status.

Median syphilis seroreactivity was 32% (range: 19–42%) in HIV-positive MSM and 6% (range: 3–13%) in MSM who were HIV-negative or of unknown HIV status.

Nationally Notifiable Syphilis Surveillance Data

P&S syphilis increased in the United States between 2003 and 2007, with a 64.0% increase in the number of P&S syphilis cases among men and a 39.0% increase in the number of cases among women (Tables 26 and 27). In 2007, the rate of reported P&S syphilis among men (6.6 cases per 100,000

males) was 6.0 times greater than the rate among women (1.1 case per 100,000 females) (Tables 26 and 27). Higher rates in men are observed for all racial and ethnic groups.

In 2007, MSM accounted for 65% of P&S syphilis cases in the United States. MSM account for more cases than heterosexual men or women for all racial and ethnic groups. (Figure 38) Additional information on syphilis can be found in the Syphilis section (**National Profile**).

Gonococcal Isolate Surveillance Project (GISP)

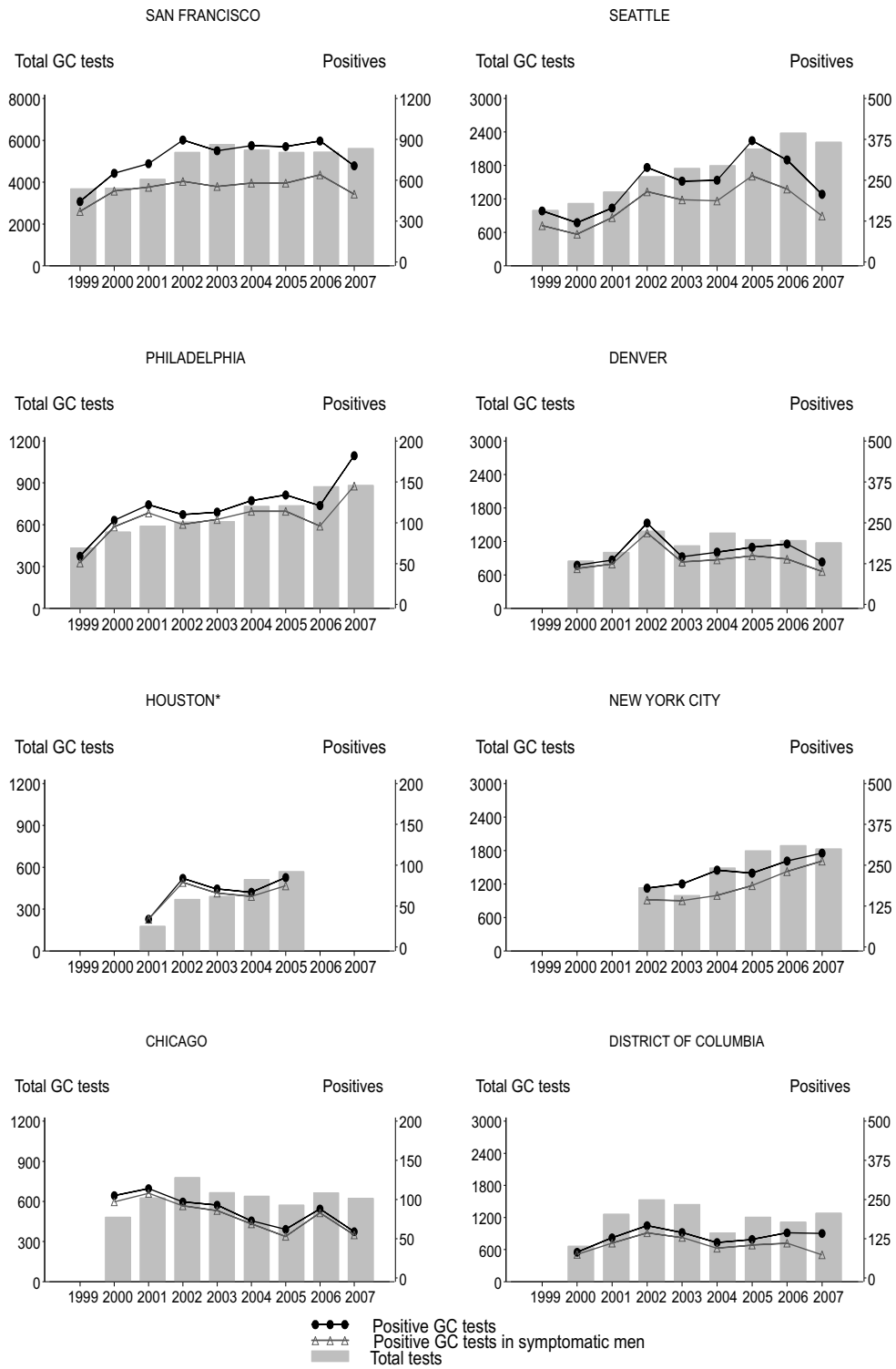
GISP is a national sentinel surveillance system designed to monitor trends in antimicrobial susceptibilities of strains of *Neisseria gonorrhoeae* in the United States.^{15,16}

GISP also reports the percentage of *N. gonorrhoeae* isolates obtained from MSM. Overall, the proportion of isolates from MSM in selected STD clinics from GISP sentinel sites have increased steadily from 4% in 1988 to 22.4% in 2007 (Figure BB). Additionally, the proportion of isolates coming from MSM varies geographically with the largest percentage from the West Coast (Figure CC).

Additional information on GISP may be found in the Gonorrhea section (**National Profile**).

-
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- ² Centers for Disease Control and Prevention. Resurgent bacterial sexually transmitted disease among men who have sex with men – King County, Washington, 1997–1999. *MMWR* 1999;48:773–7.
- ³ Centers for Disease Control and Prevention. Outbreak of syphilis among men who have sex with men – Southern California, 2000. *MMWR* 2001;50:117–20.
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- ⁷ Beltrami JF, Shouse RL, Blake PA. Trends in infectious diseases and the male to female ratio: possible clues to changes in behavior among men who have sex with men. *AIDS Educ Prev* 2005;17:S49–S59.
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- ⁹ Scheer S, Chu PL, Klausner JD, Katz MH, Schwarcz SK. Effect of highly active antiretroviral therapy on diagnoses of sexually transmitted diseases in people with AIDS. *Lancet* 2001;357:432–5.
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- ¹² Kent CK, Chow JK, Wong W, et. al. Prevalence of rectal, urethral, and pharyngeal chlamydia and gonorrhea detected in 2 clinical settings among men who have sex with men: San Francisco, California, 2003. *Clin Infect Dis* 2005;41:67–74.
- ¹³ Jespersen DJ, Flatten KS, Jones MF, Smith TF. Prospective comparison of cell cultures and nucleic acid amplification tests for laboratory diagnosis of *Chlamydia trachomatis* infections. *J Clin Microbiol* 2005; 43(10):5324–6.
- ¹⁴ Helms DJ, Weinstock HS, et. al. Increases in syphilis among men who have sex with men attending STD clinics, 2000–2005. In: program and abstracts of the 17 Biennial meeting of the ISSTD, Seattle, WA, July 29–August 1, 2007 [abstract P-608].
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- ¹⁶ Centers for Disease Control and Prevention. *Sexually Transmitted Disease Surveillance 2007 Supplement: Gonococcal Isolate Surveillance Project (GISP) Annual Report 2007*. Atlanta, GA: U.S. Department of Health and Human Services (available first quarter 2009).

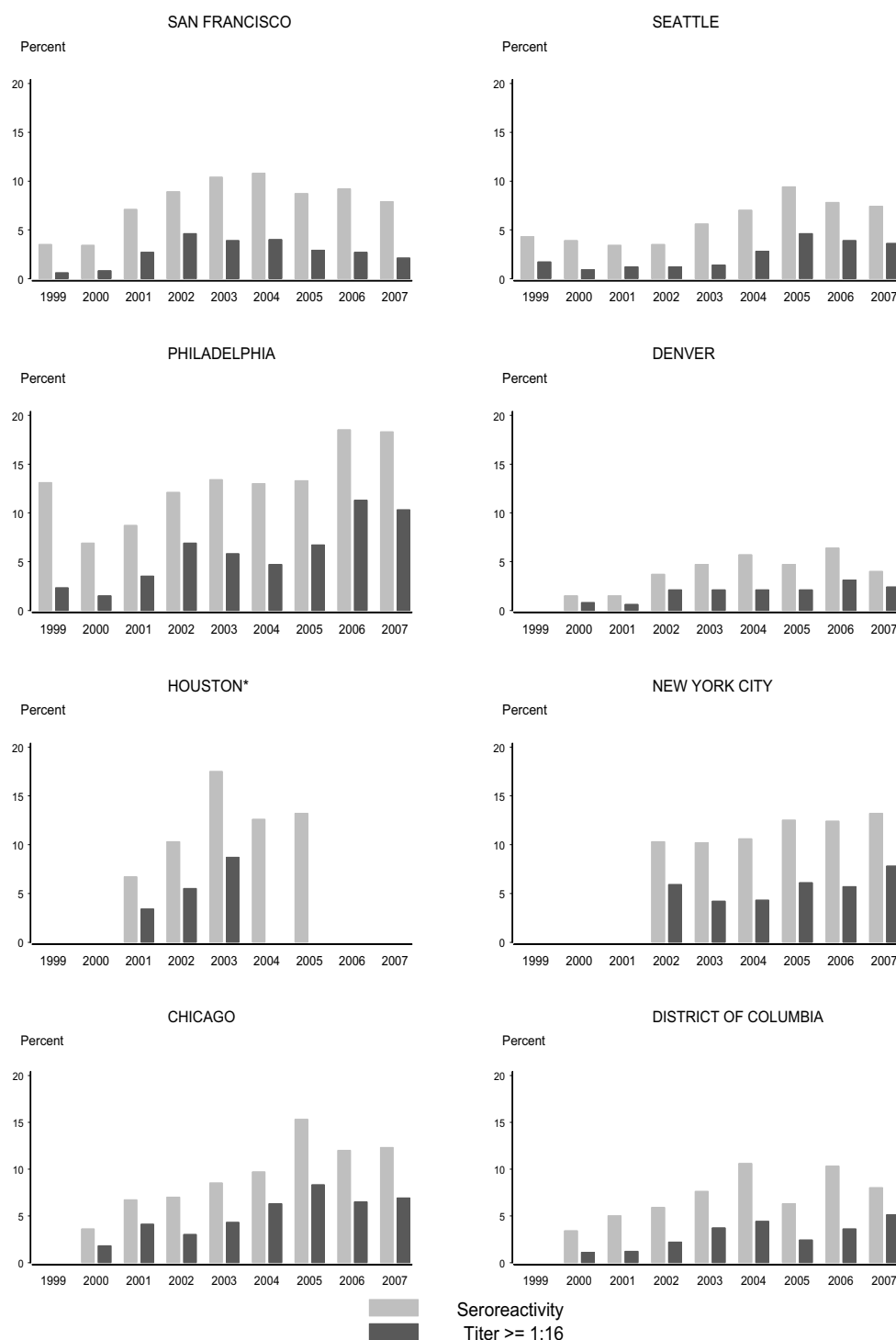
Figure X. MSM Prevalence Monitoring Project — Number of gonorrhea tests and number of positive tests in men who have sex with men, STD clinics, 1999–2007



*Data not reported in 2006 or 2007.

Note: The bars represent the number of total GC tests considering all anatomic sites (pharyngeal, rectal, and urethral) each year. The scales on the left and right axis differ. The bar graphs use the scale on the left. The line graphs use the scale on the right.

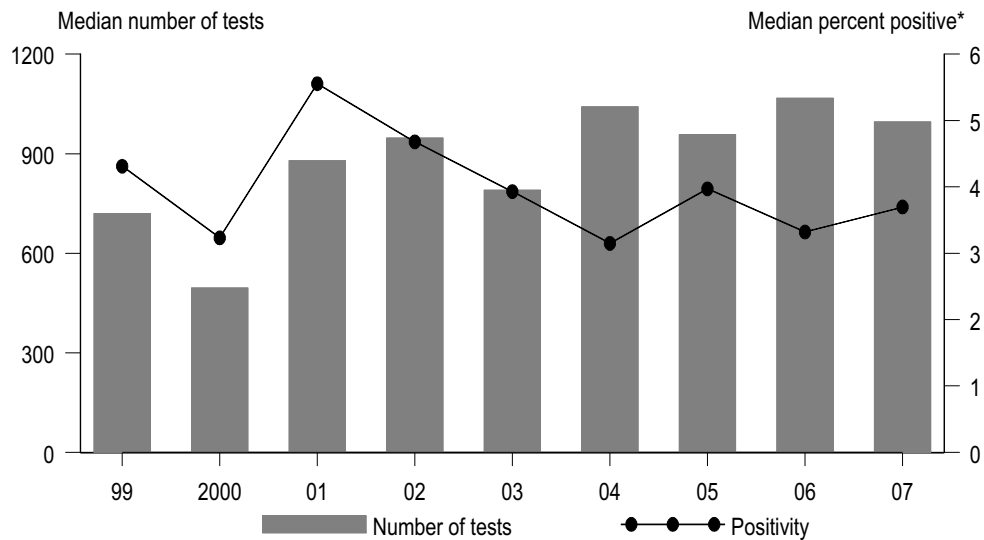
Figure Y. MSM Prevalence Monitoring Project — Syphilis serologic reactivity among men who have sex with men, STD clinics, 1999–2007



*Data not reported in 2006 or 2007. Titer data not reported in 2004 or 2005.

Note: Seroreactivity was based on nontreponemal tests results. All sites used the Rapid Plasma Reagin (RPR) test, with the exception of San Francisco where the Venereal Disease Research Laboratory (VDRL) test was used and Seattle where the type of test was changed from VDRL to RPR in 2004.

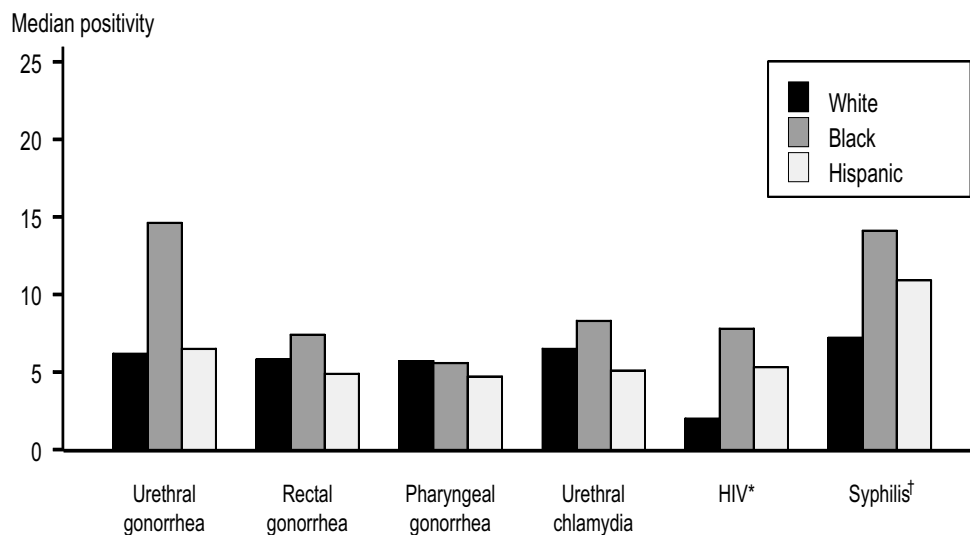
Figure Z. MSM Prevalence Monitoring Project — City-specific median number of HIV tests and positivity among men who have sex with men, STD clinics, 1999–2007



*Excludes persons previously known to be HIV-positive.

Note: The bar graph uses the scale on the left. The line graph uses the scale on the right.

Figure AA. MSM Prevalence Monitoring Project — Test positivity for gonorrhea, chlamydia, and HIV and seroreactivity to syphilis among men who have sex with men, by race/ethnicity, STD clinics, 2007



*Excludes persons previously known to be HIV-positive.

†Seroreactivity

Figure BB. Gonococcal Isolate Surveillance Project (GISP) — Percent of urethral *Neisseria gonorrhoeae* isolates obtained from men who have sex with men attending STD clinics, 1988–2007

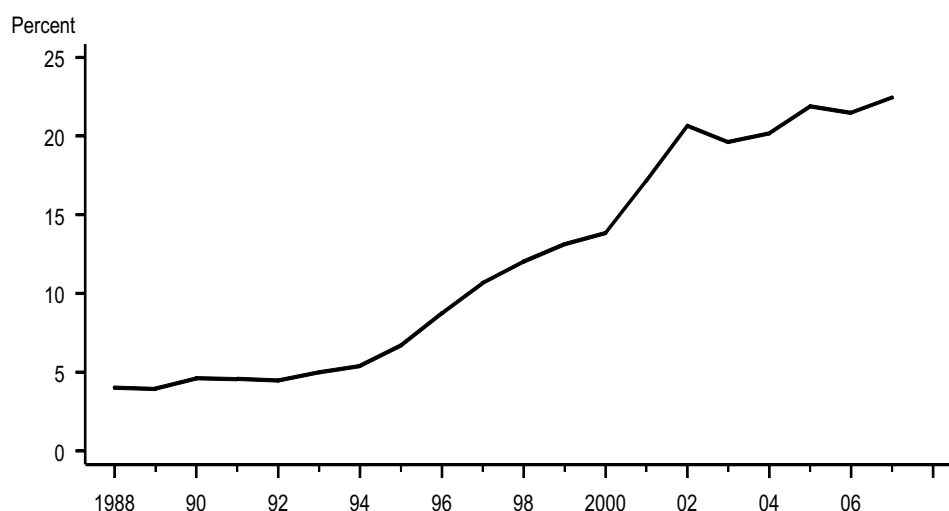
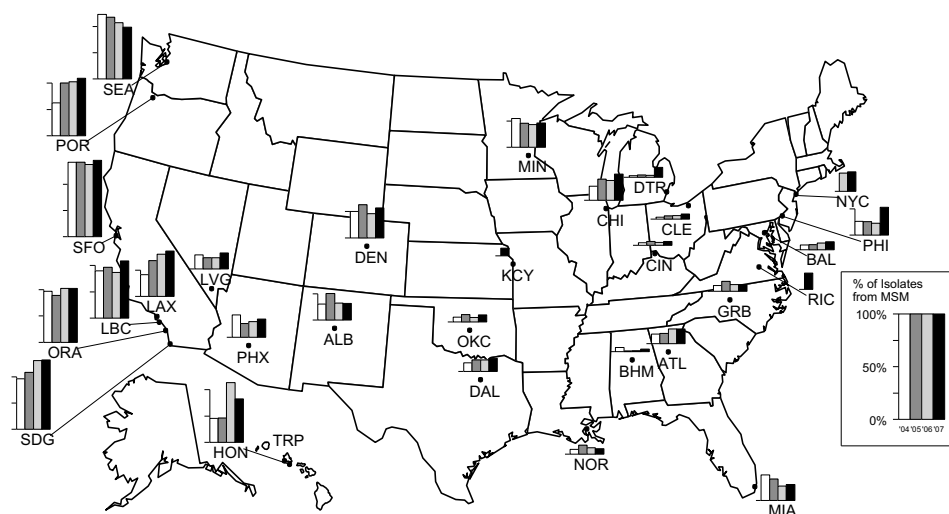


Figure CC. Gonococcal Isolate Surveillance Project (GISP) — Percent of urethral *Neisseria gonorrhoeae* isolates obtained from men who have sex with men attending STD clinics by GISP site, 2004–2007



Note: Not all sites participated in GISP for the last 4 years. 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; LBC=Long Beach, CA; LVC=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 locale with high syphilis incidence suggested that screening and treatment of women inmates for syphilis may result in reduction of 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 2007, STD screening data from corrections facilities were reported from 37 states and Puerto Rico for chlamydia, 33 states and Puerto Rico for gonorrhea, and 19 states for syphilis. The Infertility Prevention Project (IPP) provided CDC with line-listed data for chlamydia and gonorrhea. Aggregate syphilis data were reported to CDC by local and state STD prevention programs.

The figures and tables shown in this section represent 47,042 chlamydia tests in women and 115,014 in men; 37,243 gonorrhea tests in women and 97,666 in men; and 50,666 syphilis serologic tests in women and

200,064 in men entering corrections facilities during 2007.

Chlamydia

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

Adolescent Men — In adolescent men entering 109 juvenile corrections facilities in 2007, the median chlamydia positivity by facility was 5.7% (range: 0.0% to 14.2%) (Table A). In men 12 to 18 years of age entering these facilities, the overall chlamydia positivity was 6.4% (Figure DD). Chlamydia positivity increased from 1.4% for adolescent men aged 12 years to 9.1% for those aged 18 years.

Adolescent Women — In adolescent women entering 73 juvenile corrections facilities in 2007, median chlamydia positivity by facility was 14.3% (range: 2.5% to 32.1%); positivity was greater than 10% in almost all facilities reporting data (Table A). In women 12 to 18 years of age entering these facilities, the overall chlamydia positivity was 14.8% (Figure DD). Positivity in women increased from 6.8% for those aged 12 years to 15.7% for those aged 14 years and, then remained high for women aged 15 to 18 years.

Men — In men entering 51 adult corrections facilities in 2007, the median chlamydia positivity by facility was 7.7% (range: 0.5% to 25.3%) (Table D). Positivity in young adult men aged less than 25 years in these facilities (8.7%) was higher than the overall prevalence

observed in adolescent men entering juvenile facilities (6.4%) (Figure EE). Chlamydia positivity decreased with age from 8.7% for those younger than 25 years of age to 1.8% for those older than 34 years. Overall positivity among adult men entering corrections facilities in 2007 was 6.2%

Women — In women entering 37 adult corrections facilities in 2007, median positivity for chlamydia by facility was 6.4% (range: 0.0% to 21.0%) (Table B). Overall, in women entering these facilities, the chlamydia positivity was 9.7% (Figure EE). Chlamydia positivity decreased with age from 18.6% for those younger than 20 years to 3.5% for those older than 34 years. Overall chlamydia positivity in women entering adult corrections facilities (9.7%) was significantly lower than that in adolescent women entering juvenile corrections facilities (14.8%). However, chlamydia positivity in women younger than 20 years of age attending adult corrections facilities was higher than that in women attending juvenile corrections facilities.

Gonorrhea

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

Adolescent Men — The median positivity for gonorrhea by facility in adolescent men entering 90 juvenile corrections facilities in 2007 was 1.0% (range: 0.0% to 4.5%) (Table C). The overall positivity was 1.2% in men 12 to 18 years of age attending these facilities. (Figure FF). Gonorrhea positivity increased with age from 0.1% for those aged 12 years to 2.1% for those aged 18 years.

Adolescent Women — The median positivity for gonorrhea by facility in women entering 52 juvenile corrections facilities in 2007 was 5.3% (range: 0.0% to 13.9%) (Table C). In women 12 to 18 years of age entering these, the overall gonorrhea

positivity was 5.6% (Figure FF). In 2007, gonorrhea positivity increased with age from 1.8% among 12-year-olds to 7.1% among young women aged 18 years of age.

Men — In men entering 42 adult corrections facilities in 2007, the median gonorrhea positivity was 1.7% (range: 0.0% to 10.7%) (Table D). Overall gonorrhea positivity for men attending these facilities was 1.6% (Figure GG). Gonorrhea positivity was highest in men aged 20 to 24 years at 2.2%, declining with age to 0.9% in men older than 34 years. Men aged younger than 20 years attending adult facilities had higher gonorrhea positivity than men attending juvenile detention facilities.

Women — In women entering 31 adult corrections facilities in 2007, the median gonorrhea positivity by facility was 2.9% (range: 0.0% to 7.3%) (Table D). Overall, in women entering these facilities, the gonorrhea positivity was 3.7% (Figure GG). Gonorrhea positivity decreased with age from 6.5% for those younger than 20 years to 1.5% for those older than 34 years. Women younger than 20 years attending adult facilities had higher gonorrhea positivity than young women attending juvenile detention facilities.

Syphilis

Adolescent Men — In 2007, the median syphilis serologic positivity by facility was 0.1% (range: 0.0% to 0.9%) in adolescent men entering eight juvenile corrections facilities (Table E).

Adolescent Women — In 2007, the median syphilis serologic positivity by facility was 0.2% (range: 0.0% to 2.1%) in adolescent women entering five juvenile corrections facilities (Table E).

Men — In men entering 60 adult corrections facilities in 2007, the median

syphilis serologic positivity by facility was 1.0% (range: 0.0% to 47.0%) (Table F).

Women — In women entering 36 adult corrections facilities in 2007, the median serologic positivity by facility was 2.1% (range: 0.0% to 28.0%) (Table F).

¹ Heimberger TS, Chang HG, Birkhead GS, DiFerdinando GD, Greenberg AJ, Gunn R, Morse DL. High prevalence of syphilis detected through a jail screening program. A potential public health measure to address the syphilis epidemic. *Arch Intern Med* 1993;153:1799–1804.

² Kahn RH, Mosure DJ, Blank S, Kent CK, Chow JM, Boudov MR, Brock J, Tulloch S, and the Jail Prevalence Monitoring Project. *Chlamydia trachomatis* and *Neisseria gonorrhoeae* prevalence and coinfection in adolescents entering selected US juvenile detention centers, 1997–2002. *Sex Transm Dis* 2005;29:255–259.

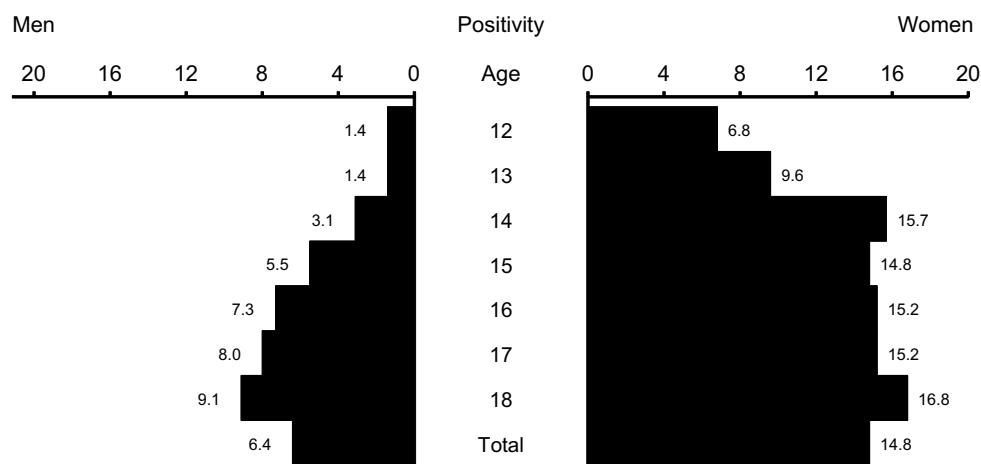
³ Joesoef MR, Weinstock HS, Kent CK, Chow JM, Boudov MR, Parvez FM, Cox T, Lincoln T, Miller JL, Sternberg MS and the Corrections STD Prevalence Monitoring Group. Sex and age correlates of chlamydia prevalence in adolescents and adults entering correctional facilities, 2005: Implications for screening policy. *Sex Transm Dis* (in press).

⁴ Satterwhite CL, Joesoef MR, Datta SD, Weinstock H. Estimates of *Chlamydia trachomatis* Infections among men:United States. *Sex Trans Dis* (in press).

⁵ Blank S, McDonnell DD, Rubin SR et al. New approaches to syphilis control. Finding opportunities for syphilis treatment and congenital syphilis prevention in a women's correctional setting. *Sexually Transmitted Diseases* 1997; 24:218–26.

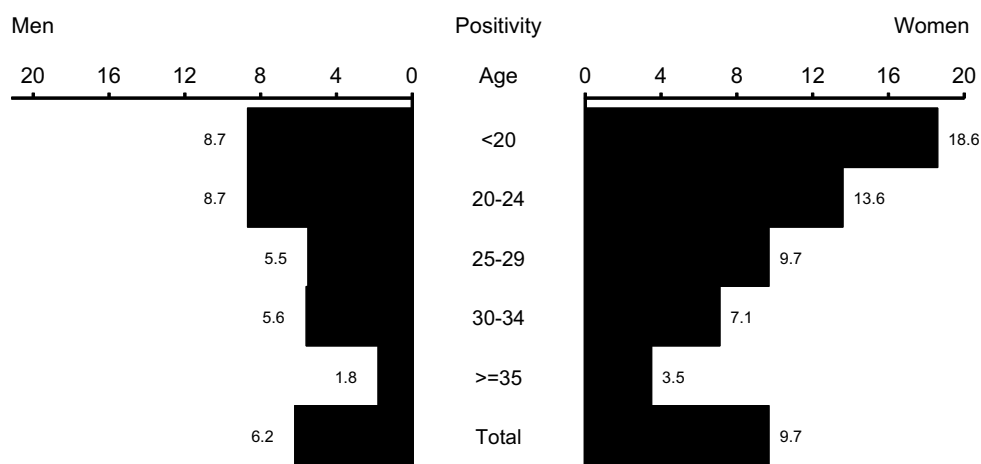
⁶ Kahn R, Voigt R, Swint E, Weinstock H. Early syphilis in the United States identified in corrections facilities, 1999–2002. *Sex Trans Dis* 2004; 29:271–276.

Figure DD. Chlamydia — Positivity by age and sex, juvenile corrections facilities, 2007



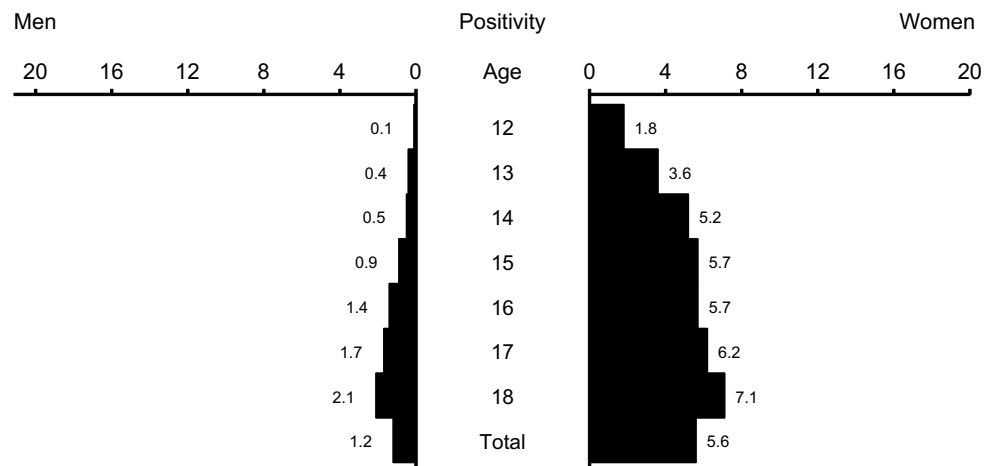
Note: Percent positivity is presented from facilities reporting > 100 test results.

Figure EE. Chlamydia — Positivity by age group and sex, adult corrections facilities, 2007



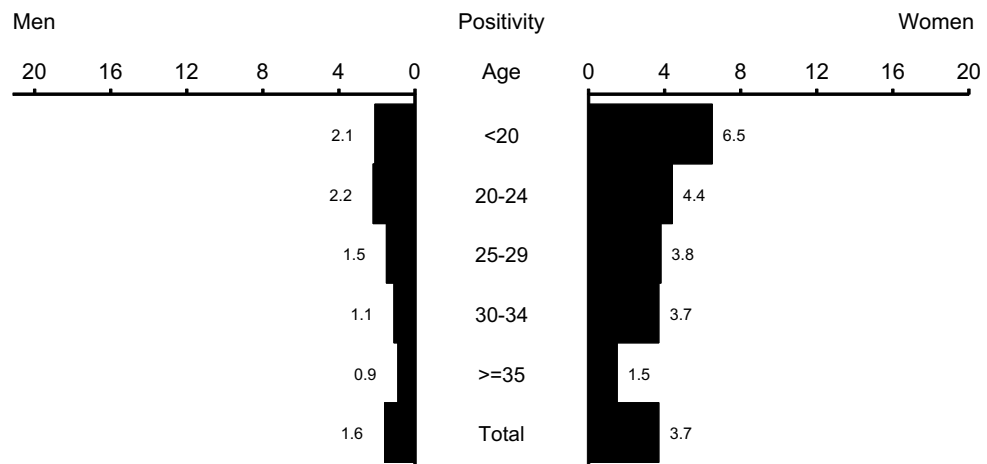
Note: Percent positivity is presented from facilities reporting > 100 test results.

Figure FF. Gonorrhea — Positivity by age and sex, juvenile corrections facilities, 2007



Note: Percent positivity is presented from facilities reporting > 100 test results.

Figure GG. Gonorrhea — Positivity by age group and sex, adult corrections facilities, 2007



Note: Percent positivity is presented from facilities reporting > 100 test results.

Table A. Chlamydia — Positivity among men and women in juvenile corrections facilities, 2007

State	Men			Women		
	No. of Facilities	No. of Tests	Median % Positivity (Range)	No. of Facilities	No. of Tests	Median % Positivity (Range)
Alabama	—	—	—	1	119	16.0
Arizona	6	5,375	5.4 (2.4-8.4)	5	1,503	16.1 (3.2-20.8)
California*	18	24,033	4.9 (0.0-10.6)	22	11,007	11.1 (2.5-27.0)
Colorado	1	236	7.6	—	—	—
Connecticut	2	726	3.2 (2.6-3.8)	2	257	11.3 (10.9-11.6)
Georgia	15	5,787	6.2 (1.7-11.0)	11	2,101	20.0 (13.5-27.7)
Hawaii	1	147	8.8	—	—	—
Idaho	—	—	—	1	208	11.5
Illinois	5	4,705	7.8 (6.5-10.9)	1	396	17.9
Indiana	1	979	10.1	1	237	21.1
Kentucky	7	2,152	4.9 (2.3-9.8)	1	176	12.5
Maryland	4	1,731	5.9 (2.7-7.5)	2	408	15.1 (14.3-15.9)
Massachusetts	1	412	2.2	—	—	—
Michigan	8	5,096	10.1 (6.2-13.9)	4	1,378	17.0 (10.3-19.7)
Minnesota	1	306	11.8	—	—	—
Mississippi	1	465	9.0	1	106	15.1
Missouri	1	449	6.9	—	—	—
Nebraska	1	368	6.3	1	193	12.4
Nevada	2	1,388	8.9 (3.7-14.2)	2	278	23.0 (13.9-32.1)
New Jersey	3	2,786	7.9 (6.6-11.4)	1	169	18.3
New Mexico	2	638	5.7 (4.1-7.2)	—	—	—
New York	7	4,616	4.2 (2.6-6.1)	5	1,086	14.6 (12.1-15.7)
North Dakota	1	132	6.8	—	—	—
Ohio	5	6,216	8.2 (5.0-11.2)	3	1,314	18.8 (7.6-20.4)
Oregon	3	1,442	4.5 (3.3-8.6)	3	423	7.6 (6.5-19.5)
Pennsylvania	1	127	3.1	—	—	—
Puerto Rico	2	354	4.1 (3.5-4.7)	1	107	20.6
Tennessee	1	1,911	4.3	1	825	12.4
Texas	1	832	9.4	1	199	16.6
Virginia	1	729	8.1	—	—	—
Washington	5	1,030	5.0 (2.7-13.4)	3	907	12.4 (3.5-21.0)
Wisconsin	2	576	5.6 (4.5-6.8)	—	—	—
Total	109	75,744	5.7 (0.0-14.2)	73	23,397	14.3 (2.5-32.1)

Note: The percent positivity by facility is presented from facilities reporting > 100 test results.

*Includes Los Angeles and San Francisco project areas.

Table B. Chlamydia — Positivity among men and women in adult corrections facilities, 2007

State	Men			Women		
	No. of Facilities	No. of Tests	Median % Positivity (Range)	No. of Facilities	No. of Tests	Median % Positivity (Range)
Arizona	3	874	13.9 (11.5-15.7)	2	1,474	9.9 (4.7-15.2)
California*	5	4,338	4.2 (2.9-5.8)	4	9,316	11.2 (5.3-15.6)
Delaware	1	679	4.1	2	1,008	7.8 (5.1-10.4)
Hawaii	—	—	—	2	288	12.3 (6.4-18.3)
Illinois	6	2,621	10.5 (5.9-14.8)	3	2,903	5.1 (3.3-5.7)
Indiana	1	1,209	6.7	2	1,433	10.1 (10.1-10.2)
Iowa	2	768	13.8 (8.1-19.4)	1	435	5.1
Maryland	1	633	6.0	—	—	—
Massachusetts	2	3,601	4.7 (4.7-4.8)	2	911	4.0 (3.6-4.3)
Michigan	1	154	25.3	1	240	10.4
Missouri	1	3,018	5.8	1	570	4.6
Montana	—	—	—	1	106	0.0
Nebraska	4	1,585	8.2 (6.2-19.9)	1	225	11.6
Nevada	1	294	9.5	1	182	8.8
New Mexico	1	130	10.8	1	478	10.5
New York	2	7,054	7.0 (3.7-10.3)	1	249	5.2
North Dakota	1	469	5.5	1	101	5.9
Oregon	2	233	20.4 (18.4-22.3)	1	169	7.7
Pennsylvania	3	2,210	7.7 (4.3-10.3)	3	610	5.4 (4.9-6.9)
South Carolina	2	1,101	8.6 (7.9-9.3)	1	145	8.3
Texas	3	2,264	7.1 (0.5-16.6)	2	942	19.1 (17.3-21.0)
Utah	1	110	9.1	1	171	11.7
Washington	—	—	—	1	801	6.1
West Virginia	4	1,510	2.9 (0.5-5.1)	1	151	0.7
Wisconsin	4	4,415	9.0 (5.6-13.5)	1	737	2.0
Total	51	39,270	7.7 (0.5-25.3)	37	23,645	6.4 (0.0-21.0)

Note: The percent positivity by facility is presented from facilities reporting > 100 test results.

*Includes Los Angeles and San Francisco project areas.

Table C. Gonorrhea — Positivity among men and women in juvenile corrections facilities, 2007

<i>State</i>	<i>Men</i>			<i>Women</i>		
	<i>No. of Facilities</i>	<i>No. of Tests</i>	<i>Median % Positivity (Range)</i>	<i>No. of Facilities</i>	<i>No. of Tests</i>	<i>Median % Positivity (Range)</i>
Alabama	—	—	—	1	120	10.8
Arizona	6	5,373	0.9 (0.0-1.4)	5	1,503	3.8 (0.9-5.6)
California*	6	16,309	0.5 (0.0-1.2)	6	4,426	4.2 (0.8-5.9)
Colorado	1	236	1.7	—	—	—
Connecticut	2	724	0.5 (0.0-1.1)	2	258	4.1 (1.7-6.5)
Georgia	15	5,781	1.8 (0.0-4.5)	11	2,098	8.3 (1.8-13.9)
Hawaii	1	147	0.0	—	—	—
Idaho	—	—	—	1	208	0.0
Illinois	5	4,708	1.0 (0.0-2.3)	1	398	8.8
Indiana	1	979	3.8	1	237	7.2
Kentucky	7	2,151	1.2 (0.5-2.5)	1	176	3.4
Maryland	4	1,731	0.8 (0.0-1.1)	2	408	4.7 (4.7-4.7)
Michigan	8	4,979	1.9 (0.4-2.9)	4	1,353	6.7 (1.7-7.3)
Minnesota	1	307	4.2	—	—	—
Mississippi	1	464	1.1	1	106	5.7
Missouri	1	449	2.9	—	—	—
Nebraska	1	368	2.4	1	193	5.2
Nevada	2	1,389	0.8 (0.5-1.0)	2	278	2.7 (0.8-4.5)
New Jersey	3	2,787	2.0 (0.4-2.2)	1	169	5.3
New Mexico	2	638	0.3 (0.0-0.7)	—	—	—
New York	6	4,085	0.5 (0.0-1.0)	4	962	3.4 (1.7-6.7)
Ohio	5	6,215	1.7 (0.0-1.8)	3	1,314	6.5 (3.5-6.6)
Pennsylvania	1	127	0.0	—	—	—
Puerto Rico	2	354	0.0	1	107	1.9
Tennessee	1	1,913	0.7	1	828	4.0
Texas	1	832	1.6	1	199	8.0
Virginia	1	729	0.5	—	—	—
Washington	4	649	0.0 (0.0-2.2)	2	723	5.8 (4.5-7.1)
Wisconsin	2	572	0.6 (0.0-1.3)	—	—	—
Total	90	64,996	1.0 (0.0-4.5)	52	16,064	5.3 (0.0-13.9)

Note: The percent positivity by facility is presented from facilities reporting > 100 test results. *Includes Los Angeles and San Francisco project areas.

Table D. Gonorrhea — Positivity among men and women in adult corrections facilities, 2007

<i>State</i>	<i>Men</i>			<i>Women</i>		
	<i>No. of Facilities</i>	<i>No. of Tests</i>	<i>Median % Positivity (Range)</i>	<i>No. of Facilities</i>	<i>No. of Tests</i>	<i>Median % Positivity (Range)</i>
Arizona	3	873	10.7 (9.6-10.7)	2	1,475	5.8 (5.3-6.2)
California*	5	4,340	1.2 (0.4-2.2)	4	9,310	4.2 (2.5-5.4)
Delaware	1	679	1.2	2	1,008	3.6 (2.9-4.3)
Hawaii	—	—	—	2	290	3.3 (0.6-6.1)
Illinois	7	2,634	2.9 (0.6-5.5)	3	2,397	1.6 (1.6-2.9)
Indiana	1	1,209	2.7	2	1,433	7.1 (6.8-7.3)
Iowa	2	768	4.4 (0.8-7.9)	1	435	0.7
Maryland	1	633	0.9	—	—	—
Michigan	1	154	7.1	1	240	2.9
Missouri	1	3,020	1.2	1	570	1.9
Montana	—	—	—	1	106	0.0
Nebraska	4	1,585	0.9 (0.0-8.2)	1	225	5.3
Nevada	1	294	2.7	1	182	2.7
New Mexico	1	131	2.3	1	477	2.1
New York	1	6,373	0.5	—	—	—
Pennsylvania	3	2,210	1.7 (0.5-2.8)	3	610	2.4 (1.3-4.0)
South Carolina	2	991	1.7 (0.8-2.7)	1	133	4.5
Texas	3	2,263	1.6 (0.0-5.1)	2	943	5.9 (5.3-6.6)
Utah	1	110	1.8	1	170	0.6
Washington	—	—	—	1	467	1.7
Wisconsin	4	4,403	2.3 (0.7-6.1)	1	708	0.1
Total	42	32,670	1.7 (0.0-10.7)	31	21,179	2.9 (0.0-7.3)

Note: The percent positivity by facility is presented from facilities reporting > 100 test results. *Includes Los Angeles and San Francisco project areas.

Table E. Syphilis— Positivity among men and women in juvenile corrections facilities, 2007

<i>State</i>	<i>Men</i>			<i>Women</i>		
	<i>No. of Facilities</i>	<i>No. of Tests</i>	<i>Median % Positivity (Range)</i>	<i>No. of Facilities</i>	<i>No. of Tests</i>	<i>Median % Positivity (Range)</i>
Arizona	2	2,345	0.3 (0.1-0.5)	1	478	0.2
Illinois	1	796	0.9	1	142	2.1
Mississippi	1	141	0.0	—	—	—
North Carolina	1	354	0.0	—	—	—
Texas	3	2,653	0.1 (0.0-0.8)	3	1,036	0.2 (0.0-1.6)
Total	8	6,289	0.1 (0.0-0.9)	5	1,656	0.2 (0.0-2.1)

Note: The percent positivity by facility is presented from facilities reporting > 100 test results.

Table F. Syphilis— Positivity among men and women in adult corrections facilities, 2007

<i>State</i>	<i>Men</i>			<i>Women</i>		
	<i>No. of Facilities</i>	<i>No. of Tests</i>	<i>Median % Positivity (Range)</i>	<i>No. of Facilities</i>	<i>No. of Tests</i>	<i>Median % Positivity (Range)</i>
Arizona	1	27,629	2.0	1	6,310	4.3
Connecticut	—	—	—	1	3,108	2.0
Illinois	3	575	0.7 (0.0-1.4)	1	111	3.6
Indiana	1	1,120	0.4	1	1,284	1.4
Kentucky	1	324	0.3	1	332	0.3
Louisiana	—	—	—	1	1,003	28.0
Maryland	12	37,183	0.8 (0.3-3.7)	6	8,821	3.4 (0.8-8.5)
Massachusetts	16	17,546	1.1 (0.0-3.0)	4	3,883	0.9 (0.5-1.2)
Michigan	1	8,638	1.5	1	736	4.9
Mississippi	3	1,678	7.2 (4.0-12.6)	—	—	—
Missouri	3	6,103	1.8 (1.1-47.0)	2	956	2.5 (1.1-4.0)
New Jersey	3	31,007	1.8 (0.7-3.8)	3	3,762	0.0 (0.0-8.9)
New York*	2	8,782	1.7 (1.1-2.4)	2	1,802	4.0 (2.3-5.7)
North Carolina	6	4,908	0.7 (0.0-0.8)	5	1,418	1.8 (0.0-3.5)
Oklahoma	1	1,402	0.0	1	2,019	0.0
Tennessee	1	8,027	3.3	1	5,322	9.4
Texas	4	31,096	3.0 (0.5-6.0)	4	6,643	7.7 (4.7-12.6)
Washington	1	7,270	4.0	1	1,500	0.0
Wisconsin	1	487	0.6	—	—	—
Total	60	193,775	1.0 (0.0-47.0)	36	49,010	2.1 (0.0-28.0)

Note: The percent positivity by facility is presented from facilities reporting > 100 test results.

*New York data is for confirmatory results.

TABLES

TABLES

Table 1. Cases of sexually transmitted diseases reported by state health departments and rates per 100,000 population: United States, 1941–2007

Year*	Syphilis										Chlamydia		Gonorrhea		Chancroid	
	All Stages		Primary and Secondary		Early Latent		Late and Late Latent†		Congenital‡							
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

Table 1. Cases of sexually transmitted diseases reported by state health departments and rates per 100,000 population: United States, 1941–2007 (continued)

Year*	Syphilis										Chlamydia		Gonorrhea		Chancroid	
	All Stages		Primary and Secondary		Early Latent		Late and Late Latent†		Congenital‡							
Year*	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate§	Cases	Rate	Cases	Rate	Cases	Rate
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	46,715	17.1	8,556	3.1	16,631	6.1	20,447	7.5	1,081	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	36,959	12.3	9,756	3.3	9,186	3.1	17,644	5.9	373	9.1	1,030,911	344.3	358,366	119.7	19	0.0
2007	40,920	13.7	11,466	3.8	10,768	3.6	18,256	6.1	430	10.5	1,108,374	370.2	355,991	118.9	23	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.

†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 or electronic format based on case reporting form CDC 73.126.

Note: Adjustments to the number of cases reported from state health departments were made for hardcopy forms and for electronic data submissions through June 25, 2008 (see Appendix). The number of cases and the rates shown here supersede those published in previous reports. Cases and rates shown in this table exclude the outlying areas of Guam, Puerto Rico and Virgin Islands.

NR = No report.

Table 2. Chlamydia — Reported cases and rates by state, ranked by rates: United States, 2007

<i>Rank</i> [*]	<i>State</i>	<i>Cases</i>	<i>Rate per 100,000 Population</i>
1	Mississippi	21,686	745.1
2	Alaska	4,911	732.9
3	South Carolina	26,431	611.7
4	Alabama	25,153	546.9
5	New Mexico	9,460	484.0
6	Georgia	42,913	458.3
7	Louisiana	19,362	451.6
8	Tennessee	26,866	444.9
9	Hawaii	5,659	440.2
10	Illinois	55,470	432.3
11	New York	80,717	418.1
12	Ohio	47,434	413.3
13	Maryland	23,150	412.2
14	Delaware	3,479	407.6
15	Arizona	24,866	403.3
16	Missouri	23,308	398.9
17	California	141,928	389.3
18	Nevada	9,514	381.2
	U.S. TOTAL[†]	1,108,374	370.2
19	Michigan	37,353	370.0
20	Texas	85,786	364.9
21	Colorado	17,186	361.6
22	Arkansas	9,954	354.1
23	Wisconsin	19,555	351.9
24	Oklahoma	12,529	350.0
25	North Carolina	30,611	345.6
26	Pennsylvania	42,469	341.4
27	South Dakota	2,620	335.1
28	Indiana	20,712	328.1
29	Connecticut	11,454	326.8
30	Virginia	24,579	321.6
31	Florida	57,575	318.3
32	Rhode Island	3,177	297.6
33	Kansas	8,180	295.9
34	Washington	18,784	293.7
35	Montana	2,748	290.9
36	Nebraska	5,132	290.2
37	Iowa	8,643	289.8
38	North Dakota	1,789	281.3
39	Oregon	9,849	266.1
40	Minnesota	13,413	259.6
41	Idaho	3,722	253.8
42	Massachusetts	16,145	250.8
43	New Jersey	21,536	246.8
44	Wyoming	1,197	232.4
45	Utah	5,721	224.3
46	Kentucky	8,798	209.2
47	Maine	2,541	192.3
48	West Virginia	3,168	174.2
49	Vermont	1,057	169.4
50	New Hampshire	2,055	156.3

*States were ranked in descending order by rate, number of cases, and alphabetically by state.

†Total includes cases reported by the District of Columbia with 6,029 cases and a rate of 1036.7, but excludes outlying areas (Guam with 822 cases and rate of 480.6, Puerto Rico with 7,909 cases and rate of 201.3, and Virgin Islands with 348 cases and rate of 320.4).

Table 3. Chlamydia — Reported cases and rates by state/area and region listed in alphabetical order: United States and outlying areas, 2003–2007

<i>State/Area</i>	<i>Cases</i>					<i>Rates per 100,000 Population</i>				
	<i>2003</i>	<i>2004</i>	<i>2005</i>	<i>2006</i>	<i>2007</i>	<i>2003</i>	<i>2004</i>	<i>2005</i>	<i>2006</i>	<i>2007</i>
Alabama	14,209	13,314	17,109	22,915	25,153	315.7	293.9	375.4	498.3	546.9
Alaska	3,900	3,954	4,355	4,525	4,911	601.1	603.3	656.2	675.3	732.9
Arizona	12,819	16,786	21,264	24,090	24,866	229.7	292.2	358.0	390.7	403.3
Arkansas	7,856	7,864	8,507	8,259	9,954	288.2	285.7	306.1	293.8	354.1
California	117,428	122,197	130,716	135,827	141,928	330.9	340.4	361.8	372.6	389.3
Colorado	13,039	14,151	15,432	16,313	17,186	286.5	307.5	330.8	343.2	361.6
Connecticut	9,393	9,552	11,039	10,946	11,454	269.7	272.6	314.5	312.3	326.8
Delaware	3,035	2,954	3,392	3,615	3,479	371.3	355.7	402.1	423.6	407.6
District of Columbia	3,168	3,493	3,678	3,368	6,029	561.4	631.0	668.1	579.2	1,036.7
Florida	42,382	42,554	43,372	48,955	57,575	249.0	244.6	243.8	270.6	318.3
Georgia	35,686	34,280	33,562	38,972	42,913	410.9	388.2	369.9	416.2	458.3
Hawaii	5,480	5,307	5,489	5,548	5,659	435.7	420.2	430.4	431.6	440.2
Idaho	2,366	2,784	2,799	3,345	3,722	173.2	199.8	195.9	228.1	253.8
Illinois	48,294	47,185	50,559	53,586	55,470	381.7	371.1	396.1	417.6	432.3
Indiana	17,075	18,440	20,063	19,859	20,712	275.6	295.6	319.9	314.5	328.1
Iowa	6,491	6,956	7,390	8,390	8,643	220.5	235.4	249.1	281.3	289.8
Kansas	7,249	7,493	7,419	7,829	8,180	266.2	273.9	270.3	283.2	295.9
Kentucky	7,981	6,470	8,351	8,940	8,798	193.8	156.1	200.1	212.5	209.2
Louisiana	20,970	21,837	17,227	17,885	19,362	466.4	483.6	380.8	417.1	451.6
Maine	2,030	2,113	2,254	2,306	2,541	155.5	160.4	170.6	174.5	192.3
Maryland	16,831	19,952	18,291	21,859	23,150	305.5	359.0	326.6	389.2	412.2
Massachusetts	11,301	13,242	14,411	15,394	16,145	175.7	206.4	225.2	239.1	250.8
Michigan	32,572	41,246	38,730	36,753	37,353	323.1	407.9	382.7	364.0	370.0
Minnesota	10,714	11,602	12,189	12,935	13,413	211.8	227.4	237.5	250.3	259.6
Mississippi	12,193	18,863	21,268	19,002	21,686	423.2	649.8	728.1	652.9	745.1
Missouri	18,570	21,319	22,371	22,982	23,308	325.5	370.5	385.7	393.3	398.9
Montana	2,547	2,608	2,400	2,650	2,748	277.6	281.4	256.5	280.5	290.9
Nebraska	4,739	5,238	5,098	5,428	5,132	272.5	299.8	289.9	307.0	290.2
Nevada	5,830	6,690	7,321	8,398	9,514	260.1	286.5	303.2	336.5	381.2
New Hampshire	1,616	1,736	1,842	1,997	2,055	125.5	133.6	140.6	151.9	156.3
New Jersey	16,169	17,448	19,152	20,194	21,536	187.2	200.6	219.7	231.5	246.8
New Mexico	7,480	9,035	8,456	9,829	9,460	399.0	474.7	438.5	502.9	484.0
New York	57,222	59,097	63,966	68,720	80,717	298.2	307.4	332.2	355.9	418.1
North Carolina	26,187	28,967	31,183	33,615	30,611	311.5	339.1	359.1	379.6	345.6
North Dakota	1,655	1,810	1,667	1,820	1,789	261.1	285.3	261.8	286.2	281.3
Ohio	42,522	39,379	43,806	40,106	47,434	371.8	343.7	382.1	349.4	413.3
Oklahoma	11,013	10,366	13,407	12,992	12,529	313.6	294.2	377.9	363.0	350.0
Oregon	7,688	8,690	9,018	9,577	9,849	216.0	241.8	247.7	258.8	266.1
Pennsylvania	37,291	38,025	37,261	39,487	42,469	301.6	306.5	299.8	317.4	341.4
Rhode Island	3,000	3,442	3,269	3,142	3,177	278.8	318.5	303.8	294.3	297.6
South Carolina	14,623	18,423	18,296	22,351	26,431	352.6	438.8	430.0	517.2	611.7
South Dakota	2,608	2,532	2,701	2,633	2,620	341.2	328.5	348.1	336.7	335.1
Tennessee	20,380	22,515	23,084	25,320	26,866	348.9	381.5	387.1	419.3	444.9
Texas	69,200	70,232	71,860	75,543	85,786	312.9	312.3	314.3	321.4	364.9
Utah	3,893	3,857	4,602	5,092	5,721	165.6	161.4	186.3	199.7	224.3
Vermont	1,060	1,137	957	1,191	1,057	171.2	183.0	153.6	190.9	169.4
Virginia	19,439	21,635	22,668	24,087	24,579	263.2	290.0	299.5	315.2	321.6
Washington	16,797	17,635	18,616	17,819	18,784	273.9	284.3	296.1	278.6	293.7
West Virginia	2,585	2,758	2,944	2,910	3,168	142.8	151.9	162.0	160.0	174.2
Wisconsin	17,942	19,217	20,461	20,190	19,555	327.9	348.8	369.6	363.4	351.9
Wyoming	960	1,082	1,173	1,422	1,197	191.5	213.6	230.3	276.1	232.4
U.S. TOTAL	877,478	929,462	976,445	1,030,911	1,108,374	301.7	316.5	329.4	344.3	370.2
Northeast	139,082	145,792	154,151	163,377	181,151	255.7	267.2	282.1	298.5	330.9
Midwest	210,431	222,417	232,454	232,511	243,609	321.7	338.4	352.4	351.1	367.9
South	327,738	346,477	358,199	390,588	428,069	313.5	327.0	333.2	358.1	392.4
West	200,227	214,776	231,641	244,435	255,545	301.2	318.6	339.2	352.4	368.5
Guam	554	748	807	832	822	338.6	450.4	478.7	486.5	480.6
Puerto Rico	2,746	3,588	3,714	5,102	7,909	70.8	92.1	94.9	129.9	201.3
Virgin Islands	416	303	235	203	348	382.3	278.6	216.2	186.9	320.4
OUTLYING AREAS	3,716	4,639	4,756	6,137	9,079	89.5	111.3	113.5	145.8	215.8
TOTAL	881,194	934,101	981,201	1,037,048	1,117,453	298.7	313.6	326.4	341.6	368.1

Table 4. Chlamydia — Women – Reported cases and rates by state/area and region listed in alphabetical order: United States and outlying areas, 2003–2007

State/Area	Cases					Rates per 100,000 Population				
	2003	2004	2005	2006	2007	2003	2004	2005	2006	2007
Alabama	12,977	11,685	14,532	17,915	19,186	559.0	500.6	619.4	756.0	809.7
Alaska	2,665	2,671	2,908	3,067	3,295	850.0	843.9	907.4	947.7	1,018.1
Arizona	10,043	12,896	16,201	18,485	18,794	360.1	449.3	546.2	600.1	610.1
Arkansas	6,284	6,252	6,823	6,604	7,893	451.5	445.3	481.8	460.8	550.7
California	85,967	88,439	93,646	97,170	101,175	483.7	491.9	517.8	532.9	554.9
Colorado	9,843	10,283	11,219	12,037	12,707	436.4	451.0	485.8	510.0	538.3
Connecticut	7,309	7,383	8,383	8,205	8,577	407.8	409.4	464.4	456.2	476.9
Delaware	2,155	2,140	2,493	2,625	2,554	513.9	502.7	576.8	597.6	581.5
District of Columbia	2,695	2,948	2,976	2,510	3,970	903.6	1,010.3	1,028.4	812.7	1,285.3
Florida	34,581	34,437	34,850	38,536	42,173	398.2	388.1	384.4	418.6	458.1
Georgia	28,992	27,656	26,317	30,546	31,827	659.2	619.5	574.0	642.7	669.6
Hawaii	4,113	4,019	4,093	4,161	4,228	655.9	635.1	640.1	648.0	658.4
Idaho	1,762	2,157	2,162	2,435	2,660	258.5	310.5	303.6	334.4	365.3
Illinois	36,284	35,996	37,672	39,705	41,733	563.1	556.3	580.3	609.5	640.6
Indiana	13,118	14,217	15,263	14,907	15,576	416.6	448.7	479.4	465.4	486.3
Iowa	4,915	5,208	5,400	6,157	6,310	328.5	347.1	358.7	407.9	418.1
Kansas	5,989	6,195	6,054	6,286	6,629	436.1	449.9	438.4	451.4	476.0
Kentucky	6,353	5,027	6,041	6,336	6,184	302.5	238.0	284.5	295.4	288.3
Louisiana	17,046	17,549	13,395	14,290	15,334	736.6	755.8	576.4	649.0	696.4
Maine	1,452	1,532	1,644	1,672	1,831	217.0	227.3	243.2	247.6	271.2
Maryland	13,746	16,108	14,653	17,339	18,230	483.5	561.8	507.5	598.1	628.9
Massachusetts	8,429	9,781	10,587	11,175	11,671	253.7	295.5	321.0	336.6	351.5
Michigan	25,903	32,624	30,079	27,915	28,341	505.1	634.2	584.6	544.6	552.9
Minnesota	7,866	8,521	8,820	9,243	9,681	308.4	331.7	341.3	355.7	372.6
Mississippi	10,536	15,097	16,684	14,853	16,718	709.5	1,010.4	1,110.4	989.4	1,113.6
Missouri	14,750	16,306	16,580	16,938	17,080	504.8	553.9	559.3	566.9	571.6
Montana	1,865	1,916	1,776	1,932	2,024	405.4	412.4	378.9	409.3	428.8
Nebraska	3,435	3,812	3,713	3,956	3,755	390.3	431.4	417.6	443.7	421.2
Nevada	4,268	4,857	5,362	6,185	7,044	388.3	423.8	452.3	504.2	574.3
New Hampshire	1,196	1,265	1,343	1,484	1,533	183.1	192.1	202.2	222.7	230.1
New Jersey	13,813	14,491	15,826	16,560	17,355	311.5	324.7	354.1	371.1	388.9
New Mexico	5,973	6,876	6,333	7,456	7,044	627.3	710.9	646.2	753.3	711.7
New York	43,907	44,975	45,391	48,568	56,590	442.9	453.3	457.2	488.1	568.7
North Carolina	21,807	23,916	25,702	27,301	25,110	509.9	550.8	582.6	604.6	556.1
North Dakota	1,087	1,206	1,091	1,231	1,194	342.8	379.6	342.1	389.0	377.3
Ohio	33,549	30,377	33,312	30,483	36,143	571.6	516.8	566.9	518.4	614.6
Oklahoma	8,990	8,237	10,608	9,678	9,130	505.0	461.9	591.1	533.3	503.1
Oregon	5,590	6,090	6,194	6,585	6,890	312.1	336.9	338.4	353.8	370.2
Pennsylvania	27,557	27,740	27,131	28,503	30,511	432.1	433.9	424.0	445.8	477.3
Rhode Island	2,232	2,502	2,396	2,175	2,282	400.2	447.3	430.7	394.5	413.9
South Carolina	12,745	15,925	15,694	19,055	20,793	598.8	739.7	719.6	859.3	937.7
South Dakota	1,864	1,824	1,924	1,923	1,894	484.9	470.5	492.9	491.4	484.0
Tennessee	14,669	16,237	16,453	18,352	19,604	490.7	538.6	540.8	594.3	634.9
Texas	57,549	57,470	58,668	60,327	67,966	518.0	509.1	511.4	511.5	576.3
Utah	2,787	2,720	3,081	3,457	3,926	238.0	228.6	250.6	272.7	309.7
Vermont	828	861	725	897	812	262.8	272.8	229.3	283.1	256.2
Virginia	15,535	16,578	16,805	17,682	18,136	413.8	437.6	437.2	455.0	466.7
Washington	12,341	12,835	13,471	13,021	13,793	401.4	412.8	427.8	406.1	430.2
West Virginia	2,102	2,105	2,272	2,208	2,423	226.6	226.8	244.9	238.0	261.1
Wisconsin	12,838	13,913	14,751	14,606	14,438	464.3	500.1	527.9	522.5	516.5
Wyoming	717	820	874	1,051	913	288.1	326.1	346.0	413.8	359.4
U.S. TOTAL	685,017	716,675	740,371	775,788	825,660	463.6	480.6	492.2	510.8	543.6
Northeast	106,723	110,530	113,426	119,239	131,162	380.7	393.4	403.5	423.8	466.2
Midwest	161,598	170,199	174,659	173,350	182,774	485.6	509.2	521.0	515.8	543.9
South	268,762	279,367	284,966	306,157	327,231	505.0	518.4	521.5	551.6	589.6
West	147,934	156,579	167,320	177,042	184,493	445.1	464.5	490.2	511.0	532.5
Guam	446	608	667	692	669	556.8	747.1	807.0	824.7	797.3
Puerto Rico	2,378	3,240	3,366	4,091	6,781	118.1	160.1	165.6	200.3	332.1
Virgin Islands	352	232	189	144	267	619.0	408.0	332.5	253.6	470.2
OUTLYING AREAS	3,176	4,080	4,222	4,927	7,717	147.6	188.8	194.4	225.7	353.6
TOTAL	688,193	720,755	744,593	780,715	833,377	459.0	476.4	488.0	506.7	540.9

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 listed in alphabetical order: United States and outlying areas, 2003–2007

State/Area	Cases					Rates per 100,000 Population				
	2003	2004	2005	2006	2007	2003	2004	2005	2006	2007
Alabama	1,201	1,603	2,507	4,985	5,955	55.1	73.0	113.4	223.6	267.1
Alaska	1,235	1,283	1,447	1,458	1,616	368.3	378.6	421.6	420.9	466.5
Arizona	2,772	3,884	5,058	5,588	6,055	99.3	135.2	170.1	181.1	196.2
Arkansas	1,567	1,612	1,684	1,655	2,060	117.5	119.5	123.6	120.1	149.5
California	31,238	33,323	36,449	38,003	40,213	176.4	186.0	202.0	208.5	220.7
Colorado	3,196	3,855	4,213	4,276	4,479	139.2	166.1	178.8	178.7	187.2
Connecticut	2,084	2,168	2,656	2,741	2,877	123.2	127.5	155.8	160.7	168.6
Delaware	880	814	899	990	925	221.0	201.1	218.6	239.0	223.3
District of Columbia	450	529	681	819	2,034	169.1	202.1	260.8	300.4	746.0
Florida	7,801	8,117	8,522	10,410	15,376	93.6	95.2	97.7	117.2	173.1
Georgia	6,509	6,411	6,793	8,089	10,808	151.8	146.9	151.4	175.4	234.4
Hawaii	1,367	1,288	1,396	1,384	1,431	216.8	204.4	219.6	215.1	222.4
Idaho	604	617	616	895	1,030	88.2	88.3	85.9	121.2	139.5
Illinois	12,009	11,187	12,886	13,881	13,736	193.4	179.2	205.5	219.7	217.4
Indiana	3,803	4,080	4,703	4,849	5,032	124.8	132.9	152.3	155.9	161.8
Iowa	1,561	1,743	1,990	2,233	2,333	107.8	119.9	136.2	151.6	158.4
Kansas	1,260	1,298	1,365	1,543	1,551	93.3	95.6	100.1	112.5	113.1
Kentucky	1,613	1,433	2,285	2,580	2,605	79.9	70.5	111.5	125.2	126.4
Louisiana	3,808	4,016	3,583	3,372	3,758	174.5	183.0	162.9	161.7	180.2
Maine	577	581	606	634	708	90.6	90.3	93.9	98.1	109.5
Maryland	3,068	3,841	3,627	4,439	4,907	115.1	142.7	133.7	163.4	180.6
Massachusetts	2,848	3,449	3,809	4,193	4,457	91.6	111.0	122.8	134.5	143.0
Michigan	6,669	8,622	8,525	8,724	8,845	134.7	173.5	171.3	175.5	178.0
Minnesota	2,848	3,081	3,369	3,692	3,732	113.5	121.7	132.2	143.7	145.3
Mississippi	1,657	3,766	4,584	4,149	4,968	118.7	267.3	323.1	294.4	352.5
Missouri	3,820	5,013	5,791	6,044	6,228	137.3	178.3	204.2	211.7	218.2
Montana	679	685	619	709	716	148.4	148.2	132.6	150.0	151.5
Nebraska	1,244	1,391	1,378	1,401	1,363	144.8	161.1	158.4	159.8	155.5
Nevada	1,552	1,821	1,955	2,211	2,460	135.9	153.2	159.0	174.2	193.9
New Hampshire	420	471	499	513	522	66.2	73.5	77.3	79.1	80.5
New Jersey	2,332	2,945	3,323	3,606	4,169	55.5	69.5	78.2	84.6	97.8
New Mexico	1,485	2,151	2,121	2,368	2,415	161.0	229.8	223.6	245.4	250.3
New York	13,106	14,031	18,547	20,148	24,045	141.3	150.8	198.9	215.4	257.0
North Carolina	4,379	5,051	5,481	6,314	5,493	106.0	120.3	128.3	145.4	126.5
North Dakota	567	601	574	588	594	179.0	189.8	180.6	184.1	186.0
Ohio	8,215	8,189	9,139	9,039	10,852	147.6	146.7	163.6	161.5	193.9
Oklahoma	2,023	2,129	2,799	3,314	3,399	116.8	122.3	159.6	187.8	192.6
Oregon	2,098	2,600	2,824	2,992	2,959	118.6	145.5	155.9	162.6	160.8
Pennsylvania	9,682	10,282	10,128	10,981	11,934	161.7	171.0	168.0	181.6	197.3
Rhode Island	768	936	868	962	892	148.1	179.6	167.0	186.4	172.8
South Carolina	1,813	2,456	2,572	3,272	5,549	89.8	120.1	124.0	155.5	263.8
South Dakota	742	708	774	709	725	195.3	184.7	200.7	181.5	185.6
Tennessee	5,711	6,278	6,619	6,968	7,262	200.2	217.5	226.6	236.1	246.1
Texas	11,594	12,619	13,138	15,178	17,687	105.3	112.7	115.4	129.6	151.0
Utah	1,103	1,137	1,521	1,635	1,795	93.4	94.8	122.6	127.5	140.0
Vermont	232	276	232	294	245	76.3	90.3	75.6	95.8	79.8
Virginia	3,868	5,024	5,823	6,384	6,433	106.5	136.8	156.4	169.9	171.2
Washington	4,456	4,800	5,145	4,798	4,991	145.8	155.1	163.9	150.4	156.5
West Virginia	472	649	671	698	744	53.5	73.1	75.5	78.4	83.5
Wisconsin	5,015	5,290	5,688	5,551	5,090	185.2	194.0	207.5	201.1	184.4
Wyoming	243	262	299	371	284	96.3	102.7	116.5	142.1	108.8
U.S. TOTAL	190,244	210,396	232,781	252,630	280,337	133.0	145.6	159.4	171.3	190.0
Northeast	32,049	35,139	40,668	44,072	49,849	121.6	132.7	153.3	165.6	187.4
Midwest	47,753	51,203	56,182	58,254	60,081	148.6	158.5	173.2	178.6	184.2
South	58,414	66,348	72,268	83,616	99,963	113.8	127.4	136.7	156.0	186.6
West	52,028	57,706	63,663	66,688	70,444	156.6	171.2	186.4	192.1	202.9
Guam	108	140	140	140	153	129.4	165.3	162.9	160.7	175.6
Puerto Rico	368	348	348	1,007	1,125	19.7	18.6	18.5	53.4	59.6
Virgin Islands	64	71	46	55	81	123.2	136.8	88.7	106.1	156.3
OUTLYING AREAS	540	559	534	1,202	1,359	27.0	27.8	26.5	59.3	67.1
TOTAL	190,784	210,955	233,315	253,832	281,696	131.5	144.0	157.6	169.7	188.4

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

Table 6. Chlamydia — Reported cases and rates in selected metropolitan statistical areas* (MSAs) listed in alphabetical order: United States, 2003–2007

<i>Metropolitan Statistical Area</i>	<i>Cases</i>					<i>Rates per 100,000 Population</i>				
	<i>2003</i>	<i>2004</i>	<i>2005</i>	<i>2006</i>	<i>2007</i>	<i>2003</i>	<i>2004</i>	<i>2005</i>	<i>2006</i>	<i>2007</i>
Atlanta-Sandy Springs-Marietta, GA	18,135	17,068	16,748	20,979	21,609	393.4	362.5	340.6	408.3	420.6
Austin-Round Rock, TX	4,456	4,580	5,103	7,325	6,814	323.5	324.3	351.3	484.0	450.2
Baltimore-Towson, MD	10,044	10,959	11,071	11,617	13,053	383.9	415.2	416.9	437.0	491.0
Birmingham-Hoover, AL	3,189	3,905	4,720	5,338	6,913	297.3	360.8	433.0	485.3	628.4
Boston-Cambridge-Quincy, MA-NH	7,831	9,006	9,368	9,918	10,697	176.4	203.5	212.3	222.6	240.1
Buffalo-Cheektowaga-Tonawanda, NY	3,513	4,865	5,013	4,992	5,078	303.0	421.4	436.8	438.8	446.4
Charlotte-Gastonia-Concord, NC-SC	4,619	4,832	5,830	5,076	4,216	321.3	327.7	383.2	320.7	266.3
Chicago-Naperville-Joliet, IL-IN-WI	37,017	35,953	38,966	41,521	41,403	396.6	382.8	412.6	436.8	435.6
Cincinnati-Middletown, OH-KY-IN	6,789	6,438	8,516	8,616	10,080	331.6	312.8	411.3	409.5	479.0
Cleveland-Elyria-Mentor, OH	8,489	7,867	8,181	7,462	9,351	396.8	368.1	384.7	353.0	442.3
Columbus, OH	5,758	5,167	5,902	5,843	7,157	343.8	305.0	345.4	338.6	414.8
Dallas-Fort Worth-Arlington, TX	16,828	15,744	18,005	17,035	22,292	301.1	276.2	309.4	283.7	371.3
Denver-Aurora, CO	7,039	7,774	8,534	7,934	9,539	305.9	333.6	361.6	329.4	396.0
Detroit-Warren-Livonia, MI	16,071	21,378	20,497	17,201	17,934	358.4	475.8	456.7	384.9	401.3
Hartford-West Hartford-East Hartford, CT	3,224	3,040	3,815	3,799	4,300	273.7	256.6	321.1	319.6	361.7
Houston-Baytown-Sugar Land, TX	13,530	14,796	13,476	14,641	17,196	266.6	285.6	255.2	264.3	310.4
Indianapolis, IN	7,304	6,922	8,226	7,780	8,173	457.8	426.9	501.4	467.0	490.6
Jacksonville, FL	5,200	5,017	5,246	5,582	6,501	432.3	409.4	420.2	436.8	508.7
Kansas City, MO-KS	7,105	8,003	7,900	7,825	8,358	373.0	415.7	405.6	397.7	424.8
Las Vegas-Paradise, NV	4,379	5,065	5,623	6,592	7,333	277.8	306.8	328.7	370.8	412.5
Los Angeles-Long Beach-Santa Ana, CA	46,342	46,202	50,703	50,913	52,352	361.2	357.5	392.3	393.1	404.3
Louisville, KY-IN	2,775	2,396	3,143	3,319	3,493	233.2	199.5	260.1	271.6	285.8
Memphis, TN-MS-AR	7,362	8,927	9,457	10,224	11,349	594.0	714.0	750.0	802.1	890.3
Miami-Fort Lauderdale-Miami Beach, FL	11,024	11,781	10,403	12,142	13,761	208.4	219.7	191.9	222.2	251.9
Milwaukee-Waukesha-West Allis, WI	9,320	10,070	10,368	10,498	10,150	615.5	664.4	685.3	695.2	672.2
Minneapolis-St. Paul-Bloomington, MN-WI	8,081	8,139	8,513	9,271	9,514	262.1	261.2	270.9	292.0	299.6
Nashville-Davidson-Murfreesboro, TN	3,981	4,243	4,538	4,910	4,972	290.3	304.0	319.0	337.4	341.7
New Orleans-Metairie-Kenner, LA	7,116	6,858	4,761	3,401	4,573	540.1	519.7	360.9	331.9	446.3
New York-Newark-Edison, NY-NJ-PA	51,614	52,266	58,134	62,334	74,071	276.9	279.4	310.1	331.2	393.6
Oklahoma City, OK	4,124	3,939	4,798	4,627	4,646	364.1	344.2	414.8	394.7	396.3
Orlando, FL	4,673	4,888	5,862	6,579	6,825	259.2	262.6	303.2	331.5	343.9
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	25,347	25,285	24,913	27,417	28,116	439.1	435.9	427.8	470.5	482.5
Phoenix-Mesa-Scottsdale, AZ	8,084	11,078	11,984	15,278	15,245	225.0	298.2	310.1	378.2	377.4
Pittsburgh, PA	5,499	5,539	5,880	5,789	6,616	228.1	230.6	246.4	244.2	279.1
Portland-Vancouver-Beaverton, OR-WA	4,703	5,256	5,636	5,654	5,970	230.5	254.6	268.9	264.5	279.3
Providence-New Bedford-Fall River, RI-MA	3,714	4,269	4,316	4,197	4,297	228.8	262.1	266.0	260.2	266.4
Richmond, VA	4,472	4,923	4,710	5,044	5,294	392.9	426.5	400.6	422.4	443.4
Riverside-San Bernardino-Ontario, CA	10,688	10,913	12,179	12,472	14,316	293.4	287.7	311.5	309.8	355.6
Rochester, NY	4,142	4,040	3,850	4,168	4,833	397.8	387.9	370.5	402.5	466.8
Sacramento-Arden-Arcade-Roseville, CA	6,240	7,294	8,175	9,094	8,770	316.0	361.7	400.3	439.9	424.3
Salt Lake City, UT	2,264	2,223	2,642	2,910	3,395	225.2	218.2	255.4	272.5	318.0
San Antonio, TX	7,212	7,645	8,049	8,338	8,727	396.1	412.3	425.9	429.3	449.3
San Diego-Carlsbad-San Marcos, CA	10,432	10,876	11,520	11,980	12,693	355.9	371.0	392.7	407.3	431.5
San Francisco-Oakland-Fremont, CA	12,774	13,580	13,988	15,565	16,710	307.3	326.9	336.8	372.4	399.8
San Jose-Sunnyvale-Santa Clara, CA	4,796	5,697	5,374	5,898	5,892	276.5	327.1	306.2	330.0	329.7
Seattle-Tacoma-Bellevue, WA	9,457	9,655	10,588	9,778	10,397	301.0	304.9	330.5	299.6	318.6
St. Louis, MO-IL	10,081	11,856	13,328	13,509	13,710	368.5	428.9	479.7	483.1	490.3
Tampa-St. Petersburg-Clearwater, FL	6,002	5,996	6,315	7,475	9,501	237.1	231.7	238.5	277.1	352.2
Virginia Beach-Norfolk-Newport News, VA-NC	6,668	7,601	8,414	9,139	9,383	407.3	462.3	510.8	554.1	568.9
Washington-Arlington-Alexandria, DC-VA-MD-WV	11,230	14,046	12,827	15,456	18,069	220.6	273.3	246.0	292.2	341.5
U.S. MSA TOTAL	500,737	525,860	556,108	584,455	635,637	320.5	333.0	348.7	362.3	394.0

*MSAs selected based on largest population in 2000 U.S. census.

Table 7. Chlamydia — Women – Reported cases and rates in selected metropolitan statistical areas* (MSAs) listed in alphabetical order: United States, 2003–2007

<i>Metropolitan Statistical Area</i>	<i>Cases</i>					<i>Rates per 100,000 Population</i>				
	<i>2003</i>	<i>2004</i>	<i>2005</i>	<i>2006</i>	<i>2007</i>	<i>2003</i>	<i>2004</i>	<i>2005</i>	<i>2006</i>	<i>2007</i>
Atlanta-Sandy Springs-Marietta, GA	14,519	13,756	12,995	16,165	15,553	624.4	580.4	524.8	622.2	598.6
Austin-Round Rock, TX	3,418	3,405	3,720	5,170	4,753	506.4	492.5	522.7	699.1	642.7
Baltimore-Towson, MD	8,412	9,051	8,927	9,344	10,416	620.5	662.1	649.4	677.9	755.7
Birmingham-Hoover, AL	2,825	3,095	3,709	4,277	5,165	508.3	552.6	657.7	751.3	907.2
Boston-Cambridge-Quincy, MA-NH	5,715	6,549	6,663	7,140	7,721	249.8	287.6	293.8	311.7	337.1
Buffalo-Cheektowaga-Tonawanda, NY	2,677	3,698	3,849	3,762	3,818	444.3	616.7	646.3	637.8	647.3
Charlotte-Gastonia-Concord, NC-SC	3,915	4,059	4,878	4,189	3,430	536.5	541.9	631.9	520.7	426.3
Chicago-Naperville-Joliet, IL-IN-WI	27,419	27,271	28,860	30,600	31,134	576.5	570.2	600.4	633.8	644.9
Cincinnati-Middletown, OH-KY-IN	5,458	5,108	6,580	6,871	8,082	520.2	484.6	621.4	638.2	750.7
Cleveland-Elyria-Mentor, OH	6,548	5,909	6,066	5,458	7,023	588.0	531.6	548.7	497.2	639.8
Columbus, OH	4,525	4,058	4,445	4,549	5,428	532.1	472.8	513.4	520.7	621.3
Dallas-Fort Worth-Arlington, TX	13,633	12,536	14,641	13,466	17,251	488.3	440.7	504.7	450.4	577.0
Denver-Aurora, CO	5,225	5,558	6,122	5,827	7,020	455.8	479.3	521.7	485.8	585.2
Detroit-Warren-Livonia, MI	13,008	17,145	16,172	13,096	13,580	565.6	744.1	703.4	572.9	594.1
Hartford-West Hartford-East Hartford, CT	2,510	2,331	2,842	2,786	3,122	413.6	381.9	464.3	456.5	511.6
Houston-Baytown-Sugar Land, TX	11,325	12,258	11,539	12,178	14,170	446.0	473.1	437.0	439.8	511.8
Indianapolis, IN	5,337	5,167	5,949	5,596	5,808	656.5	625.9	712.5	660.3	685.4
Jacksonville, FL	4,051	3,759	4,021	4,273	4,627	658.1	600.4	630.6	654.9	709.2
Kansas City, MO-KS	5,434	5,993	5,930	5,791	6,231	559.4	611.3	598.8	578.2	622.1
Las Vegas-Paradise, NV	3,318	3,820	4,319	5,014	5,620	428.5	471.0	513.8	573.3	642.6
Los Angeles-Long Beach-Santa Ana, CA	33,124	32,903	36,044	35,826	36,520	511.9	504.6	552.9	549.2	559.8
Louisville, KY-IN	2,144	1,817	2,232	2,344	2,482	351.2	295.1	360.6	374.3	396.3
Memphis, TN-MS-AR	5,650	6,816	7,150	7,935	8,846	880.2	1,053.0	1,098.1	1,202.2	1,340.3
Miami-Fort Lauderdale-Miami Beach, FL	9,027	9,610	8,492	9,553	9,985	331.4	347.8	304.2	340.1	355.5
Milwaukee-Waukesha-West Allis, WI	6,756	7,358	7,558	7,761	7,653	868.3	945.2	973.0	1,004.8	990.8
Minneapolis-St. Paul-Bloomington, MN-WI	5,792	5,892	6,022	6,462	6,727	371.9	374.8	380.0	404.3	420.8
Nashville-Davidson-Murfreesboro, TN	2,834	3,018	3,122	3,413	3,445	406.9	426.5	433.4	462.7	467.1
New Orleans-Metairie-Kenner, LA	5,736	5,433	3,563	2,673	3,503	836.7	791.6	519.8	503.2	659.4
New York-Newark-Edison, NY-NJ-PA	40,956	41,039	42,214	45,007	52,815	423.7	423.4	435.0	462.7	543.0
Oklahoma City, OK	3,301	3,057	3,744	3,394	3,262	573.5	527.5	638.7	570.1	547.9
Orlando, FL	3,852	3,993	4,667	5,326	5,203	421.9	424.0	477.4	531.7	519.4
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	18,707	18,369	18,236	19,813	20,132	625.3	611.6	605.3	658.0	668.6
Phoenix-Mesa-Scottsdale, AZ	6,303	8,555	9,338	11,859	11,675	353.6	464.3	487.7	592.7	583.5
Pittsburgh, PA	4,191	4,185	4,398	4,267	4,870	333.7	334.6	354.2	346.5	395.5
Portland-Vancouver-Beaverton, OR-WA	3,332	3,555	3,816	3,769	4,109	325.2	343.2	363.1	351.7	383.4
Providence-New Bedford-Fall River, RI-MA	2,784	3,138	3,225	2,967	3,116	331.0	372.1	384.3	355.8	373.7
Richmond, VA	3,421	3,573	3,425	3,617	3,778	582.6	601.2	566.7	590.0	616.3
Riverside-San Bernardino-Ontario, CA	8,122	8,252	9,257	9,426	10,773	445.9	435.4	474.3	468.5	535.4
Rochester, NY	2,990	2,869	2,670	2,890	3,337	558.8	536.9	501.5	544.7	629.0
Sacramento-Arden-Arcade-Roseville, CA	4,603	5,326	5,890	6,614	6,310	458.6	519.5	567.4	629.1	600.2
Salt Lake City, UT	1,574	1,501	1,709	1,941	2,299	316.8	298.1	334.4	368.8	436.9
San Antonio, TX	5,985	6,182	6,105	6,232	6,567	644.1	653.1	633.1	628.0	661.8
San Diego-Carlsbad-San Marcos, CA	7,694	7,908	8,210	8,620	9,187	528.8	542.6	565.1	590.4	629.2
San Francisco-Oakland-Fremont, CA	8,824	9,151	9,217	10,418	11,118	420.4	436.4	439.6	495.3	528.5
San Jose-Sunnyvale-Santa Clara, CA	3,465	4,038	3,752	4,128	4,232	406.0	471.7	435.6	472.4	484.3
Seattle-Tacoma-Bellevue, WA	6,606	6,775	7,411	6,915	7,412	419.5	427.2	462.5	423.6	454.0
St. Louis, MO-IL	8,179	9,086	9,804	9,952	10,012	577.7	636.1	683.2	689.2	693.3
Tampa-St. Petersburg-Clearwater, FL	4,846	4,920	5,184	5,936	6,841	371.1	369.1	380.8	428.6	493.9
Virginia Beach-Norfolk-Newport News, VA-NC	5,378	5,862	6,016	6,651	6,884	648.6	704.2	720.5	789.6	817.2
Washington-Arlington-Alexandria, DC-VA-MD-WV	9,065	11,170	10,086	11,722	13,194	347.6	424.8	378.3	432.7	487.0
U.S. MSA TOTAL	384,513	399,877	414,784	432,983	466,239	483.1	497.5	511.3	528.1	568.7

*MSAs selected based on largest population in 2000 U.S. census.

Table 8. Chlamydia — Men — Reported cases and rates in selected metropolitan statistical areas* (MSAs) listed in alphabetical order: United States, 2003–2007

Metropolitan Statistical Area	Cases					Rates per 100,000 Population				
	2003	2004	2005	2006	2007	2003	2004	2005	2006	2007
Atlanta-Sandy Springs-Marietta, GA	3,526	3,187	3,463	4,574	5,896	154.3	136.3	141.8	180.1	232.1
Austin-Round Rock, TX	1,026	1,093	1,357	2,147	2,053	146.0	151.6	183.2	277.4	265.2
Baltimore-Towson, MD	1,627	1,908	2,139	2,250	2,624	129.1	150.0	167.0	175.8	205.0
Birmingham-Hoover, AL	361	810	1,005	1,058	1,745	69.8	155.1	191.0	199.4	328.8
Boston-Cambridge-Quincy, MA-NH	2,097	2,449	2,697	2,762	2,966	97.4	114.0	125.8	127.6	137.0
Buffalo-Cheektowaga-Tonawanda, NY	836	1,167	1,164	1,229	1,260	150.1	210.4	210.8	224.4	230.1
Charlotte-Gastonia-Concord, NC-SC	700	770	951	887	786	98.9	106.1	126.9	113.9	101.0
Chicago-Naperville-Joliet, IL-IN-WI	9,542	8,602	10,075	10,905	10,259	208.5	186.7	217.3	233.1	219.3
Cincinnati-Middletown, OH-KY-IN	1,268	1,239	1,746	1,691	1,935	127.0	123.4	172.6	164.6	188.3
Cleveland-Elyria-Mentor, OH	1,875	1,904	1,986	1,953	2,285	182.8	185.7	194.6	192.2	224.8
Columbus, OH	1,174	1,058	1,377	1,272	1,706	142.5	126.6	163.4	149.3	200.3
Dallas-Fort Worth-Arlington, TX	3,179	3,192	3,346	3,558	4,987	113.6	111.8	114.6	118.0	165.5
Denver-Aurora, CO	1,814	2,210	2,412	2,107	2,519	157.1	188.8	203.3	174.2	208.3
Detroit-Warren-Livonia, MI	3,063	4,233	4,256	4,027	4,220	140.3	193.4	194.4	184.5	193.3
Hartford-West Hartford-East Hartford, CT	714	708	973	1,013	1,178	125.0	123.3	168.9	175.1	203.6
Houston-Baytown-Sugar Land, TX	2,185	2,504	1,930	2,449	2,963	86.1	96.7	73.1	88.4	106.9
Indianapolis, IN	1,906	1,744	2,242	2,167	2,340	243.6	219.1	278.3	264.7	285.9
Jacksonville, FL	1,149	1,258	1,225	1,309	1,873	195.6	209.9	200.6	209.3	299.4
Kansas City, MO-KS	1,671	2,010	1,970	2,034	2,127	179.0	212.7	205.8	210.6	220.2
Las Vegas-Paradise, NV	1,051	1,233	1,301	1,576	1,704	131.0	146.9	149.6	174.5	188.7
Los Angeles-Long Beach-Santa Ana, CA	13,161	13,208	14,585	14,921	15,639	207.0	206.2	227.7	232.2	243.3
Louisville, KY-IN	626	572	909	961	1,011	108.0	97.8	154.2	161.3	169.7
Memphis, TN-MS-AR	1,712	2,111	2,307	2,289	2,503	286.6	350.1	378.3	372.4	407.2
Miami-Fort Lauderdale-Miami Beach, FL	1,997	2,171	1,911	2,588	3,771	77.9	83.5	72.6	97.5	142.0
Milwaukee-Waukesha-West Allis, WI	2,486	2,711	2,804	2,720	2,473	337.7	367.7	380.9	368.8	335.3
Minneapolis-St. Paul-Bloomington, MN-WI	2,289	2,247	2,491	2,809	2,787	150.0	145.5	159.9	178.2	176.8
Nashville-Davidson-Murfreesboro, TN	1,147	1,225	1,415	1,497	1,527	170.0	178.0	201.5	208.6	212.8
New Orleans-Metairie-Kenner, LA	1,355	1,327	1,100	676	985	214.4	209.6	173.5	137.0	199.6
New York-Newark-Edison, NY-NJ-PA	10,437	11,125	15,890	17,301	21,165	116.3	123.4	175.7	190.3	232.8
Oklahoma City, OK	823	882	1,054	1,233	1,384	147.7	156.2	184.7	213.7	239.9
Orlando, FL	821	895	1,195	1,252	1,620	92.3	97.3	125.0	127.3	164.8
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	6,628	6,915	6,677	7,600	7,972	238.3	247.2	237.6	269.9	283.1
Phoenix-Mesa-Scottsdale, AZ	1,779	2,521	2,646	3,410	3,569	98.2	134.6	135.7	167.3	175.1
Pittsburgh, PA	1,296	1,353	1,482	1,522	1,745	112.3	117.6	129.5	133.6	153.2
Portland-Vancouver-Beaverton, OR-WA	1,371	1,701	1,820	1,885	1,861	135.0	165.4	174.2	176.9	174.6
Providence-New Bedford-Fall River, RI-MA	930	1,126	1,085	1,223	1,178	118.9	143.3	138.5	157.0	151.2
Richmond, VA	1,045	1,348	1,281	1,423	1,514	189.6	240.7	224.2	244.9	260.6
Riverside-San Bernardino-Ontario, CA	2,563	2,654	2,913	3,029	3,532	140.7	139.8	148.8	150.4	175.4
Rochester, NY	1,152	1,171	1,180	1,278	1,496	227.6	230.9	232.9	253.1	296.3
Sacramento-Arden-Arcade-Roseville, CA	1,588	1,901	2,220	2,431	2,387	163.5	191.7	221.1	239.3	235.0
Salt Lake City, UT	689	722	933	969	1,096	135.5	140.1	178.2	179.0	202.4
San Antonio, TX	1,225	1,460	1,942	2,104	2,160	137.4	160.9	209.8	221.5	227.4
San Diego-Carlsbad-San Marcos, CA	2,715	2,844	3,022	3,134	3,457	184.0	192.9	204.1	211.6	233.4
San Francisco-Oakland-Fremont, CA	3,908	4,370	4,686	5,058	5,465	189.9	212.4	227.9	243.6	263.2
San Jose-Sunnyvale-Santa Clara, CA	1,315	1,628	1,575	1,723	1,633	149.2	183.9	176.2	188.7	178.8
Seattle-Tacoma-Bellevue, WA	2,851	2,880	3,177	2,863	2,985	182.0	182.2	198.5	175.5	183.0
St. Louis, MO-IL	1,902	2,770	3,524	3,557	3,698	144.1	207.4	262.3	263.0	273.5
Tampa-St. Petersburg-Clearwater, FL	1,156	1,076	1,131	1,535	2,652	94.3	85.7	87.9	116.9	202.0
Virginia Beach-Norfolk-Newport News, VA-NC	1,276	1,724	2,375	2,481	2,494	157.9	212.4	292.4	307.4	309.0
Washington-Arlington-Alexandria, DC-VA-MD-WV	2,120	2,848	2,706	3,637	4,849	85.4	113.5	106.2	140.9	187.9
U.S. MSA TOTAL	115,127	124,765	139,651	150,077	168,034	150.2	160.9	178.2	189.2	211.8

*MSAs selected based on largest population in 2000 U.S. census.

Table 9. Chlamydia — Counties and independent cities* ranked by number of reported cases: United States, 2007

<i>Rank[†]</i>	<i>County/Independent City</i>	<i>Cases</i>	<i>Rate per 100,000 Population</i>	<i>Cumulative Percent</i>
1	Los Angeles County, CA	44,030	442.6	3
2	Cook County, IL	30,881	583.9	6
3	Philadelphia County, PA	17,029	1175.7	8
4	Kings County, NY	15,655	624.0	9
5	Bronx County, NY	14,572	1070.3	11
6	Maricopa County, AZ	14,542	385.9	12
7	Harris County, TX	13,387	344.5	13
8	San Diego County, CA	12,693	431.5	14
9	Wayne County, MI	12,403	629.0	15
10	Dallas County, TX	12,279	523.4	16
11	Queens County, NY	10,050	445.6	17
12	Milwaukee County, WI	9,637	1053.1	18
13	New York County, NY	9,605	596.0	19
14	Shelby County, TN	9,428	1034.4	20
15	Orange County, CA	8,322	277.2	21
16	Cuyahoga County, OH	8,219	625.4	21
17	San Bernardino County, CA	8,122	406.2	22
18	Bexar County, TX	8,055	517.8	23
19	Hamilton County, OH	7,404	900.1	24
20	Sacramento County, CA	7,372	536.3	24
21	Baltimore (City), MD	7,362	1166.0	25
22	Clark County, NV	7,333	412.5	26
23	Marion County, IN	7,157	826.9	26
24	Alameda County, CA	6,929	475.4	27
25	Franklin County, OH	6,336	578.3	27
26	Riverside County, CA	6,194	305.6	28
27	Tarrant County, TX	6,184	370.0	28
28	Jefferson County, AL	6,139	934.8	29
29	Washington, D.C.	6,029	1036.7	30
30	Miami-Dade County, FL	5,956	247.9	30
31	Santa Clara County, CA	5,740	331.5	31
32	Duval County, FL	5,509	657.4	31
33	Fulton County, GA	5,454	568.1	32
34	Broward County, FL	5,413	302.8	32
35	Fresno County, CA	5,362	601.3	33
36	King County, WA	5,308	290.6	33
37	DeKalb County, GA	5,202	718.9	34
38	Hillsborough County, FL	5,155	445.3	34
39	Jackson County, MO	5,032	757.7	34
40	St. Louis County, MO	4,894	489.2	35
41	Allegheny County, PA	4,893	399.9	35
42	Orange County, FL	4,862	465.9	36
43	Prince George's County, MD	4,857	577.3	36
44	Essex County, NJ	4,851	617.1	37
45	Travis County, TX	4,844	525.9	37
46	Hennepin County, MN	4,742	422.6	38
47	Honolulu County, HI	4,497	494.3	38
48	Suffolk County, MA	4,459	648.5	38
49	Kern County, CA	4,433	568.2	39
50	St Louis (City), MO	4,392	1265.0	39
51	Erie County, NY	4,350	472.1	40
52	Monroe County, NY	4,224	578.0	40
53	Richland County, SC	4,211	1209.3	40

*Accounting for 40% of reported chlamydia cases.

†Counties and independent cities were ranked in descending order by number of cases reported in 2007.

Table 10. Chlamydia — Reported cases and rates per 100,000 population by age group and sex: United States, 2003–2007

Year	Age Group	Cases			Rates		
		Total	Male	Female	Total	Male	Female
2003	10–14	14,911	1,061	13,849	70.4	9.8	134.0
	15–19	310,505	44,331	266,175	1,516.3	421.4	2,672.5
	20–24	324,411	71,476	252,936	1,565.1	670.3	2,513.3
	25–29	124,890	34,916	89,974	651.6	357.3	957.7
	30–34	53,572	17,810	35,762	258.7	170.4	348.7
	35–39	24,658	9,772	14,886	115.2	91.1	139.4
	40–44	12,287	5,675	6,612	53.5	49.8	57.2
	45–54	8,214	4,012	4,202	20.1	20.0	20.2
	55–64	1,653	883	770	5.9	6.6	5.3
	65+	776	323	453	2.2	2.2	2.2
	TOTAL	877,478	190,723	686,755	301.7	133.3	464.7
2004	10–14	14,817	1,172	13,646	70.1	10.8	132.3
	15–19	323,246	48,209	275,036	1,559.3	453.3	2,724.6
	20–24	344,159	79,410	264,749	1,641.1	735.1	2,603.7
	25–29	137,041	39,374	97,667	700.6	393.9	1,021.0
	30–34	56,759	19,353	37,406	277.3	187.1	369.3
	35–39	26,486	10,647	15,839	125.8	100.7	151.1
	40–44	13,626	6,397	7,229	59.1	55.8	62.4
	45–54	9,251	4,602	4,649	22.2	22.5	22.0
	55–64	1,885	993	892	6.5	7.1	5.9
	65+	755	335	420	2.1	2.2	2.0
	TOTAL	929,462	210,935	718,527	316.5	145.9	481.9
2005	10–14	14,124	1,200	12,924	67.7	11.2	127.0
	15–19	336,036	53,734	282,302	1,597.2	498.0	2,754.5
	20–24	360,574	86,931	273,643	1,713.9	800.7	2,687.8
	25–29	148,059	44,712	103,347	737.9	435.4	1,054.8
	30–34	60,065	21,102	38,964	299.2	207.8	392.6
	35–39	28,509	11,700	16,809	135.7	110.8	161.0
	40–44	14,397	6,940	7,458	63.0	61.0	64.9
	45–54	10,105	5,203	4,902	23.8	24.9	22.7
	55–64	2,191	1,169	1,021	7.2	8.0	6.5
	65+	885	402	483	2.4	2.6	2.3
	TOTAL	976,445	233,553	742,892	329.4	160.0	493.9
2006	10–14	13,601	1,238	12,364	65.9	11.7	122.8
	15–19	352,212	58,820	293,392	1,651.7	537.9	2,824.0
	20–24	377,798	93,035	284,763	1,789.6	852.7	2,791.5
	25–29	161,178	49,369	111,809	778.3	466.4	1,104.3
	30–34	63,810	22,558	41,252	323.8	226.0	424.1
	35–39	30,947	12,763	18,184	146.1	119.8	172.6
	40–44	15,329	7,410	7,919	68.2	66.2	70.2
	45–54	11,351	5,818	5,533	26.2	27.3	25.2
	55–64	2,411	1,334	1,077	7.6	8.8	6.6
	65+	894	424	469	2.4	2.7	2.2
	TOTAL	1,030,911	253,236	777,675	344.3	171.7	512.0
2007	10–14	13,629	1,251	12,378	66.1	11.8	123.0
	15–19	379,418	67,248	312,170	1,779.3	615.0	3,004.7
	20–24	402,595	101,780	300,815	1,907.0	932.9	2,948.8
	25–29	174,828	54,890	119,939	844.2	518.6	1,184.6
	30–34	69,416	24,633	44,784	352.3	246.8	460.4
	35–39	33,654	13,838	19,816	158.9	129.9	188.1
	40–44	16,617	7,992	8,625	73.9	71.4	76.5
	45–54	13,141	6,881	6,261	30.4	32.3	28.5
	55–64	2,842	1,531	1,311	9.0	10.1	8.0
	65+	812	417	395	2.2	2.7	1.8
	TOTAL	1,108,374	280,931	827,443	370.2	190.4	544.8

NOTE: This table should be used only for age comparisons. If age was not specified, cases were prorated according to the distribution of cases for which age was known. Differences between total cases from this table and others in the report are due to different reporting formats. The 0 to 9 year age group is not shown because some of these cases may not be due to sexual transmission; however, they are included in the totals.

Table 11A. Chlamydia — Reported cases by race/ethnicity, age group and sex: United States, 2003–2007

Age Group	White, Non-Hispanic			Black, Non-Hispanic			Hispanic			Asian/Pacific Islander			American Indian/ Alaska Native			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
2003	10–14	3,336	116	3,219	8,320	721	7,600	2,210	166	2,044	145	7	139	302	19	283
	15–19	93,457	8,820	84,637	147,549	25,606	121,944	48,899	7,407	41,493	4,071	445	3,627	5,517	815	4,702
	20–24	103,138	20,467	82,671	138,950	34,080	104,871	58,996	12,572	46,424	6,046	1,156	4,890	5,428	1,001	4,427
	25–29	33,634	9,219	24,415	52,640	16,408	36,232	28,313	6,876	21,437	3,120	810	2,310	2,385	477	1,908
	30–34	13,149	4,309	8,839	22,401	8,645	13,756	13,001	3,502	9,499	1,830	493	1,337	1,066	238	828
	35–39	6,091	2,586	3,505	10,340	4,799	5,541	5,728	1,644	4,084	876	252	624	630	158	472
	40–44	3,331	1,689	1,642	5,339	2,859	2,480	2,355	733	1,622	434	124	310	339	75	264
	45–54	2,420	1,347	1,073	3,440	1,879	1,561	1,418	454	964	378	131	247	210	55	155
	55–64	524	326	198	635	361	273	293	113	180	89	33	56	51	15	36
	65+	277	112	165	301	144	158	130	37	93	22	14	8	17	3	14
TOTAL	259,808	49,115	210,693	390,660	95,741	294,918	161,629	33,576	128,053	17,042	3,469	13,573	15,964	2,859	13,105	
2004	10–14	3,199	122	3,076	8,504	759	7,745	2,152	222	1,929	135	5	130	266	31	236
	15–19	95,195	9,468	85,727	157,398	28,143	129,255	49,457	7,769	41,688	3,900	485	3,415	5,551	776	4,774
	20–24	109,590	22,268	87,322	149,743	38,420	111,322	59,885	13,482	46,403	6,232	1,291	4,941	5,820	1,176	4,644
	25–29	37,871	10,560	27,311	58,590	18,657	39,933	29,424	7,409	22,014	3,159	802	2,357	2,614	549	2,065
	30–34	13,869	4,596	9,273	24,171	9,671	14,499	13,326	3,572	9,754	1,863	502	1,361	1,209	287	922
	35–39	6,553	2,748	3,806	11,323	5,277	6,047	5,927	1,777	4,150	967	324	643	646	161	486
	40–44	3,815	1,947	1,868	5,900	3,148	2,753	2,532	829	1,703	499	164	335	332	90	242
	45–54	2,543	1,360	1,182	4,190	2,322	1,868	1,416	501	915	471	178	294	265	82	183
	55–64	593	363	231	790	444	346	292	118	174	88	26	62	40	8	33
	65+	253	116	137	281	140	140	118	37	81	27	9	17	19	7	12
TOTAL	273,854	53,669	220,186	421,608	107,202	314,407	164,762	35,786	128,976	17,358	3,791	13,568	16,787	3,174	13,613	
2005	10–14	2,986	126	2,860	7,355	723	6,631	2,069	183	1,886	112	14	98	332	24	309
	15–19	93,876	9,636	84,240	153,777	30,214	123,563	52,224	8,526	43,698	3,761	646	3,115	5,964	882	5,082
	20–24	114,066	24,303	89,763	142,156	39,355	102,801	64,259	14,772	49,487	6,315	1,416	4,899	6,148	1,295	4,853
	25–29	40,477	11,580	28,897	57,704	19,824	37,879	31,795	8,528	23,267	3,107	896	2,211	2,829	715	2,114
	30–34	14,600	4,739	9,861	23,142	9,740	13,402	14,349	4,132	10,217	1,849	638	1,211	1,177	270	906
	35–39	7,143	3,024	4,119	10,768	5,300	5,468	6,539	2,001	4,538	1,057	337	720	625	181	444
	40–44	3,986	2,045	1,941	5,662	3,148	2,515	2,656	908	1,748	559	213	346	345	92	254
	45–54	2,875	1,639	1,236	4,032	2,338	1,693	1,674	575	1,100	443	158	286	240	82	158
	55–64	657	408	250	791	467	324	334	123	211	148	47	101	50	21	30
	65+	253	123	130	345	168	177	141	53	87	35	18	17	15	4	12
TOTAL	281,268	57,709	223,559	406,423	111,513	294,910	176,271	39,885	136,386	17,408	4,388	13,020	17,762	3,571	14,191	
2006	10–14	2,732	84	2,648	8,187	891	7,296	2,088	233	1,856	98	3	95	309	18	290
	15–19	97,442	10,379	87,063	180,893	36,692	144,201	58,312	9,483	48,829	3,387	413	2,974	6,259	1,016	5,243
	20–24	120,835	26,260	94,575	164,045	45,448	118,597	71,991	16,675	55,316	5,836	1,129	4,707	6,646	1,309	5,337
	25–29	46,643	13,506	33,137	67,691	23,107	44,584	36,568	9,968	26,600	3,206	826	2,381	3,103	708	2,395
	30–34	16,327	5,518	10,809	26,296	11,044	15,253	16,281	4,596	11,685	1,876	523	1,354	1,421	329	1,092
	35–39	8,102	3,265	4,837	12,686	6,367	6,319	7,570	2,319	5,251	998	292	706	709	171	538
	40–44	4,253	2,131	2,122	6,436	3,639	2,797	3,211	1,157	2,054	633	197	437	413	106	307
	45–54	3,296	1,792	1,504	5,049	2,901	2,148	1,938	695	1,242	486	190	296	271	82	189
	55–64	796	474	322	943	588	355	392	157	234	133	47	86	64	16	48
	65+	285	147	139	337	177	161	176	56	119	26	14	12	28	6	22
TOTAL	301,064	63,675	237,389	473,235	131,077	342,159	198,783	45,432	153,351	16,701	3,640	13,061	19,267	3,773	15,493	
2007	10–14	2,584	96	2,488	8,304	894	7,410	2,139	214	1,924	125	7	119	249	17	232
	15–19	102,492	11,770	90,721	199,668	42,631	157,037	60,923	10,274	50,649	3,916	556	3,360	5,801	909	4,892
	20–24	127,034	27,906	99,128	181,647	52,167	129,480	73,166	17,065	56,101	6,128	1,235	4,893	6,211	1,281	4,930
	25–29	50,643	14,958	35,685	75,661	26,691	48,970	37,775	10,366	27,409	3,665	944	2,721	2,992	651	2,341
	30–34	17,688	5,927	11,760	29,955	12,454	17,502	16,772	4,754	12,017	1,948	579	1,368	1,299	319	979
	35–39	9,117	3,531	5,586	14,183	7,025	7,158	7,721	2,438	5,283	1,144	369	775	638	152	486
	40–44	4,627	2,244	2,383	7,190	3,983	3,207	3,364	1,213	2,152	649	254	395	371	108	263
	45–54	3,915	2,223	1,691	5,956	3,441	2,515	2,184	801	1,383	510	193	317	249	71	178
	55–64	924	574	350	1,196	688	508	430	138	292	181	76	105	30	8	22
	65+	279	171	108	318	157	162	145	56	89	31	14	17	12	5	7
TOTAL	319,703	69,523	250,180	524,791	150,377	374,415	204,853	47,391	157,462	18,311	4,230	14,081	17,871	3,525	14,346	

NOTE: These tables should be used only for race/ethnicity comparisons. See Table 10 for age-specific cases and rates and Tables 3-5 for total and sex-specific cases and rates. If age or race/ethnicity was not specified, cases were prorated according to the distribution of cases for which these variables were specified. For the following years the states listed did not report age and/or race/ethnicity for most cases and their case data and population denominators were excluded: 2003 (CO, DC, NJ); 2004 (CO, DC, NJ); 2005 (CO, DC, GA, HI, NJ); 2006 (CO, HI); 2007 (CO, HI). Differences between total cases from this table and others in the report are due to different reporting formats and above listed exclusions. The 0 to 9 year age group is not shown because some of these cases may not be due to sexual transmission; however, they are included in the totals.

Table 11B. Chlamydia — Rates per 100,000 population by race/ethnicity, age group and sex: United States, 2003–2007

Age Group	White, Non-Hispanic			Black, Non-Hispanic			Hispanic			Asian/Pacific Islander			American Indian/ Alaska Native		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
10–14	26.8	1.8	53.1	257.1	43.8	477.2	63.5	9.3	120.3	18.1	1.6	35.6	132.8	16.1	252.4
15–19	747.8	137.3	1,393.3	5,004.5	1,711.0	8,399.4	1,586.1	463.0	2,797.2	502.0	106.7	919.6	2,472.4	717.0	4,295.6
20–24	836.7	327.1	1,362.2	4,926.4	2,426.8	7,405.0	1,662.2	640.1	2,928.8	641.0	243.0	1,046.1	2,692.8	977.9	4,462.0
25–29	305.2	165.7	447.3	2,176.4	1,414.5	2,878.6	788.7	347.7	1,329.4	293.1	154.6	427.0	1,440.8	573.2	2,318.3
30–34	105.8	68.9	143.3	888.2	723.6	1,036.4	384.8	192.9	607.5	155.2	85.5	222.0	642.5	288.1	995.1
35–39	45.0	38.1	52.0	400.5	395.1	405.2	191.4	103.6	290.4	84.2	49.7	116.9	369.1	188.7	543.4
40–44	21.6	22.0	21.3	199.9	228.9	174.4	91.2	54.8	130.3	44.7	26.5	61.6	185.1	84.6	279.1
45–54	8.4	9.4	7.4	77.8	92.0	65.6	39.4	25.2	53.6	23.0	17.2	28.1	67.8	37.3	95.8
55–64	2.5	3.2	1.8	25.0	31.9	19.4	14.9	12.2	17.4	9.0	7.2	10.6	27.4	16.9	37.0
65+	1.0	0.9	1.0	10.8	13.4	9.1	6.7	4.5	8.3	2.2	3.2	1.4	10.6	4.9	14.9
TOTAL	136.7	52.7	217.4	1,122.3	577.4	1,617.9	428.2	172.3	701.5	141.6	59.4	219.1	672.2	244.4	1,087.2
10–14	26.0	1.9	51.5	263.3	46.3	487.3	59.8	12.1	109.8	16.6	1.2	32.9	119.7	27.2	214.2
15–19	757.4	146.7	1,402.3	5,217.4	1,840.6	8,687.4	1,562.2	474.9	2,725.0	475.0	114.9	856.3	2,467.3	677.8	4,323.7
20–24	878.2	350.5	1,425.4	5,215.0	2,673.0	7,762.9	1,677.8	686.3	2,891.6	658.5	269.6	1,056.5	2,790.5	1,113.2	4,512.3
25–29	337.6	186.4	491.8	2,351.1	1,553.3	3,093.3	794.8	361.4	1,332.5	294.5	152.1	432.4	1,541.8	641.3	2,459.7
30–34	114.9	75.6	154.7	963.4	813.6	1,098.2	381.1	189.7	604.4	153.2	84.3	219.2	734.2	350.3	1,115.4
35–39	49.9	41.7	58.2	447.4	442.3	452.0	191.9	108.1	287.2	89.7	61.7	116.4	389.7	196.4	578.0
40–44	24.9	25.5	24.4	219.1	249.9	192.0	93.0	58.5	130.3	49.4	33.7	64.1	180.0	100.9	254.4
45–54	8.7	9.4	8.0	92.2	110.6	76.4	37.3	26.3	48.4	27.7	22.3	32.4	83.8	54.0	111.0
55–64	2.7	3.4	2.1	29.6	37.3	23.4	14.0	11.8	15.9	8.3	5.2	11.0	20.5	8.0	31.9
65+	0.9	1.0	0.8	9.9	12.9	8.0	5.8	4.3	6.8	2.5	2.1	2.9	11.1	9.9	11.9
TOTAL	143.6	57.4	226.7	1,196.6	638.4	1,704.8	421.4	177.1	682.4	139.8	62.9	212.3	699.9	268.8	1,117.9
10–14	25.6	2.1	50.5	251.4	48.7	460.9	57.2	9.9	106.8	14.8	3.6	26.7	157.4	22.1	295.9
15–19	766.1	153.2	1,412.8	5,348.8	2,073.2	8,716.3	1,613.2	511.2	2,784.1	492.4	164.2	840.9	2,665.3	775.9	4,617.5
20–24	938.3	391.5	1,508.7	5,324.4	2,927.8	7,754.4	1,854.2	782.9	3,134.6	727.6	321.8	1,144.8	2,920.5	1,215.3	4,669.1
25–29	364.1	206.5	524.5	2,432.2	1,722.3	3,101.1	855.5	414.0	1,404.5	307.6	180.5	430.5	1,635.7	817.9	2,472.6
30–34	130.1	83.9	176.8	1,028.3	911.8	1,133.5	409.4	219.0	631.4	159.6	112.7	204.4	738.5	340.3	1,135.0
35–39	57.1	48.1	66.2	467.7	487.3	450.1	208.5	119.9	309.5	100.7	65.9	133.7	390.9	229.4	548.5
40–44	27.4	28.2	26.7	229.3	272.4	191.5	95.5	62.6	131.2	58.6	46.1	70.2	193.8	106.0	276.6
45–54	10.0	11.5	8.5	93.1	116.9	72.8	42.2	28.7	55.9	27.5	20.9	33.4	75.5	54.2	94.9
55–64	3.0	3.8	2.2	30.1	39.8	22.3	15.1	11.7	18.2	14.4	10.0	18.2	24.8	21.2	28.1
65+	0.9	1.0	0.8	12.6	16.0	10.5	6.6	5.9	7.1	3.6	4.4	3.0	8.8	4.8	11.8
TOTAL	151.7	63.4	236.7	1,234.3	709.9	1,712.6	444.5	194.9	710.5	148.4	77.0	215.9	747.0	305.3	1,174.6
10–14	22.5	1.4	44.9	255.3	54.7	462.2	54.2	11.8	98.6	11.7	0.7	23.2	149.4	17.6	284.7
15–19	748.9	155.4	1,374.9	5,483.0	2,195.4	8,858.2	1,646.6	519.5	2,845.8	402.3	95.2	729.3	2,748.8	879.6	4,672.9
20–24	940.2	398.9	1,508.7	5,435.0	2,980.0	7,942.6	1,964.5	838.3	3,301.5	627.9	238.5	1,032.1	3,066.6	1,187.9	5,008.6
25–29	385.5	221.9	550.9	2,425.6	1,705.6	3,105.1	900.9	440.4	1,481.2	288.6	151.1	421.5	1,696.7	767.3	2,642.2
30–34	142.2	95.6	189.4	1,046.0	926.6	1,153.6	424.6	220.7	666.9	146.1	83.3	206.2	889.7	411.4	1,368.0
35–39	61.0	49.0	73.1	482.4	514.6	453.7	219.1	125.8	325.9	82.5	49.5	113.9	434.9	211.8	653.6
40–44	28.5	28.6	28.4	231.8	280.4	189.1	105.0	72.1	141.3	58.7	37.5	78.8	232.5	121.8	338.0
45–54	10.7	11.7	9.7	101.4	126.3	80.1	43.9	31.1	57.0	26.8	22.3	30.8	81.9	52.3	108.8
55–64	3.3	4.1	2.6	30.3	42.5	20.6	15.8	13.2	18.1	11.2	8.6	13.5	29.7	15.5	42.6
65+	1.0	1.2	0.8	10.9	14.8	8.4	7.5	5.6	8.8	2.4	3.0	2.0	14.9	7.4	20.7
TOTAL	152.8	65.9	236.6	1,261.3	733.3	1,741.8	459.2	203.0	733.6	127.2	57.0	193.6	790.1	314.5	1,250.8
10–14	21.3	1.5	42.2	258.9	54.9	469.4	55.5	10.9	102.3	14.9	1.5	28.9	120.4	16.4	227.1
15–19	787.7	176.2	1,432.7	6,052.0	2,550.8	9,646.7	1,720.4	562.8	2,951.9	465.0	128.0	823.8	2,547.7	786.8	4,360.4
20–24	988.5	423.9	1,581.4	6,018.2	3,420.5	8,671.5	1,996.5	857.9	3,348.4	659.3	260.9	1,072.8	2,866.1	1,163.3	4,626.3
25–29	418.5	245.8	593.3	2,711.3	1,970.1	3,410.6	930.7	458.1	1,526.3	329.8	172.8	481.7	1,636.1	705.7	2,582.6
30–34	154.1	102.7	206.0	1,191.5	1,044.8	1,323.7	437.4	228.3	685.9	151.7	92.4	208.4	813.3	400.0	1,226.5
35–39	68.6	52.9	84.5	539.3	567.7	514.0	223.5	132.3	327.9	94.5	62.5	124.9	391.1	188.6	589.5
40–44	31.0	30.1	31.9	258.9	306.9	216.9	110.0	75.6	148.0	60.2	48.4	71.3	208.8	124.3	289.4
45–54	12.7	14.5	10.9	119.6	149.8	93.7	49.5	35.8	63.4	28.2	22.6	33.1	75.2	44.8	102.7
55–64	3.9	4.9	2.9	38.5	49.7	29.5	17.3	11.6	22.6	15.3	13.8	16.5	13.7	7.8	19.1
65+	0.9	1.4	0.6	10.2	13.1	8.4	6.2	5.6	6.6	2.9	3.0	2.8	6.3	6.5	6.1
TOTAL	162.3	71.9	249.3	1,398.7	841.3	1,906.0	473.2	211.7	753.3	139.5	66.3	208.8	732.9	293.8	1,158.2

NOTE: These tables should be used only for race/ethnicity comparisons. See Table 10 for age-specific cases and rates and Tables 3-5 for total and sex-specific cases and rates. If age or race/ethnicity was not specified, cases were prorated according to the distribution of cases for which these variables were specified. For the following years the states listed did not report age and/or race/ethnicity for most cases and their case data and population denominators were excluded: 2003 (CO, DC, NJ); 2004 (CO, DC, NJ); 2005 (CO, DC, GA, HI, NJ); 2006 (CO, HI); 2007 (CO, HI). Differences between total rates from this table and others in the report are due to different reporting formats and above listed exclusions. The 0 to 9 year age group is not shown because some of these cases may not be due to sexual transmission; however, they are included in the totals.

Table 12. Gonorrhea — Reported cases and rates by state, ranked by rates: United States, 2007

<i>Rank*</i>	<i>State</i>	<i>Cases</i>	<i>Rate per 100,000 Population</i>
1	Mississippi	8,314	285.7
2	Louisiana	11,137	259.7
3	South Carolina	10,326	239.0
4	Alabama	10,885	236.7
5	Georgia	17,835	190.5
6	North Carolina	16,666	188.2
7	Ohio	21,066	183.5
8	Missouri	9,876	169.0
9	Illinois	20,813	162.2
10	Tennessee	9,564	158.4
11	Michigan	15,482	153.4
12	Delaware	1,293	151.5
13	Arkansas	4,168	148.3
14	Indiana	8,790	139.2
15	Texas	32,073	136.4
16	Oklahoma	4,827	134.9
17	Florida	23,327	129.0
18	Wisconsin	6,752	121.5
19	Maryland	6,768	120.5
	U.S. TOTAL[†]	355,991	118.9
20	Pennsylvania	12,706	102.1
21	Nevada	2,357	94.4
22	New Mexico	1,796	91.9
23	New York	17,697	91.7
24	Alaska	579	86.4
25	California	31,294	85.8
26	Kansas	2,282	82.6
27	Arizona	5,062	82.1
28	Virginia	6,269	82.0
29	Kentucky	3,449	82.0
30	Nebraska	1,434	81.1
31	Colorado	3,376	71.0
32	New Jersey	6,076	69.6
33	Minnesota	3,459	66.9
34	Connecticut	2,327	66.4
35	Iowa	1,928	64.7
36	Washington	3,653	57.1
37	Hawaii	659	51.3
38	West Virginia	930	51.1
39	Massachusetts	2,695	41.9
40	Rhode Island	402	37.7
41	Oregon	1,236	33.4
42	South Dakota	261	33.4
43	Utah	821	32.2
	YEAR 2010 TARGET		19.0
44	Idaho	269	18.3
45	North Dakota	116	18.2
46	Wyoming	81	15.7
47	Montana	122	12.9
48	New Hampshire	138	10.5
49	Vermont	64	10.3
50	Maine	118	8.9

*States were ranked in descending order by rate, number of cases, and alphabetically by state.

[†]Total includes cases reported by the District of Columbia with 2,373 cases and a rate of 408.1, but excludes outlying areas (Guam with 141 cases and rate of 82.4, Puerto Rico with 323 cases and rate of 8.2, and Virgin Islands with 69 cases and rate of 63.5).

Table 13. Gonorrhea — Reported cases and rates by state/area and region listed in alphabetical order: United States and outlying areas, 2003–2007

State/Area	Cases					Rates per 100,000 Population				
	2003	2004	2005	2006	2007	2003	2004	2005	2006	2007
Alabama	9,303	8,206	9,406	10,665	10,885	206.7	181.1	206.4	231.9	236.7
Alaska	573	567	600	630	579	88.3	86.5	90.4	94.0	86.4
Arizona	3,580	4,065	4,951	5,949	5,062	64.1	70.8	83.4	96.5	82.1
Arkansas	4,251	4,137	4,476	4,306	4,168	156.0	150.3	161.1	153.2	148.3
California	25,963	30,155	34,338	33,740	31,294	73.2	84.0	95.0	92.5	85.8
Colorado	2,854	3,054	3,224	3,695	3,376	62.7	66.4	69.1	77.7	71.0
Connecticut	3,114	2,862	2,750	2,610	2,327	89.4	81.7	78.3	74.5	66.4
Delaware	1,128	894	913	1,485	1,293	138.0	107.7	108.2	174.0	151.5
District of Columbia	2,508	2,568	2,146	1,887	2,373	444.4	463.9	389.8	324.5	408.1
Florida	18,974	18,580	20,225	23,976	23,327	111.5	106.8	113.7	132.5	129.0
Georgia	17,686	15,783	15,860	19,669	17,835	203.6	178.8	174.8	210.1	190.5
Hawaii	1,263	1,193	1,024	885	659	100.4	94.5	80.3	68.8	51.3
Idaho	68	103	119	206	269	5.0	7.4	8.3	14.0	18.3
Illinois	21,817	20,597	20,019	20,186	20,813	172.4	162.0	156.8	157.3	162.2
Indiana	6,681	6,851	8,094	8,732	8,790	107.8	109.8	129.1	138.3	139.2
Iowa	1,554	1,249	1,606	1,966	1,928	52.8	42.3	54.1	65.9	64.7
Kansas	2,647	2,542	2,605	2,210	2,282	97.2	92.9	94.9	80.0	82.6
Kentucky	3,578	2,758	2,935	3,277	3,449	86.9	66.5	70.3	77.9	82.0
Louisiana	11,850	10,538	9,572	10,883	11,137	263.5	233.4	211.6	253.8	259.7
Maine	233	210	142	137	118	17.8	15.9	10.7	10.4	8.9
Maryland	8,032	8,297	7,035	7,328	6,768	145.8	149.3	125.6	130.5	120.5
Massachusetts	2,901	3,057	2,537	2,429	2,695	45.1	47.6	39.6	37.7	41.9
Michigan	13,965	17,376	17,684	15,677	15,482	138.5	171.8	174.7	155.3	153.4
Minnesota	3,202	2,957	3,482	3,303	3,459	63.3	58.0	67.8	63.9	66.9
Mississippi	6,328	7,163	7,171	7,511	8,314	219.6	246.7	245.5	258.1	285.7
Missouri	8,792	9,218	9,455	10,204	9,876	154.1	160.2	163.0	174.6	169.0
Montana	122	88	158	194	122	13.3	9.5	16.9	20.5	12.9
Nebraska	1,623	1,147	1,158	1,433	1,434	93.3	65.6	65.8	81.0	81.1
Nevada	2,221	3,078	2,880	2,791	2,357	99.1	131.8	119.3	111.8	94.4
New Hampshire	125	133	177	180	138	9.7	10.2	13.5	13.7	10.5
New Jersey	7,944	6,696	5,722	5,492	6,076	92.0	77.0	65.6	62.9	69.6
New Mexico	1,169	1,306	1,552	1,733	1,796	62.4	68.6	80.5	88.7	91.9
New York	22,166	18,737	17,717	17,459	17,697	115.5	97.5	92.0	90.4	91.7
North Carolina	15,116	15,194	15,072	17,312	16,666	179.8	177.9	173.6	195.5	188.2
North Dakota	103	110	128	153	116	16.3	17.3	20.1	24.1	18.2
Ohio	22,537	20,467	20,985	19,190	21,066	197.1	178.6	183.1	167.2	183.5
Oklahoma	4,552	4,453	5,228	4,951	4,827	129.6	126.4	147.4	138.3	134.9
Oregon	1,000	1,302	1,562	1,461	1,236	28.1	36.2	42.9	39.5	33.4
Pennsylvania	11,866	11,236	11,222	11,466	12,706	96.0	90.6	90.3	92.2	102.1
Rhode Island	973	816	438	508	402	90.4	75.5	40.7	47.6	37.7
South Carolina	8,518	9,171	8,561	10,320	10,326	205.4	218.5	201.2	238.8	239.0
South Dakota	226	304	351	367	261	29.6	39.4	45.2	46.9	33.4
Tennessee	8,519	8,475	8,605	9,694	9,564	145.8	143.6	144.3	160.5	158.4
Texas	24,595	24,371	26,110	30,449	32,073	111.2	108.4	114.2	129.5	136.4
Utah	412	603	727	888	821	17.5	25.2	29.4	34.8	32.2
Vermont	97	86	60	72	64	15.7	13.8	9.6	11.5	10.3
Virginia	9,066	8,565	8,346	6,476	6,269	122.7	114.8	110.3	84.7	82.0
Washington	2,753	2,810	3,739	4,231	3,653	44.9	45.3	59.5	66.2	57.1
West Virginia	847	892	770	953	930	46.8	49.1	42.4	52.4	51.1
Wisconsin	5,663	5,053	5,869	6,927	6,752	103.5	91.7	106.0	124.7	121.5
Wyoming	46	59	87	120	81	9.2	11.6	17.1	23.3	15.7
U.S. TOTAL	335,104	330,132	339,593	358,366	355,991	115.2	112.4	114.6	119.7	118.9
Northeast	49,419	43,833	40,765	40,353	42,223	90.8	80.3	74.6	73.7	77.1
Midwest	88,810	87,871	91,436	90,348	92,259	135.8	133.7	138.6	136.4	139.3
South	154,851	150,045	152,431	171,142	170,204	148.1	141.6	141.8	156.9	156.0
West	42,024	48,383	54,961	56,523	51,305	63.2	71.8	80.5	81.5	74.0
Guam	65	114	106	98	141	39.7	68.6	62.9	57.3	82.4
Puerto Rico	276	267	328	302	323	7.1	6.9	8.4	7.7	8.2
Virgin Islands	91	75	30	34	69	83.6	68.9	27.6	31.3	63.5
OUTLYING AREAS	432	456	464	434	533	10.4	10.9	11.1	10.3	12.7
TOTAL	335,536	330,588	340,057	358,800	356,524	113.8	111.0	113.1	118.2	117.4

Table 14. Gonorrhea — Women – Reported cases and rates by state/area and region listed in alphabetical order: United States and outlying areas, 2003–2007

State/Area	Cases					Rates per 100,000 Population				
	2003	2004	2005	2006	2007	2003	2004	2005	2006	2007
Alabama	4,583	3,673	4,494	5,983	6,095	197.4	157.4	191.5	252.5	257.2
Alaska	339	337	349	356	326	108.1	106.5	108.9	110.0	100.7
Arizona	1,636	1,787	2,338	2,847	2,342	58.7	62.3	78.8	92.4	76.0
Arkansas	2,108	2,032	2,252	2,182	2,275	151.5	144.7	159.0	152.3	158.7
California	11,912	13,620	15,827	15,688	14,533	67.0	75.8	87.5	86.0	79.7
Colorado	1,529	1,656	1,619	1,879	1,807	67.8	72.6	70.1	79.6	76.6
Connecticut	1,910	1,756	1,590	1,478	1,372	106.6	97.4	88.1	82.2	76.3
Delaware	602	508	515	829	699	143.5	119.3	119.2	188.7	159.1
District of Columbia	1,137	1,293	1,029	808	1,077	381.2	443.1	355.6	261.6	348.7
Florida	9,419	9,371	10,204	12,427	11,793	108.5	105.6	112.6	135.0	128.1
Georgia	9,137	8,119	7,819	10,002	9,334	207.8	181.9	170.5	210.4	196.4
Hawaii	723	680	619	476	295	115.3	107.5	96.8	74.1	45.9
Idaho	18	42	57	113	152	2.6	6.0	8.0	15.5	20.9
Illinois	11,624	11,510	10,998	10,926	11,312	180.4	177.9	169.4	167.7	173.6
Indiana	3,610	3,550	4,453	4,806	4,884	114.6	112.0	139.9	150.0	152.5
Iowa	869	736	885	1,179	1,121	58.1	49.1	58.8	78.1	74.3
Kansas	1,522	1,565	1,645	1,327	1,401	110.8	113.6	119.1	95.3	100.6
Kentucky	1,845	1,415	1,530	1,709	1,887	87.8	67.0	72.1	79.7	88.0
Louisiana	6,076	5,450	4,761	5,605	5,822	262.6	234.7	204.9	254.5	264.4
Maine	84	84	61	54	45	12.6	12.5	9.0	8.0	6.7
Maryland	4,166	4,327	3,620	3,850	3,529	146.5	150.9	125.4	132.8	121.7
Massachusetts	1,342	1,531	1,320	1,214	1,282	40.4	46.3	40.0	36.6	38.6
Michigan	7,823	9,614	10,161	8,900	8,984	152.5	186.9	197.5	173.6	175.3
Minnesota	1,784	1,712	1,909	1,814	1,930	70.0	66.6	73.9	69.8	74.3
Mississippi	3,757	4,362	4,234	4,400	4,901	253.0	291.9	281.8	293.1	326.5
Missouri	4,794	5,139	5,334	5,752	5,481	164.1	174.6	179.9	192.5	183.4
Montana	74	54	102	123	75	16.1	11.6	21.8	26.1	15.9
Nebraska	924	656	688	865	847	105.0	74.2	77.4	97.0	95.0
Nevada	1,062	1,417	1,343	1,257	1,066	96.6	123.7	113.3	102.5	86.9
New Hampshire	57	54	97	97	63	8.7	8.2	14.6	14.6	9.5
New Jersey	4,550	3,607	3,077	2,829	3,059	102.6	80.8	68.9	63.4	68.6
New Mexico	598	749	884	1,003	974	62.8	77.4	90.2	101.3	98.4
New York	11,296	9,720	9,031	8,479	8,324	113.9	98.0	91.0	85.2	83.6
North Carolina	7,383	7,384	7,545	8,718	8,941	172.6	170.0	171.0	193.1	198.0
North Dakota	59	72	76	86	66	18.6	22.7	23.8	27.2	20.9
Ohio	12,390	11,144	11,592	10,508	11,771	211.1	189.6	197.3	178.7	200.2
Oklahoma	2,562	2,471	3,018	2,780	2,606	143.9	138.6	168.2	153.2	143.6
Oregon	389	567	661	609	564	21.7	31.4	36.1	32.7	30.3
Pennsylvania	6,644	6,295	6,271	6,219	6,946	104.2	98.5	98.0	97.3	108.6
Rhode Island	517	478	227	273	169	92.7	85.4	40.8	49.5	30.6
South Carolina	4,369	5,007	4,601	5,406	5,640	205.3	232.6	211.0	243.8	254.3
South Dakota	133	178	196	215	153	34.6	45.9	50.2	54.9	39.1
Tennessee	4,263	4,327	4,395	5,104	5,247	142.6	143.5	144.5	165.3	169.9
Texas	12,643	12,433	13,827	15,619	16,192	113.8	110.1	120.5	132.4	137.3
Utah	153	266	319	369	345	13.1	22.4	25.9	29.1	27.2
Vermont	48	53	26	39	30	15.2	16.8	8.2	12.3	9.5
Virginia	4,809	4,650	4,402	3,287	3,369	128.1	122.7	114.5	84.6	86.7
Washington	1,167	1,229	1,622	1,938	1,858	38.0	39.5	51.5	60.4	58.0
West Virginia	464	470	427	488	504	50.0	50.6	46.0	52.6	54.3
Wisconsin	3,299	2,953	3,433	4,047	4,066	119.3	106.1	122.9	144.8	145.4
Wyoming	28	39	54	71	41	11.2	15.5	21.4	28.0	16.1
U.S. TOTAL	174,230	172,142	177,537	187,033	187,595	117.9	115.4	118.0	123.1	123.5
Northeast	26,448	23,578	21,700	20,682	21,290	94.3	83.9	77.2	73.5	75.7
Midwest	48,831	48,829	51,370	50,425	52,016	146.7	146.1	153.2	150.0	154.8
South	79,323	77,292	78,673	89,197	89,911	149.0	143.4	144.0	160.7	162.0
West	19,628	22,443	25,794	26,729	24,378	59.1	66.6	75.6	77.2	70.4
Guam	39	70	71	49	66	48.7	86.0	85.9	58.4	78.7
Puerto Rico	121	150	194	152	165	6.0	7.4	9.5	7.4	8.1
Virgin Islands	65	48	18	23	51	114.3	84.4	31.7	40.5	89.8
OUTLYING AREAS	225	268	283	224	282	10.5	12.4	13.0	10.3	12.9
TOTAL	174,455	172,410	177,820	187,257	187,877	116.4	114.0	116.5	121.5	121.9

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

Table 15. Gonorrhea — Men – Reported cases and rates by state/area and region listed in alphabetical order: United States and outlying areas, 2003–2007

State/Area	Cases					Rates per 100,000 Population				
	2003	2004	2005	2006	2007	2003	2004	2005	2006	2007
Alabama	4,705	4,526	4,892	4,678	4,786	215.9	206.1	221.2	209.8	214.7
Alaska	234	230	251	274	253	69.8	67.9	73.1	79.1	73.0
Arizona	1,942	2,274	2,610	3,097	2,718	69.6	79.1	87.8	100.4	88.1
Arkansas	2,141	2,104	2,223	2,122	1,890	160.5	156.0	163.1	154.0	137.2
California	13,965	16,440	18,348	17,856	16,632	78.8	91.8	101.7	98.0	91.3
Colorado	1,325	1,398	1,605	1,816	1,569	57.7	60.2	68.1	75.9	65.6
Connecticut	1,204	1,106	1,160	1,132	955	71.2	65.1	68.0	66.3	56.0
Delaware	526	386	398	656	594	132.1	95.4	96.8	158.4	143.4
District of Columbia	1,361	1,269	1,113	1,072	1,284	511.5	484.9	426.2	393.2	470.9
Florida	9,555	9,209	10,021	11,546	11,527	114.6	108.0	114.9	130.0	129.7
Georgia	8,487	7,596	7,885	9,510	8,401	198.0	174.0	175.7	206.2	182.2
Hawaii	540	513	405	409	364	85.6	81.4	63.7	63.6	56.6
Idaho	50	60	60	92	112	7.3	8.6	8.4	12.5	15.2
Illinois	10,192	9,087	9,020	9,260	9,501	164.1	145.5	143.8	146.6	150.4
Indiana	3,040	3,270	3,616	3,895	3,880	99.8	106.6	117.1	125.2	124.7
Iowa	680	511	721	787	807	47.0	35.1	49.4	53.4	54.8
Kansas	1,125	977	960	883	881	83.3	71.9	70.4	64.4	64.2
Kentucky	1,727	1,338	1,399	1,561	1,559	85.6	65.8	68.2	75.7	75.6
Louisiana	5,710	5,029	4,744	5,186	5,201	261.6	229.2	215.7	248.6	249.4
Maine	149	126	81	83	73	23.4	19.6	12.5	12.8	11.3
Maryland	3,858	3,969	3,410	3,461	3,238	144.7	147.5	125.7	127.4	119.2
Massachusetts	1,552	1,524	1,216	1,212	1,412	49.9	49.1	39.2	38.9	45.3
Michigan	6,141	7,762	7,468	6,738	6,447	124.0	156.2	150.1	135.6	129.7
Minnesota	1,418	1,245	1,573	1,489	1,529	56.5	49.2	61.7	58.0	59.5
Mississippi	2,571	2,801	2,937	3,111	3,413	184.1	198.8	207.0	220.7	242.2
Missouri	3,998	4,079	4,121	4,452	4,395	143.7	145.1	145.3	156.0	154.0
Montana	47	33	56	71	47	10.3	7.1	12.0	15.0	9.9
Nebraska	695	488	467	552	583	80.9	56.5	53.7	63.0	66.5
Nevada	1,158	1,658	1,535	1,533	1,291	101.4	139.5	124.9	120.8	101.7
New Hampshire	68	79	80	83	75	10.7	12.3	12.4	12.8	11.6
New Jersey	3,389	3,089	2,645	2,657	3,014	80.6	72.9	62.3	62.3	70.7
New Mexico	567	557	668	730	822	61.5	59.5	70.4	75.7	85.2
New York	10,813	8,985	8,680	8,976	9,363	116.6	96.6	93.1	95.9	100.1
North Carolina	7,733	7,810	7,527	8,594	7,725	187.2	186.0	176.2	198.0	177.9
North Dakota	44	38	52	67	50	13.9	12.0	16.4	21.0	15.7
Ohio	9,856	9,046	9,035	8,493	9,164	177.1	162.1	161.7	151.7	163.7
Oklahoma	1,990	1,982	2,210	2,171	2,221	114.9	113.9	126.0	123.0	125.9
Oregon	611	735	901	852	672	34.5	41.1	49.8	46.3	36.5
Pennsylvania	5,214	4,941	4,950	5,247	5,757	87.1	82.2	82.1	86.8	95.2
Rhode Island	456	338	211	235	232	88.0	64.8	40.6	45.5	44.9
South Carolina	4,118	4,136	3,925	4,899	4,665	204.0	202.2	189.2	232.9	221.8
South Dakota	93	126	155	152	107	24.5	32.9	40.2	38.9	27.4
Tennessee	4,256	4,148	4,209	4,590	4,317	149.2	143.7	144.1	155.5	146.3
Texas	11,932	11,902	12,269	14,812	15,819	108.4	106.3	107.7	126.4	135.0
Utah	259	337	408	519	476	21.9	28.1	32.9	40.5	37.1
Vermont	49	33	34	33	34	16.1	10.8	11.1	10.7	11.1
Virginia	4,237	3,904	3,939	3,187	2,895	116.7	106.3	105.8	84.8	77.1
Washington	1,586	1,581	2,117	2,293	1,795	51.9	51.1	67.4	71.9	56.3
West Virginia	380	421	343	465	426	43.0	47.4	38.6	52.2	47.8
Wisconsin	2,341	2,087	2,431	2,870	2,673	86.5	76.5	88.7	104.0	96.8
Wyoming	18	20	33	49	40	7.1	7.8	12.9	18.8	15.3
U.S. TOTAL	160,106	157,303	161,117	170,508	167,684	111.9	108.8	110.4	115.6	113.7
Northeast	22,894	20,221	19,057	19,658	20,915	86.8	76.4	71.8	73.9	78.6
Midwest	39,623	38,716	39,619	39,638	40,017	123.3	119.8	122.1	121.5	122.7
South	75,287	72,530	73,444	81,621	79,961	146.7	139.3	138.9	152.3	149.2
West	22,302	25,836	28,997	29,591	26,791	67.1	76.7	84.9	85.3	77.2
Guam	26	44	35	49	75	31.1	51.9	40.7	56.2	86.1
Puerto Rico	155	117	134	150	158	8.3	6.3	7.1	8.0	8.4
Virgin Islands	26	27	12	11	18	50.0	52.0	23.1	21.2	34.7
OUTLYING AREAS	207	188	181	210	251	10.3	9.4	9.0	10.4	12.4
TOTAL	160,313	157,491	161,298	170,718	167,935	110.5	107.5	109.0	114.2	112.3

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

Table 16. Gonorrhea — Reported cases and rates in selected metropolitan statistical areas* (MSAs) listed in alphabetical order: United States, 2003–2007

<i>Metropolitan Statistical Area</i>	<i>Cases</i>					<i>Rates per 100,000 Population</i>				
	<i>2003</i>	<i>2004</i>	<i>2005</i>	<i>2006</i>	<i>2007</i>	<i>2003</i>	<i>2004</i>	<i>2005</i>	<i>2006</i>	<i>2007</i>
Atlanta-Sandy Springs-Marietta, GA	8,825	7,355	7,838	10,223	9,060	191.4	156.2	159.4	199.0	176.3
Austin-Round Rock, TX	1,458	1,472	1,706	2,446	2,075	105.8	104.2	117.5	161.6	137.1
Baltimore-Towson, MD	5,382	5,256	4,779	4,653	4,156	205.7	199.2	180.0	175.0	156.3
Birmingham-Hoover, AL	2,212	2,377	2,381	2,444	3,129	206.2	219.6	218.4	222.2	284.4
Boston-Cambridge-Quincy, MA-NH	1,818	1,998	1,684	1,542	1,770	40.9	45.2	38.2	34.6	39.7
Buffalo-Cheektowaga-Tonawanda, NY	1,809	1,670	1,926	2,068	2,289	156.0	144.7	167.8	181.8	201.2
Charlotte-Gastonia-Concord, NC-SC	3,130	2,998	3,330	3,388	2,388	217.8	203.3	218.9	214.0	150.9
Chicago-Naperville-Joliet, IL-IN-WI	17,080	15,684	14,857	15,127	14,979	183.0	167.0	157.3	159.1	157.6
Cincinnati-Middletown, OH-KY-IN	4,206	3,455	3,927	3,862	4,583	205.4	167.9	189.7	183.5	217.8
Cleveland-Elyria-Mentor, OH	5,338	4,472	4,641	4,663	4,286	249.5	209.3	218.3	220.6	202.7
Columbus, OH	2,963	3,004	3,445	3,303	4,136	176.9	177.3	201.6	191.4	239.7
Dallas-Fort Worth-Arlington, TX	7,570	7,119	8,416	8,365	10,064	135.4	124.9	144.6	139.3	167.6
Denver-Aurora, CO	2,136	2,232	2,147	2,253	2,238	92.8	95.8	91.0	93.5	92.9
Detroit-Warren-Livonia, MI	7,173	9,299	10,766	8,535	8,554	160.0	207.0	239.9	191.0	191.4
Hartford-West Hartford-East Hartford, CT	1,030	933	993	988	920	87.4	78.8	83.6	83.1	77.4
Houston-Baytown-Sugar Land, TX	5,191	5,525	5,213	7,318	7,757	102.3	106.7	98.7	132.1	140.0
Indianapolis, IN	3,349	3,510	4,142	4,410	4,543	209.9	216.5	252.5	264.7	272.7
Jacksonville, FL	2,574	2,197	2,578	2,954	3,113	214.0	179.3	206.5	231.1	243.6
Kansas City, MO-KS	3,694	3,832	3,769	3,822	3,683	193.9	199.0	193.5	194.3	187.2
Las Vegas-Paradise, NV	1,968	2,645	2,487	2,478	2,112	124.8	160.2	145.4	139.4	118.8
Los Angeles-Long Beach-Santa Ana, CA	9,753	11,103	12,697	12,210	11,059	76.0	85.9	98.2	94.3	85.4
Louisville, KY-IN	1,617	1,484	1,551	1,749	1,908	135.9	123.6	128.3	143.1	156.1
Memphis, TN-MS-AR	3,764	3,832	3,782	4,665	4,756	303.7	306.5	299.9	366.0	373.1
Miami-Fort Lauderdale-Miami Beach, FL	4,455	4,622	4,497	5,356	5,152	84.2	86.2	82.9	98.0	94.3
Milwaukee-Waukesha-West Allis, WI	3,998	3,311	4,031	5,006	4,960	264.0	218.4	266.4	331.5	328.5
Minneapolis-St. Paul-Bloomington, MN-WI	2,781	2,439	2,920	2,780	2,834	90.2	78.3	92.9	87.6	89.3
Nashville-Davidson-Murfreesboro, TN	1,888	1,602	1,474	1,734	1,692	137.7	114.8	103.6	119.2	116.3
New Orleans-Metairie-Kenner, LA	3,956	3,316	2,609	1,962	2,713	300.3	251.3	197.7	191.5	264.8
New York-Newark-Edison, NY-NJ-PA	20,480	16,915	15,533	14,949	15,396	109.9	90.4	82.9	79.4	81.8
Oklahoma City, OK	2,050	2,153	2,548	2,315	2,373	181.0	188.1	220.3	197.5	202.4
Orlando, FL	2,165	2,285	2,848	3,393	2,743	120.1	122.7	147.3	170.9	138.2
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	8,502	7,818	7,719	8,163	8,669	147.3	134.8	132.6	140.1	148.8
Phoenix-Mesa-Scottsdale, AZ	2,795	3,161	3,133	4,260	3,333	77.8	85.1	81.1	105.5	82.5
Pittsburgh, PA	2,035	1,799	2,157	2,057	2,599	84.4	74.9	90.4	86.8	109.6
Portland-Vancouver-Beaverton, OR-WA	858	1,173	1,393	1,128	1,053	42.1	56.8	66.5	52.8	49.3
Providence-New Bedford-Fall River, RI-MA	1,136	1,048	650	693	621	70.0	64.3	40.1	43.0	38.5
Richmond, VA	2,319	2,160	2,361	1,778	2,199	203.7	187.1	200.8	148.9	184.2
Riverside-San Bernardino-Ontario, CA	2,512	2,631	3,012	2,994	3,166	69.0	69.4	77.0	74.4	78.6
Rochester, NY	1,897	1,900	1,899	1,457	1,207	182.2	182.4	182.8	140.7	116.6
Sacramento-Arden-Arcade-Roseville, CA	1,859	2,066	2,450	2,235	2,315	94.1	102.4	120.0	108.1	112.0
Salt Lake City, UT	276	371	460	623	573	27.5	36.4	44.5	58.3	53.7
San Antonio, TX	2,333	2,183	2,300	2,701	2,601	128.1	117.7	121.7	139.1	133.9
San Diego-Carlsbad-San Marcos, CA	2,007	2,379	2,695	2,767	2,385	68.5	81.1	91.9	94.1	81.1
San Francisco-Oakland-Fremont, CA	4,394	4,967	5,713	6,029	5,695	105.7	119.6	137.6	144.2	136.2
San Jose-Sunnyvale-Santa Clara, CA	740	1,084	1,055	1,065	893	42.7	62.2	60.1	59.6	50.0
Seattle-Tacoma-Bellevue, WA	2,027	1,883	2,704	3,079	2,572	64.5	59.5	84.4	94.3	78.8
St. Louis, MO-IL	5,600	5,719	6,391	6,547	6,483	204.7	206.9	230.0	234.1	231.8
Tampa-St. Petersburg-Clearwater, FL	3,160	2,801	2,910	3,667	3,819	124.8	108.2	109.9	135.9	141.6
Virginia Beach-Norfolk-Newport News, VA-NC	4,201	3,812	3,355	2,544	2,504	256.6	231.8	203.7	154.2	151.8
Washington-Arlington-Alexandria, DC-VA-MD-WV	5,262	5,803	4,497	4,358	4,665	103.4	112.9	86.2	82.4	88.2
U.S. MSA TOTAL	199,726	194,853	202,369	209,106	208,773	127.8	123.4	126.9	129.6	129.4

*MSAs selected based on largest population in 2000 U.S. census.

Table 17. Gonorrhea — Women – Reported cases and rates in selected metropolitan statistical areas* (MSAs) listed in alphabetical order: United States, 2003–2007

<i>Metropolitan Statistical Area</i>	<i>Cases</i>					<i>Rates per 100,000 Population</i>				
	<i>2003</i>	<i>2004</i>	<i>2005</i>	<i>2006</i>	<i>2007</i>	<i>2003</i>	<i>2004</i>	<i>2005</i>	<i>2006</i>	<i>2007</i>
Atlanta-Sandy Springs-Marietta, GA	4,177	3,563	3,567	5,026	4,515	179.6	150.3	144.1	193.5	173.8
Austin-Round Rock, TX	644	692	830	1,134	992	95.4	100.1	116.6	153.3	134.1
Baltimore-Towson, MD	2,793	2,710	2,426	2,470	2,179	206.0	198.2	176.5	179.2	158.1
Birmingham-Hoover, AL	1,100	1,060	1,133	1,511	1,761	197.9	189.2	200.9	265.4	309.3
Boston-Cambridge-Quincy, MA-NH	771	937	793	728	773	33.7	41.2	35.0	31.8	33.7
Buffalo-Cheektowaga-Tonawanda, NY	974	920	1,079	1,153	1,258	161.7	153.4	181.2	195.5	213.3
Charlotte-Gastonia-Concord, NC-SC	1,492	1,413	1,604	1,584	1,188	204.4	188.6	207.8	196.9	147.7
Chicago-Naperville-Joliet, IL-IN-WI	8,804	8,546	7,948	7,853	7,813	185.1	178.7	165.3	162.7	161.8
Cincinnati-Middletown, OH-KY-IN	2,371	2,038	2,274	2,465	2,884	226.0	193.3	214.8	229.0	267.9
Cleveland-Elyria-Mentor, OH	2,620	2,192	2,264	2,277	2,180	235.3	197.2	204.8	207.4	198.6
Columbus, OH	1,569	1,475	1,896	1,758	2,142	184.5	171.8	219.0	201.2	245.2
Dallas-Fort Worth-Arlington, TX	3,822	3,547	4,135	4,129	4,905	136.9	124.7	142.6	138.1	164.1
Denver-Aurora, CO	1,091	1,144	996	1,044	1,128	95.2	98.7	84.9	87.0	94.0
Detroit-Warren-Livonia, MI	3,807	4,850	6,079	4,613	4,721	165.5	210.5	264.4	201.8	206.5
Hartford-West Hartford-East Hartford, CT	614	533	520	521	522	101.2	87.3	85.0	85.4	85.5
Houston-Baytown-Sugar Land, TX	2,509	2,813	3,016	3,806	3,805	98.8	108.6	114.2	137.5	137.4
Indianapolis, IN	1,659	1,698	2,163	2,297	2,385	204.1	205.7	259.1	271.1	281.4
Jacksonville, FL	1,201	1,083	1,240	1,506	1,532	195.1	173.0	194.5	230.8	234.8
Kansas City, MO-KS	1,890	2,027	2,035	2,099	2,040	194.6	206.8	205.5	209.6	203.7
Las Vegas-Paradise, NV	931	1,206	1,163	1,123	954	120.2	148.7	138.4	128.4	109.1
Los Angeles-Long Beach-Santa Ana, CA	4,371	4,997	5,687	5,657	5,001	67.6	76.6	87.2	86.7	76.7
Louisville, KY-IN	767	720	740	887	1,026	125.6	116.9	119.6	141.6	163.8
Memphis, TN-MS-AR	1,860	1,926	1,990	2,548	2,789	289.8	297.6	305.6	386.0	422.6
Miami-Fort Lauderdale-Miami Beach, FL	2,114	2,307	2,317	2,708	2,444	77.6	83.5	83.0	96.4	87.0
Milwaukee-Waukesha-West Allis, WI	2,295	1,906	2,298	2,923	2,972	295.0	244.9	295.8	378.4	384.8
Minneapolis-St. Paul-Bloomington, MN-WI	1,508	1,373	1,548	1,486	1,500	96.8	87.3	97.7	93.0	93.8
Nashville-Davidson-Murfreesboro, TN	873	742	661	794	800	125.4	104.9	91.8	107.6	108.5
New Orleans-Metairie-Kenner, LA	1,961	1,606	1,287	965	1,322	286.0	234.0	187.8	181.7	248.9
New York-Newark-Edison, NY-NJ-PA	10,650	8,821	7,784	7,015	6,979	110.2	91.0	80.2	72.1	71.7
Oklahoma City, OK	1,138	1,181	1,486	1,275	1,202	197.7	203.8	253.5	214.2	201.9
Orlando, FL	1,039	1,063	1,286	1,688	1,377	113.8	112.9	131.6	168.5	137.5
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	4,593	4,189	4,219	4,257	4,416	153.5	139.5	140.0	141.4	146.7
Phoenix-Mesa-Scottsdale, AZ	1,254	1,373	1,456	2,014	1,497	70.3	74.5	76.0	100.7	74.8
Pittsburgh, PA	1,192	1,063	1,216	1,174	1,530	94.9	85.0	97.9	95.3	124.2
Portland-Vancouver-Beaverton, OR-WA	331	491	551	436	446	32.3	47.4	52.4	40.7	41.6
Providence-New Bedford-Fall River, RI-MA	603	607	365	374	282	71.7	72.0	43.5	44.9	33.8
Richmond, VA	1,260	1,187	1,256	824	1,122	214.6	199.7	207.8	134.4	183.0
Riverside-San Bernardino-Ontario, CA	1,289	1,323	1,572	1,602	1,705	70.8	69.8	80.5	79.6	84.7
Rochester, NY	982	919	1,006	748	608	183.5	172.0	188.9	141.0	114.6
Sacramento-Arden-Arcade-Roseville, CA	942	1,049	1,307	1,164	1,190	93.9	102.3	125.9	110.7	113.2
Salt Lake City, UT	91	143	183	246	229	18.3	28.4	35.8	46.7	43.5
San Antonio, TX	1,152	1,109	1,155	1,412	1,279	124.0	117.2	119.8	142.3	128.9
San Diego-Carlsbad-San Marcos, CA	739	936	1,108	1,158	961	50.8	64.2	76.3	79.3	65.8
San Francisco-Oakland-Fremont, CA	1,578	1,580	2,052	2,122	2,174	75.2	75.4	97.9	100.9	103.4
San Jose-Sunnyvale-Santa Clara, CA	328	467	457	488	385	38.4	54.6	53.1	55.8	44.1
Seattle-Tacoma-Bellevue, WA	732	717	1,060	1,300	1,205	46.5	45.2	66.1	79.6	73.8
St. Louis, MO-IL	3,037	3,213	3,638	3,718	3,539	214.5	225.0	253.5	257.5	245.1
Tampa-St. Petersburg-Clearwater, FL	1,498	1,474	1,542	2,064	1,973	114.7	110.6	113.3	149.0	142.5
Virginia Beach-Norfolk-Newport News, VA-NC	2,111	1,990	1,717	1,305	1,355	254.6	239.1	205.6	154.9	160.9
Washington-Arlington-Alexandria, DC-VA-MD-WV	2,520	2,973	2,269	2,048	2,268	96.6	113.1	85.1	75.6	83.7
U.S. MSA TOTAL	99,647	97,892	102,374	105,497	105,253	125.2	121.8	126.2	128.7	128.4

*MSAs selected based on largest population in 2000 U.S. census.

Table 18. Gonorrhea — Men — Reported cases and rates in selected metropolitan statistical areas* (MSAs) listed in alphabetical order: United States, 2003–2007

<i>Metropolitan Statistical Area</i>	<i>Cases</i>					<i>Rates per 100,000 Population</i>				
	<i>2003</i>	<i>2004</i>	<i>2005</i>	<i>2006</i>	<i>2007</i>	<i>2003</i>	<i>2004</i>	<i>2005</i>	<i>2006</i>	<i>2007</i>
Atlanta-Sandy Springs-Marietta, GA	4,616	3,750	4,183	5,083	4,484	202.0	160.4	171.3	200.1	176.5
Austin-Round Rock, TX	811	768	870	1,310	1,081	115.4	106.5	117.4	169.2	139.7
Baltimore-Towson, MD	2,588	2,546	2,352	2,180	1,976	205.3	200.1	183.6	170.3	154.4
Birmingham-Hoover, AL	1,108	1,316	1,243	932	1,367	214.4	252.1	236.2	175.6	257.6
Boston-Cambridge-Quincy, MA-NH	1,045	1,060	890	812	996	48.6	49.4	41.5	37.5	46.0
Buffalo-Cheektowaga-Tonawanda, NY	835	750	847	913	1,031	149.9	135.2	153.4	166.7	188.3
Charlotte-Gastonia-Concord, NC-SC	1,638	1,583	1,726	1,804	1,199	231.5	218.1	230.4	231.7	154.0
Chicago-Naperville-Joliet, IL-IN-WI	8,265	7,122	6,900	7,267	7,161	180.6	154.5	148.8	155.4	153.1
Cincinnati-Middletown, OH-KY-IN	1,804	1,375	1,616	1,373	1,674	180.8	136.9	159.7	133.6	162.9
Cleveland-Elyria-Mentor, OH	2,683	2,236	2,329	2,366	2,091	261.5	218.0	228.2	232.8	205.7
Columbus, OH	1,380	1,509	1,531	1,537	1,985	167.4	180.6	181.6	180.4	233.0
Dallas-Fort Worth-Arlington, TX	3,742	3,560	4,276	4,230	5,123	133.7	124.7	146.5	140.3	170.0
Denver-Aurora, CO	1,045	1,088	1,151	1,209	1,110	90.5	92.9	97.0	100.0	91.8
Detroit-Warren-Livonia, MI	3,365	4,449	4,657	3,890	3,786	154.1	203.2	212.7	178.2	173.4
Hartford-West Hartford-East Hartford, CT	416	400	473	467	398	72.8	69.7	82.1	80.7	68.8
Houston-Baytown-Sugar Land, TX	2,672	2,707	2,194	3,504	3,930	105.3	104.5	83.1	126.4	141.8
Indianapolis, IN	1,680	1,808	1,972	2,106	2,150	214.7	227.1	244.8	257.3	262.6
Jacksonville, FL	1,373	1,114	1,338	1,448	1,581	233.8	185.9	219.1	231.5	252.7
Kansas City, MO-KS	1,804	1,805	1,734	1,723	1,643	193.3	191.0	181.1	178.4	170.1
Las Vegas-Paradise, NV	1,036	1,436	1,322	1,354	1,158	129.1	171.0	152.0	149.9	128.2
Los Angeles-Long Beach-Santa Ana, CA	5,364	6,084	6,985	6,505	6,023	84.4	95.0	109.1	101.2	93.7
Louisville, KY-IN	848	761	811	858	881	146.3	130.0	137.6	144.0	147.8
Memphis, TN-MS-AR	1,904	1,906	1,792	2,117	1,967	318.7	316.1	293.9	344.4	320.0
Miami-Fort Lauderdale-Miami Beach, FL	2,341	2,315	2,180	2,648	2,706	91.3	89.1	82.9	99.7	101.9
Milwaukee-Waukesha-West Allis, WI	1,682	1,405	1,731	2,080	1,975	228.5	190.6	235.2	282.0	267.8
Minneapolis-St. Paul-Bloomington, MN-WI	1,273	1,066	1,372	1,294	1,334	83.4	69.0	88.1	82.1	84.6
Nashville-Davidson-Murfreesboro, TN	1,015	860	813	940	892	150.4	125.0	115.8	131.0	124.3
New Orleans-Metairie-Kenner, LA	1,988	1,684	1,299	981	1,352	314.6	265.9	204.9	198.8	274.0
New York-Newark-Edison, NY-NJ-PA	9,769	8,063	7,744	7,929	8,406	108.9	89.4	85.6	87.2	92.5
Oklahoma City, OK	912	972	1,062	1,040	1,171	163.7	172.1	186.1	180.2	202.9
Orlando, FL	1,126	1,222	1,562	1,704	1,366	126.5	132.8	163.4	173.3	138.9
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	3,907	3,629	3,500	3,904	4,250	140.5	129.7	124.5	138.6	150.9
Phoenix-Mesa-Scottsdale, AZ	1,539	1,787	1,676	2,242	1,834	85.0	95.4	85.9	110.0	90.0
Pittsburgh, PA	841	736	941	883	1,069	72.8	63.9	82.2	77.5	93.8
Portland-Vancouver-Beaverton, OR-WA	527	682	842	692	607	51.9	66.3	80.6	64.9	57.0
Providence-New Bedford-Fall River, RI-MA	532	441	285	318	338	68.0	56.1	36.4	40.8	43.4
Richmond, VA	1,054	971	1,105	954	1,074	191.3	173.4	193.4	164.2	184.9
Riverside-San Bernardino-Ontario, CA	1,221	1,308	1,440	1,390	1,450	67.1	68.9	73.5	69.0	72.0
Rochester, NY	915	981	893	709	599	180.8	193.4	176.3	140.4	118.6
Sacramento-Arden-Arcade-Roseville, CA	897	1,002	1,123	1,046	1,098	92.4	101.1	111.8	103.0	108.1
Salt Lake City, UT	185	228	277	377	344	36.4	44.2	52.9	69.6	63.5
San Antonio, TX	1,181	1,073	1,145	1,289	1,322	132.5	118.2	123.7	135.7	139.2
San Diego-Carlsbad-San Marcos, CA	1,256	1,417	1,500	1,531	1,415	85.1	96.1	101.3	103.4	95.5
San Francisco-Oakland-Fremont, CA	2,797	3,367	3,644	3,882	3,493	135.9	163.7	177.2	186.9	168.2
San Jose-Sunnyvale-Santa Clara, CA	408	617	597	570	506	46.3	69.7	66.8	62.4	55.4
Seattle-Tacoma-Bellevue, WA	1,295	1,166	1,644	1,779	1,367	82.6	73.8	102.7	109.1	83.8
St. Louis, MO-IL	2,563	2,506	2,753	2,829	2,944	194.1	187.6	204.9	209.2	217.7
Tampa-St. Petersburg-Clearwater, FL	1,662	1,327	1,368	1,602	1,842	135.5	105.7	106.3	122.0	140.3
Virginia Beach-Norfolk-Newport News, VA-NC	2,077	1,816	1,636	1,237	1,148	257.0	223.7	201.4	153.3	142.2
Washington-Arlington-Alexandria, DC-VA-MD-WV	2,724	2,822	2,220	2,291	2,385	109.7	112.4	87.1	88.8	92.4
U.S. MSA TOTAL	99,709	96,596	99,544	103,129	103,082	130.1	124.6	127.0	130.0	129.9

*MSAs selected based on largest population in 2000 U.S. census.

Table 19. Gonorrhea — Counties and independent cities* ranked by number of reported cases: United States, 2007

<i>Rank[†]</i>	<i>County/Independent City</i>	<i>Cases</i>	<i>Rate per 100,000 Population</i>	<i>Cumulative Percent</i>
1	Cook County, IL	12,338	233.3	3
2	Los Angeles County, CA	10,063	101.2	6
3	Wayne County, MI	7,012	355.6	8
4	Harris County, TX	6,362	163.7	10
5	Dallas County, TX	6,180	263.4	11
6	Philadelphia County, PA	5,246	362.2	13
7	Milwaukee County, WI	4,882	533.5	14
8	Marion County, IN	4,286	495.2	15
9	Shelby County, TN	4,076	447.2	16
10	Cuyahoga County, OH	3,970	302.1	18
11	Franklin County, OH	3,909	356.8	19
12	Kings County, NY	3,802	151.5	20
13	Hamilton County, OH	3,781	459.6	21
14	Maricopa County, AZ	3,172	84.2	22
15	Fulton County, GA	3,083	321.1	23
16	Baltimore (City), MD	3,027	479.4	23
17	Jefferson County, AL	2,859	435.4	24
18	Duval County, FL	2,822	336.8	25
19	Tarrant County, TX	2,763	165.3	26
20	St Louis (City), MO	2,577	742.3	27
21	Jackson County, MO	2,558	385.2	27
22	DeKalb County, GA	2,504	346.0	28
23	Bexar County, TX	2,463	158.3	29
24	San Diego County, CA	2,385	81.1	29
25	Bronx County, NY	2,384	175.1	30
26	Washington, D.C.	2,373	408.1	31
27	Alameda County, CA	2,324	159.5	31
28	St. Louis County, MO	2,307	230.6	32
29	Broward County, FL	2,289	128.0	33
30	Allegheny County, PA	2,161	176.6	33
31	Sacramento County, CA	2,147	156.2	34
32	New York County, NY	2,137	132.6	34
33	Clark County, NV	2,112	118.8	35
34	Orange County, FL	2,090	200.3	36
35	Oklahoma County, OK	2,074	300.0	36
36	Hillsborough County, FL	2,064	178.3	37
37	Erie County, NY	2,026	219.9	37
38	San Francisco County, CA	2,007	269.7	38
39	Miami-Dade County, FL	1,988	82.8	38
40	San Bernardino County, CA	1,832	91.6	39
41	Queens County, NY	1,802	79.9	39
42	Essex County, NJ	1,786	227.2	40
43	Genesee County, MI	1,728	391.0	40
44	Guilford County, NC	1,703	376.8	41
45	Travis County, TX	1,682	182.6	41
46	Jefferson County, KY	1,652	235.5	42
47	Hennepin County, MN	1,651	147.1	42
48	Montgomery County, OH	1,645	303.4	43
49	Orleans County, LA	1,529	684.5	43
50	Pinellas County, FL	1,509	163.2	44
51	Caddo County, LA	1,496	591.0	44
52	Mobile County, AL	1,449	358.5	44
53	Montgomery County, AL	1,434	641.4	45
54	Hinds County, MS	1,429	573.9	45
55	Prince George's County, MD	1,409	167.5	46
56	Richland County, SC	1,402	402.6	46
57	King County, WA	1,377	75.4	46
58	Riverside County, CA	1,334	65.8	47
59	Davidson County, TN	1,288	222.6	47
60	Cumberland County, NC	1,278	427.3	48
61	Charleston County, SC	1,252	377.2	48
62	East Baton Rouge County, LA	1,229	286.4	48
63	Wake County, NC	1,189	151.2	49
64	Richmond (City), VA	1,183	613.2	49
65	Mecklenburg County, NC	1,173	141.8	49
66	Denver County, CO	1,146	202.1	50
67	Monroe County, NY	1,133	155.0	50
68	Kent County, MI	1,120	186.8	50
69	Kern County, CA	1,111	142.4	50

*Accounting for 50% of reported gonorrhea cases.

†Counties and independent cities were ranked in descending order by number of cases reported in 2007.

Table 20. Gonorrhea — Reported cases and rates per 100,000 population by age group and sex: United States, 2003–2007

Year	Age Group	Cases			Rates		
		Total	Male	Female	Total	Male	Female
2003	10–14	4,929	725	4,204	23.3	6.7	40.7
	15–19	90,340	27,473	62,867	441.1	261.2	631.2
	20–24	106,930	48,222	58,709	515.9	452.2	583.4
	25–29	53,692	29,368	24,325	280.1	300.5	258.9
	30–34	30,528	19,004	11,524	147.4	181.9	112.4
	35–39	20,212	13,824	6,388	94.4	128.9	59.8
	40–44	13,722	10,079	3,644	59.8	88.4	31.5
	45–54	11,018	8,905	2,113	27.0	44.4	10.2
	55–64	2,316	2,012	303	8.3	15.0	2.1
	65+	745	617	128	2.1	4.1	0.6
	TOTAL	335,104	160,459	174,645	115.2	112.2	118.2
2004	10–14	4,447	630	3,817	21.0	5.8	37.0
	15–19	87,454	26,607	60,847	421.9	250.2	602.8
	20–24	103,187	45,917	57,269	492.0	425.0	563.2
	25–29	54,857	29,520	25,337	280.4	295.4	264.9
	30–34	30,372	18,664	11,708	148.4	180.5	115.6
	35–39	19,793	13,350	6,443	94.0	126.3	61.5
	40–44	14,026	10,220	3,806	60.8	89.2	32.8
	45–54	12,078	9,645	2,433	29.0	47.2	11.5
	55–64	2,653	2,286	367	9.1	16.3	2.4
	65+	745	615	130	2.1	4.1	0.6
	TOTAL	330,132	157,623	172,509	112.4	109.1	115.7
2005	10–14	4,278	646	3,631	20.5	6.0	35.7
	15–19	90,840	27,781	63,060	431.8	257.5	615.3
	20–24	106,280	47,187	59,093	505.2	434.6	580.4
	25–29	57,195	30,631	26,565	285.0	298.3	271.1
	30–34	30,044	18,244	11,800	149.6	179.7	118.9
	35–39	19,948	13,413	6,535	95.0	127.0	62.6
	40–44	14,346	10,406	3,940	62.8	91.5	34.3
	45–54	12,636	10,063	2,573	29.7	48.2	11.9
	55–64	2,777	2,399	378	9.1	16.4	2.4
	65+	763	631	132	2.1	4.1	0.6
	TOTAL	339,593	161,557	178,036	114.6	110.7	118.4
2006	10–14	4,250	675	3,574	20.6	6.4	35.5
	15–19	96,524	30,119	66,405	452.6	275.4	639.2
	20–24	110,969	49,304	61,665	525.6	451.9	604.5
	25–29	61,843	32,946	28,897	298.6	311.3	285.4
	30–34	31,313	18,858	12,455	158.9	188.9	128.1
	35–39	20,674	13,813	6,861	97.6	129.7	65.1
	40–44	14,534	10,636	3,898	64.6	95.0	34.6
	45–54	13,847	11,064	2,782	32.0	52.0	12.7
	55–64	3,137	2,686	451	9.9	17.6	2.8
	65+	800	648	152	2.1	4.1	0.7
	TOTAL	358,366	170,902	187,464	119.7	115.9	123.4
2007	10–14	3,958	623	3,335	19.2	5.9	33.1
	15–19	98,579	31,269	67,310	462.3	286.0	647.9
	20–24	111,788	49,101	62,687	529.5	450.1	614.5
	25–29	61,364	32,296	29,068	296.3	305.1	287.1
	30–34	30,294	18,114	12,180	153.7	181.5	125.2
	35–39	19,094	12,724	6,370	90.1	119.5	60.5
	40–44	13,184	9,704	3,480	58.6	86.6	30.8
	45–54	13,346	10,690	2,656	30.8	50.2	12.1
	55–64	3,179	2,692	487	10.1	17.7	3.0
	65+	710	620	89	1.9	4.0	0.4
	TOTAL	355,991	168,011	187,980	118.9	113.9	123.8

NOTE: This table should be used only for age comparisons. If age was not specified, cases were prorated according to the distribution of cases for which age was known. Differences between total cases from this table and others in the report are due to different reporting formats. The 0 to 9 year age group is not shown because some of these cases may not be due to sexual transmission; however, they are included in the totals.

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Table 21A. Gonorrhea — Reported cases by race/ethnicity, age group and sex: United States, 2003–2007

Age Group	White, Non-Hispanic			Black, Non-Hispanic			Hispanic			Asian/Pacific Islander			American Indian/ Alaska Native			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
2003	10–14	789	51	739	3,662	594	3,068	390	71	320	31	3	28	55	7	49
	15–19	15,541	2,532	13,009	66,553	22,572	43,980	7,011	2,086	4,924	533	116	417	700	163	537
	20–24	19,132	6,097	13,035	77,129	37,552	39,577	9,080	4,085	4,994	840	270	570	767	229	539
	25–29	9,891	4,159	5,732	38,142	22,275	15,866	4,787	2,544	2,243	499	250	249	375	146	229
	30–34	6,648	3,512	3,136	20,459	13,498	6,961	2,821	1,704	1,117	381	206	175	214	83	131
	35–39	5,126	3,314	1,812	12,840	9,130	3,710	1,823	1,160	663	244	139	105	174	80	94
	40–44	3,835	2,634	1,201	8,642	6,626	2,016	981	654	327	145	95	49	118	70	48
	45–54	2,917	2,169	748	7,268	6,172	1,096	660	467	192	105	64	41	66	32	33
	55–64	713	588	125	1,439	1,301	138	123	98	25	31	19	13	8	7	2
	65+	239	196	43	443	379	64	44	29	15	11	7	4	8	6	2
TOTAL	64,961	25,288	39,673	237,038	120,266	116,771	27,793	12,922	14,872	2,823	1,171	1,652	2,489	823	1,666	
2004	10–14	678	44	634	3,336	526	2,811	366	48	318	28	5	23	38	7	31
	15–19	15,369	2,546	12,822	63,917	21,682	42,234	6,908	2,101	4,807	475	115	359	785	159	626
	20–24	19,129	5,909	13,220	73,374	35,351	38,023	8,891	4,017	4,874	868	329	538	939	319	620
	25–29	10,539	4,237	6,301	38,013	21,985	16,028	5,387	2,882	2,505	497	262	234	424	159	265
	30–34	6,751	3,459	3,293	20,027	13,180	6,847	2,956	1,726	1,230	384	200	184	249	99	150
	35–39	5,276	3,277	1,998	12,243	8,667	3,576	1,883	1,178	706	214	143	72	172	84	88
	40–44	4,021	2,713	1,307	8,710	6,653	2,058	1,060	736	324	116	75	40	116	40	76
	45–54	3,341	2,487	855	7,777	6,523	1,253	746	511	235	103	61	42	110	63	46
	55–64	831	695	136	1,615	1,457	158	159	116	43	35	12	23	12	7	5
	65+	219	174	45	472	404	68	42	29	14	3	1	2	8	6	2
TOTAL	66,250	25,585	40,665	229,843	116,537	113,306	28,455	13,360	15,096	2,726	1,205	1,521	2,858	946	1,912	
2005	10–14	691	35	655	3,154	549	2,604	355	52	304	25	1	23	45	8	37
	15–19	15,758	2,679	13,079	66,165	22,563	43,602	7,299	2,134	5,165	606	176	430	845	196	650
	20–24	20,892	6,509	14,383	73,365	35,373	37,991	9,742	4,438	5,303	960	418	542	1,012	344	668
	25–29	11,681	4,667	7,013	38,213	22,200	16,013	5,915	3,126	2,790	633	341	293	569	216	353
	30–34	6,790	3,405	3,385	19,172	12,540	6,632	3,248	1,830	1,418	405	281	124	314	137	177
	35–39	5,384	3,256	2,127	12,004	8,570	3,433	2,009	1,270	739	268	180	88	193	97	97
	40–44	4,255	2,863	1,392	8,606	6,593	2,012	1,153	776	377	146	93	53	119	44	75
	45–54	3,535	2,668	867	7,993	6,667	1,325	831	561	270	118	79	39	93	46	46
	55–64	853	721	132	1,653	1,490	163	191	134	57	44	28	16	24	17	6
	65+	242	203	39	452	386	66	55	36	19	8	4	4	3	1	2
TOTAL	70,209	27,050	43,159	231,076	117,025	114,050	30,845	14,374	16,471	3,214	1,602	1,612	3,225	1,112	2,113	
2006	10–14	596	53	543	3,227	549	2,678	367	70	297	23	1	21	36	1	34
	15–19	16,038	2,612	13,426	70,992	24,675	46,317	8,055	2,451	5,603	556	125	431	877	251	626
	20–24	21,590	6,684	14,906	77,200	37,200	40,000	10,340	4,739	5,601	809	335	474	1,045	356	689
	25–29	12,907	5,147	7,760	41,339	23,863	17,477	6,408	3,424	2,985	558	278	280	634	238	396
	30–34	6,948	3,313	3,636	20,334	13,363	6,971	3,340	1,861	1,478	365	207	157	325	114	211
	35–39	5,570	3,281	2,289	12,565	9,018	3,547	2,097	1,270	827	246	154	93	193	89	103
	40–44	4,231	2,800	1,432	8,798	6,831	1,967	1,241	843	398	144	102	42	117	59	59
	45–54	3,952	2,875	1,077	8,744	7,427	1,317	896	619	277	125	69	56	128	74	55
	55–64	1,019	836	183	1,886	1,699	187	172	116	55	32	14	18	27	19	8
	65+	269	226	44	450	370	80	65	44	21	8	3	5	8	6	2
TOTAL	73,200	27,848	45,353	245,855	125,102	120,753	33,044	15,460	17,584	2,869	1,290	1,579	3,398	1,208	2,189	
2007	10–14	475	20	454	3,068	537	2,531	364	64	300	22	0	22	30	3	27
	15–19	15,635	2,700	12,935	74,237	25,856	48,380	7,538	2,442	5,096	498	122	376	666	147	519
	20–24	20,830	6,346	14,484	79,555	37,665	41,890	9,761	4,544	5,218	767	297	470	884	256	628
	25–29	12,482	4,994	7,488	42,000	23,645	18,355	5,880	3,188	2,692	519	285	234	485	186	299
	30–34	6,515	3,005	3,510	20,078	12,995	7,083	3,120	1,822	1,297	354	207	146	227	85	143
	35–39	4,983	2,778	2,206	11,916	8,578	3,338	1,843	1,171	673	187	120	67	164	78	86
	40–44	3,680	2,451	1,229	8,238	6,433	1,804	1,049	710	339	119	82	37	98	28	70
	45–54	3,788	2,809	978	8,539	7,174	1,365	824	594	230	114	64	50	81	48	33
	55–64	1,010	833	177	1,908	1,680	228	196	133	63	49	33	16	15	13	2
	65+	274	243	31	367	319	49	50	44	6	13	10	3	4	4	0
TOTAL	69,767	26,207	43,559	250,245	125,006	125,238	30,680	14,733	15,947	2,643	1,221	1,422	2,657	850	1,808	

NOTE: These tables should be used only for race/ethnicity comparisons. See Table 20 for age-specific cases and rates and Tables 13–15 for total and sex-specific cases and rates. If age or race/ethnicity was not specified, cases were prorated according to the distribution of cases for which these variables were specified. In 2005, HI did not report age and/or race/ethnicity for most cases and their case data and population denominators were excluded. Differences between total cases from this table and others in the report are due to different reporting formats. The 0 to 9 year age group is not shown because some of these cases may not be due to sexual transmission; however, they are included in the totals.

Table 21B. Gonorrhea — Rates per 100,000 population by race/ethnicity, age group and sex: United States, 2003–2007

Age Group	White, Non-Hispanic			Black, Non-Hispanic			Hispanic			Asian/Pacific Islander			American Indian/ Alaska Native		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
10–14	6.0	0.8	11.6	108.3	34.6	184.4	10.7	3.8	17.9	3.7	0.6	6.9	23.9	5.7	42.7
15–19	118.9	37.7	204.7	2,165.6	1,447.2	2,905.9	215.9	123.8	315.1	62.2	26.3	100.1	307.6	140.7	481.1
20–24	149.1	93.5	206.3	2,614.5	2,558.2	2,670.3	242.4	197.0	298.6	84.8	54.0	116.2	372.7	218.5	532.1
25–29	85.8	71.4	100.4	1,504.2	1,831.3	1,202.6	126.0	121.6	131.5	44.2	45.1	43.4	220.8	170.4	272.0
30–34	51.0	53.5	48.4	771.9	1,074.6	499.2	78.8	88.6	67.4	30.3	33.4	27.3	125.6	98.0	153.2
35–39	36.0	46.4	25.5	472.6	713.9	258.0	57.4	69.0	44.4	22.0	25.8	18.4	99.4	92.8	105.8
40–44	23.7	32.6	14.8	308.0	504.5	135.1	35.8	46.0	24.7	14.0	19.2	9.2	62.8	76.8	49.7
45–54	9.6	14.4	4.9	156.6	287.9	43.9	17.3	24.5	10.1	6.0	7.8	4.4	20.7	21.4	20.0
55–64	3.3	5.5	1.1	53.6	108.9	9.3	5.9	9.8	2.3	3.0	3.9	2.3	4.4	7.3	1.8
65+	0.8	1.6	0.2	15.0	33.5	3.5	2.2	3.4	1.3	1.1	1.6	0.6	4.6	8.1	2.0
TOTAL	32.6	25.9	39.1	649.3	691.8	610.6	69.7	62.7	77.1	22.1	18.9	25.2	102.5	68.8	135.2
10–14	5.3	0.7	10.1	98.8	30.7	169.2	9.7	2.5	17.2	3.3	1.2	5.5	16.6	5.8	27.7
15–19	116.8	37.7	200.4	2,032.9	1,360.8	2,723.6	207.3	122.0	298.4	54.7	25.8	85.3	342.3	136.3	556.1
20–24	147.1	89.3	207.1	2,449.7	2,357.1	2,542.6	236.2	193.8	288.0	87.2	65.4	109.4	440.7	295.1	590.4
25–29	89.9	71.6	108.6	1,457.9	1,748.9	1,187.0	137.6	132.9	143.4	43.7	47.0	40.5	243.5	180.3	308.0
30–34	53.3	54.2	52.3	761.0	1,056.8	494.6	79.9	86.6	72.0	29.5	31.4	27.7	147.4	117.7	177.0
35–39	38.2	47.3	29.1	460.3	690.9	254.4	57.6	67.7	46.1	18.6	25.4	12.1	101.3	100.0	102.5
40–44	25.0	33.8	16.2	308.0	502.7	136.7	36.7	49.1	23.3	10.7	14.5	7.2	61.5	44.2	77.7
45–54	10.9	16.3	5.5	163.2	296.5	48.9	18.5	25.3	11.7	5.7	7.2	4.3	33.8	40.8	27.3
55–64	3.7	6.3	1.2	57.4	116.2	10.1	7.2	11.0	3.7	3.1	2.3	3.9	5.7	6.8	4.7
65+	0.7	1.4	0.3	15.7	35.1	3.7	2.0	3.1	1.1	0.3	0.3	0.3	4.4	7.6	2.0
TOTAL	33.2	26.1	40.0	622.5	662.5	586.2	68.9	62.6	75.6	20.7	18.8	22.4	116.5	78.3	153.6
10–14	5.5	0.5	10.7	95.5	32.8	160.2	9.2	2.6	16.1	3.0	0.3	5.8	20.9	7.4	34.7
15–19	119.3	39.5	203.6	2,044.5	1,376.4	2,730.3	211.5	119.9	308.9	73.1	41.2	107.1	367.8	167.5	575.2
20–24	160.0	97.6	225.1	2,437.0	2,333.5	2,542.0	261.7	218.3	314.0	102.5	88.0	117.4	466.7	312.9	625.0
25–29	97.5	77.2	118.1	1,412.1	1,692.4	1,148.5	147.1	139.7	156.5	57.7	63.1	52.4	317.6	238.4	398.8
30–34	55.7	55.5	55.9	742.3	1,024.0	488.3	85.7	89.3	81.4	31.8	45.1	19.0	189.8	165.9	213.7
35–39	39.7	47.7	31.5	455.3	688.7	246.6	59.4	70.3	46.9	23.2	31.9	14.9	116.5	117.7	115.3
40–44	27.1	36.5	17.7	305.6	500.6	134.3	38.5	49.6	26.3	13.9	18.3	9.9	64.6	49.5	79.0
45–54	11.4	17.3	5.5	163.3	294.9	50.3	19.5	26.1	12.8	6.7	9.6	4.2	28.2	29.5	26.9
55–64	3.6	6.3	1.1	55.7	112.7	9.9	8.1	11.9	4.6	3.9	5.4	2.6	11.3	17.2	5.8
65+	0.8	1.6	0.2	14.7	32.8	3.5	2.4	3.7	1.5	0.8	1.0	0.7	1.9	1.8	1.9
TOTAL	35.1	27.6	42.4	619.4	658.0	584.2	72.4	65.3	80.1	25.2	25.8	24.6	131.5	92.1	169.7
10–14	4.8	0.8	9.0	100.0	33.5	168.6	9.3	3.5	15.4	2.6	0.3	4.9	17.1	1.4	33.2
15–19	121.0	38.4	208.3	2,139.5	1,467.6	2,829.6	222.3	131.3	319.2	61.8	27.0	98.7	379.0	214.1	548.9
20–24	164.6	99.4	233.2	2,540.8	2,421.0	2,663.3	275.6	232.6	326.7	82.1	66.8	97.9	473.3	317.3	634.8
25–29	104.3	82.7	126.2	1,471.2	1,748.0	1,209.6	153.9	147.5	162.1	47.5	48.1	46.9	339.5	252.5	428.2
30–34	59.2	56.1	62.4	803.0	1,111.7	524.0	85.0	87.2	82.4	27.0	31.5	22.8	199.1	139.7	258.6
35–39	41.1	48.2	33.9	474.4	722.8	253.2	59.4	67.3	50.2	19.3	24.7	14.2	115.7	108.4	123.0
40–44	27.8	36.8	18.8	314.8	522.4	132.3	39.7	51.4	26.8	12.5	18.3	7.1	64.7	66.2	63.3
45–54	12.6	18.4	6.8	174.6	321.3	48.8	19.8	27.1	12.4	6.4	7.5	5.5	38.0	45.9	30.9
55–64	4.2	7.0	1.5	60.4	122.1	10.8	6.8	9.6	4.2	2.5	2.3	2.6	12.4	18.2	7.0
65+	0.9	1.8	0.2	14.4	30.8	4.2	2.7	4.3	1.5	0.6	0.6	0.7	4.3	7.2	2.1
TOTAL	36.5	28.3	44.4	651.2	695.1	611.3	74.6	67.4	82.2	20.4	18.9	21.9	136.9	98.9	173.7
10–14	3.8	0.3	7.6	95.1	32.7	159.4	9.2	3.2	15.6	2.4	0.0	4.9	14.2	2.6	26.1
15–19	118.0	39.7	200.6	2,237.2	1,537.8	2,955.7	208.1	130.7	290.3	55.3	26.4	86.1	288.0	125.1	455.7
20–24	158.8	94.4	226.6	2,618.3	2,451.3	2,789.2	260.2	223.0	304.3	77.9	59.3	97.2	400.4	228.2	578.7
25–29	100.9	80.2	121.8	1,494.7	1,732.0	1,270.4	141.3	137.3	146.2	44.2	49.4	39.3	259.5	197.3	322.9
30–34	55.5	50.9	60.2	792.9	1,081.0	532.5	79.4	85.4	72.3	26.2	31.5	21.2	139.3	104.0	174.7
35–39	36.7	40.8	32.7	449.9	687.6	238.3	52.2	62.1	40.8	14.6	19.2	10.2	98.3	94.4	102.2
40–44	24.2	32.2	16.1	294.8	492.0	121.4	33.5	43.3	22.8	10.4	14.7	6.3	53.9	31.3	75.6
45–54	12.0	18.0	6.2	170.5	310.3	50.6	18.2	26.0	10.3	5.9	7.0	4.8	24.1	30.0	18.7
55–64	4.1	7.0	1.4	61.1	120.7	13.2	7.7	10.9	4.8	3.8	5.5	2.3	6.8	12.5	1.6
65+	0.9	1.9	0.2	11.8	26.6	2.5	2.1	4.3	0.5	1.1	1.9	0.4	2.3	5.3	0.0
TOTAL	34.7	26.6	42.6	662.9	694.6	634.0	69.2	64.3	74.5	18.8	17.9	19.7	107.1	69.5	143.4

NOTE: These tables should be used only for race/ethnicity comparisons. See Table 20 for age-specific cases and rates and Tables 13–15 for total and sex-specific cases and rates. If age or race/ethnicity was not specified, cases were prorated according to the distribution of cases for which these variables were specified. In 2005, HI did not report age and/or race/ethnicity for most cases and their case data and population denominators were excluded. Differences between total rates from this table and others in the report are due to different reporting formats. The 0 to 9 year age group is not shown because some of these cases may not be due to sexual transmission; however, they are included in the totals.

Table 22. All stages of syphilis* — Reported cases and rates by state/area and region listed in alphabetical order: United States and outlying areas, 2003–2007

State/Area	Cases					Rates per 100,000 Population				
	2003	2004	2005	2006	2007	2003	2004	2005	2006	2007
Alabama	567	639	551	931	1,006	12.6	14.1	12.1	20.2	21.9
Alaska	8	15	22	25	16	1.2	2.3	3.3	3.7	2.4
Arizona	1,106	974	792	926	1,245	19.8	17.0	13.3	15.0	20.2
Arkansas	296	249	231	246	371	10.9	9.0	8.3	8.8	13.2
California	4,207	4,590	5,340	6,046	6,323	11.9	12.8	14.8	16.6	17.3
Colorado	144	179	144	182	157	3.2	3.9	3.1	3.8	3.3
Connecticut	207	169	166	197	148	5.9	4.8	4.7	5.6	4.2
Delaware	47	61	35	74	63	5.7	7.3	4.1	8.7	7.4
District of Columbia	330	357	365	314	416	58.5	64.5	66.3	54.0	71.5
Florida	3,283	2,964	2,888	2,945	3,918	19.3	17.0	16.2	16.3	21.7
Georgia	2,152	1,589	1,924	1,933	2,254	24.8	18.0	21.2	20.6	24.1
Hawaii	61	36	57	66	58	4.9	2.9	4.5	5.1	4.5
Idaho	45	78	54	12	14	3.3	5.6	3.8	0.8	1.0
Illinois	1,377	1,348	1,608	1,473	1,220	10.9	10.6	12.6	11.5	9.5
Indiana	367	273	288	250	217	5.9	4.4	4.6	4.0	3.4
Iowa	46	36	28	68	65	1.6	1.2	0.9	2.3	2.2
Kansas	77	87	88	87	97	2.8	3.2	3.2	3.1	3.5
Kentucky	160	151	129	188	153	3.9	3.6	3.1	4.5	3.6
Louisiana	1,581	1,646	1,239	1,390	1,807	35.2	36.5	27.4	32.4	42.1
Maine	21	7	6	22	21	1.6	0.5	0.5	1.7	1.6
Maryland	975	1,002	1,005	1,038	1,170	17.7	18.0	17.9	18.5	20.8
Massachusetts	644	517	398	378	399	10.0	8.1	6.2	5.9	6.2
Michigan	860	806	488	384	472	8.5	8.0	4.8	3.8	4.7
Minnesota	195	145	208	189	186	3.9	2.8	4.1	3.7	3.6
Mississippi	435	404	371	520	707	15.1	13.9	12.7	17.9	24.3
Missouri	207	269	372	430	484	3.6	4.7	6.4	7.4	8.3
Montana	0	4	7	2	8	0.0	0.4	0.7	0.2	0.8
Nebraska	27	15	18	34	30	1.6	0.9	1.0	1.9	1.7
Nevada	149	254	343	389	396	6.6	10.9	14.2	15.6	15.9
New Hampshire	37	26	33	35	52	2.9	2.0	2.5	2.7	4.0
New Jersey	1,089	826	813	799	926	12.6	9.5	9.3	9.2	10.6
New Mexico	205	251	183	237	180	10.9	13.2	9.5	12.1	9.2
New York	4,360	4,472	3,853	4,586	4,999	22.7	23.3	20.0	23.8	25.9
North Carolina	850	747	713	962	1,093	10.1	8.7	8.2	10.9	12.3
North Dakota	2	0	1	3	2	0.3	0.0	0.2	0.5	0.3
Ohio	481	571	502	491	549	4.2	5.0	4.4	4.3	4.8
Oklahoma	353	168	159	251	216	10.1	4.8	4.5	7.0	6.0
Oregon	118	108	109	99	59	3.3	3.0	3.0	2.7	1.6
Pennsylvania	706	574	712	889	844	5.7	4.6	5.7	7.1	6.8
Rhode Island	90	104	64	71	76	8.4	9.6	5.9	6.7	7.1
South Carolina	552	524	549	397	411	13.3	12.5	12.9	9.2	9.5
South Dakota	5	0	4	29	12	0.7	0.0	0.5	3.7	1.5
Tennessee	881	804	917	1,015	1,212	15.1	13.6	15.4	16.8	20.1
Texas	3,996	4,205	4,289	4,956	5,506	18.1	18.7	18.8	21.1	23.4
Utah	72	78	50	68	45	3.1	3.3	2.0	2.7	1.8
Vermont	1	3	1	7	11	0.2	0.5	0.2	1.1	1.8
Virginia	552	610	655	701	736	7.5	8.2	8.7	9.2	9.6
Washington	239	336	359	423	367	3.9	5.4	5.7	6.6	5.7
West Virginia	11	18	18	30	27	0.6	1.0	1.0	1.6	1.5
Wisconsin	111	128	138	170	170	2.0	2.3	2.5	3.1	3.1
Wyoming	4	6	1	1	6	0.8	1.2	0.2	0.2	1.2
U.S. TOTAL	34,289	33,423	33,288	36,959	40,920	11.8	11.4	11.2	12.3	13.7
Northeast	7,155	6,698	6,046	6,984	7,476	13.2	12.3	11.1	12.8	13.7
Midwest	3,755	3,678	3,743	3,608	3,504	5.7	5.6	5.7	5.4	5.3
South	17,021	16,138	16,038	17,891	21,066	16.3	15.2	14.9	16.4	19.3
West	6,358	6,909	7,461	8,476	8,874	9.6	10.2	10.9	12.2	12.8
Guam	16	13	19	13	37	9.8	7.8	11.3	7.6	21.6
Puerto Rico	1,357	1,154	1,223	1,068	1,267	35.0	29.6	31.3	27.2	32.3
Virgin Islands	14	17	13	5	5	12.9	15.6	12.0	4.6	4.6
OUTLYING AREAS	1,387	1,184	1,255	1,086	1,309	33.4	28.4	30.0	25.8	31.1
TOTAL	35,676	34,607	34,543	38,045	42,229	12.1	11.6	11.5	12.5	13.9

*See Appendix (Syphilis Morbidity Reporting) for definition.

Table 23. All stages of syphilis* — Reported cases and rates in selected metropolitan statistical areas† (MSAs) listed in alphabetical order: United States, 2003–2007

Metropolitan Statistical Area	Cases					Rates per 100,000 Population				
	2003	2004	2005	2006	2007	2003	2004	2005	2006	2007
Atlanta-Sandy Springs-Marietta, GA	1,702	1,315	1,626	1,641	1,904	36.9	27.9	33.1	31.9	37.1
Austin-Round Rock, TX	152	200	193	212	234	11.0	14.2	13.3	14.0	15.5
Baltimore-Towson, MD	648	647	679	642	650	24.8	24.5	25.6	24.1	24.5
Birmingham-Hoover, AL	122	117	243	561	483	11.4	10.8	22.3	51.0	43.9
Boston-Cambridge-Quincy, MA-NH	568	410	339	329	324	12.8	9.3	7.7	7.4	7.3
Buffalo-Cheektowaga-Tonawanda, NY	11	24	14	42	26	0.9	2.1	1.2	3.7	2.3
Charlotte-Gastonia-Concord, NC-SC	167	154	235	303	301	11.6	10.4	15.4	19.1	19.0
Chicago-Naperville-Joliet, IL-IN-WI	1,341	1,296	1,541	1,386	1,117	14.4	13.8	16.3	14.6	11.8
Cincinnati-Middletown, OH-KY-IN	18	54	55	58	77	0.9	2.6	2.7	2.8	3.7
Cleveland-Elyria-Mentor, OH	62	84	52	53	83	2.9	3.9	2.4	2.5	3.9
Columbus, OH	266	254	227	229	222	15.9	15.0	13.3	13.3	12.9
Dallas-Fort Worth-Arlington, TX	1,505	1,374	1,495	1,678	1,643	26.9	24.1	25.7	27.9	27.4
Denver-Aurora, CO	116	135	111	141	120	5.0	5.8	4.7	5.9	5.0
Detroit-Warren-Livonia, MI	751	679	390	284	338	16.7	15.1	8.7	6.4	7.6
Hartford-West Hartford-East Hartford, CT	70	46	57	65	51	5.9	3.9	4.8	5.5	4.3
Houston-Baytown-Sugar Land, TX	1,256	1,289	1,188	1,570	2,048	24.7	24.9	22.5	28.3	37.0
Indianapolis, IN	142	128	134	121	95	8.9	7.9	8.2	7.3	5.7
Jacksonville, FL	135	218	151	165	198	11.2	17.8	12.1	12.9	15.5
Kansas City, MO-KS	118	101	193	228	268	6.2	5.2	9.9	11.6	13.6
Las Vegas-Paradise, NV	123	225	300	355	364	7.8	13.6	17.5	20.0	20.5
Los Angeles-Long Beach-Santa Ana, CA	2,166	2,483	3,159	3,594	3,581	16.9	19.2	24.4	27.8	27.7
Louisville, KY-IN	126	115	102	101	77	10.6	9.6	8.4	8.3	6.3
Memphis, TN-MS-AR	547	519	585	612	761	44.1	41.5	46.4	48.0	59.7
Miami-Fort Lauderdale-Miami Beach, FL	1,911	1,687	1,444	1,455	1,863	36.1	31.5	26.6	26.6	34.1
Milwaukee-Waukesha-West Allis, WI	74	85	77	100	127	4.9	5.6	5.1	6.6	8.4
Minneapolis-St. Paul-Bloomington, MN-WI	173	125	187	161	170	5.6	4.0	6.0	5.1	5.4
Nashville-Davidson-Murfreesboro, TN	220	194	189	194	240	16.0	13.9	13.3	13.3	16.5
New Orleans-Metairie-Kenner, LA	264	449	350	352	560	20.0	34.0	26.5	34.4	54.7
New York-Newark-Edison, NY-NJ-PA	5,101	4,918	4,318	4,924	5,503	27.4	26.3	23.0	26.2	29.2
Oklahoma City, OK	253	110	87	116	114	22.3	9.6	7.5	9.9	9.7
Orlando, FL	318	267	413	403	583	17.6	14.3	21.4	20.3	29.4
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	785	678	583	774	778	13.6	11.7	10.0	13.3	13.4
Phoenix-Mesa-Scottsdale, AZ	914	754	595	757	866	25.4	20.3	15.4	18.7	21.4
Pittsburgh, PA	57	32	112	152	122	2.4	1.3	4.7	6.4	5.1
Portland-Vancouver-Beaverton, OR-WA	103	84	94	74	51	5.0	4.1	4.5	3.5	2.4
Providence-New Bedford-Fall River, RI-MA	127	137	75	92	100	7.8	8.4	4.6	5.7	6.2
Richmond, VA	114	85	87	106	129	10.0	7.4	7.4	8.9	10.8
Riverside-San Bernardino-Ontario, CA	313	319	399	376	340	8.6	8.4	10.2	9.3	8.4
Rochester, NY	33	41	36	90	76	3.2	3.9	3.5	8.7	7.3
Sacramento-Arden-Arcade-Roseville, CA	35	64	39	136	117	1.8	3.2	1.9	6.6	5.7
Salt Lake City, UT	43	53	35	41	35	4.3	5.2	3.4	3.8	3.3
San Antonio, TX	231	361	458	473	420	12.7	19.5	24.2	24.4	21.6
San Diego-Carlsbad-San Marcos, CA	299	356	448	572	788	10.2	12.1	15.3	19.4	26.8
San Francisco-Oakland-Fremont, CA	901	917	719	741	783	21.7	22.1	17.3	17.7	18.7
San Jose-Sunnyvale-Santa Clara, CA	137	113	121	94	159	7.9	6.5	6.9	5.3	8.9
Seattle-Tacoma-Bellevue, WA	174	273	285	356	309	5.5	8.6	8.9	10.9	9.5
St. Louis, MO-IL	150	189	173	186	252	5.5	6.8	6.2	6.7	9.0
Tampa-St. Petersburg-Clearwater, FL	407	303	326	428	612	16.1	11.7	12.3	15.9	22.7
Virginia Beach-Norfolk-Newport News, VA-NC	148	198	246	245	232	9.0	12.0	14.9	14.9	14.1
Washington-Arlington-Alexandria, DC-VA-MD-WV	836	896	894	928	1,162	16.4	17.4	17.1	17.5	22.0
U.S. MSA TOTAL	26,233	25,555	25,859	28,696	31,456	16.8	16.2	16.2	17.8	19.5

*See Appendix (Syphilis Morbidity Reporting) for definition.

†MSAs selected based on largest population in 2000 U.S. census.

Table 24. Primary and secondary syphilis — Reported cases and rates by state, ranked by rates: United States, 2007

<i>Rank*</i>	<i>State</i>	<i>Cases</i>	<i>Rate per 100,000 Population</i>
1	Louisiana	533	12.4
2	Alabama	380	8.3
3	Georgia	680	7.3
4	Maryland	345	6.1
5	Tennessee	367	6.1
6	California	2,038	5.6
7	New York	1,068	5.5
8	Florida	913	5.0
9	Texas	1,160	4.9
10	Arizona	296	4.8
11	Mississippi	133	4.6
12	Nevada	111	4.4
13	Arkansas	122	4.3
14	Missouri	239	4.1
	U.S. TOTAL[†]	11,466	3.8
15	North Carolina	323	3.6
16	Illinois	464	3.6
17	Rhode Island	36	3.4
18	Virginia	230	3.0
19	New Jersey	227	2.6
20	Massachusetts	155	2.4
21	Washington	154	2.4
22	New Mexico	46	2.4
23	New Hampshire	30	2.3
24	Pennsylvania	263	2.1
25	Delaware	18	2.1
26	South Carolina	91	2.1
27	Oklahoma	65	1.8
28	Ohio	194	1.7
29	Vermont	10	1.6
30	Kentucky	56	1.3
31	Michigan	123	1.2
32	Colorado	57	1.2
33	Wisconsin	66	1.2
34	Minnesota	59	1.1
35	Connecticut	39	1.1
36	Alaska	7	1.0
37	Kansas	28	1.0
38	South Dakota	7	0.9
39	Indiana	54	0.9
40	Montana	8	0.8
41	Utah	20	0.8
42	Wyoming	4	0.8
43	Iowa	21	0.7
44	Hawaii	9	0.7
45	Maine	9	0.7
46	Oregon	18	0.5
47	West Virginia	6	0.3
48	Nebraska	4	0.2
	YEAR 2010 TARGET		0.2
49	North Dakota	1	0.2
50	Idaho	1	0.1

*States were ranked in descending order by rate, number of cases, and alphabetically by state.

[†]Total includes cases reported by the District of Columbia with 178 cases and a rate of 30.6, but excludes outlying areas (Guam with 8 cases and rate of 4.7, Puerto Rico with 169 cases and rate of 4.3, and Virgin Islands with 0 case and rate of 0.0).

Table 25. Primary and secondary syphilis — Reported cases and rates by state/area and region listed in alphabetical order: United States and outlying areas, 2003–2007

State/Area	Cases					Rates per 100,000 Population				
	2003	2004	2005	2006	2007	2003	2004	2005	2006	2007
Alabama	114	165	169	319	380	2.5	3.6	3.7	6.9	8.3
Alaska	1	8	9	11	7	0.2	1.2	1.4	1.6	1.0
Arizona	186	157	175	203	296	3.3	2.7	2.9	3.3	4.8
Arkansas	51	47	52	77	122	1.9	1.7	1.9	2.7	4.3
California	1,299	1,356	1,585	1,835	2,038	3.7	3.8	4.4	5.0	5.6
Colorado	39	63	46	69	57	0.9	1.4	1.0	1.5	1.2
Connecticut	30	45	58	64	39	0.9	1.3	1.7	1.8	1.1
Delaware	7	9	11	20	18	0.9	1.1	1.3	2.3	2.1
District of Columbia	48	69	114	116	178	8.5	12.5	20.7	19.9	30.6
Florida	658	728	724	719	913	3.9	4.2	4.1	4.0	5.0
Georgia	585	549	645	581	680	6.7	6.2	7.1	6.2	7.3
Hawaii	14	8	11	18	9	1.1	0.6	0.9	1.4	0.7
Idaho	15	24	20	3	1	1.1	1.7	1.4	0.2	0.1
Illinois	374	386	525	431	464	3.0	3.0	4.1	3.4	3.6
Indiana	50	60	62	93	54	0.8	1.0	1.0	1.5	0.9
Iowa	12	5	9	19	21	0.4	0.2	0.3	0.6	0.7
Kansas	25	24	19	27	28	0.9	0.9	0.7	1.0	1.0
Kentucky	33	47	52	73	56	0.8	1.1	1.2	1.7	1.3
Louisiana	183	332	278	342	533	4.1	7.4	6.1	8.0	12.4
Maine	8	2	1	9	9	0.6	0.2	0.1	0.7	0.7
Maryland	312	380	313	300	345	5.7	6.8	5.6	5.3	6.1
Massachusetts	133	114	125	124	155	2.1	1.8	2.0	1.9	2.4
Michigan	249	192	105	118	123	2.5	1.9	1.0	1.2	1.2
Minnesota	47	27	70	47	59	0.9	0.5	1.4	0.9	1.1
Mississippi	40	59	49	86	133	1.4	2.0	1.7	3.0	4.6
Missouri	61	94	147	168	239	1.1	1.6	2.5	2.9	4.1
Montana	0	4	7	1	8	0.0	0.4	0.7	0.1	0.8
Nebraska	10	7	4	7	4	0.6	0.4	0.2	0.4	0.2
Nevada	12	40	109	137	111	0.5	1.7	4.5	5.5	4.4
New Hampshire	19	5	16	13	30	1.5	0.4	1.2	1.0	2.3
New Jersey	170	150	133	173	227	2.0	1.7	1.5	2.0	2.6
New Mexico	71	82	56	79	46	3.8	4.3	2.9	4.0	2.4
New York	584	727	705	736	1,068	3.0	3.8	3.7	3.8	5.5
North Carolina	152	192	274	309	323	1.8	2.2	3.2	3.5	3.6
North Dakota	2	0	1	1	1	0.3	0.0	0.2	0.2	0.2
Ohio	197	237	211	184	194	1.7	2.1	1.8	1.6	1.7
Oklahoma	64	25	44	70	65	1.8	0.7	1.2	2.0	1.8
Oregon	48	29	41	29	18	1.3	0.8	1.1	0.8	0.5
Pennsylvania	159	118	199	264	263	1.3	1.0	1.6	2.1	2.1
Rhode Island	33	26	24	14	36	3.1	2.4	2.2	1.3	3.4
South Carolina	94	116	84	66	91	2.3	2.8	2.0	1.5	2.1
South Dakota	2	0	2	13	7	0.3	0.0	0.3	1.7	0.9
Tennessee	135	130	217	249	367	2.3	2.2	3.6	4.1	6.1
Texas	654	827	873	1,064	1,160	3.0	3.7	3.8	4.5	4.9
Utah	14	13	10	21	20	0.6	0.5	0.4	0.8	0.8
Vermont	1	1	1	3	10	0.2	0.2	0.2	0.5	1.6
Virginia	82	116	143	190	230	1.1	1.6	1.9	2.5	3.0
Washington	82	150	152	182	154	1.3	2.4	2.4	2.8	2.4
West Virginia	2	3	3	11	6	0.1	0.2	0.2	0.6	0.3
Wisconsin	16	29	41	68	66	0.3	0.5	0.7	1.2	1.2
Wyoming	0	3	0	0	4	0.0	0.6	0.0	0.0	0.8
U.S. TOTAL	7,177	7,980	8,724	9,756	11,466	2.5	2.7	2.9	3.3	3.8
Northeast	1,137	1,188	1,262	1,400	1,837	2.1	2.2	2.3	2.6	3.4
Midwest	1,045	1,061	1,196	1,176	1,260	1.6	1.6	1.8	1.8	1.9
South	3,214	3,794	4,045	4,592	5,600	3.1	3.6	3.8	4.2	5.1
West	1,781	1,937	2,221	2,588	2,769	2.7	2.9	3.3	3.7	4.0
Guam	1	0	2	3	8	0.6	0.0	1.2	1.8	4.7
Puerto Rico	202	182	224	150	169	5.2	4.7	5.7	3.8	4.3
Virgin Islands	3	5	1	1	0	2.8	4.6	0.9	0.9	0.0
OUTLYING AREAS	206	187	227	154	177	5.0	4.5	5.4	3.7	4.2
TOTAL	7,383	8,167	8,951	9,910	11,643	2.5	2.7	3.0	3.3	3.8

Table 26. Primary and secondary syphilis — Women – Reported cases and rates by state/area and region listed in alphabetical order: United States and outlying areas, 2003–2007

State/Area	Cases					Rates per 100,000 Population				
	2003	2004	2005	2006	2007	2003	2004	2005	2006	2007
Alabama	49	52	69	116	143	2.1	2.2	2.9	4.9	6.0
Alaska	0	0	1	2	1	0.0	0.0	0.3	0.6	0.3
Arizona	66	42	49	33	64	2.4	1.5	1.7	1.1	2.1
Arkansas	16	18	21	35	50	1.1	1.3	1.5	2.4	3.5
California	52	63	121	128	115	0.3	0.4	0.7	0.7	0.6
Colorado	5	7	2	5	2	0.2	0.3	0.1	0.2	0.1
Connecticut	3	3	2	2	2	0.2	0.2	0.1	0.1	0.1
Delaware	2	1	2	4	1	0.5	0.2	0.5	0.9	0.2
District of Columbia	3	4	11	6	5	1.0	1.4	3.8	1.9	1.6
Florida	73	98	100	98	153	0.8	1.1	1.1	1.1	1.7
Georgia	68	45	47	41	53	1.5	1.0	1.0	0.9	1.1
Hawaii	0	0	0	1	1	0.0	0.0	0.0	0.2	0.2
Idaho	5	11	6	2	1	0.7	1.6	0.8	0.3	0.1
Illinois	48	55	47	37	39	0.7	0.9	0.7	0.6	0.6
Indiana	16	6	10	10	8	0.5	0.2	0.3	0.3	0.2
Iowa	2	1	1	6	3	0.1	0.1	0.1	0.4	0.2
Kansas	13	7	2	2	6	0.9	0.5	0.1	0.1	0.4
Kentucky	13	6	3	7	9	0.6	0.3	0.1	0.3	0.4
Louisiana	79	123	112	123	209	3.4	5.3	4.8	5.6	9.5
Maine	0	0	0	2	0	0.0	0.0	0.0	0.3	0.0
Maryland	74	92	88	61	47	2.6	3.2	3.0	2.1	1.6
Massachusetts	3	5	4	7	10	0.1	0.2	0.1	0.2	0.3
Michigan	93	61	20	26	27	1.8	1.2	0.4	0.5	0.5
Minnesota	4	3	2	4	1	0.2	0.1	0.1	0.2	0.0
Mississippi	20	19	12	36	35	1.3	1.3	0.8	2.4	2.3
Missouri	14	12	12	19	27	0.5	0.4	0.4	0.6	0.9
Montana	0	1	1	0	2	0.0	0.2	0.2	0.0	0.4
Nebraska	1	4	0	1	0	0.1	0.5	0.0	0.1	0.0
Nevada	3	8	24	34	12	0.3	0.7	2.0	2.8	1.0
New Hampshire	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
New Jersey	49	38	17	12	16	1.1	0.9	0.4	0.3	0.4
New Mexico	23	36	16	22	15	2.4	3.7	1.6	2.2	1.5
New York	26	32	28	29	32	0.3	0.3	0.3	0.3	0.3
North Carolina	47	48	58	67	60	1.1	1.1	1.3	1.5	1.3
North Dakota	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Ohio	40	61	40	43	28	0.7	1.0	0.7	0.7	0.5
Oklahoma	20	9	17	19	24	1.1	0.5	0.9	1.0	1.3
Oregon	3	1	2	0	2	0.2	0.1	0.1	0.0	0.1
Pennsylvania	33	16	34	34	34	0.5	0.3	0.5	0.5	0.5
Rhode Island	8	10	6	0	2	1.4	1.8	1.1	0.0	0.4
South Carolina	24	25	17	11	10	1.1	1.2	0.8	0.5	0.5
South Dakota	0	0	0	5	2	0.0	0.0	0.0	1.3	0.5
Tennessee	40	34	64	73	113	1.3	1.1	2.1	2.4	3.7
Texas	162	179	243	261	297	1.5	1.6	2.1	2.2	2.5
Utah	3	3	1	3	0	0.3	0.3	0.1	0.2	0.0
Vermont	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Virginia	7	6	19	23	16	0.2	0.2	0.5	0.6	0.4
Washington	4	6	5	4	6	0.1	0.2	0.2	0.1	0.2
West Virginia	2	1	0	1	2	0.2	0.1	0.0	0.1	0.2
Wisconsin	1	2	3	3	6	0.0	0.1	0.1	0.1	0.2
Wyoming	0	1	0	0	1	0.0	0.4	0.0	0.0	0.4
U.S. TOTAL	1,217	1,255	1,339	1,458	1,692	0.8	0.8	0.9	1.0	1.1
Northeast	122	104	91	86	96	0.4	0.4	0.3	0.3	0.3
Midwest	232	212	137	156	147	0.7	0.6	0.4	0.5	0.4
South	699	760	883	982	1,227	1.3	1.4	1.6	1.8	2.2
West	164	179	228	234	222	0.5	0.5	0.7	0.7	0.6
Guam	0	0	1	1	4	0.0	0.0	1.2	1.2	4.8
Puerto Rico	93	62	81	46	56	4.6	3.1	4.0	2.3	2.7
Virgin Islands	2	3	0	0	0	3.5	5.3	0.0	0.0	0.0
OUTLYING AREAS	95	65	82	47	60	4.4	3.0	3.8	2.2	2.7
TOTAL	1,312	1,320	1,421	1,505	1,752	0.9	0.9	0.9	1.0	1.1

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

Table 27. Primary and secondary syphilis — Men – Reported cases and rates by state/area and region listed in alphabetical order: United States and outlying areas, 2003–2007

State/Area	Cases					Rates per 100,000 Population				
	2003	2004	2005	2006	2007	2003	2004	2005	2006	2007
Alabama	65	113	100	203	237	3.0	5.1	4.5	9.1	10.6
Alaska	1	8	8	9	6	0.3	2.4	2.3	2.6	1.7
Arizona	120	115	125	166	230	4.3	4.0	4.2	5.4	7.5
Arkansas	35	29	31	42	72	2.6	2.2	2.3	3.0	5.2
California	1,245	1,291	1,463	1,706	1,921	7.0	7.2	8.1	9.4	10.5
Colorado	34	56	44	64	55	1.5	2.4	1.9	2.7	2.3
Connecticut	27	42	56	62	37	1.6	2.5	3.3	3.6	2.2
Delaware	5	8	9	16	17	1.3	2.0	2.2	3.9	4.1
District of Columbia	45	65	103	110	173	16.9	24.8	39.4	40.3	63.4
Florida	585	630	624	621	760	7.0	7.4	7.2	7.0	8.6
Georgia	517	504	598	540	626	12.1	11.5	13.3	11.7	13.6
Hawaii	14	8	11	17	8	2.2	1.3	1.7	2.6	1.2
Idaho	10	13	14	1	0	1.5	1.9	2.0	0.1	0.0
Illinois	326	331	478	394	425	5.2	5.3	7.6	6.2	6.7
Indiana	34	54	52	83	46	1.1	1.8	1.7	2.7	1.5
Iowa	10	3	8	13	18	0.7	0.2	0.5	0.9	1.2
Kansas	12	17	17	25	22	0.9	1.3	1.2	1.8	1.6
Kentucky	19	41	49	66	47	0.9	2.0	2.4	3.2	2.3
Louisiana	104	209	166	219	324	4.8	9.5	7.5	10.5	15.5
Maine	8	2	1	7	9	1.3	0.3	0.2	1.1	1.4
Maryland	238	288	225	239	298	8.9	10.7	8.3	8.8	11.0
Massachusetts	129	109	121	117	145	4.1	3.5	3.9	3.8	4.7
Michigan	156	131	85	92	96	3.2	2.6	1.7	1.9	1.9
Minnesota	43	24	68	43	58	1.7	0.9	2.7	1.7	2.3
Mississippi	20	40	37	50	98	1.4	2.8	2.6	3.5	7.0
Missouri	47	82	135	149	212	1.7	2.9	4.8	5.2	7.4
Montana	0	3	6	1	6	0.0	0.6	1.3	0.2	1.3
Nebraska	9	3	4	6	4	1.0	0.3	0.5	0.7	0.5
Nevada	9	32	85	103	99	0.8	2.7	6.9	8.1	7.8
New Hampshire	19	5	16	13	30	3.0	0.8	2.5	2.0	4.6
New Jersey	121	112	116	161	211	2.9	2.6	2.7	3.8	5.0
New Mexico	48	46	40	57	31	5.2	4.9	4.2	5.9	3.2
New York	558	695	677	707	1,036	6.0	7.5	7.3	7.6	11.1
North Carolina	105	144	216	242	263	2.5	3.4	5.1	5.6	6.1
North Dakota	2	0	1	1	1	0.6	0.0	0.3	0.3	0.3
Ohio	157	176	171	141	166	2.8	3.2	3.1	2.5	3.0
Oklahoma	44	16	27	51	41	2.5	0.9	1.5	2.9	2.3
Oregon	45	28	39	29	16	2.5	1.6	2.2	1.6	0.9
Pennsylvania	126	102	165	230	229	2.1	1.7	2.7	3.8	3.8
Rhode Island	25	16	18	14	34	4.8	3.1	3.5	2.7	6.6
South Carolina	70	91	67	55	81	3.5	4.4	3.2	2.6	3.9
South Dakota	2	0	2	8	5	0.5	0.0	0.5	2.0	1.3
Tennessee	95	96	153	176	254	3.3	3.3	5.2	6.0	8.6
Texas	492	648	630	803	863	4.5	5.8	5.5	6.9	7.4
Utah	11	10	9	18	20	0.9	0.8	0.7	1.4	1.6
Vermont	1	1	1	3	10	0.3	0.3	0.3	1.0	3.3
Virginia	75	110	124	167	214	2.1	3.0	3.3	4.4	5.7
Washington	78	144	147	178	148	2.6	4.7	4.7	5.6	4.6
West Virginia	0	2	3	10	4	0.0	0.2	0.3	1.1	0.4
Wisconsin	15	27	38	65	60	0.6	1.0	1.4	2.4	2.2
Wyoming	0	2	0	0	3	0.0	0.8	0.0	0.0	1.1
U.S. TOTAL	5,956	6,722	7,383	8,293	9,769	4.2	4.7	5.1	5.6	6.6
Northeast	1,014	1,084	1,171	1,314	1,741	3.8	4.1	4.4	4.9	6.5
Midwest	813	848	1,059	1,020	1,113	2.5	2.6	3.3	3.1	3.4
South	2,514	3,034	3,162	3,610	4,372	4.9	5.8	6.0	6.7	8.2
West	1,615	1,756	1,991	2,349	2,543	4.9	5.2	5.8	6.8	7.3
Guam	1	0	1	2	4	1.2	0.0	1.2	2.3	4.6
Puerto Rico	109	120	143	104	113	5.8	6.4	7.6	5.5	6.0
Virgin Islands	1	2	1	1	0	1.9	3.9	1.9	1.9	0.0
OUTLYING AREAS	111	122	145	107	117	5.5	6.1	7.2	5.3	5.8
TOTAL	6,067	6,844	7,528	8,400	9,886	4.2	4.7	5.1	5.6	6.6

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

Table 28. Primary and secondary syphilis — Reported cases and rates in selected metropolitan statistical areas* (MSAs) listed in alphabetical order: United States, 2003–2007

Metropolitan Statistical Area	Cases					Rates per 100,000 Population				
	2003	2004	2005	2006	2007	2003	2004	2005	2006	2007
Atlanta-Sandy Springs-Marietta, GA	516	508	598	529	608	11.2	10.8	12.2	10.3	11.8
Austin-Round Rock, TX	31	56	44	84	74	2.3	4.0	3.0	5.5	4.9
Baltimore-Towson, MD	224	276	244	213	211	8.6	10.5	9.2	8.0	7.9
Birmingham-Hoover, AL	23	33	101	244	189	2.1	3.0	9.3	22.2	17.2
Boston-Cambridge-Quincy, MA-NH	121	84	106	117	131	2.7	1.9	2.4	2.6	2.9
Buffalo-Cheektowaga-Tonawanda, NY	2	9	7	18	11	0.2	0.8	0.6	1.6	1.0
Charlotte-Gastonia-Concord, NC-SC	23	46	103	121	103	1.6	3.1	6.8	7.6	6.5
Chicago-Naperville-Joliet, IL-IN-WI	346	373	510	416	427	3.7	4.0	5.4	4.4	4.5
Cincinnati-Middletown, OH-KY-IN	2	22	24	13	34	0.1	1.1	1.2	0.6	1.6
Cleveland-Elyria-Mentor, OH	32	40	22	18	29	1.5	1.9	1.0	0.9	1.4
Columbus, OH	120	109	109	107	76	7.2	6.4	6.4	6.2	4.4
Dallas-Fort Worth-Arlington, TX	265	279	305	320	265	4.7	4.9	5.2	5.3	4.4
Denver-Aurora, CO	32	55	38	56	46	1.4	2.4	1.6	2.3	1.9
Detroit-Warren-Livonia, MI	218	153	77	82	91	4.9	3.4	1.7	1.8	2.0
Hartford-West Hartford-East Hartford, CT	16	13	14	23	15	1.4	1.1	1.2	1.9	1.3
Houston-Baytown-Sugar Land, TX	227	235	279	396	501	4.5	4.5	5.3	7.1	9.0
Indianapolis, IN	25	34	35	47	26	1.6	2.1	2.1	2.8	1.6
Jacksonville, FL	21	72	50	41	44	1.7	5.9	4.0	3.2	3.4
Kansas City, MO-KS	43	35	89	112	149	2.3	1.8	4.6	5.7	7.6
Las Vegas-Paradise, NV	8	38	103	132	102	0.5	2.3	6.0	7.4	5.7
Los Angeles-Long Beach-Santa Ana, CA	562	551	806	945	1,061	4.4	4.3	6.2	7.3	8.2
Louisville, KY-IN	28	38	46	41	32	2.4	3.2	3.8	3.4	2.6
Memphis, TN-MS-AR	90	99	138	145	208	7.3	7.9	10.9	11.4	16.3
Miami-Fort Lauderdale-Miami Beach, FL	409	434	395	369	414	7.7	8.1	7.3	6.8	7.6
Milwaukee-Waukesha-West Allis, WI	11	19	22	38	53	0.7	1.3	1.5	2.5	3.5
Minneapolis-St. Paul-Bloomington, MN-WI	43	26	68	43	57	1.4	0.8	2.2	1.4	1.8
Nashville-Davidson-Murfreesboro, TN	26	17	34	40	84	1.9	1.2	2.4	2.7	5.8
New Orleans-Metairie-Kenner, LA	28	101	88	90	168	2.1	7.7	6.7	8.8	16.4
New York-Newark-Edison, NY-NJ-PA	709	816	773	811	1,208	3.8	4.4	4.1	4.3	6.4
Oklahoma City, OK	56	20	23	24	36	4.9	1.7	2.0	2.0	3.1
Orlando, FL	70	69	106	94	145	3.9	3.7	5.5	4.7	7.3
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	135	95	127	173	205	2.3	1.6	2.2	3.0	3.5
Phoenix-Mesa-Scottsdale, AZ	134	106	113	157	193	3.7	2.9	2.9	3.9	4.8
Pittsburgh, PA	38	22	69	91	60	1.6	0.9	2.9	3.8	2.5
Portland-Vancouver-Beaverton, OR-WA	47	26	39	25	11	2.3	1.3	1.9	1.2	0.5
Providence-New Bedford-Fall River, RI-MA	42	30	28	18	44	2.6	1.8	1.7	1.1	2.7
Richmond, VA	12	11	13	28	38	1.1	1.0	1.1	2.3	3.2
Riverside-San Bernardino-Ontario, CA	91	103	121	108	95	2.5	2.7	3.1	2.7	2.4
Rochester, NY	7	12	6	14	16	0.7	1.2	0.6	1.4	1.5
Sacramento-Arden-Arcade-Roseville, CA	19	19	16	32	59	1.0	0.9	0.8	1.5	2.9
Salt Lake City, UT	6	5	9	15	19	0.6	0.5	0.9	1.4	1.8
San Antonio, TX	52	116	129	136	157	2.9	6.3	6.8	7.0	8.1
San Diego-Carlsbad-San Marcos, CA	111	138	194	235	347	3.8	4.7	6.6	8.0	11.8
San Francisco-Oakland-Fremont, CA	406	422	331	363	308	9.8	10.2	8.0	8.7	7.4
San Jose-Sunnyvale-Santa Clara, CA	56	56	44	52	56	3.2	3.2	2.5	2.9	3.1
Seattle-Tacoma-Bellevue, WA	70	138	125	160	138	2.2	4.4	3.9	4.9	4.2
St. Louis, MO-IL	51	71	50	65	112	1.9	2.6	1.8	2.3	4.0
Tampa-St. Petersburg-Clearwater, FL	96	89	85	110	195	3.8	3.4	3.2	4.1	7.2
Virginia Beach-Norfolk-Newport News, VA-NC	23	50	60	84	88	1.4	3.0	3.6	5.1	5.3
Washington-Arlington-Alexandria, DC-VA-MD-WV	168	199	233	250	377	3.3	3.9	4.5	4.7	7.1
U.S. MSA TOTAL	5,891	6,368	7,149	7,845	9,116	3.8	4.0	4.5	4.9	5.7

*MSAs selected based on largest population in 2000 U.S. census.

Table 29. Primary and secondary syphilis — Women – Reported cases and rates in selected metropolitan statistical areas* (MSAs) listed in alphabetical order: United States, 2003–2007

<i>Metropolitan Statistical Area</i>	<i>Cases</i>					<i>Rates per 100,000 Population</i>				
	2003	2004	2005	2006	2007	2003	2004	2005	2006	2007
Atlanta-Sandy Springs-Marietta, GA	57	36	36	33	40	2.5	1.5	1.5	1.3	1.5
Austin-Round Rock, TX	2	3	3	11	12	0.3	0.4	0.4	1.5	1.6
Baltimore-Towson, MD	63	70	84	53	40	4.6	5.1	6.1	3.8	2.9
Birmingham-Hoover, AL	4	11	35	94	80	0.7	2.0	6.2	16.5	14.1
Boston-Cambridge-Quincy, MA-NH	2	5	1	7	10	0.1	0.2	0.0	0.3	0.4
Buffalo-Cheektowaga-Tonawanda, NY	1	1	0	2	0	0.2	0.2	0.0	0.3	0.0
Charlotte-Gastonia-Concord, NC-SC	3	12	20	28	20	0.4	1.6	2.6	3.5	2.5
Chicago-Naperville-Joliet, IL-IN-WI	44	55	50	43	31	0.9	1.1	1.0	0.9	0.6
Cincinnati-Middletown, OH-KY-IN	0	2	0	5	6	0.0	0.2	0.0	0.5	0.6
Cleveland-Elyria-Mentor, OH	13	3	1	2	5	1.2	0.3	0.1	0.2	0.5
Columbus, OH	17	31	22	30	11	2.0	3.6	2.5	3.4	1.3
Dallas-Fort Worth-Arlington, TX	99	73	100	112	93	3.5	2.6	3.4	3.7	3.1
Denver-Aurora, CO	3	6	1	3	1	0.3	0.5	0.1	0.3	0.1
Detroit-Warren-Livonia, MI	81	49	17	20	22	3.5	2.1	0.7	0.9	1.0
Hartford-West Hartford-East Hartford, CT	3	0	0	1	1	0.5	0.0	0.0	0.2	0.2
Houston-Baytown-Sugar Land, TX	26	39	61	65	108	1.0	1.5	2.3	2.3	3.9
Indianapolis, IN	7	2	4	1	3	0.9	0.2	0.5	0.1	0.4
Jacksonville, FL	9	32	20	11	11	1.5	5.1	3.1	1.7	1.7
Kansas City, MO-KS	20	5	5	17	25	2.1	0.5	0.5	1.7	2.5
Las Vegas-Paradise, NV	1	8	21	32	11	0.1	1.0	2.5	3.7	1.3
Los Angeles-Long Beach-Santa Ana, CA	28	40	63	72	58	0.4	0.6	1.0	1.1	0.9
Louisville, KY-IN	13	6	3	3	2	2.1	1.0	0.5	0.5	0.3
Memphis, TN-MS-AR	30	33	50	52	87	4.7	5.1	7.7	7.9	13.2
Miami-Fort Lauderdale-Miami Beach, FL	33	41	43	40	60	1.2	1.5	1.5	1.4	2.1
Milwaukee-Waukesha-West Allis, WI	1	1	1	2	5	0.1	0.1	0.1	0.3	0.6
Minneapolis-St. Paul-Bloomington, MN-WI	3	3	3	3	1	0.2	0.2	0.2	0.2	0.1
Nashville-Davidson-Murfreesboro, TN	6	2	2	2	13	0.9	0.3	0.3	0.3	1.8
New Orleans-Metairie-Kenner, LA	10	27	23	25	51	1.5	3.9	3.4	4.7	9.6
New York-Newark-Edison, NY-NJ-PA	65	58	37	31	42	0.7	0.6	0.4	0.3	0.4
Oklahoma City, OK	19	7	9	6	13	3.3	1.2	1.5	1.0	2.2
Orlando, FL	17	10	14	14	13	1.9	1.1	1.4	1.4	1.3
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	23	16	13	6	14	0.8	0.5	0.4	0.2	0.5
Phoenix-Mesa-Scottsdale, AZ	45	25	23	18	29	2.5	1.4	1.2	0.9	1.4
Pittsburgh, PA	17	7	25	28	25	1.4	0.6	2.0	2.3	2.0
Portland-Vancouver-Beaverton, OR-WA	2	0	0	0	1	0.2	0.0	0.0	0.0	0.1
Providence-New Bedford-Fall River, RI-MA	9	10	7	0	2	1.1	1.2	0.8	0.0	0.2
Richmond, VA	2	1	1	1	3	0.3	0.2	0.2	0.2	0.5
Riverside-San Bernardino-Ontario, CA	5	1	12	10	4	0.3	0.1	0.6	0.5	0.2
Rochester, NY	1	0	1	0	1	0.2	0.0	0.2	0.0	0.2
Sacramento-Arden-Arcade-Roseville, CA	1	0	0	3	2	0.1	0.0	0.0	0.3	0.2
Salt Lake City, UT	1	1	1	1	0	0.2	0.2	0.2	0.2	0.0
San Antonio, TX	6	20	34	32	35	0.6	2.1	3.5	3.2	3.5
San Diego-Carlsbad-San Marcos, CA	4	10	25	12	12	0.3	0.7	1.7	0.8	0.8
San Francisco-Oakland-Fremont, CA	4	2	8	7	12	0.2	0.1	0.4	0.3	0.6
San Jose-Sunnyvale-Santa Clara, CA	4	4	2	7	4	0.5	0.5	0.2	0.8	0.5
Seattle-Tacoma-Bellevue, WA	2	6	4	2	4	0.1	0.4	0.2	0.1	0.2
St. Louis, MO-IL	12	9	5	3	9	0.8	0.6	0.3	0.2	0.6
Tampa-St. Petersburg-Clearwater, FL	6	3	8	15	52	0.5	0.2	0.6	1.1	3.8
Virginia Beach-Norfolk-Newport News, VA-NC	3	4	15	18	10	0.4	0.5	1.8	2.1	1.2
Washington-Arlington-Alexandria, DC-VA-MD-WV	13	16	13	11	12	0.5	0.6	0.5	0.4	0.4
U.S. MSA TOTAL	840	806	926	994	1,106	1.1	1.0	1.1	1.2	1.3

*MSAs selected based on largest population in 2000 U.S. census.

Table 30. Primary and secondary syphilis — Men – Reported cases and rates in selected metropolitan statistical areas* (MSAs) listed in alphabetical order: United States, 2003–2007

<i>Metropolitan Statistical Area</i>	<i>Cases</i>					<i>Rates per 100,000 Population</i>				
	<i>2003</i>	<i>2004</i>	<i>2005</i>	<i>2006</i>	<i>2007</i>	<i>2003</i>	<i>2004</i>	<i>2005</i>	<i>2006</i>	<i>2007</i>
Atlanta-Sandy Springs-Marietta, GA	459	472	562	496	567	20.1	20.2	23.0	19.5	22.3
Austin-Round Rock, TX	29	53	41	73	62	4.1	7.4	5.5	9.4	8.0
Baltimore-Towson, MD	161	206	160	160	171	12.8	16.2	12.5	12.5	13.4
Birmingham-Hoover, AL	19	22	66	150	109	3.7	4.2	12.5	28.3	20.5
Boston-Cambridge-Quincy, MA-NH	119	79	105	110	121	5.5	3.7	4.9	5.1	5.6
Buffalo-Cheektowaga-Tonawanda, NY	1	8	7	16	11	0.2	1.4	1.3	2.9	2.0
Charlotte-Gastonia-Concord, NC-SC	20	34	83	93	83	2.8	4.7	11.1	11.9	10.7
Chicago-Naperville-Joliet, IL-IN-WI	302	318	460	373	396	6.6	6.9	9.9	8.0	8.5
Cincinnati-Middletown, OH-KY-IN	2	20	24	8	28	0.2	2.0	2.4	0.8	2.7
Cleveland-Elyria-Mentor, OH	19	37	21	16	24	1.9	3.6	2.1	1.6	2.4
Columbus, OH	103	78	87	77	65	12.5	9.3	10.3	9.0	7.6
Dallas-Fort Worth-Arlington, TX	166	206	205	208	172	5.9	7.2	7.0	6.9	5.7
Denver-Aurora, CO	29	49	37	53	45	2.5	4.2	3.1	4.4	3.7
Detroit-Warren-Livonia, MI	137	104	60	62	69	6.3	4.8	2.7	2.8	3.2
Hartford-West Hartford-East Hartford, CT	13	13	14	22	14	2.3	2.3	2.4	3.8	2.4
Houston-Baytown-Sugar Land, TX	201	196	218	331	393	7.9	7.6	8.3	11.9	14.2
Indianapolis, IN	18	32	31	46	23	2.3	4.0	3.8	5.6	2.8
Jacksonville, FL	12	40	30	30	33	2.0	6.7	4.9	4.8	5.3
Kansas City, MO-KS	23	30	84	95	124	2.5	3.2	8.8	9.8	12.8
Las Vegas-Paradise, NV	7	30	82	100	91	0.9	3.6	9.4	11.1	10.1
Los Angeles-Long Beach-Santa Ana, CA	533	511	743	873	1,002	8.4	8.0	11.6	13.6	15.6
Louisville, KY-IN	14	32	43	38	30	2.4	5.5	7.3	6.4	5.0
Memphis, TN-MS-AR	60	66	88	93	121	10.0	10.9	14.4	15.1	19.7
Miami-Fort Lauderdale-Miami Beach, FL	376	393	352	329	354	14.7	15.1	13.4	12.4	13.3
Milwaukee-Waukesha-West Allis, WI	10	18	21	36	48	1.4	2.4	2.9	4.9	6.5
Minneapolis-St. Paul-Bloomington, MN-WI	40	23	65	40	56	2.6	1.5	4.2	2.5	3.6
Nashville-Davidson-Murfreesboro, TN	20	15	32	38	71	3.0	2.2	4.6	5.3	9.9
New Orleans-Metairie-Kenner, LA	18	74	65	65	117	2.8	11.7	10.3	13.2	23.7
New York-Newark-Edison, NY-NJ-PA	644	758	736	780	1,166	7.2	8.4	8.1	8.6	12.8
Oklahoma City, OK	37	13	14	18	23	6.6	2.3	2.5	3.1	4.0
Orlando, FL	53	59	92	80	132	6.0	6.4	9.6	8.1	13.4
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	112	79	114	167	191	4.0	2.8	4.1	5.9	6.8
Phoenix-Mesa-Scottsdale, AZ	89	81	89	136	162	4.9	4.3	4.6	6.7	7.9
Pittsburgh, PA	21	15	44	63	35	1.8	1.3	3.8	5.5	3.1
Portland-Vancouver-Beaverton, OR-WA	45	26	39	25	10	4.4	2.5	3.7	2.3	0.9
Providence-New Bedford-Fall River, RI-MA	33	20	21	18	42	4.2	2.5	2.7	2.3	5.4
Richmond, VA	10	10	12	27	35	1.8	1.8	2.1	4.6	6.0
Riverside-San Bernardino-Ontario, CA	86	102	108	98	90	4.7	5.4	5.5	4.9	4.5
Rochester, NY	6	12	5	14	15	1.2	2.4	1.0	2.8	3.0
Sacramento-Arden-Arcade-Roseville, CA	18	19	16	29	57	1.9	1.9	1.6	2.9	5.6
Salt Lake City, UT	5	4	8	14	19	1.0	0.8	1.5	2.6	3.5
San Antonio, TX	46	96	95	104	122	5.2	10.6	10.3	10.9	12.8
San Diego-Carlsbad-San Marcos, CA	107	128	169	223	335	7.3	8.7	11.4	15.1	22.6
San Francisco-Oakland-Fremont, CA	401	419	323	355	296	19.5	20.4	15.7	17.1	14.3
San Jose-Sunnyvale-Santa Clara, CA	52	52	42	45	52	5.9	5.9	4.7	4.9	5.7
Seattle-Tacoma-Bellevue, WA	68	132	121	158	134	4.3	8.3	7.6	9.7	8.2
St. Louis, MO-IL	39	62	45	62	103	3.0	4.6	3.3	4.6	7.6
Tampa-St. Petersburg-Clearwater, FL	90	86	77	95	143	7.3	6.9	6.0	7.2	10.9
Virginia Beach-Norfolk-Newport News, VA-NC	20	46	45	66	78	2.5	5.7	5.5	8.2	9.7
Washington-Arlington-Alexandria, DC-VA-MD-WV	155	183	220	239	365	6.2	7.3	8.6	9.3	14.1
U.S. MSA TOTAL	5,048	5,561	6,221	6,847	8,005	6.6	7.2	7.9	8.6	10.1

*MSAs selected based on largest population in 2000 U.S. census.

Table 31. Primary and secondary syphilis — Counties and independent cities* ranked by number of reported cases: United States, 2007

<i>Rank[†]</i>	<i>County/Independent City</i>	<i>Cases</i>	<i>Rate per 100,000 Population</i>	<i>Cumulative Percent</i>
1	Los Angeles County, CA	919	9.2	8
2	Harris County, TX	454	11.7	11
3	New York County, NY	394	24.4	15
4	Cook County, IL	391	7.4	18
5	San Diego County, CA	347	11.8	21
6	Fulton County, GA	293	30.5	24
7	Kings County, NY	255	10.2	26
8	Miami-Dade County, FL	210	8.7	28
9	San Francisco County, CA	202	27.1	30
10	Shelby County, TN	191	21.0	31
11	Maricopa County, AZ	190	5.0	33
12	Washington, D.C.	178	30.6	35
13	Broward County, FL	178	10.0	36
14	Jefferson County, AL	166	25.3	38
15	Bexar County, TX	155	10.0	39
16	Dallas County, TX	152	6.5	40
17	DeKalb County, GA	142	19.6	42
18	Orange County, CA	142	4.7	43
19	Baltimore (City), MD	140	22.2	44
20	Queens County, NY	138	6.1	45
21	Philadelphia County, PA	136	9.4	46
22	Orange County, FL	119	11.4	47
23	Orleans County, LA	117	52.4	48
24	Bronx County, NY	116	8.5	49
25	Hillsborough County, FL	115	9.9	50
26	King County, WA	112	6.1	51
27	Jackson County, MO	107	16.1	52
28	Madison County, AL	104	34.2	53
29	Clark County, NV	102	5.7	54
30	Prince George's County, MD	94	11.2	55
31	Mecklenburg County, NC	93	11.2	56
32	Tarrant County, TX	87	5.2	57
33	Wayne County, MI	85	4.3	57
34	Riverside County, CA	80	3.9	58
35	Pima County, AZ	78	8.2	59
36	Suffolk County, MA	73	10.6	59
37	Pinellas County, FL	72	7.8	60
38	East Baton Rouge County, LA	70	16.3	61
39	Davidson County, TN	70	12.1	61
40	Franklin County, OH	68	6.2	62
41	Travis County, TX	67	7.3	62
42	Essex County, NJ	64	8.1	63
43	Sacramento County, CA	59	4.3	63
44	Cobb County, GA	57	8.4	64
45	Lafayette County, LA	56	27.6	64
46	Santa Clara County, CA	55	3.2	65
47	Allegheny County, PA	54	4.4	65
48	St Louis (City), MO	51	14.7	66
49	Hudson County, NJ	49	8.2	66
50	Milwaukee County, WI	49	5.4	67
51	Alameda County, CA	49	3.4	67
52	Gwinnett County, GA	46	6.1	67
53	Tangipahoa County, LA	42	37.1	68
54	Hennepin County, MN	41	3.7	68
55	Duval County, FL	40	4.8	69
56	Jefferson County, TX	39	16.0	69
57	Knox County, TN	39	9.5	69
58	Clayton County, GA	37	13.6	70
59	Jefferson County, LA	36	8.3	70
60	Pulaski County, AR	35	9.5	70
61	St. Louis County, MO	35	3.5	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 2007.

Table 32. Primary and secondary syphilis — Reported cases and rates per 100,000 population by age group and sex: United States, 2003–2007

Year	Age Group	Cases			Rates		
		Total	Male	Female	Total	Male	Female
2003	10–14	11	1	10	0.1	0.0	0.1
	15–19	322	150	172	1.6	1.4	1.7
	20–24	860	620	240	4.2	5.8	2.4
	25–29	941	760	181	4.9	7.8	1.9
	30–34	1,187	1,023	164	5.7	9.8	1.6
	35–39	1,460	1,290	170	6.8	12.0	1.6
	40–44	1,157	1,021	136	5.0	8.9	1.2
	45–54	991	871	119	2.4	4.3	0.6
	55–64	205	187	18	0.7	1.4	0.1
	65+	42	36	6	0.1	0.2	0.0
	TOTAL	7,177	5,959	1,218	2.5	4.2	0.8
2004	10–14	9	2	7	0.0	0.0	0.1
	15–19	339	191	148	1.6	1.8	1.5
	20–24	1,029	735	294	4.9	6.8	2.9
	25–29	1,126	944	182	5.8	9.4	1.9
	30–34	1,285	1,118	167	6.3	10.8	1.6
	35–39	1,467	1,313	154	7.0	12.4	1.5
	40–44	1,345	1,199	146	5.8	10.5	1.3
	45–54	1,035	915	120	2.5	4.5	0.6
	55–64	281	249	32	1.0	1.8	0.2
	65+	55	54	1	0.2	0.4	0.0
	TOTAL	7,980	6,725	1,255	2.7	4.7	0.8
2005	10–14	10	2	8	0.0	0.0	0.1
	15–19	443	251	192	2.1	2.3	1.9
	20–24	1,181	875	306	5.6	8.1	3.0
	25–29	1,214	1,008	206	6.0	9.8	2.1
	30–34	1,329	1,178	150	6.6	11.6	1.5
	35–39	1,574	1,394	179	7.5	13.2	1.7
	40–44	1,418	1,253	164	6.2	11.0	1.4
	45–54	1,192	1,080	111	2.8	5.2	0.5
	55–64	304	284	20	1.0	1.9	0.1
	65+	59	57	2	0.2	0.4	0.0
	TOTAL	8,724	7,385	1,339	2.9	5.1	0.9
2006	10–14	13	2	11	0.1	0.0	0.1
	15–19	565	332	233	2.7	3.0	2.2
	20–24	1,382	1,083	299	6.5	9.9	2.9
	25–29	1,574	1,333	241	7.6	12.6	2.4
	30–34	1,221	1,058	163	6.2	10.6	1.7
	35–39	1,581	1,427	154	7.5	13.4	1.5
	40–44	1,516	1,363	153	6.7	12.2	1.4
	45–54	1,443	1,278	165	3.3	6.0	0.8
	55–64	375	340	35	1.2	2.2	0.2
	65+	81	79	2	0.2	0.5	0.0
	TOTAL	9,756	8,297	1,459	3.3	5.6	1.0
2007	10–14	13	5	8	0.1	0.0	0.1
	15–19	664	416	248	3.1	3.8	2.4
	20–24	1,818	1,462	356	8.6	13.4	3.5
	25–29	1,841	1,576	265	8.9	14.9	2.6
	30–34	1,500	1,306	193	7.6	13.1	2.0
	35–39	1,721	1,530	191	8.1	14.4	1.8
	40–44	1,745	1,553	192	7.8	13.9	1.7
	45–54	1,664	1,464	200	3.8	6.9	0.9
	55–64	409	379	30	1.3	2.5	0.2
	65+	91	82	9	0.2	0.5	0.0
	TOTAL	11,466	9,773	1,693	3.8	6.6	1.1

NOTE: This table should be used only for age comparisons. If age was not specified, cases were prorated according to the distribution of cases for which age was known. Differences between total cases from this table and others in the report are due to different reporting formats. The 0 to 9 year age group is not shown because some of these cases may not be due to sexual transmission; however, they are included in the totals.

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Table 33A. Primary and secondary syphilis — Reported cases by race/ethnicity, age group and sex: United States, 2003–2007

Age Group	White, Non-Hispanic			Black, Non-Hispanic			Hispanic			Asian/Pacific Islander			American Indian/ Alaska Native			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
2003	10–14	0	0	0	5	1	4	5	0	5	0	0	0	1	0	1
	15–19	48	24	24	205	93	112	63	28	35	6	5	1	0	0	0
	20–24	195	154	41	471	309	161	178	142	36	13	11	2	3	3	0
	25–29	301	265	36	408	293	115	195	173	23	28	25	3	8	4	4
	30–34	524	485	39	416	316	100	213	190	23	20	20	0	14	12	2
	35–39	743	703	40	451	335	116	222	211	11	28	28	0	16	14	2
	40–44	588	563	26	382	288	94	158	146	12	20	19	1	9	5	3
	45–54	489	472	17	373	287	86	107	97	9	10	8	1	13	6	6
	55–64	104	100	4	81	68	13	13	12	1	2	2	0	4	4	0
	65+	17	16	1	18	16	2	5	2	3	0	0	0	1	1	0
TOTAL	3,010	2,783	227	2,811	2,005	805	1,160	1,001	159	127	119	8	69	50	19	
2004	10–14	0	0	0	8	2	6	1	0	1	0	0	0	0	0	0
	15–19	56	33	23	211	113	98	55	33	22	11	9	2	6	3	3
	20–24	242	185	57	573	375	198	188	156	32	19	16	3	8	4	4
	25–29	317	281	36	534	421	113	237	213	24	28	25	3	11	5	5
	30–34	512	470	41	496	402	95	238	215	23	29	28	1	10	3	6
	35–39	675	640	35	489	392	98	249	235	14	36	35	1	18	12	6
	40–44	684	655	29	455	353	102	179	169	9	18	18	0	10	4	5
	45–54	525	503	23	379	295	84	110	98	12	11	11	0	10	9	1
	55–64	155	145	10	101	83	18	20	20	0	2	1	1	4	1	3
	65+	36	35	1	16	16	0	3	3	0	0	0	0	0	0	0
TOTAL	3,203	2,947	256	3,266	2,452	814	1,280	1,142	138	153	142	11	77	42	35	
2005	10–14	0	0	0	9	1	8	1	1	0	0	0	0	0	0	0
	15–19	67	36	30	304	173	131	62	36	26	5	4	1	5	1	4
	20–24	281	230	51	660	459	201	216	167	49	15	11	4	8	7	1
	25–29	331	299	32	612	480	132	236	198	38	27	25	2	8	6	2
	30–34	491	456	35	554	455	99	230	216	14	43	42	1	12	10	2
	35–39	761	712	49	518	415	103	268	244	24	19	19	0	8	4	4
	40–44	741	700	40	446	350	97	193	172	21	26	24	2	12	7	4
	45–54	660	631	29	385	320	65	126	111	14	15	14	1	6	4	2
	55–64	167	162	5	102	90	13	30	28	2	4	4	0	0	0	0
	65+	26	26	0	23	21	2	8	8	0	2	2	0	0	0	0
TOTAL	3,524	3,254	270	3,615	2,764	850	1,370	1,182	188	156	145	11	60	40	20	
2006	10–14	1	0	1	11	2	9	0	0	0	0	0	0	1	0	1
	15–19	71	39	33	419	246	173	74	46	28	1	1	0	0	0	0
	20–24	291	247	44	853	630	223	218	187	31	12	11	1	8	7	1
	25–29	431	381	50	795	641	154	304	271	34	37	35	2	7	6	1
	30–34	433	395	38	497	398	99	243	223	20	34	31	3	14	11	3
	35–39	720	676	44	532	447	85	282	263	18	33	32	1	14	9	5
	40–44	802	756	46	443	356	87	227	213	14	30	29	1	15	10	5
	45–54	766	729	38	500	394	107	143	129	14	24	22	2	9	5	4
	55–64	194	186	8	139	115	24	35	33	2	2	2	0	5	4	1
	65+	34	34	0	25	23	2	17	17	0	0	0	0	5	5	0
TOTAL	3,744	3,443	301	4,215	3,253	962	1,543	1,381	162	173	163	10	80	57	24	
2007	10–14	0	0	0	13	5	8	0	0	0	0	0	0	0	0	0
	15–19	95	49	46	470	299	171	91	66	26	0	0	0	7	2	5
	20–24	338	271	67	1,124	883	240	328	289	40	15	12	2	13	6	7
	25–29	487	432	54	953	783	170	352	319	33	35	34	1	15	7	7
	30–34	506	455	51	612	504	108	325	298	27	38	35	3	19	15	4
	35–39	699	650	49	683	559	125	293	280	12	31	31	0	15	10	5
	40–44	841	783	58	605	486	119	265	254	11	27	26	1	6	4	2
	45–54	824	773	51	620	488	132	187	171	16	23	23	0	10	7	2
	55–64	213	210	3	154	130	24	41	38	3	2	2	0	0	0	0
	65+	47	45	2	38	31	7	5	5	0	1	1	0	0	0	0
TOTAL	4,050	3,669	381	5,273	4,169	1,104	1,887	1,719	167	171	164	7	85	52	33	

NOTE: These tables should be used only for race/ethnicity comparisons. See Table 32 for age-specific cases and rates and Tables 25–27 for total and sex-specific cases and rates. If age or race/ethnicity was not specified, cases were prorated according to the distribution of cases for which these variables were specified. In 2007, ID did not report race/ethnicity and their case data and population denominators were excluded. Differences between total cases from this table and others in the report are due to different reporting formats and above listed exclusion. The 0 to 9 year age group is not shown because some of these cases may not be due to sexual transmission; however, they are included in the totals.

Table 33B. Primary and secondary syphilis — Rates per 100,000 population by race/ethnicity, age group and sex: United States, 2003–2007

Age Group	White, Non-Hispanic			Black, Non-Hispanic			Hispanic			Asian/Pacific Islander			American Indian/ Alaska Native		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
10–14	0.0	0.0	0.0	0.1	0.1	0.2	0.1	0.0	0.3	0.0	0.0	0.0	0.4	0.0	0.9
15–19	0.4	0.4	0.4	6.7	5.9	7.4	1.9	1.7	2.2	0.7	1.2	0.2	0.0	0.0	0.0
20–24	1.5	2.4	0.6	16.0	21.1	10.9	4.8	6.8	2.2	1.4	2.3	0.4	1.5	3.0	0.0
25–29	2.6	4.6	0.6	16.1	24.1	8.7	5.1	8.3	1.3	2.5	4.4	0.5	4.9	5.0	4.9
30–34	4.0	7.4	0.6	15.7	25.2	7.2	5.9	9.9	1.4	1.6	3.3	0.0	8.1	13.8	2.4
35–39	5.2	9.8	0.6	16.6	26.2	8.1	7.0	12.5	0.8	2.6	5.3	0.0	9.0	15.9	2.3
40–44	3.6	7.0	0.3	13.6	21.9	6.3	5.8	10.3	0.9	1.9	3.7	0.2	4.5	6.0	3.2
45–54	1.6	3.1	0.1	8.0	13.4	3.4	2.8	5.1	0.5	0.5	1.0	0.1	4.0	4.2	3.8
55–64	0.5	0.9	0.0	3.0	5.7	0.9	0.6	1.2	0.1	0.2	0.5	0.0	2.3	4.8	0.0
65+	0.1	0.1	0.0	0.6	1.4	0.1	0.3	0.3	0.3	0.0	0.0	0.0	0.7	1.5	0.0
TOTAL	1.5	2.8	0.2	7.7	11.5	4.2	2.9	4.9	0.8	1.0	1.9	0.1	2.8	4.2	1.5
10–14	0.0	0.0	0.0	0.2	0.1	0.4	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
15–19	0.4	0.5	0.4	6.7	7.1	6.3	1.6	1.9	1.3	1.2	1.9	0.5	2.7	2.7	2.8
20–24	1.9	2.8	0.9	19.1	25.0	13.2	5.0	7.5	1.9	1.9	3.1	0.6	3.9	3.9	3.9
25–29	2.7	4.7	0.6	20.5	33.5	8.4	6.1	9.8	1.4	2.4	4.4	0.5	6.1	6.1	6.0
30–34	4.0	7.4	0.7	18.9	32.2	6.8	6.4	10.8	1.4	2.3	4.4	0.2	5.7	3.9	7.5
35–39	4.9	9.2	0.5	18.4	31.2	6.9	7.6	13.5	0.9	3.1	6.2	0.2	10.6	14.1	7.1
40–44	4.3	8.2	0.4	16.1	26.7	6.8	6.2	11.3	0.7	1.7	3.6	0.0	5.1	4.7	5.4
45–54	1.7	3.3	0.1	8.0	13.4	3.3	2.7	4.8	0.6	0.6	1.3	0.0	3.0	5.6	0.6
55–64	0.7	1.3	0.1	3.6	6.6	1.2	0.9	1.9	0.0	0.2	0.2	0.2	2.0	1.1	2.9
65+	0.1	0.3	0.0	0.5	1.4	0.0	0.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	1.6	3.0	0.3	8.8	13.9	4.2	3.1	5.4	0.7	1.2	2.2	0.2	3.1	3.5	2.8
10–14	0.0	0.0	0.0	0.3	0.1	0.5	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15–19	0.5	0.5	0.5	9.4	10.6	8.2	1.8	2.0	1.6	0.6	0.9	0.2	2.3	0.9	3.7
20–24	2.1	3.4	0.8	21.9	30.2	13.5	5.8	8.2	2.9	1.6	2.3	0.8	3.8	6.6	0.9
25–29	2.8	4.9	0.5	22.6	36.5	9.5	5.8	8.8	2.1	2.4	4.5	0.4	4.6	6.6	2.6
30–34	4.0	7.4	0.6	21.4	37.1	7.3	6.0	10.5	0.8	3.2	6.5	0.2	7.1	11.6	2.5
35–39	5.6	10.4	0.7	19.6	33.3	7.4	7.9	13.5	1.5	1.5	3.2	0.0	5.1	5.3	4.9
40–44	4.7	8.9	0.5	15.8	26.5	6.4	6.4	11.0	1.5	2.3	4.4	0.4	6.2	8.3	4.3
45–54	2.1	4.1	0.2	7.9	14.1	2.5	2.9	5.2	0.7	0.8	1.6	0.1	1.9	2.7	1.2
55–64	0.7	1.4	0.0	3.5	6.8	0.8	1.3	2.5	0.2	0.3	0.7	0.0	0.0	0.0	0.0
65+	0.1	0.2	0.0	0.7	1.8	0.1	0.4	0.9	0.0	0.2	0.4	0.0	0.0	0.0	0.0
TOTAL	1.8	3.3	0.3	9.7	15.5	4.4	3.2	5.4	0.9	1.1	2.2	0.2	2.4	3.3	1.6
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
15–19	0.5	0.6	0.5	12.6	14.7	10.6	2.0	2.5	1.6	0.1	0.2	0.0	0.0	0.0	0.0
20–24	2.2	3.7	0.7	28.1	41.0	14.8	5.8	9.2	1.8	1.3	2.3	0.2	3.7	6.3	1.1
25–29	3.5	6.1	0.8	28.3	46.9	10.7	7.3	11.7	1.8	3.1	6.0	0.3	3.9	6.7	1.1
30–34	3.7	6.7	0.6	19.6	33.1	7.4	6.2	10.4	1.1	2.5	4.7	0.4	8.4	13.0	3.7
35–39	5.3	9.9	0.7	20.1	35.8	6.1	8.0	14.0	1.1	2.6	5.2	0.2	8.3	10.5	6.1
40–44	5.3	9.9	0.6	15.9	27.3	5.8	7.3	13.0	1.0	2.6	5.1	0.2	8.1	10.8	5.5
45–54	2.4	4.7	0.2	10.0	17.0	4.0	3.2	5.6	0.6	1.2	2.4	0.2	2.8	3.3	2.3
55–64	0.8	1.6	0.1	4.5	8.3	1.4	1.4	2.7	0.2	0.2	0.4	0.0	2.4	4.0	0.9
65+	0.1	0.3	0.0	0.8	1.9	0.1	0.7	1.6	0.0	0.0	0.0	0.0	2.7	6.3	0.0
TOTAL	1.9	3.5	0.3	11.2	18.1	4.9	3.5	6.0	0.8	1.2	2.4	0.1	3.2	4.7	1.9
10–14	0.0	0.0	0.0	0.4	0.3	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15–19	0.7	0.7	0.7	14.2	17.8	10.4	2.5	3.5	1.5	0.0	0.0	0.0	3.2	1.8	4.5
20–24	2.6	4.1	1.1	37.0	57.5	16.0	8.8	14.2	2.3	1.5	2.5	0.4	6.1	5.6	6.6
25–29	4.0	7.0	0.9	33.9	57.4	11.7	8.5	13.8	1.8	3.0	5.8	0.2	7.9	7.9	7.8
30–34	4.3	7.8	0.9	24.2	41.9	8.1	8.3	14.0	1.5	2.8	5.3	0.4	11.7	18.2	5.1
35–39	5.2	9.6	0.7	25.8	44.8	8.9	8.3	14.9	0.8	2.4	5.0	0.0	8.9	11.7	6.2
40–44	5.6	10.4	0.8	21.7	37.2	8.0	8.5	15.5	0.8	2.3	4.6	0.2	3.5	4.9	2.2
45–54	2.6	5.0	0.3	12.4	21.1	4.9	4.1	7.5	0.7	1.2	2.6	0.0	2.8	4.7	1.2
55–64	0.9	1.8	0.0	4.9	9.3	1.4	1.6	3.1	0.2	0.2	0.4	0.0	0.0	0.0	0.0
65+	0.2	0.4	0.0	1.2	2.6	0.4	0.2	0.5	0.0	0.1	0.2	0.0	0.0	0.0	0.0
TOTAL	2.0	3.7	0.4	14.0	23.2	5.6	4.3	7.5	0.8	1.2	2.4	0.1	3.4	4.3	2.6

NOTE: These tables should be used only for race/ethnicity comparisons. See Table 32 for age-specific cases and rates and Tables 25-27 for total and sex-specific cases and rates. If age or race/ethnicity was not specified, cases were prorated according to the distribution of cases for which these variables were specified. In 2007, ID did not report race/ethnicity and their case data and population denominators were excluded. Differences between total rates from this table and others in the report are due to different reporting formats and above listed exclusion. The 0 to 9 year age group is not shown because some of these cases may not be due to sexual transmission; however, they are included in the totals.

Table 34. Early latent syphilis — Reported cases and rates by state/area and region listed in alphabetical order: United States and outlying areas, 2003–2007

State/Area	Cases					Rates per 100,000 Population				
	2003	2004	2005	2006	2007	2003	2004	2005	2006	2007
Alabama	140	231	184	341	363	3.1	5.1	4.0	7.4	7.9
Alaska	0	1	8	6	3	0.0	0.2	1.2	0.9	0.4
Arizona	232	219	134	186	269	4.2	3.8	2.3	3.0	4.4
Arkansas	71	56	48	67	115	2.6	2.0	1.7	2.4	4.1
California	820	873	1,153	1,369	1,421	2.3	2.4	3.2	3.8	3.9
Colorado	20	24	27	38	35	0.4	0.5	0.6	0.8	0.7
Connecticut	13	16	19	27	20	0.4	0.5	0.5	0.8	0.6
Delaware	11	25	9	16	14	1.3	3.0	1.1	1.9	1.6
District of Columbia	152	113	103	77	84	26.9	20.4	18.7	13.2	14.4
Florida	988	856	726	760	1,155	5.8	4.9	4.1	4.2	6.4
Georgia	720	333	380	366	423	8.3	3.8	4.2	3.9	4.5
Hawaii	6	3	4	2	11	0.5	0.2	0.3	0.2	0.9
Idaho	8	26	13	3	3	0.6	1.9	0.9	0.2	0.2
Illinois	350	322	397	267	224	2.8	2.5	3.1	2.1	1.7
Indiana	58	45	42	46	39	0.9	0.7	0.7	0.7	0.6
Iowa	5	12	6	6	6	0.2	0.4	0.2	0.2	0.2
Kansas	19	12	18	18	25	0.7	0.4	0.7	0.7	0.9
Kentucky	43	24	23	36	34	1.0	0.6	0.6	0.9	0.8
Louisiana	197	316	252	481	722	4.4	7.0	5.6	11.2	16.8
Maine	7	0	2	7	5	0.5	0.0	0.2	0.5	0.4
Maryland	211	213	289	193	320	3.8	3.8	5.2	3.4	5.7
Massachusetts	136	96	105	82	116	2.1	1.5	1.6	1.3	1.8
Michigan	122	121	69	43	73	1.2	1.2	0.7	0.4	0.7
Minnesota	45	21	46	58	55	0.9	0.4	0.9	1.1	1.1
Mississippi	173	130	162	197	269	6.0	4.5	5.5	6.8	9.2
Missouri	46	58	108	93	120	0.8	1.0	1.9	1.6	2.1
Montana	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Nebraska	1	0	2	1	3	0.1	0.0	0.1	0.1	0.2
Nevada	35	24	64	119	174	1.6	1.0	2.7	4.8	7.0
New Hampshire	4	0	0	2	13	0.3	0.0	0.0	0.2	1.0
New Jersey	326	344	289	314	343	3.8	4.0	3.3	3.6	3.9
New Mexico	53	69	53	85	66	2.8	3.6	2.7	4.3	3.4
New York	1,019	744	1,084	993	1,149	5.3	3.9	5.6	5.1	6.0
North Carolina	261	261	215	294	247	3.1	3.1	2.5	3.3	2.8
North Dakota	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Ohio	92	184	136	115	135	0.8	1.6	1.2	1.0	1.2
Oklahoma	77	62	64	121	115	2.2	1.8	1.8	3.4	3.2
Oregon	27	29	16	19	6	0.8	0.8	0.4	0.5	0.2
Pennsylvania	216	183	204	286	309	1.7	1.5	1.6	2.3	2.5
Rhode Island	7	15	5	6	10	0.7	1.4	0.5	0.6	0.9
South Carolina	180	204	222	174	143	4.3	4.9	5.2	4.0	3.3
South Dakota	3	0	0	6	4	0.4	0.0	0.0	0.8	0.5
Tennessee	228	206	203	233	304	3.9	3.5	3.4	3.9	5.0
Texas	1,065	1,069	1,013	1,312	1,467	4.8	4.8	4.4	5.6	6.2
Utah	7	5	7	7	2	0.3	0.2	0.3	0.3	0.1
Vermont	0	0	0	2	1	0.0	0.0	0.0	0.3	0.2
Virginia	74	108	148	165	177	1.0	1.4	2.0	2.2	2.3
Washington	36	51	63	81	76	0.6	0.8	1.0	1.3	1.2
West Virginia	2	9	3	6	9	0.1	0.5	0.2	0.3	0.5
Wisconsin	54	55	58	60	91	1.0	1.0	1.0	1.1	1.6
Wyoming	1	0	0	0	0	0.2	0.0	0.0	0.0	0.0
U.S. TOTAL	8,361	7,768	8,176	9,186	10,768	2.9	2.6	2.8	3.1	3.6
Northeast	1,728	1,398	1,708	1,719	1,966	3.2	2.6	3.1	3.1	3.6
Midwest	795	830	882	713	775	1.2	1.3	1.3	1.1	1.2
South	4,593	4,216	4,044	4,839	5,961	4.4	4.0	3.8	4.4	5.5
West	1,245	1,324	1,542	1,915	2,066	1.9	2.0	2.3	2.8	3.0
Guam	1	0	0	3	3	0.6	0.0	0.0	1.8	1.8
Puerto Rico	748	353	432	368	408	19.3	9.1	11.0	9.4	10.4
Virgin Islands	6	8	7	0	1	5.5	7.4	6.4	0.0	0.9
OUTLYING AREAS	755	361	439	371	412	18.2	8.7	10.5	8.8	9.8
TOTAL	9,116	8,129	8,615	9,557	11,180	3.1	2.7	2.9	3.1	3.7

Table 35. Early latent syphilis — Reported cases and rates in selected metropolitan statistical areas* (MSAs) listed in alphabetical order: United States, 2003–2007

<i>Metropolitan Statistical Area</i>	<i>Cases</i>					<i>Rates per 100,000 Population</i>				
	2003	2004	2005	2006	2007	2003	2004	2005	2006	2007
Atlanta-Sandy Springs-Marietta, GA	614	281	314	293	363	13.3	6.0	6.4	5.7	7.1
Austin-Round Rock, TX	42	59	59	51	66	3.0	4.2	4.1	3.4	4.4
Baltimore-Towson, MD	189	167	211	136	185	7.2	6.3	7.9	5.1	7.0
Birmingham-Hoover, AL	24	42	82	220	196	2.2	3.9	7.5	20.0	17.8
Boston-Cambridge-Quincy, MA-NH	117	70	84	65	95	2.6	1.6	1.9	1.5	2.1
Buffalo-Cheektowaga-Tonawanda, NY	2	4	3	14	6	0.2	0.3	0.3	1.2	0.5
Charlotte-Gastonia-Concord, NC-SC	51	58	71	98	63	3.5	3.9	4.7	6.2	4.0
Chicago-Naperville-Joliet, IL-IN-WI	344	322	395	269	209	3.7	3.4	4.2	2.8	2.2
Cincinnati-Middletown, OH-KY-IN	0	8	13	7	12	0.0	0.4	0.6	0.3	0.6
Cleveland-Elyria-Mentor, OH	7	33	21	11	21	0.3	1.5	1.0	0.5	1.0
Columbus, OH	44	72	41	55	47	2.6	4.3	2.4	3.2	2.7
Dallas-Fort Worth-Arlington, TX	488	380	381	532	468	8.7	6.7	6.5	8.9	7.8
Denver-Aurora, CO	17	22	22	32	30	0.7	0.9	0.9	1.3	1.2
Detroit-Warren-Livonia, MI	112	103	59	34	47	2.5	2.3	1.3	0.8	1.1
Hartford-West Hartford-East Hartford, CT	2	5	7	10	8	0.2	0.4	0.6	0.8	0.7
Houston-Baytown-Sugar Land, TX	237	246	207	291	468	4.7	4.7	3.9	5.3	8.4
Indianapolis, IN	23	24	19	18	20	1.4	1.5	1.2	1.1	1.2
Jacksonville, FL	40	75	56	56	51	3.3	6.1	4.5	4.4	4.0
Kansas City, MO-KS	31	23	51	41	70	1.6	1.2	2.6	2.1	3.6
Las Vegas-Paradise, NV	28	19	57	112	170	1.8	1.2	3.3	6.3	9.6
Los Angeles-Long Beach-Santa Ana, CA	434	445	666	851	893	3.4	3.4	5.2	6.6	6.9
Louisville, KY-IN	34	16	16	18	12	2.9	1.3	1.3	1.5	1.0
Memphis, TN-MS-AR	177	170	171	174	222	14.3	13.6	13.6	13.7	17.4
Miami-Fort Lauderdale-Miami Beach, FL	578	477	302	304	440	10.9	8.9	5.6	5.6	8.1
Milwaukee-Waukesha-West Allis, WI	41	37	36	46	65	2.7	2.4	2.4	3.0	4.3
Minneapolis-St. Paul-Bloomington, MN-WI	41	19	43	52	54	1.3	0.6	1.4	1.6	1.7
Nashville-Davidson-Murfreesboro, TN	31	30	29	42	56	2.3	2.1	2.0	2.9	3.8
New Orleans-Metairie-Kenner, LA	48	85	68	127	222	3.6	6.4	5.2	12.4	21.7
New York-Newark-Edison, NY-NJ-PA	1,259	1,012	1,281	1,178	1,360	6.8	5.4	6.8	6.3	7.2
Oklahoma City, OK	62	47	36	74	65	5.5	4.1	3.1	6.3	5.5
Orlando, FL	117	90	124	91	160	6.5	4.8	6.4	4.6	8.1
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	256	220	171	280	310	4.4	3.8	2.9	4.8	5.3
Phoenix-Mesa-Scottsdale, AZ	165	165	97	166	165	4.6	4.4	2.5	4.1	4.1
Pittsburgh, PA	11	8	28	43	45	0.5	0.3	1.2	1.8	1.9
Portland-Vancouver-Beaverton, OR-WA	22	23	12	9	5	1.1	1.1	0.6	0.4	0.2
Providence-New Bedford-Fall River, RI-MA	11	25	10	9	12	0.7	1.5	0.6	0.6	0.7
Richmond, VA	24	18	24	29	45	2.1	1.6	2.0	2.4	3.8
Riverside-San Bernardino-Ontario, CA	34	40	64	64	49	0.9	1.1	1.6	1.6	1.2
Rochester, NY	8	4	13	8	5	0.8	0.4	1.3	0.8	0.5
Sacramento-Arden-Arcade-Roseville, CA	5	11	11	23	16	0.3	0.5	0.5	1.1	0.8
Salt Lake City, UT	4	5	3	5	2	0.4	0.5	0.3	0.5	0.2
San Antonio, TX	66	79	144	172	115	3.6	4.3	7.6	8.9	5.9
San Diego-Carlsbad-San Marcos, CA	41	84	117	123	156	1.4	2.9	4.0	4.2	5.3
San Francisco-Oakland-Fremont, CA	230	235	220	220	200	5.5	5.7	5.3	5.3	4.8
San Jose-Sunnyvale-Santa Clara, CA	20	13	18	18	25	1.2	0.7	1.0	1.0	1.4
Seattle-Tacoma-Bellevue, WA	30	42	60	74	70	1.0	1.3	1.9	2.3	2.1
St. Louis, MO-IL	28	31	34	30	57	1.0	1.1	1.2	1.1	2.0
Tampa-St. Petersburg-Clearwater, FL	142	103	101	177	294	5.6	4.0	3.8	6.6	10.9
Virginia Beach-Norfolk-Newport News, VA-NC	21	45	78	74	54	1.3	2.7	4.7	4.5	3.3
Washington-Arlington-Alexandria, DC-VA-MD-WV	195	182	208	171	265	3.8	3.5	4.0	3.2	5.0
U.S. MSA TOTAL	6,547	5,774	6,338	6,997	8,034	4.2	3.7	4.0	4.3	5.0

*MSAs selected based on largest population in 2000 U.S. census.

Table 36. Late and late latent syphilis — Reported cases and rates by state/area and region listed in alphabetical order: United States and outlying areas, 2003–2007

State/Area	Cases					Rates per 100,000 Population				
	2003	2004	2005	2006	2007	2003	2004	2005	2006	2007
Alabama	309	232	193	262	254	6.9	5.1	4.2	5.7	5.5
Alaska	7	6	5	8	6	1.1	0.9	0.8	1.2	0.9
Arizona	659	572	455	521	650	11.8	10.0	7.7	8.4	10.5
Arkansas	172	142	124	92	122	6.3	5.2	4.5	3.3	4.3
California	2,024	2,293	2,527	2,773	2,777	5.7	6.4	7.0	7.6	7.6
Colorado	82	90	70	73	63	1.8	2.0	1.5	1.5	1.3
Connecticut	163	108	88	106	87	4.7	3.1	2.5	3.0	2.5
Delaware	29	26	15	38	31	3.5	3.1	1.8	4.5	3.6
District of Columbia	129	174	148	120	153	22.9	31.4	26.9	20.6	26.3
Florida	1,610	1,364	1,422	1,445	1,830	9.5	7.8	8.0	8.0	10.1
Georgia	836	701	898	977	1,142	9.6	7.9	9.9	10.4	12.2
Hawaii	39	25	42	46	38	3.1	2.0	3.3	3.6	3.0
Idaho	18	25	21	6	10	1.3	1.8	1.5	0.4	0.7
Illinois	633	614	663	760	522	5.0	4.8	5.2	5.9	4.1
Indiana	252	164	182	111	121	4.1	2.6	2.9	1.8	1.9
Iowa	29	19	13	43	37	1.0	0.6	0.4	1.4	1.2
Kansas	32	49	51	41	44	1.2	1.8	1.9	1.5	1.6
Kentucky	83	79	54	78	63	2.0	1.9	1.3	1.9	1.5
Louisiana	1,195	979	696	551	516	26.6	21.7	15.4	12.9	12.0
Maine	6	5	3	6	7	0.5	0.4	0.2	0.5	0.5
Maryland	443	399	387	526	482	8.0	7.2	6.9	9.4	8.6
Massachusetts	375	307	168	172	128	5.8	4.8	2.6	2.7	2.0
Michigan	451	470	297	210	262	4.5	4.6	2.9	2.1	2.6
Minnesota	103	96	89	83	72	2.0	1.9	1.7	1.6	1.4
Mississippi	220	212	160	237	305	7.6	7.3	5.5	8.1	10.5
Missouri	96	114	114	166	124	1.7	2.0	2.0	2.8	2.1
Montana	0	0	0	1	0	0.0	0.0	0.0	0.1	0.0
Nebraska	15	8	12	26	23	0.9	0.5	0.7	1.5	1.3
Nevada	102	189	169	117	104	4.6	8.1	7.0	4.7	4.2
New Hampshire	14	21	17	20	9	1.1	1.6	1.3	1.5	0.7
New Jersey	572	319	375	297	345	6.6	3.7	4.3	3.4	4.0
New Mexico	75	97	68	66	62	4.0	5.1	3.5	3.4	3.2
New York	2,715	2,979	2,054	2,833	2,766	14.1	15.5	10.7	14.7	14.3
North Carolina	417	285	213	352	516	5.0	3.3	2.5	4.0	5.8
North Dakota	0	0	0	2	1	0.0	0.0	0.0	0.3	0.2
Ohio	189	148	153	192	219	1.7	1.3	1.3	1.7	1.9
Oklahoma	211	79	50	58	33	6.0	2.2	1.4	1.6	0.9
Oregon	43	50	52	51	33	1.2	1.4	1.4	1.4	0.9
Pennsylvania	329	273	308	335	264	2.7	2.2	2.5	2.7	2.1
Rhode Island	50	62	35	51	30	4.6	5.7	3.3	4.8	2.8
South Carolina	263	194	239	155	176	6.3	4.6	5.6	3.6	4.1
South Dakota	0	0	2	10	1	0.0	0.0	0.3	1.3	0.1
Tennessee	511	459	493	527	537	8.7	7.8	8.3	8.7	8.9
Texas	2,200	2,244	2,336	2,501	2,780	9.9	10.0	10.2	10.6	11.8
Utah	51	59	33	38	23	2.2	2.5	1.3	1.5	0.9
Vermont	0	2	0	2	0	0.0	0.3	0.0	0.3	0.0
Virginia	395	380	361	343	328	5.3	5.1	4.8	4.5	4.3
Washington	121	135	144	160	135	2.0	2.2	2.3	2.5	2.1
West Virginia	7	6	12	13	11	0.4	0.3	0.7	0.7	0.6
Wisconsin	41	43	37	42	12	0.7	0.8	0.7	0.8	0.2
Wyoming	3	3	1	1	2	0.6	0.6	0.2	0.2	0.4
U.S. TOTAL	18,319	17,300	16,049	17,644	18,256	6.3	5.9	5.4	5.9	6.1
Northeast	4,224	4,076	3,048	3,822	3,636	7.8	7.5	5.6	7.0	6.6
Midwest	1,841	1,725	1,613	1,686	1,438	2.8	2.6	2.4	2.5	2.2
South	9,030	7,955	7,801	8,275	9,279	8.6	7.5	7.3	7.6	8.5
West	3,224	3,544	3,587	3,861	3,903	4.9	5.3	5.3	5.6	5.6
Guam	13	13	16	7	24	7.9	7.8	9.5	4.1	14.0
Puerto Rico	390	608	554	535	682	10.1	15.6	14.2	13.6	17.4
Virgin Islands	5	4	5	4	4	4.6	3.7	4.6	3.7	3.7
OUTLYING AREAS	408	625	575	546	710	9.8	15.0	13.7	13.0	16.9
TOTAL	18,727	17,925	16,624	18,190	18,966	6.3	6.0	5.5	6.0	6.2

Table 37. Late and late latent syphilis — Reported cases and rates in selected metropolitan statistical areas* (MSAs) listed in alphabetical order: United States, 2003–2007

<i>Metropolitan Statistical Area</i>	<i>Cases</i>					<i>Rates per 100,000 Population</i>				
	2003	2004	2005	2006	2007	2003	2004	2005	2006	2007
Atlanta-Sandy Springs-Marietta, GA	566	522	714	814	929	12.3	11.1	14.5	15.8	18.1
Austin-Round Rock, TX	78	85	89	74	94	5.7	6.0	6.1	4.9	6.2
Baltimore-Towson, MD	229	195	209	283	236	8.8	7.4	7.9	10.6	8.9
Birmingham-Hoover, AL	74	40	57	94	93	6.9	3.7	5.2	8.5	8.5
Boston-Cambridge-Quincy, MA-NH	330	256	149	147	98	7.4	5.8	3.4	3.3	2.2
Buffalo-Cheektowaga-Tonawanda, NY	7	11	4	7	9	0.6	1.0	0.3	0.6	0.8
Charlotte-Gastonia-Concord, NC-SC	87	45	61	83	133	6.1	3.1	4.0	5.2	8.4
Chicago-Naperville-Joliet, IL-IN-WI	630	576	611	687	469	6.7	6.1	6.5	7.2	4.9
Cincinnati-Middletown, OH-KY-IN	16	24	18	37	31	0.8	1.2	0.9	1.8	1.5
Cleveland-Elyria-Mentor, OH	23	11	9	24	33	1.1	0.5	0.4	1.1	1.6
Columbus, OH	102	72	76	67	99	6.1	4.3	4.4	3.9	5.7
Dallas-Fort Worth-Arlington, TX	735	701	792	809	881	13.1	12.3	13.6	13.5	14.7
Denver-Aurora, CO	64	56	51	51	43	2.8	2.4	2.2	2.1	1.8
Detroit-Warren-Livonia, MI	383	400	238	155	187	8.5	8.9	5.3	3.5	4.2
Hartford-West Hartford-East Hartford, CT	52	28	35	32	27	4.4	2.4	2.9	2.7	2.3
Houston-Baytown-Sugar Land, TX	768	783	685	856	1,032	15.1	15.1	13.0	15.5	18.6
Indianapolis, IN	93	68	80	56	49	5.8	4.2	4.9	3.4	2.9
Jacksonville, FL	73	70	41	63	102	6.1	5.7	3.3	4.9	8.0
Kansas City, MO-KS	41	40	53	75	49	2.2	2.1	2.7	3.8	2.5
Las Vegas-Paradise, NV	87	167	139	95	85	5.5	10.1	8.1	5.3	4.8
Los Angeles-Long Beach-Santa Ana, CA	1,137	1,451	1,649	1,759	1,588	8.9	11.2	12.8	13.6	12.3
Louisville, KY-IN	63	60	40	42	33	5.3	5.0	3.3	3.4	2.7
Memphis, TN-MS-AR	278	242	272	287	326	22.4	19.4	21.6	22.5	25.6
Miami-Fort Lauderdale-Miami Beach, FL	909	769	742	773	997	17.2	14.3	13.7	14.1	18.2
Milwaukee-Waukesha-West Allis, WI	22	28	18	16	9	1.5	1.8	1.2	1.1	0.6
Minneapolis-St. Paul-Bloomington, MN-WI	89	79	74	65	59	2.9	2.5	2.4	2.0	1.9
Nashville-Davidson-Murfreesboro, TN	158	145	126	112	100	11.5	10.4	8.9	7.7	6.9
New Orleans-Metairie-Kenner, LA	187	259	190	133	157	14.2	19.6	14.4	13.0	15.3
New York-Newark-Edison, NY-NJ-PA	3,077	3,058	2,241	2,905	2,913	16.5	16.3	12.0	15.4	15.5
Oklahoma City, OK	135	42	28	18	12	11.9	3.7	2.4	1.5	1.0
Orlando, FL	129	106	183	217	277	7.2	5.7	9.5	10.9	14.0
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	392	361	284	315	253	6.8	6.2	4.9	5.4	4.3
Phoenix-Mesa-Scottsdale, AZ	589	468	363	424	486	16.4	12.6	9.4	10.5	12.0
Pittsburgh, PA	8	2	15	18	17	0.3	0.1	0.6	0.8	0.7
Portland-Vancouver-Beaverton, OR-WA	34	35	43	40	34	1.7	1.7	2.1	1.9	1.6
Providence-New Bedford-Fall River, RI-MA	74	81	37	65	44	4.6	5.0	2.3	4.0	2.7
Richmond, VA	77	56	50	49	46	6.8	4.9	4.3	4.1	3.9
Riverside-San Bernardino-Ontario, CA	184	174	208	203	194	5.1	4.6	5.3	5.0	4.8
Rochester, NY	18	25	17	68	55	1.7	2.4	1.6	6.6	5.3
Sacramento-Arden-Arcade-Roseville, CA	11	33	8	78	40	0.6	1.6	0.4	3.8	1.9
Salt Lake City, UT	33	42	23	21	14	3.3	4.1	2.2	2.0	1.3
San Antonio, TX	109	164	178	156	142	6.0	8.8	9.4	8.0	7.3
San Diego-Carlsbad-San Marcos, CA	139	124	133	202	273	4.7	4.2	4.5	6.9	9.3
San Francisco-Oakland-Fremont, CA	260	258	165	156	263	6.3	6.2	4.0	3.7	6.3
San Jose-Sunnyvale-Santa Clara, CA	57	39	56	22	76	3.3	2.2	3.2	1.2	4.3
Seattle-Tacoma-Bellevue, WA	74	93	100	122	99	2.4	2.9	3.1	3.7	3.0
St. Louis, MO-IL	69	85	86	89	82	2.5	3.1	3.1	3.2	2.9
Tampa-St. Petersburg-Clearwater, FL	166	110	139	140	119	6.6	4.3	5.2	5.2	4.4
Virginia Beach-Norfolk-Newport News, VA-NC	104	100	105	85	89	6.4	6.1	6.4	5.2	5.4
Washington-Arlington-Alexandria, DC-VA-MD-WV	470	511	453	496	514	9.2	9.9	8.7	9.4	9.7
U.S. MSA TOTAL	13,490	13,150	12,137	13,585	13,990	8.6	8.3	7.6	8.4	8.7

*MSAs selected based on largest population in 2000 U.S. census..

Table 38. Congenital syphilis — Reported cases and rates in infants < 1 year of age by state, ranked by rates: United States, 2007

<i>Rank*</i>	<i>State†</i>	<i>Cases</i>	<i>Rate per 100,000 Live Births</i>
1	Louisiana	36	55.1
2	Arizona	30	32.0
3	Arkansas	12	31.1
4	Maryland	23	30.8
5	Texas	99	26.0
6	New Mexico	6	21.1
7	Nevada	7	19.9
8	California	87	16.0
9	Alabama	9	15.1
10	Michigan	14	10.8
	U.S. TOTAL‡	430	10.5
11	New Jersey	11	9.5
12	Florida	20	9.2
13	Georgia	9	6.5
14	New York	16	6.4
15	Oklahoma	3	5.8
16	North Carolina	7	5.8
17	Illinois	10	5.5
18	Pennsylvania	8	5.5
19	Tennessee	4	5.0
20	West Virginia	1	4.8
21	Connecticut	2	4.8
22	Oregon	2	4.4
23	Indiana	3	3.4
24	Colorado	2	2.9
25	Iowa	1	2.6
26	Washington	2	2.4
27	South Carolina	1	1.8
28	Wisconsin	1	1.4
29	Missouri	1	1.3
	YEAR 2010 TARGET		1.0
30	Virginia	1	1.0
31	Ohio	1	0.7
	Alaska	0	0.0
	Delaware	0	0.0
	Hawaii	0	0.0
	Idaho	0	0.0
	Kansas	0	0.0
	Kentucky	0	0.0
	Maine	0	0.0
	Massachusetts	0	0.0
	Minnesota	0	0.0
	Mississippi	0	0.0
	Montana	0	0.0
	Nebraska	0	0.0
	New Hampshire	0	0.0
	North Dakota	0	0.0
	Rhode Island	0	0.0
	South Dakota	0	0.0
	Utah	0	0.0
	Vermont	0	0.0
	Wyoming	0	0.0

*States were ranked in descending order by rate, number of cases, and alphabetically by state. States with no cases were not ranked.

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

‡Total includes cases reported by the District of Columbia with 1 case and a rate of 12.6, but excludes outlying areas (Guam with 2 cases and rate of 58.6, Puerto Rico with 8 cases and rate of 15.6, and Virgin Islands with 0 cases and rate of 0.0).

Table 39. Congenital syphilis — Reported cases and rates in infants < 1 year of age by state/area and region listed in alphabetical order: United States and outlying areas, 2003–2007

State/Area*	Cases					Rates per 100,000 Live Births				
	2003	2004	2005	2006	2007	2003	2004	2005	2006	2007
Alabama	4	11	5	9	9	6.7	18.5	8.4	15.1	15.1
Alaska	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Arizona	29	26	28	16	30	31.9	27.8	29.9	17.1	32.0
Arkansas	2	4	7	10	12	5.3	10.4	18.1	25.9	31.1
California	64	68	75	69	87	11.8	12.5	13.8	12.7	16.0
Colorado	3	2	1	2	2	4.3	2.9	1.5	2.9	2.9
Connecticut	1	0	1	0	2	2.3	0.0	2.4	0.0	4.8
Delaware	0	1	0	0	0	0.0	8.8	0.0	0.0	0.0
District of Columbia	1	1	0	1	1	13.1	12.6	0.0	12.6	12.6
Florida	27	16	16	21	20	12.7	7.3	7.3	9.6	9.2
Georgia	11	6	1	9	9	8.1	4.3	0.7	6.5	6.5
Hawaii	2	0	0	0	0	11.0	0.0	0.0	0.0	0.0
Idaho	4	3	0	0	0	18.3	13.3	0.0	0.0	0.0
Illinois	20	26	23	15	10	11.0	14.4	12.7	8.3	5.5
Indiana	7	4	2	0	3	8.1	4.6	2.3	0.0	3.4
Iowa	0	0	0	0	1	0.0	0.0	0.0	0.0	2.6
Kansas	1	2	0	1	0	2.5	5.0	0.0	2.5	0.0
Kentucky	1	1	0	1	0	1.8	1.8	0.0	1.8	0.0
Louisiana	6	19	13	16	36	9.2	29.1	19.9	24.5	55.1
Maine	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Maryland	9	10	16	19	23	12.0	13.4	21.4	25.5	30.8
Massachusetts	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Michigan	38	23	17	13	14	29.0	17.7	13.1	10.0	10.8
Minnesota	0	1	3	1	0	0.0	1.4	4.2	1.4	0.0
Mississippi	2	3	0	0	0	4.7	7.0	0.0	0.0	0.0
Missouri	4	3	3	3	1	5.2	3.9	3.9	3.9	1.3
Montana	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Nebraska	1	0	0	0	0	3.9	0.0	0.0	0.0	0.0
Nevada	0	1	1	16	7	0.0	2.8	2.8	45.5	19.9
New Hampshire	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
New Jersey	21	13	16	15	11	18.0	11.3	13.9	13.0	9.5
New Mexico	6	3	6	7	6	21.6	10.6	21.1	24.7	21.1
New York	42	22	10	24	16	16.6	8.8	4.0	9.6	6.4
North Carolina	20	9	11	7	7	16.9	7.5	9.2	5.8	5.8
North Dakota	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Ohio	3	2	2	0	1	2.0	1.3	1.3	0.0	0.7
Oklahoma	1	2	1	2	3	2.0	3.9	1.9	3.9	5.8
Oregon	0	0	0	0	2	0.0	0.0	0.0	0.0	4.4
Pennsylvania	2	0	1	4	8	1.4	0.0	0.7	2.8	5.5
Rhode Island	0	1	0	0	0	0.0	7.8	0.0	0.0	0.0
South Carolina	15	10	4	2	1	27.0	17.7	7.1	3.5	1.8
South Dakota	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Tennessee	7	9	4	6	4	8.9	11.3	5.0	7.5	5.0
Texas	77	65	67	79	99	20.4	17.0	17.6	20.7	26.0
Utah	0	1	0	2	0	0.0	2.0	0.0	3.9	0.0
Vermont	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Virginia	1	6	3	3	1	1.0	5.8	2.9	2.9	1.0
Washington	0	0	0	0	2	0.0	0.0	0.0	0.0	2.4
West Virginia	0	0	0	0	1	0.0	0.0	0.0	0.0	4.8
Wisconsin	0	1	2	0	1	0.0	1.4	2.9	0.0	1.4
Wyoming	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
U.S. TOTAL	432	375	339	373	430	10.6	9.1	8.2	9.1	10.5
Northeast	66	36	28	43	37	9.6	5.3	4.1	6.3	5.5
Midwest	74	62	52	33	31	8.3	7.0	5.8	3.7	3.5
South	184	173	148	185	226	12.2	11.3	9.7	12.1	14.8
West	108	104	111	112	136	10.7	10.2	10.9	11.0	13.4
Guam	1	0	1	0	2	30.5	0.0	29.3	0.0	58.6
Puerto Rico	17	11	13	15	8	33.5	21.5	25.4	29.3	15.6
Virgin Islands	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
OUTLYING AREAS	18	11	14	15	10	32.4	19.6	24.9	26.7	17.8
TOTAL	450	386	353	388	440	10.9	9.3	8.5	9.3	10.6

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

Table 40. Congenital syphilis — Reported cases and rates in infants < 1 year of age by race/ethnicity of mother: United States, 2003–2007

<i>Year of Birth</i>	<i>Race/Ethnicity</i>	<i>Cases</i>	<i>Rate per 100,000 Live Births</i>
2003	White, Non-Hispanic	35	1.5
	Black, Non-Hispanic	201	34.7
	Hispanic	166	18.2
	Asian/Pacific Islander	14	6.5
	American Indian/Alaska Native	2	5.1
	Other	3	NA
	Unknown	11	NA
	Total	432	10.6
2004	White, Non-Hispanic	41	1.8
	Black, Non-Hispanic	168	28.8
	Hispanic	145	15.3
	Asian/Pacific Islander	6	2.7
	American Indian/Alaska Native	2	5.0
	Other	1	NA
	Unknown	12	NA
	Total	375	9.1
2005	White, Non-Hispanic	31	1.3
	Black, Non-Hispanic	156	26.8
	Hispanic	124	13.1
	Asian/Pacific Islander	15	6.8
	American Indian/Alaska Native	5	12.4
	Other	2	NA
	Unknown	6	NA
	Total	339	8.2
2006	White, Non-Hispanic	39	1.7
	Black, Non-Hispanic	151	26.9
	Hispanic	151	16.0
	Asian/Pacific Islander	10	4.5
	American Indian/Alaska Native	5	12.4
	Other	5	NA
	Unknown	12	NA
	Total	373	9.1
2007	White, Non-Hispanic	54	2.3
	Black, Non-Hispanic	188	32.3
	Hispanic	145	15.3
	Asian/Pacific Islander	19	8.6
	American Indian/Alaska Native	8	19.9
	Other	4	NA
	Unknown	12	NA
	Total	430	10.5

NA = Not applicable

Table 41. Chancroid — Reported cases and rates by state/area listed in alphabetical order: United States and outlying areas, 2003–2007

State/Area	Cases					Rates per 100,000 Population				
	2003	2004	2005	2006	2007	2003	2004	2005	2006	2007
Alabama	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Alaska	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Arizona	2	2	1	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	1	0	1	0.0	0.0	0.0	0.0	0.0
Colorado	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Connecticut	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Delaware	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
District of Columbia	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Florida	2	1	1	1	3	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	2	0	0	0	0.0	0.1	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	0	0	0.0	0.0	0.0	0.0	0.0
Iowa	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Kansas	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Kentucky	1	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Louisiana	0	2	4	1	4	0.0	0.0	0.1	0.0	0.1
Maine	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Maryland	1	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Massachusetts	3	3	1	0	1	0.0	0.0	0.0	0.0	0.0
Michigan	0	2	0	1	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	1	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	10	4	1	5	5	0.1	0.0	0.0	0.0	0.0
North Carolina	2	1	5	5	2	0.0	0.0	0.1	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	2	1	0	0	0	0.1	0.0	0.0	0.0	0.0
Pennsylvania	1	1	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	24	4	0	0	0	0.6	0.1	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	1	0	0	0	0.0	0.0	0.0	0.0	0.0
Texas	3	3	1	5	5	0.0	0.0	0.0	0.0	0.0
Utah	2	1	0	0	0	0.1	0.0	0.0	0.0	0.0
Vermont	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Virginia	0	0	0	1	0	0.0	0.0	0.0	0.0	0.0
Washington	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
West Virginia	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Wisconsin	0	0	0	0	2	0.0	0.0	0.0	0.0	0.0
Wyoming	1	0	1	0	0	0.2	0.0	0.2	0.0	0.0
U.S. TOTAL	54	30	17	19	23	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	4	1	3	0	0	0.1	0.0	0.1	0.0	0.0
Virgin Islands	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
OUTLYING AREAS	4	1	3	0	0	0.1	0.0	0.1	0.0	0.0
TOTAL	58	31	20	19	23	0.0	0.0	0.0	0.0	0.0

Table 42. Selected STDs and complications — Initial visits to physicians' offices, National Disease and Therapeutic Index: United States, 1966–2007

<i>Year</i>	<i>Genital Herpes</i>	<i>Genital Warts</i>	<i>Vaginal Trichomoniasis*</i>	<i>Other Vaginitis*</i>	<i>Pelvic Inflammatory Disease†</i>
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

*Women only.

†Women 15-44 only. NA = Not available.

NOTE: Standard errors for estimates under 100,000 are not available. The relative standard error for estimates 100,000-300,000 are between 20% and 30%; 300,000-600,000 are between 16% and 20%; 600,000-1,000,000 are 13% and 15%; and 1,000,000-5,000,000 are between 9% and 13%.

SOURCE: National Disease and Therapeutic Index (IMS Health). See Appendix (Other Data Sources) for more information.

APPENDIX

APPENDIX

Interpreting STD Surveillance Data

Sexually Transmitted Disease Surveillance, 2007 presents surveillance information derived from the official statistics for the reported occurrence of nationally notifiable sexually transmitted diseases 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 the 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 (DSTDP), National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention (NCHHSTP), 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 hardcopy report forms and electronic data received via the National Electronic Telecommunications System for Surveillance (NETSS).

Summary Report Forms (hardcopy format)

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

1. FORM CDC 73.998: *Monthly Surveillance Report of Early Syphilis*. This monthly hardcopy reporting form was used from 1984 to 2002 to report summary data for P&S syphilis and early latent syphilis by county and state.

2. FORM CDC 73.688: *Sexually Transmitted Disease Morbidity Report*. This quarterly hardcopy reporting form was used from 1963 to 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 vs. public) for the 50 states, Washington, D.C., and 64 selected cities (including San Juan, Puerto Rico) and outlying areas of the United States. Note: genital 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 below.

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 hardcopy form was used from 1981 to 2002 to report summary data for P&S syphilis, gonorrhea, and chlamydia by age, race, sex and source (public vs. private) for all states and seven large cities (Baltimore, Chicago, New York City, Los Angeles, Philadelphia, San

Francisco, and Washington, D.C.), and outlying areas of the United States. Note: genital 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 Report*. This case-specific hardcopy form was first used in 1983 and continues to be used to report detailed case-specific data for congenital syphilis in some reporting areas.

National Electronic Telecommunications System for Surveillance (NETSS, electronic format)

Notifiable STD data reported electronically through NETSS comprise the nationally notifiable disease information that is published in the *Morbidity and Mortality Weekly Report (MMWR)*.

As of December 31, 2003, all 50 states and Washington, D.C. had converted from summary hardcopy reporting to electronic submission of line-listed (i.e., case-specific) STD data via NETSS (41 reporting areas are submitting congenital syphilis surveillance data via NETSS). Puerto Rico converted to electronic reporting in 2006. Guam and the Virgin Islands continue to report using summary hardcopy forms.

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

Surveillance data and updates sent to CDC on hardcopy forms and for NETSS electronic data through June 25, 2008 have been included in this report. Data received after this date will appear in subsequent annual Surveillance Reports. The data presented in the figures and tables in this document supersede those in all earlier publications.

Population Denominators and Rate Calculations

2000—2007 Rates and Population

The National Center for Health Statistics released bridged race population counts for 2000–2006 resident population based on the Census 2000 counts. These estimates resulted from bridging the 31 race categories used in Census 2000, as specified in the 1997 Office of Management and Budget (OMB) standards, to the five race/ethnicity groups specified under the 1977 OMB standards.

Population estimates for Guam, Puerto Rico, and the Virgin Islands were obtained from the Bureau of Census web site: <http://www.census.gov/ipc/www/idb/tables.html>. The 2006–2007 rates for outlying areas were calculated using the 2006 population estimates.

Due to use of the updated population data, rates for the period 2000–2006 may be different from prior Surveillance Reports.

1990—1999 Rates and Population

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

1981–1989 Rates and Population

For the United States, rates were calculated using Bureau of the Census population estimates for 1981 through 1989 (Bureau of the Census; United States Population Estimates by Age, Sex and Race: 1980–1989 [Series P-25, No. 1045]; Washington: U.S. Government Printing Office, 1990; and United States Population Estimates by Age, Sex and Race: 1989 [Series P-25, No. 1057]; Washington: U.S. Government Printing Office, 1990.

1941–1980 Rates and Population

Rates for 1941–1980 are based on population estimates from the Bureau of Census and currently maintained by the Division of STD Prevention.

1941–2007 Congenital Syphilis Rates and Live Births

Congenital syphilis (CS) data in Table 1 of *Sexually Transmitted Disease Surveillance 2007* represent the number of congenital syphilis cases per 100,000 live births for all years during the period 1941 through 2007. Previous publications presented congenital syphilis rates per 100,000 population for 1941–1994 and rates for cases diagnosed at < 1 year of age per 100,000 live births for 1995–2005. To allow for trends in CS rates to be compared over the period 1941–2007, live births are used as the denominator for CS and case counts are no longer limited to those diagnosed within the first year of life. CS morbidity (i.e., case reports) is assigned by year of birth. Rates of congenital syphilis for 1963–1988 were calculated using published live birth data (NCHS; Vital Statistics Report, United States, 1988 [Vol.1-Natality]). Congenital syphilis rates for 1989–2003 were calculated using live birth data based on information coded by the States and provided to the National Center for Health Statistics (NCHS) through the Vital Statistics Cooperative

Program. Rates for 2004–2007 were calculated using live birth data for 2004.

Reporting Practices

Although most areas generally adhere to the national notifiable STD case definitions collaboratively developed by the Council of State and Territorial Epidemiologists (CSTE) and CDC, there may be differences in the policies and systems for collecting surveillance data. Thus, comparisons of case numbers and rates between jurisdictions should be interpreted with caution. However, since case definitions and surveillance activities within a given area remain relatively stable over time, trends should be minimally affected by these differences. In many areas, 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 Metropolitan Statistical Area-specific Surveillance Data

Sexually Transmitted Disease Surveillance, 2007 continues the presentation of STD incidence data and rates for the fifty Metropolitan Statistical Areas (MSAs) with the largest populations based on 2000 U.S. Census data. *Sexually Transmitted Disease Surveillance* reports prior to 2005 presented data by selected cities which estimated city-specific morbidity and were derived from county data. Since county data were used to estimate city-specific morbidity and current STD project areas' reporting practices do not support direct identification of city-specific morbidity reports, MSAs (described below) were chosen as a geographic unit smaller than a state or territory for presentation of STD morbidity data.

Metropolitan Statistical Areas are defined by the Office of Management and Budget

to provide nationally consistent definitions for collecting, tabulating, and publishing federal statistics for a set of geographic areas.¹ 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 core, plus adjacent outlying counties having 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 its principal city with the largest Census 2000 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 linkages 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. 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 designed as a general purpose geographic framework for nonstatistical activities or for use in program funding formulas.

For more information on MSA definitions used in this report, please visit this web site: <http://www.census.gov/population/estimates/metro-city/03mfips.txt>

Management of Unknown, Missing or Invalid Age Group, Race/Ethnicity, and Sex Data

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).

When the percentage of unknown, missing, or invalid data for the variables — age group, race/ethnicity, and sex — exceeds 50% for any state, the state's incidence data and population data are excluded from the tables presenting data stratified by one or more of these variables. For those states reporting > 50% valid data for these variables, unknown, missing or invalid data are redistributed based on the state's distribution of known age group, race/ethnicity, and sex data, respectively. As a result of this procedure, incidence and rate data stratified by one or more of the variables—age group, race/ethnicity, and sex—may not accurately reflect total national incidence or rates.

Classification of STD Morbidity Reporting Sources

Prior to 1996, states classified the source of case reports as either private source (including private physicians, and private hospitals and institutions) or public (clinic) 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/HMOs, hospitals (inpatient), emergency rooms, correctional facilities, laboratories, blood banks, National Job Training Program, school-based clinics, mental health providers, military, 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 reporting source category, public (clinic) source. Therefore, source of case report data for the period 1984–2007 are presented as STD clinic or non-STD clinic only (Table A2).

Definition of DHHS Regions

The ten U.S. Department of Health and Human Services (DHHS) regions referred to in the text and figures 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 Reporting

Trends in chlamydia morbidity reporting from many areas are more reflective of changes in diagnosis, screening, and reporting practices than of actual trends in disease incidence. In particular, morbidity trends are likely highly influenced by changes in test technology, as areas increase their usage of more sensitive nucleic acid amplification tests. As areas develop chlamydia prevention and control programs, including improved surveillance systems to monitor trends, the data should improve and become more representative of true trends in disease.

Syphilis Morbidity Reporting

“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 Case Definitions in this **Appendix**).

While 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. Beginning in 2005, neurosyphilis was no longer classified or reported as a distinct stage of syphilis. The Division of STD Prevention is reviewing these data collection and reporting changes to determine their impact on syphilis surveillance case definitions.

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.² In addition, many areas have greatly enhanced active case finding for congenital syphilis since 1988. For these reasons, 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 October 2003). 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 race/ethnicity of the mother. Congenital syphilis cases were reported by state and

city of residence of the mother for the period 1995 through 2007.

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

Chlamydia, Gonorrhea, and Syphilis Prevalence Monitoring

Chlamydia and gonorrhea test positivity and syphilis seroreactivity were calculated for the following: women attending family planning clinics and prenatal clinics, men and women entering the National Job Training Program, women attending Indian Health Service clinics, men attending STD clinics and primary care clinics participating in the MSM Prevalence Monitoring Project, and men and women entering corrections facilities. Positivity was calculated by dividing the number of positive tests for chlamydia, gonorrhea, or syphilis (numerator) by the total number of positive and negative tests for each disease (denominator) and was expressed as a percentage. Except for the National Job Training Program screening data, these data sources may include more than one test from the same individual if that person was tested more than once during a year.

To increase the stability of the annual National Job Training Program prevalence estimates, chlamydia or gonorrhea prevalence data are presented when valid test results for 100 or more students per year are available for the population subgroup and state. The majority of the National Job Training Program's chlamydia screening tests are tested by a single national contract laboratory, which provides those data to CDC. Gonorrhea

screening tests for male and female students in many training centers are tested by local laboratories; these data are not available to CDC. To insure that state-specific gonorrhea screening data presented here are representative of all students entering training centers, gonorrhea test results for students at centers submitting 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 time 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 presenting test positivity or prevalence data. For more details on chlamydia prevalence, refer to the following annual publication: Centers for Disease Control and Prevention. *Sexually Transmitted Disease Surveillance 2007 Supplement: Chlamydia Prevalence Monitoring Project Annual Report 2007*. Atlanta, GA: U.S. Department of Health and Human Services (available first quarter 2009).

In the MSM Prevalence Monitoring Project, the syphilis seroreactivity data in most instances do not reflect confirmatory testing and thus biologic false positive test results were not systematically excluded. The extent to which these data reflect prevalence of active syphilis infection varies by site. Similarly, in the Corrections Prevalence Monitoring Project, syphilis seroreactivity test results were not confirmed. Only a few juvenile corrections sites submitted data to CDC, making overall interpretation difficult due to the small sample size. Because only selected corrections facilities participated in the Corrections Prevalence Monitoring Project, state-specific positivity for syphilis, chlamydia, and gonorrhea may not be representative of all corrections facilities in the state.

Prevalence data for region- and state-specific figures were published with permission from the Regional Infertility Prevention Program, selected state STD prevention programs, the National Job Training Program, and the Indian Health Service.

Gonococcal Isolate Surveillance Project (GISP)

Data on antimicrobial susceptibility in *Neisseria gonorrhoeae* were collected through the Gonococcal Isolate Surveillance Project (GISP), a sentinel system of 30 STD clinics and five regional laboratories located throughout the United States. For more details on findings from GISP gonorrhea surveillance activities, refer to the following annual publication: Centers for Disease Control and Prevention. *Sexually Transmitted Disease Surveillance 2007 Supplement: Gonococcal Isolate Surveillance Project (GISP) Annual Report 2007* (available first quarter, 2009). Atlanta, GA: U.S. Department of Health and Human Services, 2008.

Other Surveillance Data Sources

National Health and Nutrition Examination Survey (NHANES)

NHANES is composed of a series of cross-sectional surveys designed to provide national statistics on the health and nutritional status of the general household population 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 noninstitutionalized population.

National Disease and Therapeutic Index (NDTI)

The information on the number of initial visits to private physicians' offices for sexually transmitted diseases was based on analysis of data from the National Disease and Therapeutic Index (NDTI) (machine-readable files or summary statistics for the period 1966 through 2007). The NDTI is a probability sample survey of private physicians' clinical management practices. For more information on this database, contact IMS Health, 660 W. Germantown Pike, Plymouth Meeting, PA 19462; Telephone: (800) 523-5333.

National Hospital Discharge Survey (NHDS)

The information on patients hospitalized for pelvic inflammatory disease or ectopic pregnancy was based on analysis of data from the National Hospital Discharge Survey (machine-readable files for years 1980–2006), an ongoing nationwide sample survey of medical records of patients discharged from acute care hospitals in the United States, conducted by the National Center for Health Statistics. For more information, see *Graves EJ. 1988 Summary: National Hospital Discharge Survey; Advance data No. 185; Hyattsville (MD): National Center for Health Statistics, 1990.*

National Hospital Ambulatory Medical Care Survey (NHAMCS-ER)

The National Hospital Ambulatory Medical Care Survey (NHAMCS-ER) (machine-readable files for 1995–2006) was used to obtain estimates of the number of emergency room visits for pelvic inflammatory disease among women ages 15 to 44 years. The estimates generated using these data sources (NHDS and NHAMCS-ER) are based on statistical

surveys and therefore have sampling variability associated with the estimates.

Healthy People 2010 Objectives

Healthy People 2010³ (HP2010) is a set of health objectives for the U.S. to achieve over the first decade of the new century. It is used by people, States, communities, professional organizations, and others to help develop programs to improve health. HP2010 builds on initiatives pursued over the past two decades. The 1979 Surgeon General's Report, Healthy People, and Healthy People 2000: National Health Promotion and Disease Prevention Objectives established national health objectives and served as the basis for the development of State and community plans. Like its predecessors, Healthy People 2010 was developed through a broad consultation process, built on the best scientific knowledge and designed to measure programs over time. Healthy People 2010 is organized into 28 focus areas, each with objectives and measures designed to drive action that will support two overarching goals: 1) increasing the quality and years of healthy life and 2) eliminating health disparities.

Focus area 25 of Healthy People 2010 — Sexually Transmitted Diseases, — contains objectives and measures related to STDs. The baselines, HP2010 targets and annual progress toward the targets are reported in Table A3. The year 2010 targets for the diseases addressed in this report are: primary and secondary syphilis — 0.2 case

per 100,000 population; congenital syphilis — 1.0 case per 100,000 live births; and gonorrhea — 19.0 cases per 100,000 population. An additional target established in the HP2010 objectives is to reduce the *Chlamydia trachomatis* test positivity to 3% among females aged 15 to 24 years who attend family planning and STD clinics and among males aged 15 to 24 who attend STD clinics.

Government Performance and Results Act of 1993 (GPRA) Goals

The Government Performance and Results Act of 1993 (GPRA) was enacted by Congress to increase the confidence of citizens in the capability of the federal government, to increase the effectiveness and accountability of federal programs, to improve service delivery, to provide agencies a uniform tool for internal management and to assist Congressional decision making. 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 STD GPRA goals: 1) reduction in pelvic inflammatory disease (PID) and 2) elimination of syphilis. Each of these goals has measures. The long-term goals and measures of progress are reported in Table A4.

¹ Office of Management and Budget. Standards for Defining Metropolitan and Micropolitan Statistical Areas: Notice Federal Register December 27, 2000; 65(249):82228-38.

² Kaufman RE, Jones OG, Blount JH, Wiesner PJ. Questionnaire survey of reported early congenital syphilis: problems in diagnosis, prevention, and treatment. *Sexually Transmitted Diseases* 1977;4:135-9.

³ U.S. Department of Health and Human Services. *Healthy People 2010*. 2nd ed. With Understanding and Improving Health and Objectives for Improving Health. 2 vols. Washington, DC: U.S. Government Printing Office, November 2000.

Table A1. Selected STDs — Percentage of unknown, missing, or invalid values for selected variables by state and by nationally notifiable STD, 2007

State	Primary and Secondary Syphilis				Gonorrhea			Chlamydia		
	Percent Unknown Race/Ethnicity	Percent Unknown Age	Percent Unknown Sex	Percent Unknown Sex of Partners	Percent Unknown Race/Ethnicity	Percent Unknown Age	Percent Unknown Sex	Percent Unknown Race/Ethnicity	Percent Unknown Age	Percent Unknown Sex
Alabama	1.8	0.0	0.0	4.5	24.7	0.3	0.0	28.0	0.3	0.0
Alaska*	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0
Arizona	22.6	0.0	0.7	80.1	27.9	0.0	0.0	34.8	0.0	0.1
Arkansas	2.5	0.0	0.0	40.2	5.2	0.4	0.1	5.9	0.2	0.0
California	2.4	0.1	0.1	9.7	33.0	0.5	0.4	33.7	0.5	0.4
Colorado	7.0	0.0	0.0	8.8	31.9	0.0	0.0	55.5	0.1	0.0
Connecticut	2.6	0.0	0.0	2.6	26.6	0.5	0.0	35.4	0.8	0.0
Delaware	5.6	0.0	0.0	100.0	1.8	0.0	0.0	3.1	0.0	0.0
District of Columbia	1.1	0.0	0.0	21.3	29.0	0.7	0.5	41.4	0.6	0.4
Florida	7.8	0.0	0.0	13.4	12.5	0.1	0.0	15.8	0.1	0.0
Georgia	2.4	0.1	0.1	20.0	37.1	0.9	0.6	43.9	0.9	0.6
Hawaii*	0.0	0.0	0.0	0.0	37.0	0.2	0.0	52.1	0.1	0.0
Idaho*	100.0	0.0	0.0	0.0	27.1	0.0	1.9	26.0	0.1	0.9
Illinois	4.1	0.0	0.0	8.4	8.9	0.0	0.0	12.3	0.0	0.0
Indiana	3.7	0.0	0.0	0.0	14.7	0.0	0.3	18.0	0.0	0.5
Iowa	4.8	0.0	0.0	9.5	7.5	0.1	0.0	11.8	0.2	0.0
Kansas	0.0	0.0	0.0	7.1	23.8	0.2	0.0	35.9	0.4	0.0
Kentucky	3.6	0.0	0.0	7.1	18.8	0.1	0.1	22.9	0.2	0.1
Louisiana	2.1	0.0	0.0	100.0	15.0	0.3	1.0	22.6	0.5	1.4
Maine*	0.0	0.0	0.0	11.1	7.6	0.8	0.0	21.1	0.4	0.1
Maryland	2.0	0.0	0.0	13.0	22.7	0.4	0.0	28.6	0.4	0.1
Massachusetts	7.1	0.0	0.0	9.7	31.0	0.7	0.0	40.1	0.8	0.1
Michigan	0.8	0.0	0.0	17.1	40.2	0.3	0.3	44.6	0.3	0.4
Minnesota	6.8	0.0	0.0	0.0	14.2	0.0	0.0	15.4	0.0	0.0
Mississippi	0.8	0.8	0.0	9.0	17.4	0.1	0.0	19.3	0.1	0.0
Missouri	0.0	0.0	0.0	2.5	15.9	0.1	0.0	21.7	0.1	0.0
Montana*	25.0	0.0	0.0	62.5	32.0	0.0	0.0	30.3	0.4	0.3
Nebraska*	25.0	0.0	0.0	0.0	23.3	0.0	0.3	28.7	0.1	0.3
Nevada	11.7	0.0	0.0	2.7	29.4	0.3	0.0	37.8	0.4	0.1
New Hampshire	0.0	0.0	0.0	3.3	8.0	0.0	0.0	14.3	0.0	0.0
New Jersey	0.9	0.0	0.0	17.6	34.0	0.6	0.0	47.4	0.7	0.1
New Mexico	10.9	0.0	0.0	4.3	16.0	0.2	0.0	11.8	0.3	0.0
New York	11.5	0.0	0.0	20.5	32.8	0.5	0.1	41.7	0.5	0.1
North Carolina	0.0	0.0	0.0	100.0	1.6	0.0	0.0	2.2	0.0	0.0
North Dakota*	0.0	0.0	0.0	0.0	10.3	0.0	0.0	11.1	0.3	0.1
Ohio	2.1	0.0	0.0	5.7	25.3	1.2	0.6	31.1	1.4	0.9
Oklahoma	0.0	0.0	0.0	15.4	1.6	0.0	0.0	2.2	0.0	0.0
Oregon	0.0	0.0	0.0	100.0	6.5	0.0	0.0	12.0	0.0	0.0
Pennsylvania	6.1	0.0	0.0	2.7	20.3	0.1	0.0	23.6	0.0	0.1
Rhode Island	2.8	0.0	0.0	0.0	11.2	0.0	0.2	20.3	0.2	0.1
South Carolina	0.0	0.0	0.0	3.3	26.7	0.6	0.2	29.3	0.3	0.3
South Dakota*	0.0	0.0	0.0	0.0	1.5	2.3	0.4	2.2	1.8	0.0
Tennessee	0.0	0.0	0.0	1.4	4.7	0.1	0.0	7.2	0.1	0.0
Texas	0.3	0.0	0.0	2.3	9.8	0.3	0.2	9.5	0.2	0.2
Utah	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Vermont	0.0	0.0	0.0	30.0	3.1	0.0	0.0	1.1	0.0	0.0
Virginia	0.0	0.0	0.0	3.5	6.0	0.1	0.1	11.8	0.1	0.0
Washington	8.4	0.0	0.0	23.4	21.1	1.1	0.0	20.7	1.2	0.0
West Virginia*	0.0	0.0	0.0	0.0	13.1	0.3	0.0	14.5	0.2	0.0
Wisconsin	0.0	0.0	0.0	4.5	26.1	0.0	0.2	28.7	0.0	0.1
Wyoming*	50.0	0.0	0.0	0.0	23.5	0.0	0.0	23.0	0.9	0.0
U.S. TOTAL	4.1	0.0	0.0	19.5	20.3	0.3	0.2	25.7	0.4	0.2

*Percentages for P&S syphilis are based on less than 10 cases.

NOTE: "Unknown" includes unknown, missing, or invalid data values.

Table A2. Reported cases of sexually transmitted disease by reporting source and sex: United States, 2007

<i>Disease</i>	<i>Non-STD Clinic</i>			<i>STD Clinic</i>			<i>Total*</i>		
	<i>Male</i>	<i>Female</i>	<i>Total</i>	<i>Male</i>	<i>Female</i>	<i>Total</i>	<i>Male</i>	<i>Female</i>	<i>Total</i>
Chlamydia	165,128	658,503	825,160	92,906	98,382	191,495	280,337	825,660	1,108,374
Gonorrhea	90,669	137,261	228,359	62,320	32,495	94,891	167,684	187,595	355,991
Primary Syphilis	1,742	177	1,919	1,018	120	1,138	2,837	303	3,140
Secondary Syphilis	4,860	841	5,703	1,834	497	2,334	6,932	1,389	8,326
Early Latent Syphilis	5,092	1,886	6,982	2,265	995	3,260	7,751	3,013	10,768
Late and Late Latent Syphilis†	8,646	4,927	13,582	2,375	1,378	3,755	11,637	6,604	18,256
Chancroid	5	8	13	1	2	3	8	15	23

*Totals include 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.

See Appendix (Classification of STD Morbidity Reporting Sources).

Table A3. Healthy People 2010 Sexually Transmitted Diseases Objective Status

<i>HP 2010 Objectives</i>		<i>Baseline Year</i>	<i>Baseline</i>	<i>2003</i>	<i>2004</i>	<i>2005</i>	<i>2006</i>	<i>2007</i>	<i>HP 2010 Target</i>
25-1	Reduce the proportion of adolescents and young adults with <i>Chlamydia trachomatis</i> infections								
	a. Females aged 15 to 24 years attending family planning clinics	1997	5.0%	6.4%*	6.9%*	6.9%*	7.1%*	7.5%*	3.0%
	b. Females aged 15 to 24 years attending STD clinics	1997	12.2%	14.1%*	15.3%*	15.4%*	14.8%*	15.3%*	3.0%
	c. Males aged 15 to 24 years attending STD clinics	1997	15.7%	19.3%*	20.8%*	20.5%*	20.8%*	22.4%*	3.0%
	d. Females aged 24 years or less enrolled in National Job Training Program	2002	10.1%	9.9%	10.3%	9.2%	13.1%	13.2%	6.8%
25-2	Reduce the incidence of gonorrhea (new cases per 100,000 population)								
	a. Reduce gonorrhea incidence per 100,000 population	1997	123.0	115.2	112.4	114.6	119.7	118.9	19.0
	b. Females aged 15 to 44 years	2002	279.0	270.0	267.0	275.0	290.0	290.0	42.0
25-3	Eliminate sustained domestic transmission of primary and secondary syphilis (cases per 100,000 population)	1997	3.2	2.5	2.7	2.9	3.3	3.8	0.2
25-4	Reduce the proportion of adults aged 20 to 29 years with genital herpes infection	1988-94	17.0%	NA	10.0% [†]	NA	NA	NA	14.0%
25-6	Reduce the proportion of females aged 15 to 44 years who have ever required treatment for pelvic inflammatory disease (PID)	1995	8.0%	5.0% [†]	NA	NA	NA	NA	5.0%
25-7	Reduce the proportion of childless females with fertility problems who have had a sexually transmitted disease or who have required treatment for pelvic inflammatory disease (PID)	1995	27.0%	22.0% [†]	NA	NA	NA	NA	15.0%
25-9	Reduce congenital syphilis (cases per 100,000 live births)	1997	27.0	10.6	9.1	8.2	9.3	10.5	1.0
25-11	Adolescent sexual behavior (grades 9 through 12)								
	a. Increase the proportion of adolescents (grades 9 through 12) who abstain from sexual intercourse or use condoms if currently sexually active	1999	50.0	53.0	NA	53.0	NA	52.0	56.0
	b. Increase the proportion of adolescents (grades 9 through 12) who had sexual intercourse, but not in the past 3 months	1999	27.0	26.0	NA	27.0	NA	27.0	30.0
	c. Increase the proportion of adolescents (grades 9 through 12) who used condoms at last intercourse	1999	58.0	63.0	NA	63.0	NA	62.0	65.0
25-13	Increase the proportion of Tribal, state and local sexually transmitted disease programs that routinely offer hepatitis B vaccines to all STD clients	1998	5.0	NA	NA	NA	NA	NA	90.0
25-16	Increase the proportion of sexually active females aged 25 years and under who are screened annually for genital chlamydia infections								
	a. Females aged 25 years and under enrolled in commercial MCOs	2002	25.0	30.0	32.0	35.0	37.0	38.0	62.0
	b. Females aged 25 years and under enrolled in Medicaid MCOs	2002	41.0	45.0	47.0	51.0	52.0	52.0	62.0

<i>HP 2010 Objective</i>	<i>Data Source</i>
25-1 a, b, c	STD Surveillance System (STDSS), CDC, NCHHSTP.
25-1 d	National Job Training Program.
25-2 a, b	STD Surveillance System (STDSS), CDC, NCHHSTP.
25-3	STD Surveillance System (STDSS), CDC, NCHHSTP.
25-4	National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.
25-6	National Survey of Family Growth (NSFG), CDC, NCHS.
25-7	National Survey of Family Growth (NSFG), CDC, NCHS.
25-9	STD Surveillance System, CDC, NCHHSTP, National Vital Statistics System- Natality (NVSS-N), CDC, NCHS.
25-11 a, b, c	Youth Risk Behavior Surveillance System (YRBSS), CDC, NCCDPHP.
25-13	Survey of STD Programs, National Coalition of STD Directors (NCSDD); IHS.
25-16 a, b	Healthcare Effectiveness Data and Information Set (HEDIS), National Committee for Quality Assurance (NCQA).

*Overall positivity not adjusted for changes in laboratory test method and associated increases in test sensitivity.

[†]Data for years 1999-2004.

[‡]Data shown are for 2002, the most recent year these data were released. Beginning in 2009, data will be released every 2 years.

NOTE: Healthy People 2010 developmental objectives are not addressed in this report.

NA=Not available.

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

<i>GPRA Goals</i>	<i>Baseline</i>	<i>Actual Performance</i>		<i>Long-Term Goal</i>
	<i>2002</i>	<i>2006</i>	<i>2007</i>	<i>2010</i>
Goal 1: Reduction in PID (as measured by initial visits to physicians in women 15–44-years of age)	197,000	106,000	146,000	168,000
a. Prevalence of Chlamydia in high-risk women 25 years	10.1%*	13.1%*	13.2%*	15.1%
b. Prevalence of Chlamydia in women 25 years in family planning clinics	5.6%*	6.7%*	6.9%*	7.4%
c. Incidence of Gonorrhea/100,000 population in women 15–44 years of age	279	290	290	296
Goal 2: Elimination of Syphilis (as measured by incidence of P&S Syphilis/100,000 population)	2.4	3.3	3.8	2.2
a. Incidence of P&S Syphilis/100,000 population - men	3.8	5.6	6.6	7.2
b. Incidence of P&S Syphilis/100,000 population - women	1.1	1.0	1.1	1.2
c. Incidence of Congenital Syphilis/100,000 live births	10.2	9.3	10.5	9.4
d. Black:white rate ratio of P&S Syphilis	8:1	5.9:1	7:1	6.7:1

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

*Median state-specific chlamydia prevalence among women was not adjusted for changes in laboratory test method and associated increases in test sensitivity.

STD Surveillance Case Definitions

PART 1. CASE DEFINITIONS¹ 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, Genital Infections (Revised 9/96)

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.

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, DFATP, or equivalent methods

Case classification

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

Confirmed: a clinically compatible case that is laboratory confirmed

Syphilis, latent

Clinical description

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

Case classification

Probable: no clinical signs or symptoms of syphilis and the presence of one of the following:

- No past diagnosis of syphilis, a reactive nontreponemal test (i.e., VDRL or RPR), and a reactive treponemal test (i.e., FTA-ABS or MHA-TP)
- A past history of syphilis therapy and a current nontreponemal test titer demonstrating fourfold or greater increase from the last nontreponemal test titer

Syphilis, early latent

Clinical description

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

Case classification

Probable: latent syphilis (see Syphilis, latent) in a person who has evidence of having acquired the infection within the previous 12 months based on one or more of the following criteria:

- Documented seroconversion or fourfold or greater increase in titer of a nontreponemal test during the previous 12 months
- A history of symptoms consistent with primary or secondary syphilis during the previous 12 months
- A history of sexual exposure to a partner who had confirmed or probable primary or secondary syphilis or probable early latent syphilis (documented independently as duration 1 year)
- Reactive nontreponemal and treponemal tests from a person whose only possible exposure occurred within the preceding 12 months

Syphilis, late latent

Clinical description

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

Case classification

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

Syphilis, latent, of unknown duration

Clinical description

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

Case classification

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

Neurosyphilis

Note

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

Clinical description

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

Laboratory criteria for diagnosis

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

Case classification

Probable: syphilis of any stage, a negative VDRL in CSF, and both 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 DEFINITIONS¹ 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.

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 L1, L2, or, L3 serovars of *Chlamydia trachomatis* may result in a disease characterized by genital lesions, suppurative regional lymphadenopathy, or hemorrhagic proctitis. The infection is usually sexually transmitted.

Laboratory criteria for diagnosis

- Isolation of *C. trachomatis*, serotype L1, L2, or L3 from clinical specimen, or
- Demonstration by immunofluorescence of inclusion bodies in leukocytes of an inguinal lymph node (bubo) aspirate, or
- Positive microimmunofluorescent serologic test for a lymphogranuloma venereum strain of *C. trachomatis*

Case classification

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

Confirmed: a clinically compatible case that is laboratory confirmed

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 $\geq 10,000$ white blood cells/mm³
- Purulent material in the peritoneal cavity obtained by culdocentesis or laparoscopy

- Pelvic abscess or inflammatory complex detected by bimanual examination or by sonography
- Patient is a sexual contact of a person known to have gonorrhea, chlamydia, or nongonococcal urethritis

Case classification

Confirmed: a case that meets the clinical case definition

Comment

For reporting purposes, a clinician's report of PID should be counted as a case.

¹ Centers for Disease Control and Prevention. Case definitions for infectious conditions under public health surveillance, 1997. *MMWR* 1997;46(No. RR-10;1).

STD Project Directors, STD Program Managers, State and Territorial Epidemiologists and Laboratory Directors

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 November 4, 2008.

<u>State/City/Outlying Area</u>	<u>STD Project Directors</u>	<u>STD Program Managers</u>	<u>State Epidemiologists</u>	<u>Laboratory Directors</u>
Alabama	Charles Woernle	Sandra Langston	Charles Woernle	William Callan
Alaska	Mollie Rosier	Donna Cecere	Joe McLaughlin	Bernard Jilly
Arizona	Judy Norton	Alfonso Urquidi	Kenneth Komatsu	Victor Waddell
Arkansas	Kellye McCartney	Mark Barnes	Jim Phillips	Glen Baker
California	Gail Bolan	Romni Neiman	Gilberto Chavez	Paul Kimsey
Los Angeles	Peter Kerndt	Mary Hayes	Gilberto Chavez	Sue Sabat
San Francisco	Jeffrey Klausner	Wendy Wolf	Gilberto Chavez	Sally Liska
Colorado	Maureen Bush	Ralph Wilmoth	Ken Gershman	David Butcher
Connecticut	James Hadler	Heidi Jenkins	Matthew Cartter	John Fontana
Delaware	James Welch	Catherine Mosley	Ashley Love	Jane Getchell
District of Columbia	John Heath	John Heath	John Davies-Cole	Maurice Knuckles
Florida	Russell Eggert	Karla Schmitt	Richard Hopkins	Max Salfinger
Georgia	Vacant	Russ Cantrell	John Horan	Elizabeth Franko
Hawaii	Peter Whiticar	Roy Ohye	Sarah Park	A. Christian Whelen
Idaho	Richard Armstrong	Kathy Cohen	Christine G. Hahn	Richard Hudson
Illinois	Charlie Rabins	Ed Renier	Craig Conover (Acting)	Tom Johnson
Chicago	Will Wong	John Paffel	Craig Conover (Acting)	Susan Gerber
Indiana	Jerry Burkman	Dawne Rekas	James Howell	Judith Lovchik
Iowa	Mary Jones	Karen Thompson	Patricia Quinlisk	Christopher Atchison
Kansas	Brenda Walker	Derek Coppedge	Charles Hunt	Patrick Williams
Kentucky	Robert Brawley	Sheri White	Kraig Humbaugh	Stephanie Gibson
Louisiana	Lisa Ann Longfellow	Lisa Ann Longfellow	Raoult Ratard	Stephen Martin
Maine	Bob Woods	Jennah Godo	Kathleen Gensheimer	John Krueger
Maryland	Barbara Conrad	Glen Oltoff	David Blythe	Jack DeBoy
Baltimore	Laura Herrera	Victoria Stovall	David Blythe	Jack DeBoy
Massachusetts	Thomas Bertrand	Thomas Bertrand	Alfred DeMaria	Mary Gilchrist
Michigan	Mark Miller	Mark Miller	Corrine Miller	Frances Downes
Minnesota	Julia Ashley	Julia Ashley	Ruth Lynfield	Joanne Bartkus
Mississippi	Craig Thompson	Craig Thompson	Mary Currier	K. Mills McNeill
Missouri	Michael Herbert	Michael Herbert	Sarah Patrick	Eric Blank
Montana	Laurie Kops	Lisa Underwood	Steve Helgerson	Anne Weber
Nebraska	Phil Medina	Phil Medina	Thomas Safranek	Steve Hinrichs
Nevada	Richard Whitley	Julia Spaulding	Ishan Azzam	L. Dee Brown
New Hampshire	Denise Rondeau	Drew Thomits	Jose Montero	Christine Bean
New Jersey	Janet DeGraaf	Patricia Masou	Christina Tan	Dennis Flynn
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New York City	Susan Blank	Steve Rubin	Perry Smith	Sara Beatrice
North Carolina	Evelyn Foust	Evelyn Foust	Jeffrey Engel	Leslie Wolf
North Dakota	Kimberly Weis	Julie Goplin	Kirby Kruger	Myra Kosse
Ohio	Bill Tiedemann	Amy LaGessee	Forrest Smith	Tammy Bannerman
Oklahoma	Michael Harmon	Chang Lee	Kristy Bradley	Garry McKee
Oregon	Vada Latin	Doug Harger	Melvin Kohn	Michael Skeels
Pennsylvania	Weston Ruhrig	Steve Kowalewski	Veronica Urdaneta	S.I. Shahied
Philadelphia	Caroline Johnson	Melinda Salmon	Veronica Urdaneta	Kerry Buchs
Rhode Island	Utpala Bandy	Michael Gosciminski	Utpala Bandy	Ewa King
South Carolina	Dorothy Waln (Acting)	Vickie Boazman-Holmes (Acting)	James Gibson	Arthur Wozniak
South Dakota	Laurie Gill	David Morgan	Lon Kightlinger	Michael Smith
Tennessee	Jeanee Seals	Jane Russell	Tim Jones	David Smalley
Texas	Felipe Rocha	Jim Lee	Vincent Fonseca	Susan Neill
Utah	Jennifer Brown	Tim Lane	Robert Rolfs	Patrick Luedtke
Vermont	Daniel Daltry	Daniel Daltry	Patsy Kelso	Mary Celotti
Virginia	Kathryn Hafford	Kathryn Hafford (Acting)	Carl Armstrong	James Pearson
Washington	Mark Aubin	Mark Aubin	Marcia Goldoft	Romesh Gautom
West Virginia	Caroline Williams	Caroline Williams	Loretta Haddy	Andrea Labik
Wisconsin	Sandra Breitborde	Anthony Wade	Jeffrey Davis	Charles Brokopp
Wyoming	Brownen Anderson	Canyon Hardesty	Tracy Murphy	Richard Harris
American Samoa	Utoofili Mago	Sarona Maae	Sharmain Edwards	Utoofili Mago
Federated States of Micronesia	Vita Skilling	Johnny Hebel	Nena Nena	
Government of the Marshall Islands	Justina Langidrik	Zachraias Zachraias		Paul Lalita
Northern Marianas (CNMI)	Joseph Villagomez	John Moreno	James Hosfschneider	Stephanie Hart-Gouleau
Guam	Josie O'Mallan	Bernadette Schumann	Robert Haddock	Josie O'Mallan
Puerto Rico	Greduvel Duran-Guzman	Trinidad Garcia	Enid Garcia	Francisco Toro
Republic of Palau	Victor Yano	Johana Ngiruchelbad	Julie Erb-Alvarez	Francis Permetteet
Virgin Islands	Darlene Carty	Taetia Phillips-Dorsett	Darlene Carty	Joseph Mark