

Sexually Transmitted Disease Surveillance 2008

**Division of STD Prevention
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**U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
CENTERS FOR DISEASE CONTROL AND PREVENTION
NATIONAL CENTER FOR HIV/AIDS, VIRAL HEPATITIS, STD, AND TB PREVENTION
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Selected STD Surveillance and Prevention References and Websites

STD Surveillance Reports 1993–2008

<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

¹ Concluding 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, 2008 presents statistics and trends for sexually transmitted diseases (STDs) in the United States through 2008. This annual publication is intended as a reference document for policy makers, program managers, health planners, researchers, and others who are concerned with the public health implications of these diseases. ***The figures and tables in this edition supersede those in earlier publications of these data.***

The surveillance information in this report is based on the following sources of data: (1) notifiable disease reporting from state and local STD programs; (2) projects that monitor STD prevalence in various settings including; the Regional Infertility Prevention Projects (IPP); the National Job Training Program; the Indian Health Service; the Men Who Have Sex With Men (MSM) Prevalence Monitoring Project; the Gonococcal Isolate Surveillance Project (GISP); and (3) national surveys implemented by federal and private organizations.

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

Sexually Transmitted Disease Surveillance, 2008 consists of four parts: (1) 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. (2) 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. (3) The **Detailed Tables** provide statistical information about STDs at the county, metropolitan statistical area (MSA), regional, state, and national levels. (4) The **Appendix (Interpreting STD Surveillance Data)** includes information on interpreting the STD surveillance data used to produce this report; Healthy People 2010 (HP2010) STD objectives and progress toward meeting them; Government Performance and Results Act (GPRA) goals and progress toward meeting them; and STD surveillance case definitions.

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

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

Guide to Acronyms

Add Health	National Longitudinal Study of Adolescent Health
CDC	Centers for Disease Control and Prevention
CSF	Cerebrospinal Fluid
DHHS	Department of Health and Human Services
DSTD	Division of STD Prevention
GISP	Gonococcal Isolate Surveillance Project
GPRA	Government Performance and Results Act
HEDIS	Healthcare Effectiveness Data and Information Set
HIV	Human Immunodeficiency Virus
HP2010	Healthy People 2010
HPV	Human Papillomavirus
HSV	Herpes Simplex Virus
IPP	Infertility Prevention Project
MICs	Minimum Inhibitory Concentrations
MMWR	Morbidity and Mortality Weekly Report
MPC	Mucopurulent Cervicitis
MSA	Metropolitan Statistical Area
MSM	Men Who Have Sex With Men
NAATs	Nucleic Acid Amplification Tests
NDTI	National Disease and Therapeutic Index
NGU	Nongonococcal Urethritis
NHANES	National Health and Nutrition Examination Survey
NHDS	National Hospital Discharge Survey
OMB	Office of Management and Budget
P&S	Primary and Secondary
PID	Pelvic Inflammatory Disease
QRNG	Quinolone-resistant <i>Neisseria gonorrhoeae</i>
RPR	Rapid Plasma Reagin
STD	Sexually Transmitted Disease
VDRL	Venereal Disease Research Laboratory

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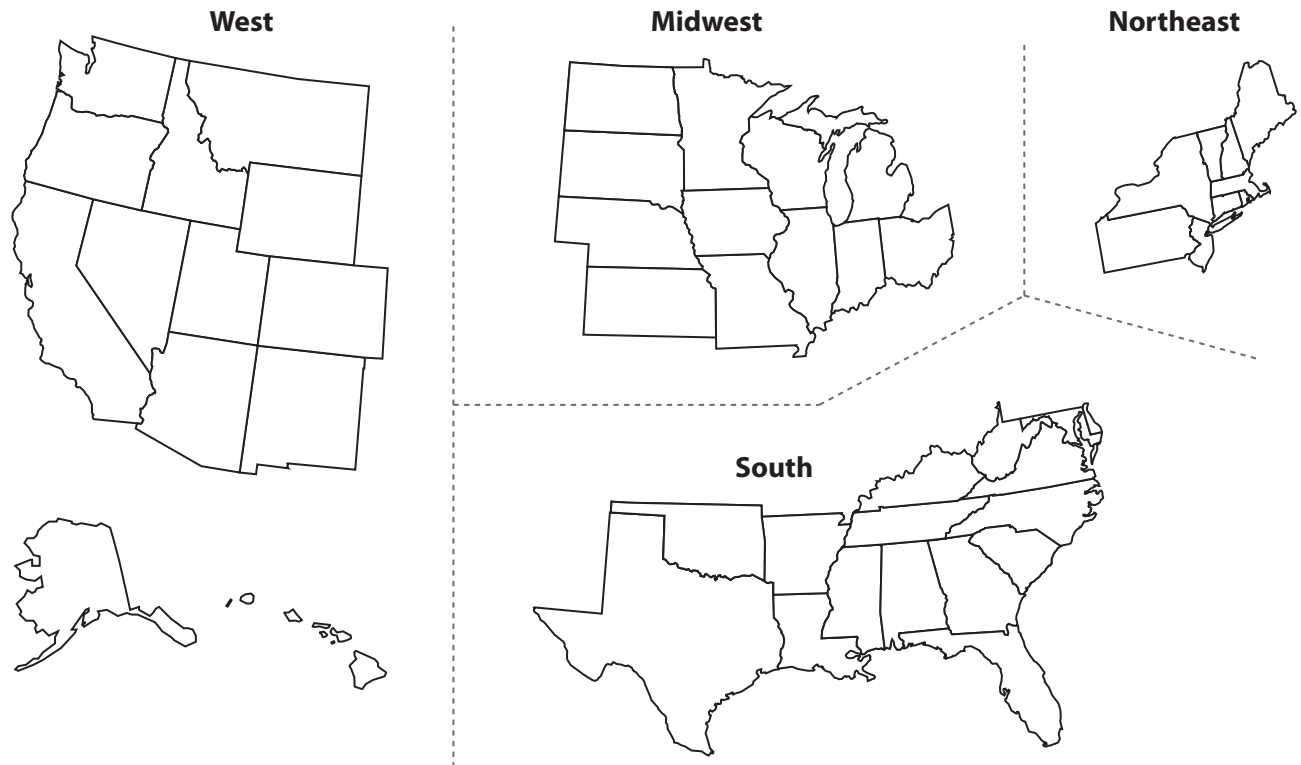
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Census Regions of the United States



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 (STDs), 2008

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 2008 are worthy of note.

Chlamydia

In 2008, 1,210,523 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 401.3 cases per 100,000 population, an increase of 9.2% compared with the rate in 2007. Rates of reported chlamydial infections among women have been increasing annually since the late 1980s when public programs for screening and treatment of women were first established to avert pelvic inflammatory disease (PID) and related complications. In 2008, the chlamydia rate in black men was 12 times higher than that in white men; the chlamydia rate in black women was eight times higher than that in white women.

The continued increase in chlamydia case reports in 2008 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 2008, the overall rate of chlamydial infection in the United States among women (583.8 cases per 100,000 females) was almost three times the rate among men (211.1 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 2004 through 2008, the chlamydia rate in men increased by 45% (compared with a 21.5% 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 2008, 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 50 states, the District of Columbia, Puerto Rico, and the Virgin Islands was 7.4% (range: 3.1% to 15.0%) (Figures 9 and 10).

At selected prenatal clinics in 22 states, Puerto Rico, and the Virgin Islands the median state-specific chlamydia positivity was 7.9% (range: 1.8% to 19.2%) (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 2008 from 39 states, the District of Columbia, and Puerto Rico. The median state-specific prevalence was 12.8% (range: 5.4% to 20.8%) (Figure K). Among men entering the program in 2008 from 48 states, the District of Columbia, and Puerto Rico the median state-specific chlamydia prevalence was 7.0% (range: 0.8% to 14.4%) (Figure L).

Gonorrhea

Following a 74% decline in the rate of reported gonorrhea from 1975 to 1997, overall gonorrhea rates have plateaued over the past eleven years. In 2008, 336,742 cases of gonorrhea were reported in the United States, corresponding to a rate of 111.6 cases

per 100,000 population, decreased from the rate in 2007 of 118.9 cases (Figure 13 and Table 1).

As in previous years, in 2008 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 11% between 2005 and 2006 and has continued at that slightly elevated plateau through 2008. The rate in the West decreased slightly in 2007 and again in 2008 after a 29% increase between 2003 and 2006. While rates decreased in the Northeast and Midwest from 2007 to 2008, they have remained relatively stable over the past 10 years (Figure 15).

From 1996 to 2008 the rate of gonorrhea has been similar in men and women (Figure 14). In 2008 the gonorrhea rate in women was 119.4 per 100,000 population compared to a rate of 103.0 per 100,000 population in men (Figure 14). As with chlamydia, gonorrhea rates in women are highest in the 15 to 24 year age group. In men, they are highest in the 20 to 24 year age group (Figure 18). In 2008, the gonorrhea rate in black men was 28 times higher than that in white men; the gonorrhea rate in black women was 16 times higher than that in white women.

As with chlamydia in 2008, 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.

In 2008, the median state-specific gonorrhea test positivity among 15- to 24-year-old women screened in selected family planning clinics in 43 states, the District of Columbia, Puerto Rico, and the Virgin Islands was 0.9% (range: 0.0% to 3.8%) (Figure 23). In 2008, the median state-specific gonorrhea test positivity among 15- to 24-year-old women screened in selected prenatal clinics in 20 states, Puerto Rico, and the Virgin Islands was 1.0% (range: 0.0% to 5.0%) (Figure D).

For 16- to 24-year-old women entering the National Job Training Program in 37 states, the District of Columbia, and Puerto Rico in 2008, the median state-specific gonorrhea prevalence was 2.7% (range: 0.0% to 5.0%) (Figure M).

Among men entering the program from 34 states, the District of Columbia, and Puerto Rico, the median state-specific gonorrhea prevalence was 0.8% (range: 0.0% to 2.8%) (Figure N).

Among women entering juvenile corrections facilities the median gonorrhea positivity was 3.6% (range: 0.0% to 19.0%); the median gonorrhea positivity for men entering juvenile corrections facilities was 0.9% (range: 0.0% to 4.4%).

Among MSM, including men who have sex with both women and men, attending eight STD clinics, the median clinic urethral gonorrhea positivity was 8.0% (range: 4.0% to 12.0%).

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 2006.² The rate of P&S syphilis in the United States declined 89.7% between 1990 and 2000. However, the rate of P&S syphilis has increased each year since 2001, mostly in men, but also in women for the past four years. In 2008, 13,500 cases of P&S syphilis were reported to CDC. This is the highest number of cases since 1995 and corresponds to a rate of 4.5 cases per 100,000 population, an 18% increase from 2007. Since 2004, the rate of P&S syphilis has increased 67%. After 14 years of decline, the rate of congenital syphilis increased in 2006 and 2007. There were 431 cases of congenital syphilis reported in 2008, the same number reported in 2007.

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 ten years. The P&S syphilis rate for 2008 in blacks was eight 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 34B).

However, since 2003, increases in syphilis among blacks have been higher than increases among whites, reversing some of the gains made in this health disparity. In 2008, increases were observed among both black men (28.0 cases per 100,000 population, up from 22.9 in 2007) and black women (7.6 cases per 100,000 population, up from 5.5 in 2007). Much smaller increases were observed among white men (4.0 cases per 100,000 population, up from 3.7 in 2007) and white women (0.5 per 100,000 population, up from 0.4 per 100,000 in 2007).

While syphilis elimination efforts² initially focused on minority populations in general, increases in syphilis among MSM of all races and ethnicities 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 Division of STD Prevention. *The National Plan to Eliminate Syphilis from the United States*. National Center for HIV/AIDS, Viral Hepatitis, 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 STDs (chlamydia, gonorrhea, syphilis and chancroid) by age, sex, race/ethnicity, and location for the United States.

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 (Add Health) from 2001 to 2002, chlamydia prevalence was 4.2%.¹

Chlamydial infections are usually asymptomatic and, in women, may result in PID, which is a major cause of infertility, ectopic pregnancy, and chronic pelvic pain. Data from a randomized controlled trial of chlamydia screening in a managed care setting suggested that screening programs can lead to 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 Human Immunodeficiency Virus (HIV) infection.³ In addition, pregnant women infected with chlamydia can pass the infection to their infants during delivery, potentially resulting in neonatal ophthalmia and pneumonia. Because of the large burden of disease and risks associated with infection, CDC recommends annual chlamydia screening of all sexually active women younger than 26 years of age.⁴

The increase in reported chlamydial infections during the last 20 years reflects the expansion of chlamydia screening activities, use of increasingly sensitive diagnostic tests, an increased emphasis on case reporting from providers and laboratories, and improvements in the information systems for reporting. 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 young women who receive medical care through commercial or Medicaid managed care organizations.⁵ Among sexually active female enrollees aged 16–25 years (aged 16–26 years during 2000–2002) in commercial and Medicaid health plans in the United States, the annual chlamydia screening rate increased from 25.3% in 2000 to 41.6% in 2007.⁶

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 2008, 1,210,523 chlamydial infections were reported to CDC from 50 states and the District of Columbia (Table 1). This case count corresponds to a rate of 401.3 cases per 100,000 population, an increase of 9.2% compared with the rate of 367.5 in 2007.

Over the past 20 years, from 1989 through 2008, the rate of reported chlamydial infection increased from 102.5 to 401.3 cases per 100,000 population (Figure 1, Table 1).

Chlamydia by Region

Between 1999 and 2008, overall rates were similar in the Midwest, West, and South (Figure 2, Table 3). Rates have consistently remained lowest in the Northeast.

Chlamydia by State

In 2008, chlamydia rates per 100,000 population by state ranged from 160.3 cases in New Hampshire to 728.1 cases in Mississippi (Figure 3, Table 2).

Chlamydia by Metropolitan Statistical Area (MSA)

In 2008, 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 2008 case rate of 607.0 was a 7.6% increase over the 2007 case rate of 564.1 (Table 7). The 2008 case rate among men (233.9 per 100,000 population) increased 11.4% from the 2007 case rate (209.9) (Table 8). In 2008, 57.0% 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 2008, 681 (21.7%) of 3,141 counties had rates greater than 400.0 cases per 100,000 population. Fifty-four counties and independent cities reported 40% of all chlamydia cases in 2008 (Table 9).

Chlamydia by Sex

In 2008, the overall rate of reported chlamydial infection among women in all 50 states and the District of Columbia (583.8 cases per 100,000 females) was almost three times higher than the rate among men (211.1 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 2004 through 2008, the chlamydial infection rate in men increased by 45.0% (from 145.6 to 211.1 cases per 100,000 males) compared with a 21.5% increase in women during the same period (from 480.6 to 583.8 cases per 100,000 females).

Chlamydia by Age

Among women, the highest age-specific rates of reported chlamydia in 2008 were among those 15 to 19 years of age (3,275.8 cases per 100,000 females) and 20 to 24 years of age (3,179.9 cases per 100,000 females) (Figure 5, Table 10). Age-specific rates among men, while substantially lower than the rates among women, were highest in the 20- to 24-year-old age group (1,056.1 cases per 100,000 males) (Figure 5, Table 10).

Chlamydia by Race/Ethnicity

In 2008, chlamydia rates increased for all racial and ethnic groups (Figure 6, Table 11B). The rate of chlamydia among blacks was over eight times higher than that of whites (1,519.3 and 173.6 cases per 100,000, respectively). The rates among American Indian/Alaska Natives (808.8) and Hispanics (510.4) were 4.7 and 2.9 times higher, respectively, than that of whites.

Chlamydia by Reporting Source

The majority of chlamydia cases reported in 2008 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 2008, among women, only 10.1% of chlamydia cases were reported through an STD clinic (89,943 of 893,004 total cases). In contrast, among men, 30.5% of chlamydia cases were reported from an STD clinic in 2008 (95,798 of 313,779 total cases).

Chlamydia Prevalence in the Population

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).

Prevalence Monitoring Project

Chlamydia screening and prevalence monitoring activities were initiated in the U.S. Department of Health and Human Services (DHHS) 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 DHHS regions (III, VII, and VIII) and, in 1995, to the remaining DHHS 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.

In 2008, 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, the District of Columbia, Puerto Rico, and the Virgin Islands was 7.4% (range: 3.1% to 15.0%) (Figures 9 and 10). Since 1997, the median chlamydia positivity rate has increased slightly. This increase is likely because of increasing use of more sensitive test technology. (See **Appendix [Chlamydia, Gonorrhea, and Syphilis Prevalence Monitoring section]** for details.)

Chlamydia test positivity among 15 to 24-year-old women screened in family planning clinics fluctuated in all 10 DHHS regions between 2004 and 2008 (Figure 11). Positivity has remained fairly stable in five regions (I, II, III, V, X). In the remaining five regions (IV, VI, VII, VIII, IX), positivity rates increased slightly over the five-year time frame from 2004 to 2008. 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 Use of NAAT technology in family planning clinics to screen women aged 15 to 24 years for chlamydia is widespread (Figure 12). In four regions, NAATs were used nearly exclusively from 2004 to 2008 (I, V, VII, VIII). In two of these regions (I, V), prevalence was stable while in the other two (VII, VIII), prevalence increased. In 2008, three additional regions used NAATs nearly 100% of the time (IV, VI, IX). The remaining three regions used NAATs greater than 60% of the time in 2008.

Chlamydia Among Special Populations

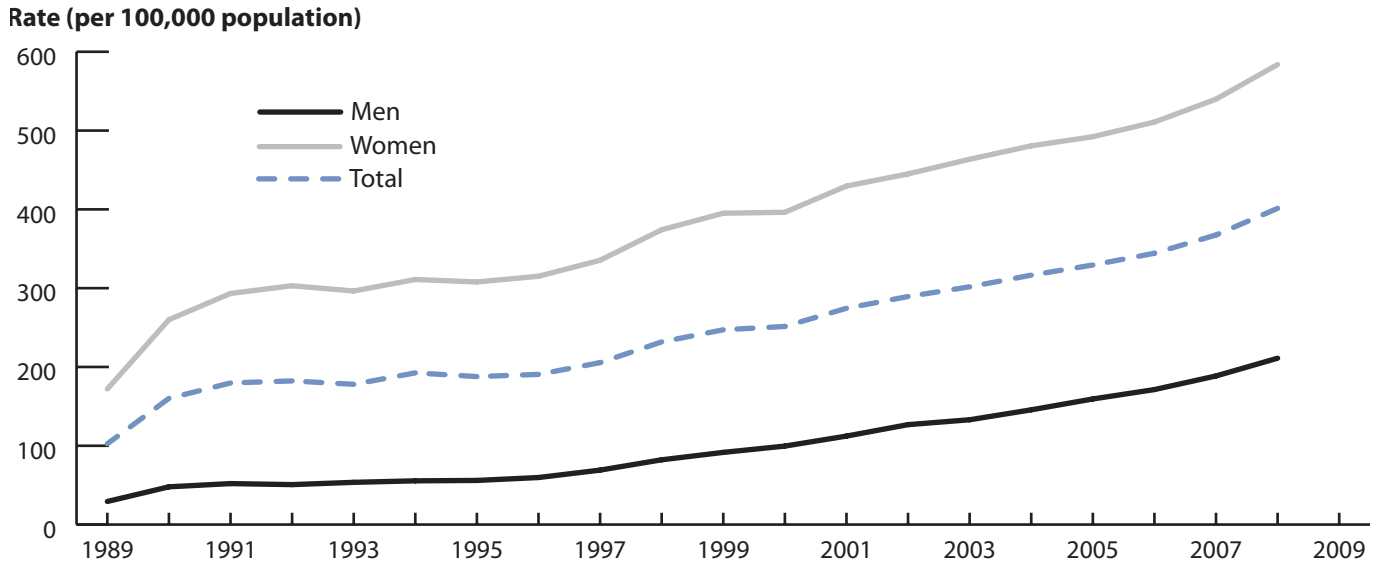
Additional information on chlamydia screening programs for women of reproductive age and chlamydia among adolescents, minority populations, and in corrections facilities is in the **Special Focus Profiles**.

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 screening recommendations. 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, Hancock 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 2009: Technical Specifications, Washington, DC, 2008, pp. 81–83.
- 6 Centers for Disease Control and Prevention. Chlamydia screening among sexually active young female enrollees of health plans—United States, 2000–2007. *MMWR*, 2009;58 (14):362–365.
- 7 Dicker LW, Mosure DJ, Levine WC. Chlamydia positivity versus prevalence: what's the difference? *Sex Transm Dis* 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, 1989–2008



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, 1999–2008

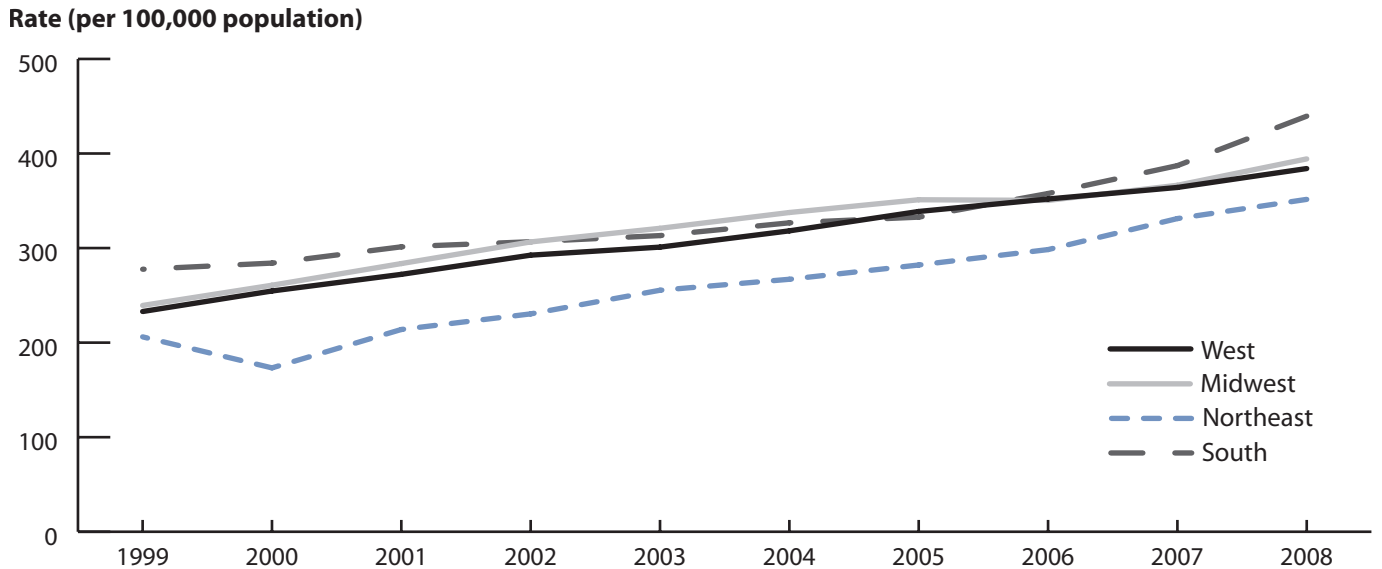
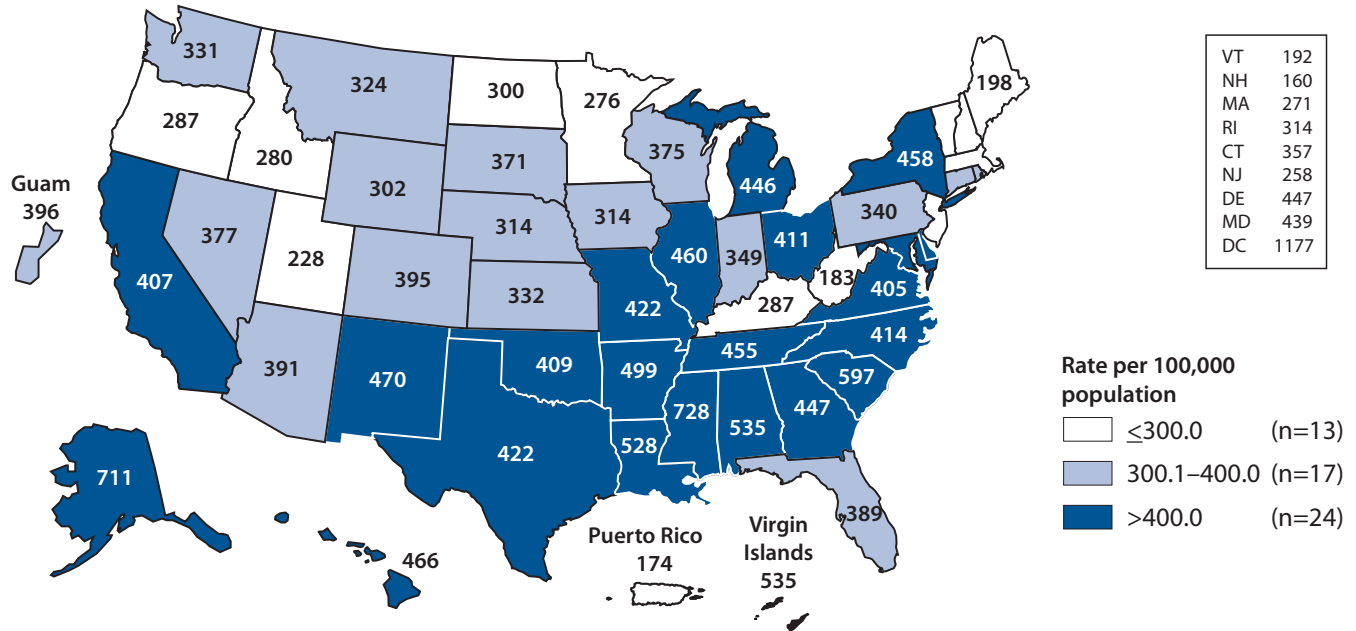


Figure 3. Chlamydia—Rates by state: United States and outlying areas, 2008



NOTE: The total rate of chlamydia for the United States and outlying areas (Guam, Puerto Rico and Virgin Islands) was 398.5 per 100,000 population. For further information on chlamydia reporting, see Appendix (Chlamydia Morbidity Reporting).

Figure 4. Chlamydia—Rates by county: United States, 2008

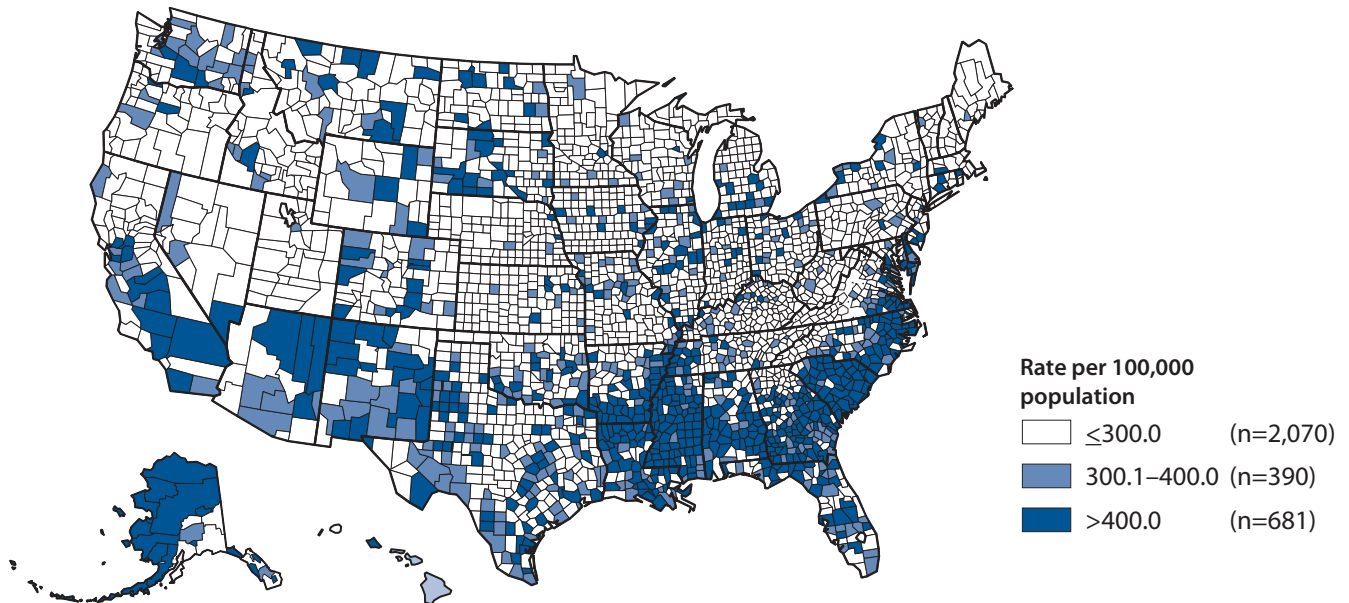


Figure 5. Chlamydia—Age- and sex-specific rates: United States, 2008

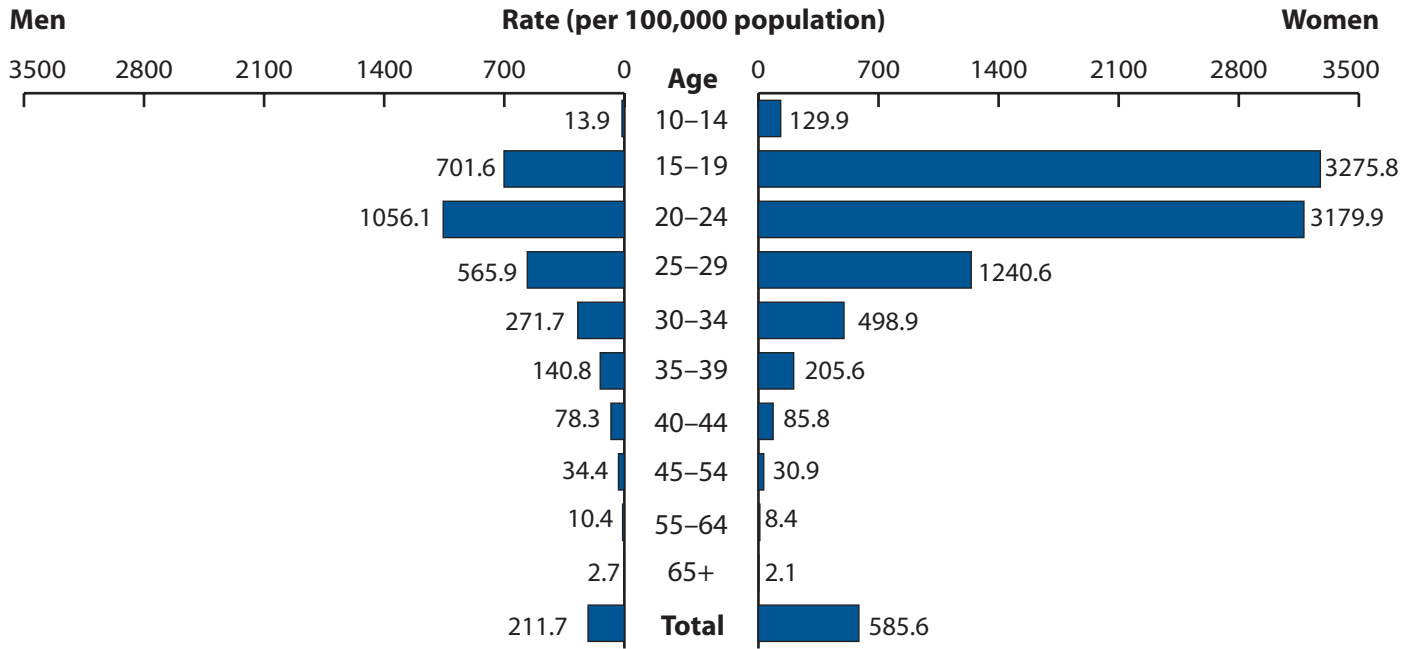


Figure 6. Chlamydia—Rates by race/ethnicity: United States, 1999–2008

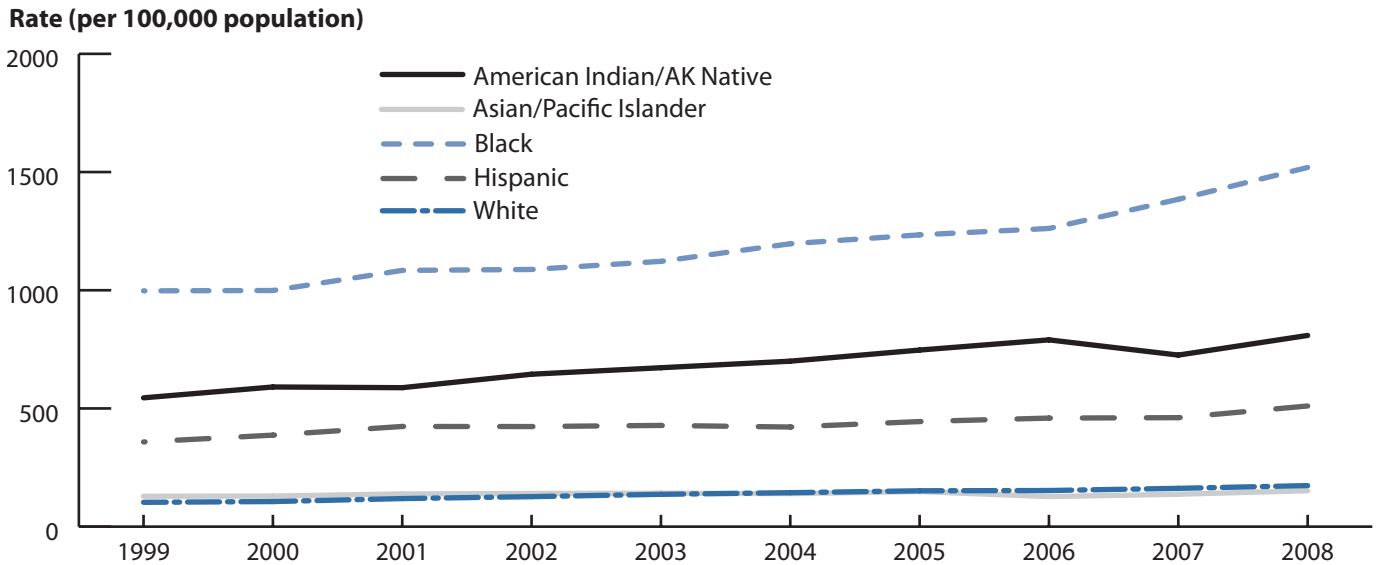


Figure 7. Chlamydia—Cases by reporting source and sex: United States, 1999–2008

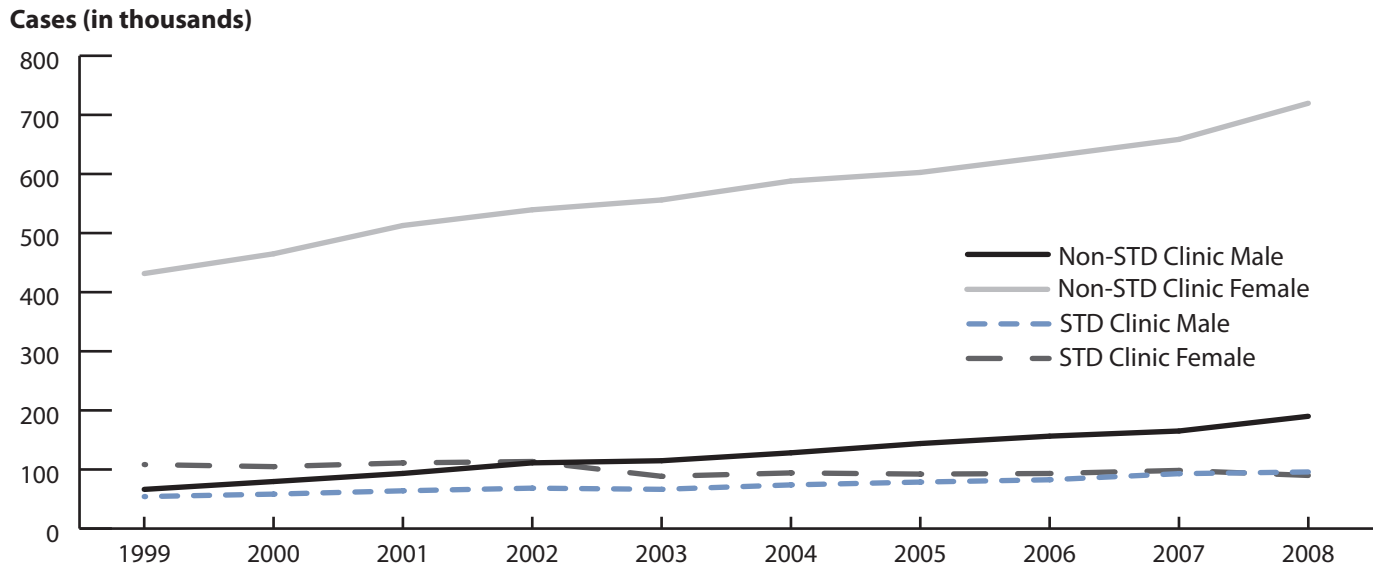
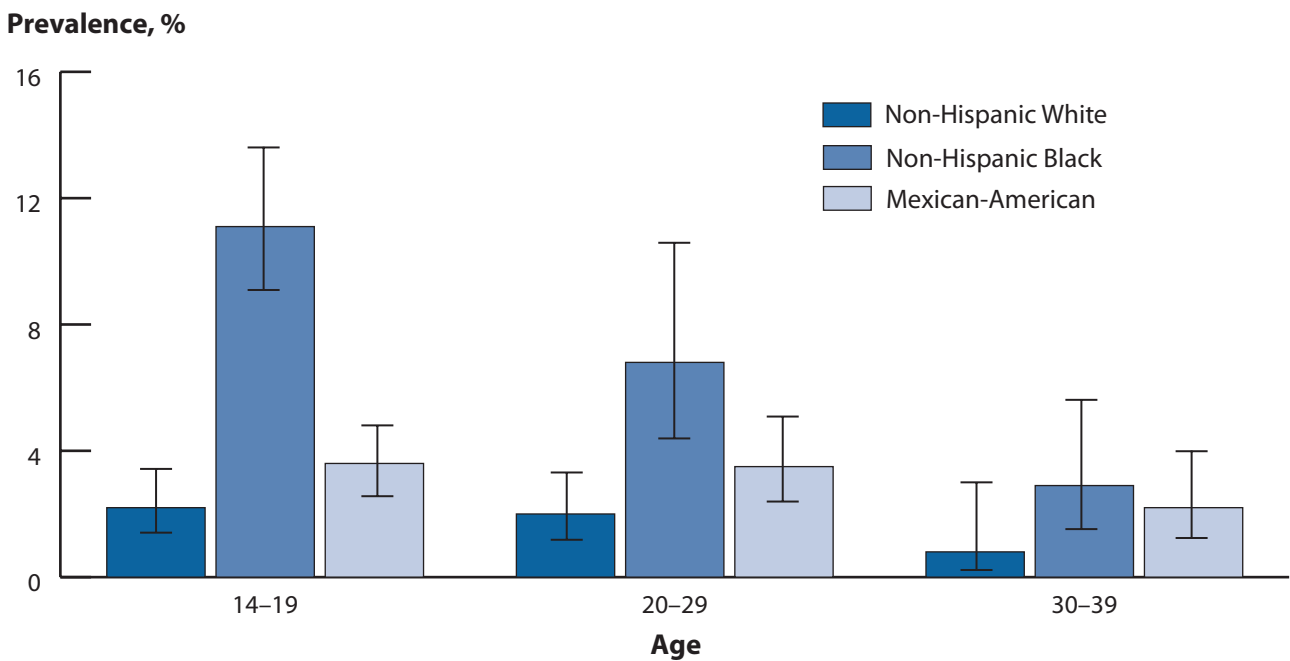


Figure 8. Chlamydia—Prevalence by age group and race/ethnicity from a national survey, 1999–2002

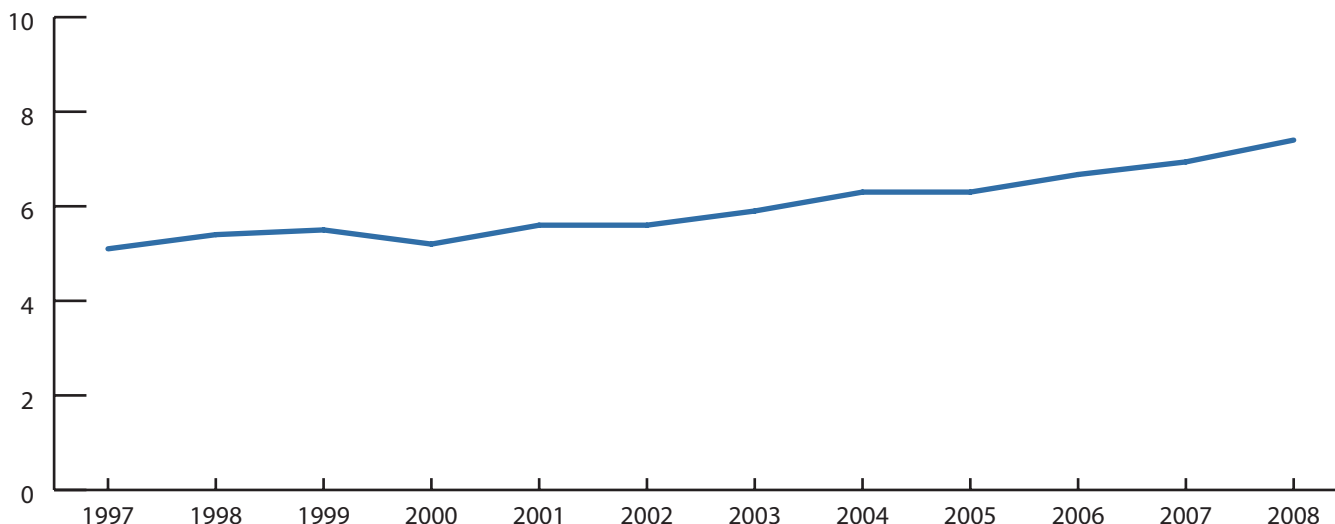


NOTE: Error bars indicate 95% confidence intervals.

SOURCE: National Health and Nutrition Examination Survey. *Ann Intern Med* 2007;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, 1997–2008

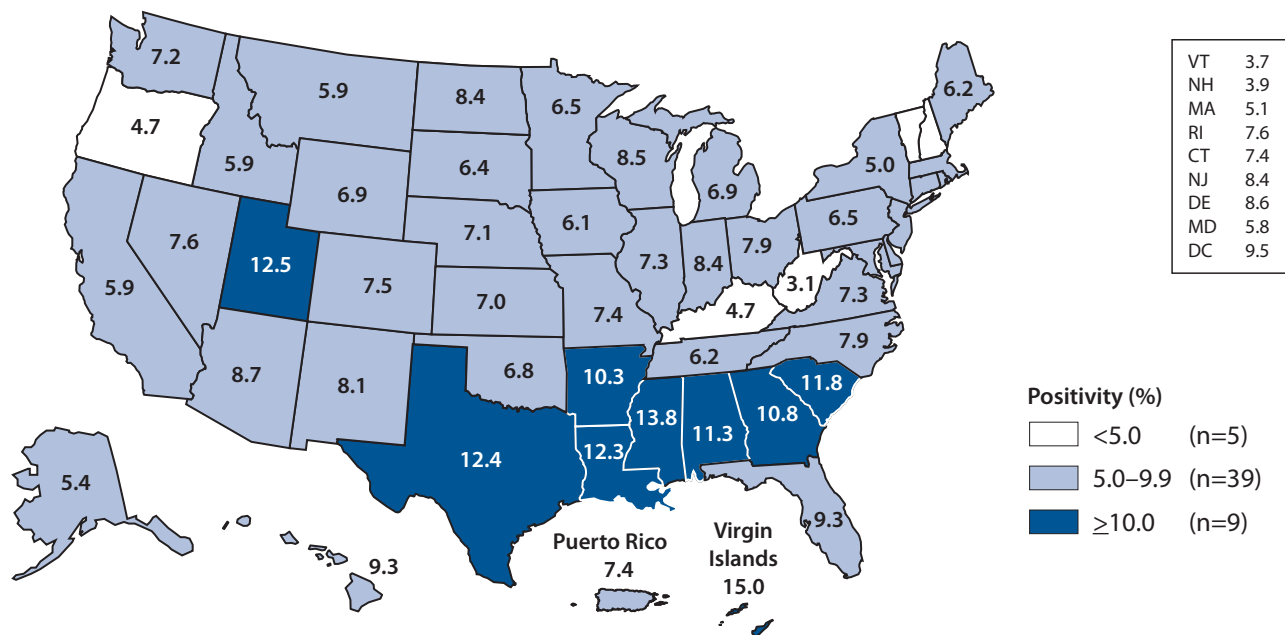
Median state-specific positivity rate



NOTE: As of 1997, all 10 DHHS regions, representing all 50 states, the District of Columbia, and outlying areas, reported chlamydia positivity data. See Appendix for definitions of DHHS regions.

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

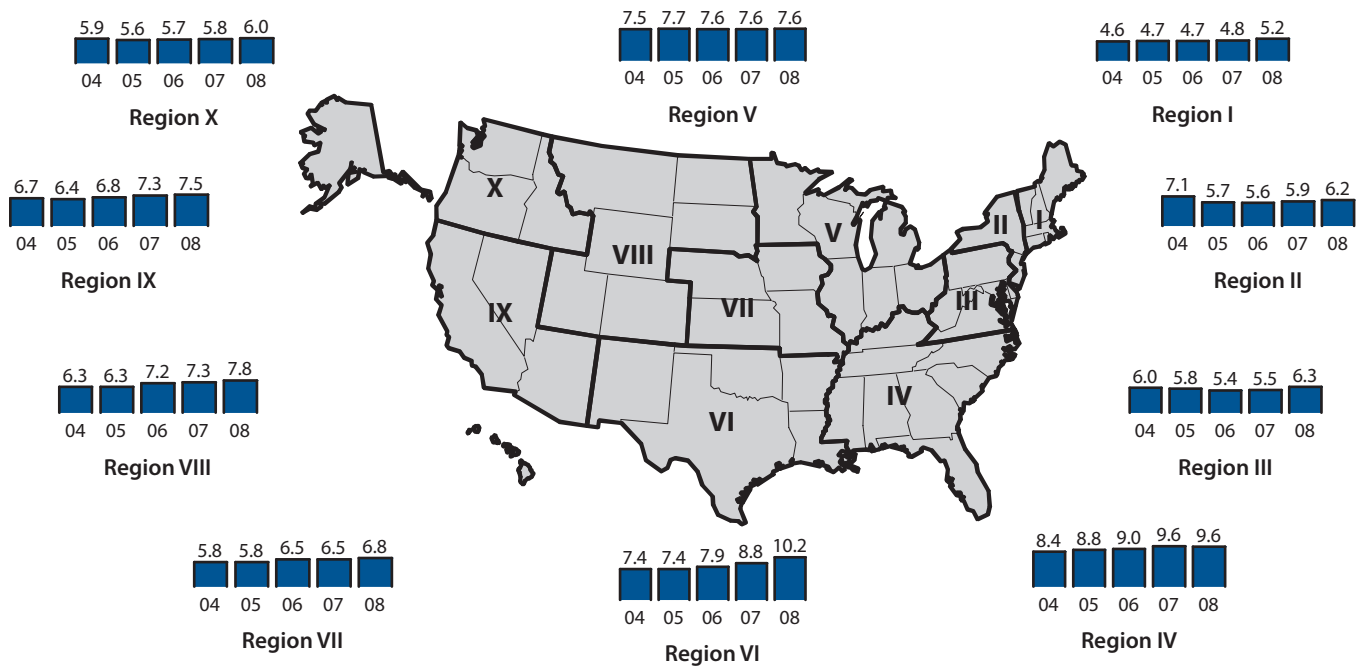
Figure 10. Chlamydia—Positivity among 15- to 24-year-old women tested in family planning clinics by state: United States and outlying areas, 2008



NOTE: Includes states and outlying areas that reported chlamydia positivity data on at least 500 women aged 15–24 years screened during 2008.

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

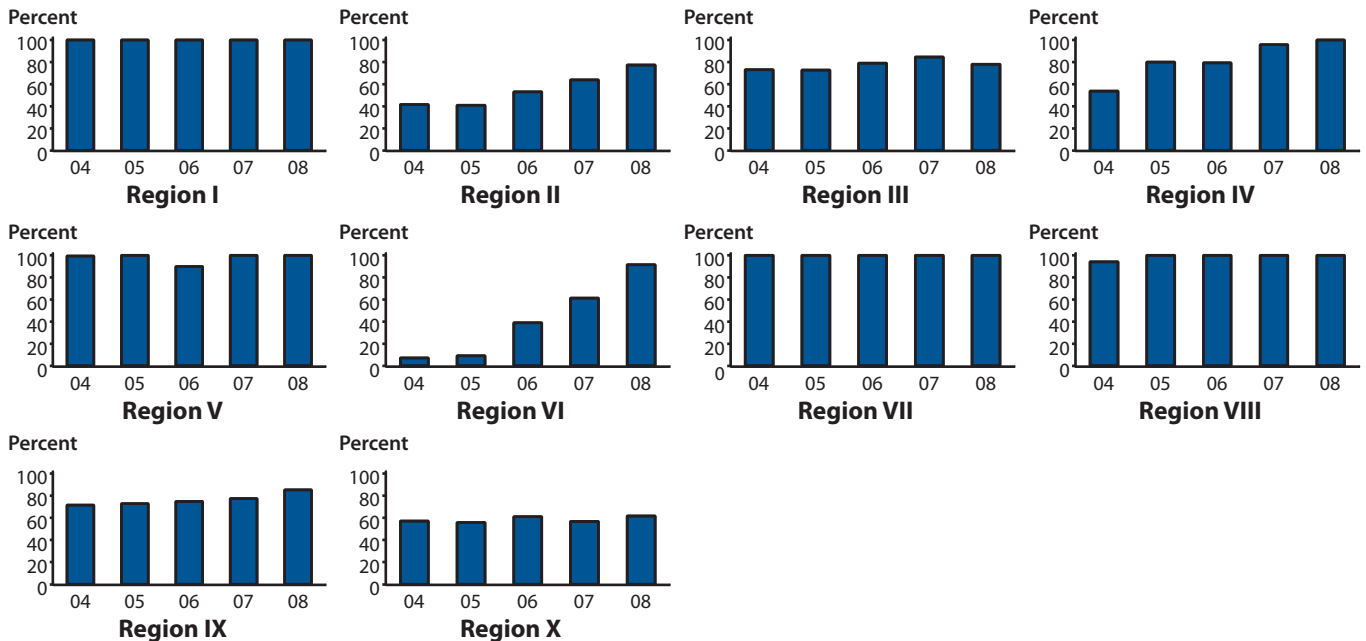
Figure 11. Chlamydia—Trends in positivity among 15- to 24-year-old women tested in family planning clinics by HHS region, 2004–2008



NOTE: See Appendix for definitions of DHHS Regions.

DATA SOURCE: 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 DHHS region, 2004–2008



NOTE: See Appendix for definitions of DHHS Regions.

DATA SOURCE: 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 12 years, however, gonorrhea rates appear to have reached a plateau (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 2007 led to changes in national guidelines that now limit the recommended treatment of gonorrhea to a single class of drugs, 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 states, 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 2008, 336,742 cases of gonorrhea were reported in the United States, a rate of 111.6 cases per 100,000 population (Figure 13 and Table 1), reflecting a small decrease of 5.4% since 2007. Gonorrhea rates have remained relatively stable over the past 12 years.

Gonorrhea by Region

As in previous years, in 2008 the South had the highest gonorrhea rate among the four regions of the country (152.4 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).

Gonorrhea by State

In 2008, gonorrhea rates per 100,000 population by state ranged from 6.0 cases in Vermont to 256.8 cases in Mississippi (Figure 16, Table 12).

Gonorrhea by Metropolitan Statistical Area (MSA)

The overall gonorrhea rate in the 50 most populous MSAs was 121.5 cases per 100,000 population in 2008. This is decreased from the rate of 128.3 cases per 100,000 population in 2007. In 2008, 58.7% of gonorrhea cases were reported by these MSAs (Table 16). Similar to previous years, in 2008 the total gonorrhea rate among females in these MSAs (123.5) remained similar to that among males (118.8) (Tables 17 and 18).

Gonorrhea by County

In 2008, 1,305 (41.6%) of 3,141 counties in the United States had gonorrhea rates at or below the HP2010 national target of 19 cases per 100,000 population. (See the **Appendix [Interpreting STD Surveillance Data]** section] for an explanation of HP2010 target setting methods.) Rates per 100,000 population were between 19 and 100 in 1,136 counties (36.2%), and greater than 100 in 700 counties (22.3%). The majority of counties with greater than 100 cases per 100,000 population were located in the South (Figure 17).

In 2008, 50% of reported gonorrhea cases occurred in just 71 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 eighth consecutive year, however, gonorrhea rates among women and men were similar (Figure 14). In 2008, the gonorrhea rate among women was 119.4 and the rate among men was 103.0 cases per 100,000 population (Tables 14 and 15).

Gonorrhea by Age

In 2008, gonorrhea rates continued to be highest among adolescents and young adults. Among females in 2008, 15- to 19- and 20- to 24-year-old women had the highest rates of gonorrhea (636.8 and 608.6, respectively). Among males, the rate was highest in those 20 to 24 years of age (433.6) (Figure 18 and Table 20).

From 2004 to 2008, increases in gonorrhea rates were seen among 15- to 24- year olds (7.4% among those 15 to 19 years of age and 5.3% among those 20 to 24 years of age) and decreases in rate were seen among those 25 to 44 (3.8% among those 25 to 29 years of age, 4.7% among those 30 to 34 years of age, 17.6% among those 35 to 39 years of age, and 17.3% among those 40-44 years of age) (Table 20).

From 2004 to 2008, similar trends were seen by sex; increases occurred in gonorrhea rates in females and males between 15 and 19 years of age (5.6% and 11.2%, respectively) and in females and males between 20 and 24 years of age (8.1% and 2.0%,

respectively). During the same time period, decreases in gonorrhea rates were seen in females and males between 35 and 39 years of age (10.2% and 21.1%, respectively) and in females and males between 40 and 44 years of age (11.9% and 19.6%, respectively) (Figures 19 and 20, and Table 20).

Gonorrhea by Race/Ethnicity

In 2008, gonorrhea rates remained highest among blacks (625.0 cases per 100,000 population, Figure 21 and Table 21B). Similar to recent years, the rate among blacks was 20.2 times greater than the rate among whites (31.0 cases per 100,000 population). Gonorrhea rates were 3.6 times greater among American Indian/Alaska Natives (110.2 cases per 100,000 population), and 2.2 times greater among Hispanics (66.8 cases per 100,000 population) than among whites in 2008. Rates among whites were 1.6 times higher than those among Asian/Pacific Islanders (20.0 cases per 100,000 population) in 2008 (Figure 21).

Between 2004 and 2008, gonorrhea rates showed no marked changes for any racial or ethnic group. (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 2004 and 2008, gonorrhea rates among women increased 1.4% in the Midwest and 14.4% in the South. During the same time period, rates among women decreased 13.3% in the Northeast and 14.0% in the West (Table 14).

Between 2004 and 2008, gonorrhea rates among men decreased in the West, Northeast, and Midwest (15.3%, 8.9%, and 8.1%, respectively). During the same time period, rates among men in the South remained essentially the same (Table 15).

Gonorrhea by Race/Ethnicity and Sex

From 2004 to 2008, overall gonorrhea rates decreased among white, black, American Indian/Alaska Native, and Hispanic men (by 12.6%, 5.0%, 4.2%, and 2.6%, respectively). During the same time period, rates increased only among Asian/Pacific Islander males (1.6%) (Table 21B).

From 2004 to 2008 overall gonorrhea rates decreased among Asian/Pacific Islander, American Indian/Alaska Native, Hispanic, and white women (by 7.1%, 6.1%, 3.3%, and 3.0% respectively). During the same time period, rates increased only among black women (5.9%) (Table 21B).

In 2008, 15- to 19-year-old black women again had the highest gonorrhea rate of any group (2,934.6 per 100,000 population), closely followed by 20- to 24-year-old black women (2,777.0), and 20- to 24-year-old black men (2,340.3).

Gonorrhea by Reporting Source

In 2008, 23.0% of gonorrhea cases were reported by STD clinics (Table A2). This is a decrease from 2004, when 30.0% of gonorrhea cases were reported by STD clinics. In 2008, a higher proportion of male gonorrhea cases were reported from STD clinics than female cases (32.3% and 15.2% respectively) (Figure 22 and Table A2).

Prevalence Monitoring

Gonorrhea test positivity data are primarily available from family planning clinic settings. Screening criteria and practices may vary by state and over time.

In 2008, the median state-specific gonorrhea test positivity among 15- to 24-year-old women screened in selected family planning clinics in 43 states, the District of Columbia, Puerto Rico, and the Virgin Islands was 0.9% (range: 0.0% to 3.8%) (Figure 23).

Gonococcal Isolate Surveillance Project (GISP)

Antimicrobial resistance remains an important consideration in the treatment of gonorrhea.^{3,6-13} In 1986, 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 sites and 4-5 regional laboratories (Figure 24).¹³

Information on the GISP antimicrobial susceptibility criteria used is in the GISP section of the **Appendix (Interpreting STD Surveillance Data)**.

Susceptibility to Ceftriaxone

Susceptibility testing for ceftriaxone began in 1987. Figure 25 shows the distribution of Minimum Inhibitory Concentrations (MICs) to ceftriaxone among GISP isolates from 2004 to 2008. There was a small increase in the proportion of GISP isolates with MICs of 0.06 µg/ml since 2006 but no increases were observed at higher MIC values.

There have been four isolates with decreased susceptibility to ceftriaxone in GISP; all four had MICs of 0.5 µg/ml. Their locations and years were: San Diego-1987, Cincinnati-1992 and 1993, and Philadelphia-1997. No isolates with decreased susceptibility to ceftriaxone were seen in 2008.

Susceptibility to Azithromycin

GISP began monitoring azithromycin susceptibility in 1992. Figure 26 shows the distribution of MICs to azithromycin among GISP isolates from 2004 to 2008. The proportion of GISP isolates at MICs of 0.5 µg/ml and 1.0 µg/ml for azithromycin has been increasing since 2004.

Susceptibility to Spectinomycin

All isolates were susceptible to spectinomycin in 2008. There have been five spectinomycin-resistant isolates in GISP; their locations and years were: St. Louis-1988, Honolulu-1989, San Francisco-1989, Long Beach-1990, and West Palm Beach-1994.

Susceptibility to Ciprofloxacin

Resistance to ciprofloxacin (a fluoroquinolone in the quinolone family of antimicrobials) was first identified in GISP sites in 1991. However since 1999, quinolone resistant *Neisseria gonorrhoeae* (QRNG) prevalence has steadily increased, first in Hawaii and the Pacific Islands, then in the Western states, and then among MSM.^{6,8,9} In 2008, 775 (13.5%) of 5,723 GISP isolates collected were identified as QRNG, a decrease from 2007, when 891/6,009 (14.8%) isolates were identified as QRNG (Figure 27).

QRNG by Sexual Behavior

The prevalence of QRNG in isolates from MSM slightly decreased from 36.1% in 2007 to 33.6% in 2008. During the same time period, the prevalence of QRNG in isolates from heterosexuals also decreased from 8.7% in 2007 to 8.2% in 2008.

QRNG by Region

The number of isolates submitted from Honolulu demonstrating ciprofloxacin-resistance increased from 20 (28.6%) of 70 isolates in 2007 to 32 (40.5%) of 79 isolates in 2008. Other Western sites reporting increases in QRNG prevalence from 2007 to 2008 include: Phoenix (8.7% in 2007 to 16.5% in 2008); Portland (28.6% to 51.6%); and Seattle (29.3% to 31.3%). In contrast, a number of Western sites reported a decrease in QRNG prevalence from 2007 to 2008, including Albuquerque (16.7% in 2007 to 6.9% in 2008), Denver (17.0% to 10.7%), Las Vegas (18.7% to 17.7%), Los Angeles (22.4% to 16.8%), Orange County (41.0% to 33.3%), San Diego (36.3% to 29.1%) and San Francisco (31.3% to 26.1%).

In the South from 2007 to 2008, a few sites continued to observe increases in the prevalence of QRNG, including Atlanta (from 2.6% in 2007 to 10.3% in 2008), Baltimore (2.0% in 2007 to 5.4%) and Richmond (17.9% to 21.8%). Southern sites reporting a decrease in the prevalence of QRNG from 2007 to 2008 include Birmingham (from 9.4% in 2007 to 8.3% in 2008), Dallas (7.5% to 7.1%), Greensboro (5.3% to 3.6%), Miami (19.6% to 16.2%), New Orleans (18.1% to 14.9%), and Oklahoma City (6.0% to 4.4%).

A majority of the Midwestern sites reported decreases in QRNG prevalence including Chicago (from 8.6% in 2007 to 5.3% in 2008), Detroit (1.7% to 1.1%), Kansas City (16.4% to 7.5%), and Minneapolis (10.7% to 7.6%). The sites that showed an increase in QRNG prevalence were Cincinnati (from 1.2% in 2007 to 2.2% in 2008) and Cleveland (0.7% to 4.1%).

In the Northeast, New York City reported a slight increase in QRNG prevalence from 14.9% in 2007 to 15.5% in 2008. In Philadelphia, the prevalence of resistant isolates to ciprofloxacin decreased from 29.1% in 2007 to 20.6% in 2008.

Other Antimicrobial Susceptibility Testing

Overall in 2008, 24.4% of isolates collected from GISP sites were resistant to penicillin, tetracycline, ciprofloxacin, or some combination of those antibiotics (Figure 28). With the renewed availability of cefixime, susceptibility testing for this antibiotic was restarted in 2009. Additionally, susceptibility testing for cefpodoxime was started in 2009.

Antimicrobial Treatments Given for Gonorrhea

The antimicrobial agents given to GISP patients for gonorrhea therapy are shown in Figure 29. The proportion of GISP patients treated with cephalosporins has increased again from 81.0% in 2007 to 95.1% in 2008. Specifically, 75.1% were treated with ceftriaxone in 2008 compared with 61.5% in 2007. Conversely, the proportion of GISP patients being treated with fluoroquinolones (ciprofloxacin, ofloxacin or levofloxacin) has continued to decrease from 17.1% in 2007 to 2.2% in 2008. Treatment with azithromycin has slightly increased from 0.8% in 2007 to 1.2% in 2008.

Additional information on 2008 GISP data may be found on the GISP website: <http://www.cdc.gov/std/GISP>

Gonorrhea Among Special Populations

Additional information about gonorrhea in racial and ethnic minority populations, women of reproductive age, 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 more than ten years. Of particular concern are the persistent high rates in some geographic areas, adolescents and young adults, and some racial/ethnic groups.

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

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 - ² Centers for Disease Control and Prevention. Increases in gonorrhea—Eight western states, 2000–2005. *MMWR* 2007;56:222–225.
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 - ¹⁰ Centers for Disease Control and Prevention. Sexually Transmitted Diseases Treatment Guidelines, 2006. *MMWR*, 2006;55(No.RR-11).
 - ¹¹ 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.
 - ¹² 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.
 - ¹³ 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, 1941–2008

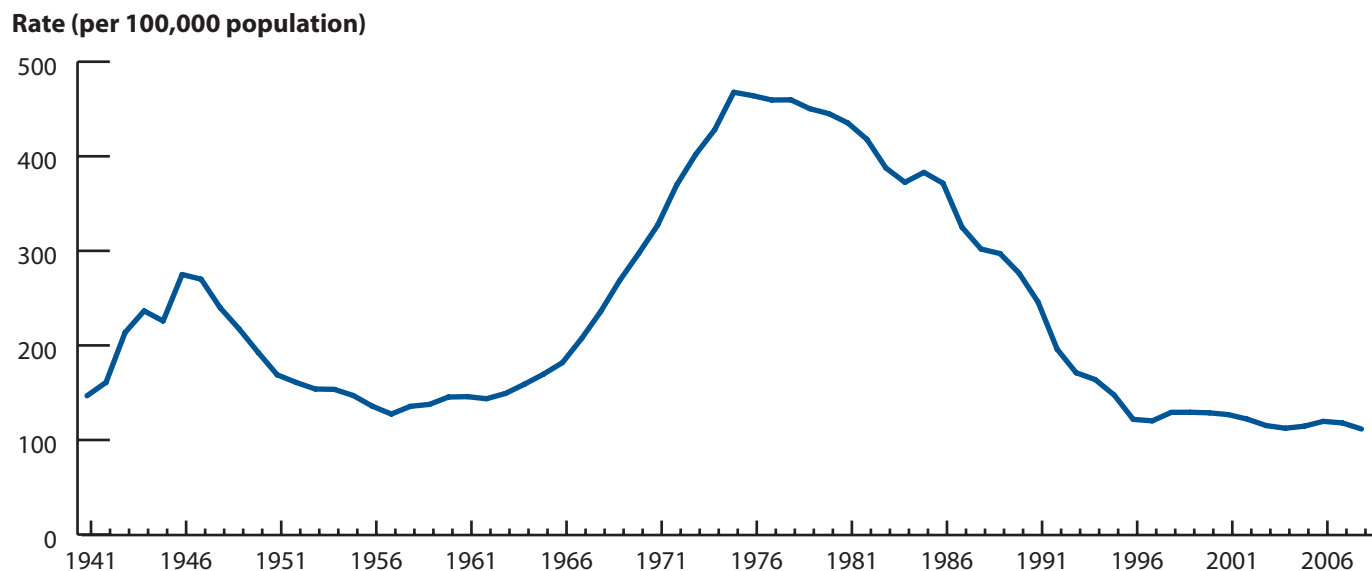


Figure 14. Gonorrhea—Rates: Total and by sex: United States, 1989–2008

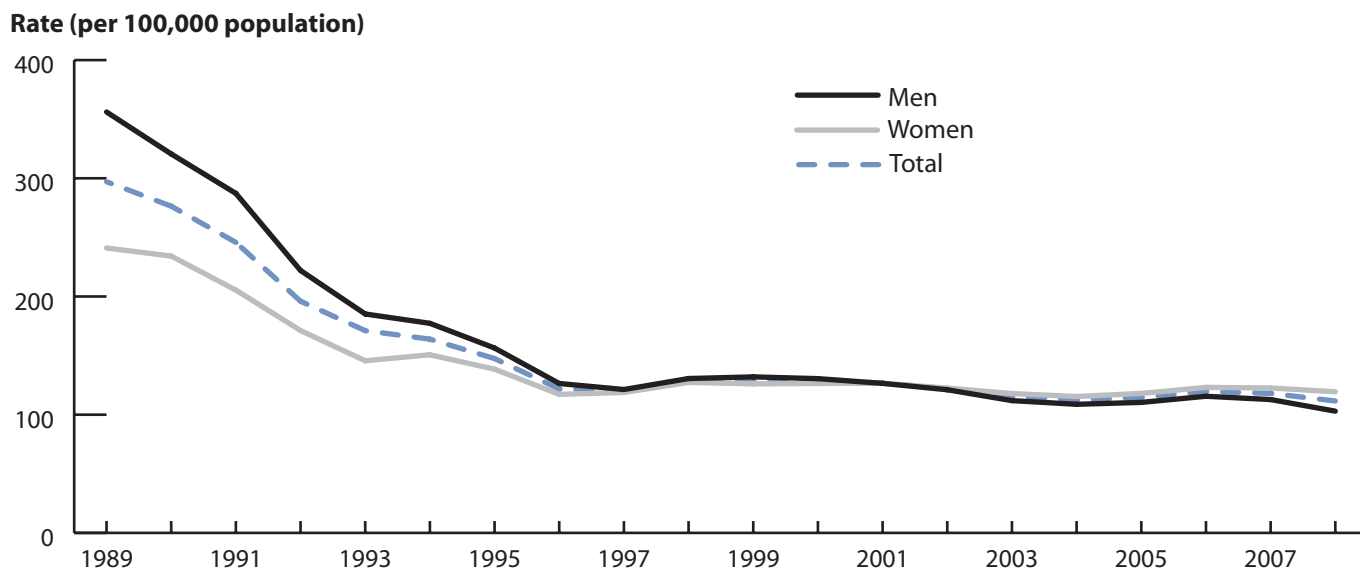


Figure 15. Gonorrhea—Rates by region: United States, 1999–2008

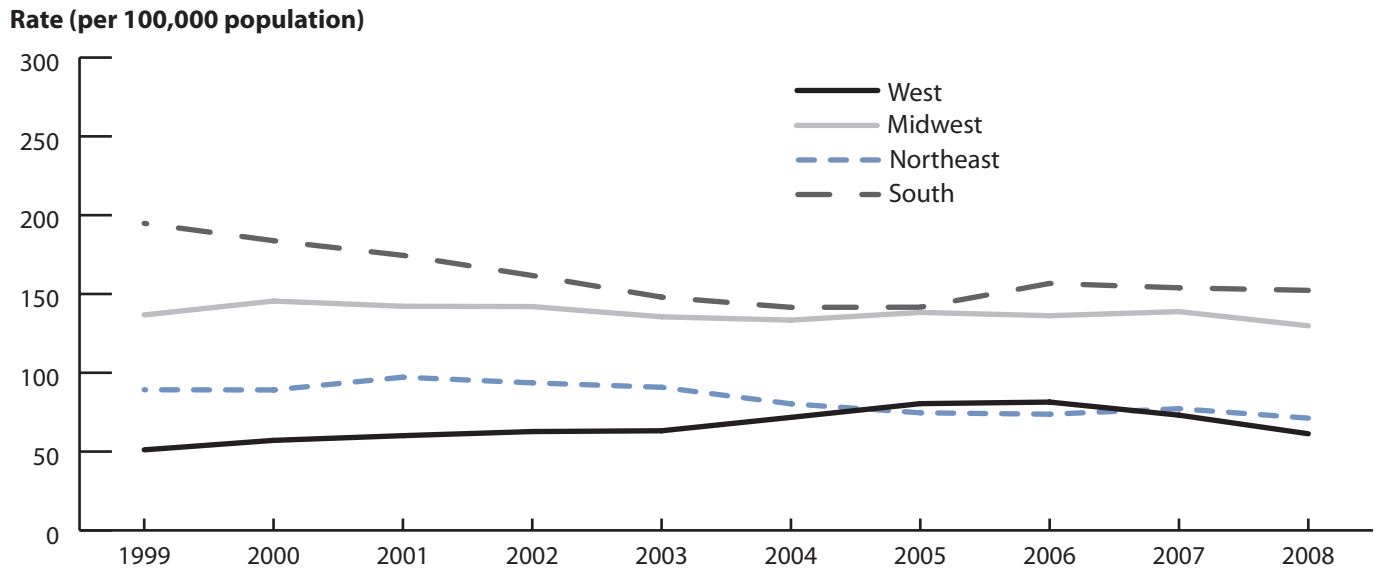
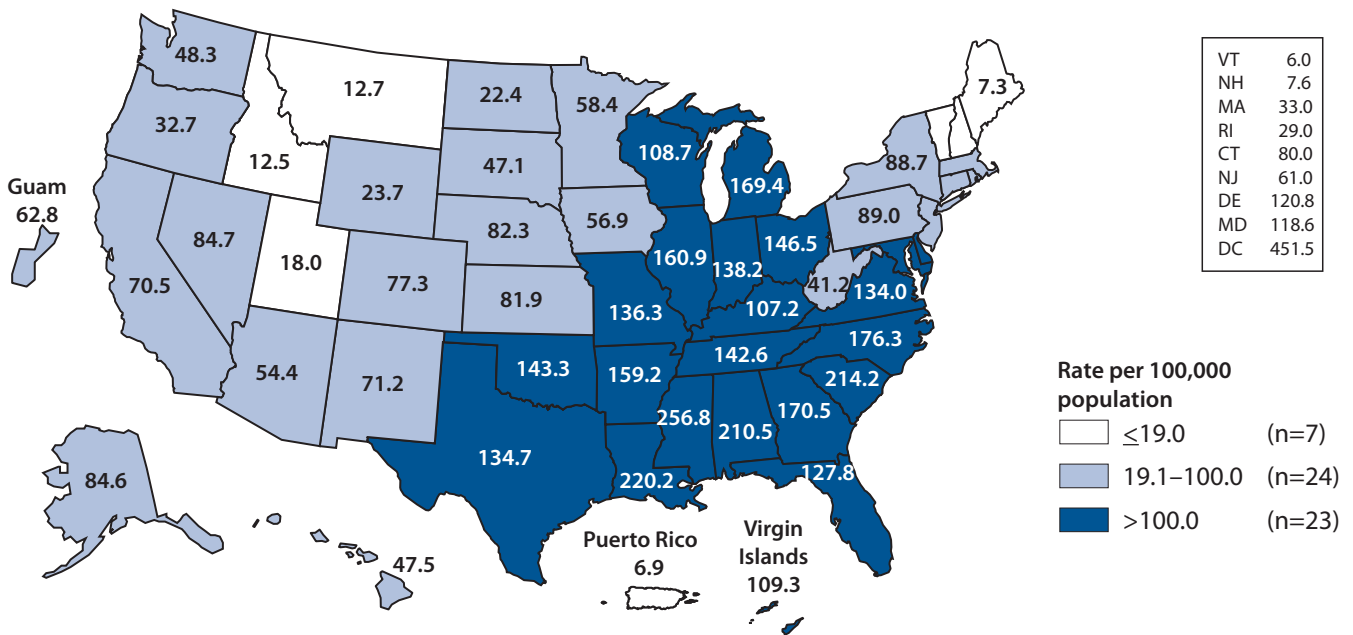


Figure 16. Gonorrhea—Rates by state: United States and outlying areas, 2008



NOTE: The total rate of gonorrhea for the United States and outlying areas (Guam, Puerto Rico, and Virgin Islands) was 110.3 per 100,000 population.

Figure 17. Gonorrhea—Rates by county: United States, 2008

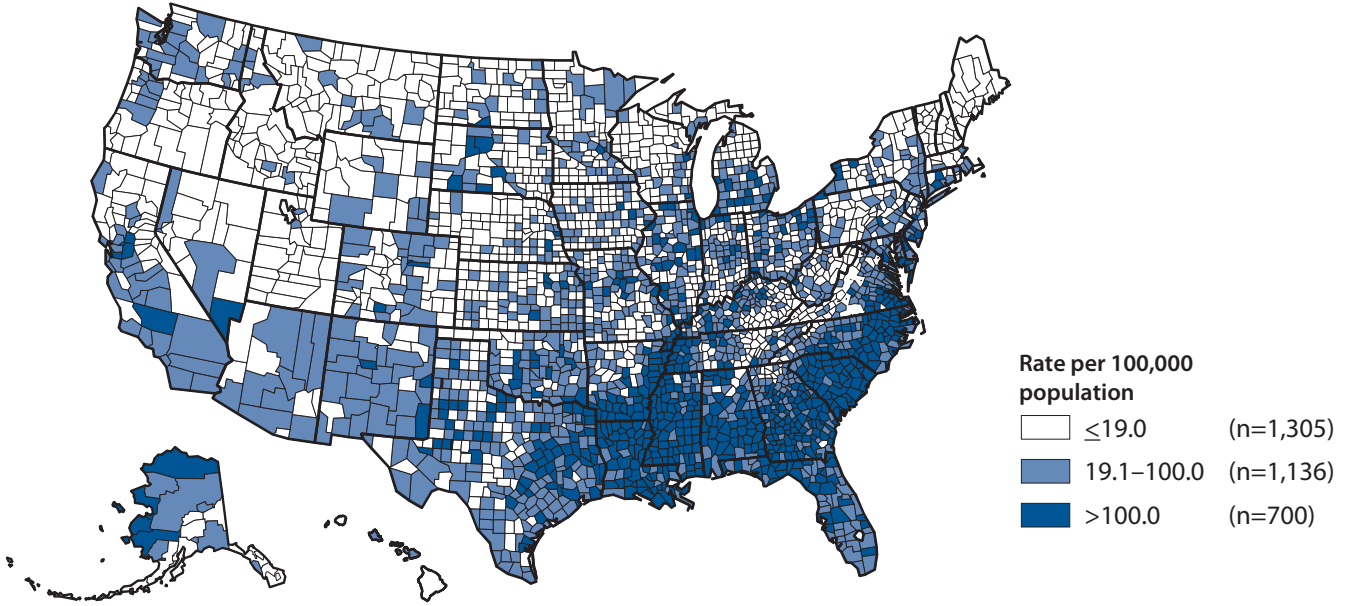


Figure 18. Gonorrhea—Age- and sex-specific rates: United States, 2008

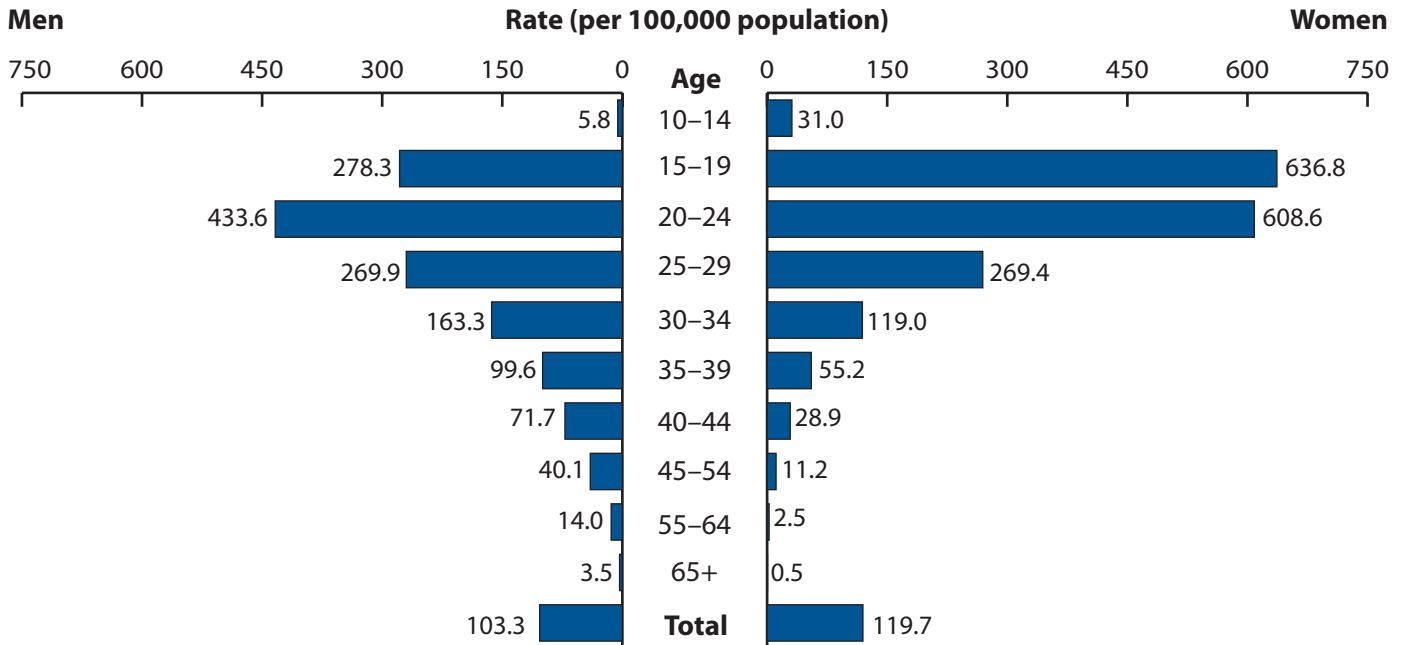


Figure 19. Gonorrhea—Age-specific rates among women 15 to 44 years of age: United States, 1999–2008

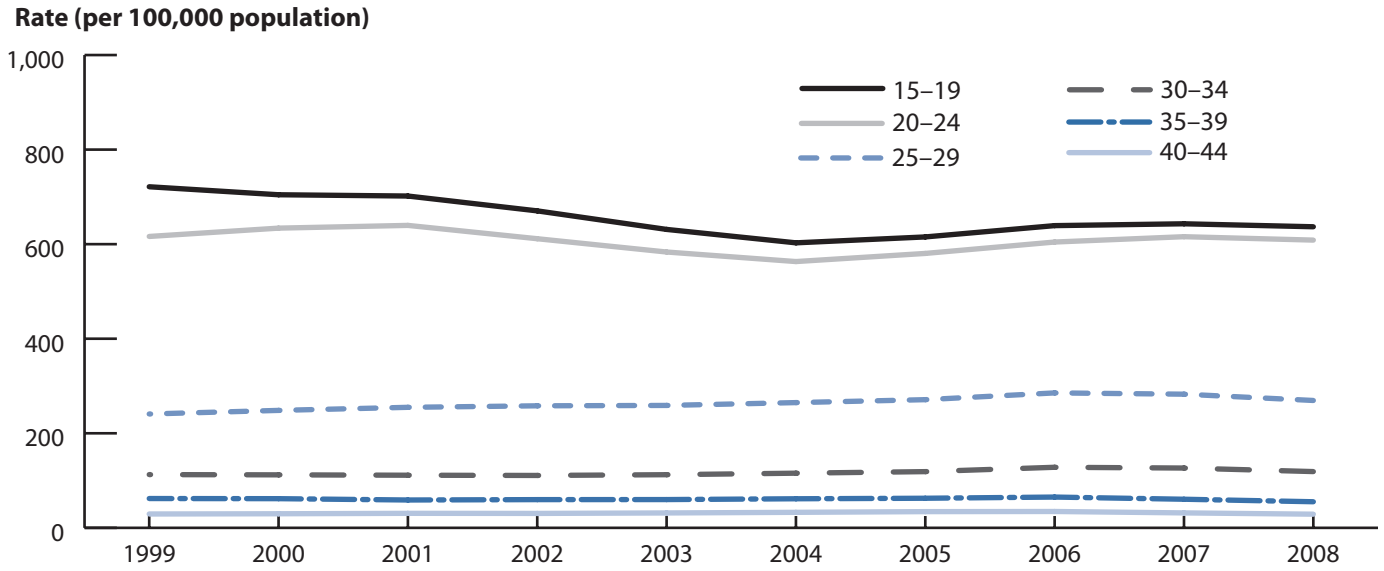


Figure 20. Gonorrhea—Age-specific rates among men 15 to 44 years of age: United States, 1999–2008

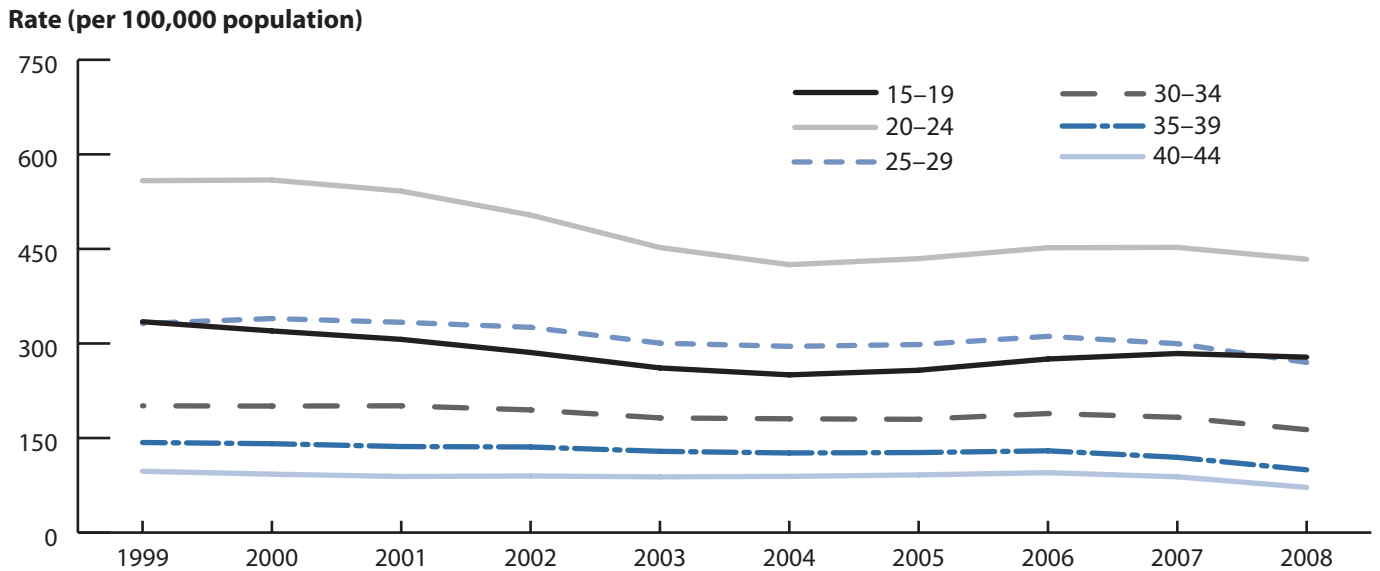


Figure 21. Gonorrhea—Rates by race/ethnicity: United States, 1999–2008

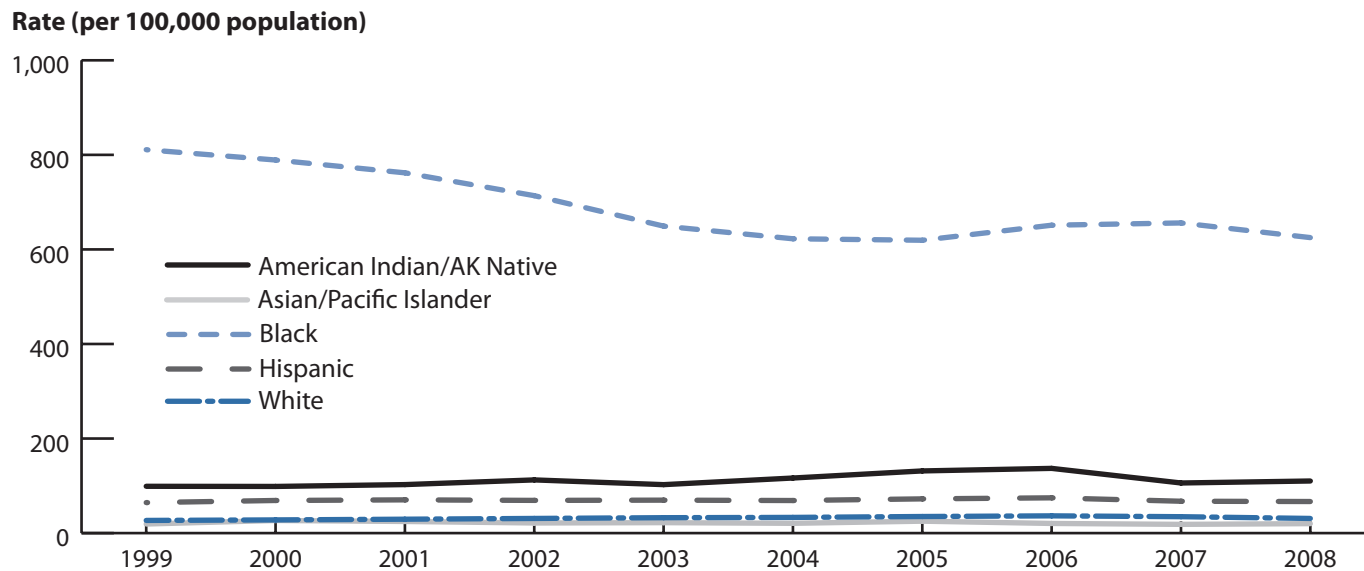


Figure 22. Gonorrhea—Cases by reporting source and sex: United States, 1999–2008

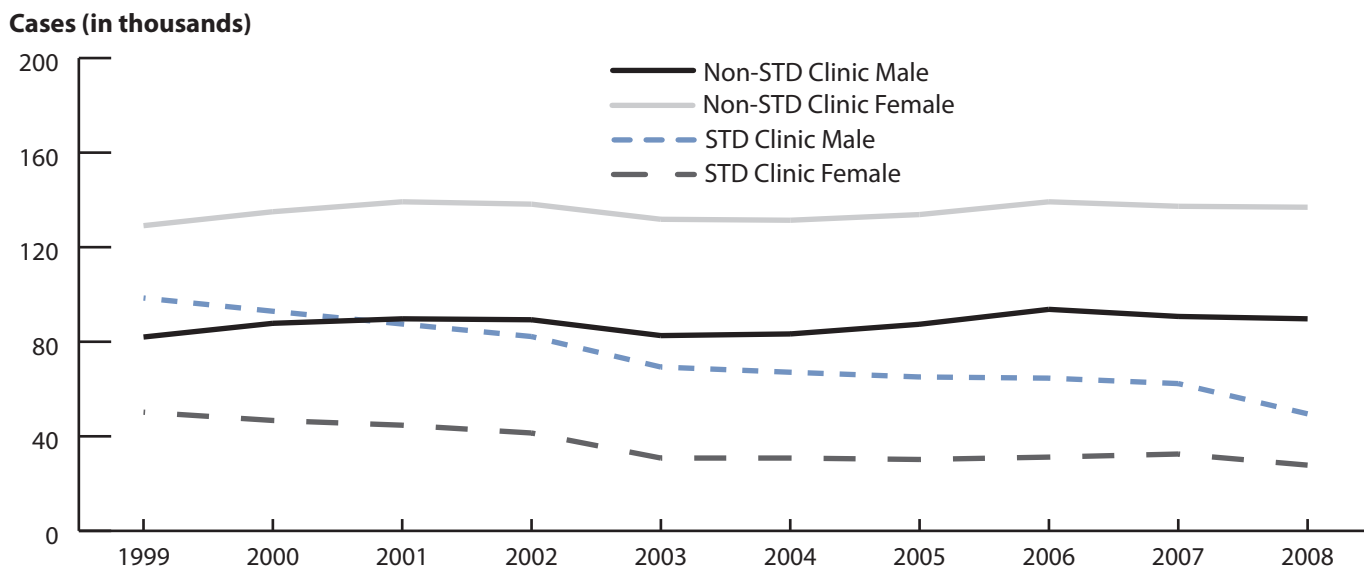
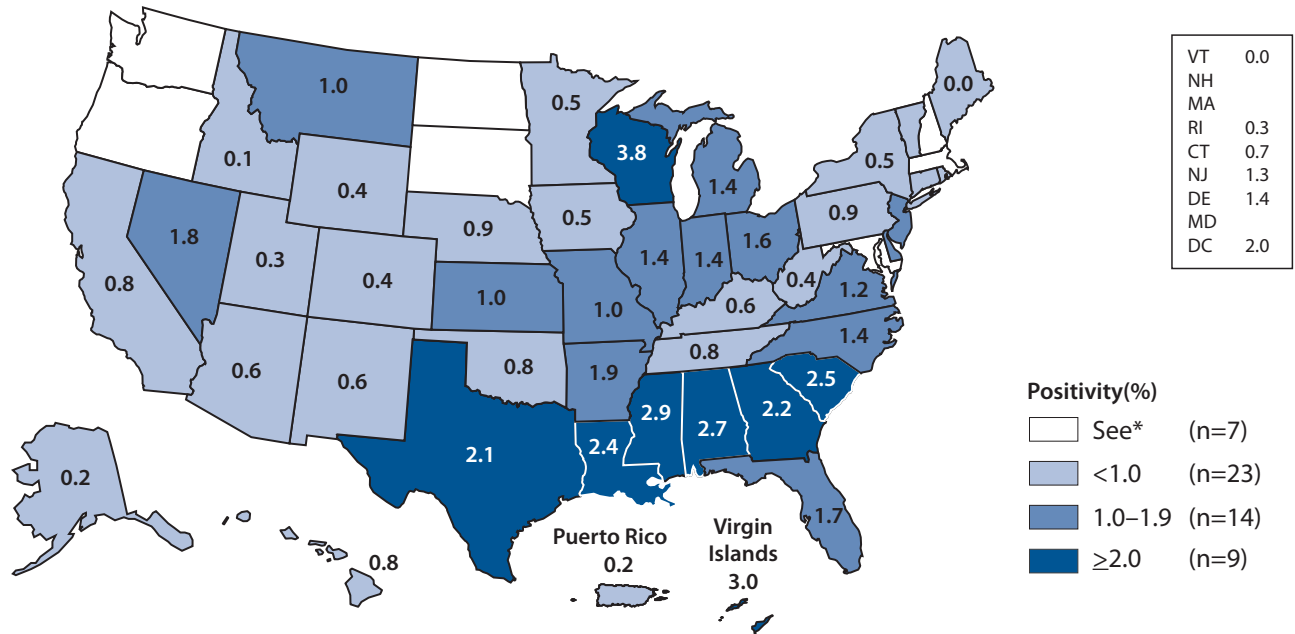


Figure 23. Gonorrhea—Positivity among 15- to 24-year-old women tested in family planning clinics by state: United States and outlying areas, 2008



* 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 2008.

DATA SOURCE: Prevalence Monitoring (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)—Location of participating sentinel sites and regional laboratories in the United States, 2008



Figure 25. Gonococcal Isolate Surveillance Project (GISP)—Distribution of MICs to ceftriaxone among GISP isolates, 2004–2008

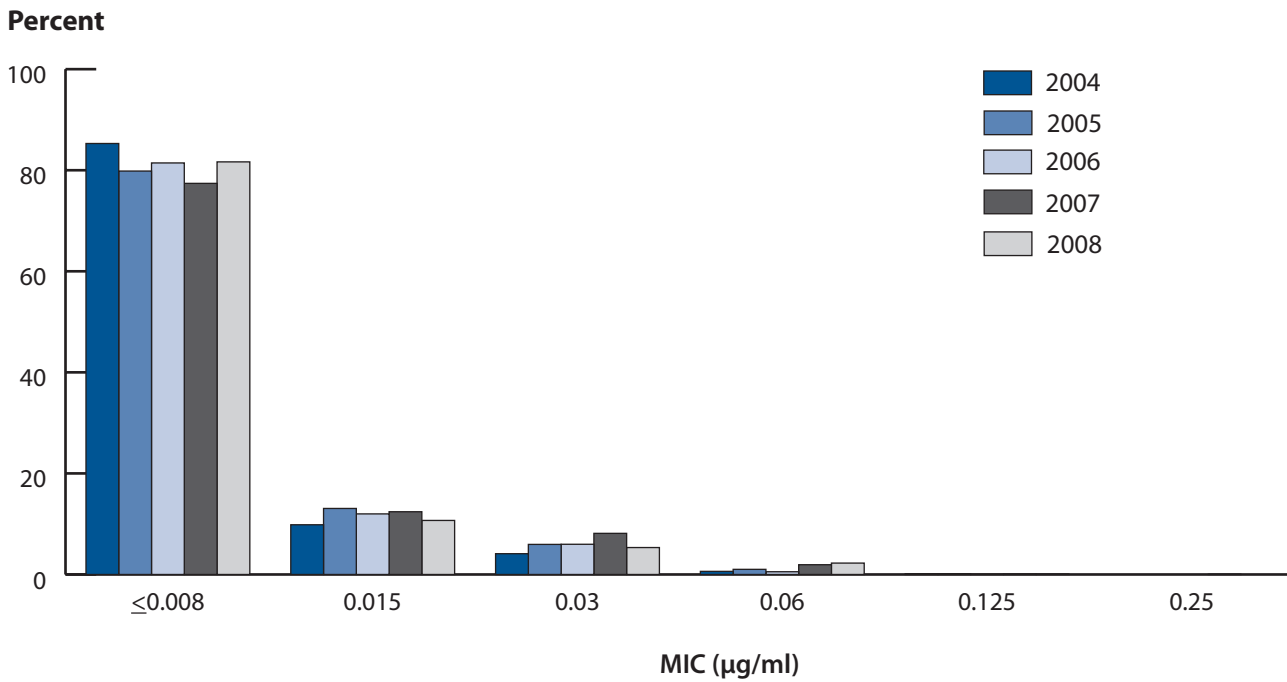


Figure 26. Gonococcal Isolate Surveillance Project (GISP)—Distribution of MICs to azithromycin among GISP isolates, 2004–2008

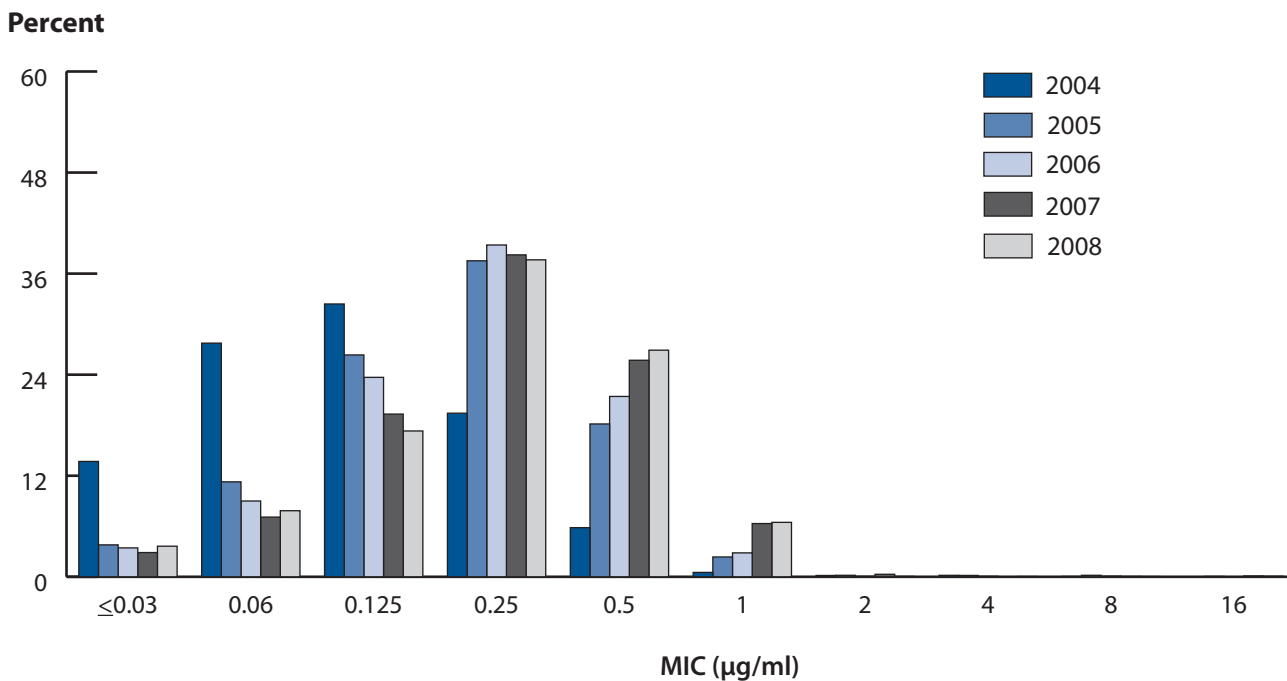
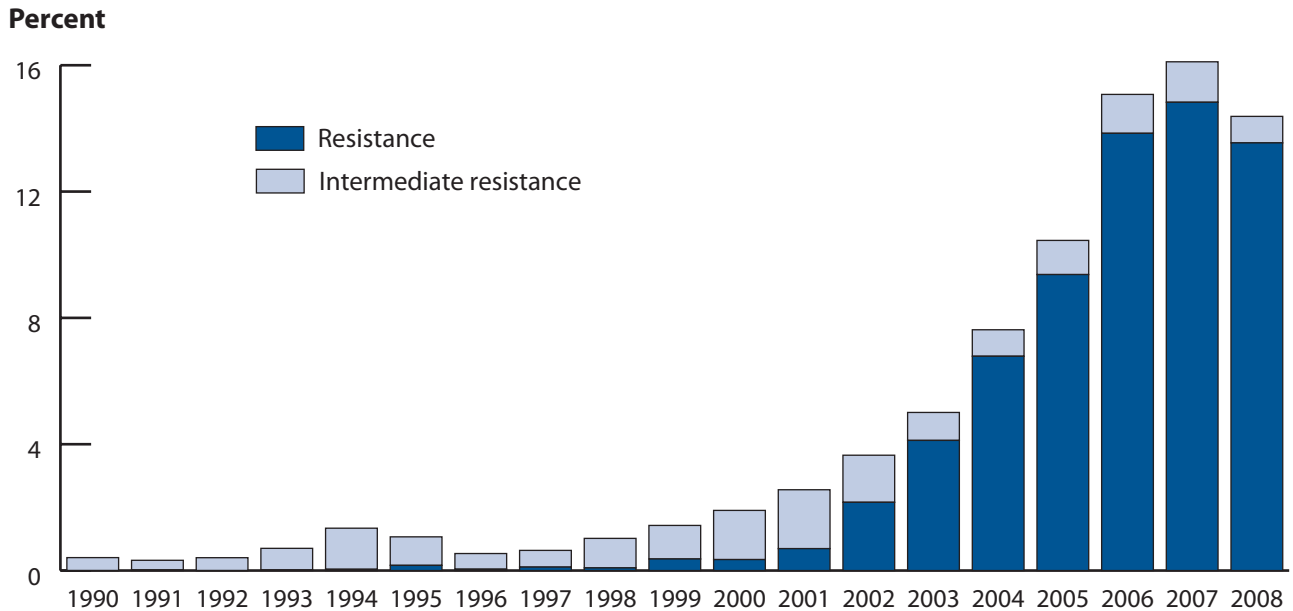
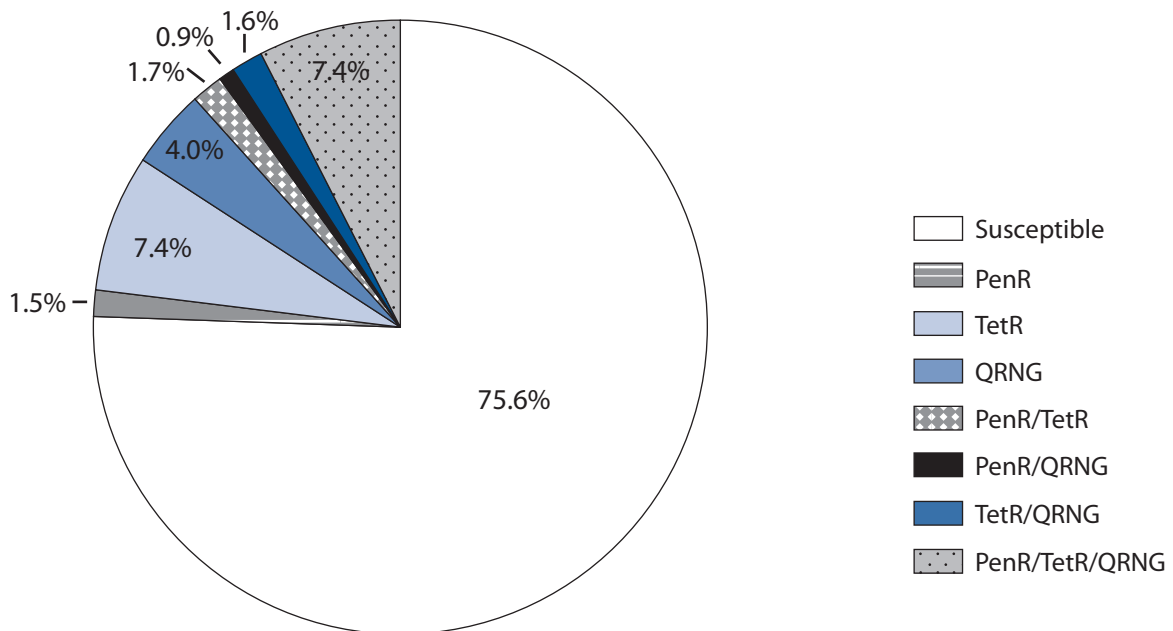


Figure 27. Gonococcal Isolate Surveillance Project (GISP)—Percent of *Neisseria gonorrhoeae* isolates with resistance or intermediate resistance to ciprofloxacin, 1990–2008



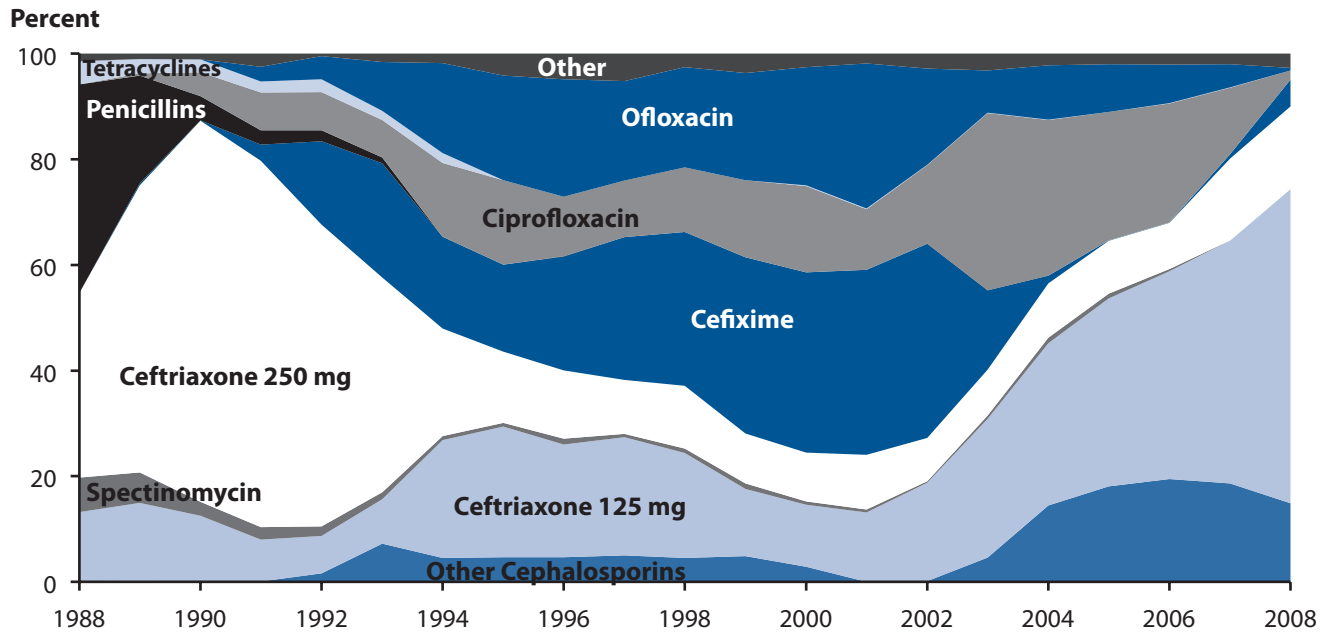
NOTE: Resistant isolates have ciprofloxacin MICs ≥ 1 $\mu\text{g/ml}$. Isolates with intermediate resistance have ciprofloxacin MICs of 0.125–0.5 $\mu\text{g/ml}$. Susceptibility to ciprofloxacin was first measured in GISP in 1990.

Figure 28. Gonococcal Isolate Surveillance Project (GISP)—Penicillin, tetracycline, and ciprofloxacin resistance among GISP isolates, 2008



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 29. Gonococcal Isolate Surveillance Project (GISP)—Drugs used to treat gonorrhea in GISP patients, 1988–2008



Note: For 2008, "Other" includes no therapy (1.3%), azithromycin 2g (1.2%), levofloxacin (0.02%), and other less frequently used drugs.

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 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 30). 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 2008. Overall increases in rates between 2001 and 2008 were observed primarily among men (increasing from 3.0 cases per 100,000 population to 7.6 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 1.5 cases per 100,000 population in 2008.

Syphilis remains an important problem in the South and in urban areas in other regions of the country. Increases in cases among MSM (including men who have sex with women and men) have occurred and have been characterized by high rates of HIV co-infection and high-risk sexual behaviors.³⁻⁷ The estimated proportion of P&S syphilis cases attributable to MSM increased from 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 2008, 63% 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 2008 was available for 80%.

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

Between 2007 and 2008, the number of cases of early latent syphilis reported to CDC increased 15.2% (from 10,768 to 12,401), while the number of cases of late and late latent syphilis increased 9.3% (from 18,256 to 19,945) (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 13.1% (from 40,921 to 46,277) between 2007 and 2008 (Table 1).

P&S Syphilis—United States

In 2008, P&S syphilis cases reported to CDC increased to 13,500 from 11,466 in 2007, an increase of 17.7%. The rate of P&S syphilis in the United States in 2008 (4.5 cases per 100,000 population) was 18.4% higher than the rate in 2007 (3.8 cases per 100,000 population) (Figure 30, Table 1).

P&S Syphilis by Region

The South accounted for 49.7% of the P&S syphilis cases in 2008 and 48.8% in 2007. Between 2007 and 2008, rates increased 19.6% in the South (from 5.1 to 6.1 cases per 100,000 population), 8.8% in the Northeast (from 3.4 to 3.7), 7.5% in the West (from 4.0 to 4.3) and 36.8% in the Midwest (from 1.9 to 2.6) (Figure 32, Table 25).

P&S Syphilis by State

In 2008, 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 33, Table 24). Four states reported five or fewer cases of P&S syphilis in 2008 (Table 24) (See the **Appendix [Interpreting STD Surveillance Data]** section for an explanation of HP2010 target setting methods).

P&S Syphilis by Metropolitan Statistical Area (MSA)

The rate of P&S syphilis in 2008 for the 50 most populous MSAs (6.2) exceeded the HP 2010 target of 0.2 case per 100,000 population (Table 28).

P&S Syphilis by County

In 2008, 2,180 of 3,141 counties (69.3%) in the United States reported no cases of P&S syphilis compared with 2,275 (72.4%) in 2007. Of 966 counties reporting at least one case of P&S syphilis in 2008, four (0.4%) 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 962 counties in 2008 (Figure 34). These 962 counties (30.6% of the total number of counties in the United States) accounted for over 99.9% of the total P&S syphilis cases reported in 2008. In 2008, half of the total number of P&S syphilis cases were reported from 26 counties and two cities (Table 31).

P&S Syphilis by Sex

The rate of P&S syphilis increased 15.2% among men (from 6.6 cases to 7.6 cases per 100,000 men) between 2007 and 2008 (Figure 31, Table 27). During this time, the rate increased 36.4% among women from 1.1 to 1.5 cases per 100,000 women (Figure 31, Table 26).

P&S Syphilis by Age

In 2008, the rate of P&S syphilis was highest in persons in the 20- to 24-year-old and 25- to 29-year-old age groups (11.4 and 10.7 cases per 100,000 population, respectively) (Table 33 and Figure 35–37).

Between 2007 and 2008, P&S syphilis rates in most age groups among men and women increased (Table 33 and Figures 35–37).

P&S Syphilis by Race/Ethnicity

From 2007 to 2008, the rate of P&S syphilis increased in all racial and ethnic groups except American Indian/Alaska Natives (Figure 38). The rate increased 10.0% among non-Hispanic whites (from 2.0 to 2.2 cases per 100,000 population), 25.4% among blacks (from 13.8 to 17.3), 11.9% among

Hispanics (from 4.2 to 4.7), and 25.0% among Asian/Pacific Islanders (from 1.2 to 1.5). The rate decreased 32.4% (from 3.4 to 2.3 cases per 100,000 population) among American Indian/Alaska Natives (Table 34B).

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, consistent with an increase in MSM (Figure 31). In 2008, however, the rate of P&S syphilis in males was 5.1 times that in females, a small decrease from 6.0 in 2007.

In 2005, CDC began collecting information on sex partners of patients with P&S syphilis. In 2008, this information was available for 80% of male cases.

In 2008, the stage of disease was reported as follows: among heterosexual men (men who have sex with women exclusively) with P&S syphilis, 41.6% had primary syphilis and 58.4% had secondary syphilis. Among female patients, 16.6% had primary syphilis and 83.4% had secondary syphilis. Among MSM with P&S syphilis, 24.5% had primary syphilis and 75.5% had secondary syphilis (Figure 39).

Of females with P&S syphilis, 22.4% were white, 64.4% were black, 9.7% were Hispanic, and 3.6% were of other races/ethnicities. Of heterosexual men, 16.9% were white, 65.8% were black, 13.4% were Hispanic, and 3.9% were of other races/ethnicities. Of MSM, 41.2% were white, 33.6% were black, 18.8% were Hispanic, and 6.4% were of other races/ethnicities (Figure 40).

P&S Syphilis by Race/Ethnicity and Sex

From 2007 to 2008, the P&S syphilis rate among non-Hispanic white males increased 8.1% (from 3.7 to 4.0), and increased among non-Hispanic white females as well (from 0.4 to 0.5). The rate increased 22.3% among black males (from 22.9 to 28.0) and 38.2% among black females (from 5.5 to 7.6). The rate increased 12.3% among Hispanic males (from 7.3 to 8.2), and 25.0% among Hispanic females (from 0.8 to 1.0). The rate increased 25.0% for Asian/Pacific Island males (from 2.4 to 3.0), but remained unchanged for Asian/Pacific Island females (0.1). The rate decreased 23.8% among American Indian/Alaska

Native males (from 4.2 to 3.2) and decreased 46.2% among American Indian/Alaska Native females (from 2.6 to 1.4) (Table 34B).

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

In 2008, the rate of P&S syphilis among blacks was highest among women 20 to 24 years of age (25.3—a 59.1% increase from 15.3 in 2007) and among men 20 to 24 years of age (75.1—a 31% increase from 57.2 in 2007) and 25 to 29 years of age (65.6—an 18% increase from 55.5 in 2007). For non-Hispanic whites, the rate was highest among women 20 to 24 years of age (1.4) and among men 40 to 44 years of age (9.8). For Hispanics, the rate was highest among women 20 to 24 years of age (2.8) and among men 35 to 39 years of age (16.3). For Asian/Pacific Islanders, the rate was highest among women 25 to 29 years of age (0.7) and among men 30 to 34 years of age (7.5). For American Indian/Alaska Natives, the rate was highest among women 30 to 34 years of age (4.0) and among men 25 to 29 years of age (11.7) (Table 34B).

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 2008, the proportion of P&S syphilis cases reported from sources other than STD clinics increased from 39.2% to 66.0% (Figure 41 and Table A2). Between 2001 and 2008, the number of cases among males reported from non-STD clinic sources increased sharply while the number from STD clinics increased only slightly (Figure 41).

During 2008, patients with P&S syphilis primarily sought care with private physicians or STD clinics. More cases of syphilis among MSM were reported from private physicians (36.9%) than STD clinics (30.2%) (Figure 42). More cases among women and heterosexual men were reported from STD clinics than private physicians.

Congenital Syphilis—United States

The rate of congenital syphilis remained unchanged between 2007 and 2008 (10.1 cases per 100,000 live births) although there was a 16% rate increase between 2006 and 2007 (Table 40). In 2008, 431 cases were reported (the same number reported in 2007), an increase from 372 in 2006. The increase in the rate of congenital syphilis since 2005 when the rate reached a nadir at 8.2 cases per 100,000 live births may relate to the increase in the rate of P&S syphilis among women that has occurred since 2004 (Figure 43).

In 2008, 27 states and one outlying area had one or more cases of congenital syphilis (Tables 39 and 40).

Syphilis among Special Populations

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

Syphilis Summary

In recent years, MSM have accounted for an increasing number of syphilis cases in the United States;⁹ 63% of reported P&S syphilis cases in the United States are among MSM, based on information from 44 states and Washington, D.C. Although the majority of U.S. syphilis cases have occurred among MSM, syphilis among heterosexuals is an emerging problem.¹⁰

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- ¹ Ingraham NR. The value of penicillin alone in the prevention and treatment of congenital syphilis. *Acta Derm Venereol* 1951, 31 (suppl 24):60–88.
- ² Centers for Disease Control and Prevention. *The National Plan to Eliminate Syphilis from the United States*. Atlanta, 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. *Sex Transm Dis* 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 Centers for Disease Control and Prevention. Primary and secondary syphilis—Jefferson County, Alabama, 2002–2007. *MMWR* 2009;58:463–467.

Figure 30. Syphilis—Reported cases by stage of infection: United States, 1941–2008

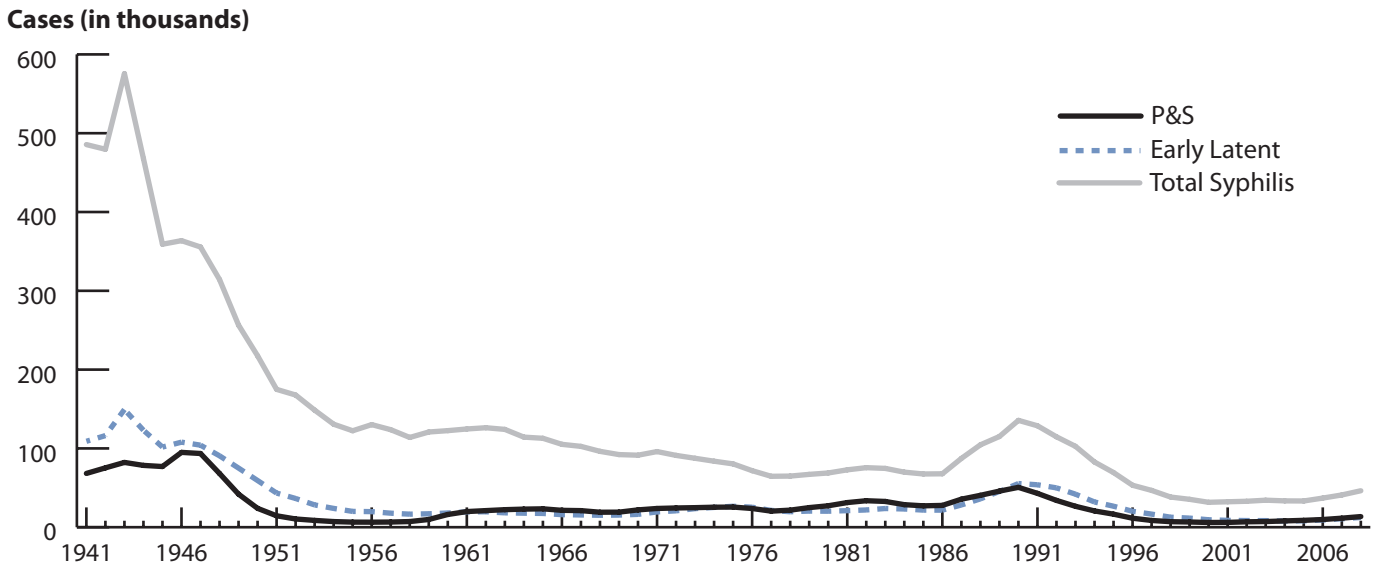


Figure 31. Primary and secondary syphilis—Rates: Total and by sex and male-to-female rate ratios: United States, 1989–2008

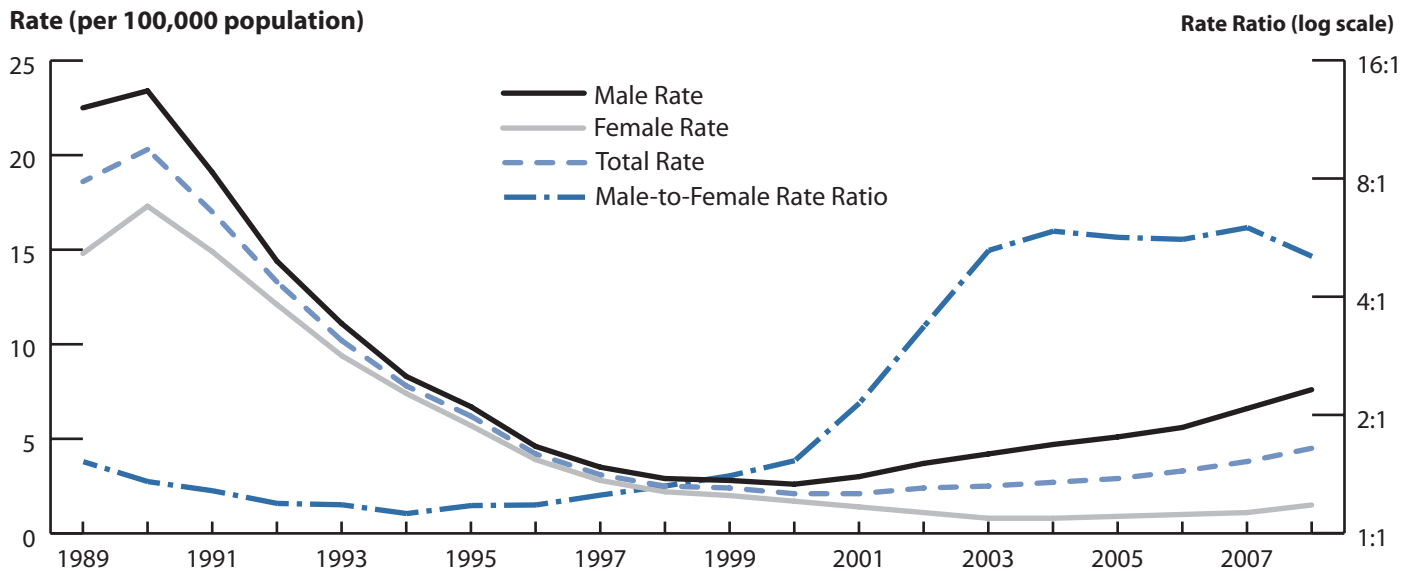


Figure 32. Primary and secondary syphilis—Rates by region: United States, 1999–2008

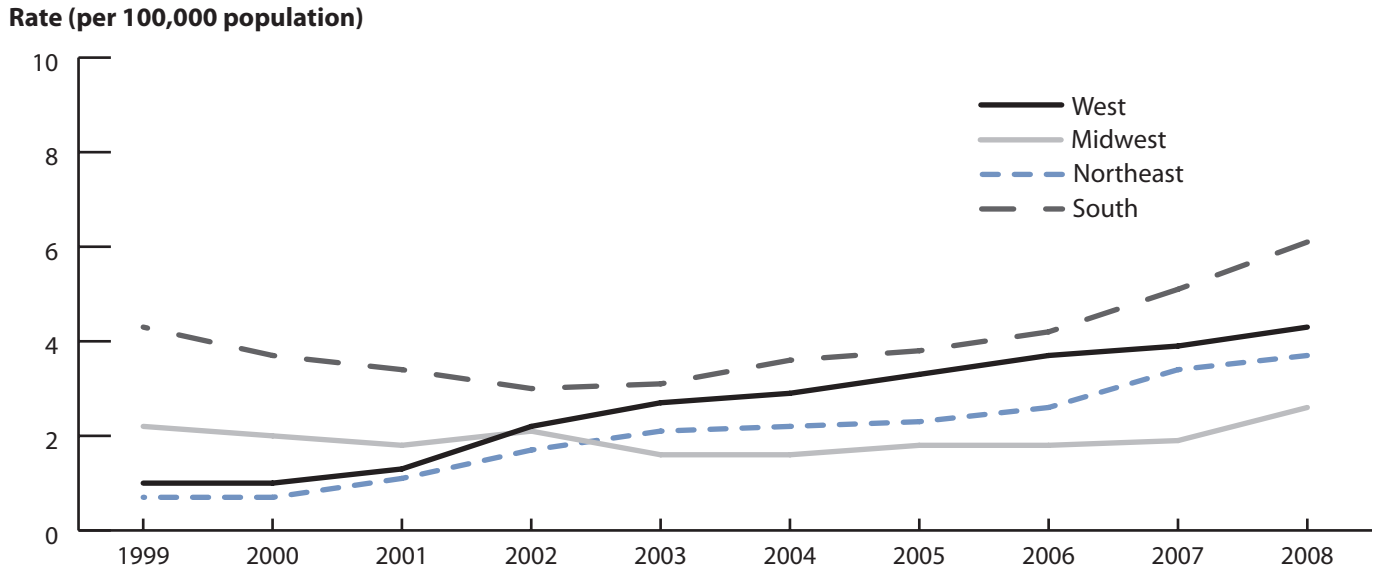
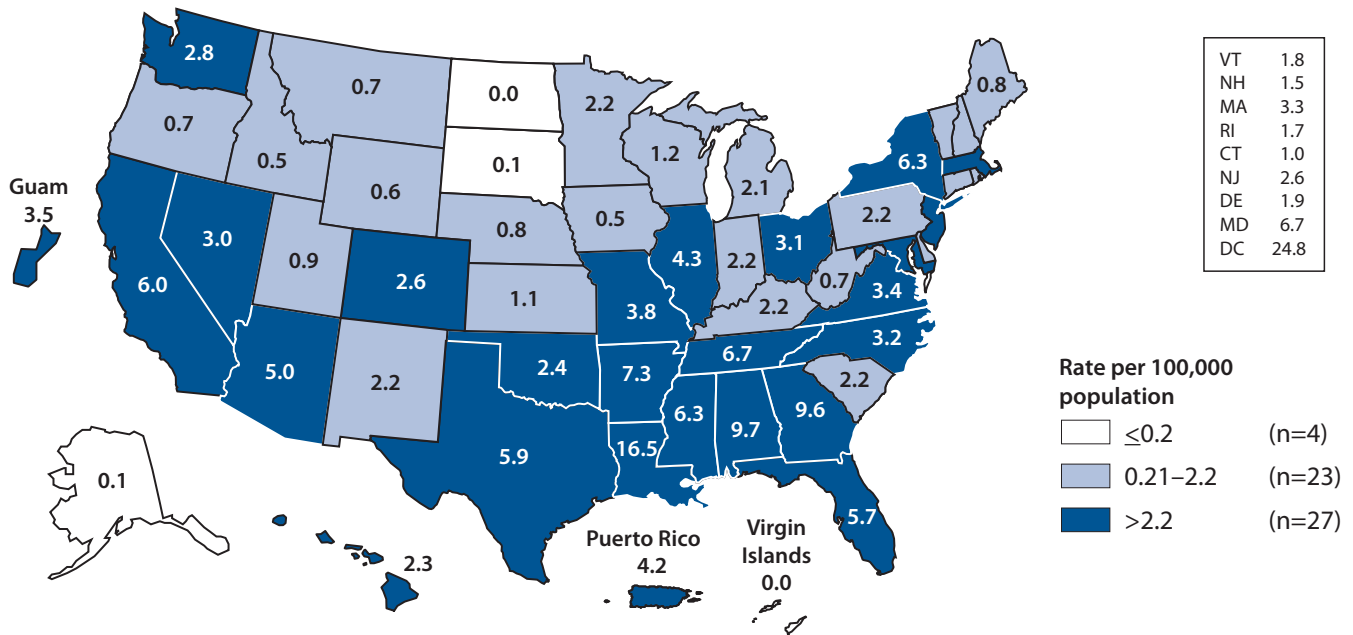
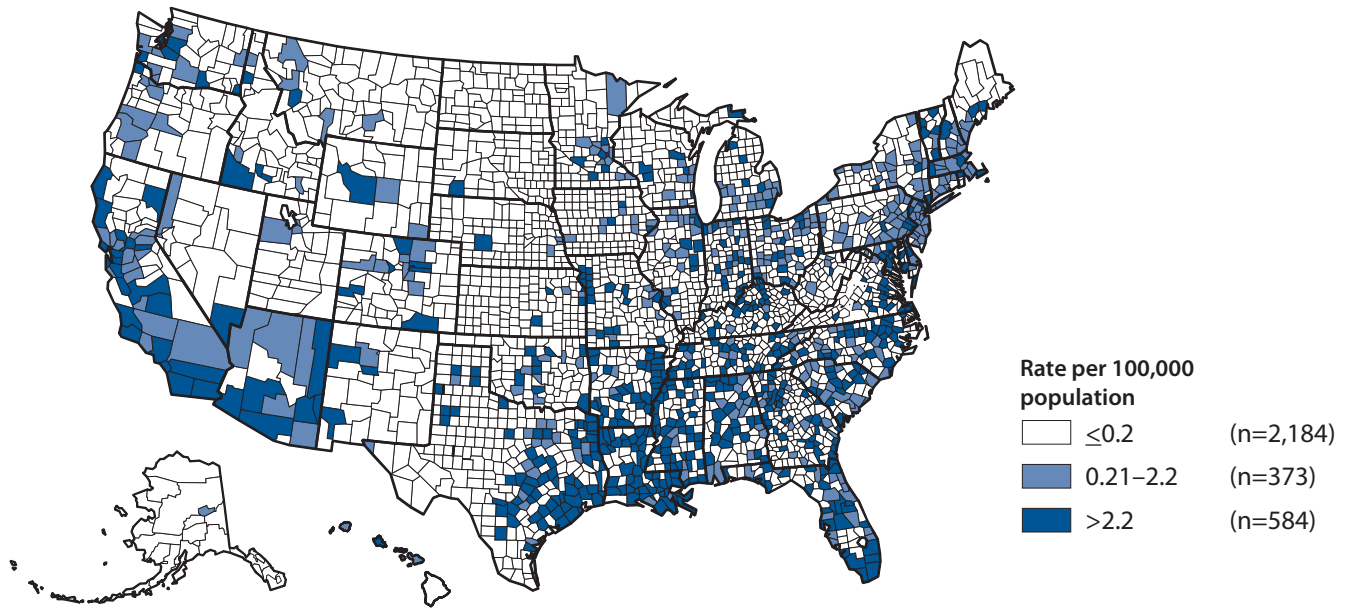


Figure 33. Primary and secondary syphilis—Rates by state: United States and outlying areas, 2008



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

Figure 34. Primary and secondary syphilis—Rates by county: United States, 2008



NOTE: In 2008, 2,180 (69.3%) of 3,141 counties in the United States reported no cases of P&S syphilis.

Figure 35. Primary and secondary syphilis—Age- and sex-specific rates: United States, 2008

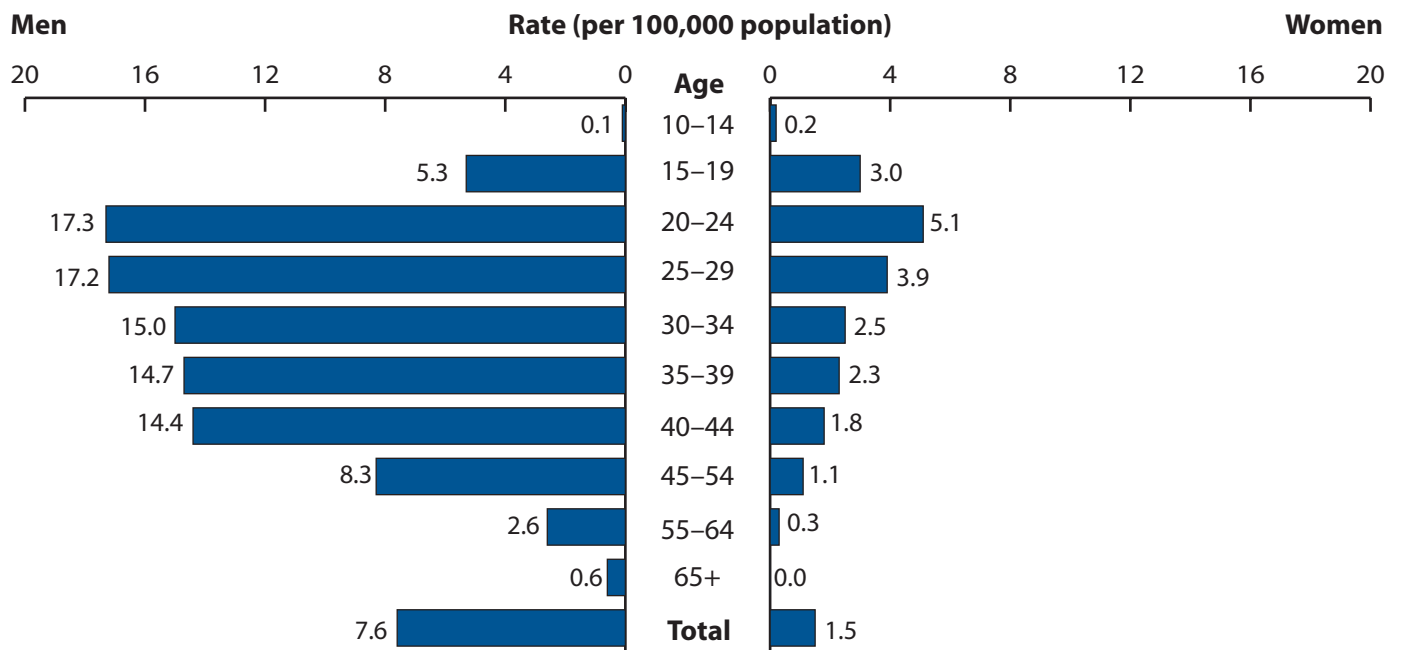


Figure 36. Primary and secondary syphilis—Age-specific rates among women 15 to 44 years of age: United States, 1999–2008

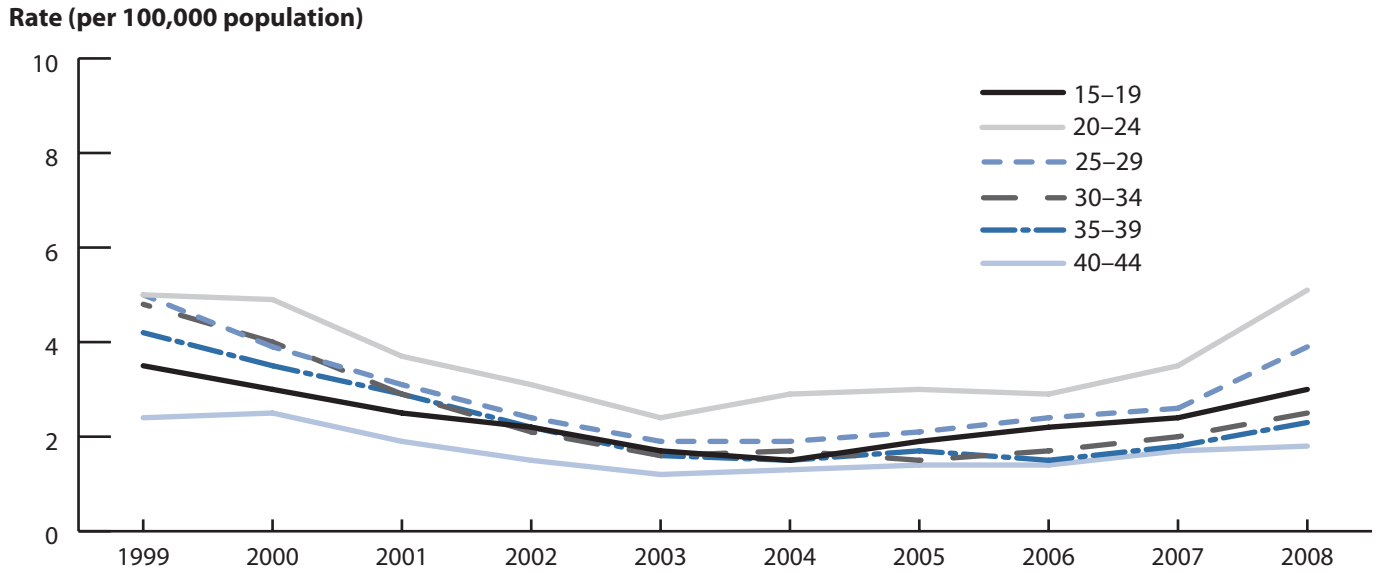


Figure 37. Primary and secondary syphilis—Age-specific rates among men 15 to 44 years of age: United States, 1999–2008

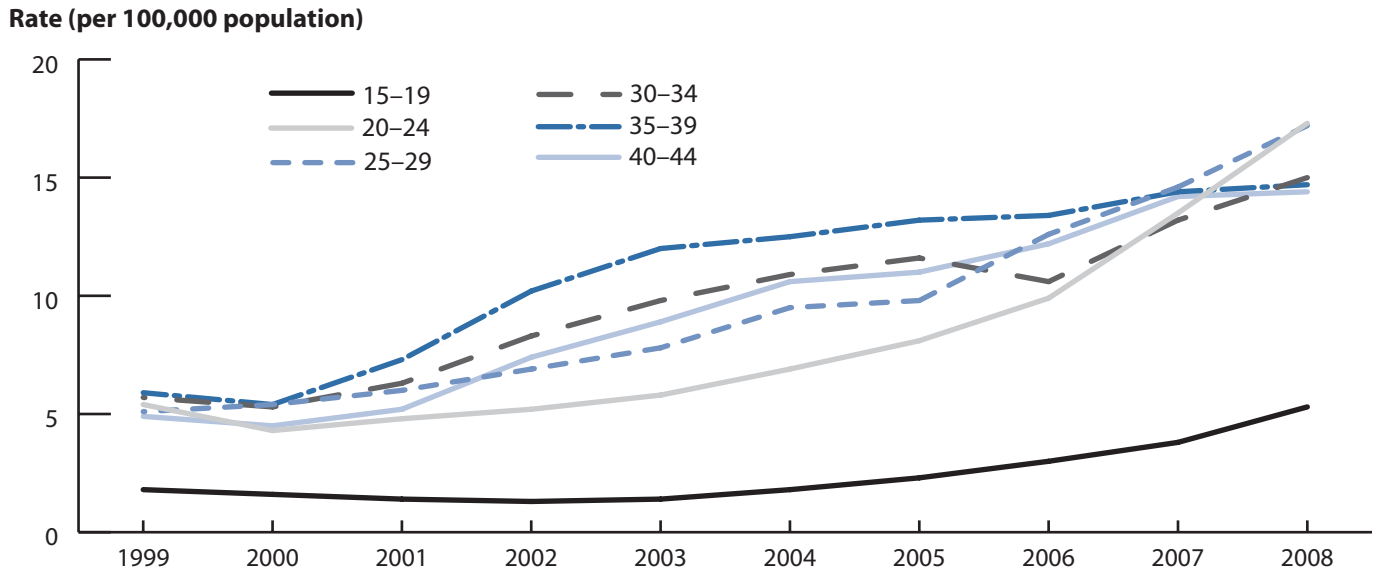


Figure 38. Primary and secondary syphilis—Rates by race/ethnicity: United States, 1999–2008

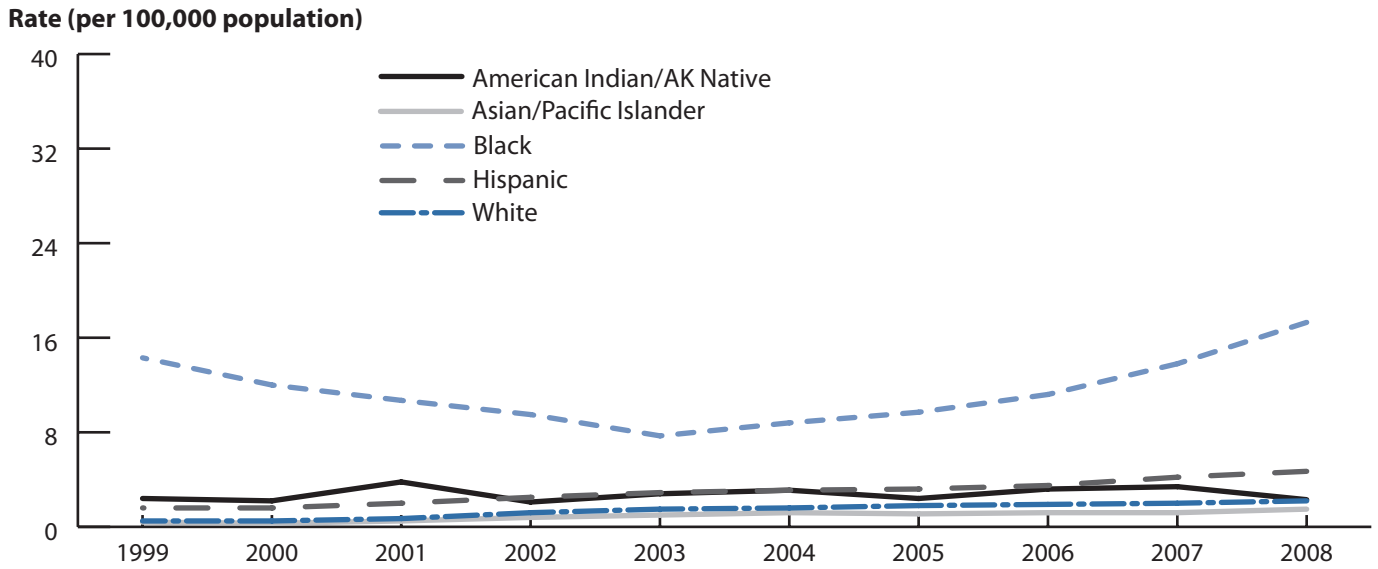
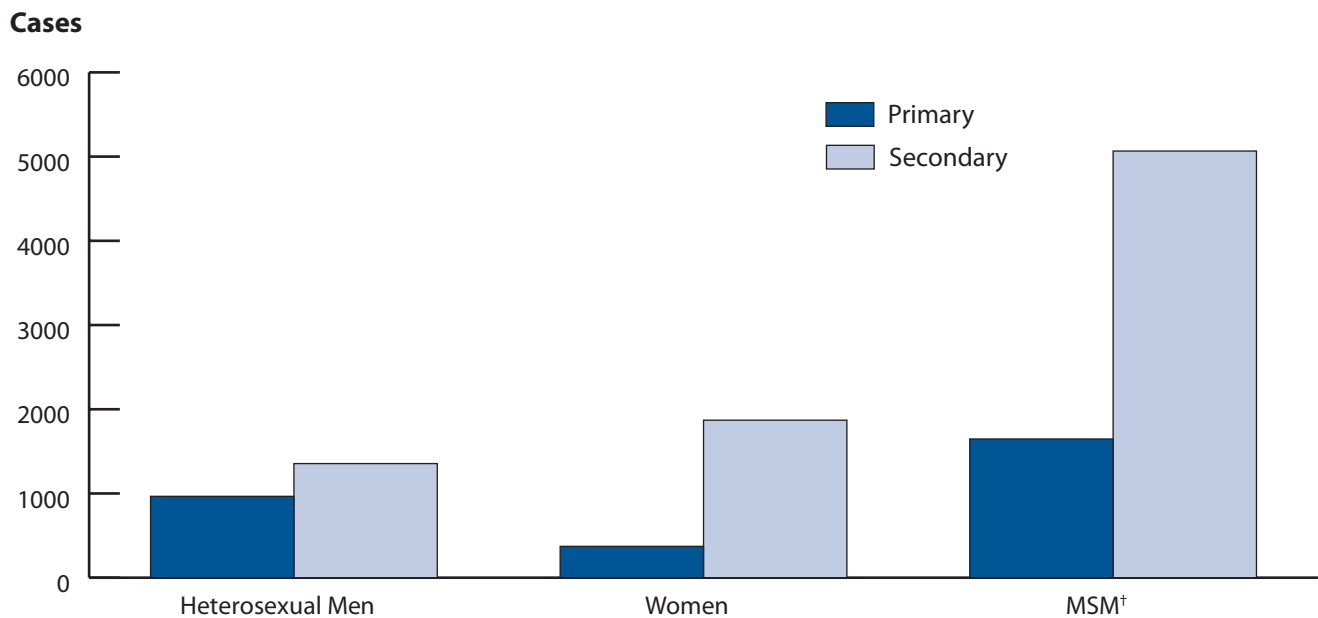


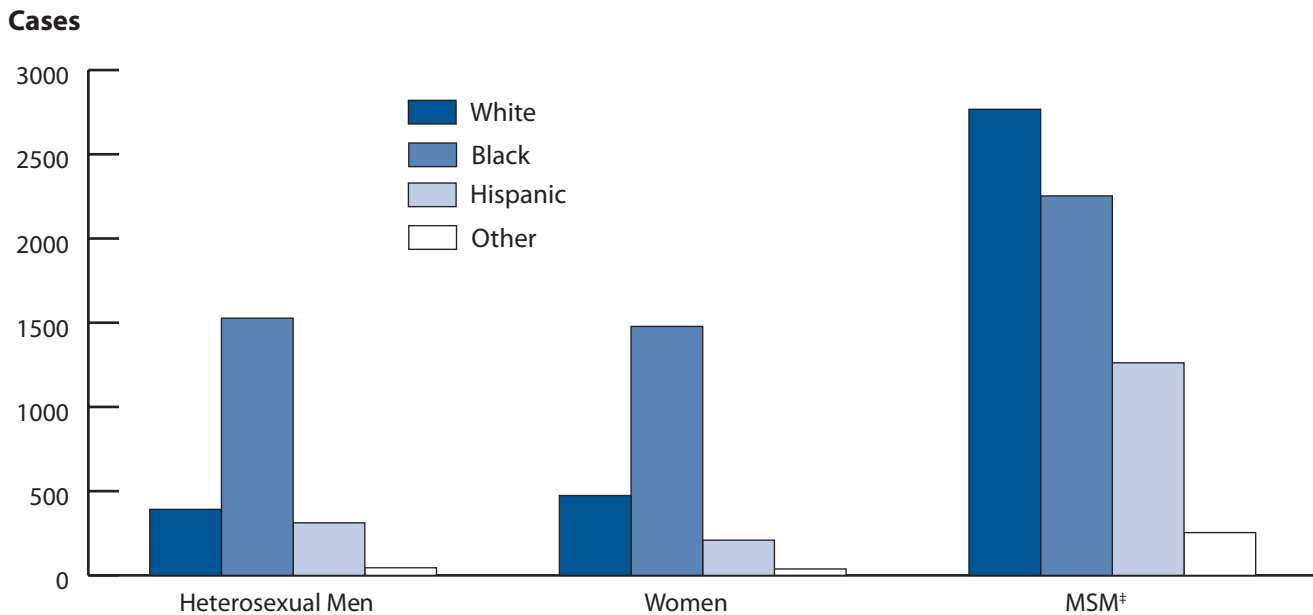
Figure 39. Primary and secondary syphilis—Reported cases* by stage and sexual orientation, 2008



* 20% of reported male cases of P&S syphilis were missing sex of sex partner information.

† MSM denotes men who have sex with men.

Figure 40. Primary and secondary syphilis—Reported cases* by sexual orientation and race/ethnicity,† 2008



* 20% of reported male cases of P&S syphilis were missing sex of sex partner information; 2% of reported male 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 41. Primary and secondary syphilis—Reported cases by reporting source and sex: United States, 1999–2008

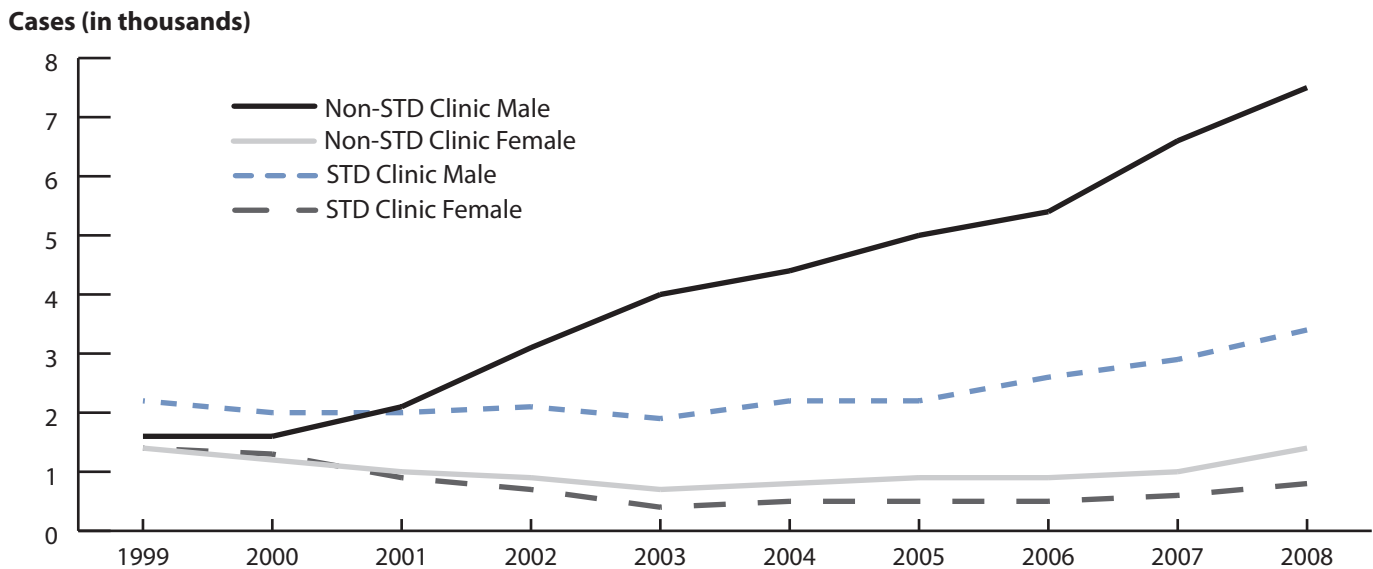
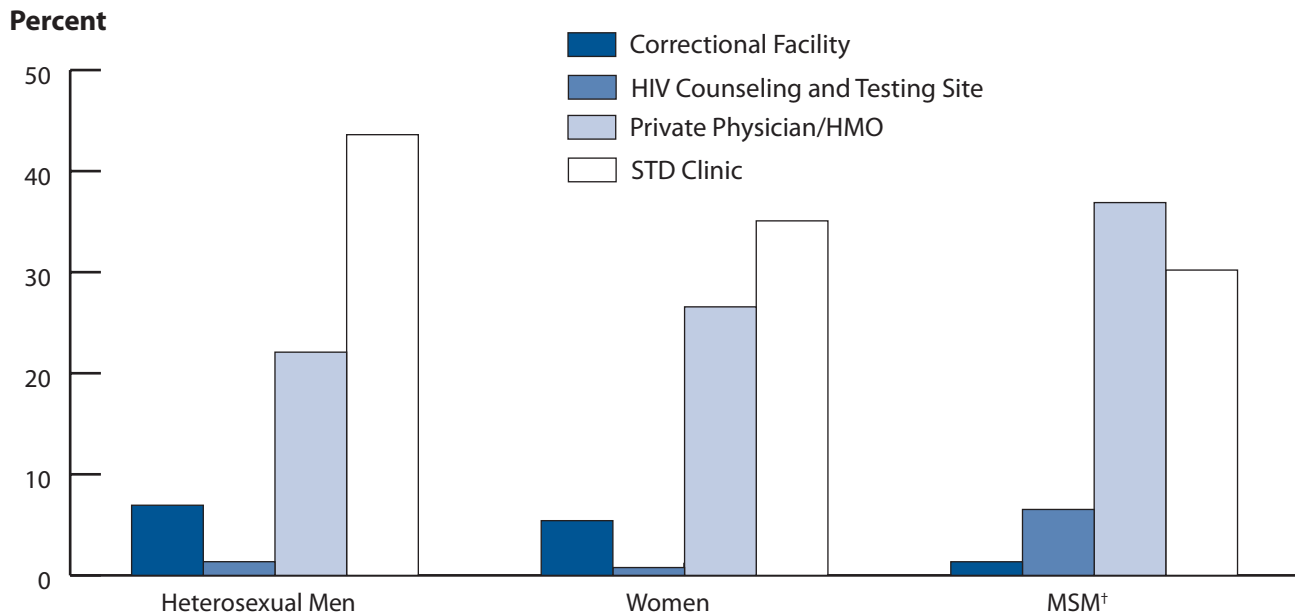


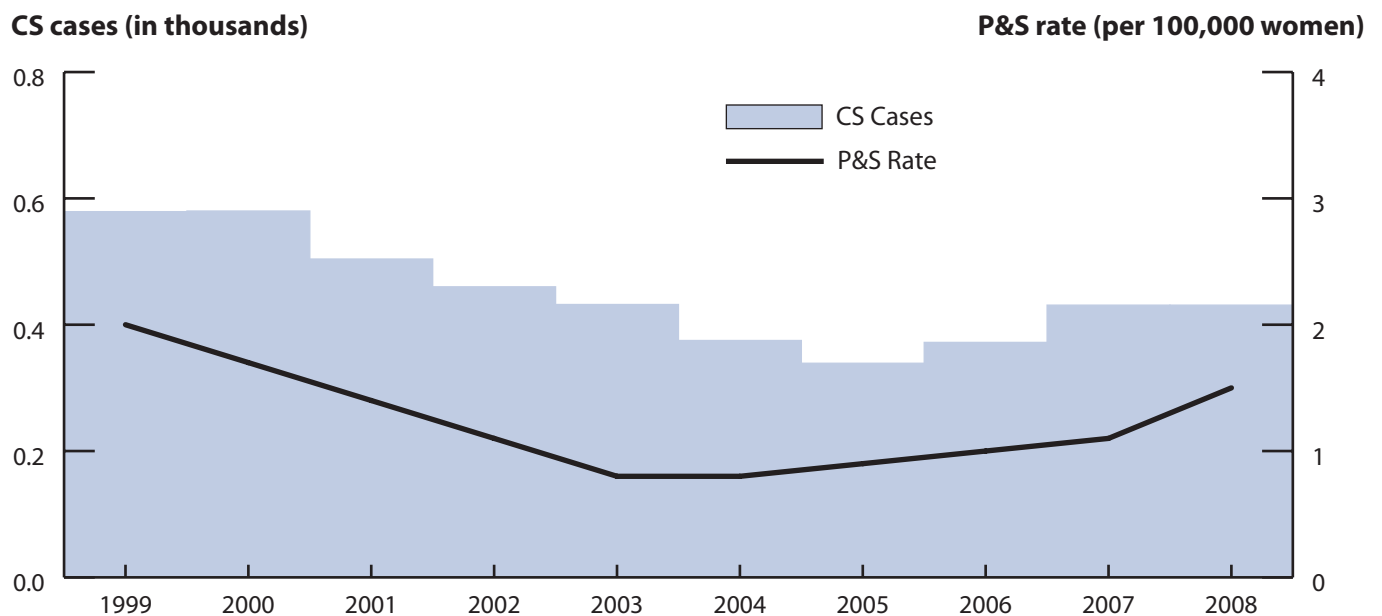
Figure 42. Primary and secondary syphilis—Percentage of reported cases* by sexual orientation and selected reporting sources, 2008



* 20% of reported male cases of P&S syphilis were missing sex of sex partner information; 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 43. Congenital syphilis (CS)—Reported cases for infants <1 year of age and rates of primary and secondary syphilis among women: United States, 1999–2008



Other Sexually Transmitted Diseases (STDs)

Chancroid

Since 1987, reported cases of chancroid declined steadily until 2001. Since then, the number of cases reported has fluctuated (Figure 44, Table 1). In 2008, 25 cases of chancroid were reported in the United States. Only nine states reported one or more cases of chancroid in 2008 (Table 42). 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 (HPV)

Persistent infection with high-risk human papillomavirus (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 HPV types 16, 18, 31, 33, 35, 39, 45, 51, 52, 56, 58, 59, or 68 was conducted in 26 STD, family planning and primary care clinics in 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 efforts such as vaccine programs in the United States. Testing was performed using a commercially available test for high-risk HPV DNA (Hybrid Capture 2, Qiagen, Gaithersburg, MD). Results from 2003–2005 document an overall high-risk 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 35% in those 14 to 19 years of age; 29% in those 20 to 29 years of age; 13% in those 30 to 39 years of age; 11% in those 40 to 49 years of age; and 6.3% in those 50 to 65 years of age.³

National population-based data were also obtained from NHANES, examining prevalence in the civilian, non-institutionalized female population of the United States, 2003–2004, of both high-risk HPV and low-risk HPV including types 6 and 11, which are responsible for approximately 90% of anogenital warts (Figure 45). The overall HPV prevalence of high- and low-risk types, was 26.8% (95% confidence interval (CI): 23.3–30.9) among U.S. females 14 to 59 years of age. 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.⁴

Data from the National Disease and Therapeutic Index (NDTI) suggest that incidence of genital warts (Figure 46) 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.⁵

Pelvic Inflammatory Disease (PID)

For data on PID, see the **Special Focus Profile** on Women and Infants.

Herpes Simplex Virus (HSV)

Case reporting data for genital HSV are not available. Trend data are based on estimates of the initial office visits in physicians' office practices for these conditions from the NDTI (Figure 47 and Table 43).

National trend data on the seroprevalence of HSV-2 among those 14 to 49 years of age 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. These data along with data from NHANES survey

years 1976–1980, indicate that blacks had higher seroprevalence than whites for each survey period and age group⁷ (Figure 48). In 1999–2004, the overall percentage of survey participants who reported having been diagnosed with genital herpes was 3.8%.⁶

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 49 and Table 43). NHANES data from 2001–2004 demonstrated an overall prevalence of 3.1% (95% CI: 2.3–4.3), with the highest prevalence observed among blacks 13.3% (95% CI: 10.0–17.7).⁷

¹ Schulte JM, Martich FA, Schmid GP. Chancroid in the United States, 1981–1990: Evidence for underreporting of cases. *MMWR* 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 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.

⁵ 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.

⁶ 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.

⁷ Sutton M, Sternberg M, Koumans EH, McQuillan G, Berman, S, Markowitz LE. The prevalence of *Trichomonas vaginalis* infection among reproductive-age women in the United States, 2001–2004. *Clin Infect Dis* 2007 Nov 15;45(10):1319–26.

Figure 44. Chancroid—Reported cases: United States, 1981–2008

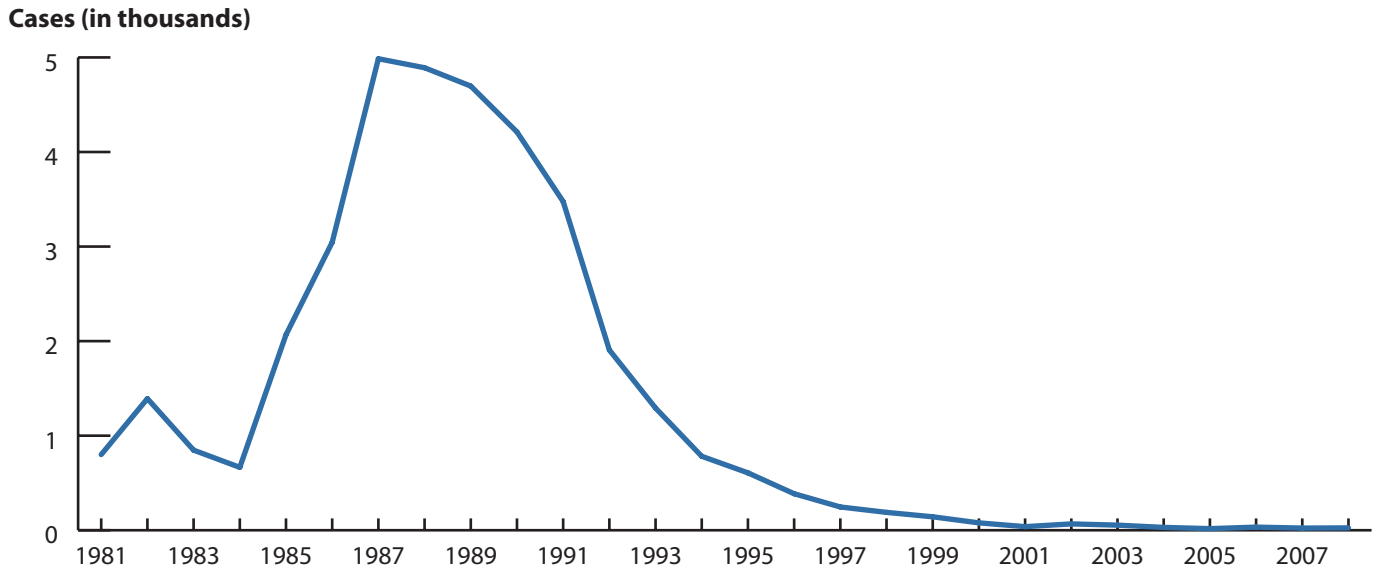
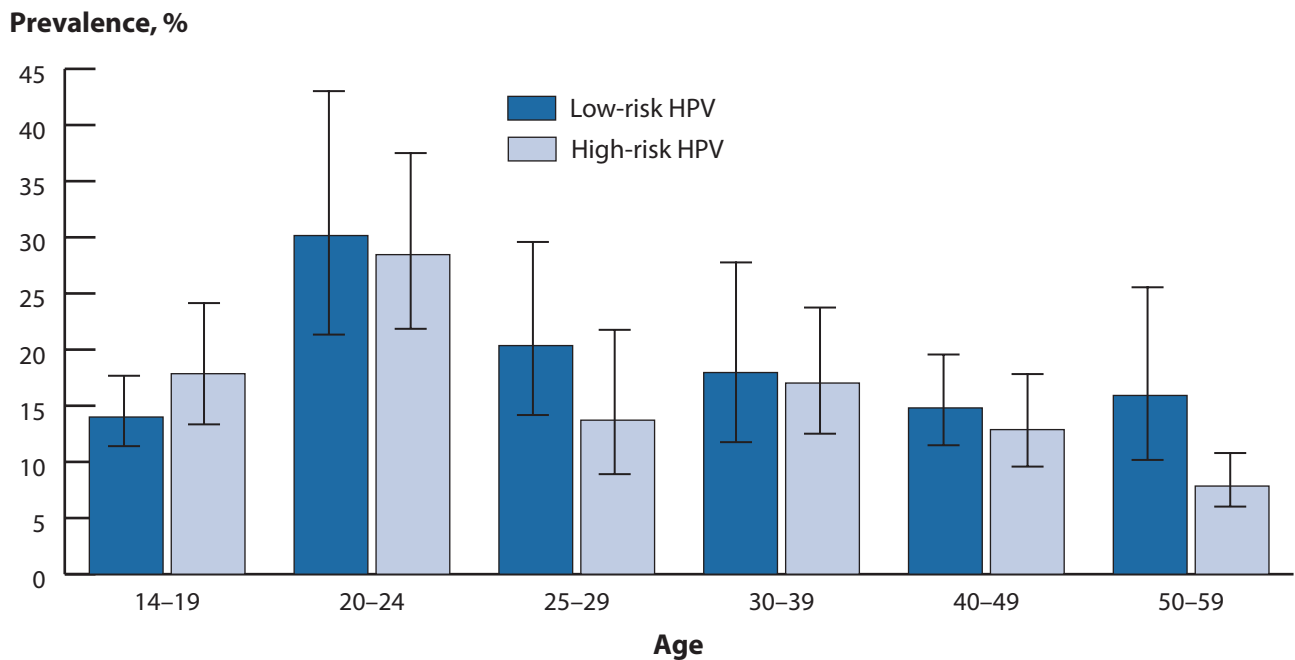


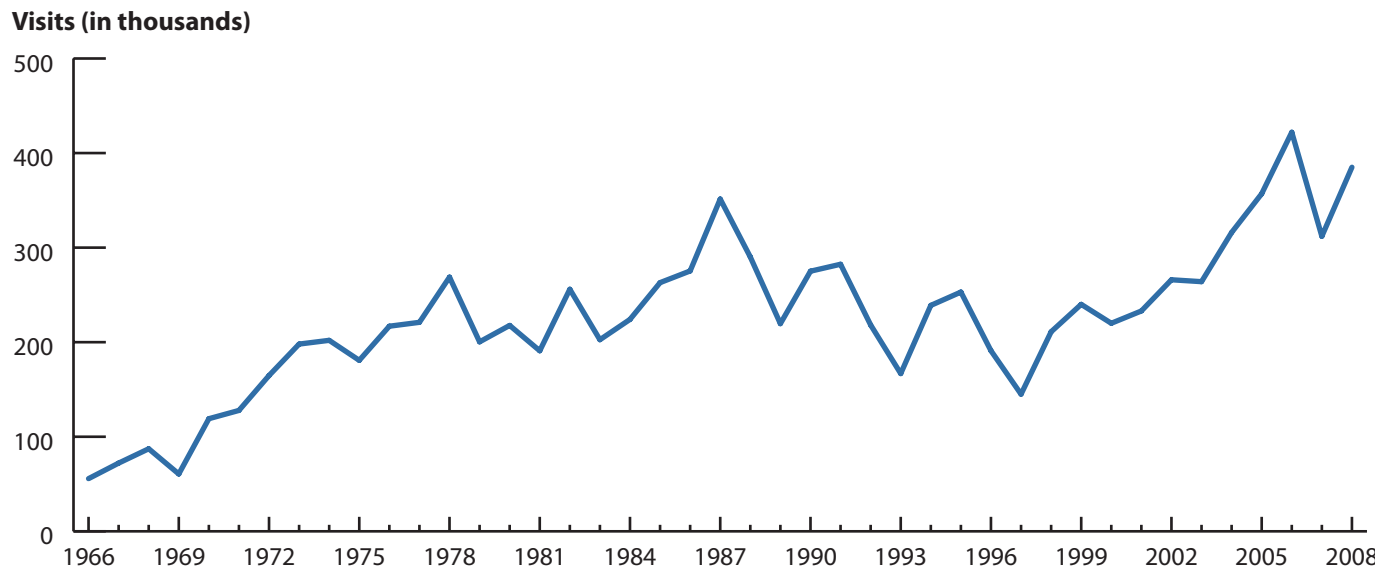
Figure 45. Human papillomavirus (HPV)—Prevalence of high-risk and low-risk types among females 14 to 59 years of age from a national survey, 2003–2004



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. *JAMA*, 2007;297:813–819. © 2007 American Medical Association. All rights reserved.

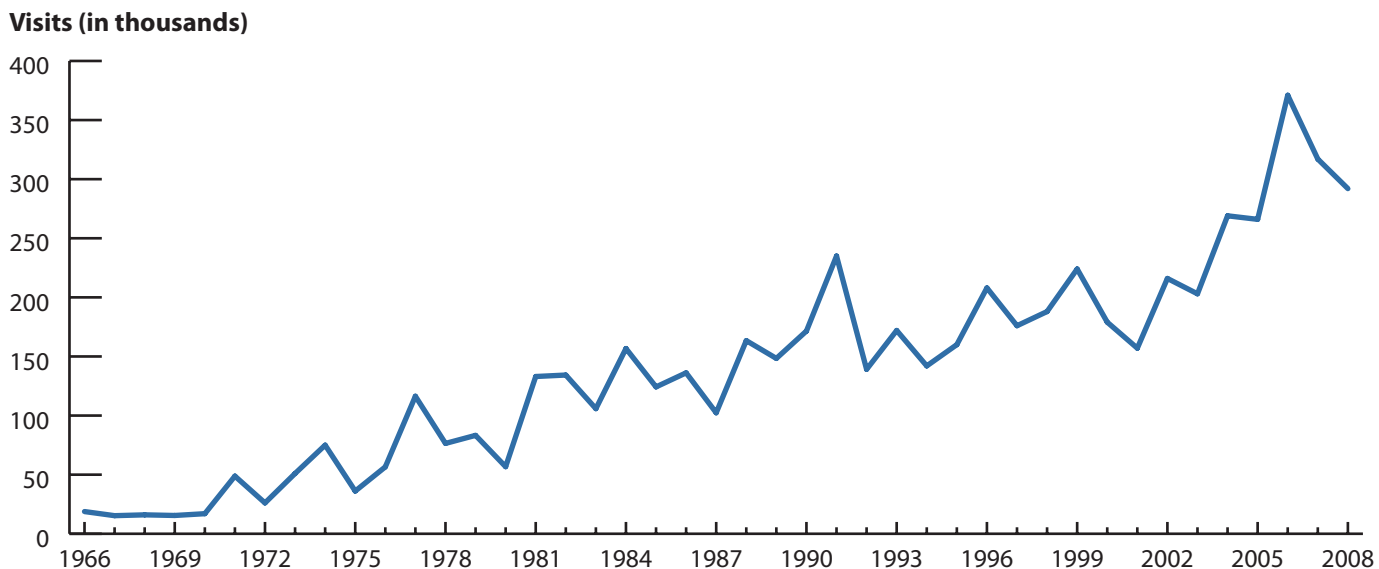
Figure 46. Genital warts—Initial visits to physicians’ offices: United States, 1966–2008



NOTE: See Appendix (Other Data Sources) and Table 43. The relative standard error for genital warts estimates range from 18% to 30%.

SOURCE: IMS Health, Integrated Promotional Services, IMS Health Report, 1966–2008 Hardcopy.

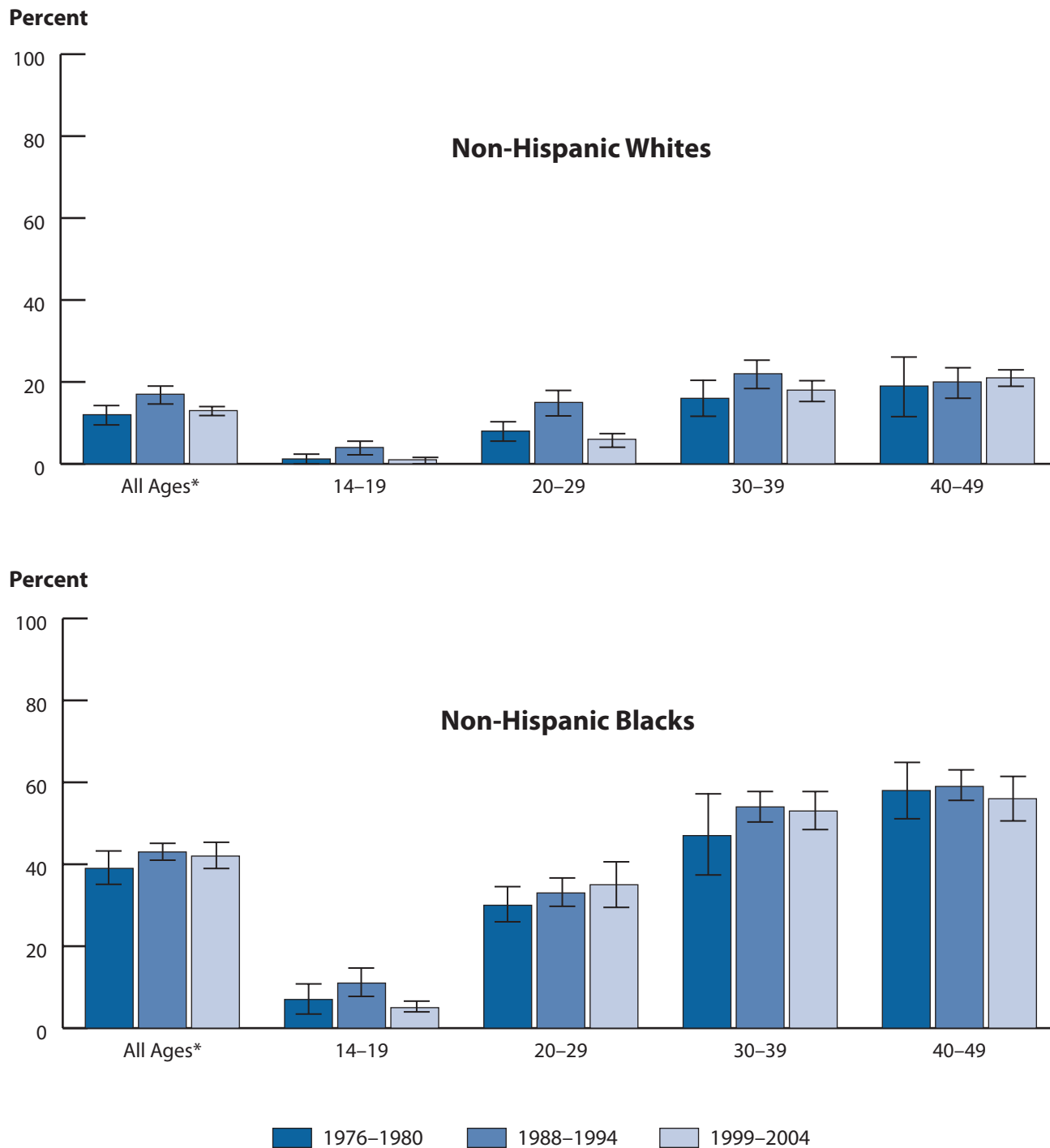
Figure 47. Genital herpes—Initial visits to physicians’ offices: United States, 1966–2008



NOTE: See Appendix (Other Data Sources) and Table 43. The relative standard error for genital herpes estimates range from 18% to 30%.

SOURCE: IMS Health, Integrated Promotional Services, IMS Health Report, 1966–2008 Hardcopy.

Figure 48. Genital herpes—Herpes simplex virus, type 2, seroprevalence in non-Hispanic whites and non-Hispanic blacks by age group from national surveys, 1976–1980, 1988–1994, 1999–2004

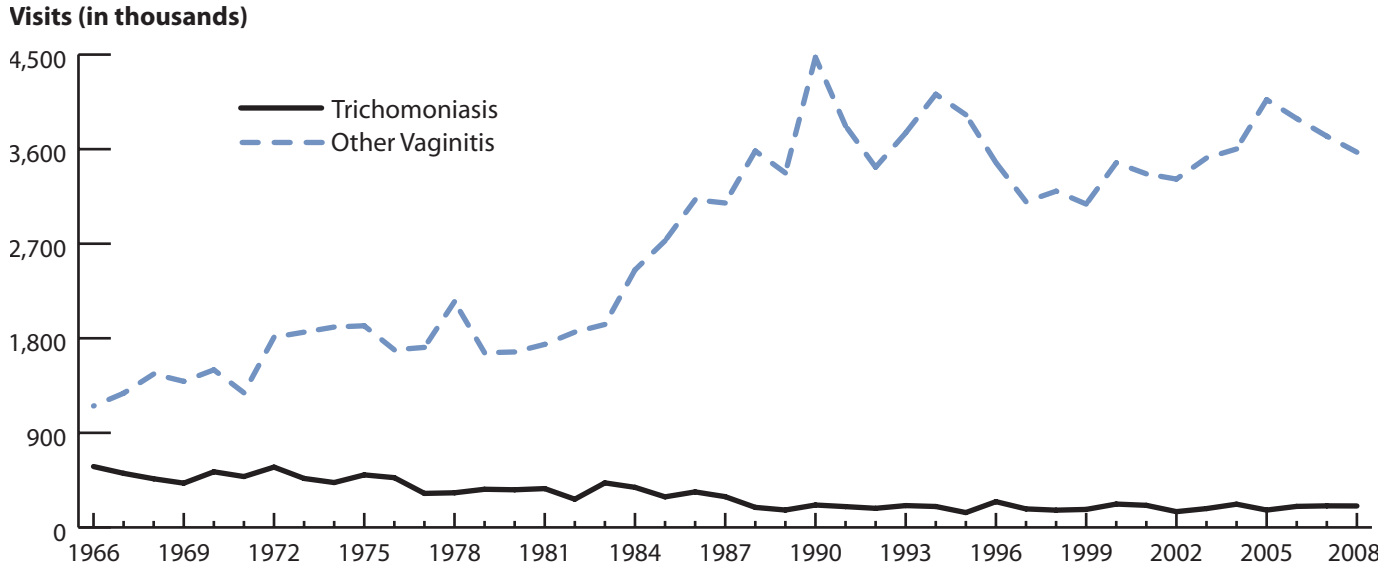


* Age-adjusted using the 2000 U.S. Census civilian, noninstitutionalized population aged 14 to 49 years as the standard.

NOTE: Error bars indicate 95% confidence intervals.

SOURCE: National Health and Nutrition Examination Survey. *JAMA* 2006;296:964–973. © 2006 American Medical Association. All rights reserved.

Figure 49. Trichomoniasis and other vaginal infections in women—Initial visits to physicians' offices: United States, 1966–2008



Note: See Appendix (Other Data Sources) and Table 43. The relative standard error for trichomoniasis estimates range from 16% to 27% and for other vaginitis estimates range from 8% to 13%.

SOURCE: IMS Health, Integrated Promotional Services, IMS Health Report, 1966–2008 Hardcopy.

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 (Figures A-FF) 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. A substantial proportion of women with chlamydia or gonorrhea may develop PID if not adequately treated, generally estimated to be from 10-20%, but ranging up to 40%.¹ Among women with PID, tubal scarring can cause involuntary infertility in 20%, ectopic pregnancy in 9%, and chronic pelvic pain in 18%.² Approximately 70% of chlamydial infections and 50% of gonococcal infections in women are asymptomatic.³⁻⁵ These infections are detected primarily through screening. The vague symptoms associated with PID cause 85% of women to delay seeking medical care, thereby increasing the risk of infertility and ectopic pregnancy.⁶ 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%.⁷

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.⁸

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 HSV are extremely common, may cause painful outbreaks, and may have serious consequences for pregnant women.⁹

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.¹⁰

Observations

Chlamydia—United States

Between 2007 and 2008, the rate of chlamydial infections in women increased from 539.8 to 583.8 per 100,000 females (Figure 1, Table 4). Chlamydia rates exceeded gonorrhea rates among women in all states (Figures A and C, Tables 4 and 14).

Prevalence Monitoring Project

Prenatal Clinics—In 2008, 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 7.9% (range: 1.8% to 19.2%) (Figure B).

Family Planning Clinics—In 2008, 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, the District of Columbia, Puerto Rico, and the Virgin Islands was 7.4% (range: 3.1% to 15.0%) (Figures 9 and 10).

Gonorrhea—United States

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 (119.4 per 100,000 females) decreased slightly in 2008 for the first time in four years (Figure 14, Table 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 eight consecutive years (Figure 14 and Tables 14 and 15).

Prevalence Monitoring

Prenatal Clinics—In 2008, the median state-specific gonorrhea test positivity among 15- to 24-year-old women screened in selected prenatal clinics in 20 states, Puerto Rico, and the Virgin Islands was 1.0% (range: 0.0% to 5.0%) (Figure D).

Family Planning Clinics—In 2008, the median state-specific gonorrhea test positivity among 15- to 24-year-old women who were screened during visits in selected family planning clinics in 43 states, the District of Columbia, Puerto Rico, and the Virgin Islands was 0.9% (range: 0.0% to 3.8%) (Figure 23).

Congenital Syphilis

Trends in congenital syphilis usually follow trends in P&S syphilis among women, with a lag of one to two years (Figure 43). 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 40). The rate of P&S syphilis among women declined 95.0% (from 17.3 to 0.8 cases per 100,000 females) between 1990 and 2004 (Figure 31). However, the rate in women has increased since 2004. The rate of P&S syphilis in 2008 was 1.5 cases per 100,000 women (Table 26). The highest rates of P&S syphilis in women are observed in the South (Figure E).

After 14 years of decline, the rate of congenital syphilis increased 6.1% between 2005 and 2006 (from 8.2 to 8.7 cases per 100,000 live births) (Table 40), and 16.1% between 2006 and 2007 (from 8.7 to 10.1 cases per 100,000 live births) (Table 40). The rate for 2008 remained unchanged from 2007. The highest of rates of congenital syphilis are observed in the South and West (Figure F).

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.¹¹

Pelvic Inflammatory Disease (PID)

Accurate estimates of 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,^{12,13} but have remained relatively constant between 2000 and 2006, the most recent year for which these data are available (Figure G).

The estimated number of initial visits to physicians' offices for PID from the NDTI has generally declined from 2000 through 2008 (Figure H and Table 43).

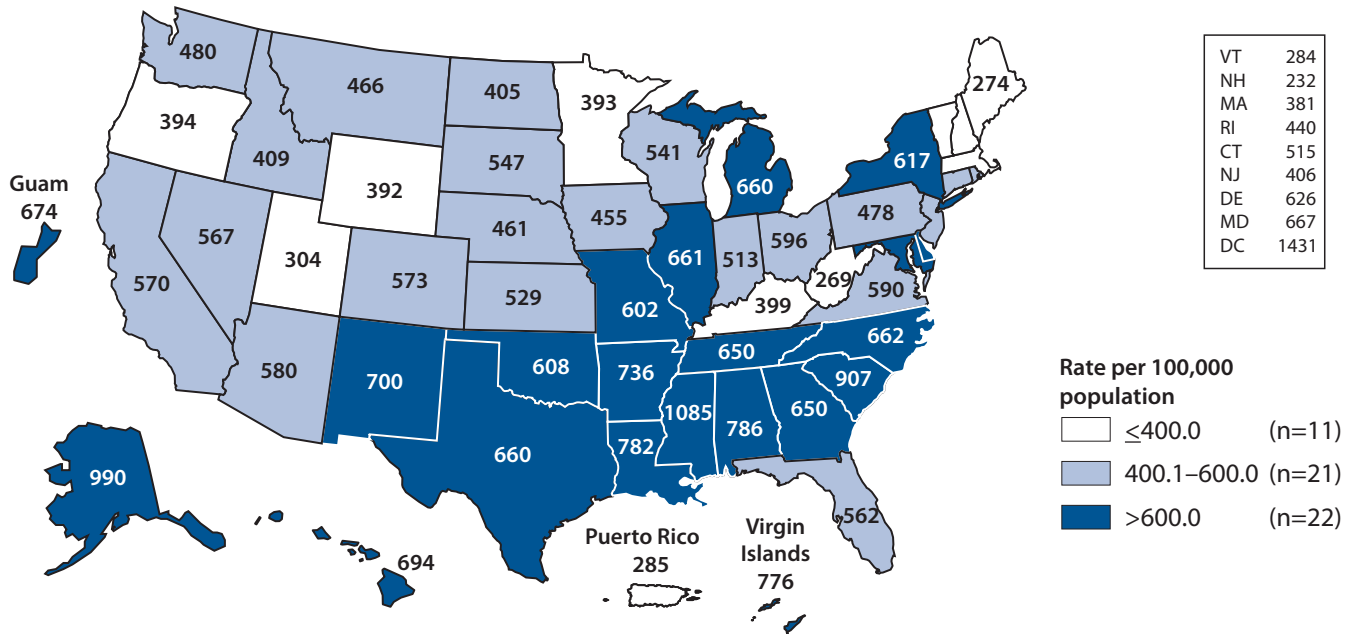
Racial disparities in diagnosed PID have been observed in both ambulatory and hospitalized settings. Black women had rates of disease that were two to three times those in white women. These disparities are consistent with the marked racial disparities observed for chlamydia and gonorrhea; however, because of the subjective methods by which PID is diagnosed, racial disparity data should be interpreted with caution.¹³

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 I). 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.¹⁴

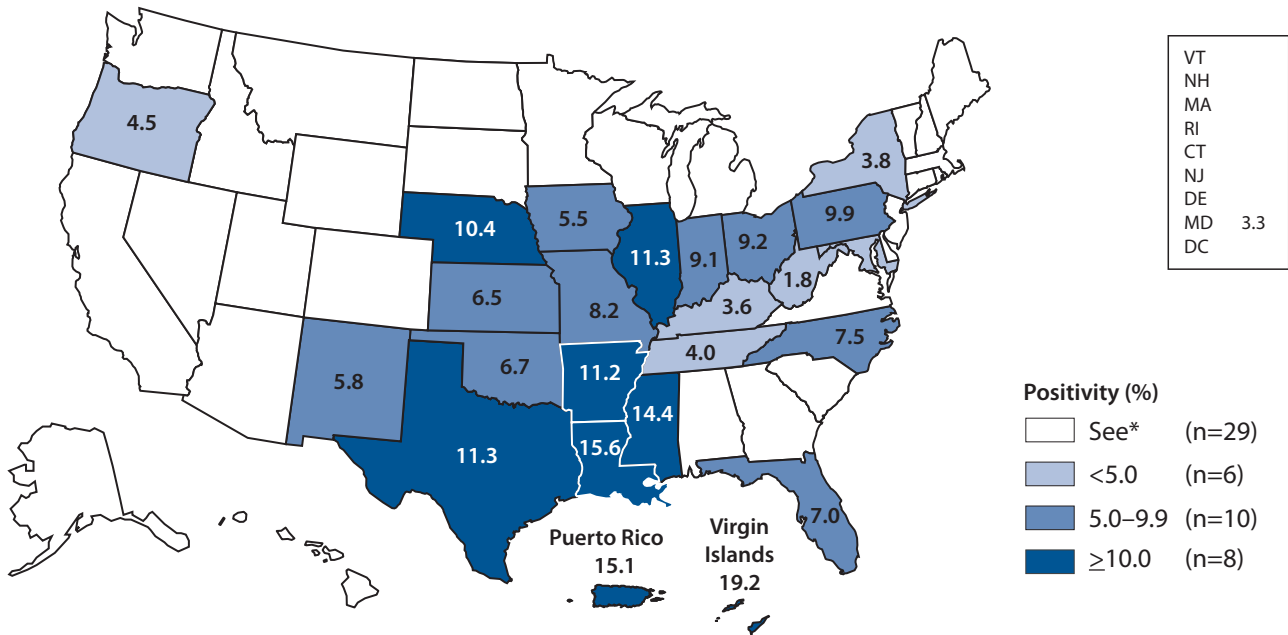
-
- ¹ Paavonen J, Westrom L, Eschenbach D. Pelvic inflammatory disease. In: Holmes KK, Sparling PF, Stamm WE et al, eds. *Sex Transm Dis*, 4th edition. New York City: McGraw-Hill, Inc, 2008:1017-1050.
 - ² Westrom L, Joesoef R, Reynolds G, et al. Pelvic inflammatory disease and fertility: a cohort study of 1,844 women with laparoscopically verified disease and 657 control women with normal laparoscopy. *Sex Transm Dis* 1992;9:185–92.
 - ³ Hook EW III, Handsfield HH. Gonococcal infections in the adult. In: Holmes KK, Sparling PF, Mardh PA, , et al, eds. *Sex Transm Dis*, 3rd edition. New York, New York: McGraw-Hill, 1999.
 - ⁴ Stamm WE, Holmes KK. *Chlamydia trachomatis* infections in the adult. In: Holmes KK, Mardh PA, Sparling PF, et al, eds. *Sex Transm Dis*, 2nd edition. New York City: McGraw-Hill, Inc, 1990:181–93.
 - ⁵ Zimmerman HL, Potterat JJ, Dukes RL, et al. Epidemiologic differences between chlamydia and gonorrhea. *Am J Public Health* 1990;80:1338–42.
 - ⁶ Hillis SD, Joesoef R, Marchbanks PA, et al. Delayed care of pelvic inflammatory disease as a risk factor for impaired fertility. *Am J Obstet Gynecol* 1993;168:1503–9.
 - ⁷ Scholes D, Stergachis A, Heidrich FE, Andrilla H, Holmes KK, Stamm WE. Prevention of pelvic inflammatory disease by screening for cervical chlamydial infection. *N Engl J Med* 1996;34(21):1362–6.
 - ⁸ Division of STD Prevention. *Prevention of Genital HPV Infection and Sequelae: Report of an External Consultants' Meeting*. National Center for HIV, STD, and TB Prevention, Centers for Disease Control and Prevention, Atlanta, December 1999.
 - ⁹ Kimberlin DW. Herpes simplex virus infections of the newborn. *Seminars in Perinatology* 2007 February;31(1):19-25.
 - ¹⁰ Centers for Disease Control. Guidelines for prevention and control of congenital syphilis. *MMWR* 1988;37(No.S-1)
 - ¹¹ Centers for Disease Control and Prevention. Congenital syphilis—United States, 2002. *MMWR* 2004;53:716–9.
 - ¹² Rolfs RT, Galaid EI, Zaidi AA. Pelvic inflammatory disease: trends in hospitalization and office visits, 1979 through 1988. *Am J Obstet Gynecol* 1992;166:983–90.
 - ¹³ Sutton MY, Sternberg M, Zaidi A, St. Louis ME, Markowitz LE. Trends in pelvic inflammatory disease hospital discharges and ambulatory visits, United States, 1985–2001. *Sex Transm Dis* 2005;32(12):778–784.
 - ¹⁴ Centers for Disease Control and Prevention. Ectopic pregnancy in the United States, 1990–1992. *MMWR* 1995;44:46–8.

Figure A. Chlamydia—Rates among women by state: United States and outlying areas, 2008



NOTE: The total chlamydial infection rate among women in the United States and outlying areas (Guam, Puerto Rico, and Virgin Islands) was 580.0 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, 2008

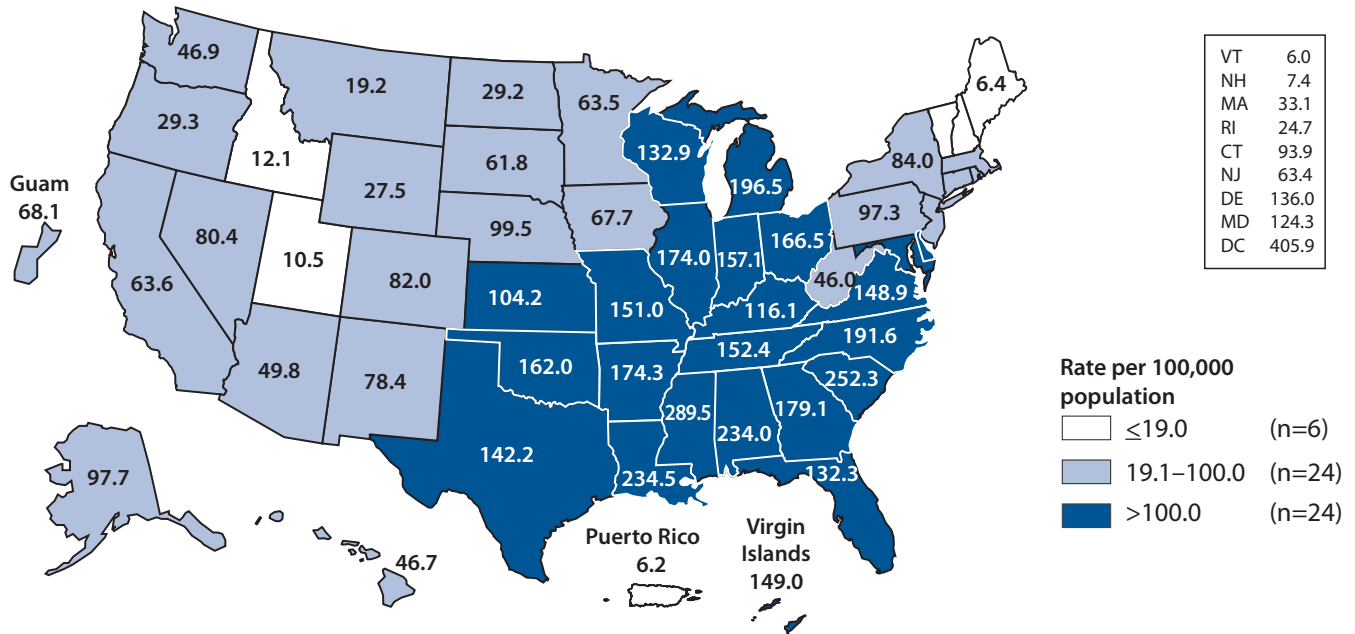


* States/areas not meeting minimum inclusion criteria in prenatal clinics.

NOTE: Includes states and outlying areas that reported chlamydia positivity data on at least 100 women aged 15 to 24 years during 2008.

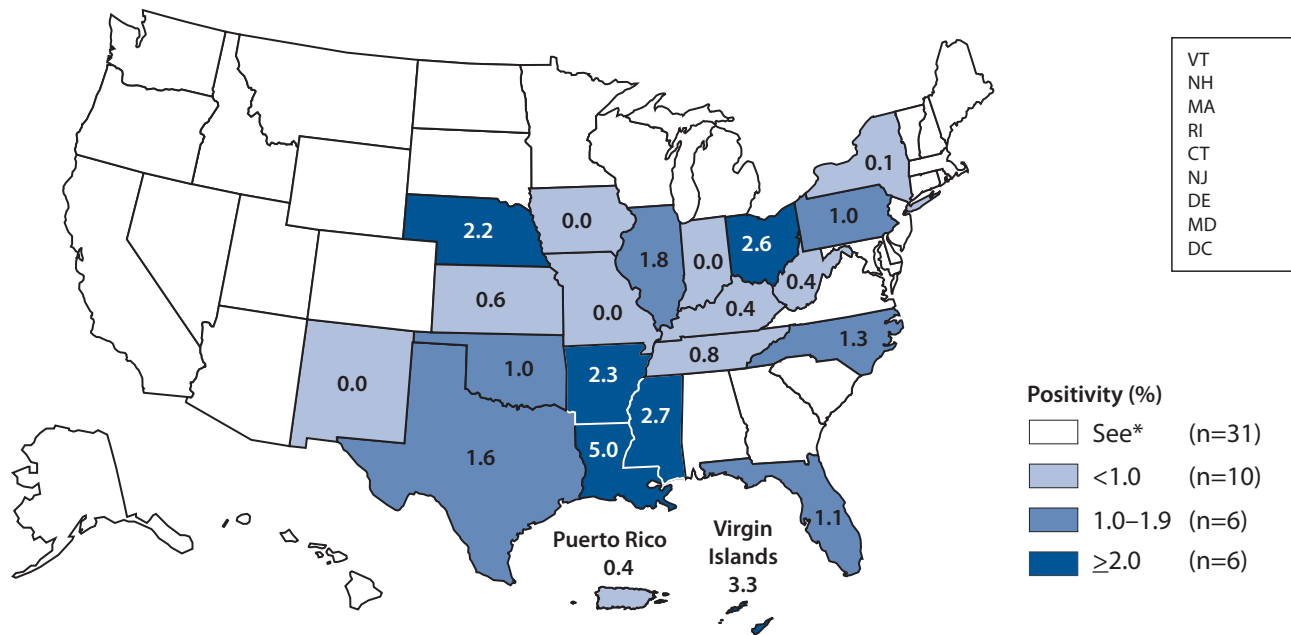
DATA SOURCE: Prevalence Monitoring Project (Regional Infertility Prevention Projects), Office of Population Affairs, Local and State STD Control Programs, Centers for Disease Control and Prevention.

Figure C. Gonorrhea—Rates among women by state: United States and outlying areas, 2008



NOTE: The total gonorrhea infection rate among women in the United States and outlying areas (Guam, Puerto Rico, and Virgin Islands) was 117.8 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, 2008

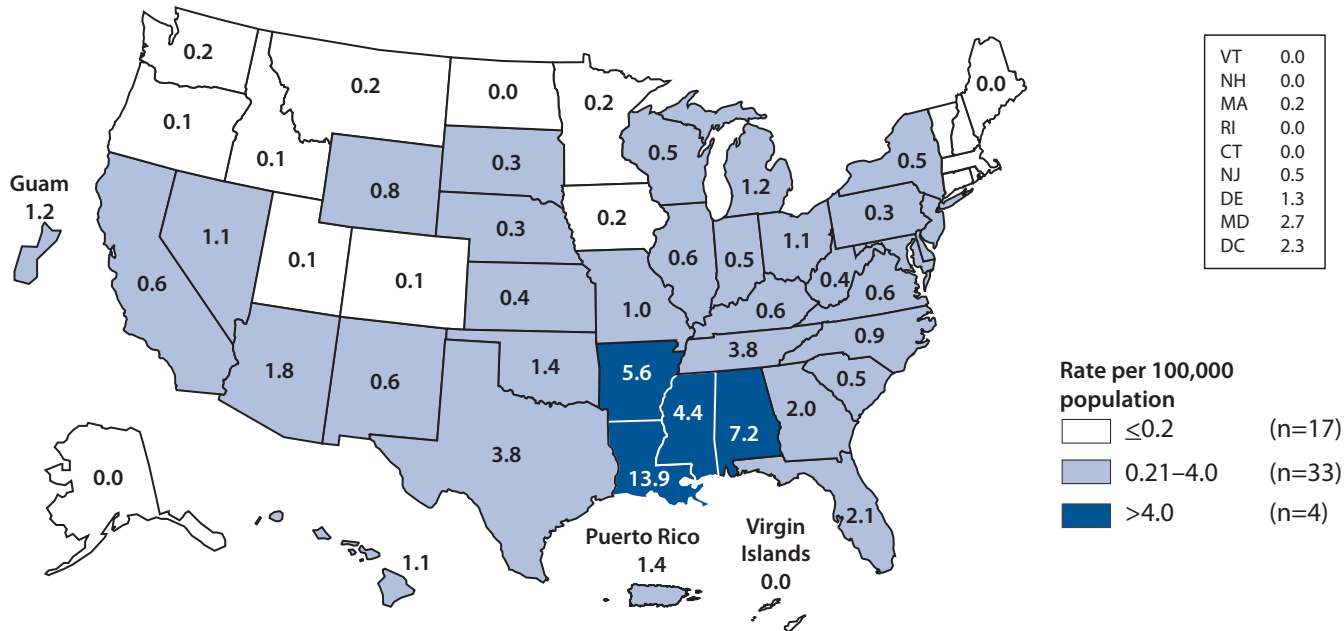


* States/areas not meeting minimum inclusion criteria in prenatal clinics.

NOTE: Includes states and outlying areas that reported gonorrhea positivity data on at least 100 women aged 15 to 24 years during 2008.

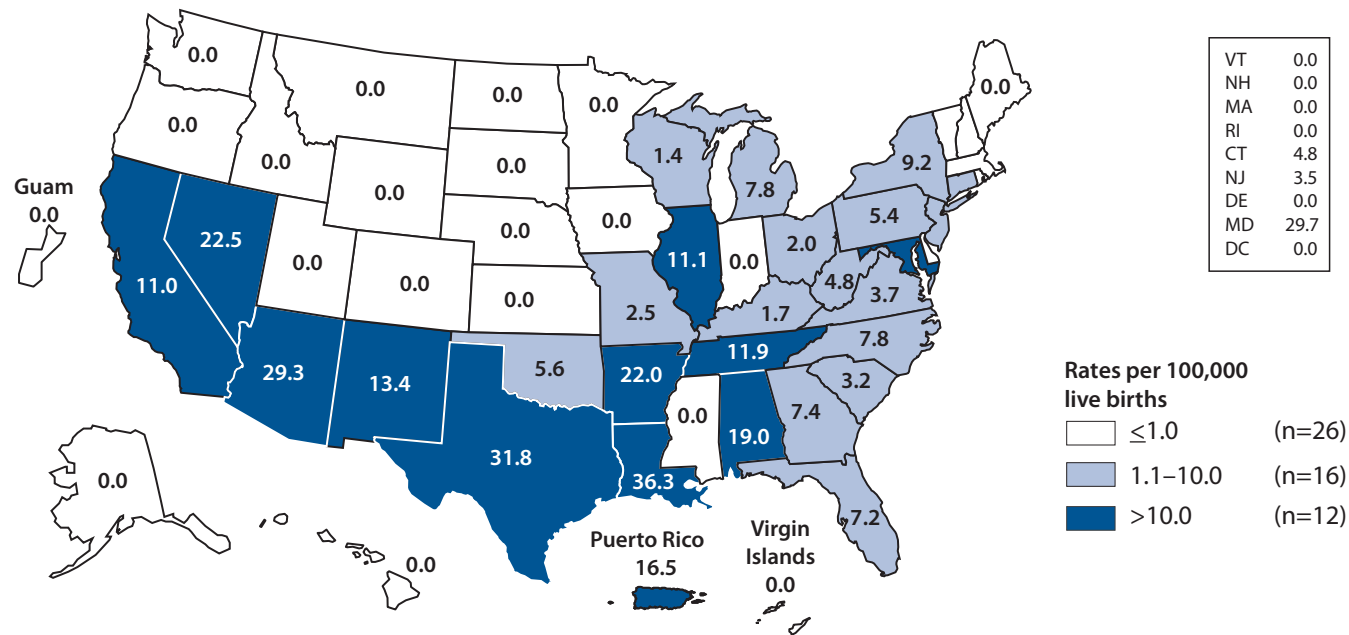
DATA SOURCE: Prevalence Monitoring (Regional Infertility Prevention Projects), Office of Population Affairs, Local and State STD Control Programs, Centers for Disease Control and Prevention.

Figure E. Primary and secondary syphilis—Rates among women by state: United States and outlying areas, 2008



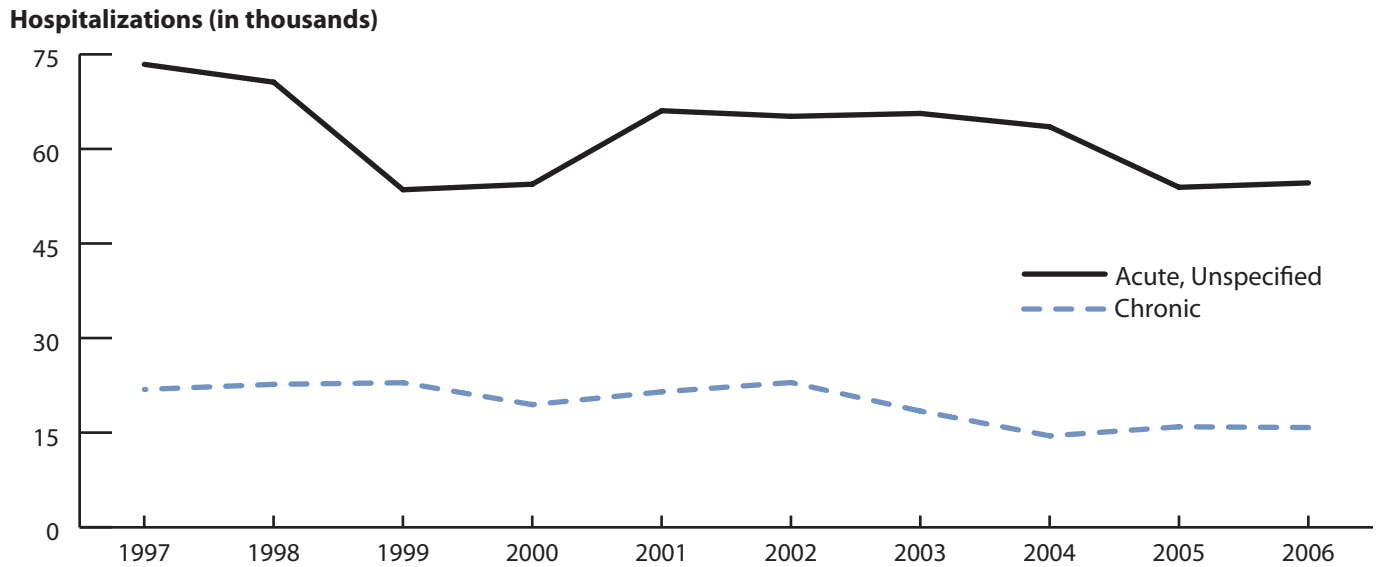
NOTE: The total rate of P&S syphilis among women in the United States and outlying areas (Guam, Puerto Rico, and Virgin Islands) was 1.5 per 100,000 female population.

Figure F. Congenital syphilis—Rates for infants <1 year of age by state: United States and outlying areas, 2008



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 10.2 per 100,000 live births.

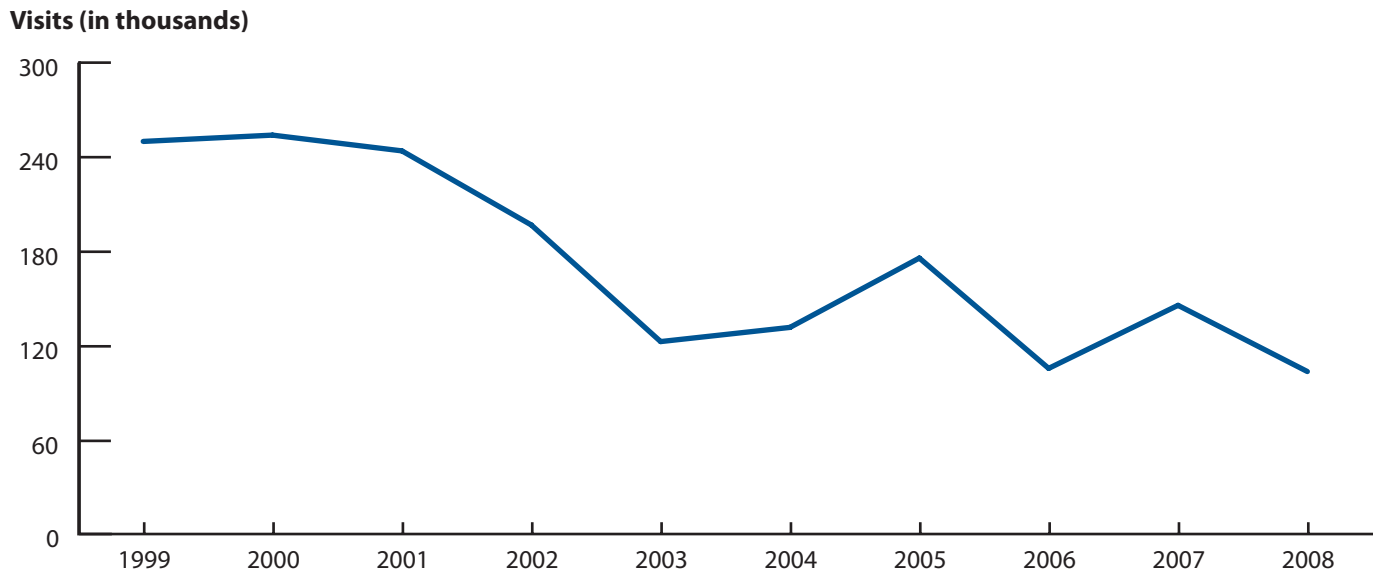
Figure G. Pelvic inflammatory disease—Hospitalizations of women 15 to 44 years of age: United States, 1997–2006



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 Health Statistics Report, 2006 National Hospital Discharge Survey. 2008 July. Report Number 5. Atlanta: Centers for Disease Control and Prevention.

Figure H. Pelvic inflammatory disease—Initial visits to physicians’ offices by women 15 to 44 years of age: United States, 1999–2008

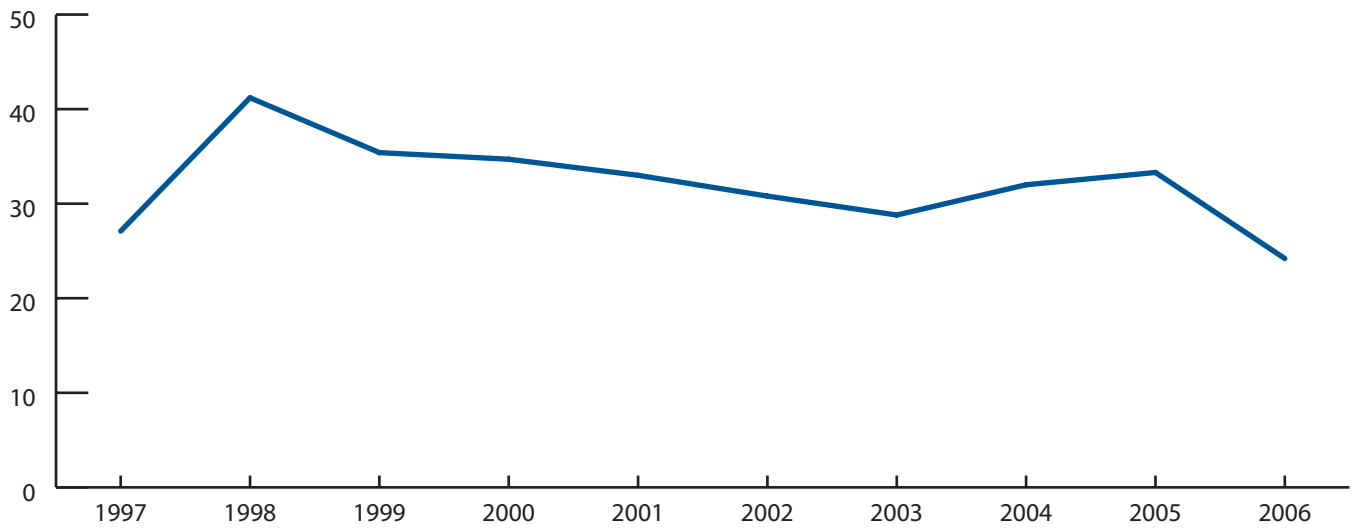


NOTE: The relative standard error for these estimates range from 21.6% to 29%. See Appendix (Other Data Sources) and Table 43.

SOURCE: IMS Health, Integrated Promotional Services, IMS Health Report, 1966–2008 Hardcopy.

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

Hospitalizations (in thousands)



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

SOURCE: National Health Statistics Report, *2006 National Hospital Discharge Survey*. 2008 July. Report Number 5. Atlanta: Centers for Disease Control and Prevention.

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, such as *Chlamydia trachomatis*, adolescent women may have a physiologically increased susceptibility to infection due to increased cervical ectopy. The higher prevalence of STDs among adolescents may also reflect 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. Estimates suggest that while representing 25% of the sexually experienced 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 2007 and 2008, the increase for those 15 to 19 years of age was 10.7%, and for those 20 to 24 years of age was 8.9% (Table 10).

15- to 19-Year-Old Women—As in previous years, in 2008, 15- to 19-year-old women had the highest rate of chlamydia compared to any other age/sex group (Figure 5 and Table 10). Chlamydia rates for 15- to 19-year-old women increased 9.8% from 2,982.5 per 100,000 population in 2007 to 3,275.8 per 100,000 population in 2008.

20- to 24-Year-Old Women—In 2008, as in previous years, 20- to 24-year-old women had the second highest rate of chlamydia (3,179.9 per 100,000 population) compared to any other age/sex group. Chlamydia rates in women of this age group increased 7.6% from 2007 to 2008.

15- to 19-Year-Old Men—Chlamydia rates for 15- to 19-year-old men increased 14.8% from 611.0 per 100,000 population in 2007 to 701.6 per 100,000 population in 2008.

20- to 24-Year-Old Men—As in previous years, in 2008, 20- to 24-year old men had the highest rate of chlamydia among men (1,056.1 per 100,000 population). Chlamydia rates in men of this age group increased 12.6% from 2007 to 2008.

Gonorrhea

In 2008 gonorrhea rates for persons 15 to 19 and 20 to 24 years of age decreased for the first time in four years. Between 2007 and 2008, the decrease for those 15 to 19 years of age was 1.3%, and for those 20 to 24 years of age, it was 2.5% (Table 20).

15- to 19-Year-Old Women—In 2008, as in previous years, 15- to 19-year-old women had the highest rate of gonorrhea (636.8 per 100,000 population) compared to any other age/sex group (Figure 19 and Table 20). Gonorrhea rates in women of this age group decreased 1.0% from 2007 to 2008. This is the first decrease in this age group in the past four years.

20- to 24-Year-Old Women—In 2008, as in previous years, 20- to 24-year-old women had the second highest rate of gonorrhea (608.6 per 100,000 population) compared to any other age/sex group. Gonorrhea rates in women of this age group decreased 1.2% from 2007 to 2008. This is the first decrease in this age group in the past four years.

15- to 19-Year-Old Men—In 2008 gonorrhea rates for 15- to 19-year-old men decreased 2.0% from 284.1 per 100,000 population in 2007 to 278.3 per 100,000 population. This is the first decrease in this age group in the past four years. (Figure 20, Table 20).

20- to 24-Year-Old Men—In 2008, as in previous years, 20- to 24-year old men had the highest rate of gonorrhea among men (433.6 per 100,000 population). Gonorrhea rates in men of this age group declined 4.2% between 2007 and 2008.

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 3.0 per 100,000 population in 2008. Rates in women have been highest each year in the 20 to 24 year age group with 5.1 cases per 100,000 population in 2008 (Figures 35 and 36 and Table 33).

Rates among 15- to 19-year olds are much lower than those in men in older age groups (Figure 35). However, rates in this group have increased since 2002 from 1.3 cases per 100,000 population to 3.8 in 2007 and 5.3 in 2008. Men in the 20 to 24 year old age group had the highest rate of syphilis, 17.3 cases per 100,000 population in 2008 (Figure 35, Table 33).

Prevalence Monitoring

Chlamydia test positivity among 15- to 19-year-old women screened in family planning clinics fluctuated in all 10 DHHS regions between 2004 and 2008 (Figure J). Positivity has remained fairly stable in four regions (II, III, V, X). In the remaining six regions, positivity rates increased slightly over this five-year time frame. 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 at more than 100 sites throughout the country, is a job training program for socioeconomically-disadvantaged youth 16 to 24 years of age. The data presented are from locales where more than 100 persons were screened in 2008.

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 students in each state and outlying area were tested by a single national contract laboratory.* Among women entering the program from 39 states, the District of Columbia, and Puerto Rico, the median state-specific

chlamydia prevalence was 12.8% (range: 5.4% to 20.8%) (Figure K). Among men entering the program from 48 states, the District of Columbia, and Puerto Rico, the median state-specific chlamydia prevalence was 7.0% (range: 0.8% to 14.4%) (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. Among women entering the program from 37 states, the District of Columbia, and Puerto Rico, the median state-specific gonorrhea prevalence was 2.7% (range: 0.0% to 5.0%) in 2008 (Figure M). Among men entering the program from 34 states, the District of Columbia, and Puerto Rico, the median state-specific gonorrhea prevalence was 0.8% (range: 0.0% to 2.8%) (Figure N).

Juvenile Corrections Facilities

Among adolescent women entering juvenile corrections facilities, the median facility-specific chlamydia positivity rate was 13.8% (range: 1.0% to 33.1%) (Table A) and a median gonorrhea positivity rate of 3.6% (range: 0.0% to 19.0%) (Table C). Among adolescent men entering juvenile corrections facilities, the median facility-specific chlamydia positivity rate was 6.1% (range: 0.6% to 13.6%) and the median gonorrhea positivity rate was 0.9% (range: 0.0% to 4.4%). 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.

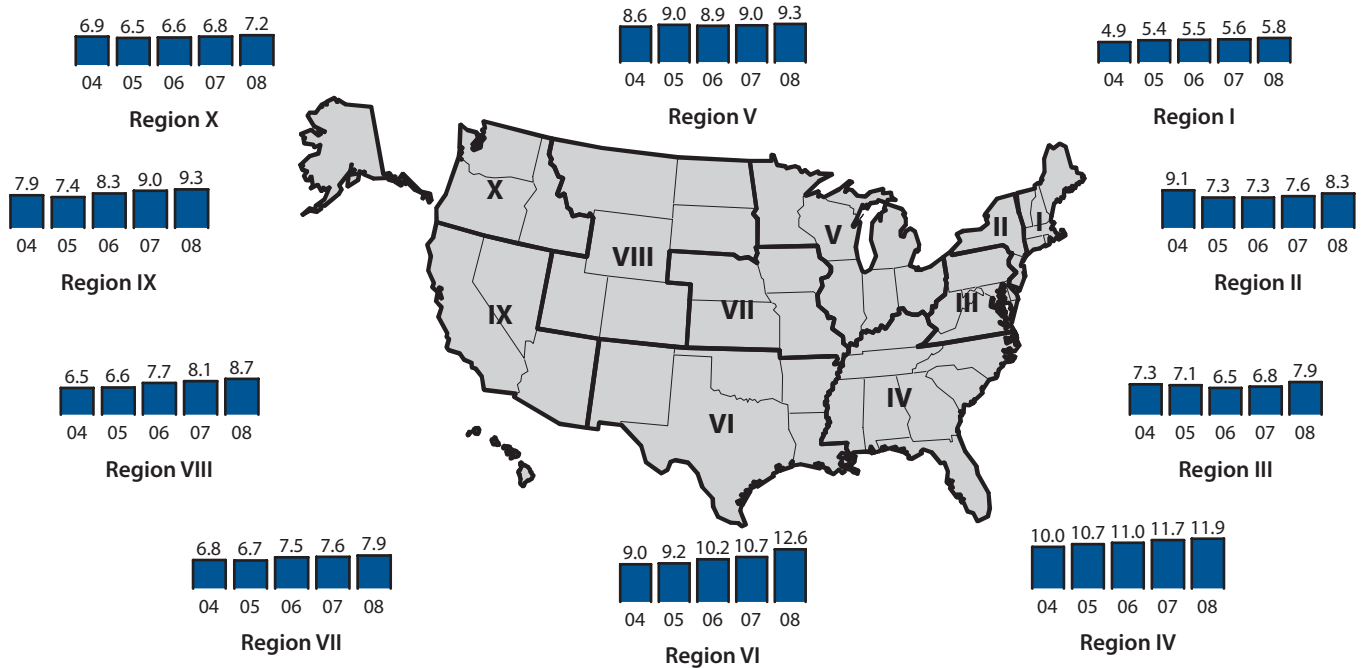
¹ Weinstock, H, Berman, S, Cates, W, Jr. Sexually transmitted diseases among American youth: Incidence and prevalence estimates, 2000. *Perspect Sex Reprod Health*, 2004;36(1):6-10.

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. *Sex Transm Dis* 2006;33(10):636-639.

⁴ Joesoef MR, Mosure DJ. Prevalence of chlamydia in young women entering the National Job Training Program 1998-2004. *Sex Transm Dis* 2006;33(9):571-575.

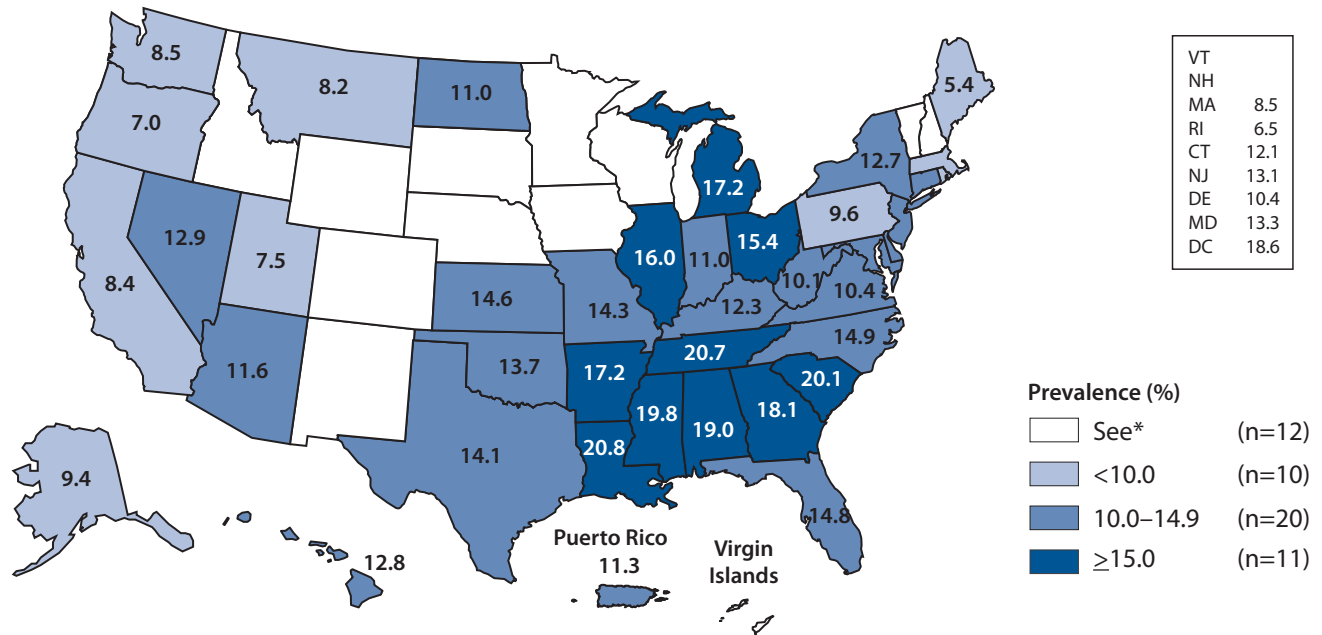
Figure J. Chlamydia—Trends in positivity among 15- to 19-year-old women tested in family planning clinics by HHS region, 2004–2008



NOTE: See Appendix for definitions of DHHS Regions.

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

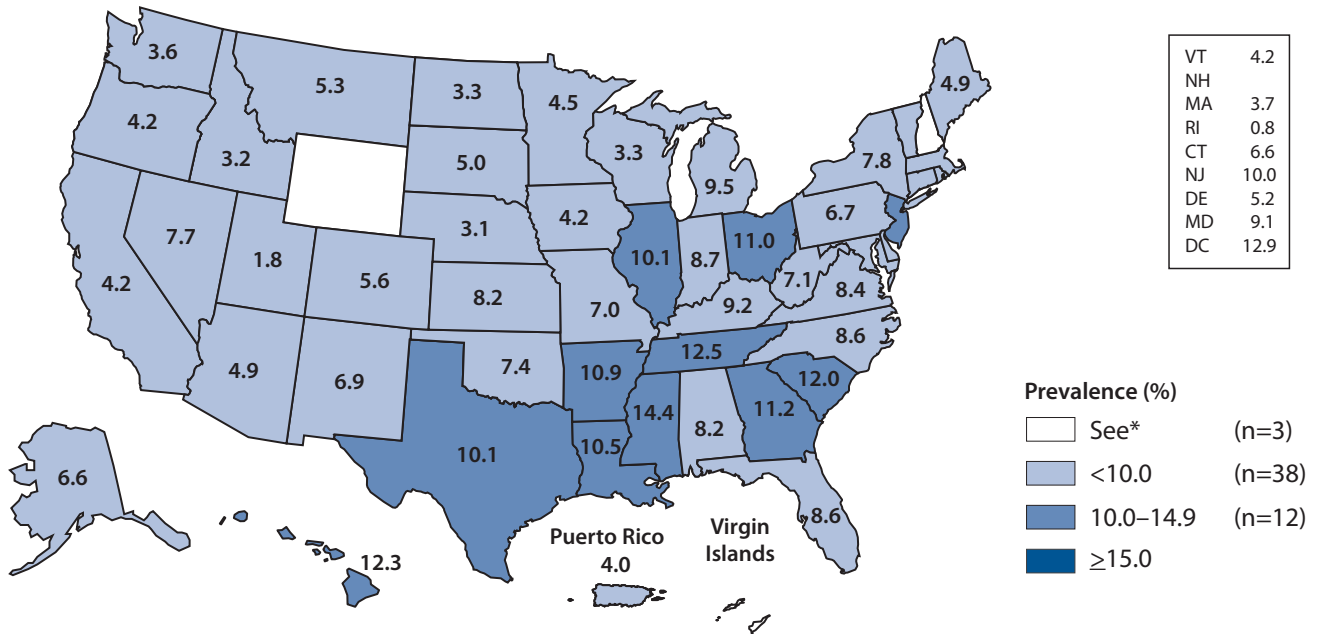
Figure K. Chlamydia—Prevalence among 16- to 24-year-old women entering the National Job Training Program by state of residence: United States and outlying areas, 2008



* Less than 100 women residing in these states/areas and entering the National Job Training Program were screened for chlamydia in 2008.

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

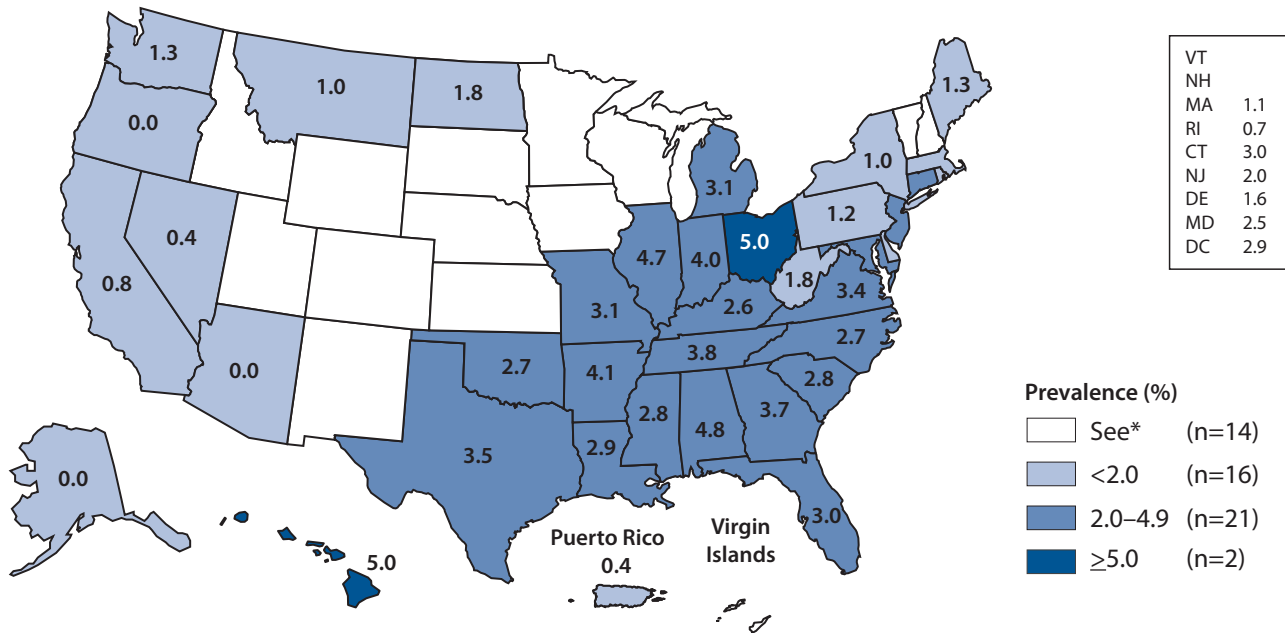
Figure L. Chlamydia—Prevalence among 16- to 24-year-old men entering the National Job Training Program by state of residence: United States and outlying areas, 2008



* Less than 100 men residing in these states/areas and entering the National Job Training Program were screened for chlamydia in 2008.

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, 2008

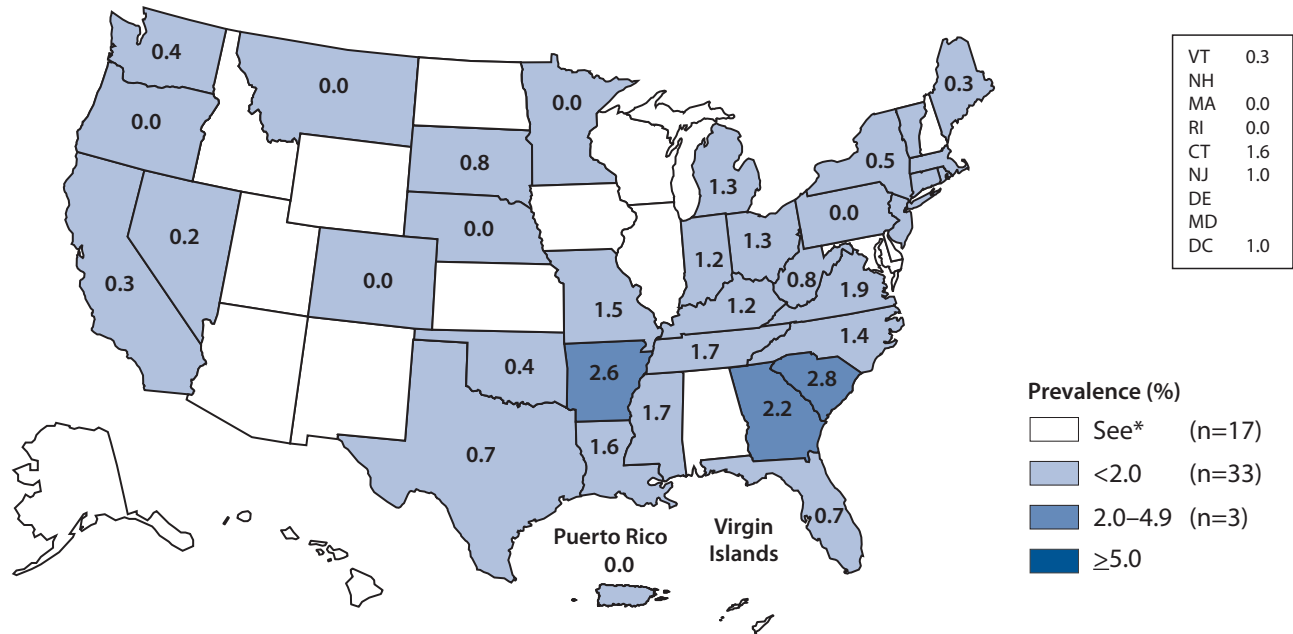


* Less than 100 women residing in these states/areas and entering the National Job Training Program were screened for gonorrhea by the national contract laboratory in 2008.

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, 2008



* Less 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 2008.

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 (Interpreting STD Surveillance Data)**). In many state and local health jurisdictions, 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 NHANES and 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 2008, 26.4% of reports on chlamydia cases were missing race or ethnicity data ranging by state from 0.0% to 59.7% (Table A1).

Gonorrhea—In 2008, 20.3% of reports on gonorrhea cases were missing information on race or ethnicity data ranging by state from 0.0% to 39.8%.

Syphilis—In 2008, only 3.2% of reports on syphilis cases were missing information on race or ethnicity data ranging from 0.0% to 18.2% among states with 10 or more cases of P&S syphilis.

Observations

Chlamydia

All racial and ethnic groups reported increases in chlamydia rates from 2007 to 2008 (Table 11B). From 2004 to 2008, chlamydia rates increased by 27.0% among blacks, 15.6% among American Indian/Alaska Natives, 21.1% among Hispanics, 8.7% among Asian/Pacific Islanders, and 20.9% among whites.

Blacks—In 2008, approximately 49% of all reported 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 nearly eight times higher than the rate among white women (2,056.9 and 264.4 per 100,000 women, respectively) (Figure O, Table 11B). The chlamydia rate among black men was almost 12 times as high as the rate among white men (928.8 and 79.4 per 100,000 men, respectively).

American Indian/Alaska Natives—In 2008, the chlamydia rate among American Indian/Alaska Natives was 808.8 cases per 100,000 population, an increase of 11.5% from the 2007 rate of 725.7. In the most recent data available (2007), the chlamydia positivity rate among females aged 15–24 years screened in Indian Health Service (IHS) clinics ranged from 8.1% in DHHS region V to 11.6% in region VIII.

Asian/Pacific Islanders—In 2008, the chlamydia rate among Asian/Pacific Islanders was 151.9 cases per 100,000 population, a slight increase from the 2007 rate of 137.1.

Hispanics—In 2008, the chlamydia rate among Hispanics was 510.4 cases per 100,000 population, nearly three times higher than the rate among whites (173.6).

Gonorrhea

Between 2007 and 2008 decreases in gonorrhea rates were seen in whites, blacks, and Hispanics (decreases of 10.7%, 4.7%, and 0.9%, respectively). Increases were seen in Asian/Pacific Islanders and American Indian/Alaska Natives (8.1% and 4.0%, respectively) (Table 21B and Figure 21).

Blacks—In 2008, approximately 71% of the total number of reported cases of gonorrhea occurred among blacks (Table 21A). In 2008, the rate of gonorrhea among blacks was 625.0 cases per 100,000 population. Overall, the rate of gonorrhea among blacks in the United States was 20 times greater than that among whites. This disparity has changed little in recent years (20 times higher in 2003, 19 times in 2007) (Figure P, Table 21B). This disparity was higher for black men (27.6 times higher) than for black women (16.0 times higher) (Figure Q). As in 2007, the disparity in gonorrhea rates for blacks in 2008 was higher in the Midwest and Northeast (28.4 and 28.1 times higher, respectively) than in the South or the West (15.6 and 14.0 times higher, respectively) (Figure R).

In 2008, gonorrhea rates were highest for blacks 15 to 19 and 20 to 24 years of age considering all racial, ethnic, and age categories. Black women 15 to 19 years of age had a gonorrhea rate of 2,934.6 cases per 100,000 women. This rate was 16.2 times greater than the rate among white women in the same age category (181.3). Black men in the 15- to 19-year-old age category had a 2008 gonorrhea rate of 1,488.6 cases per 100,000 men, which was 40.7 times higher than the rate among 15- to 19-year-old white men of 36.6 per 100,000 men. Among men and women aged 20 to 24 years, the gonorrhea rate among blacks was 17.1 times greater than that among whites (2,556.0 and 149.1 cases per 100,000 population, respectively) (Table 21B).

American Indian/Alaska Natives—In 2008 the gonorrhea rate among American Indian/Alaska Natives was 110.2 which was 3.6 times higher than the rate among whites. This disparity was similar to that in recent years (3.5 times higher in 2004) (Figure P, Table 21B). It was higher for American Indian/Alaska Native women (3.7 times higher) than for American Indian/Alaska Native men (3.3 times higher) (Figure Q). In 2008, the disparity in gonorrhea rates for American Indian/Alaska Natives continued to be higher in the Midwest and the Northeast (4.4 and 4.1 times higher, respectively) than in the West or the South (3.5 and 2.8 times, respectively) (Figure R).

Asian/Pacific Islanders—In 2008 the gonorrhea rate among Asian/Pacific Islanders was 20.0 cases per 100,000 population which was lower than the rate among whites (Figure P, Table 21B). This difference is greater for Asian/Pacific Islander women than for Asian/Pacific Islander men (Figure Q). In 2008 rates among Asian/Pacific Islanders were again consistently lower than among whites in all four regions of the U.S. (Figure R).

Hispanics—In 2008, the gonorrhea rate among Hispanics was 66.8 cases per 100,000 population which was higher than the rate among whites. This disparity was similar to that in recent years (Figure P, Table 21B) and was higher for Hispanic men than for Hispanic women (Figure Q). The disparity in gonorrhea rates for Hispanics was higher in the Northeast (4.2 times higher) than in the Midwest (2.7 times higher), the South (2.0 times higher), or the West (1.8 times higher) (Figure R).

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 2004 and 2008, the rate of P&S syphilis increased among all racial and ethnic groups except for American Indian/Alaska Natives (Table 34B).

Blacks—Between 2007 and 2008, the rate of P&S syphilis among blacks increased 25.4% (from 13.8 cases per 100,000 population to 17.3 cases per 100,000 population). In 2008, 48.9% of all cases of P&S syphilis reported to CDC were among blacks and 33.1% of all cases were among non-Hispanic whites (Table 34A). Compared to whites, the overall 2008 rate for blacks was 7.9 times higher. It was 6.9 times higher in 2007 (Table 34B). In 2008, the P&S rate among black men was 7.0 times higher than that among white men; the rate among black women was over 15 times higher than that among white women (Figure S). In some age groups, particularly 15–19 year old black men and women, disparities have increased markedly in recent years as rates of disease have increased (Figures T and U). Among black men 15-24 years old, rates increased 3-fold from 2004 to 2008, the fastest rate of increase for any age or race/ethnicity group over this time period (Table 34B). Overall, the 2008 rate among men 15-19 years of age was 22 times higher for blacks than for whites. Among black women 15-24 years of age, rates increased about two-fold between 2004 and 2008. In 2008, rates were 15 times higher for black women 15-19 years of age than for white women of the same age.

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 2007 and 2008, the rate of P&S syphilis among American Indian/Alaska Natives decreased 32.4%

(from 3.4 to 2.3). In 2008, 0.4% of all cases of P&S syphilis reported to CDC were among American Indian/Alaska Natives (Table 34A).

Compared to whites, the 2008 rate for American Indian/Alaska Natives was comparable (Table 34B).

Asian/Pacific Islanders—Between 2007 and 2008, the rate of P&S syphilis among Asian/Pacific Islanders increased 25.0% (from 1.2 to 1.5 per 100,000 population). In 2008, 1.6% of all cases of P&S syphilis reported to CDC were among Asian/Pacific Islanders (Table 34A). The 2008 rate for Asian/Pacific Islanders was 0.7 times the rate for whites (Table 34B).

Hispanics—Between 2007 and 2008, the rate of P&S syphilis among Hispanics increased 11.9% (from 4.2 to 4.7). In 2008, 15.9% of all cases of P&S syphilis reported to CDC were among Hispanics (Table 34A). Compared to whites, the 2008 rate for Hispanics was 2.1 times higher (Table 34B).

Congenital Syphilis

In 2008, the rate of congenital syphilis (based on the mother's race/ethnicity) was 34.6 cases per 100,000 live births among blacks and 12.8 cases per 100,000 live births among Hispanics. These rates are 12.4 and 4.6 times higher, respectively, than the 2008 rate among whites (2.8 cases per 100,000 live births) (Figure V, Table 41).

¹ Datta SD, Sternberg M, Johnson RE, Berman S, Papp JR, McQuillan G, et al. Gonorrhea and chlamydia in the United States among persons 14 to 39 years of age, 1999 to 2002. *Ann Intern Med* 2007; 147(2):89–96.

² Miller WC, Ford CA, Morris M, Handcock MS, Schmitz JL, Hobbs MM et al. Prevalence of chlamydial and gonococcal infections among young adults in the United States. *JAMA* 2004; 291(18):2229–2236.

³ Nakashima AK, Rolfs RT, Flock ML, Kilmarx P, Greenspan JR. Epidemiology of syphilis in the United States, 1941 through 1993. *Sex Transm Dis* 1996;23:16–23.

⁴ Peterman TA, Heffelfinger JD, Swint EB, Groseclose SL. The changing epidemiology of syphilis. *Sex Transm Dis* 2005;32:S4–S10.

⁵ Centers for Disease Control and Prevention. Subpopulation estimates from the HIV incidence surveillance system—United States, 2006. *MMWR* 2008;57:985–989.

Figure O. Chlamydia—Rates by race/ethnicity and sex: United States, 2008

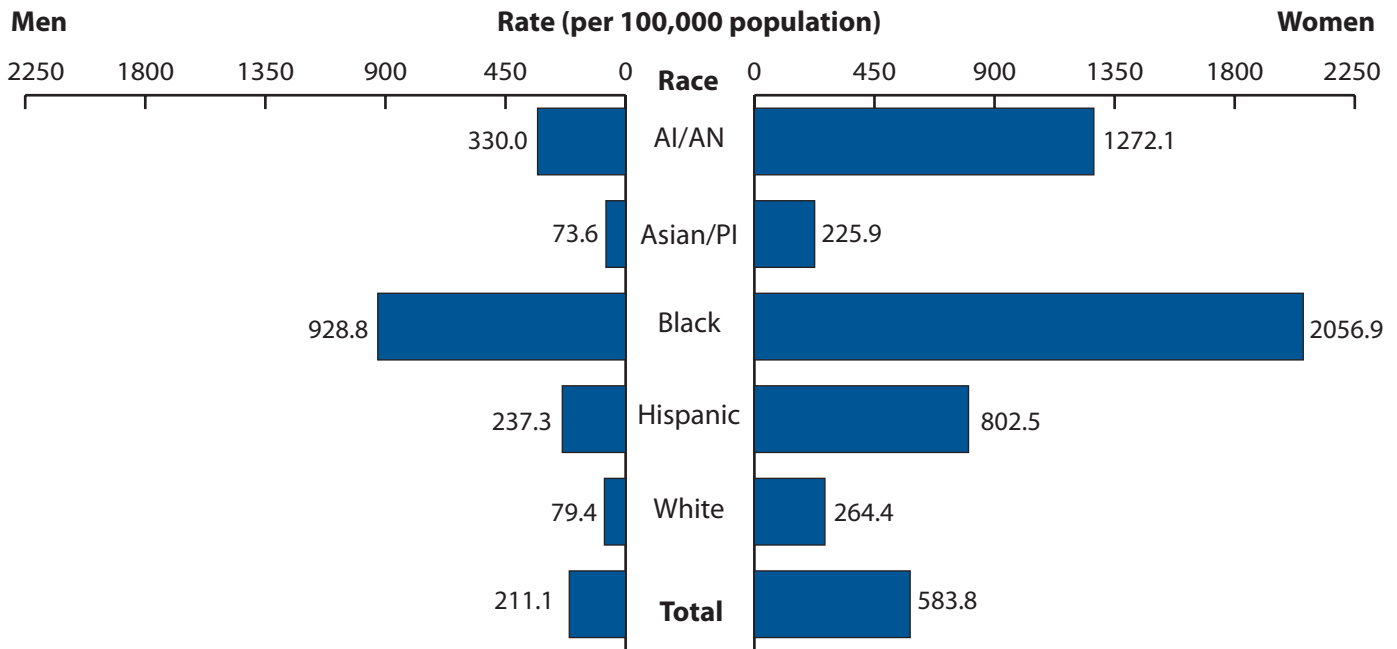
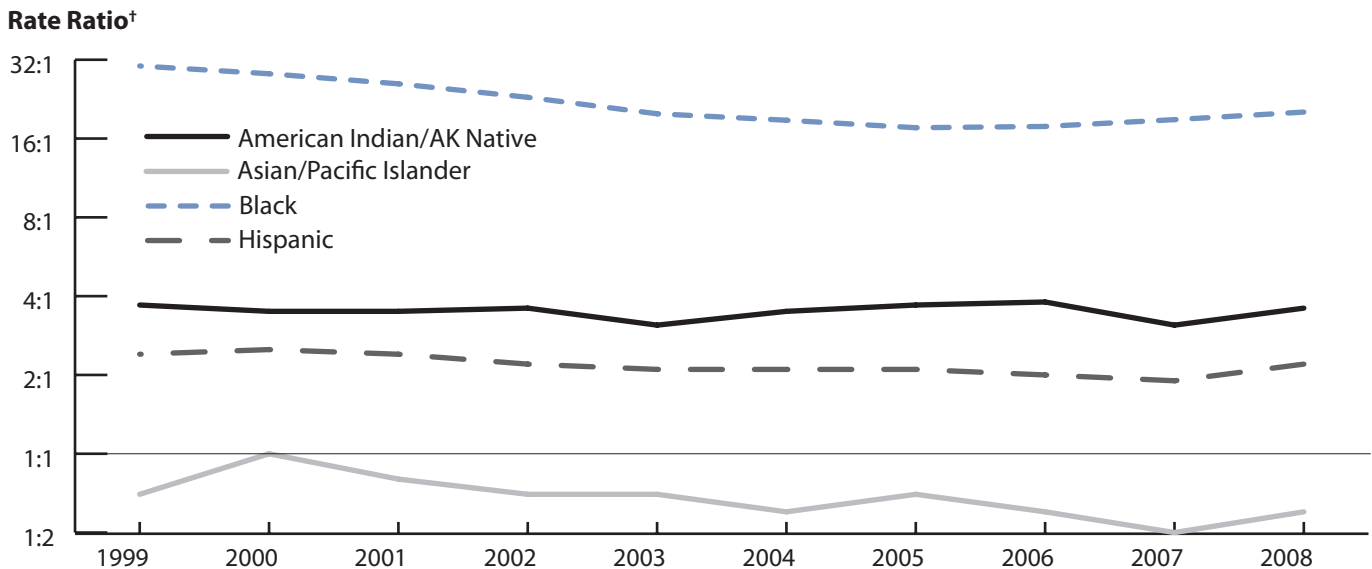


Figure P. Gonorrhea—Rate ratios* by race/ethnicity: United States, 1999–2008



* 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 Q. Gonorrhea—Rates by race/ethnicity and sex: United States, 2008

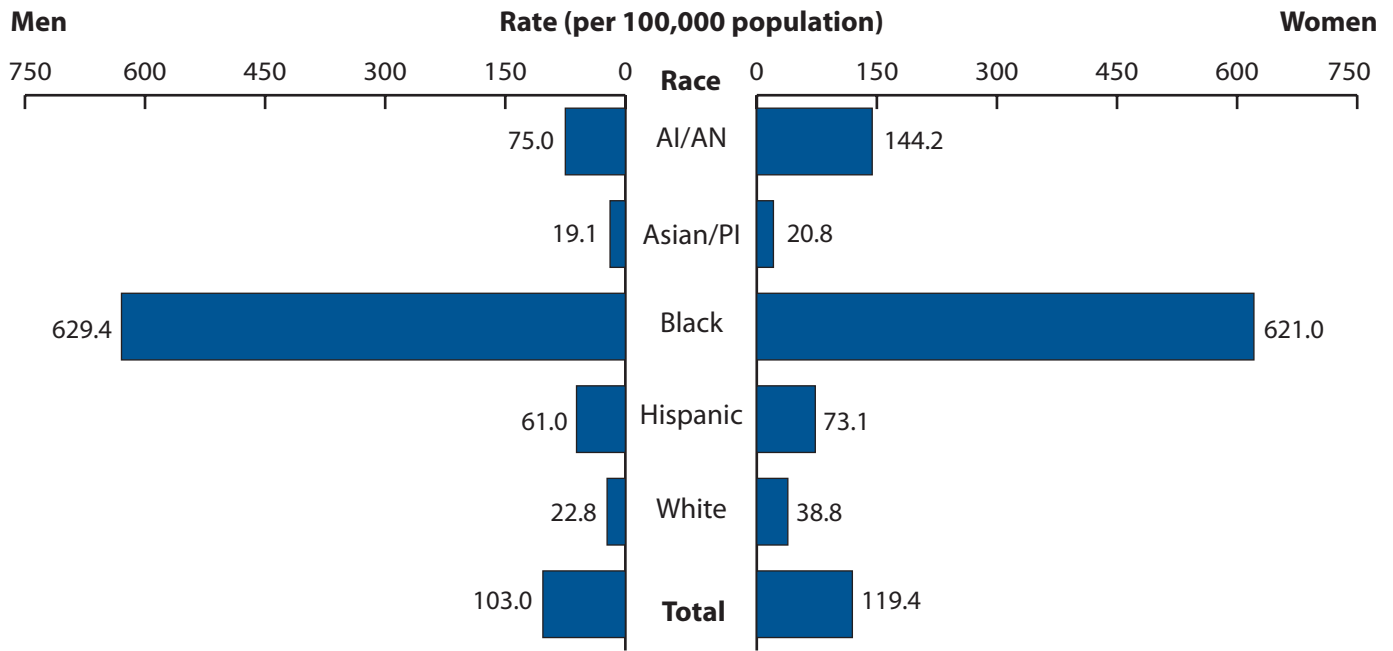
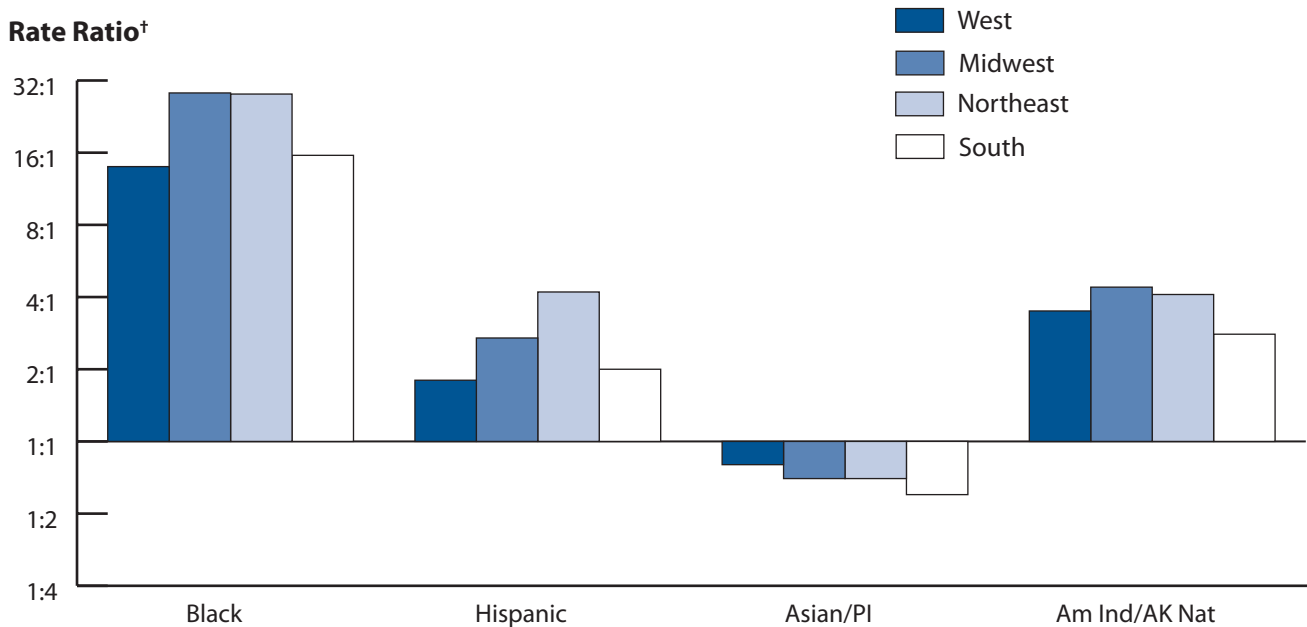


Figure R. Gonorrhea—Rate ratios* by race/ethnicity and region: United States, 2008



* 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 S. Primary and secondary syphilis—Rates by race/ethnicity and sex: United States, 2008

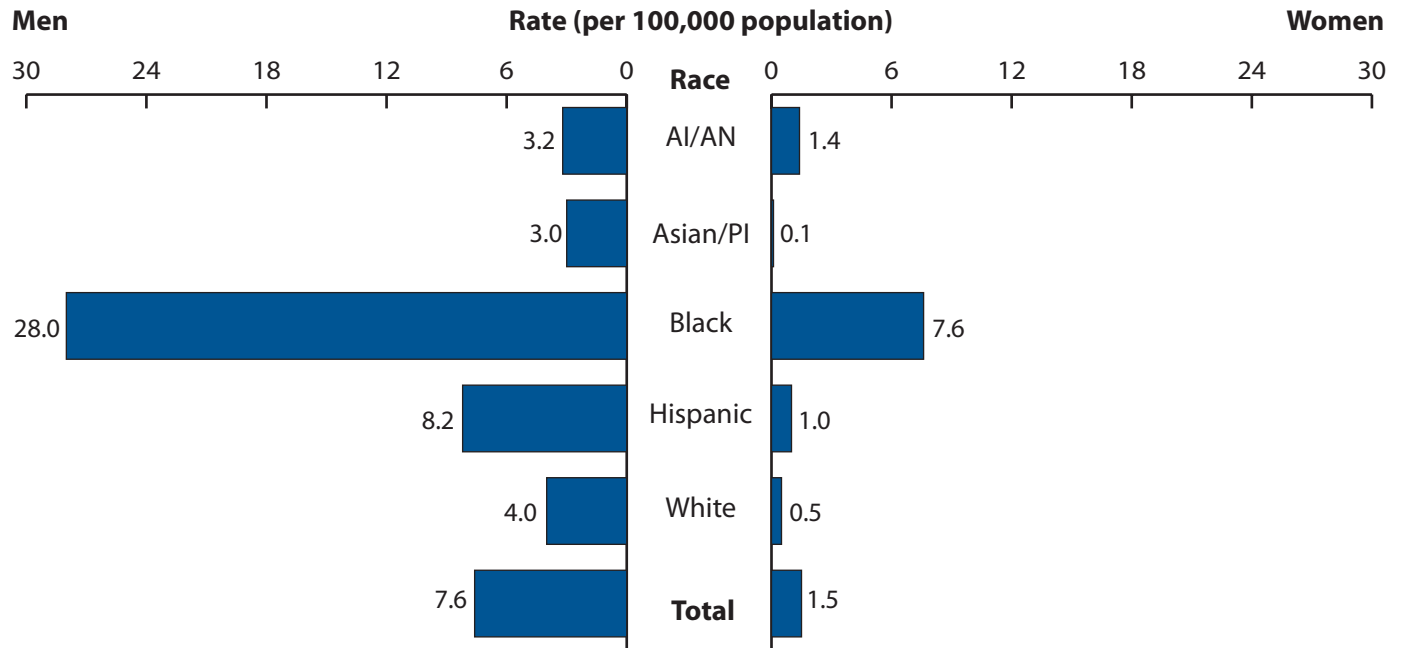


Figure T. Primary and secondary syphilis—Rates among 15- to 19-year-old females by race/ethnicity: United States, 1999–2008

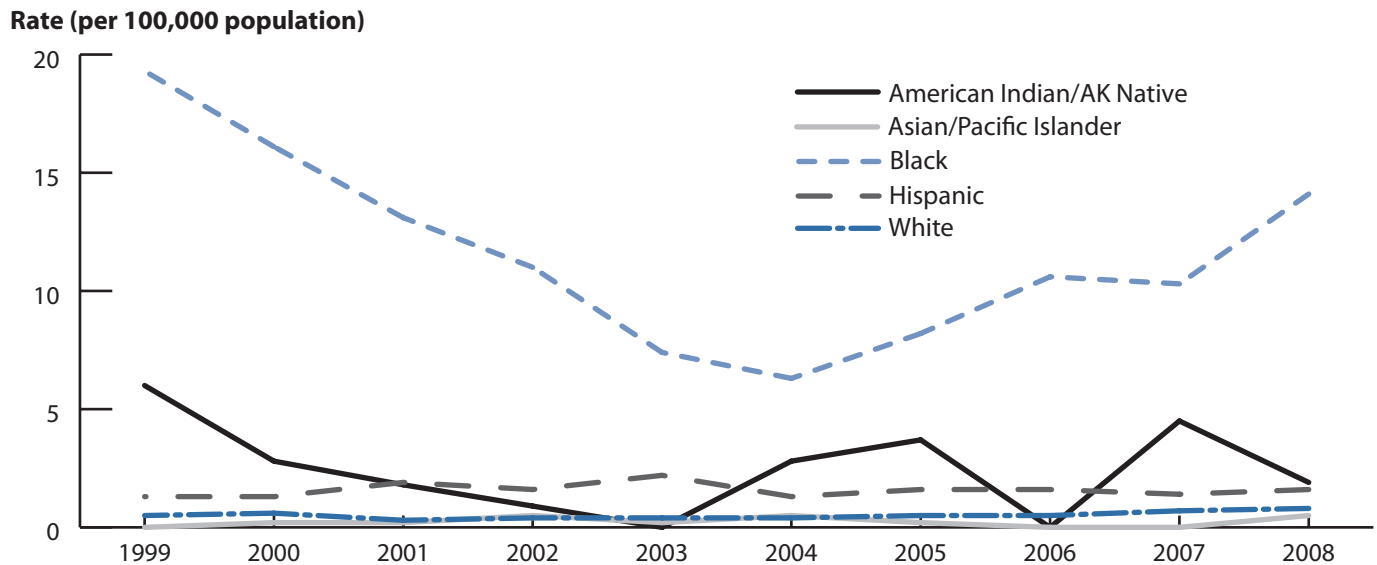


Figure U. Primary and secondary syphilis—Rates among 15- to 19-year-old males by race/ethnicity: United States, 1999–2008

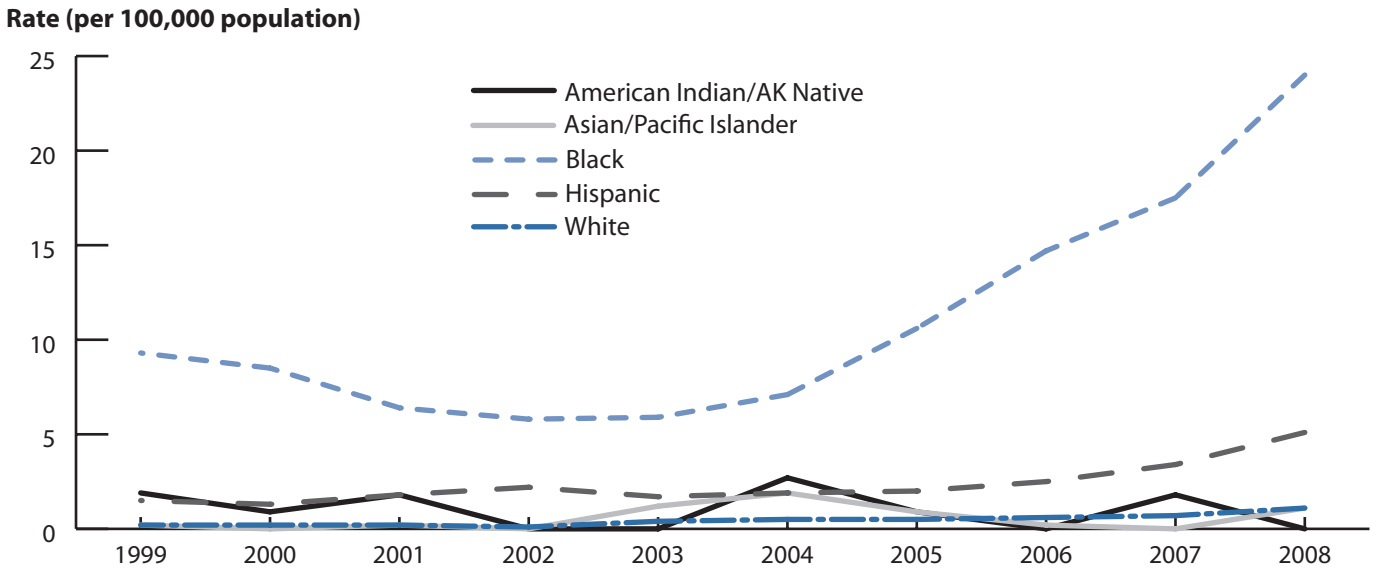
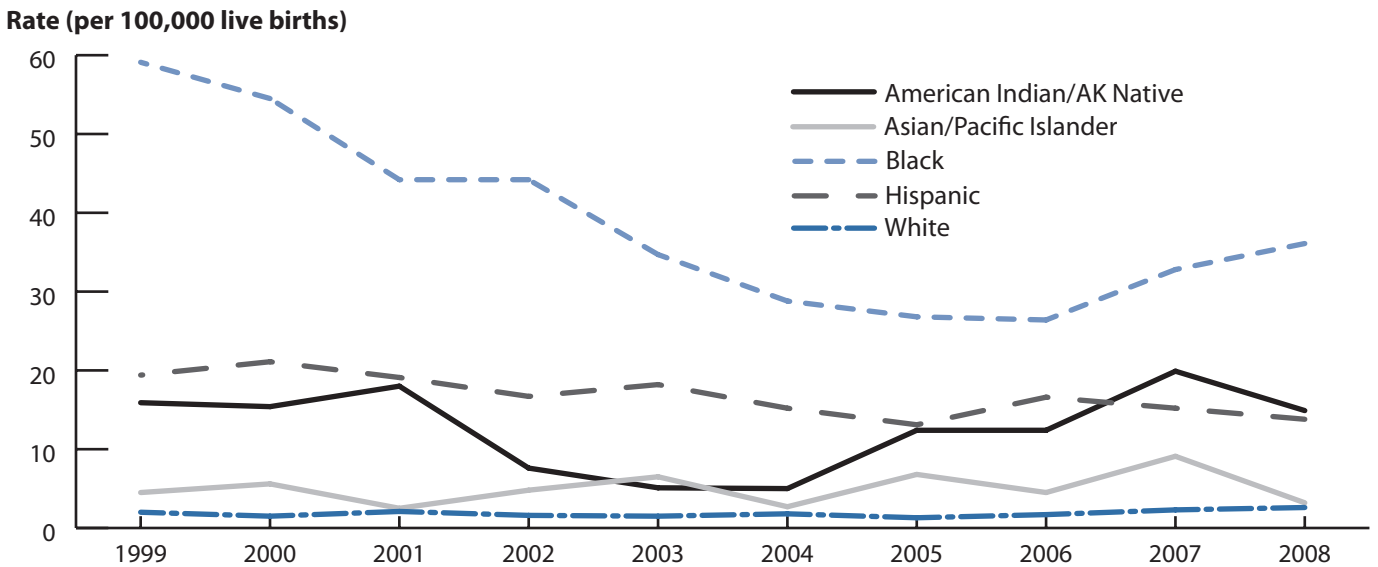


Figure V. Congenital syphilis—Rates among infants <1 year of age by mother’s race/ethnicity: United States, 1999–2008



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

STDs in Men Who Have Sex with Men (MSM)

Public Health Impact

Notifiable disease surveillance data on syphilis and data from the Gonococcal Isolate Surveillance Project (GISP) suggest that some STDs in men who have sex with men, including men who have sex with both women and men (MSM) are increasing.¹⁻⁴ Because STDs and the behaviors associated with acquiring them increase the likelihood of acquiring and transmitting HIV infection,⁵ the rise in STDs among MSM may be associated with an increase in HIV diagnoses among MSM.⁶

With the exception of reported syphilis cases, most nationally notifiable STD surveillance data do not include information on sexual behaviors; therefore, national trends in STDs among MSM in the United States are not currently available. Furthermore, testing strategies are often suboptimal for detecting STDs in MSM. Testing for gonorrhea and chlamydia in MSM largely focuses on detecting urethral infections, which are more likely to be symptomatic than pharyngeal or rectal infections.⁷ Data from enhanced surveillance projects are presented in this section to provide information on STDs in MSM.

Monitoring Trends in Prevalence of STDs among MSM attending STD Clinics, 1999–2008

From 1999 through 2008, eight U.S. cities participating in the MSM Prevalence Monitoring Project submitted syphilis, gonorrhea, chlamydia, and HIV test data to CDC from 162,019 MSM visits to STD clinics; data from 138,928 MSM visits were submitted from five public STD clinics (Denver, New York City, Philadelphia, San Francisco, and Seattle) and data from 23,091 MSM visits were submitted from three STD clinics in community-based, gay men's health clinics (Chicago, the District of Columbia, and Houston). In 2009 and beyond, this type of enhanced surveillance data in MSM will

be collected through a sentinel surveillance platform called the STD Surveillance Network (SSuN).⁸

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 amplification tests) and nucleic acid hybridization tests (DNA probes). Tests for chlamydia included culture, NAATs, and nucleic acid hybridization tests. Nontreponemal syphilis tests included the Rapid Plasma Reagin (RPR) and the Venereal Disease Research Laboratory (VDRL) tests.

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

Gonorrhea

Between 1999 and 2008 the trend in the number of positive gonorrhea tests for all anatomic sites varied by city (Figure W).

In 2008, 71% (range: 57–95%) of MSM visits included testing for urethral gonorrhea; 44% (range: 3–53%) for rectal gonorrhea; and 64% (range: 4–79%) with testing for pharyngeal gonorrhea.

In 2008, median clinic urethral gonorrhea positivity in MSM was 8% (range: 4–12%), median rectal gonorrhea positivity was 6% (range: 3–11%), and median pharyngeal gonorrhea positivity was 3% (range: 1–12%).

Chlamydia

In 2008, a median of 69% (range: 58–94%) of MSM visiting participating STD clinics were tested for urethral chlamydia, compared to 65% (range: 57–68%) in 1999. In 2008, the median clinic urethral chlamydia positivity was 7% (range: 5–9%).

Syphilis

In 2008, 86% (range: 59–97%) 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 X).

Overall, median clinic seroreactivity among MSM tested for syphilis increased from 4% (range: 3–13%) in 1999 to 11% (range: 8–17%) in 2008.

Syphilis seroreactivity is used as a proxy for syphilis prevalence and has been correlated with prevalence of P&S syphilis in this population.¹³

HIV Infection

Overall, the percent of MSM tested for HIV in STD clinics increased between 1999 and 2008. In 2008, a clinic-specific median of 72% (range: 39–84%) 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 2008, median clinic HIV positivity in MSM was 3% (range: 2–8%) (Figure Y).

In 2008, 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: 8–18%).

HIV/STDs by Race/Ethnicity

HIV positivity among persons tested for HIV during 2008 varied by race/ethnicity, but was highest in black MSM. The clinic median HIV positivity was 2% (range: 2–3%) in whites; 6% (range: 1–11%) in blacks; and 3% (range: 2–6%) in Hispanics (Figure Z).

In 2008, urethral gonorrhea median positivity was 5% (range: 4–10%) in whites; 11% (range: 7–20%) in blacks; and 9% (range: 4–18%) in Hispanics.

Median clinic rectal gonorrhea positivity was 6% (range: 2–13%) in whites; 5% (range: 3–7%) in blacks; and 6% (range: 4–9%) in Hispanics. Median clinic pharyngeal gonorrhea positivity was 3% (range: 1–15%) in whites; 7% (range: 3–11%) in blacks; and 2% (range: 1–8%) in Hispanics (Figure Z).

Median clinic urethral chlamydia positivity was 5% (range: 4–8%) in whites; 8% (range: 6–14%) in blacks; and 6% (range: 4–12%) in Hispanics (Figure Z).

Median clinic syphilis seroreactivity was 9% (range: 7–11%) in whites; 18% (range: 8–25%) in blacks; and 15% (range: 9–20%) in Hispanics (Figure Z).

STDs by HIV Status, STD Clinics

In 2008, median clinic urethral gonorrhea positivity was 11% (range: 8–16%) in HIV-positive MSM and 7% (range: 3–11%) in MSM who were HIV-negative or of unknown HIV status; median rectal gonorrhea positivity was 10% (range: 2–14%) in HIV-positive MSM and 5% (range: 3–11%) in MSM who were HIV-negative or of unknown HIV status; median pharyngeal gonorrhea positivity was 7% (range: 2–10%) in HIV-positive MSM and 3% (range: 1–13%) in MSM who were HIV-negative or of unknown HIV status.

Median urethral chlamydia positivity was 8% (range: 6–14%) in HIV-positive MSM and 7% (range: 4–9%) in MSM who were HIV-negative or of unknown HIV status.

Median syphilis seroreactivity was 33% (range: 22–42%) in HIV-positive MSM and 9% (range: 5–12%) 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 2004 and 2008, with a 67.4% increase in the number of P&S syphilis cases among men and a 78.6% increase in the number of cases among women (Tables 26 and 27). In 2008, the rate of reported P&S syphilis among men (7.6 cases per 100,000 males) was 5.1 times greater than the rate among

women (1.5 case per 100,000 females) (Tables 26 and 27). Higher rates in men than women are observed for all racial and ethnic groups.

In 2008, MSM accounted for 63% 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 is in the Syphilis section of the **National Profile**.

Gonococcal Isolate Surveillance Project (GISP)

GISP is a national sentinel surveillance system designed to monitor trends in antimicrobial susceptibilities of strains of *Neisseria gonorrhoeae* in the United States.^{4,9}

GISP also reports the percentage of *Neisseria gonorrhoeae* isolates obtained from MSM. Overall, the proportion of isolates from MSM in selected STD clinics from GISP sentinel sites has increased steadily from 4.0% in 1989 to 22.4% in 2007; in 2008, this proportion decreased slightly to 21.0% (Figure AA). Additionally, the proportion of isolates coming from MSM varies geographically with the largest percentage from the West Coast (Figure BB).

Additional information on GISP is in the Gonorrhea section of the **National Profile**.

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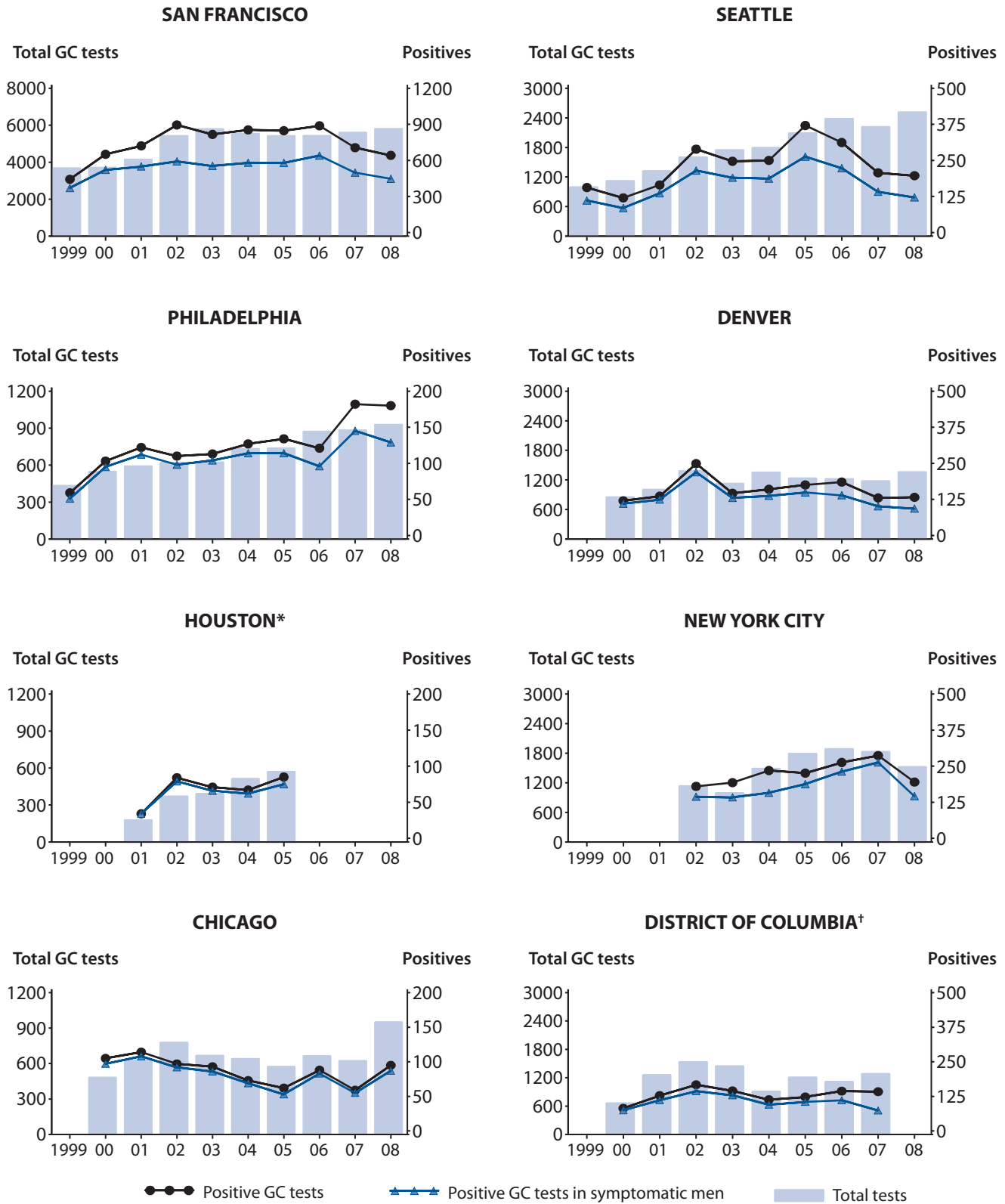
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⁸ Rietmeijer K, Donnelly J, Bernstein K, Bissette J, Martins S, Pathela P, Schillinger J, Stenger M, Weinstock H, Newman L. Here comes the SSuN—Early experiences with the STD Surveillance Network. *Public Health Reports* (in press)

⁹ Schwarcz S, Zenilman J, Schnell D, et. al. National Surveillance of Antimicrobial Resistance in *Neisseria gonorrhoeae*. *JAMA* 1990; 264(11):1413–1417.

Figure W. MSM Prevalence Monitoring Project—Number of gonorrhea tests and number of positive tests in men who have sex with men, STD clinics, 1999–2008

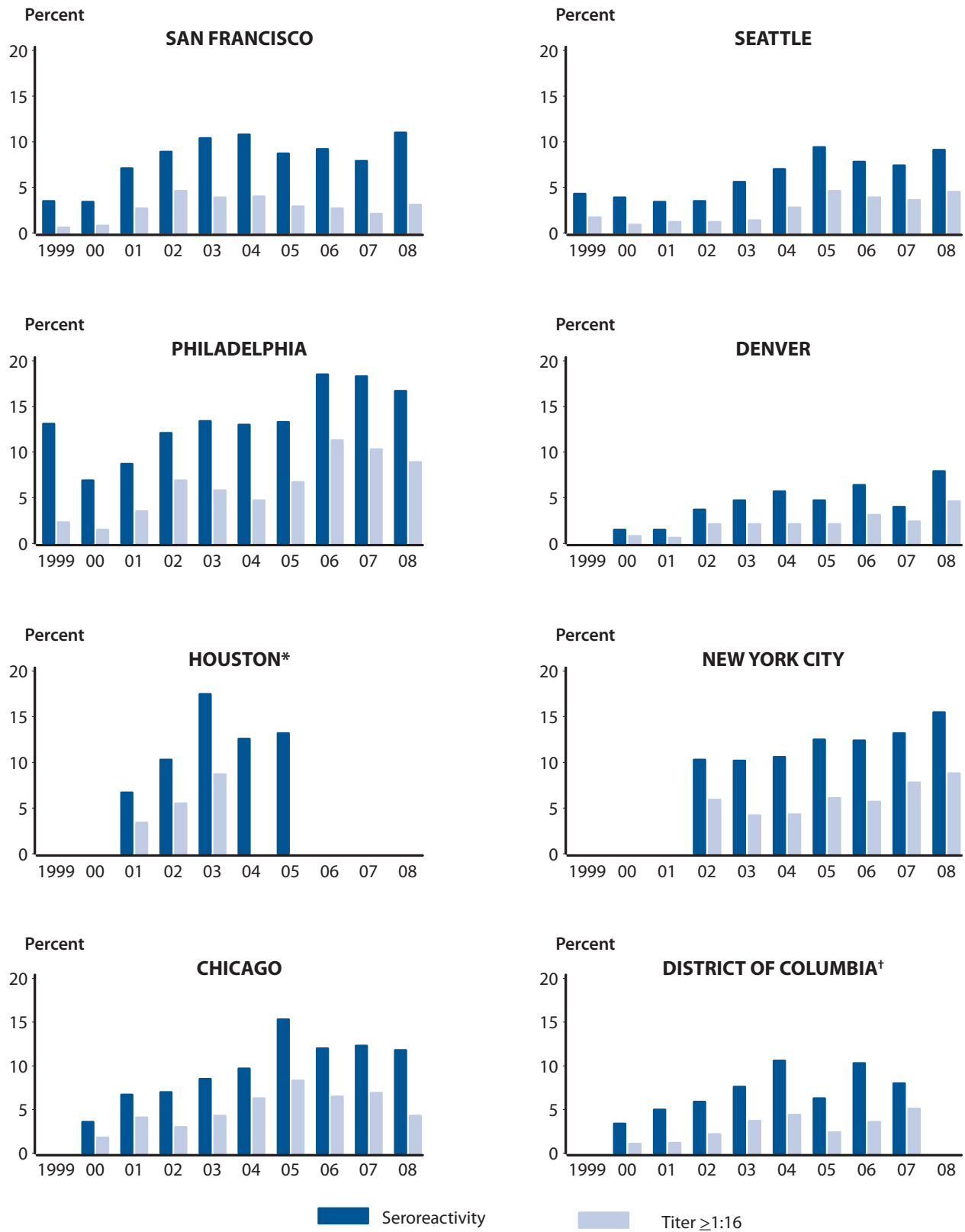


* Data not reported in 2006, 2007, or 2008.

† Data not reported in 2008.

NOTE: The bars represent the number of total GC tests and the lines represent the number of positive 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 X. MSM Prevalence Monitoring Project—Syphilis serologic reactivity among men who have sex with men, STD clinics, 1999–2008

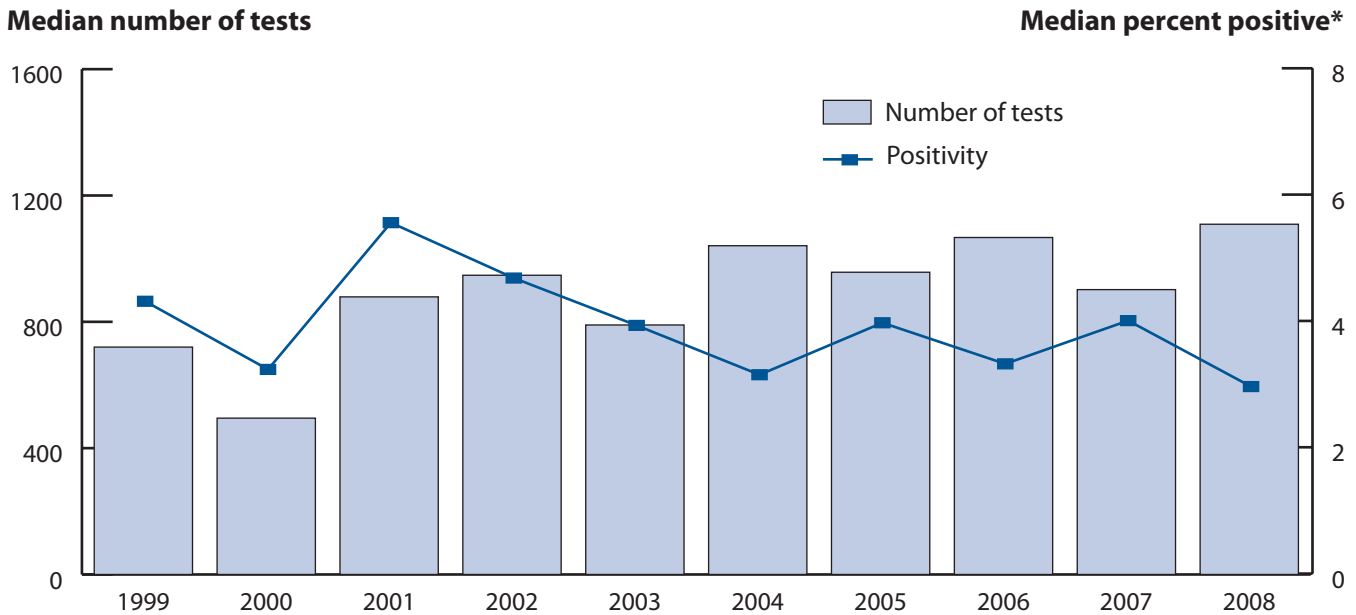


* Data not reported in 2006, 2007, or 2008. Titer data not reported in 2004 or 2005.

† Data not reported in 2008.

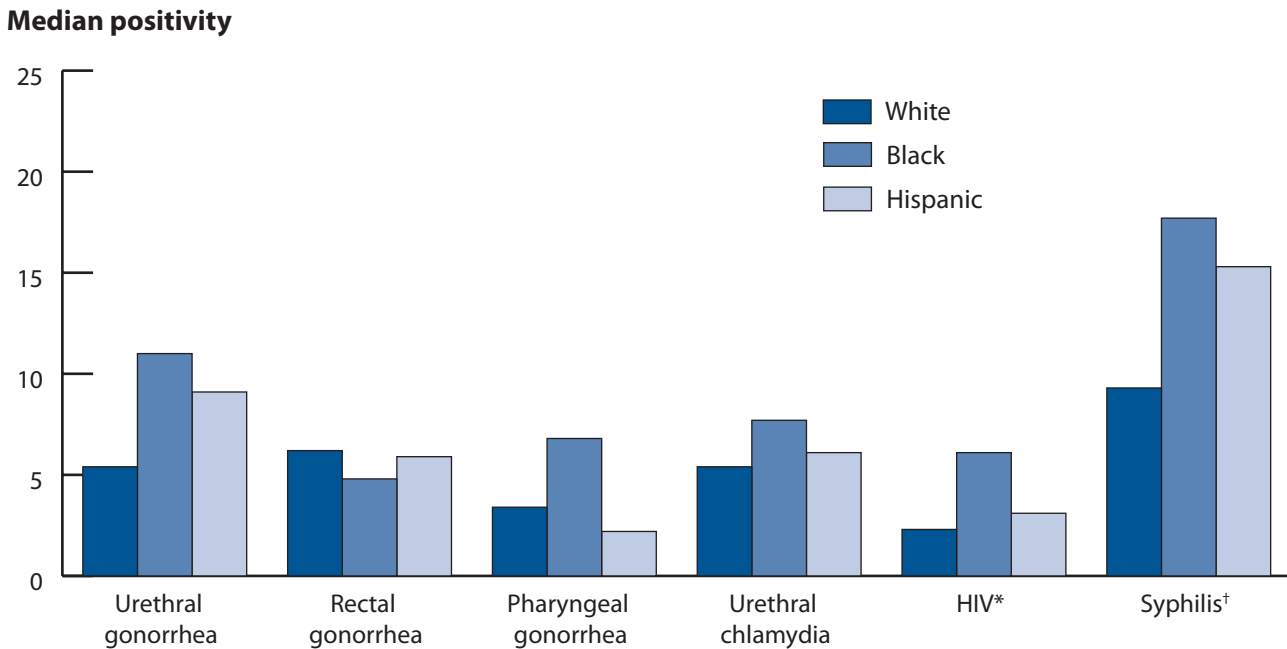
NOTE: Seroreactivity was based on nontreponemal tests results. All sites used the Rapid Plasma Reagin (RPR) test, with the exception of San Francisco where the Venereal Disease Research Laboratory (VDRL) test was used and Seattle where the type of test was changed from VDRL to RPR in 2004.

Figure Y. MSM Prevalence Monitoring Project – Clinic-specific median number of HIV tests and positivity among men who have sex with men, STD clinics, 1999–2008



* 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 Z. 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, 2008



* Excludes persons previously known to be HIV-positive.
 † Seroreactivity

Figure AA. Gonococcal Isolate Surveillance Project (GISP)—Percent of urethral *Neisseria gonorrhoeae* isolates obtained from men who have sex with men attending STD clinics, 1989–2008

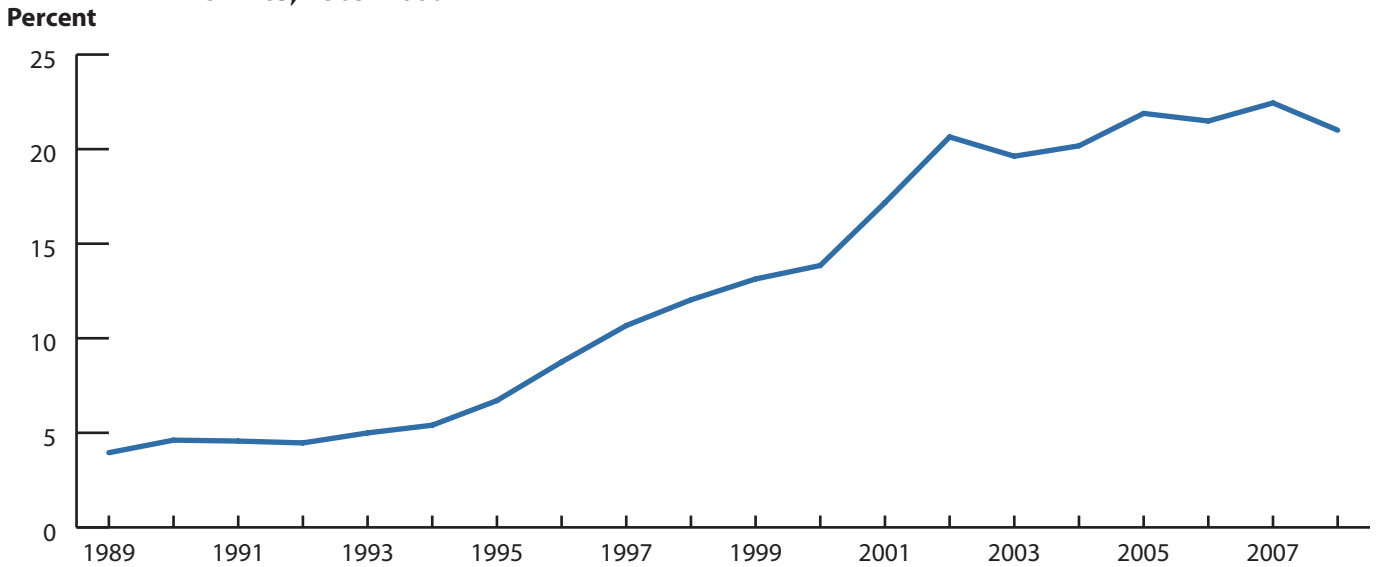
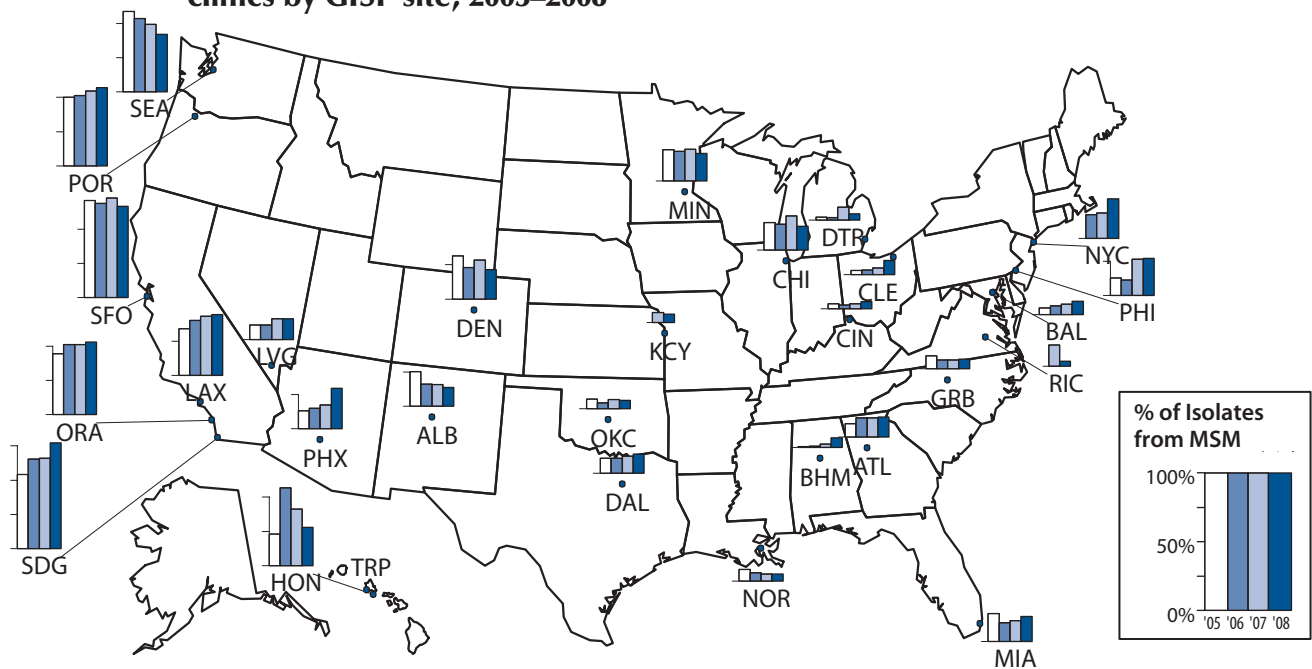


Figure BB. Gonococcal Isolate Surveillance Project (GISP)—Percent of urethral *Neisseria gonorrhoeae* isolates obtained from men who have sex with men attending STD clinics by GISP site, 2005–2008



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; LVG=Las Vegas, NV; MIA=Miami, FL; MIN=Minneapolis, MN; NOR=New Orleans, LA; NYC=New York City, NY; OKC=Oklahoma City, OK; ORA=Orange County, CA; PHI=Philadelphia, PA; PHX=Phoenix, AZ; POR=Portland, OR; RIC=Richmond, VA; SDG=San Diego, CA; SEA=Seattle, WA; SFO=San Francisco, CA; and TRP=Tripler Army Medical Center, HI (does not provide sexual risk behavior data).

STDs in Persons Entering Corrections Facilities

Public Health Impact

Multiple studies and surveillance projects have demonstrated a high prevalence of STDs in persons entering jails and juvenile corrections facilities.¹⁻⁴ Prevalence rates for chlamydia and gonorrhea in these settings are consistently among the highest observed in any venue.⁴ Screening for chlamydia, gonorrhea, and syphilis at intake offers an opportunity to identify infections, prevent complications, and reduce transmission in the general community. For example, data from one study in a 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 2008, STD screening data from corrections facilities were reported from 38 states and Puerto Rico for chlamydia, 36 states and Puerto Rico for gonorrhea. IPP provided CDC with line-listed data for chlamydia and gonorrhea. Syphilis data were reported to CDC by local and state STD prevention programs.

The figures and tables shown in this section represent 50,968 chlamydia tests in women and 129,548 in men and 42,124 gonorrhea tests in women and 114,984 in men.

Chlamydia

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

Males in Juvenile Corrections—In men 12 to 18 years of age entering 128 juvenile corrections facilities, the overall chlamydia positivity was 6.4% (Figure CC). Chlamydia positivity increased from 1.0% for adolescent men aged 12 years of age to 8.7% for those 18 years of age.

Females in Juvenile Corrections—In women 12 to 18 years of age entering 82 juvenile corrections facilities, the overall chlamydia positivity was 14.5% (Figure CC). Positivity in women increased from 4.6% for those 12 years of age to 16.4% for those 16 years of age and remained high for women 17 to 18 years of age.

Men in Jails—In men entering 62 adult corrections facilities in 2008, positivity in men less than 20 years of age (10.6%) was higher than the overall prevalence observed in adolescent men entering juvenile facilities (6.4%) (Figure DD). Chlamydia positivity decreased with age from 10.6% for those younger than 20 years of age to 2.2% for those older than 34 years. Overall positivity among adult men entering corrections facilities in 2008 was 7.0%.

Women in Jails—In women entering 41 adult corrections facilities in 2008, the chlamydia positivity was 8.5% (Figure DD). Chlamydia positivity decreased with age from 16.5% for those younger than 20 years of age to 3.4% for those older than 34 years of age. Overall chlamydia positivity in women entering adult corrections facilities (8.5%) was substantially lower than that in adolescent women entering juvenile corrections facilities (14.5%). 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.

Males in Juvenile Corrections—The overall positivity for adolescent men entering 110 juvenile corrections facilities in 2008 was 1.1% (Figure EE). Gonorrhea positivity increased with age from 0.2% for those 12 years of age to 1.7% for those 18 years of age.

Females in Juvenile Corrections—The overall gonorrhea positivity was 4.6% in women entering 63 juvenile corrections facilities in 2008 (Figure EE). In 2008, gonorrhea positivity increased with age from 1.2% among 12-year-olds to 5.2% among young women 15 years of age and remained high for women 16 to 18 years of age.

Men in Jails—Overall gonorrhea positivity for men attending 58 adult corrections facilities in 2008 was 1.4% (Figure FF). Gonorrhea positivity was highest in men younger than 20 years of age at 2.0%, declining with age to 0.7% in men older than 34 years of age. Men younger than 20 years of age attending adult facilities had higher gonorrhea positivity than men attending juvenile corrections facilities.

Women in Jails—Overall, in women entering 37 adult corrections facilities in 2008, the gonorrhea positivity was 2.6% (Figure FF). Gonorrhea positivity decreased with age from 4.0% among those younger than 20 years of age to 1.4% among those older than

34 years of age. Women younger than 20 years of age attending adult facilities had similar gonorrhea positivity as young women attending juvenile corrections facilities.

Syphilis

In 2007, reports of P&S syphilis from correctional facilities accounted for 7% of P&S syphilis among heterosexual men, 6% among women, and 1% among MSM. In 2008, reports of P&S syphilis from correctional facilities accounted for 7% of P&S syphilis among heterosexual men, 5% among women, and 1% among MSM (Figure 42).

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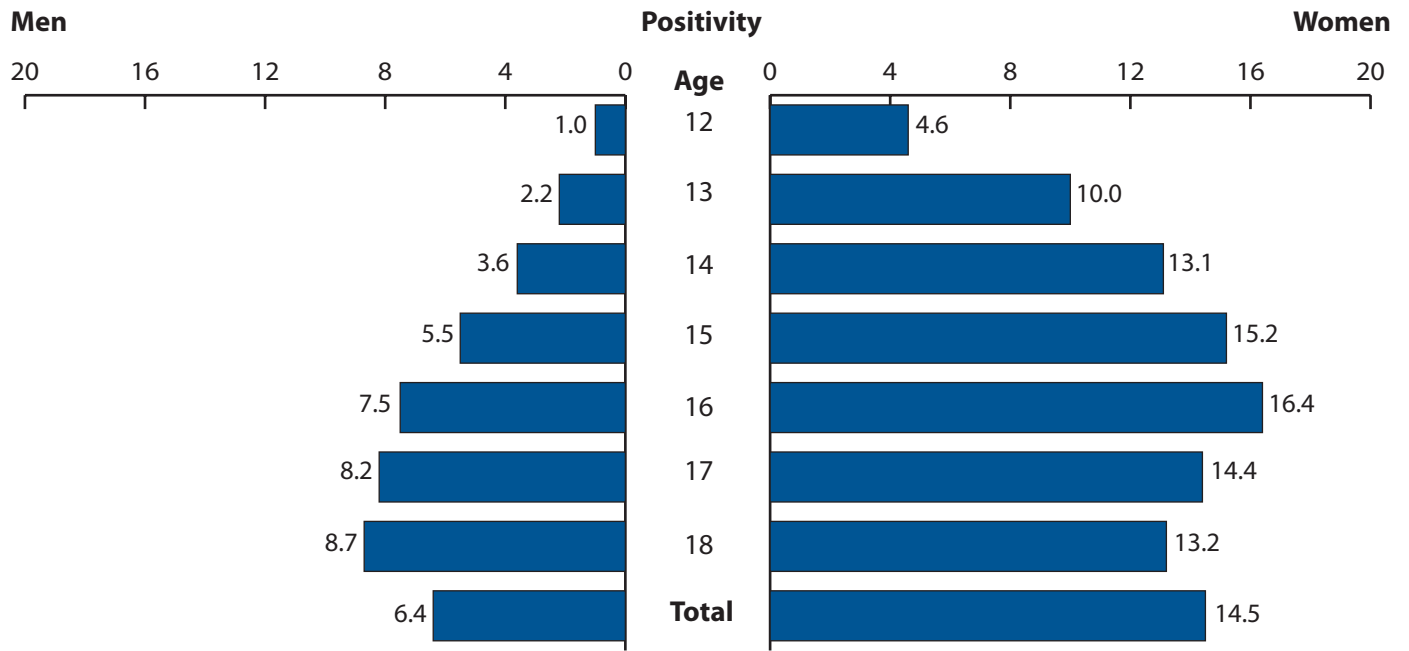
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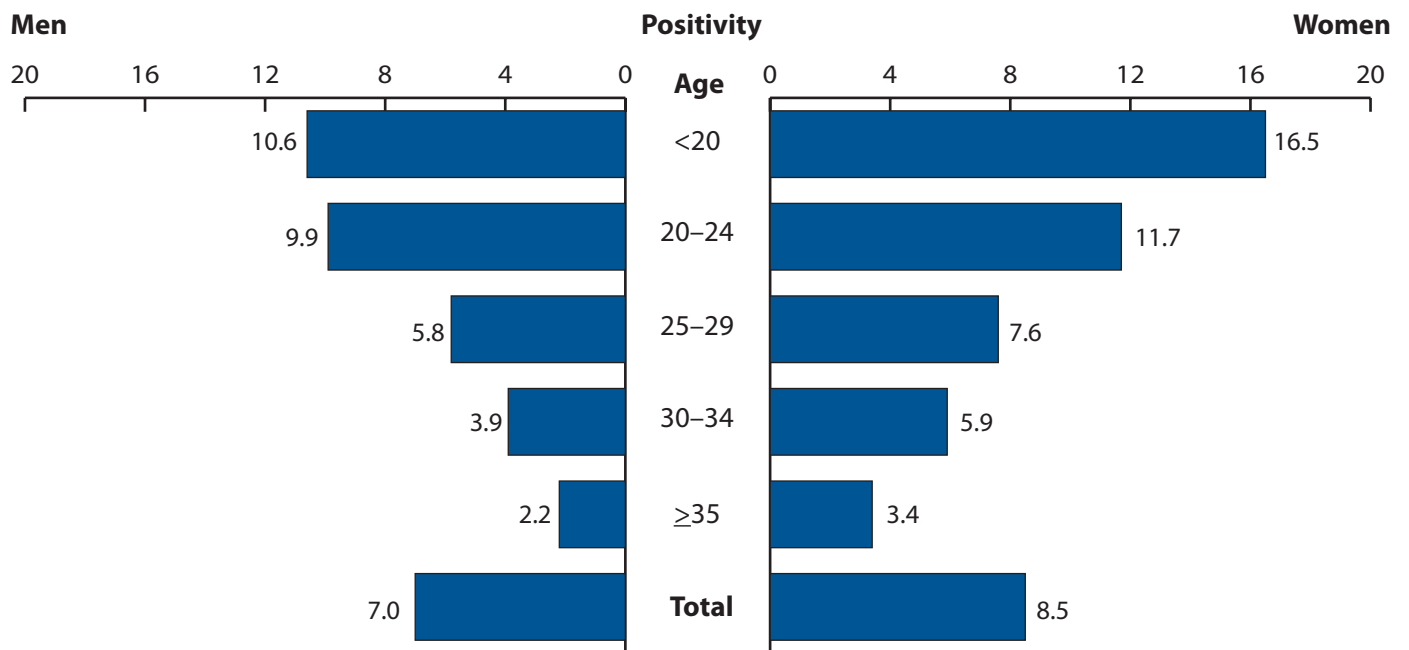
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Figure CC. Chlamydia—Positivity by age and sex, juvenile corrections facilities, 2008



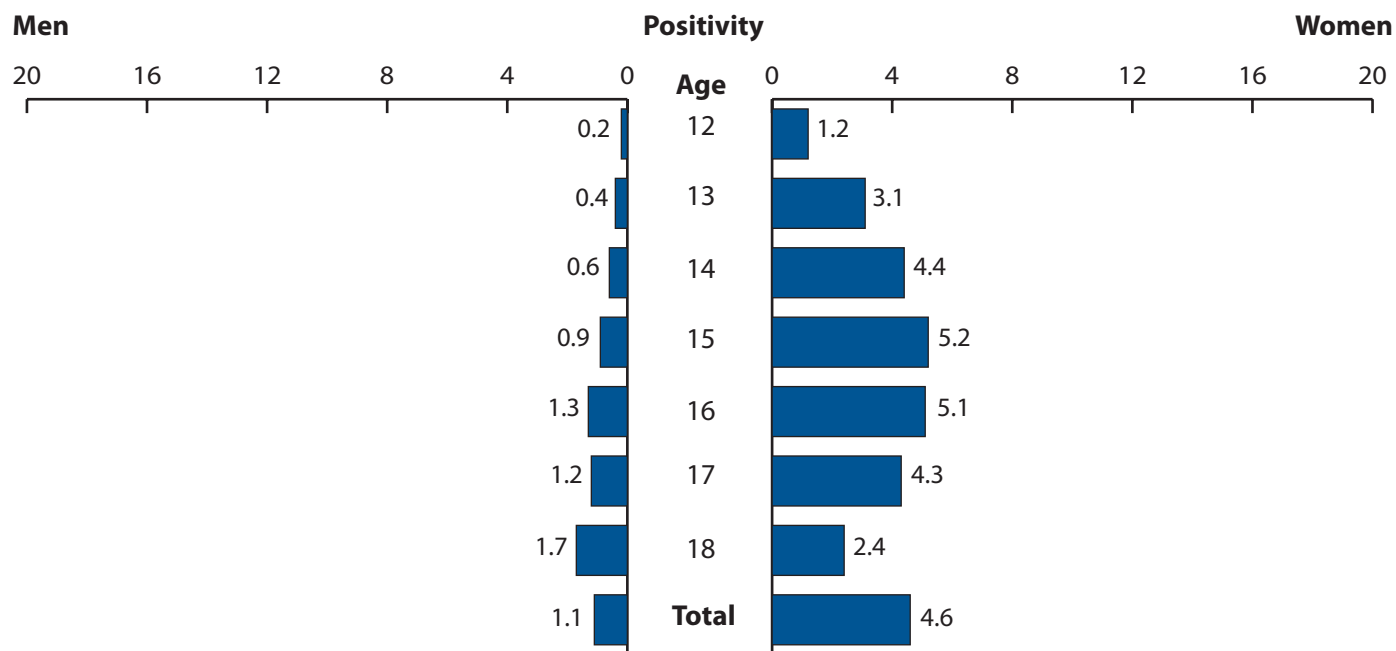
NOTE: Percent positivity is presented from facilities reporting >100 test results.

Figure DD. Chlamydia—Positivity by age group and sex, adult corrections facilities, 2008



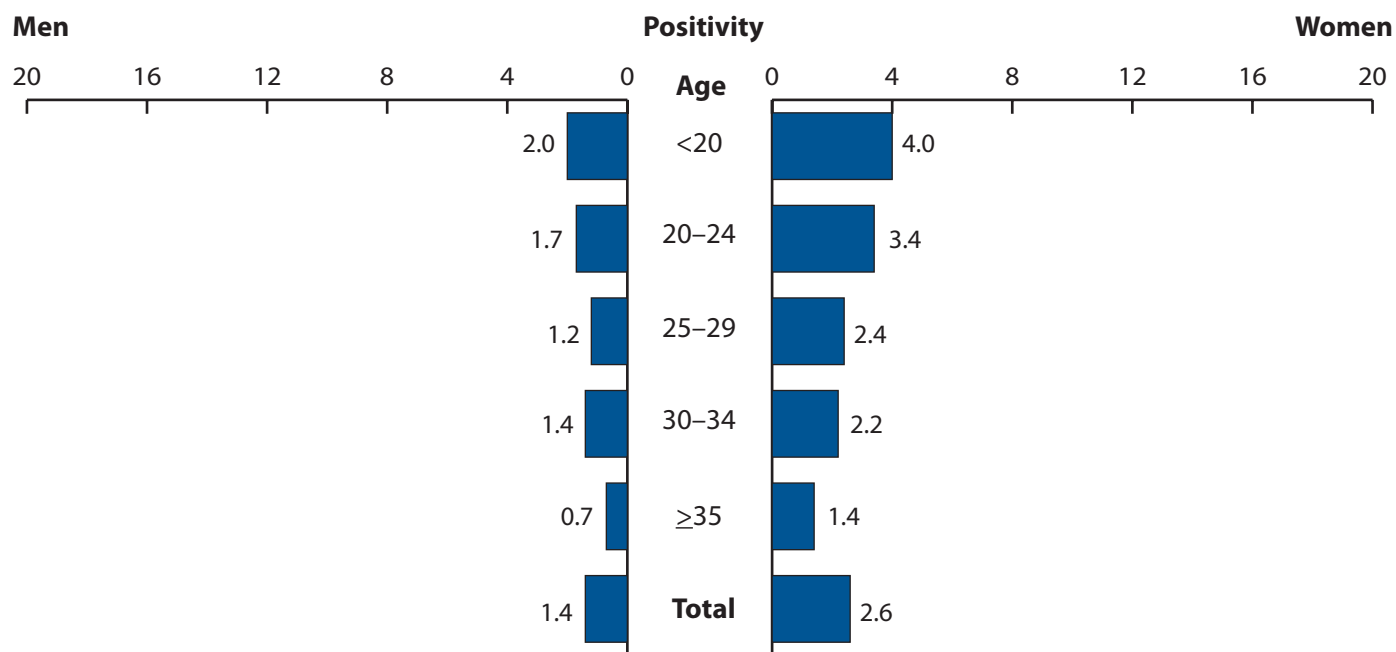
NOTE: Percent positivity is presented from facilities reporting >100 test results.

Figure EE. Gonorrhea—Positivity by age and sex, juvenile corrections facilities, 2008



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

Figure FF. Gonorrhea—Positivity by age group and sex, adult corrections facilities, 2008



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

TABLES

TABLES

Table 1. Cases of sexually transmitted diseases reported by state health departments and rates per 100,000 population: United States, 1941–2008

Year*	Syphilis															
	All Stages		Primary and Secondary		Early Latent		Late and Late Latent [†]		Congenital		Chlamydia		Gonorrhea		Chancroid	
	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, 1941–2008 (continued)

Year*	Syphilis															
	All Stages		Primary and Secondary		Early Latent		Late and Late Latent†		Congenital		Chlamydia		Gonorrhea		Chancroid	
	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	46,716	17.1	8,556	3.1	16,631	6.1	20,447	7.5	1,082	27.9	537,904	205.5	327,665	120.2	246	0.1
1998	38,289	13.9	7,007	2.5	12,696	4.6	17,743	6.4	843	21.4	614,250	231.8	356,492	129.2	189	0.1
1999	35,385	12.7	6,617	2.4	11,534	4.1	16,655	6.0	579	14.6	662,647	247.2	360,813	129.3	110	0.0
2000	31,618	11.2	5,979	2.1	9,465	3.4	15,594	5.5	580	14.3	709,452	251.4	363,136	128.7	78	0.0
2001	32,284	11.3	6,103	2.1	8,701	3.0	16,976	5.9	504	12.5	783,242	274.5	361,705	126.8	38	0.0
2002	32,919	11.4	6,862	2.4	8,429	2.9	17,168	6.0	460	11.4	834,555	289.4	351,852	122.0	48	0.0
2003	34,289	11.8	7,177	2.5	8,361	2.9	18,319	6.3	432	10.6	877,478	301.7	335,104	115.2	54	0.0
2004	33,423	11.4	7,980	2.7	7,768	2.6	17,300	5.9	375	9.1	929,462	316.5	330,132	112.4	30	0.0
2005	33,288	11.2	8,724	2.9	8,176	2.8	16,049	5.4	339	8.2	976,445	329.4	339,593	114.6	17	0.0
2006	36,958	12.3	9,756	3.3	9,186	3.1	17,644	5.9	372	8.7	1,030,911	344.3	358,366	119.7	19	0.0
2007	40,921	13.6	11,466	3.8	10,768	3.6	18,256	6.1	431	10.1	1,108,374	367.5	355,991	118.0	23	0.0
2008	46,277	15.3	13,500	4.5	12,401	4.1	19,945	6.6	431	10.1	1,210,523	401.3	336,742	111.6	25	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 and 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 10, 2009 (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, 2008

Rank*	State	Cases	Rate per 100,000 Population
1	Mississippi	21,253	728.1
2	Alaska	4,861	711.2
3	South Carolina	26,323	597.2
4	Alabama	24,760	535.0
5	Louisiana	22,659	527.8
6	Arkansas	14,136	498.7
7	New Mexico	9,262	470.2
8	Hawaii	5,982	466.1
9	Illinois	59,169	460.4
10	New York	88,359	457.9
11	Tennessee	28,038	455.4
12	Delaware	3,868	447.3
13	Georgia	42,629	446.6
14	Michigan	44,923	446.0
15	Maryland	24,669	439.1
16	Missouri	24,817	422.2
17	Texas	100,870	422.0
18	North Carolina	37,516	414.0
19	Ohio	47,117	410.9
20	Oklahoma	14,803	409.2
21	California	148,798	407.1
22	Virginia	31,218	404.8
	U.S. TOTAL†	1,210,523	401.3
23	Colorado	19,180	394.5
24	Arizona	24,769	390.8
25	Florida	71,017	389.1
26	Nevada	9,670	376.9
27	Wisconsin	20,996	374.8
28	South Dakota	2,956	371.3
29	Connecticut	12,519	357.4
30	Indiana	22,154	349.1
31	Pennsylvania	42,233	339.7
32	Kansas	9,208	331.7
33	Washington	21,402	330.9
34	Montana	3,101	323.7
35	Nebraska	5,573	314.0
36	Iowa	9,372	313.6
37	Rhode Island	3,317	313.6
38	Wyoming	1,577	301.6
39	North Dakota	1,921	300.3
40	Kentucky	12,163	286.8
41	Oregon	10,744	286.7
42	Idaho	4,194	279.7
43	Minnesota	14,351	276.1
44	Massachusetts	17,503	271.4
45	New Jersey	22,405	257.9
46	Utah	6,021	227.6
47	Maine	2,608	198.0
48	Vermont	1,190	191.5
49	West Virginia	3,316	183.0
50	New Hampshire	2,109	160.3

* 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 6,924 cases and a rate of 1,177.0, but excludes outlying areas (Guam with 687 cases and rate of 395.9, Puerto Rico with 6,874 cases and rate of 174.4, and Virgin Islands with 587 cases and rate of 534.5).

Table 3. Chlamydia—Reported cases and rates by state/area and region listed in alphabetical order: United States and outlying areas, 2004–2008

State/Area	Cases					Rates per 100,000 Population				
	2004	2005	2006	2007	2008	2004	2005	2006	2007	2008
Alabama	13,314	17,109	22,915	25,153	24,760	293.9	375.4	498.3	543.5	535.0
Alaska	3,954	4,355	4,525	4,911	4,861	603.3	656.2	675.3	718.5	711.2
Arizona	16,786	21,264	24,090	24,866	24,769	292.2	358.0	390.7	392.3	390.8
Arkansas	7,864	8,507	8,259	9,954	14,136	285.7	306.1	293.8	351.1	498.7
California	122,197	130,716	135,827	141,928	148,798	340.4	361.8	372.6	388.3	407.1
Colorado	14,151	15,432	16,313	17,186	19,180	307.5	330.8	343.2	353.5	394.5
Connecticut	9,552	11,039	10,946	11,454	12,519	272.6	314.5	312.3	327.0	357.4
Delaware	2,954	3,392	3,615	3,479	3,868	355.7	402.1	423.6	402.3	447.3
District of Columbia	3,493	3,678	3,368	6,029	6,924	631.0	668.1	579.2	1,024.8	1,177.0
Florida	42,554	43,372	48,955	57,575	71,017	244.6	243.8	270.6	315.5	389.1
Georgia	34,280	33,562	38,972	42,913	42,629	388.2	369.9	416.2	449.6	446.6
Hawaii	5,307	5,489	5,548	5,659	5,982	420.2	430.4	431.6	440.9	466.1
Idaho	2,784	2,799	3,345	3,722	4,194	199.8	195.9	228.1	248.2	279.7
Illinois	47,185	50,559	53,586	55,470	59,169	371.1	396.1	417.6	431.6	460.4
Indiana	18,440	20,063	19,859	20,712	22,154	295.6	319.9	314.5	326.4	349.1
Iowa	6,956	7,390	8,390	8,643	9,372	235.4	249.1	281.3	289.3	313.6
Kansas	7,493	7,419	7,829	8,180	9,208	273.9	270.3	283.2	294.7	331.7
Kentucky	6,470	8,351	8,940	8,798	12,163	156.1	200.1	212.5	207.4	286.8
Louisiana	21,837	17,227	17,885	19,362	22,659	483.6	380.8	417.1	451.0	527.8
Maine	2,113	2,254	2,306	2,541	2,608	160.4	170.6	174.5	192.9	198.0
Maryland	19,952	18,291	21,859	23,150	24,669	359.0	326.6	389.2	412.0	439.1
Massachusetts	13,242	14,411	15,394	16,145	17,503	206.4	225.2	239.1	250.3	271.4
Michigan	41,246	38,730	36,753	37,353	44,923	407.9	382.7	364.0	370.9	446.0
Minnesota	11,602	12,189	12,935	13,413	14,351	227.4	237.5	250.3	258.1	276.1
Mississippi	18,863	21,268	19,002	21,686	21,253	649.8	728.1	652.9	743.0	728.1
Missouri	21,319	22,371	22,982	23,308	24,817	370.5	385.7	393.3	396.5	422.2
Montana	2,608	2,400	2,650	2,748	3,101	281.4	256.5	280.5	286.9	323.7
Nebraska	5,238	5,098	5,428	5,132	5,573	299.8	289.9	307.0	289.2	314.0
Nevada	6,690	7,321	8,398	9,514	9,670	286.5	303.2	336.5	370.9	376.9
New Hampshire	1,736	1,842	1,997	2,055	2,109	133.6	140.6	151.9	156.2	160.3
New Jersey	17,448	19,152	20,194	21,536	22,405	200.6	219.7	231.5	247.9	257.9
New Mexico	9,035	8,456	9,829	9,460	9,262	474.7	438.5	502.9	480.2	470.2
New York	59,097	63,966	68,720	80,717	88,359	307.4	332.2	355.9	418.3	457.9
North Carolina	28,967	31,183	33,615	30,611	37,516	339.1	359.1	379.6	337.8	414.0
North Dakota	1,810	1,667	1,820	1,789	1,921	285.3	261.8	286.2	279.7	300.3
Ohio	39,379	43,806	40,106	47,434	47,117	343.7	382.1	349.4	413.7	410.9
Oklahoma	10,366	13,407	12,992	12,529	14,803	294.2	377.9	363.0	346.4	409.2
Oregon	8,690	9,018	9,577	9,849	10,744	241.8	247.7	258.8	262.8	286.7
Pennsylvania	38,025	37,261	39,487	42,469	42,233	306.5	299.8	317.4	341.6	339.7
Rhode Island	3,442	3,269	3,142	3,177	3,317	318.5	303.8	294.3	300.3	313.6
South Carolina	18,423	18,296	22,351	26,431	26,323	438.8	430.0	517.2	599.7	597.2
South Dakota	2,532	2,701	2,633	2,620	2,956	328.5	348.1	336.7	329.1	371.3
Tennessee	22,515	23,084	25,320	26,866	28,038	381.5	387.1	419.3	436.4	455.4
Texas	70,232	71,860	75,543	85,786	100,870	312.3	314.3	321.4	358.9	422.0
Utah	3,857	4,602	5,092	5,721	6,021	161.4	186.3	199.7	216.3	227.6
Vermont	1,137	957	1,191	1,057	1,190	183.0	153.6	190.9	170.1	191.5
Virginia	21,635	22,668	24,087	24,579	31,218	290.0	299.5	315.2	318.7	404.8
Washington	17,635	18,616	17,819	18,784	21,402	284.3	296.1	278.6	290.4	330.9
West Virginia	2,758	2,944	2,910	3,168	3,316	151.9	162.0	160.0	174.8	183.0
Wisconsin	19,217	20,461	20,190	19,555	20,996	348.8	369.6	363.4	349.1	374.8
Wyoming	1,082	1,173	1,422	1,197	1,577	213.6	230.3	276.1	228.9	301.6
U.S. TOTAL	929,462	976,445	1,030,911	1,108,374	1,210,523	316.5	329.4	344.3	367.5	401.3
Northeast	145,792	154,151	163,377	181,151	192,243	267.2	282.1	298.5	331.3	351.6
Midwest	222,417	232,454	232,511	243,609	262,557	338.4	352.4	351.1	366.9	395.5
South	346,477	358,199	390,588	428,069	486,162	327.0	333.2	358.1	387.6	440.1
West	214,776	231,641	244,435	255,545	269,561	318.6	339.2	352.4	364.6	384.6
Guam	748	807	832	822	687	450.4	478.7	486.5	473.7	395.9
Puerto Rico	3,588	3,714	5,102	7,909	6,874	92.1	94.9	129.9	200.6	174.4
Virgin Islands	303	235	203	348	587	278.6	216.2	186.9	316.9	534.5
OUTLYING AREAS	4,639	4,756	6,137	9,079	8,148	111.3	113.5	145.8	214.8	192.8
TOTAL	934,101	981,201	1,037,048	1,117,453	1,218,671	313.6	326.4	341.6	365.4	398.5

Table 4. Chlamydia—Women—Reported cases and rates by state/area and region listed in alphabetical order: United States and outlying areas, 2004–2008

State/Area	Cases					Rates per 100,000 Population				
	2004	2005	2006	2007	2008	2004	2005	2006	2007	2008
Alabama	11,685	14,532	17,915	19,186	18,744	500.6	619.4	756.0	804.2	785.7
Alaska	2,671	2,908	3,067	3,295	3,253	843.9	907.4	947.7	1,002.6	989.8
Arizona	12,896	16,201	18,485	18,794	18,358	449.3	546.2	600.1	593.7	579.9
Arkansas	6,252	6,823	6,604	7,893	10,643	445.3	481.8	460.8	546.0	736.2
California	88,439	93,646	97,170	101,175	104,201	491.9	517.8	532.9	553.6	570.2
Colorado	10,283	11,219	12,037	12,707	13,825	451.0	485.8	510.0	527.1	573.4
Connecticut	7,383	8,383	8,205	8,577	9,239	409.4	464.4	456.2	477.7	514.6
Delaware	2,140	2,493	2,625	2,554	2,789	502.7	576.8	597.6	573.3	626.1
District of Columbia	2,948	2,976	2,510	3,970	4,438	1,010.3	1,028.4	812.7	1,279.9	1,430.8
Florida	34,437	34,850	38,536	42,173	52,206	388.1	384.4	418.6	454.3	562.4
Georgia	27,656	26,317	30,546	31,827	31,515	619.5	574.0	642.7	656.1	649.7
Hawaii	4,019	4,093	4,161	4,228	4,422	635.1	640.1	648.0	663.1	693.6
Idaho	2,157	2,162	2,435	2,660	3,048	310.5	303.6	334.4	357.1	409.2
Illinois	35,996	37,672	39,705	41,733	43,112	556.3	580.3	609.5	640.2	661.3
Indiana	14,217	15,263	14,907	15,576	16,513	448.7	479.4	465.4	483.9	513.0
Iowa	5,208	5,400	6,157	6,310	6,882	347.1	358.7	407.9	416.9	454.7
Kansas	6,195	6,054	6,286	6,629	7,401	449.9	438.4	451.4	473.6	528.8
Kentucky	5,027	6,041	6,336	6,184	8,622	238.0	284.5	295.4	285.9	398.6
Louisiana	17,549	13,395	14,290	15,334	17,260	755.8	576.4	649.0	694.6	781.8
Maine	1,532	1,644	1,672	1,831	1,847	227.3	243.2	247.6	271.5	273.9
Maryland	16,108	14,653	17,339	18,230	19,337	561.8	507.5	598.1	628.7	666.8
Massachusetts	9,781	10,587	11,175	11,671	12,646	295.5	321.0	336.6	351.2	380.5
Michigan	32,624	30,079	27,915	28,341	33,719	634.2	584.6	544.6	554.4	659.6
Minnesota	8,521	8,820	9,243	9,681	10,266	331.7	341.3	355.7	371.0	393.4
Mississippi	15,097	16,684	14,853	16,718	16,323	1,010.4	1,110.4	989.4	1,110.8	1,084.5
Missouri	16,306	16,580	16,938	17,080	18,116	553.9	559.3	566.9	567.9	602.4
Montana	1,916	1,776	1,932	2,024	2,227	412.4	378.9	409.3	423.2	465.7
Nebraska	3,812	3,713	3,956	3,755	4,123	431.4	417.6	443.7	419.5	460.6
Nevada	4,857	5,362	6,185	7,044	7,131	423.8	452.3	504.2	559.7	566.6
New Hampshire	1,265	1,343	1,484	1,533	1,548	192.1	202.2	222.7	230.0	232.2
New Jersey	14,491	15,826	16,560	17,355	18,001	324.7	354.1	371.1	391.1	405.7
New Mexico	6,876	6,333	7,456	7,044	6,986	710.9	646.2	753.3	705.7	699.9
New York	44,975	45,391	48,568	56,590	61,280	453.3	457.2	488.1	569.5	616.7
North Carolina	23,916	25,702	27,301	25,110	30,693	550.8	582.6	604.6	541.9	662.4
North Dakota	1,206	1,091	1,231	1,194	1,291	379.6	342.1	389.0	374.7	405.1
Ohio	30,377	33,312	30,483	36,143	35,021	516.8	566.9	518.4	615.1	596.0
Oklahoma	8,237	10,608	9,678	9,130	11,117	461.9	591.1	533.3	499.0	607.5
Oregon	6,090	6,194	6,585	6,890	7,433	336.9	338.4	353.8	365.5	394.3
Pennsylvania	27,740	27,131	28,503	30,511	30,509	433.9	424.0	445.8	477.9	477.9
Rhode Island	2,502	2,396	2,175	2,282	2,400	447.3	430.7	394.5	418.0	439.6
South Carolina	15,925	15,694	19,055	20,793	20,492	739.7	719.6	859.3	919.8	906.5
South Dakota	1,824	1,924	1,923	1,894	2,185	470.5	492.9	491.4	474.2	547.1
Tennessee	16,237	16,453	18,352	19,604	20,479	538.6	540.8	594.3	622.2	650.0
Texas	57,470	58,668	60,327	67,966	79,002	509.1	511.4	511.5	567.4	659.5
Utah	2,720	3,081	3,457	3,926	3,982	228.6	250.6	272.7	299.8	304.1
Vermont	861	725	897	812	896	272.8	229.3	283.1	257.4	284.0
Virginia	16,578	16,805	17,682	18,136	23,172	437.6	437.2	455.0	461.8	590.1
Washington	12,835	13,471	13,021	13,793	15,581	412.8	427.8	406.1	425.0	480.1
West Virginia	2,105	2,272	2,208	2,423	2,490	226.8	244.9	238.0	262.0	269.2
Wisconsin	13,913	14,751	14,606	14,438	15,229	500.1	527.9	522.5	512.4	540.5
Wyoming	820	874	1,051	913	1,011	326.1	346.0	413.8	354.2	392.2
U.S. TOTAL	716,675	740,371	775,788	825,660	893,004	480.6	492.2	510.8	539.8	583.8
Northeast	110,530	113,426	119,239	131,162	138,366	393.4	403.5	423.8	467.1	492.8
Midwest	170,199	174,659	173,350	182,774	193,858	509.2	521.0	515.8	542.6	575.5
South	279,367	284,966	306,157	327,231	369,322	518.4	521.5	551.6	582.3	657.1
West	156,579	167,320	177,042	184,493	191,458	464.5	490.2	511.0	527.2	547.1
Guam	608	667	692	669	574	747.1	807.0	824.7	785.4	673.9
Puerto Rico	3,240	3,366	4,091	6,781	5,834	160.1	165.6	200.3	330.8	284.6
Virgin Islands	232	189	144	267	448	408.0	332.5	253.6	462.5	776.0
OUTLYING AREAS	4,080	4,222	4,927	7,717	6,856	188.8	194.4	225.7	351.9	312.7
TOTAL	720,755	744,593	780,715	833,377	899,860	476.4	488.0	506.7	537.1	580.0

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

Table 5. Chlamydia—Men—Reported cases and rates by state/area and region listed in alphabetical order: United States and outlying areas, 2004–2008

State/Area	Cases					Rates per 100,000 Population				
	2004	2005	2006	2007	2008	2004	2005	2006	2007	2008
Alabama	1,603	2,507	4,985	5,955	6,007	73.0	113.4	223.6	265.6	267.9
Alaska	1,283	1,447	1,458	1,616	1,608	378.6	421.6	420.9	455.4	453.2
Arizona	3,884	5,058	5,588	6,055	6,401	135.2	170.1	181.1	190.8	201.7
Arkansas	1,612	1,684	1,655	2,060	3,491	119.5	123.6	120.1	148.3	251.3
California	33,323	36,449	38,003	40,213	44,060	186.0	202.0	208.5	220.0	241.1
Colorado	3,855	4,213	4,276	4,479	5,319	166.1	178.8	178.7	182.8	217.1
Connecticut	2,168	2,656	2,741	2,877	3,264	127.5	155.8	160.7	168.5	191.2
Delaware	814	899	990	925	1,079	201.1	218.6	239.0	220.6	257.3
District of Columbia	529	681	819	2,034	2,438	202.1	260.8	300.4	731.4	876.6
Florida	8,117	8,522	10,410	15,376	18,593	95.2	97.7	117.2	171.4	207.3
Georgia	6,411	6,793	8,089	10,808	10,690	146.9	151.4	175.4	230.3	227.8
Hawaii	1,288	1,396	1,384	1,431	1,560	204.4	219.6	215.1	221.6	241.6
Idaho	617	616	895	1,030	1,133	88.3	85.9	121.2	136.5	150.2
Illinois	11,187	12,886	13,881	13,736	16,052	179.2	205.5	219.7	216.9	253.4
Indiana	4,080	4,703	4,849	5,032	5,572	132.9	152.3	155.9	160.9	178.2
Iowa	1,743	1,990	2,233	2,333	2,490	119.9	136.2	151.6	158.2	168.9
Kansas	1,298	1,365	1,543	1,551	1,807	95.6	100.1	112.5	112.7	131.3
Kentucky	1,433	2,285	2,580	2,605	3,508	70.5	111.5	125.2	125.3	168.8
Louisiana	4,016	3,583	3,372	3,758	5,226	183.0	162.9	161.7	180.2	250.6
Maine	581	606	634	708	761	90.3	93.9	98.1	110.1	118.4
Maryland	3,841	3,627	4,439	4,907	5,307	142.7	133.7	163.4	180.5	195.2
Massachusetts	3,449	3,809	4,193	4,457	4,839	111.0	122.8	134.5	142.6	154.8
Michigan	8,622	8,525	8,724	8,845	11,007	173.5	171.3	175.5	178.3	221.9
Minnesota	3,081	3,369	3,692	3,732	4,085	121.7	132.2	143.7	144.2	157.8
Mississippi	3,766	4,584	4,149	4,968	4,930	267.3	323.1	294.4	351.4	348.7
Missouri	5,013	5,791	6,044	6,228	6,701	178.3	204.2	211.7	216.9	233.4
Montana	685	619	709	716	865	148.2	132.6	150.0	149.3	180.3
Nebraska	1,391	1,378	1,401	1,363	1,441	161.1	158.4	159.8	155.0	163.9
Nevada	1,821	1,955	2,211	2,460	2,539	153.2	159.0	174.2	188.3	194.3
New Hampshire	471	499	513	522	561	73.5	77.3	79.1	80.4	86.4
New Jersey	2,945	3,323	3,606	4,169	4,390	69.5	78.2	84.6	98.1	103.3
New Mexico	2,151	2,121	2,368	2,415	2,272	229.8	223.6	245.4	248.5	233.8
New York	14,031	18,547	20,148	24,045	27,056	150.8	198.9	215.4	256.9	289.0
North Carolina	5,051	5,481	6,314	5,493	6,656	120.3	128.3	145.4	124.1	150.3
North Dakota	601	574	588	594	629	189.8	180.6	184.1	185.0	195.9
Ohio	8,189	9,139	9,039	10,852	10,847	146.7	163.6	161.5	194.1	194.0
Oklahoma	2,129	2,799	3,314	3,399	3,606	122.3	159.6	187.8	190.2	201.7
Oregon	2,600	2,824	2,992	2,959	3,311	145.5	155.9	162.6	158.9	177.8
Pennsylvania	10,282	10,128	10,981	11,934	11,722	171.0	168.0	181.6	197.3	193.8
Rhode Island	936	868	962	892	915	179.6	167.0	186.4	174.3	178.8
South Carolina	2,456	2,572	3,272	5,549	5,723	120.1	124.0	155.5	258.4	266.5
South Dakota	708	774	709	725	767	184.7	200.7	181.5	182.7	193.3
Tennessee	6,278	6,619	6,968	7,262	7,559	217.5	226.6	236.1	241.6	251.5
Texas	12,619	13,138	15,178	17,687	21,812	112.7	115.4	129.6	148.3	182.9
Utah	1,137	1,521	1,635	1,795	2,039	94.8	122.6	127.5	134.4	152.6
Vermont	276	232	294	245	294	90.3	75.6	95.8	80.1	96.1
Virginia	5,024	5,823	6,384	6,433	7,985	136.8	156.4	169.9	170.0	211.0
Washington	4,800	5,145	4,798	4,991	5,767	155.1	163.9	150.4	154.9	178.9
West Virginia	649	671	698	744	825	73.1	75.5	78.4	83.9	93.0
Wisconsin	5,290	5,688	5,551	5,090	5,707	194.0	207.5	201.1	182.8	205.0
Wyoming	262	299	371	284	563	102.7	116.5	142.1	107.2	212.4
U.S. TOTAL	210,396	232,781	252,630	280,337	313,779	145.6	159.4	171.3	188.6	211.1
Northeast	35,139	40,668	44,072	49,849	53,802	132.7	153.3	165.6	187.4	202.2
Midwest	51,203	56,182	58,254	60,081	67,105	158.5	173.2	178.6	183.7	205.2
South	66,348	72,268	83,616	99,963	115,435	127.4	136.7	156.0	184.3	212.8
West	57,706	63,663	66,688	70,444	77,437	171.2	186.4	192.1	200.7	220.6
Guam	140	140	140	153	113	165.3	162.9	160.7	173.1	127.9
Puerto Rico	348	348	1,007	1,125	1,034	18.6	18.5	53.4	59.4	54.6
Virgin Islands	71	46	55	81	139	136.8	88.7	106.1	155.5	266.9
OUTLYING AREAS	559	534	1,202	1,359	1,286	27.8	26.5	59.3	66.8	63.3
TOTAL	210,955	233,315	253,832	281,696	315,065	144.0	157.6	169.7	186.9	209.1

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, 2004–2008

Metropolitan Statistical Area	Cases					Rates per 100,000 Population				
	2004	2005	2006	2007	2008	2004	2005	2006	2007	2008
Atlanta-Sandy Springs-Marietta, GA	17,068	16,748	20,979	21,609	20,722	362.5	340.6	408.3	409.3	392.5
Austin-Round Rock, TX	4,580	5,103	7,325	6,814	8,413	324.3	351.3	484.0	426.4	526.4
Baltimore-Towson, MD	10,959	11,071	11,617	13,053	13,537	415.2	416.9	437.0	489.2	507.4
Birmingham-Hoover, AL	3,905	4,720	5,338	6,913	6,690	360.8	433.0	485.3	623.8	603.7
Boston-Cambridge-Quincy, MA-NH	9,006	9,368	9,918	10,697	11,854	203.5	212.3	222.6	238.6	264.4
Buffalo-Cheektowaga-Tonawanda, NY	4,865	5,013	4,992	5,078	5,561	421.4	436.8	438.8	450.1	492.9
Charlotte-Gastonia-Concord, NC-SC	4,832	5,830	5,076	4,216	7,046	327.7	383.2	320.7	255.3	426.6
Chicago-Naperville-Joliet, IL-IN-WI	35,953	38,966	41,521	41,403	45,803	382.8	412.6	436.8	434.7	480.9
Cincinnati-Middletown, OH-KY-IN	6,438	8,516	8,616	10,080	10,016	312.8	411.3	409.5	472.4	469.4
Cleveland-Elyria-Mentor, OH	7,867	8,181	7,462	9,351	8,731	368.1	384.7	353.0	446.0	416.5
Columbus, OH	5,167	5,902	5,843	7,157	8,314	305.0	345.4	338.6	408.0	473.9
Dallas-Fort Worth-Arlington, TX	15,744	18,005	17,035	22,292	26,090	276.2	309.4	283.7	362.8	424.6
Denver-Aurora, CO	7,774	8,534	7,934	9,539	10,996	333.6	361.6	329.4	387.0	446.1
Detroit-Warren-Livonia, MI	21,378	20,497	17,201	17,934	24,987	475.8	456.7	384.9	401.4	559.3
Hartford-WestHartford-East Hartford, CT	3,040	3,815	3,799	4,300	4,781	256.6	321.1	319.6	361.6	402.1
Houston-Baytown-Sugar Land, TX	14,796	13,476	14,641	17,196	21,100	285.6	255.2	264.3	305.5	374.9
Indianapolis, IN	6,922	8,226	7,780	8,173	8,814	426.9	501.4	467.0	482.2	520.0
Jacksonville, FL	5,017	5,246	5,582	6,501	7,318	409.4	420.2	436.8	499.8	562.6
Kansas City, MO-KS	8,003	7,900	7,825	8,358	9,559	415.7	405.6	397.7	421.0	481.5
Las Vegas-Paradise, NV	5,065	5,623	6,592	7,333	7,753	306.8	328.7	370.8	399.3	422.2
Los Angeles-Long Beach-Santa Ana, CA	46,202	50,703	50,913	52,352	55,276	357.5	392.3	393.1	406.6	429.3
Louisville, KY-IN	2,396	3,143	3,319	3,493	4,953	199.5	260.1	271.6	283.1	401.5
Memphis, TN-MS-AR	8,927	9,457	10,224	11,349	11,896	714.0	750.0	802.1	886.3	929.0
Miami-Fort Lauderdale-Miami Beach, FL	11,781	10,403	12,142	13,761	18,128	219.7	191.9	222.2	254.2	334.9
Milwaukee-Waukesha-West Allis, WI	10,070	10,368	10,498	10,150	1,441	664.4	685.3	695.2	657.2	93.3
Minneapolis-St. Paul-Bloomington, MN-WI	8,139	8,513	9,271	9,514	10,093	261.2	270.9	292.0	296.6	314.6
Nashville-Davidson-Murfreesboro, TN	4,243	4,538	4,910	4,972	5,574	304.0	319.0	337.4	326.8	366.4
New Orleans-Metairie-Kenner, LA	6,858	4,761	3,401	4,573	5,109	519.7	360.9	331.9	443.8	495.8
New York-Newark-Edison, NY-NJ-PA	52,266	58,134	62,334	74,071	80,306	279.4	310.1	331.2	393.7	426.8
Oklahoma City, OK	3,939	4,798	4,627	4,646	5,650	344.2	414.8	394.7	389.4	473.6
Orlando, FL	4,888	5,862	6,579	6,825	8,287	262.6	303.2	331.5	335.8	407.7
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	25,285	24,913	27,417	28,116	28,749	435.9	427.8	470.5	482.4	493.3
Phoenix-Mesa-Scottsdale, AZ	11,078	11,984	15,278	15,245	14,314	298.2	310.1	378.2	364.8	342.5
Pittsburgh, PA	5,539	5,880	5,789	6,616	6,920	230.6	246.4	244.2	280.8	293.8
Portland-Vancouver-Beaverton, OR-WA	5,256	5,636	5,654	5,970	6,499	254.6	268.9	264.5	274.5	298.8
Providence-New Bedford-Fall River, RI-MA	4,269	4,316	4,197	4,297	4,551	262.1	266.0	260.2	268.4	284.3
Richmond, VA	4,923	4,710	5,044	5,294	6,783	426.5	400.6	422.4	436.4	559.2
Riverside-San Bernardino-Ontario, CA	10,913	12,179	12,472	14,316	13,557	287.7	311.5	309.8	350.8	332.2
Rochester, NY	4,040	3,850	4,168	4,833	5,294	387.9	370.5	402.5	469.0	513.7
Sacramento-Arden-Arcade-Roseville, CA	7,294	8,175	9,094	8,770	8,395	361.7	400.3	439.9	419.4	401.5
Salt Lake City, UT	2,223	2,642	2,910	3,395	3,562	218.2	255.4	272.5	308.6	323.8
San Antonio, TX	7,645	8,049	8,338	8,727	9,734	412.3	425.9	429.3	438.4	489.0
San Diego-Carlsbad-San Marcos, CA	10,876	11,520	11,980	12,693	14,373	371.0	392.7	407.3	426.7	483.1
San Francisco-Oakland-Fremont, CA	13,580	13,988	15,565	16,710	17,555	326.9	336.8	372.4	397.5	417.6
San Jose-Sunnyvale-Santa Clara, CA	5,697	5,374	5,898	5,892	5,796	327.1	306.2	330.0	326.7	321.3
Seattle-Tacoma-Bellevue, WA	9,655	10,588	9,778	10,397	11,532	304.9	330.5	299.6	314.2	348.5
St. Louis, MO-IL	11,856	13,328	13,509	13,710	14,092	428.9	479.7	483.1	489.0	502.6
Tampa-St. Petersburg-Clearwater, FL	5,996	6,315	7,475	9,501	11,230	231.7	238.5	277.1	348.8	412.3
Virginia Beach-Norfolk-Newport News, VA-NC	7,601	8,414	9,139	9,383	11,867	462.3	510.8	554.1	565.7	715.4
Washington-Arlington-Alexandria, DC-VA-MD-WV	14,046	12,827	15,456	18,069	20,943	273.3	246.0	292.2	340.5	394.7
U.S. MSA TOTAL	525,860	556,108	584,455	635,637	690,544	333.0	348.7	362.3	390.6	424.4

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

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

Table 7. Chlamydia—Women—Reported cases and rates in selected metropolitan statistical areas* (MSAs) listed in alphabetical order: United States, 2004–2008

Metropolitan Statistical Area	Cases					Rates per 100,000 Population				
	2004	2005	2006	2007	2008	2004	2005	2006	2007	2008
Atlanta-Sandy Springs-Marietta, GA	13,756	12,995	16,165	15,553	14,898	580.4	524.8	622.2	582.4	557.9
Austin-Round Rock, TX	3,405	3,720	5,170	4,753	5,933	492.5	522.7	699.1	609.2	760.4
Baltimore-Towson, MD	9,051	8,927	9,344	10,416	10,774	662.1	649.4	677.9	753.5	779.4
Birmingham-Hoover, AL	3,095	3,709	4,277	5,165	4,948	552.6	657.7	751.3	900.4	862.6
Boston-Cambridge-Quincy, MA-NH	6,549	6,663	7,140	7,721	8,458	287.6	293.8	311.7	335.2	367.2
Buffalo-Cheektowaga-Tonawanda, NY	3,698	3,849	3,762	3,818	4,076	616.7	646.3	637.8	653.5	697.6
Charlotte-Gastonia-Concord, NC-SC	4,059	4,878	4,189	3,430	5,469	541.9	631.9	520.7	407.4	649.6
Chicago-Naperville-Joliet, IL-IN-WI	27,271	28,860	30,600	31,134	33,220	570.2	600.4	633.8	644.2	687.3
Cincinnati-Middletown, OH-KY-IN	5,108	6,580	6,871	8,082	8,031	484.6	621.4	638.2	740.4	735.7
Cleveland-Elyria-Mentor, OH	5,909	6,066	5,458	7,023	6,487	531.6	548.7	497.2	645.2	595.9
Columbus, OH	4,058	4,445	4,549	5,428	6,027	472.8	513.4	520.7	611.1	678.5
Dallas-Fort Worth-Arlington, TX	12,536	14,641	13,466	17,251	20,125	440.7	504.7	450.4	564.5	658.5
Denver-Aurora, CO	5,558	6,122	5,827	7,020	7,824	479.3	521.7	485.8	572.1	637.6
Detroit-Warren-Livonia, MI	17,145	16,172	13,096	13,580	18,826	744.1	703.4	572.9	594.5	824.1
Hartford-West Hartford-East Hartford, CT	2,331	2,842	2,786	3,122	3,474	381.9	464.3	456.5	511.7	569.4
Houston-Baytown-Sugar Land, TX	12,258	11,539	12,178	14,170	17,287	473.1	437.0	439.8	504.4	615.4
Indianapolis, IN	5,167	5,949	5,596	5,808	6,352	625.9	712.5	660.3	673.8	736.9
Jacksonville, FL	3,759	4,021	4,273	4,627	5,392	600.4	630.6	654.9	695.7	810.8
Kansas City, MO-KS	5,993	5,930	5,791	6,231	7,115	611.3	598.8	578.2	616.2	703.7
Las Vegas-Paradise, NV	3,820	4,319	5,014	5,620	5,842	471.0	513.8	573.3	623.0	647.7
Los Angeles-Long Beach-Santa Ana, CA	32,903	36,044	35,826	36,520	38,100	504.6	552.9	549.2	563.3	587.7
Louisville, KY-IN	1,817	2,232	2,344	2,482	3,504	295.1	360.6	374.3	392.6	554.3
Memphis, TN-MS-AR	6,816	7,150	7,935	8,846	9,199	1,053.0	1,098.1	1,202.2	1,332.7	1,385.9
Miami-Fort Lauderdale-Miami Beach, FL	9,610	8,492	9,553	9,985	13,144	347.8	304.2	340.1	359.0	472.6
Milwaukee-Waukesha-West Allis, WI	7,358	7,558	7,761	7,653	1,116	945.2	973.0	1,004.8	968.8	141.3
Minneapolis-St. Paul-Bloomington, MN-WI	5,892	6,022	6,462	6,727	7,037	374.8	380.0	404.3	417.2	436.5
Nashville-Davidson-Murfreesboro, TN	3,018	3,122	3,413	3,445	3,916	426.5	433.4	462.7	446.5	507.5
New Orleans-Metairie-Kenner, LA	5,433	3,563	2,673	3,503	3,722	791.6	519.8	503.2	653.5	694.3
New York-Newark-Edison, NY-NJ-PA	41,039	42,214	45,007	52,815	56,829	423.4	435.0	462.7	543.6	584.9
Oklahoma City, OK	3,057	3,744	3,394	3,262	4,119	527.5	638.7	570.1	539.5	681.3
Orlando, FL	3,993	4,667	5,326	5,203	6,160	424.0	477.4	531.7	507.6	600.9
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	18,369	18,236	19,813	20,132	20,708	611.6	605.3	658.0	668.7	687.8
Phoenix-Mesa-Scottsdale, AZ	8,555	9,338	11,859	11,675	10,725	464.3	487.7	592.7	564.2	518.3
Pittsburgh, PA	4,185	4,398	4,267	4,870	5,092	334.6	354.2	346.5	398.4	416.6
Portland-Vancouver-Beaverton, OR-WA	3,555	3,816	3,769	4,109	4,468	343.2	363.1	351.7	376.7	409.6
Providence-New Bedford-Fall River, RI-MA	3,138	3,225	2,967	3,116	3,327	372.1	384.3	355.8	376.8	402.3
Richmond, VA	3,573	3,425	3,617	3,778	4,981	601.2	566.7	590.0	605.1	797.8
Riverside-San Bernardino-Ontario, CA	8,252	9,257	9,426	10,773	10,009	435.4	474.3	468.5	528.4	490.9
Rochester, NY	2,869	2,670	2,890	3,337	3,594	536.9	501.5	544.7	632.2	680.9
Sacramento-Arden-Arcade-Roseville, CA	5,326	5,890	6,614	6,310	5,997	519.5	567.4	629.1	594.0	564.5
Salt Lake City, UT	1,501	1,709	1,941	2,299	2,254	298.1	334.4	368.8	425.3	417.0
San Antonio, TX	6,182	6,105	6,232	6,567	7,206	653.1	633.1	628.0	646.8	709.7
San Diego-Carlsbad-San Marcos, CA	7,908	8,210	8,620	9,187	10,257	542.6	565.1	590.4	620.4	692.7
San Francisco-Oakland-Fremont, CA	9,151	9,217	10,418	11,118	11,514	436.4	439.6	495.3	525.7	544.5
San Jose-Sunnyvale-Santa Clara, CA	4,038	3,752	4,128	4,232	4,218	471.7	435.6	472.4	480.4	478.8
Seattle-Tacoma-Bellevue, WA	6,775	7,411	6,915	7,412	7,975	427.2	462.5	423.6	447.2	481.2
St. Louis, MO-IL	9,086	9,804	9,952	10,012	10,166	636.1	683.2	689.2	691.6	702.3
Tampa-St. Petersburg-Clearwater, FL	4,920	5,184	5,936	6,841	8,099	369.1	380.8	428.6	489.4	579.4
Virginia Beach-Norfolk-Newport News, VA-NC	5,862	6,016	6,651	6,884	8,789	704.2	720.5	789.6	811.7	1,036.3
Washington-Arlington-Alexandria, DC-VA-MD-WV	11,170	10,086	11,722	13,194	14,967	424.8	378.3	432.7	485.5	550.7
U.S. MSA TOTAL	399,877	414,784	432,983	466,239	501,750	497.5	511.3	528.1	564.1	607.0

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

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

Table 8. Chlamydia—Men—Reported cases and rates in selected metropolitan statistical areas* (MSAs) listed in alphabetical order: United States, 2004–2008

Metropolitan Statistical Area	Cases					Rates per 100,000 Population				
	2004	2005	2006	2007	2008	2004	2005	2006	2007	2008
Atlanta-Sandy Springs-Marietta, GA	3,187	3,463	4,574	5,896	5,585	136.3	141.8	180.1	226.0	214.1
Austin-Round Rock, TX	1,093	1,357	2,147	2,053	2,472	151.6	183.2	277.4	251.0	302.2
Baltimore-Towson, MD	1,908	2,139	2,250	2,624	2,754	150.0	167.0	175.8	204.1	214.2
Birmingham-Hoover, AL	810	1,005	1,058	1,745	1,740	155.1	191.0	199.4	326.4	325.5
Boston-Cambridge-Quincy, MA-NH	2,449	2,697	2,762	2,966	3,383	114.0	125.8	127.6	136.1	155.2
Buffalo-Cheektowaga-Tonawanda, NY	1,167	1,164	1,229	1,260	1,485	210.4	210.8	224.4	231.7	273.0
Charlotte-Gastonia-Concord, NC-SC	770	951	887	786	1,549	106.1	126.9	113.9	97.1	191.3
Chicago-Naperville-Joliet, IL-IN-WI	8,602	10,075	10,905	10,259	12,578	186.7	217.3	233.1	218.7	268.1
Cincinnati-Middletown, OH-KY-IN	1,239	1,746	1,691	1,935	1,963	123.4	172.6	164.6	185.7	188.4
Cleveland-Elyria-Mentor, OH	1,904	1,986	1,953	2,285	2,216	185.7	194.6	192.2	226.7	219.9
Columbus, OH	1,058	1,377	1,272	1,706	2,275	126.6	163.4	149.3	197.0	262.7
Dallas-Fort Worth-Arlington, TX	3,192	3,346	3,558	4,987	5,962	111.8	114.6	118.0	161.5	193.0
Denver-Aurora, CO	2,210	2,412	2,107	2,519	3,161	188.8	203.3	174.2	203.5	255.4
Detroit-Warren-Livonia, MI	4,233	4,256	4,027	4,220	5,996	193.4	194.4	184.5	193.3	274.6
Hartford-WestHartford-East Hartford, CT	708	973	1,013	1,178	1,303	123.3	168.9	175.1	203.5	225.0
Houston-Baytown-Sugar Land, TX	2,504	1,930	2,449	2,963	3,776	96.7	73.1	88.4	105.1	133.9
Indianapolis, IN	1,744	2,242	2,167	2,340	2,451	219.1	278.3	264.7	280.9	294.2
Jacksonville, FL	1,258	1,225	1,309	1,873	1,912	209.9	200.6	209.3	294.6	300.7
Kansas City, MO-KS	2,010	1,970	2,034	2,127	2,444	212.7	205.8	210.6	218.3	250.8
Las Vegas-Paradise, NV	1,233	1,301	1,576	1,704	1,911	146.9	149.6	174.5	182.4	204.5
Los Angeles-Long Beach-Santa Ana, CA	13,208	14,585	14,921	15,639	16,886	206.2	227.7	232.2	244.7	264.2
Louisville, KY-IN	572	909	961	1,011	1,436	97.8	154.2	161.3	168.1	238.7
Memphis, TN-MS-AR	2,111	2,307	2,289	2,503	2,697	350.1	378.3	372.4	405.8	437.3
Miami-Fort Lauderdale-Miami Beach, FL	2,171	1,911	2,588	3,771	4,934	83.5	72.6	97.5	143.3	187.5
Milwaukee-Waukesha-West Allis, WI	2,711	2,804	2,720	2,473	321	367.7	380.9	368.8	327.8	42.5
Minneapolis-St. Paul-Bloomington, MN-WI	2,247	2,491	2,809	2,787	3,056	145.5	159.9	178.2	174.6	191.5
Nashville-Davidson-Murfreesboro, TN	1,225	1,415	1,497	1,527	1,658	178.0	201.5	208.6	203.7	221.1
New Orleans-Metairie-Kenner, LA	1,327	1,100	676	985	1,349	209.6	173.5	137.0	199.3	272.9
New York-Newark-Edison, NY-NJ-PA	11,125	15,890	17,301	21,165	23,441	123.4	175.7	190.3	232.6	257.6
Oklahoma City, OK	882	1,054	1,233	1,384	1,473	156.2	184.7	213.7	235.2	250.3
Orlando, FL	895	1,195	1,252	1,620	2,117	97.3	125.0	127.3	160.8	210.1
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	6,915	6,677	7,600	7,972	8,040	247.2	237.6	269.9	283.0	285.4
Phoenix-Mesa-Scottsdale, AZ	2,521	2,646	3,410	3,569	3,586	134.6	135.7	167.3	169.1	169.9
Pittsburgh, PA	1,353	1,482	1,522	1,745	1,828	117.6	129.5	133.6	154.0	161.3
Portland-Vancouver-Beaverton, OR-WA	1,701	1,820	1,885	1,861	2,029	165.4	174.2	176.9	171.6	187.1
Providence-New Bedford-Fall River, RI-MA	1,126	1,085	1,223	1,178	1,222	143.3	138.5	157.0	152.2	157.9
Richmond, VA	1,348	1,281	1,423	1,514	1,793	240.7	224.2	244.9	257.2	304.6
Riverside-San Bernardino-Ontario, CA	2,654	2,913	3,029	3,532	3,548	139.8	148.8	150.4	172.9	173.7
Rochester, NY	1,171	1,180	1,278	1,496	1,700	230.9	232.9	253.1	297.6	338.2
Sacramento-Arden-Arcade-Roseville, CA	1,901	2,220	2,431	2,387	2,346	191.7	221.1	239.3	232.0	228.0
Salt Lake City, UT	722	933	969	1,096	1,308	140.1	178.2	179.0	195.9	233.8
San Antonio, TX	1,460	1,942	2,104	2,160	2,527	160.9	209.8	221.5	221.5	259.1
San Diego-Carlsbad-San Marcos, CA	2,844	3,022	3,134	3,457	4,078	192.9	204.1	211.6	231.4	272.9
San Francisco-Oakland-Fremont, CA	4,370	4,686	5,058	5,465	5,968	212.4	227.9	243.6	261.6	285.7
San Jose-Sunnyvale-Santa Clara, CA	1,628	1,575	1,723	1,633	1,558	183.9	176.2	188.7	177.0	168.8
Seattle-Tacoma-Bellevue, WA	2,880	3,177	2,863	2,985	3,538	182.2	198.5	175.5	180.7	214.2
St. Louis, MO-IL	2,770	3,524	3,557	3,698	3,925	207.4	262.3	263.0	272.7	289.4
Tampa-St. Petersburg-Clearwater, FL	1,076	1,131	1,535	2,652	3,050	85.7	87.9	116.9	200.0	230.0
Virginia Beach-Norfolk-Newport News, VA-NC	1,724	2,375	2,481	2,494	3,064	212.4	292.4	307.4	307.7	378.0
Washington-Arlington-Alexandria, DC-VA-MD-WV	2,848	2,706	3,637	4,849	5,897	113.5	106.2	140.9	187.3	227.8
U.S. MSA TOTAL	124,765	139,651	150,077	168,034	187,289	160.9	178.2	189.2	209.9	233.9

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

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

Table 9. Chlamydia—Counties and independent cities* ranked by number of reported cases: United States, 2008

Rank [†]	County/Independent City	Cases	Rate per 100,000 Population	Cumulative Percent
1	Los Angeles County, CA	46,707	472.8	3
2	Cook County, IL	34,257	648.2	6
3	Wayne County, MI	19,218	968.1	8
4	Philadelphia County, PA	17,012	1,173.5	9
5	Kings County, NY	16,983	671.8	11
6	Harris County, TX	16,896	429.3	12
7	Bronx County, NY	15,931	1,159.7	13
8	San Diego County, CA	14,373	483.1	14
9	Dallas County, TX	13,699	578.9	16
10	Maricopa County, AZ	13,407	345.5	17
11	Queens County, NY	11,682	514.5	18
12	New York County, NY	10,887	671.7	19
13	Shelby County, TN	9,804	1,077.2	19
14	Bexar County, TX	8,964	562.2	20
15	Orange County, CA	8,569	285.9	21
16	San Bernardino County, CA	8,547	425.7	22
17	Baltimore (City), MD	8,421	1,321.0	22
18	Tarrant County, TX	7,923	461.3	23
19	Clark County, NV	7,753	422.2	24
20	Marion County, IN	7,572	863.6	24
21	Miami-Dade County, FL	7,564	316.9	25
22	Franklin County, OH	7,460	667.2	25
23	Cuyahoga County, OH	7,360	567.9	26
24	Alameda County, CA	7,132	487.1	27
25	Hamilton County, OH	7,030	834.6	27
26	Broward County, FL	6,982	396.8	28
27	Sacramento County, CA	6,958	501.8	28
28	Washington, D.C.	6,924	1,177.0	29
29	Hillsborough County, FL	6,264	533.2	29
30	Duval County, FL	6,136	722.6	30
31	King County, WA	6,057	325.8	30
32	Travis County, TX	5,837	599.1	31
33	Kern County, CA	5,822	736.3	31
34	Jefferson County, AL	5,814	882.5	32
35	Orange County, FL	5,764	540.7	32
36	Santa Clara County, CA	5,650	323.0	33
37	Fresno County, CA	5,576	620.0	33
38	Jackson County, MO	5,567	834.8	34
39	Fulton County, GA	5,363	540.6	34
40	Prince George's County, MD	5,239	632.1	35
41	Allegheny County, PA	5,203	426.8	35
42	St. Louis County, MO	5,139	516.4	35
43	Riverside County, CA	5,010	241.6	36
44	Hennepin County, MN	5,002	440.1	36
45	Essex County, NJ	4,960	639.1	37
46	Denver County, CO	4,919	836.1	37
47	Suffolk County, MA	4,883	684.8	38
48	DeKalb County, GA	4,790	649.9	38
49	Honolulu County, HI	4,769	526.6	38
50	Erie County, NY	4,722	517.0	39
51	Monroe County, NY	4,666	639.5	39
52	Oklahoma County, OK	4,366	622.1	39
53	St Louis (City), MO	4,298	1,225.3	40
54	Hartford County, CT	4,286	488.8	40

* Accounting for 40% of reported chlamydia cases.

† Counties and independent cities were ranked in descending order by number of cases reported in 2008.

NOTE: Milwaukee County was not ranked by case count or rate due to misclassification of 2008 Milwaukee County STD morbidity data.

Table 10. Chlamydia—Reported cases and rates per 100,000 population by age group and sex: United States, 2004–2008

Age Group	Cases			Rates			
	Total	Male	Female	Total	Male	Female	
10–14	14,817	1,172	13,646	70.1	10.8	132.3	2004
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	
10–14	14,124	1,200	12,924	67.7	11.2	127.0	2005
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	
10–14	13,601	1,238	12,364	65.9	11.7	122.8	2006
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	
10–14	13,629	1,251	12,378	67.1	12.0	124.8	2007
15–19	379,416	67,247	312,169	1,766.9	611.0	2,982.5	
20–24	402,597	101,782	300,815	1,914.2	937.8	2,955.1	
25–29	174,826	54,889	119,938	830.2	509.4	1,166.5	
30–34	69,417	24,633	44,785	355.4	248.7	465.2	
35–39	33,654	13,838	19,816	158.9	129.9	188.3	
40–44	16,617	7,992	8,625	75.6	72.9	78.3	
45–54	13,141	6,881	6,261	30.0	31.9	28.1	
55–64	2,842	1,531	1,311	8.7	9.7	7.7	
65+	812	417	395	2.1	2.6	1.8	
TOTAL	1,108,374	280,931	827,443	367.5	189.0	540.9	
10–14	14,333	1,450	12,883	70.6	13.9	129.9	2008
15–19	420,101	77,226	342,875	1,956.4	701.6	3,275.8	
20–24	438,311	114,615	323,696	2,084.0	1,056.1	3,179.9	
25–29	188,535	60,985	127,550	895.3	565.9	1,240.6	
30–34	74,939	26,911	48,027	383.6	271.7	498.9	
35–39	36,637	15,004	21,633	173.0	140.8	205.6	
40–44	18,041	8,585	9,457	82.1	78.3	85.8	
45–54	14,311	7,437	6,874	32.6	34.4	30.9	
55–64	3,073	1,642	1,430	9.4	10.4	8.4	
65+	889	432	458	2.3	2.7	2.1	
TOTAL	1,210,523	314,752	895,771	401.3	211.7	585.6	

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 11 A. Chlamydia—Reported cases by race/ethnicity, age group and sex:
United States, 2004–2008**

Age Group	White, Non-Hispanic			African-American, 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	
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	2,586	96	2,490	8,301	894	7,407	2,139	214	1,925	125	7	119	249	17	232
	15–19	102,471	11,768	90,703	199,686	42,634	157,052	60,919	10,273	50,647	3,919	555	3,364	5,801	909	4,893
	20–24	127,025	27,910	99,114	181,659	52,169	129,490	73,166	17,063	56,103	6,127	1,232	4,895	6,212	1,281	4,930
	25–29	50,642	14,958	35,684	75,660	26,692	48,967	37,779	10,367	27,412	3,661	941	2,720	2,992	651	2,342
	30–34	17,687	5,926	11,761	29,957	12,456	17,501	16,772	4,754	12,018	1,948	579	1,368	1,299	319	979
	35–39	9,118	3,531	5,587	14,181	7,024	7,158	7,721	2,438	5,283	1,144	369	775	638	152	486
	40–44	4,626	2,243	2,383	7,190	3,983	3,207	3,366	1,214	2,152	649	254	395	371	108	263
	45–54	3,916	2,225	1,691	5,955	3,440	2,515	2,183	800	1,383	510	192	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	319,675	69,524	250,151	524,817	150,384	374,433	204,855	47,389	157,467	18,310	4,223	14,087	17,872	3,525	14,348	
2008	10–14	2,686	143	2,543	8,714	1,020	7,694	2,380	235	2,144	94	8	86	215	14	201
	15–19	110,221	13,270	96,951	223,088	49,101	173,987	68,593	12,020	56,573	4,187	544	3,643	6,397	1,003	5,394
	20–24	135,198	30,684	104,514	199,298	58,689	140,609	80,714	19,741	60,973	6,888	1,469	5,419	6,912	1,443	5,468
	25–29	54,253	16,559	37,694	81,611	29,326	52,286	40,786	11,731	29,056	4,073	1,076	2,997	3,434	790	2,643
	30–34	19,540	6,668	12,872	31,778	13,256	18,522	18,211	5,355	12,855	2,191	666	1,525	1,436	344	1,093
	35–39	9,742	3,833	5,910	15,044	7,438	7,607	8,912	2,765	6,147	1,306	433	873	708	169	539
	40–44	5,016	2,464	2,552	7,619	4,128	3,491	3,923	1,418	2,505	633	240	394	392	124	268
	45–54	4,245	2,362	1,883	6,374	3,655	2,718	2,427	915	1,513	614	249	365	328	83	245
	55–64	1,007	606	401	1,277	743	534	457	175	282	210	68	142	51	11	40
	65+	303	181	122	331	155	175	161	54	108	53	22	31	20	9	11
TOTAL	342,555	76,880	265,675	575,822	167,755	408,067	226,793	54,487	172,306	20,274	4,780	15,493	19,917	3,997	15,920	

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: 2004 (CO, DC, NJ); 2005 (CO, DC, GA, HI, NJ); 2006 (CO, HI); 2007 (CO, HI); 2008 (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 11 B. Chlamydia—Rates per 100,000 population by race/ethnicity, age group and sex: United States, 2004–2008

Age Group	White, Non-Hispanic			African-American, 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	26.0	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	21.8	1.6	43.1	266.0	56.4	482.4	55.2	10.8	101.7	14.8	1.5	28.5	125.3	17.1	236.6
15–19	789.6	176.7	1,435.6	5,953.3	2,509.0	9,490.0	1,664.0	544.9	2,852.4	461.4	126.7	817.8	2,547.7	789.2	4,346.9
20–24	988.8	423.8	1,583.1	5,987.0	3,400.4	8,632.6	2,030.1	882.8	3,356.8	681.1	268.5	1,111.3	2,843.3	1,153.4	4,592.0
25–29	409.8	240.4	581.4	2,640.6	1,905.9	3,343.1	928.1	457.4	1,519.3	334.4	174.1	490.9	1,579.4	680.4	2,495.6
30–34	156.7	104.4	209.6	1,198.3	1,049.4	1,332.9	430.7	223.9	678.4	155.0	94.5	212.8	809.4	397.4	1,222.6
35–39	69.6	53.7	85.7	537.5	565.5	512.7	216.9	128.2	318.6	90.7	60.0	120.0	390.0	187.6	589.3
40–44	32.1	31.2	33.0	263.7	312.6	220.8	107.5	73.8	145.0	59.2	47.7	70.2	214.6	127.7	297.5
45–54	12.6	14.5	10.8	117.2	146.7	91.9	47.0	33.9	60.6	27.4	21.9	32.4	73.7	43.8	100.7
55–64	3.7	4.8	2.8	36.8	47.6	28.2	16.3	10.9	21.4	14.5	13.2	15.6	13.1	7.4	18.2
65+	0.9	1.3	0.6	10.1	12.9	8.3	5.9	5.4	6.3	2.7	2.8	2.7	6.0	6.1	5.8
TOTAL	162.0	71.8	248.9	1,384.7	832.6	1,887.3	461.0	206.4	733.3	137.1	65.0	205.4	725.7	291.0	1,146.4
10–14	22.6	2.3	44.0	279.2	64.3	501.0	61.4	11.9	113.3	11.1	2.0	20.6	108.3	14.1	205.2
15–19	849.3	199.3	1,534.5	6,651.0	2,889.5	10,513.4	1,873.6	637.5	3,186.2	493.0	124.2	885.7	2,809.3	870.6	4,792.6
20–24	1,052.4	465.9	1,669.3	6,568.4	3,825.4	9,373.9	2,239.5	1,021.4	3,648.2	765.7	319.9	1,230.4	3,163.6	1,299.2	5,092.9
25–29	439.0	266.2	614.1	2,848.3	2,093.9	3,569.7	1,002.0	517.6	1,610.3	372.0	199.0	541.0	1,812.3	826.5	2,817.1
30–34	173.1	117.5	229.4	1,271.2	1,116.9	1,410.6	467.6	252.3	725.6	174.4	108.6	237.2	895.0	427.6	1,364.0
35–39	74.4	58.3	90.6	570.2	598.8	544.8	250.3	145.4	370.8	103.6	70.3	135.3	432.9	208.3	654.2
40–44	34.8	34.2	35.4	279.4	323.9	240.3	125.3	86.2	168.8	57.8	45.0	70.0	227.0	146.9	303.3
45–54	13.7	15.3	12.0	125.4	155.9	99.3	52.3	38.8	66.2	33.1	28.4	37.3	97.0	51.7	138.1
55–64	4.1	5.0	3.2	39.3	51.4	29.7	17.4	13.8	20.7	16.8	11.8	21.1	22.3	9.7	33.8
65+	1.0	1.4	0.7	10.4	12.8	9.0	6.6	5.1	7.6	4.6	4.5	4.7	9.9	9.9	9.8
TOTAL	173.6	79.4	264.4	1,519.3	928.8	2,056.9	510.4	237.3	802.5	151.9	73.6	225.9	808.8	330.0	1,272.1

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: 2004 (CO, DC, NJ); 2005 (CO, DC, GA, HI, NJ); 2006 (CO, HI); 2007 (CO, HI); 2008 (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, 2008

Rank*	State	Cases	Rate per 100,000 Population
1	Mississippi	7,494	256.8
2	Louisiana	9,455	220.2
3	South Carolina	9,442	214.2
4	Alabama	9,740	210.5
5	North Carolina	15,972	176.3
6	Georgia	16,272	170.5
7	Michigan	17,064	169.4
8	Illinois	20,674	160.9
9	Arkansas	4,514	159.2
10	Ohio	16,803	146.5
11	Oklahoma	5,185	143.3
12	Tennessee	8,780	142.6
13	Indiana	8,769	138.2
14	Missouri	8,014	136.3
15	Texas	32,199	134.7
16	Virginia	10,337	134.0
17	Florida	23,326	127.8
18	Delaware	1,045	120.8
19	Maryland	6,666	118.6
	U.S. TOTAL†	336,742	111.6
20	Wisconsin	6,087	108.7
21	Kentucky	4,548	107.2
22	Pennsylvania	11,071	89.0
23	New York	17,108	88.7
24	Nevada	2,172	84.7
25	Alaska	578	84.6
26	Nebraska	1,460	82.3
27	Kansas	2,274	81.9
28	Connecticut	2,801	80.0
29	Colorado	3,757	77.3
30	New Mexico	1,403	71.2
31	California	25,787	70.5
32	New Jersey	5,298	61.0
33	Minnesota	3,037	58.4
34	Iowa	1,700	56.9
35	Arizona	3,449	54.4
36	Washington	3,127	48.3
37	Hawaii	610	47.5
38	South Dakota	375	47.1
39	West Virginia	746	41.2
40	Massachusetts	2,129	33.0
41	Oregon	1,225	32.7
42	Rhode Island	307	29.0
43	Wyoming	124	23.7
44	North Dakota	143	22.4
	YEAR 2010 TARGET		19.0
45	Utah	477	18.0
46	Montana	122	12.7
47	Idaho	187	12.5
48	New Hampshire	100	7.6
49	Maine	96	7.3
50	Vermont	37	6.0

* 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 2,656 cases and a rate of 451.5, but excludes outlying areas (Guam with 109 cases and rate of 62.8, Puerto Rico with 273 cases and rate of 6.9, and Virgin Islands with 120 cases and rate of 109.3).

Table 13. Gonorrhea—Reported cases and rates by state/area and region listed in alphabetical order: United States and outlying areas, 2004–2008

State/Area	Cases					Rates per 100,000 Population				
	2004	2005	2006	2007	2008	2004	2005	2006	2007	2008
Alabama	8,206	9,406	10,665	10,885	9,740	181.1	206.4	231.9	235.2	210.5
Alaska	567	600	630	579	578	86.5	90.4	94.0	84.7	84.6
Arizona	4,065	4,951	5,949	5,062	3,449	70.8	83.4	96.5	79.9	54.4
Arkansas	4,137	4,476	4,306	4,168	4,514	150.3	161.1	153.2	147.0	159.2
California	30,155	34,338	33,740	31,294	25,787	84.0	95.0	92.5	85.6	70.5
Colorado	3,054	3,224	3,695	3,376	3,757	66.4	69.1	77.7	69.4	77.3
Connecticut	2,862	2,750	2,610	2,327	2,801	81.7	78.3	74.5	66.4	80.0
Delaware	894	913	1,485	1,293	1,045	107.7	108.2	174.0	149.5	120.8
District of Columbia	2,568	2,146	1,887	2,373	2,656	463.9	389.8	324.5	403.4	451.5
Florida	18,580	20,225	23,976	23,327	23,326	106.8	113.7	132.5	127.8	127.8
Georgia	15,783	15,860	19,669	17,835	16,272	178.8	174.8	210.1	186.9	170.5
Hawaii	1,193	1,024	885	659	610	94.5	80.3	68.8	51.3	47.5
Idaho	103	119	206	269	187	7.4	8.3	14.0	17.9	12.5
Illinois	20,597	20,019	20,186	20,813	20,674	162.0	156.8	157.3	161.9	160.9
Indiana	6,851	8,094	8,732	8,790	8,769	109.8	129.1	138.3	138.5	138.2
Iowa	1,249	1,606	1,966	1,928	1,700	42.3	54.1	65.9	64.5	56.9
Kansas	2,542	2,605	2,210	2,282	2,274	92.9	94.9	80.0	82.2	81.9
Kentucky	2,758	2,935	3,277	3,449	4,548	66.5	70.3	77.9	81.3	107.2
Louisiana	10,538	9,572	10,883	11,137	9,455	233.4	211.6	253.8	259.4	220.2
Maine	210	142	137	118	96	15.9	10.7	10.4	9.0	7.3
Maryland	8,297	7,035	7,328	6,768	6,666	149.3	125.6	130.5	120.5	118.6
Massachusetts	3,057	2,537	2,429	2,695	2,129	47.6	39.6	37.7	41.8	33.0
Michigan	17,376	17,684	15,677	15,482	17,064	171.8	174.7	155.3	153.7	169.4
Minnesota	2,957	3,482	3,303	3,459	3,037	58.0	67.8	63.9	66.5	58.4
Mississippi	7,163	7,171	7,511	8,314	7,494	246.7	245.5	258.1	284.8	256.8
Missouri	9,218	9,455	10,204	9,876	8,014	160.2	163.0	174.6	168.0	136.3
Montana	88	158	194	122	122	9.5	16.9	20.5	12.7	12.7
Nebraska	1,147	1,158	1,433	1,434	1,460	65.6	65.8	81.0	80.8	82.3
Nevada	3,078	2,880	2,791	2,357	2,172	131.8	119.3	111.8	91.9	84.7
New Hampshire	133	177	180	138	100	10.2	13.5	13.7	10.5	7.6
New Jersey	6,696	5,722	5,492	6,076	5,298	77.0	65.6	62.9	70.0	61.0
New Mexico	1,306	1,552	1,733	1,796	1,403	68.6	80.5	88.7	91.2	71.2
New York	18,737	17,717	17,459	17,697	17,108	97.5	92.0	90.4	91.7	88.7
North Carolina	15,194	15,072	17,312	16,666	15,972	177.9	173.6	195.5	183.9	176.3
North Dakota	110	128	153	116	143	17.3	20.1	24.1	18.1	22.4
Ohio	20,467	20,985	19,190	21,066	16,803	178.6	183.1	167.2	183.7	146.5
Oklahoma	4,453	5,228	4,951	4,827	5,185	126.4	147.4	138.3	133.4	143.3
Oregon	1,302	1,562	1,461	1,236	1,225	36.2	42.9	39.5	33.0	32.7
Pennsylvania	11,236	11,222	11,466	12,706	11,071	90.6	90.3	92.2	102.2	89.0
Rhode Island	816	438	508	402	307	75.5	40.7	47.6	38.0	29.0
South Carolina	9,171	8,561	10,320	10,326	9,442	218.5	201.2	238.8	234.3	214.2
South Dakota	304	351	367	261	375	39.4	45.2	46.9	32.8	47.1
Tennessee	8,475	8,605	9,694	9,564	8,780	143.6	144.3	160.5	155.3	142.6
Texas	24,371	26,110	30,449	32,073	32,199	108.4	114.2	129.5	134.2	134.7
Utah	603	727	888	821	477	25.2	29.4	34.8	31.0	18.0
Vermont	86	60	72	64	37	13.8	9.6	11.5	10.3	6.0
Virginia	8,565	8,346	6,476	6,269	10,337	114.8	110.3	84.7	81.3	134.0
Washington	2,810	3,739	4,231	3,653	3,127	45.3	59.5	66.2	56.5	48.3
West Virginia	892	770	953	930	746	49.1	42.4	52.4	51.3	41.2
Wisconsin	5,053	5,869	6,927	6,752	6,087	91.7	106.0	124.7	120.5	108.7
Wyoming	59	87	120	81	124	11.6	17.1	23.3	15.5	23.7
U.S. TOTAL	330,132	339,593	358,366	355,991	336,742	112.4	114.6	119.7	118.0	111.6
Northeast	43,833	40,765	40,353	42,223	38,947	80.3	74.6	73.7	77.2	71.2
Midwest	87,871	91,436	90,348	92,259	86,400	133.7	138.6	136.4	139.0	130.1
South	150,045	152,431	171,142	170,204	168,377	141.6	141.8	156.9	154.1	152.4
West	48,383	54,961	56,523	51,305	43,018	71.8	80.5	81.5	73.2	61.4
Guam	114	106	98	141	109	68.6	62.9	57.3	81.2	62.8
Puerto Rico	267	328	302	323	273	6.9	8.4	7.7	8.2	6.9
Virgin Islands	75	30	34	69	120	68.9	27.6	31.3	62.8	109.3
OUTLYING AREAS	456	464	434	533	502	10.9	11.1	10.3	12.6	11.9
TOTAL	330,588	340,057	358,800	356,524	337,244	111.0	113.1	118.2	116.6	110.3

Table 14. Gonorrhea—Women—Reported cases and rates by state/area and region listed in alphabetical order: United States and outlying areas, 2004–2008

State/Area	Cases					Rates per 100,000 Population				
	2004	2005	2006	2007	2008	2004	2005	2006	2007	2008
Alabama	3,673	4,494	5,983	6,095	5,582	157.4	191.5	252.5	255.5	234.0
Alaska	337	349	356	326	321	106.5	108.9	110.0	99.2	97.7
Arizona	1,787	2,338	2,847	2,342	1,577	62.3	78.8	92.4	74.0	49.8
Arkansas	2,032	2,252	2,182	2,275	2,520	144.7	159.0	152.3	157.4	174.3
California	13,620	15,827	15,688	14,533	11,625	75.8	87.5	86.0	79.5	63.6
Colorado	1,656	1,619	1,879	1,807	1,978	72.6	70.1	79.6	75.0	82.0
Connecticut	1,756	1,590	1,478	1,372	1,686	97.4	88.1	82.2	76.4	93.9
Delaware	508	515	829	699	606	119.3	119.2	188.7	156.9	136.0
District of Columbia	1,293	1,029	808	1,077	1,259	443.1	355.6	261.6	347.2	405.9
Florida	9,371	10,204	12,427	11,793	12,279	105.6	112.6	135.0	127.0	132.3
Georgia	8,119	7,819	10,002	9,334	8,687	181.9	170.5	210.4	192.4	179.1
Hawaii	680	619	476	295	298	107.5	96.8	74.1	46.3	46.7
Idaho	42	57	113	152	90	6.0	8.0	15.5	20.4	12.1
Illinois	11,510	10,998	10,926	11,312	11,342	177.9	169.4	167.7	173.5	174.0
Indiana	3,550	4,453	4,806	4,884	5,056	112.0	139.9	150.0	151.7	157.1
Iowa	736	885	1,179	1,121	1,024	49.1	58.8	78.1	74.1	67.7
Kansas	1,565	1,645	1,327	1,401	1,459	113.6	119.1	95.3	100.1	104.2
Kentucky	1,415	1,530	1,709	1,887	2,511	67.0	72.1	79.7	87.2	116.1
Louisiana	5,450	4,761	5,605	5,822	5,177	234.7	204.9	254.5	263.7	234.5
Maine	84	61	54	45	43	12.5	9.0	8.0	6.7	6.4
Maryland	4,327	3,620	3,850	3,529	3,604	150.9	125.4	132.8	121.7	124.3
Massachusetts	1,531	1,320	1,214	1,282	1,100	46.3	40.0	36.6	38.6	33.1
Michigan	9,614	10,161	8,900	8,984	10,047	186.9	197.5	173.6	175.7	196.5
Minnesota	1,712	1,909	1,814	1,930	1,657	66.6	73.9	69.8	74.0	63.5
Mississippi	4,362	4,234	4,400	4,901	4,357	291.9	281.8	293.1	325.6	289.5
Missouri	5,139	5,334	5,752	5,481	4,542	174.6	179.9	192.5	182.3	151.0
Montana	54	102	123	75	92	11.6	21.8	26.1	15.7	19.2
Nebraska	656	688	865	847	891	74.2	77.4	97.0	94.6	99.5
Nevada	1,417	1,343	1,257	1,066	1,012	123.7	113.3	102.5	84.7	80.4
New Hampshire	54	97	97	63	49	8.2	14.6	14.6	9.5	7.4
New Jersey	3,607	3,077	2,829	3,059	2,813	80.8	68.9	63.4	68.9	63.4
New Mexico	749	884	1,003	974	783	77.4	90.2	101.3	97.6	78.4
New York	9,720	9,031	8,479	8,324	8,349	98.0	91.0	85.2	83.8	84.0
North Carolina	7,384	7,545	8,718	8,941	8,876	170.0	171.0	193.1	193.0	191.6
North Dakota	72	76	86	66	93	22.7	23.8	27.2	20.7	29.2
Ohio	11,144	11,592	10,508	11,771	9,784	189.6	197.3	178.7	200.3	166.5
Oklahoma	2,471	3,018	2,780	2,606	2,964	138.6	168.2	153.2	142.4	162.0
Oregon	567	661	609	564	553	31.4	36.1	32.7	29.9	29.3
Pennsylvania	6,295	6,271	6,219	6,945	6,210	98.5	98.0	97.3	108.8	97.3
Rhode Island	478	227	273	169	135	85.4	40.8	49.5	31.0	24.7
South Carolina	5,007	4,601	5,406	5,640	5,704	232.6	211.0	243.8	249.5	252.3
South Dakota	178	196	215	153	247	45.9	50.2	54.9	38.3	61.8
Tennessee	4,327	4,395	5,104	5,247	4,801	143.5	144.5	165.3	166.5	152.4
Texas	12,433	13,827	15,619	16,192	17,029	110.1	120.5	132.4	135.2	142.2
Utah	266	319	369	345	137	22.4	25.9	29.1	26.3	10.5
Vermont	53	26	39	30	19	16.8	8.2	12.3	9.5	6.0
Virginia	4,650	4,402	3,287	3,369	5,847	122.7	114.5	84.6	85.8	148.9
Washington	1,229	1,622	1,938	1,858	1,522	39.5	51.5	60.4	57.2	46.9
West Virginia	470	427	488	504	425	50.6	46.0	52.6	54.5	46.0
Wisconsin	2,953	3,433	4,047	4,066	3,744	106.1	122.9	144.8	144.3	132.9
Wyoming	39	54	71	41	71	15.5	21.4	28.0	15.9	27.5
U.S. TOTAL	172,142	177,537	187,033	187,594	182,577	115.4	118.0	123.1	122.6	119.4
Northeast	23,578	21,700	20,682	21,289	20,404	83.9	77.2	73.5	75.8	72.7
Midwest	48,829	51,370	50,425	52,016	49,886	146.1	153.2	150.0	154.4	148.1
South	77,292	78,673	89,197	89,911	92,228	143.4	144.0	160.7	160.0	164.1
West	22,443	25,794	26,729	24,378	20,059	66.6	75.6	77.2	69.7	57.3
Guam	70	71	49	66	58	86.0	85.9	58.4	77.5	68.1
Puerto Rico	150	194	152	165	128	7.4	9.5	7.4	8.0	6.2
Virgin Islands	48	18	23	51	86	84.4	31.7	40.5	88.3	149.0
OUTLYING AREAS	268	283	224	282	272	12.4	13.0	10.3	12.9	12.4
TOTAL	172,410	177,820	187,257	187,876	182,849	114.0	116.5	121.5	121.1	117.8

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, 2004–2008

State/Area	Cases					Rates per 100,000 Population				
	2004	2005	2006	2007	2008	2004	2005	2006	2007	2008
Alabama	4,526	4,892	4,678	4,786	4,151	206.1	221.2	209.8	213.5	185.1
Alaska	230	251	274	253	257	67.9	73.1	79.1	71.3	72.4
Arizona	2,274	2,610	3,097	2,718	1,869	79.1	87.8	100.4	85.7	58.9
Arkansas	2,104	2,223	2,122	1,890	1,993	156.0	163.1	154.0	136.0	143.5
California	16,440	18,348	17,856	16,632	14,025	91.8	101.7	98.0	91.0	76.7
Colorado	1,398	1,605	1,816	1,569	1,777	60.2	68.1	75.9	64.0	72.5
Connecticut	1,106	1,160	1,132	955	1,113	65.1	68.0	66.3	55.9	65.2
Delaware	386	398	656	594	439	95.4	96.8	158.4	141.7	104.7
District of Columbia	1,269	1,113	1,072	1,284	1,383	484.9	426.2	393.2	461.7	497.3
Florida	9,209	10,021	11,546	11,527	10,995	108.0	114.9	130.0	128.5	122.6
Georgia	7,596	7,885	9,510	8,401	7,465	174.0	175.7	206.2	179.0	159.0
Hawaii	513	405	409	364	312	81.4	63.7	63.6	56.4	48.3
Idaho	60	60	92	112	97	8.6	8.4	12.5	14.8	12.9
Illinois	9,087	9,020	9,260	9,501	9,331	145.5	143.8	146.6	150.0	147.3
Indiana	3,270	3,616	3,895	3,880	3,693	106.6	117.1	125.2	124.1	118.1
Iowa	511	721	787	807	676	35.1	49.4	53.4	54.7	45.8
Kansas	977	960	883	881	815	71.9	70.4	64.4	64.0	59.2
Kentucky	1,338	1,399	1,561	1,559	2,030	65.8	68.2	75.7	75.0	97.7
Louisiana	5,029	4,744	5,186	5,201	4,233	229.2	215.7	248.6	249.4	203.0
Maine	126	81	83	73	53	19.6	12.5	12.8	11.4	8.2
Maryland	3,969	3,410	3,461	3,238	3,054	147.5	125.7	127.4	119.1	112.3
Massachusetts	1,524	1,216	1,212	1,412	1,026	49.1	39.2	38.9	45.2	32.8
Michigan	7,762	7,468	6,738	6,447	6,876	156.2	150.1	135.6	130.0	138.6
Minnesota	1,245	1,573	1,489	1,529	1,380	49.2	61.7	58.0	59.1	53.3
Mississippi	2,801	2,937	3,111	3,413	3,135	198.8	207.0	220.7	241.4	221.8
Missouri	4,079	4,121	4,452	4,395	3,472	145.1	145.3	156.0	153.1	120.9
Montana	33	56	71	47	29	7.1	12.0	15.0	9.8	6.0
Nebraska	488	467	552	583	568	56.5	53.7	63.0	66.3	64.6
Nevada	1,658	1,535	1,533	1,291	1,160	139.5	124.9	120.8	98.8	88.8
New Hampshire	79	80	83	75	51	12.3	12.4	12.8	11.6	7.9
New Jersey	3,089	2,645	2,657	3,014	2,483	72.9	62.3	62.3	70.9	58.4
New Mexico	557	668	730	822	619	59.5	70.4	75.7	84.6	63.7
New York	8,985	8,680	8,976	9,363	8,751	96.6	93.1	95.9	100.0	93.5
North Carolina	7,810	7,527	8,594	7,725	7,023	186.0	176.2	198.0	174.5	158.6
North Dakota	38	52	67	50	50	12.0	16.4	21.0	15.6	15.6
Ohio	9,046	9,035	8,493	9,164	6,693	162.1	161.7	151.7	163.9	119.7
Oklahoma	1,982	2,210	2,171	2,221	2,212	113.9	126.0	123.0	124.3	123.7
Oregon	735	901	852	672	672	41.1	49.8	46.3	36.1	36.1
Pennsylvania	4,941	4,950	5,247	5,758	4,860	82.2	82.1	86.8	95.2	80.3
Rhode Island	338	211	235	232	172	64.8	40.6	45.5	45.3	33.6
South Carolina	4,136	3,925	4,899	4,665	3,712	202.2	189.2	232.9	217.3	172.9
South Dakota	126	155	152	107	128	32.9	40.2	38.9	27.0	32.3
Tennessee	4,148	4,209	4,590	4,317	3,979	143.7	144.1	155.5	143.6	132.4
Texas	11,902	12,269	14,812	15,819	15,150	106.3	107.7	126.4	132.6	127.0
Utah	337	408	519	476	340	28.1	32.9	40.5	35.6	25.5
Vermont	33	34	33	34	18	10.8	11.1	10.7	11.1	5.9
Virginia	3,904	3,939	3,187	2,895	4,477	106.3	105.8	84.8	76.5	118.3
Washington	1,581	2,117	2,293	1,795	1,600	51.1	67.4	71.9	55.7	49.6
West Virginia	421	343	465	426	321	47.4	38.6	52.2	48.0	36.2
Wisconsin	2,087	2,431	2,870	2,673	2,332	76.5	88.7	104.0	96.0	83.8
Wyoming	20	33	49	40	53	7.8	12.9	18.8	15.1	20.0
U.S. TOTAL	157,303	161,117	170,508	167,685	153,103	108.8	110.4	115.6	112.8	103.0
Northeast	20,221	19,057	19,658	20,916	18,527	76.4	71.8	73.9	78.6	69.6
Midwest	38,716	39,619	39,638	40,017	36,014	119.8	122.1	121.5	122.4	110.1
South	72,530	73,444	81,621	79,961	75,752	139.3	138.9	152.3	147.4	139.6
West	25,836	28,997	29,591	26,791	22,810	76.7	84.9	85.3	76.3	65.0
Guam	44	35	49	75	51	51.9	40.7	56.2	84.9	57.7
Puerto Rico	117	134	150	158	145	6.3	7.1	8.0	8.3	7.7
Virgin Islands	27	12	11	18	34	52.0	23.1	21.2	34.6	65.3
OUTLYING AREAS	188	181	210	251	230	9.4	9.0	10.4	12.3	11.3
TOTAL	157,491	161,298	170,718	167,936	153,333	107.5	109.0	114.2	111.4	101.8

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, 2004–2008

Metropolitan Statistical Area	Cases					Rates per 100,000 Population				
	2004	2005	2006	2007	2008	2004	2005	2006	2007	2008
Atlanta-Sandy Springs-Marietta, GA	7,355	7,838	10,223	9,060	8,084	156.2	159.4	199.0	171.6	153.1
Austin-Round Rock, TX	1,472	1,706	2,446	2,075	2,388	104.2	117.5	161.6	129.8	149.4
Baltimore-Towson, MD	5,256	4,779	4,653	4,156	4,146	199.2	180.0	175.0	155.8	155.4
Birmingham-Hoover, AL	2,377	2,381	2,444	3,129	2,891	219.6	218.4	222.2	282.3	260.9
Boston-Cambridge-Quincy, MA-NH	1,998	1,684	1,542	1,770	1,464	45.2	38.2	34.6	39.5	32.7
Buffalo-Cheektowaga-Tonawanda, NY	1,670	1,926	2,068	2,289	1,898	144.7	167.8	181.8	202.9	168.2
Charlotte-Gastonia-Concord, NC-SC	2,998	3,330	3,388	2,388	3,249	203.3	218.9	214.0	144.6	196.7
Chicago-Naperville-Joliet, IL-IN-WI	15,684	14,857	15,127	14,979	16,181	167.0	157.3	159.1	157.3	169.9
Cincinnati-Middletown, OH-KY-IN	3,455	3,927	3,862	4,583	3,926	167.9	189.7	183.5	214.8	184.0
Cleveland-Elyria-Mentor, OH	4,472	4,641	4,663	4,286	2,770	209.3	218.3	220.6	204.4	132.1
Columbus, OH	3,004	3,445	3,303	4,136	3,853	177.3	201.6	191.4	235.8	219.6
Dallas-Fort Worth-Arlington, TX	7,119	8,416	8,365	10,064	9,197	124.9	144.6	139.3	163.8	149.7
Denver-Aurora, CO	2,232	2,147	2,253	2,238	2,625	95.8	91.0	93.5	90.8	106.5
Detroit-Warren-Livonia, MI	9,299	10,766	8,535	8,554	10,850	207.0	239.9	191.0	191.5	242.9
Hartford-WestHartford-East Hartford, CT	933	993	988	920	1,029	78.8	83.6	83.1	77.4	86.5
Houston-Baytown-Sugar Land, TX	5,525	5,213	7,318	7,757	7,290	106.7	98.7	132.1	137.8	129.5
Indianapolis, IN	3,510	4,142	4,410	4,543	4,194	216.5	252.5	264.7	268.0	247.4
Jacksonville, FL	2,197	2,578	2,954	3,113	2,979	179.3	206.5	231.1	239.3	229.0
Kansas City, MO-KS	3,832	3,769	3,822	3,683	3,268	199.0	193.5	194.3	185.5	164.6
Las Vegas-Paradise, NV	2,645	2,487	2,478	2,112	1,918	160.2	145.4	139.4	115.0	104.4
Los Angeles-Long Beach-Santa Ana, CA	11,103	12,697	12,210	11,059	9,832	85.9	98.2	94.3	85.9	76.4
Louisville, KY-IN	1,484	1,551	1,749	1,908	2,300	123.6	128.3	143.1	154.7	186.4
Memphis, TN-MS-AR	3,832	3,782	4,665	4,756	4,475	306.5	299.9	366.0	371.4	349.5
Miami-Fort Lauderdale-Miami Beach, FL	4,622	4,497	5,356	5,152	5,471	86.2	82.9	98.0	95.2	101.1
Milwaukee-Waukesha-West Allis, WI	3,311	4,031	5,006	4,960	446	218.4	266.4	331.5	321.2	28.9
Minneapolis-St. Paul-Bloomington, MN-WI	2,439	2,920	2,780	2,834	2,345	78.3	92.9	87.6	88.3	73.1
Nashville-Davidson-Murfreesboro, TN	1,602	1,474	1,734	1,692	1,541	114.8	103.6	119.2	111.2	101.3
New Orleans-Metairie-Kenner, LA	3,316	2,609	1,962	2,713	2,045	251.3	197.7	191.5	263.3	198.5
New York-Newark-Edison, NY-NJ-PA	16,915	15,533	14,949	15,396	15,116	90.4	82.9	79.4	81.8	80.3
Oklahoma City, OK	2,153	2,548	2,315	2,373	2,403	188.1	220.3	197.5	198.9	201.4
Orlando, FL	2,285	2,848	3,393	2,743	2,704	122.7	147.3	170.9	135.0	133.0
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	7,818	7,719	8,163	8,669	7,724	134.8	132.6	140.1	148.7	132.5
Phoenix-Mesa-Scottsdale, AZ	3,161	3,133	4,260	3,333	2,211	85.1	81.1	105.5	79.7	52.9
Pittsburgh, PA	1,799	2,157	2,057	2,599	2,569	74.9	90.4	86.8	110.3	109.1
Portland-Vancouver-Beaverton, OR-WA	1,173	1,393	1,128	1,053	1,033	56.8	66.5	52.8	48.4	47.5
Providence-New Bedford-Fall River, RI-MA	1,048	650	693	621	455	64.3	40.1	43.0	38.8	28.4
Richmond, VA	2,160	2,361	1,778	2,199	2,698	187.1	200.8	148.9	181.3	222.4
Riverside-San Bernardino-Ontario, CA	2,631	3,012	2,994	3,166	2,199	69.4	77.0	74.4	77.6	53.9
Rochester, NY	1,900	1,899	1,457	1,207	1,345	182.4	182.8	140.7	117.1	130.5
Sacramento-Arden-Arcade-Roseville, CA	2,066	2,450	2,235	2,315	1,771	102.4	120.0	108.1	110.7	84.7
Salt Lake City, UT	371	460	623	573	346	36.4	44.5	58.3	52.1	31.5
San Antonio, TX	2,183	2,300	2,701	2,601	3,113	117.7	121.7	139.1	130.7	156.4
San Diego-Carlsbad-San Marcos, CA	2,379	2,695	2,767	2,385	2,066	81.1	91.9	94.1	80.2	69.4
San Francisco-Oakland-Fremont, CA	4,967	5,713	6,029	5,695	5,065	119.6	137.6	144.2	135.5	120.5
San Jose-Sunnyvale-Santa Clara, CA	1,084	1,055	1,065	893	712	62.2	60.1	59.6	49.5	39.5
Seattle-Tacoma-Bellevue, WA	1,883	2,704	3,079	2,572	2,182	59.5	84.4	94.3	77.7	65.9
St. Louis, MO-IL	5,719	6,391	6,547	6,483	5,003	206.9	230.0	234.1	231.2	178.4
Tampa-St. Petersburg-Clearwater, FL	2,801	2,910	3,667	3,819	3,852	108.2	109.9	135.9	140.2	141.4
Virginia Beach-Norfolk-Newport News, VA-NC	3,812	3,355	2,544	2,504	4,935	231.8	203.7	154.2	151.0	297.5
Washington-Arlington-Alexandria, DC-VA-MD-WV	5,803	4,497	4,358	4,665	5,557	112.9	86.2	82.4	87.9	104.7
U.S. MSA TOTAL	194,853	202,369	209,106	208,773	197,714	123.4	126.9	129.6	128.3	121.5

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

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

Table 17. Gonorrhea—Women—Reported cases and rates in selected metropolitan statistical areas* (MSAs) listed in alphabetical order: United States, 2004–2008

Metropolitan Statistical Area	Cases					Rates per 100,000 Population				
	2004	2005	2006	2007	2008	2004	2005	2006	2007	2008
Atlanta-Sandy Springs-Marietta, GA	3,563	3,567	5,026	4,515	3,967	150.3	144.1	193.5	169.1	148.5
Austin-Round Rock, TX	692	830	1,134	992	1,177	100.1	116.6	153.3	127.1	150.8
Baltimore-Towson, MD	2,710	2,426	2,470	2,179	2,302	198.2	176.5	179.2	157.6	166.5
Birmingham-Hoover, AL	1,060	1,133	1,511	1,761	1,655	189.2	200.9	265.4	307.0	288.5
Boston-Cambridge-Quincy, MA-NH	937	793	728	773	720	41.2	35.0	31.8	33.6	31.3
Buffalo-Cheektowaga-Tonawanda, NY	920	1,079	1,153	1,258	1,059	153.4	181.2	195.5	215.3	181.3
Charlotte-Gastonia-Concord, NC-SC	1,413	1,604	1,584	1,188	1,697	188.6	207.8	196.9	141.1	201.6
Chicago-Naperville-Joliet, IL-IN-WI	8,546	7,948	7,853	7,813	8,594	178.7	165.3	162.7	161.7	177.8
Cincinnati-Middletown, OH-KY-IN	2,038	2,274	2,465	2,884	2,696	193.3	214.8	229.0	264.2	247.0
Cleveland-Elyria-Mentor, OH	2,192	2,264	2,277	2,180	1,469	197.2	204.8	207.4	200.3	135.0
Columbus, OH	1,475	1,896	1,758	2,142	2,062	171.8	219.0	201.2	241.1	232.1
Dallas-Fort Worth-Arlington, TX	3,547	4,135	4,129	4,905	4,953	124.7	142.6	138.1	160.5	162.1
Denver-Aurora, CO	1,144	996	1,044	1,128	1,345	98.7	84.9	87.0	91.9	109.6
Detroit-Warren-Livonia, MI	4,850	6,079	4,613	4,721	6,226	210.5	264.4	201.8	206.7	272.5
Hartford-WestHartford-East Hartford, CT	533	520	521	522	609	87.3	85.0	85.4	85.6	99.8
Houston-Baytown-Sugar Land, TX	2,813	3,016	3,806	3,805	3,749	108.6	114.2	137.5	135.5	133.5
Indianapolis, IN	1,698	2,163	2,297	2,385	2,290	205.7	259.1	271.1	276.7	265.7
Jacksonville, FL	1,083	1,240	1,506	1,532	1,587	173.0	194.5	230.8	230.4	238.6
Kansas City, MO-KS	2,027	2,035	2,099	2,040	1,888	206.8	205.5	209.6	201.8	186.7
Las Vegas-Paradise, NV	1,206	1,163	1,123	954	880	148.7	138.4	128.4	105.8	97.6
Los Angeles-Long Beach-Santa Ana, CA	4,997	5,687	5,657	5,001	4,214	76.6	87.2	86.7	77.1	65.0
Louisville, KY-IN	720	740	887	1,026	1,228	116.9	119.6	141.6	162.3	194.2
Memphis, TN-MS-AR	1,926	1,990	2,548	2,789	2,472	297.6	305.6	386.0	420.2	372.4
Miami-Fort Lauderdale-Miami Beach, FL	2,307	2,317	2,708	2,444	2,661	83.5	83.0	96.4	87.9	95.7
Milwaukee-Waukesha-West Allis, WI	1,906	2,298	2,923	2,972	300	244.9	295.8	378.4	376.2	38.0
Minneapolis-St. Paul-Bloomington, MN-WI	1,373	1,548	1,486	1,500	1,210	87.3	97.7	93.0	93.0	75.0
Nashville-Davidson-Murfreesboro, TN	742	661	794	800	783	104.9	91.8	107.6	103.7	101.5
New Orleans-Metairie-Kenner, LA	1,606	1,287	965	1,322	984	234.0	187.8	181.7	246.6	183.6
New York-Newark-Edison, NY-NJ-PA	8,821	7,784	7,015	6,979	7,089	91.0	80.2	72.1	71.8	73.0
Oklahoma City, OK	1,181	1,486	1,275	1,202	1,294	203.8	253.5	214.2	198.8	214.0
Orlando, FL	1,063	1,286	1,688	1,377	1,424	112.9	131.6	168.5	134.3	138.9
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	4,189	4,219	4,257	4,416	4,098	139.5	140.0	141.4	146.7	136.1
Phoenix-Mesa-Scottsdale, AZ	1,373	1,456	2,014	1,497	988	74.5	76.0	100.7	72.3	47.7
Pittsburgh, PA	1,063	1,216	1,174	1,530	1,524	85.0	97.9	95.3	125.2	124.7
Portland-Vancouver-Beaverton, OR-WA	491	551	436	446	420	47.4	52.4	40.7	40.9	38.5
Providence-New Bedford-Fall River, RI-MA	607	365	374	282	209	72.0	43.5	44.9	34.1	25.3
Richmond, VA	1,187	1,256	824	1,122	1,436	199.7	207.8	134.4	179.7	230.0
Riverside-San Bernardino-Ontario, CA	1,323	1,572	1,602	1,705	1,237	69.8	80.5	79.6	83.6	60.7
Rochester, NY	919	1,006	748	608	744	172.0	188.9	141.0	115.2	141.0
Sacramento-Arden-Arcade-Roseville, CA	1,049	1,307	1,164	1,190	917	102.3	125.9	110.7	112.0	86.3
Salt Lake City, UT	143	183	246	229	88	28.4	35.8	46.7	42.4	16.3
San Antonio, TX	1,109	1,155	1,412	1,279	1,557	117.2	119.8	142.3	126.0	153.3
San Diego-Carlsbad-San Marcos, CA	936	1,108	1,158	961	803	64.2	76.3	79.3	64.9	54.2
San Francisco-Oakland-Fremont, CA	1,580	2,052	2,122	2,174	1,863	75.4	97.9	100.9	102.8	88.1
San Jose-Sunnyvale-Santa Clara, CA	467	457	488	385	312	54.6	53.1	55.8	43.7	35.4
Seattle-Tacoma-Bellevue, WA	717	1,060	1,300	1,205	965	45.2	66.1	79.6	72.7	58.2
St. Louis, MO-IL	3,213	3,638	3,718	3,539	2,756	225.0	253.5	257.5	244.5	190.4
Tampa-St. Petersburg-Clearwater, FL	1,474	1,542	2,064	1,973	2,006	110.6	113.3	149.0	141.1	143.5
Virginia Beach-Norfolk-Newport News, VA-NC	1,990	1,717	1,305	1,355	2,875	239.1	205.6	154.9	159.8	339.0
Washington-Arlington-Alexandria, DC-VA-MD-WV	2,973	2,269	2,048	2,268	2,711	113.1	85.1	75.6	83.5	99.8
U.S. MSA TOTAL	97,892	102,374	105,497	105,253	102,093	121.8	126.2	128.7	127.3	123.5

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

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

Table 18. Gonorrhea—Men—Reported cases and rates in selected metropolitan statistical areas* (MSAs) listed in alphabetical order: United States, 2004–2008

Metropolitan Statistical Area	Cases					Rates per 100,000 Population				
	2004	2005	2006	2007	2008	2004	2005	2006	2007	2008
Atlanta-Sandy Springs-Marietta, GA	3,750	4,183	5,083	4,484	4,054	160.4	171.3	200.1	171.9	155.4
Austin-Round Rock, TX	768	870	1,310	1,081	1,208	106.5	117.4	169.2	132.2	147.7
Baltimore-Towson, MD	2,546	2,352	2,180	1,976	1,841	200.1	183.6	170.3	153.7	143.2
Birmingham-Hoover, AL	1,316	1,243	932	1,367	1,235	252.1	236.2	175.6	255.7	231.0
Boston-Cambridge-Quincy, MA-NH	1,060	890	812	996	742	49.4	41.5	37.5	45.7	34.0
Buffalo-Cheektowaga-Tonawanda, NY	750	847	913	1,031	839	135.2	153.4	166.7	189.6	154.3
Charlotte-Gastonia-Concord, NC-SC	1,583	1,726	1,804	1,199	1,542	218.1	230.4	231.7	148.1	190.4
Chicago-Naperville-Joliet, IL-IN-WI	7,122	6,900	7,267	7,161	7,586	154.5	148.8	155.4	152.6	161.7
Cincinnati-Middletown, OH-KY-IN	1,375	1,616	1,373	1,674	1,224	136.9	159.7	133.6	160.6	117.5
Cleveland-Elyria-Mentor, OH	2,236	2,329	2,366	2,091	1,295	218.0	228.2	232.8	207.4	128.5
Columbus, OH	1,509	1,531	1,537	1,985	1,788	180.6	181.6	180.4	229.2	206.5
Dallas-Fort Worth-Arlington, TX	3,560	4,276	4,230	5,123	4,243	124.7	146.5	140.3	165.9	137.4
Denver-Aurora, CO	1,088	1,151	1,209	1,110	1,278	92.9	97.0	100.0	89.7	103.2
Detroit-Warren-Livonia, MI	4,449	4,657	3,890	3,786	4,502	203.2	212.7	178.2	173.4	206.2
Hartford-WestHartford-East Hartford, CT	400	473	467	398	418	69.7	82.1	80.7	68.7	72.2
Houston-Baytown-Sugar Land, TX	2,707	2,194	3,504	3,930	3,525	104.5	83.1	126.4	139.4	125.0
Indianapolis, IN	1,808	1,972	2,106	2,150	1,902	227.1	244.8	257.3	258.1	228.3
Jacksonville, FL	1,114	1,338	1,448	1,581	1,392	185.9	219.1	231.5	248.7	218.9
Kansas City, MO-KS	1,805	1,734	1,723	1,643	1,380	191.0	181.1	178.4	168.6	141.6
Las Vegas-Paradise, NV	1,436	1,322	1,354	1,158	1,038	171.0	152.0	149.9	123.9	111.1
Los Angeles-Long Beach-Santa Ana, CA	6,084	6,985	6,505	6,023	5,543	95.0	109.1	101.2	94.2	86.7
Louisville, KY-IN	761	811	858	881	1,070	130.0	137.6	144.0	146.5	177.9
Memphis, TN-MS-AR	1,906	1,792	2,117	1,967	2,003	316.1	293.9	344.4	318.9	324.8
Miami-Fort Lauderdale-Miami Beach, FL	2,315	2,180	2,648	2,706	2,801	89.1	82.9	99.7	102.8	106.4
Milwaukee-Waukesha-West Allis, WI	1,405	1,731	2,080	1,975	145	190.6	235.2	282.0	261.8	19.2
Minneapolis-St. Paul-Bloomington, MN-WI	1,066	1,372	1,294	1,334	1,135	69.0	88.1	82.1	83.6	71.1
Nashville-Davidson-Murfreesboro, TN	860	813	940	892	758	125.0	115.8	131.0	119.0	101.1
New Orleans-Metairie-Kenner, LA	1,684	1,299	981	1,352	1,050	265.9	204.9	198.8	273.5	212.4
New York-Newark-Edison, NY-NJ-PA	8,063	7,744	7,929	8,406	8,017	89.4	85.6	87.2	92.4	88.1
Oklahoma City, OK	972	1,062	1,040	1,171	1,103	172.1	186.1	180.2	199.0	187.5
Orlando, FL	1,222	1,562	1,704	1,366	1,277	132.8	163.4	173.3	135.6	126.8
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	3,629	3,500	3,904	4,250	3,626	129.7	124.5	138.6	150.9	128.7
Phoenix-Mesa-Scottsdale, AZ	1,787	1,676	2,242	1,834	1,222	95.4	85.9	110.0	86.9	57.9
Pittsburgh, PA	736	941	883	1,069	1,045	63.9	82.2	77.5	94.3	92.2
Portland-Vancouver-Beaverton, OR-WA	682	842	692	607	611	66.3	80.6	64.9	56.0	56.4
Providence-New Bedford-Fall River, RI-MA	441	285	318	338	246	56.1	36.4	40.8	43.7	31.8
Richmond, VA	971	1,105	954	1,074	1,261	173.4	193.4	164.2	182.4	214.2
Riverside-San Bernardino-Ontario, CA	1,308	1,440	1,390	1,450	961	68.9	73.5	69.0	71.0	47.0
Rochester, NY	981	893	709	599	601	193.4	176.3	140.4	119.2	119.6
Sacramento-Arden-Arcade-Roseville, CA	1,002	1,123	1,046	1,098	835	101.1	111.8	103.0	106.7	81.2
Salt Lake City, UT	228	277	377	344	258	44.2	52.9	69.6	61.5	46.1
San Antonio, TX	1,073	1,145	1,289	1,322	1,556	118.2	123.7	135.7	135.5	159.5
San Diego-Carlsbad-San Marcos, CA	1,417	1,500	1,531	1,415	1,254	96.1	101.3	103.4	94.7	83.9
San Francisco-Oakland-Fremont, CA	3,367	3,644	3,882	3,493	3,179	163.7	177.2	186.9	167.2	152.2
San Jose-Sunnyvale-Santa Clara, CA	617	597	570	506	398	69.7	66.8	62.4	54.8	43.1
Seattle-Tacoma-Bellevue, WA	1,166	1,644	1,779	1,367	1,216	73.8	102.7	109.1	82.7	73.6
St. Louis, MO-IL	2,506	2,753	2,829	2,944	2,247	187.6	204.9	209.2	217.1	165.7
Tampa-St. Petersburg-Clearwater, FL	1,327	1,368	1,602	1,842	1,822	105.7	106.3	122.0	138.9	137.4
Virginia Beach-Norfolk-Newport News, VA-NC	1,816	1,636	1,237	1,148	2,058	223.7	201.4	153.3	141.6	253.9
Washington-Arlington-Alexandria, DC-VA-MD-WV	2,822	2,220	2,291	2,385	2,823	112.4	87.1	88.8	92.1	109.0
U.S. MSA TOTAL	96,596	99,544	103,129	103,082	95,153	124.6	127.0	130.0	128.8	118.8

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

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

Table 19. Gonorrhea—Counties and independent cities* ranked by number of reported cases: United States, 2008

Rank [†]	County/Independent City	Cases	Rate per 100,000 Population	Cumulative Percent
1	Cook County, IL	13,227	250.3	3
2	Wayne County, MI	9,081	457.5	6
3	Los Angeles County, CA	8,959	90.7	9
4	Harris County, TX	6,164	156.6	11
5	Dallas County, TX	5,137	217.1	12
6	Philadelphia County, PA	4,950	341.5	14
7	Marion County, IN	3,971	452.9	15
8	Shelby County, TN	3,849	422.9	16
9	Franklin County, OH	3,666	327.9	17
10	Kings County, NY	3,313	131.0	18
11	Hamilton County, OH	3,185	378.1	19
12	Baltimore (City), MD	3,181	499.0	20
13	Fulton County, GA	2,944	296.7	21
14	Tarrant County, TX	2,940	171.2	22
15	Bexar County, TX	2,932	183.9	23
16	Duval County, FL	2,661	313.4	23
17	Washington, D.C.	2,656	451.5	24
18	Bronx County, NY	2,629	191.4	25
19	Jefferson County, AL	2,604	395.3	26
20	Cuyahoga County, OH	2,478	191.2	26
21	New York County, NY	2,472	152.5	27
22	Jackson County, MO	2,345	351.6	28
23	Broward County, FL	2,323	132.0	29
24	Allegheny County, PA	2,158	177.0	29
25	Maricopa County, AZ	2,128	54.8	30
26	Mecklenburg County, NC	2,121	244.6	30
27	Miami-Dade County, FL	2,120	88.8	31
28	DeKalb County, GA	2,116	287.1	32
29	Oklahoma County, OK	2,099	299.1	32
30	Hillsborough County, FL	2,092	178.1	33
31	Orange County, FL	2,075	194.6	34
32	San Diego County, CA	2,066	69.4	34
33	Jefferson County, KY	2,043	288.0	35
34	San Francisco County, CA	2,023	264.5	35
35	Alameda County, CA	1,952	133.3	36
36	Clark County, NV	1,918	104.4	36
37	St Louis (City), MO	1,890	538.8	37
38	Travis County, TX	1,884	193.4	38
39	Queens County, NY	1,873	82.5	38
40	St. Louis County, MO	1,731	173.9	39
41	Essex County, NJ	1,662	214.2	39
42	Sacramento County, CA	1,642	118.4	40
43	Erie County, NY	1,569	171.8	40
44	Pinellas County, FL	1,505	164.0	41
45	Prince George's County, MD	1,500	181.0	41
46	Denver County, CO	1,480	251.6	41
47	Tulsa County, OK	1,471	251.4	42
48	Hennepin County, MN	1,448	127.4	42
49	San Bernardino County, CA	1,370	68.2	43
50	King County, WA	1,315	70.7	43
51	Hinds County, MS	1,309	525.4	44
52	Caddo County, LA	1,299	514.2	44
53	Monroe County, NY	1,298	177.9	44
54	Richmond (City), VA	1,279	639.1	45
55	Genesee County, MI	1,264	290.8	45
56	Orleans County, LA	1,232	515.2	45
57	Charleston County, SC	1,222	356.3	46
58	Wake County, NC	1,222	146.7	46
59	Bell County, TX	1,210	436.9	46
60	Oakland County, MI	1,164	96.5	47
61	Norfolk (City), VA	1,155	489.9	47
62	Montgomery County, OH	1,154	214.5	48
63	Lake County, IN	1,146	232.9	48
64	Pulaski County, AR	1,130	302.2	48
65	Davidson County, TN	1,091	176.1	49
66	Cumberland County, NC	1,068	348.4	49
67	Mobile County, AL	1,057	261.4	49
68	Kent County, MI	1,056	174.7	49
69	Leon County, FL	1,054	403.9	50
70	New Haven County, CT	1,046	123.7	50
71	Palm Beach County, FL	1,028	81.2	50

* Accounting for 50% of reported gonorrhea cases.

† Counties and independent cities were ranked in descending order by number of cases reported in 2008.

NOTE: Milwaukee County was not ranked by case count or rate due to misclassification of 2008 Milwaukee County STD morbidity data.

Table 20. Gonorrhea—Reported cases and rates per 100,000 population by age group and sex: United States, 2004–2008

	Age Group	Cases			Rates		
		Total	Male	Female	Total	Male	Female
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	19.5	6.0	33.6
	15–19	98,579	31,270	67,309	459.1	284.1	643.1
	20–24	111,788	49,101	62,687	531.5	452.4	615.8
	25–29	61,364	32,296	29,068	291.4	299.7	282.7
	30–34	30,294	18,114	12,180	155.1	182.9	126.5
	35–39	19,094	12,724	6,370	90.2	119.4	60.5
	40–44	13,184	9,704	3,480	60.0	88.5	31.6
	45–54	13,346	10,690	2,656	30.4	49.5	11.9
	55–64	3,179	2,692	487	9.7	17.1	2.9
	65+	710	620	89	1.9	3.9	0.4
	TOTAL	355,991	168,012	187,979	118.0	113.0	122.9
2008	10–14	3,668	598	3,070	18.1	5.8	31.0
	15–19	97,293	30,637	66,656	453.1	278.3	636.8
	20–24	109,005	47,053	61,951	518.3	433.6	608.6
	25–29	56,791	29,089	27,701	269.7	269.9	269.4
	30–34	27,629	16,177	11,452	141.4	163.3	119.0
	35–39	16,419	10,615	5,804	77.5	99.6	55.2
	40–44	11,048	7,859	3,189	50.3	71.7	28.9
	45–54	11,152	8,659	2,493	25.4	40.1	11.2
	55–64	2,629	2,203	426	8.0	14.0	2.5
	65+	657	552	104	1.7	3.5	0.5
	TOTAL	336,742	153,599	183,143	111.6	103.3	119.7

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 21 A. Gonorrhea—Reported cases by race/ethnicity, age group and sex: United States, 2004–2008

Age Group	White, Non-Hispanic			African-American, 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	
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	477	20	457	3,066	537	2,529	364	64	300	22	0	22	30	3	27
	15–19	15,620	2,700	12,920	74,252	25,860	48,392	7,536	2,439	5,097	498	122	376	668	147	521
	20–24	20,828	6,344	14,485	79,557	37,666	41,891	9,761	4,544	5,217	767	297	470	884	256	628
	25–29	12,481	4,997	7,484	42,001	23,643	18,358	5,880	3,188	2,692	519	285	234	485	186	299
	30–34	6,516	3,006	3,510	20,077	12,995	7,082	3,120	1,822	1,298	354	207	146	227	85	143
	35–39	4,984	2,778	2,206	11,915	8,578	3,337	1,843	1,170	673	187	120	67	164	78	86
	40–44	3,680	2,451	1,228	8,238	6,433	1,805	1,048	710	339	119	82	37	98	28	70
	45–54	3,786	2,808	979	8,540	7,176	1,364	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+	275	244	31	367	318	49	50	44	6	13	10	3	4	4	0
TOTAL	69,753	26,209	43,544	250,260	125,010	125,250	30,676	14,729	15,947	2,643	1,221	1,422	2,659	850	1,809	
2008	10–14	448	37	411	2,847	507	2,340	312	44	268	27	4	23	33	6	27
	15–19	14,141	2,484	11,657	74,285	25,450	48,835	7,651	2,410	5,240	529	130	399	681	159	522
	20–24	19,542	5,774	13,768	78,084	36,182	41,902	9,637	4,454	5,183	842	349	493	906	300	606
	25–29	11,213	4,326	6,887	38,706	21,221	17,486	5,814	3,086	2,727	552	279	273	509	180	329
	30–34	5,692	2,575	3,117	18,355	11,619	6,736	3,016	1,725	1,291	322	169	153	243	90	154
	35–39	3,967	2,165	1,802	10,258	7,093	3,165	1,834	1,149	685	211	144	67	148	65	83
	40–44	2,987	1,946	1,041	6,725	5,017	1,708	1,096	751	345	134	100	34	105	45	60
	45–54	3,158	2,288	870	6,933	5,642	1,290	796	562	233	162	111	51	103	55	48
	55–64	804	671	133	1,588	1,372	215	168	112	56	47	29	18	22	19	3
	65+	270	224	46	317	281	35	45	32	13	14	6	7	11	9	2
TOTAL	62,306	22,518	39,788	238,410	114,496	123,915	30,412	14,339	16,073	2,849	1,327	1,522	2,764	926	1,838	

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, Hawaii did not report age and/or race/ethnicity for most cases and its 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 21 B. Gonorrhea—Rates per 100,000 population by race/ethnicity, age group and sex: United States, 2004–2008

Age Group	White, Non-Hispanic			African-American, 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	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	3.9	0.3	7.8	97.6	33.6	163.6	9.2	3.1	15.5	2.4	0.0	4.9	14.7	2.7	27.1
15–19	118.2	39.8	200.9	2,200.9	1,512.6	2,907.9	201.2	126.4	280.5	54.8	26.1	85.4	288.5	125.4	455.4
20–24	158.9	94.3	226.9	2,604.2	2,436.3	2,776.2	264.5	229.4	305.1	80.4	61.1	100.5	396.9	226.0	574.3
25–29	98.7	78.5	119.2	1,455.2	1,674.3	1,245.4	140.8	137.1	145.6	44.9	50.0	40.0	250.4	190.3	311.8
30–34	56.5	51.8	61.2	797.3	1,085.4	536.1	78.1	83.7	71.5	26.8	32.2	21.7	138.6	103.3	174.1
35–39	37.3	41.3	33.1	448.3	684.5	237.6	50.6	60.1	39.7	14.0	18.4	9.8	98.0	93.8	102.2
40–44	25.0	33.4	16.7	300.2	500.9	123.6	32.8	42.2	22.3	10.2	14.4	6.2	55.4	32.1	77.6
45–54	12.0	17.9	6.1	167.0	303.9	49.6	17.3	24.6	9.8	5.7	6.8	4.7	23.6	29.4	18.3
55–64	4.0	6.8	1.4	58.5	115.6	12.6	7.3	10.3	4.5	3.6	5.2	2.2	6.5	11.9	1.5
65+	0.9	1.9	0.2	11.5	26.0	2.5	2.0	4.1	0.4	1.0	1.8	0.4	2.2	5.0	0.0
TOTAL	34.7	26.5	42.5	656.0	687.1	627.7	67.4	62.6	72.6	18.5	17.6	19.4	106.0	68.8	142.0
10–14	3.7	0.6	7.0	90.6	31.8	151.4	7.9	2.2	13.8	3.0	0.9	5.2	16.2	5.6	27.2
15–19	107.0	36.6	181.3	2,201.9	1,488.6	2,934.6	204.2	124.9	288.4	58.2	27.7	90.7	294.1	135.5	456.5
20–24	149.1	85.8	215.7	2,556.0	2,340.3	2,777.0	261.2	224.9	303.2	88.3	71.7	105.6	406.7	264.8	554.0
25–29	88.7	67.9	109.7	1,341.1	1,502.8	1,186.2	139.2	132.7	147.5	47.8	48.9	46.7	262.8	183.6	343.7
30–34	49.3	44.4	54.4	728.9	970.5	509.9	75.5	79.2	71.1	24.4	26.3	22.6	148.2	108.9	187.8
35–39	29.6	32.2	27.1	386.0	566.0	225.3	50.4	59.0	40.4	15.9	22.2	9.8	88.8	78.1	99.3
40–44	20.3	26.5	14.1	245.0	390.7	116.9	34.2	44.6	22.7	11.6	17.7	5.7	59.7	52.0	67.0
45–54	10.0	14.6	5.4	135.6	239.0	46.9	16.7	23.3	10.0	8.1	11.8	4.9	29.9	33.5	26.7
55–64	3.2	5.5	1.0	48.6	94.4	11.9	6.2	8.6	4.0	3.5	4.7	2.4	9.4	16.9	2.6
65+	0.9	1.7	0.3	10.0	23.0	1.8	1.8	3.0	0.9	1.0	1.1	1.0	5.5	10.4	1.6
TOTAL	31.0	22.8	38.8	625.0	629.4	621.0	66.8	61.0	73.1	20.0	19.1	20.8	110.2	75.0	144.2

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, Hawaii did not report age and/or race/ethnicity for most cases and its 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 22. All Stages of Syphilis* – Reported cases and rates by state/area and region listed in alphabetical order: United States and outlying areas, 2004–2008

State/Area	Cases					Rates per 100,000 Population				
	2004	2005	2006	2007	2008	2004	2005	2006	2007	2008
Alabama	639	551	931	1,006	1,187	14.1	12.1	20.2	21.7	25.6
Alaska	15	22	25	16	9	2.3	3.3	3.7	2.3	1.3
Arizona	974	792	926	1,245	1,394	17.0	13.3	15.0	19.6	22.0
Arkansas	249	231	246	371	508	9.0	8.3	8.8	13.1	17.9
California	4,590	5,340	6,046	6,323	6,909	12.8	14.8	16.6	17.3	18.9
Colorado	179	144	182	157	352	3.9	3.1	3.8	3.2	7.2
Connecticut	169	166	197	148	173	4.8	4.7	5.6	4.2	4.9
Delaware	61	35	74	63	59	7.3	4.1	8.7	7.3	6.8
District of Columbia	357	365	314	416	370	64.5	66.3	54.0	70.7	62.9
Florida	2,964	2,888	2,945	3,918	4,585	17.0	16.2	16.3	21.5	25.1
Georgia	1,589	1,924	1,933	2,254	2,833	18.0	21.2	20.6	23.6	29.7
Hawaii	36	57	66	58	68	2.9	4.5	5.1	4.5	5.3
Idaho	78	54	12	14	26	5.6	3.8	0.8	0.9	1.7
Illinois	1,348	1,608	1,473	1,220	1,565	10.6	12.6	11.5	9.5	12.2
Indiana	273	288	250	216	351	4.4	4.6	4.0	3.4	5.5
Iowa	36	28	68	65	75	1.2	0.9	2.3	2.2	2.5
Kansas	87	88	87	97	125	3.2	3.2	3.1	3.5	4.5
Kentucky	151	129	188	153	218	3.6	3.1	4.5	3.6	5.1
Louisiana	1,646	1,239	1,390	1,808	2,024	36.5	27.4	32.4	42.1	47.1
Maine	7	6	22	21	27	0.5	0.5	1.7	1.6	2.0
Maryland	1,002	1,005	1,038	1,170	1,088	18.0	17.9	18.5	20.8	19.4
Massachusetts	517	398	378	399	479	8.1	6.2	5.9	6.2	7.4
Michigan	806	488	384	473	546	8.0	4.8	3.8	4.7	5.4
Minnesota	145	208	189	186	265	2.8	4.1	3.7	3.6	5.1
Mississippi	404	371	520	707	736	13.9	12.7	17.9	24.2	25.2
Missouri	269	372	430	484	542	4.7	6.4	7.4	8.2	9.2
Montana	4	7	2	8	10	0.4	0.7	0.2	0.8	1.0
Nebraska	15	18	34	30	36	0.9	1.0	1.9	1.7	2.0
Nevada	254	343	389	396	325	10.9	14.2	15.6	15.4	12.7
New Hampshire	26	33	35	52	41	2.0	2.5	2.7	4.0	3.1
New Jersey	826	813	799	926	1,009	9.5	9.3	9.2	10.7	11.6
New Mexico	251	183	237	180	189	13.2	9.5	12.1	9.1	9.6
New York	4,472	3,853	4,586	4,999	5,515	23.3	20.0	23.8	25.9	28.6
North Carolina	747	713	962	1,093	998	8.7	8.2	10.9	12.1	11.0
North Dakota	0	1	3	2	4	0.0	0.2	0.5	0.3	0.6
Ohio	571	502	491	549	763	5.0	4.4	4.3	4.8	6.7
Oklahoma	168	159	251	216	257	4.8	4.5	7.0	6.0	7.1
Oregon	108	109	99	59	97	3.0	3.0	2.7	1.6	2.6
Pennsylvania	574	712	888	844	902	4.6	5.7	7.1	6.8	7.3
Rhode Island	104	64	71	76	55	9.6	5.9	6.7	7.2	5.2
South Carolina	524	549	397	411	412	12.5	12.9	9.2	9.3	9.3
South Dakota	0	4	29	12	6	0.0	0.5	3.7	1.5	0.8
Tennessee	804	917	1,015	1,212	1,283	13.6	15.4	16.8	19.7	20.8
Texas	4,205	4,289	4,956	5,506	6,336	18.7	18.8	21.1	23.0	26.5
Utah	78	50	68	45	40	3.3	2.0	2.7	1.7	1.5
Vermont	3	1	7	11	18	0.5	0.2	1.1	1.8	2.9
Virginia	610	655	701	736	789	8.2	8.7	9.2	9.5	10.2
Washington	336	359	423	367	438	5.4	5.7	6.6	5.7	6.8
West Virginia	18	18	30	27	44	1.0	1.0	1.6	1.5	2.4
Wisconsin	128	138	170	170	187	2.3	2.5	3.1	3.0	3.3
Wyoming	6	1	1	6	9	1.2	0.2	0.2	1.1	1.7
U.S. TOTAL	33,423	33,288	36,958	40,921	46,277	11.4	11.2	12.3	13.6	15.3
Northeast	6,698	6,046	6,983	7,476	8,219	12.3	11.1	12.8	13.7	15.0
Midwest	3,678	3,743	3,608	3,504	4,465	5.6	5.7	5.4	5.3	6.7
South	16,138	16,038	17,891	21,067	23,727	15.2	14.9	16.4	19.1	21.5
West	6,909	7,461	8,476	8,874	9,866	10.2	10.9	12.2	12.7	14.1
Guam	13	19	13	37	45	7.8	11.3	7.6	21.3	25.9
Puerto Rico	1,154	1,223	1,068	1,269	797	29.6	31.3	27.2	32.2	20.2
Virgin Islands	17	13	5	5	1	15.6	12.0	4.6	4.6	0.9
OUTLYING AREAS	1,184	1,255	1,086	1,311	843	28.4	30.0	25.8	31.0	19.9
TOTAL	34,607	34,543	38,044	42,232	47,120	11.6	11.5	12.5	13.8	15.4

* 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, 2004–2008

Metropolitan Statistical Area	Cases					Rates per 100,000 Population				
	2004	2005	2006	2007	2008	2004	2005	2006	2007	2008
Atlanta-Sandy Springs-Marietta, GA	1,315	1,626	1,641	1,904	2,243	27.9	33.1	31.9	36.1	42.5
Austin-Round Rock, TX	200	193	212	234	344	14.2	13.3	14.0	14.6	21.5
Baltimore-Towson, MD	647	679	642	650	685	24.5	25.6	24.1	24.4	25.7
Birmingham-Hoover, AL	117	243	561	483	504	10.8	22.3	51.0	43.6	45.5
Boston-Cambridge-Quincy, MA-NH	410	339	329	324	383	9.3	7.7	7.4	7.2	8.5
Buffalo-Cheektowaga-Tonawanda, NY	24	14	42	26	20	2.1	1.2	3.7	2.3	1.8
Charlotte-Gastonia-Concord, NC-SC	154	235	303	301	223	10.4	15.4	19.1	18.2	13.5
Chicago-Naperville-Joliet, IL-IN-WI	1,296	1,541	1,386	1,116	1,452	13.8	16.3	14.6	11.7	15.2
Cincinnati-Middletown, OH-KY-IN	54	55	58	77	105	2.6	2.7	2.8	3.6	4.9
Cleveland-Elyria-Mentor, OH	84	52	53	83	127	3.9	2.4	2.5	4.0	6.1
Columbus, OH	254	227	229	222	311	15.0	13.3	13.3	12.7	17.7
Dallas-Fort Worth-Arlington, TX	1,374	1,495	1,678	1,643	1,780	24.1	25.7	27.9	26.7	29.0
Denver-Aurora, CO	135	111	141	120	269	5.8	4.7	5.9	4.9	10.9
Detroit-Warren-Livonia, MI	679	390	284	339	304	15.1	8.7	6.4	7.6	6.8
Hartford-WestHartford-East Hartford, CT	46	57	65	51	71	3.9	4.8	5.5	4.3	6.0
Houston-Baytown-Sugar Land, TX	1,289	1,188	1,570	2,048	2,088	24.9	22.5	28.3	36.4	37.1
Indianapolis, IN	128	134	121	95	189	7.9	8.2	7.3	5.6	11.2
Jacksonville, FL	218	151	165	198	308	17.8	12.1	12.9	15.2	23.7
Kansas City, MO-KS	101	193	228	268	237	5.2	9.9	11.6	13.5	11.9
Las Vegas-Paradise, NV	225	300	355	364	299	13.6	17.5	20.0	19.8	16.3
Los Angeles-Long Beach-Santa Ana, CA	2,483	3,159	3,594	3,581	3,572	19.2	24.4	27.8	27.8	27.7
Louisville, KY-IN	115	102	101	77	91	9.6	8.4	8.3	6.2	7.4
Memphis, TN-MS-AR	519	585	612	761	746	41.5	46.4	48.0	59.4	58.3
Miami-Fort Lauderdale-Miami Beach, FL	1,687	1,444	1,455	1,863	2,408	31.5	26.6	26.6	34.4	44.5
Milwaukee-Waukesha-West Allis, WI	85	77	100	127	138	5.6	5.1	6.6	8.2	8.9
Minneapolis-St. Paul-Bloomington, MN-WI	125	187	161	170	223	4.0	6.0	5.1	5.3	7.0
Nashville-Davidson-Murfreesboro, TN	194	189	194	240	277	13.9	13.3	13.3	15.8	18.2
New Orleans-Metairie-Kenner, LA	449	350	352	560	491	34.0	26.5	34.4	54.3	47.7
New York-Newark-Edison, NY-NJ-PA	4,918	4,318	4,924	5,503	6,097	26.3	23.0	26.2	29.2	32.4
Oklahoma City, OK	110	87	116	114	161	9.6	7.5	9.9	9.6	13.5
Orlando, FL	267	413	403	583	460	14.3	21.4	20.3	28.7	22.6
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	678	583	773	778	812	11.7	10.0	13.3	13.3	13.9
Phoenix-Mesa-Scottsdale, AZ	754	595	757	866	857	20.3	15.4	18.7	20.7	20.5
Pittsburgh, PA	32	112	152	122	98	1.3	4.7	6.4	5.2	4.2
Portland-Vancouver-Beaverton, OR-WA	84	94	74	51	64	4.1	4.5	3.5	2.3	2.9
Providence-New Bedford-Fall River, RI-MA	137	75	92	100	71	8.4	4.6	5.7	6.2	4.4
Richmond, VA	85	87	106	129	226	7.4	7.4	8.9	10.6	18.6
Riverside-San Bernardino-Ontario, CA	319	399	376	340	452	8.4	10.2	9.3	8.3	11.1
Rochester, NY	41	36	90	76	51	3.9	3.5	8.7	7.4	4.9
Sacramento-Arden-Arcade-Roseville, CA	64	39	136	117	243	3.2	1.9	6.6	5.6	11.6
Salt Lake City, UT	53	35	41	35	35	5.2	3.4	3.8	3.2	3.2
San Antonio, TX	361	458	473	420	598	19.5	24.2	24.4	21.1	30.0
San Diego-Carlsbad-San Marcos, CA	356	448	572	788	828	12.1	15.3	19.4	26.5	27.8
San Francisco-Oakland-Fremont, CA	917	719	741	783	1,044	22.1	17.3	17.7	18.6	24.8
San Jose-Sunnyvale-Santa Clara, CA	113	121	94	159	156	6.5	6.9	5.3	8.8	8.6
Seattle-Tacoma-Bellevue, WA	273	285	356	309	359	8.6	8.9	10.9	9.3	10.8
St. Louis, MO-IL	189	173	186	252	322	6.8	6.2	6.7	9.0	11.5
Tampa-St. Petersburg-Clearwater, FL	303	326	428	612	680	11.7	12.3	15.9	22.5	25.0
Virginia Beach-Norfolk-Newport News, VA-NC	198	246	245	232	248	12.0	14.9	14.9	14.0	15.0
Washington-Arlington-Alexandria, DC-VA-MD-WV	896	894	928	1,162	956	17.4	17.1	17.5	21.9	18.0
U.S. MSA TOTAL	25,555	25,859	28,695	31,456	34,706	16.2	16.2	17.8	19.3	21.3

* 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, 2008

Rank*	State	Cases	Rate per 100,000 Population
1	Louisiana	707	16.5
2	Alabama	449	9.7
3	Georgia	914	9.6
4	Arkansas	206	7.3
5	Maryland	378	6.7
6	Tennessee	413	6.7
7	New York	1,217	6.3
8	Mississippi	184	6.3
9	California	2,204	6.0
10	Texas	1,405	5.9
11	Florida	1,044	5.7
12	Arizona	317	5.0
	U.S. TOTAL[†]	13,500	4.5
13	Illinois	554	4.3
14	Missouri	224	3.8
15	Virginia	266	3.4
16	Massachusetts	216	3.3
17	North Carolina	287	3.2
18	Ohio	351	3.1
19	Nevada	77	3.0
20	Washington	181	2.8
21	Colorado	128	2.6
22	New Jersey	226	2.6
23	Oklahoma	86	2.4
24	Hawaii	29	2.3
25	New Mexico	44	2.2
26	Minnesota	116	2.2
27	South Carolina	98	2.2
28	Indiana	140	2.2
29	Kentucky	93	2.2
30	Pennsylvania	272	2.2
31	Michigan	210	2.1
32	Delaware	16	1.9
33	Vermont	11	1.8
34	Rhode Island	18	1.7
35	New Hampshire	20	1.5
36	Wisconsin	65	1.2
37	Kansas	30	1.1
38	Connecticut	34	1.0
39	Utah	25	0.9
40	Nebraska	15	0.8
41	Maine	10	0.8
42	Montana	7	0.7
43	West Virginia	13	0.7
44	Oregon	26	0.7
45	Wyoming	3	0.6
46	Iowa	16	0.5
47	Idaho	7	0.5
	YEAR 2010 TARGET		0.2
48	Alaska	1	0.1
49	South Dakota	1	0.1
	North Dakota	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.

[†] Total includes cases reported by the District of Columbia with 146 cases and a rate of 24.8, but excludes outlying areas (Guam with 6 cases and rate of 3.5, Puerto Rico with 167 cases and rate of 4.2, and Virgin Islands with 0 cases 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, 2004–2008

State/Area	Cases					Rates per 100,000 Population				
	2004	2005	2006	2007	2008	2004	2005	2006	2007	2008
Alabama	165	169	319	380	449	3.6	3.7	6.9	8.2	9.7
Alaska	8	9	11	7	1	1.2	1.4	1.6	1.0	0.1
Arizona	157	175	203	296	317	2.7	2.9	3.3	4.7	5.0
Arkansas	47	52	77	122	206	1.7	1.9	2.7	4.3	7.3
California	1,356	1,585	1,835	2,038	2,204	3.8	4.4	5.0	5.6	6.0
Colorado	63	46	69	57	128	1.4	1.0	1.5	1.2	2.6
Connecticut	45	58	64	39	34	1.3	1.7	1.8	1.1	1.0
Delaware	9	11	20	18	16	1.1	1.3	2.3	2.1	1.9
District of Columbia	69	114	116	178	146	12.5	20.7	19.9	30.3	24.8
Florida	728	724	719	913	1,044	4.2	4.1	4.0	5.0	5.7
Georgia	549	645	581	680	914	6.2	7.1	6.2	7.1	9.6
Hawaii	8	11	18	9	29	0.6	0.9	1.4	0.7	2.3
Idaho	24	20	3	1	7	1.7	1.4	0.2	0.1	0.5
Illinois	386	525	431	464	554	3.0	4.1	3.4	3.6	4.3
Indiana	60	62	93	54	140	1.0	1.0	1.5	0.9	2.2
Iowa	5	9	19	21	16	0.2	0.3	0.6	0.7	0.5
Kansas	24	19	27	28	30	0.9	0.7	1.0	1.0	1.1
Kentucky	47	52	73	56	93	1.1	1.2	1.7	1.3	2.2
Louisiana	332	278	342	533	707	7.4	6.1	8.0	12.4	16.5
Maine	2	1	9	9	10	0.2	0.1	0.7	0.7	0.8
Maryland	380	313	300	345	378	6.8	5.6	5.3	6.1	6.7
Massachusetts	114	125	124	155	216	1.8	2.0	1.9	2.4	3.3
Michigan	192	105	118	123	210	1.9	1.0	1.2	1.2	2.1
Minnesota	27	70	47	59	116	0.5	1.4	0.9	1.1	2.2
Mississippi	59	49	86	133	184	2.0	1.7	3.0	4.6	6.3
Missouri	94	147	168	239	224	1.6	2.5	2.9	4.1	3.8
Montana	4	7	1	8	7	0.4	0.7	0.1	0.8	0.7
Nebraska	7	4	7	4	15	0.4	0.2	0.4	0.2	0.8
Nevada	40	109	137	111	77	1.7	4.5	5.5	4.3	3.0
New Hampshire	5	16	13	30	20	0.4	1.2	1.0	2.3	1.5
New Jersey	150	133	173	227	226	1.7	1.5	2.0	2.6	2.6
New Mexico	82	56	79	46	44	4.3	2.9	4.0	2.3	2.2
New York	727	705	736	1,068	1,217	3.8	3.7	3.8	5.5	6.3
North Carolina	192	274	309	323	287	2.2	3.2	3.5	3.6	3.2
North Dakota	0	1	1	1	0	0.0	0.2	0.2	0.2	0.0
Ohio	237	211	184	194	351	2.1	1.8	1.6	1.7	3.1
Oklahoma	25	44	70	65	86	0.7	1.2	2.0	1.8	2.4
Oregon	29	41	29	18	26	0.8	1.1	0.8	0.5	0.7
Pennsylvania	118	199	264	263	272	1.0	1.6	2.1	2.1	2.2
Rhode Island	26	24	14	36	18	2.4	2.2	1.3	3.4	1.7
South Carolina	116	84	66	91	98	2.8	2.0	1.5	2.1	2.2
South Dakota	0	2	13	7	1	0.0	0.3	1.7	0.9	0.1
Tennessee	130	217	249	367	413	2.2	3.6	4.1	6.0	6.7
Texas	827	873	1,064	1,160	1,405	3.7	3.8	4.5	4.9	5.9
Utah	13	10	21	20	25	0.5	0.4	0.8	0.8	0.9
Vermont	1	1	3	10	11	0.2	0.2	0.5	1.6	1.8
Virginia	116	143	190	230	266	1.6	1.9	2.5	3.0	3.4
Washington	150	152	182	154	181	2.4	2.4	2.8	2.4	2.8
West Virginia	3	3	11	6	13	0.2	0.2	0.6	0.3	0.7
Wisconsin	29	41	68	66	65	0.5	0.7	1.2	1.2	1.2
Wyoming	3	0	0	4	3	0.6	0.0	0.0	0.8	0.6
U.S. TOTAL	7,980	8,724	9,756	11,466	13,500	2.7	2.9	3.3	3.8	4.5
Northeast	1,188	1,262	1,400	1,837	2,024	2.2	2.3	2.6	3.4	3.7
Midwest	1,061	1,196	1,176	1,260	1,722	1.6	1.8	1.8	1.9	2.6
South	3,794	4,045	4,592	5,600	6,705	3.6	3.8	4.2	5.1	6.1
West	1,937	2,221	2,588	2,769	3,049	2.9	3.3	3.7	4.0	4.3
Guam	0	2	3	8	6	0.0	1.2	1.8	4.6	3.5
Puerto Rico	182	224	150	169	167	4.7	5.7	3.8	4.3	4.2
Virgin Islands	5	1	1	0	0	4.6	0.9	0.9	0.0	0.0
OUTLYING AREAS	187	227	154	177	173	4.5	5.4	3.7	4.2	4.1
TOTAL	8,167	8,951	9,910	11,643	13,673	2.7	3.0	3.3	3.8	4.5

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, 2004–2008

State/Area	Cases					Rates per 100,000 Population				
	2004	2005	2006	2007	2008	2004	2005	2006	2007	2008
Alabama	52	69	116	143	171	2.2	2.9	4.9	6.0	7.2
Alaska	0	1	2	1	0	0.0	0.3	0.6	0.3	0.0
Arizona	42	49	33	64	56	1.5	1.7	1.1	2.0	1.8
Arkansas	18	21	35	50	81	1.3	1.5	2.4	3.5	5.6
California	63	121	128	115	110	0.4	0.7	0.7	0.6	0.6
Colorado	7	2	5	2	3	0.3	0.1	0.2	0.1	0.1
Connecticut	3	2	2	2	0	0.2	0.1	0.1	0.1	0.0
Delaware	1	2	4	1	6	0.2	0.5	0.9	0.2	1.3
District of Columbia	4	11	6	5	7	1.4	3.8	1.9	1.6	2.3
Florida	98	100	98	153	193	1.1	1.1	1.1	1.6	2.1
Georgia	45	47	41	53	96	1.0	1.0	0.9	1.1	2.0
Hawaii	0	0	1	1	7	0.0	0.0	0.2	0.2	1.1
Idaho	11	6	2	1	1	1.6	0.8	0.3	0.1	0.1
Illinois	55	47	37	39	38	0.9	0.7	0.6	0.6	0.6
Indiana	6	10	10	8	16	0.2	0.3	0.3	0.2	0.5
Iowa	1	1	6	3	3	0.1	0.1	0.4	0.2	0.2
Kansas	7	2	2	6	5	0.5	0.1	0.1	0.4	0.4
Kentucky	6	3	7	9	14	0.3	0.1	0.3	0.4	0.6
Louisiana	123	112	123	209	307	5.3	4.8	5.6	9.5	13.9
Maine	0	0	2	0	0	0.0	0.0	0.3	0.0	0.0
Maryland	92	88	61	47	77	3.2	3.0	2.1	1.6	2.7
Massachusetts	5	4	7	10	6	0.2	0.1	0.2	0.3	0.2
Michigan	61	20	26	27	60	1.2	0.4	0.5	0.5	1.2
Minnesota	3	2	4	1	5	0.1	0.1	0.2	0.0	0.2
Mississippi	19	12	36	35	66	1.3	0.8	2.4	2.3	4.4
Missouri	12	12	19	27	29	0.4	0.4	0.6	0.9	1.0
Montana	1	1	0	2	1	0.2	0.2	0.0	0.4	0.2
Nebraska	4	0	1	0	3	0.5	0.0	0.1	0.0	0.3
Nevada	8	24	34	12	14	0.7	2.0	2.8	1.0	1.1
New Hampshire	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
New Jersey	38	17	12	16	21	0.9	0.4	0.3	0.4	0.5
New Mexico	36	16	22	15	6	3.7	1.6	2.2	1.5	0.6
New York	32	28	29	32	52	0.3	0.3	0.3	0.3	0.5
North Carolina	48	58	67	60	44	1.1	1.3	1.5	1.3	0.9
North Dakota	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Ohio	61	40	43	28	63	1.0	0.7	0.7	0.5	1.1
Oklahoma	9	17	19	24	25	0.5	0.9	1.0	1.3	1.4
Oregon	1	2	0	2	2	0.1	0.1	0.0	0.1	0.1
Pennsylvania	16	34	34	34	21	0.3	0.5	0.5	0.5	0.3
Rhode Island	10	6	0	2	0	1.8	1.1	0.0	0.4	0.0
South Carolina	25	17	11	10	12	1.2	0.8	0.5	0.4	0.5
South Dakota	0	0	5	2	1	0.0	0.0	1.3	0.5	0.3
Tennessee	34	64	73	113	119	1.1	2.1	2.4	3.6	3.8
Texas	179	243	261	297	450	1.6	2.1	2.2	2.5	3.8
Utah	3	1	3	0	1	0.3	0.1	0.2	0.0	0.1
Vermont	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Virginia	6	19	23	16	25	0.2	0.5	0.6	0.4	0.6
Washington	6	5	4	6	5	0.2	0.2	0.1	0.2	0.2
West Virginia	1	0	1	2	4	0.1	0.0	0.1	0.2	0.4
Wisconsin	2	3	3	6	14	0.1	0.1	0.1	0.2	0.5
Wyoming	1	0	0	1	2	0.4	0.0	0.0	0.4	0.8
U.S. TOTAL	1,255	1,339	1,458	1,692	2,242	0.8	0.9	1.0	1.1	1.5
Northeast	104	91	86	96	100	0.4	0.3	0.3	0.3	0.4
Midwest	212	137	156	147	237	0.6	0.4	0.5	0.4	0.7
South	760	883	982	1,227	1,697	1.4	1.6	1.8	2.2	3.0
West	179	228	234	222	208	0.5	0.7	0.7	0.6	0.6
Guam	0	1	1	4	1	0.0	1.2	1.2	4.7	1.2
Puerto Rico	62	81	46	56	29	3.1	4.0	2.3	2.7	1.4
Virgin Islands	3	0	0	0	0	5.3	0.0	0.0	0.0	0.0
OUTLYING AREAS	65	82	47	60	30	3.0	3.8	2.2	2.7	1.4
TOTAL	1,320	1,421	1,505	1,752	2,272	0.9	0.9	1.0	1.1	1.5

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, 2004–2008

State/Area	Cases					Rates per 100,000 Population				
	2004	2005	2006	2007	2008	2004	2005	2006	2007	2008
Alabama	113	100	203	237	278	5.1	4.5	9.1	10.6	12.4
Alaska	8	8	9	6	1	2.4	2.3	2.6	1.7	0.3
Arizona	115	125	166	230	261	4.0	4.2	5.4	7.2	8.2
Arkansas	29	31	42	72	125	2.2	2.3	3.0	5.2	9.0
California	1,291	1,463	1,706	1,921	2,092	7.2	8.1	9.4	10.5	11.4
Colorado	56	44	64	55	125	2.4	1.9	2.7	2.2	5.1
Connecticut	42	56	62	37	34	2.5	3.3	3.6	2.2	2.0
Delaware	8	9	16	17	10	2.0	2.2	3.9	4.1	2.4
District of Columbia	65	103	110	173	139	24.8	39.4	40.3	62.2	50.0
Florida	630	624	621	760	850	7.4	7.2	7.0	8.5	9.5
Georgia	504	598	540	626	818	11.5	13.3	11.7	13.3	17.4
Hawaii	8	11	17	8	22	1.3	1.7	2.6	1.2	3.4
Idaho	13	14	1	0	6	1.9	2.0	0.1	0.0	0.8
Illinois	331	478	394	425	516	5.3	7.6	6.2	6.7	8.1
Indiana	54	52	83	46	124	1.8	1.7	2.7	1.5	4.0
Iowa	3	8	13	18	13	0.2	0.5	0.9	1.2	0.9
Kansas	17	17	25	22	25	1.3	1.2	1.8	1.6	1.8
Kentucky	41	49	66	47	79	2.0	2.4	3.2	2.3	3.8
Louisiana	209	166	219	324	400	9.5	7.5	10.5	15.5	19.2
Maine	2	1	7	9	10	0.3	0.2	1.1	1.4	1.6
Maryland	288	225	239	298	301	10.7	8.3	8.8	11.0	11.1
Massachusetts	109	121	117	145	210	3.5	3.9	3.8	4.6	6.7
Michigan	131	85	92	96	150	2.6	1.7	1.9	1.9	3.0
Minnesota	24	68	43	58	111	0.9	2.7	1.7	2.2	4.3
Mississippi	40	37	50	98	118	2.8	2.6	3.5	6.9	8.3
Missouri	82	135	149	212	195	2.9	4.8	5.2	7.4	6.8
Montana	3	6	1	6	6	0.6	1.3	0.2	1.3	1.3
Nebraska	3	4	6	4	12	0.3	0.5	0.7	0.5	1.4
Nevada	32	85	103	99	63	2.7	6.9	8.1	7.6	4.8
New Hampshire	5	16	13	30	20	0.8	2.5	2.0	4.6	3.1
New Jersey	112	116	161	211	205	2.6	2.7	3.8	5.0	4.8
New Mexico	46	40	57	31	38	4.9	4.2	5.9	3.2	3.9
New York	695	677	707	1,036	1,165	7.5	7.3	7.6	11.1	12.4
North Carolina	144	216	242	263	243	3.4	5.1	5.6	5.9	5.5
North Dakota	0	1	1	1	0	0.0	0.3	0.3	0.3	0.0
Ohio	176	171	141	166	288	3.2	3.1	2.5	3.0	5.2
Oklahoma	16	27	51	41	61	0.9	1.5	2.9	2.3	3.4
Oregon	28	39	29	16	24	1.6	2.2	1.6	0.9	1.3
Pennsylvania	102	165	230	229	251	1.7	2.7	3.8	3.8	4.1
Rhode Island	16	18	14	34	18	3.1	3.5	2.7	6.6	3.5
South Carolina	91	67	55	81	86	4.4	3.2	2.6	3.8	4.0
South Dakota	0	2	8	5	0	0.0	0.5	2.0	1.3	0.0
Tennessee	96	153	176	254	294	3.3	5.2	6.0	8.4	9.8
Texas	648	630	803	863	955	5.8	5.5	6.9	7.2	8.0
Utah	10	9	18	20	24	0.8	0.7	1.4	1.5	1.8
Vermont	1	1	3	10	11	0.3	0.3	1.0	3.3	3.6
Virginia	110	124	167	214	241	3.0	3.3	4.4	5.7	6.4
Washington	144	147	178	148	176	4.7	4.7	5.6	4.6	5.5
West Virginia	2	3	10	4	9	0.2	0.3	1.1	0.5	1.0
Wisconsin	27	38	65	60	51	1.0	1.4	2.4	2.2	1.8
Wyoming	2	0	0	3	1	0.8	0.0	0.0	1.1	0.4
U.S. TOTAL	6,722	7,383	8,293	9,769	11,255	4.7	5.1	5.6	6.6	7.6
Northeast	1,084	1,171	1,314	1,741	1,924	4.1	4.4	4.9	6.5	7.2
Midwest	848	1,059	1,020	1,113	1,485	2.6	3.3	3.1	3.4	4.5
South	3,034	3,162	3,610	4,372	5,007	5.8	6.0	6.7	8.1	9.2
West	1,756	1,991	2,349	2,543	2,839	5.2	5.8	6.8	7.2	8.1
Guam	0	1	2	4	5	0.0	1.2	2.3	4.5	5.7
Puerto Rico	120	143	104	113	138	6.4	7.6	5.5	6.0	7.3
Virgin Islands	2	1	1	0	0	3.9	1.9	1.9	0.0	0.0
OUTLYING AREAS	122	145	107	117	143	6.1	7.2	5.3	5.8	7.0
TOTAL	6,844	7,528	8,400	9,886	11,398	4.7	5.1	5.6	6.6	7.6

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, 2004–2008

Metropolitan Statistical Area	Cases					Rates per 100,000 Population				
	2004	2005	2006	2007	2008	2004	2005	2006	2007	2008
Atlanta-Sandy Springs-Marietta, GA	508	598	529	608	765	10.8	12.2	10.3	11.5	14.5
Austin-Round Rock, TX	56	44	84	74	107	4.0	3.0	5.5	4.6	6.7
Baltimore-Towson, MD	276	244	213	211	270	10.5	9.2	8.0	7.9	10.1
Birmingham-Hoover, AL	33	101	244	189	188	3.0	9.3	22.2	17.1	17.0
Boston-Cambridge-Quincy, MA-NH	84	106	117	131	173	1.9	2.4	2.6	2.9	3.9
Buffalo-Cheektowaga-Tonawanda, NY	9	7	18	11	3	0.8	0.6	1.6	1.0	0.3
Charlotte-Gastonia-Concord, NC-SC	46	103	121	103	58	3.1	6.8	7.6	6.2	3.5
Chicago-Naperville-Joliet, IL-IN-WI	373	510	416	427	535	4.0	5.4	4.4	4.5	5.6
Cincinnati-Middletown, OH-KY-IN	22	24	13	34	62	1.1	1.2	0.6	1.6	2.9
Cleveland-Elyria-Mentor, OH	40	22	18	29	64	1.9	1.0	0.9	1.4	3.1
Columbus, OH	109	109	107	76	135	6.4	6.4	6.2	4.3	7.7
Dallas-Fort Worth-Arlington, TX	279	305	320	265	328	4.9	5.2	5.3	4.3	5.3
Denver-Aurora, CO	55	38	56	46	103	2.4	1.6	2.3	1.9	4.2
Detroit-Warren-Livonia, MI	153	77	82	91	100	3.4	1.7	1.8	2.0	2.2
Hartford-WestHartford-East Hartford, CT	13	14	23	15	8	1.1	1.2	1.9	1.3	0.7
Houston-Baytown-Sugar Land, TX	235	279	396	501	456	4.5	5.3	7.1	8.9	8.1
Indianapolis, IN	34	35	47	26	80	2.1	2.1	2.8	1.5	4.7
Jacksonville, FL	72	50	41	44	67	5.9	4.0	3.2	3.4	5.2
Kansas City, MO-KS	35	89	112	149	102	1.8	4.6	5.7	7.5	5.1
Las Vegas-Paradise, NV	38	103	132	102	72	2.3	6.0	7.4	5.6	3.9
Los Angeles-Long Beach-Santa Ana, CA	551	806	945	1,061	920	4.3	6.2	7.3	8.2	7.1
Louisville, KY-IN	38	46	41	32	36	3.2	3.8	3.4	2.6	2.9
Memphis, TN-MS-AR	99	138	145	208	234	7.9	10.9	11.4	16.2	18.3
Miami-Fort Lauderdale-Miami Beach, FL	434	395	369	414	509	8.1	7.3	6.8	7.6	9.4
Milwaukee-Waukesha-West Allis, WI	19	22	38	53	45	1.3	1.5	2.5	3.4	2.9
Minneapolis-St. Paul-Bloomington, MN-WI	26	68	43	57	105	0.8	2.2	1.4	1.8	3.3
Nashville-Davidson-Murfreesboro, TN	17	34	40	84	85	1.2	2.4	2.7	5.5	5.6
New Orleans-Metairie-Kenner, LA	101	88	90	168	170	7.7	6.7	8.8	16.3	16.5
New York-Newark-Edison, NY-NJ-PA	816	773	811	1,208	1,353	4.4	4.1	4.3	6.4	7.2
Oklahoma City, OK	20	23	24	36	61	1.7	2.0	2.0	3.0	5.1
Orlando, FL	69	106	94	145	126	3.7	5.5	4.7	7.1	6.2
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	95	127	173	205	214	1.6	2.2	3.0	3.5	3.7
Phoenix-Mesa-Scottsdale, AZ	106	113	157	193	211	2.9	2.9	3.9	4.6	5.0
Pittsburgh, PA	22	69	91	60	38	0.9	2.9	3.8	2.5	1.6
Portland-Vancouver-Beaverton, OR-WA	26	39	25	11	21	1.3	1.9	1.2	0.5	1.0
Providence-New Bedford-Fall River, RI-MA	30	28	18	44	25	1.8	1.7	1.1	2.7	1.6
Richmond, VA	11	13	28	38	92	1.0	1.1	2.3	3.1	7.6
Riverside-San Bernardino-Ontario, CA	103	121	108	95	157	2.7	3.1	2.7	2.3	3.8
Rochester, NY	12	6	14	16	9	1.2	0.6	1.4	1.6	0.9
Sacramento-Arden-Arcade-Roseville, CA	19	16	32	59	102	0.9	0.8	1.5	2.8	4.9
Salt Lake City, UT	5	9	15	19	23	0.5	0.9	1.4	1.7	2.1
San Antonio, TX	116	129	136	157	195	6.3	6.8	7.0	7.9	9.8
San Diego-Carlsbad-San Marcos, CA	138	194	235	347	345	4.7	6.6	8.0	11.7	11.6
San Francisco-Oakland-Fremont, CA	422	331	363	308	478	10.2	8.0	8.7	7.3	11.4
San Jose-Sunnyvale-Santa Clara, CA	56	44	52	56	42	3.2	2.5	2.9	3.1	2.3
Seattle-Tacoma-Bellevue, WA	138	125	160	138	153	4.4	3.9	4.9	4.2	4.6
St. Louis, MO-IL	71	50	65	112	121	2.6	1.8	2.3	4.0	4.3
Tampa-St. Petersburg-Clearwater, FL	89	85	110	195	191	3.4	3.2	4.1	7.2	7.0
Virginia Beach-Norfolk-Newport News, VA-NC	50	60	84	88	98	3.0	3.6	5.1	5.3	5.9
Washington-Arlington-Alexandria, DC-VA-MD-WV	199	233	250	377	297	3.9	4.5	4.7	7.1	5.6
U.S. MSA TOTAL	6,368	7,149	7,845	9,116	10,132	4.0	4.5	4.9	5.6	6.2

* 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, 2004–2008

Metropolitan Statistical Area	Cases					Rates per 100,000 Population				
	2004	2005	2006	2007	2008	2004	2005	2006	2007	2008
Atlanta-Sandy Springs-Marietta, GA	36	36	33	40	51	1.5	1.5	1.3	1.5	1.9
Austin-Round Rock, TX	3	3	11	12	16	0.4	0.4	1.5	1.5	2.1
Baltimore-Towson, MD	70	84	53	40	70	5.1	6.1	3.8	2.9	5.1
Birmingham-Hoover, AL	11	35	94	80	77	2.0	6.2	16.5	13.9	13.4
Boston-Cambridge-Quincy, MA-NH	5	1	7	10	4	0.2	0.0	0.3	0.4	0.2
Buffalo-Cheektowaga-Tonawanda, NY	1	0	2	0	0	0.2	0.0	0.3	0.0	0.0
Charlotte-Gastonia-Concord, NC-SC	12	20	28	20	9	1.6	2.6	3.5	2.4	1.1
Chicago-Naperville-Joliet, IL-IN-WI	55	50	43	31	40	1.1	1.0	0.9	0.6	0.8
Cincinnati-Middletown, OH-KY-IN	2	0	5	6	14	0.2	0.0	0.5	0.5	1.3
Cleveland-Elyria-Mentor, OH	3	1	2	5	13	0.3	0.1	0.2	0.5	1.2
Columbus, OH	31	22	30	11	19	3.6	2.5	3.4	1.2	2.1
Dallas-Fort Worth-Arlington, TX	73	100	112	93	116	2.6	3.4	3.7	3.0	3.8
Denver-Aurora, CO	6	1	3	1	1	0.5	0.1	0.3	0.1	0.1
Detroit-Warren-Livonia, MI	49	17	20	22	27	2.1	0.7	0.9	1.0	1.2
Hartford-WestHartford-East Hartford, CT	0	0	1	1	0	0.0	0.0	0.2	0.2	0.0
Houston-Baytown-Sugar Land, TX	39	61	65	108	114	1.5	2.3	2.3	3.8	4.1
Indianapolis, IN	2	4	1	3	8	0.2	0.5	0.1	0.3	0.9
Jacksonville, FL	32	20	11	11	16	5.1	3.1	1.7	1.7	2.4
Kansas City, MO-KS	5	5	17	25	20	0.5	0.5	1.7	2.5	2.0
Las Vegas-Paradise, NV	8	21	32	11	11	1.0	2.5	3.7	1.2	1.2
Los Angeles-Long Beach-Santa Ana, CA	40	63	72	58	31	0.6	1.0	1.1	0.9	0.5
Louisville, KY-IN	6	3	3	2	3	1.0	0.5	0.5	0.3	0.5
Memphis, TN-MS-AR	33	50	52	87	71	5.1	7.7	7.9	13.1	10.7
Miami-Fort Lauderdale-Miami Beach, FL	41	43	40	60	74	1.5	1.5	1.4	2.2	2.7
Milwaukee-Waukesha-West Allis, WI	1	1	2	5	11	0.1	0.1	0.3	0.6	1.4
Minneapolis-St. Paul-Bloomington, MN-WI	3	3	3	1	5	0.2	0.2	0.2	0.1	0.3
Nashville-Davidson-Murfreesboro, TN	2	2	2	13	14	0.3	0.3	0.3	1.7	1.8
New Orleans-Metairie-Kenner, LA	27	23	25	51	53	3.9	3.4	4.7	9.5	9.9
New York-Newark-Edison, NY-NJ-PA	58	37	31	42	60	0.6	0.4	0.3	0.4	0.6
Oklahoma City, OK	7	9	6	13	16	1.2	1.5	1.0	2.2	2.6
Orlando, FL	10	14	14	13	21	1.1	1.4	1.4	1.3	2.0
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	16	13	6	14	17	0.5	0.4	0.2	0.5	0.6
Phoenix-Mesa-Scottsdale, AZ	25	23	18	29	24	1.4	1.2	0.9	1.4	1.2
Pittsburgh, PA	7	25	28	25	6	0.6	2.0	2.3	2.0	0.5
Portland-Vancouver-Beaverton, OR-WA	0	0	0	1	0	0.0	0.0	0.0	0.1	0.0
Providence-New Bedford-Fall River, RI-MA	10	7	0	2	0	1.2	0.8	0.0	0.2	0.0
Richmond, VA	1	1	1	3	6	0.2	0.2	0.2	0.5	1.0
Riverside-San Bernardino-Ontario, CA	1	12	10	4	5	0.1	0.6	0.5	0.2	0.2
Rochester, NY	0	1	0	1	0	0.0	0.2	0.0	0.2	0.0
Sacramento-Arden-Arcade-Roseville, CA	0	0	3	2	18	0.0	0.0	0.3	0.2	1.7
Salt Lake City, UT	1	1	1	0	1	0.2	0.2	0.2	0.0	0.2
San Antonio, TX	20	34	32	35	58	2.1	3.5	3.2	3.4	5.7
San Diego-Carlsbad-San Marcos, CA	10	25	12	12	12	0.7	1.7	0.8	0.8	0.8
San Francisco-Oakland-Fremont, CA	2	8	7	12	12	0.1	0.4	0.3	0.6	0.6
San Jose-Sunnyvale-Santa Clara, CA	4	2	7	4	3	0.5	0.2	0.8	0.5	0.3
Seattle-Tacoma-Bellevue, WA	6	4	2	4	2	0.4	0.2	0.1	0.2	0.1
St. Louis, MO-IL	9	5	3	9	16	0.6	0.3	0.2	0.6	1.1
Tampa-St. Petersburg-Clearwater, FL	3	8	15	52	54	0.2	0.6	1.1	3.7	3.9
Virginia Beach-Norfolk-Newport News, VA-NC	4	15	18	10	12	0.5	1.8	2.1	1.2	1.4
Washington-Arlington-Alexandria, DC-VA-MD-WV	16	13	11	12	15	0.6	0.5	0.4	0.4	0.6
U.S. MSA TOTAL	806	926	994	1,106	1,246	1.0	1.1	1.2	1.3	1.5

* 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, 2004–2008

Metropolitan Statistical Area	Cases					Rates per 100,000 Population				
	2004	2005	2006	2007	2008	2004	2005	2006	2007	2008
Atlanta-Sandy Springs-Marietta, GA	472	562	496	567	714	20.2	23.0	19.5	21.7	27.4
Austin-Round Rock, TX	53	41	73	62	91	7.4	5.5	9.4	7.6	11.1
Baltimore-Towson, MD	206	160	160	171	200	16.2	12.5	12.5	13.3	15.6
Birmingham-Hoover, AL	22	66	150	109	111	4.2	12.5	28.3	20.4	20.8
Boston-Cambridge-Quincy, MA-NH	79	105	110	121	169	3.7	4.9	5.1	5.6	7.8
Buffalo-Cheektowaga-Tonawanda, NY	8	7	16	11	3	1.4	1.3	2.9	2.0	0.6
Charlotte-Gastonia-Concord, NC-SC	34	83	93	83	49	4.7	11.1	11.9	10.3	6.1
Chicago-Naperville-Joliet, IL-IN-WI	318	460	373	396	495	6.9	9.9	8.0	8.4	10.6
Cincinnati-Middletown, OH-KY-IN	20	24	8	28	48	2.0	2.4	0.8	2.7	4.6
Cleveland-Elyria-Mentor, OH	37	21	16	24	51	3.6	2.1	1.6	2.4	5.1
Columbus, OH	78	87	77	65	116	9.3	10.3	9.0	7.5	13.4
Dallas-Fort Worth-Arlington, TX	206	205	208	172	212	7.2	7.0	6.9	5.6	6.9
Denver-Aurora, CO	49	37	53	45	102	4.2	3.1	4.4	3.6	8.2
Detroit-Warren-Livonia, MI	104	60	62	69	73	4.8	2.7	2.8	3.2	3.3
Hartford-WestHartford-East Hartford, CT	13	14	22	14	8	2.3	2.4	3.8	2.4	1.4
Houston-Baytown-Sugar Land, TX	196	218	331	393	342	7.6	8.3	11.9	13.9	12.1
Indianapolis, IN	32	31	46	23	72	4.0	3.8	5.6	2.8	8.6
Jacksonville, FL	40	30	30	33	51	6.7	4.9	4.8	5.2	8.0
Kansas City, MO-KS	30	84	95	124	82	3.2	8.8	9.8	12.7	8.4
Las Vegas-Paradise, NV	30	82	100	91	61	3.6	9.4	11.1	9.7	6.5
Los Angeles-Long Beach-Santa Ana, CA	511	743	873	1,002	889	8.0	11.6	13.6	15.7	13.9
Louisville, KY-IN	32	43	38	30	33	5.5	7.3	6.4	5.0	5.5
Memphis, TN-MS-AR	66	88	93	121	163	10.9	14.4	15.1	19.6	26.4
Miami-Fort Lauderdale-Miami Beach, FL	393	352	329	354	435	15.1	13.4	12.4	13.5	16.5
Milwaukee-Waukesha-West Allis, WI	18	21	36	48	34	2.4	2.9	4.9	6.4	4.5
Minneapolis-St. Paul-Bloomington, MN-WI	23	65	40	56	100	1.5	4.2	2.5	3.5	6.3
Nashville-Davidson-Murfreesboro, TN	15	32	38	71	71	2.2	4.6	5.3	9.5	9.5
New Orleans-Metairie-Kenner, LA	74	65	65	117	117	11.7	10.3	13.2	23.7	23.7
New York-Newark-Edison, NY-NJ-PA	758	736	780	1,166	1,293	8.4	8.1	8.6	12.8	14.2
Oklahoma City, OK	13	14	18	23	45	2.3	2.5	3.1	3.9	7.6
Orlando, FL	59	92	80	132	105	6.4	9.6	8.1	13.1	10.4
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	79	114	167	191	197	2.8	4.1	5.9	6.8	7.0
Phoenix-Mesa-Scottsdale, AZ	81	89	136	162	187	4.3	4.6	6.7	7.7	8.9
Pittsburgh, PA	15	44	63	35	32	1.3	3.8	5.5	3.1	2.8
Portland-Vancouver-Beaverton, OR-WA	26	39	25	10	21	2.5	3.7	2.3	0.9	1.9
Providence-New Bedford-Fall River, RI-MA	20	21	18	42	25	2.5	2.7	2.3	5.4	3.2
Richmond, VA	10	12	27	35	86	1.8	2.1	4.6	5.9	14.6
Riverside-San Bernardino-Ontario, CA	102	108	98	90	150	5.4	5.5	4.9	4.4	7.3
Rochester, NY	12	5	14	15	9	2.4	1.0	2.8	3.0	1.8
Sacramento-Arden-Arcade-Roseville, CA	19	16	29	57	84	1.9	1.6	2.9	5.5	8.2
Salt Lake City, UT	4	8	14	19	22	0.8	1.5	2.6	3.4	3.9
San Antonio, TX	96	95	104	122	137	10.6	10.3	10.9	12.5	14.0
San Diego-Carlsbad-San Marcos, CA	128	169	223	335	333	8.7	11.4	15.1	22.4	22.3
San Francisco-Oakland-Fremont, CA	419	323	355	296	466	20.4	15.7	17.1	14.2	22.3
San Jose-Sunnyvale-Santa Clara, CA	52	42	45	52	39	5.9	4.7	4.9	5.6	4.2
Seattle-Tacoma-Bellevue, WA	132	121	158	134	151	8.3	7.6	9.7	8.1	9.1
St. Louis, MO-IL	62	45	62	103	105	4.6	3.3	4.6	7.6	7.7
Tampa-St. Petersburg-Clearwater, FL	86	77	95	143	137	6.9	6.0	7.2	10.8	10.3
Virginia Beach-Norfolk-Newport News, VA-NC	46	45	66	78	86	5.7	5.5	8.2	9.6	10.6
Washington-Arlington-Alexandria, DC-VA-MD-WV	183	220	239	365	282	7.3	8.6	9.3	14.1	10.9
U.S. MSA TOTAL	5,561	6,221	6,847	8,005	8,884	7.2	7.9	8.6	10.0	11.1

* 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, 2008

Rank [†]	County/Independent City	Cases	Rate per 100,000 Population	Cumulative Percent
1	Los Angeles County, CA	822	8.3	6
2	New York County, NY	491	30.3	9
3	Cook County, IL	488	9.2	13
4	Fulton County, GA	386	38.9	16
5	Harris County, TX	380	9.7	19
6	San Diego County, CA	345	11.6	21
7	San Francisco County, CA	344	45.0	24
8	Kings County, NY	275	10.9	26
9	Miami-Dade County, FL	254	10.6	28
10	Broward County, FL	215	12.2	29
11	Dallas County, TX	213	9.0	31
12	Maricopa County, AZ	207	5.3	32
13	Baltimore (City), MD	198	31.1	34
14	Shelby County, TN	198	21.8	35
15	Bexar County, TX	184	11.5	37
16	Jefferson County, AL	183	27.8	38
17	DeKalb County, GA	182	24.7	39
18	Bronx County, NY	174	12.7	41
19	Philadelphia County, PA	150	10.3	42
20	Washington, D.C.	146	24.8	43
21	Jefferson County, TX	141	58.3	44
22	Caddo County, LA	130	51.5	45
23	Franklin County, OH	129	11.5	46
24	King County, WA	128	6.9	47
25	Queens County, NY	122	5.4	48
26	Riverside County, CA	118	5.7	48
27	Hillsborough County, FL	117	10.0	49
28	Tarrant County, TX	103	6.0	50
29	Suffolk County, MA	101	14.2	51
30	Orange County, CA	98	3.3	52
31	Madison County, AL	96	30.7	52
32	Orange County, FL	94	8.8	53
33	Sacramento County, CA	94	6.8	54
34	Orleans County, LA	93	38.9	54
35	Travis County, TX	91	9.3	55
36	Genesee County, MI	86	19.8	56
37	Wayne County, MI	86	4.3	56
38	Alameda County, CA	81	5.5	57
39	Hennepin County, MN	79	7.0	57
40	Davidson County, TN	76	12.3	58
41	Cobb County, GA	76	11.0	59
42	Prince George's County, MD	75	9.0	59
43	Pima County, AZ	74	7.7	60
44	Marion County, IN	73	8.3	60
45	Clark County, NV	72	3.9	61
46	Pinellas County, FL	66	7.2	61
47	Knox County, TN	63	14.9	62
48	Jackson County, MO	62	9.3	62
49	St Louis (City), MO	60	17.1	63
50	Denver County, CO	60	10.2	63
51	Hudson County, NJ	60	10.0	63
52	Duval County, FL	60	7.1	64
53	Lafayette County, LA	59	28.8	64
54	Pulaski County, AR	58	15.5	65
55	East Baton Rouge County, LA	57	13.2	65
56	Oklahoma County, OK	57	8.1	66
57	Cuyahoga County, OH	57	4.4	66
58	Essex County, NJ	56	7.2	66
59	Jefferson County, LA	49	11.6	67
60	Hamilton County, OH	49	5.8	67
61	Gwinnett County, GA	48	6.2	68
62	Mecklenburg County, NC	48	5.5	68
63	Milwaukee County, WI	45	4.7	68
64	Richmond (City), VA	44	22.0	69
65	Summit County, OH	42	7.7	69
66	Palm Beach County, FL	40	3.2	69
67	Santa Clara County, CA	40	2.3	69
68	San Bernardino County, CA	39	1.9	70
69	Middlesex County, MA	37	2.5	70
70	Allegheny County, PA	36	3.0	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 2008.

Table 32. Primary and secondary syphilis—Reported cases and rates* among men and women and male-to-female rate ratios in the counties and independent cities ranked in the top 30 for cases in 2008: United States, 2007–2008

City†	Male				Female				Male-to-Female Rate Ratio	
	2007		2008		2007		2008		2007	2008
	Case	Rate	Case	Rate	Case	Rate	Case	Rate		
Jefferson County, AL	95	30.4	107	34.3	71	20.5	76	21.9	1.5	1.6
Maricopa County, AZ	162	8.3	185	9.5	26	1.3	22	1.1	6.4	8.6
Los Angeles County, CA	866	17.7	793	16.2	52	1.0	29	0.6	17.7	27.0
Orange County, CA	136	9.1	96	6.4	6	0.4	2	0.1	22.8	64.0
Riverside County, CA	76	7.3	112	10.8	3	0.3	4	0.4	24.3	27.0
San Diego County, CA	335	22.4	333	22.3	12	0.8	12	0.8	28.0	27.9
San Francisco County, CA	199	51.1	338	86.8	3	0.8	6	1.6	63.9	54.3
Washington, D.C.	173	62.2	139	50.0	5	1.6	7	2.3	38.9	21.7
Broward County, FL	161	18.8	194	22.7	17	1.9	21	2.3	9.9	9.9
Hillsborough County, FL	72	12.4	80	13.8	43	7.2	37	6.2	1.7	2.2
Miami-Dade County, FL	173	14.9	207	17.9	37	3.0	47	3.8	5.0	4.7
DeKalb County, GA	135	37.6	166	46.3	6	1.6	16	4.2	23.5	11.0
Fulton County, GA	276	56.4	368	75.2	17	3.4	18	3.6	16.6	20.9
Cook County, IL	364	14.1	456	17.7	27	1.0	32	1.2	14.1	14.8
Caddo County, LA	24	20.0	71	59.2	9	6.8	59	44.5	2.9	1.3
Baltimore (City), MD	112	37.7	140	47.1	28	8.2	58	17.1	4.6	2.8
Suffolk County, MA	65	18.8	100	28.9	8	2.2	1	0.3	8.5	96.3
Bronx County, NY	109	17.0	163	25.3	7	1.0	11	1.5	17.0	16.9
Kings County, NY	244	20.4	259	21.7	11	0.8	16	1.2	25.5	18.1
New York County, NY	387	49.9	482	62.2	7	0.8	9	1.1	62.4	56.5
Queens County, NY	136	12.3	118	10.7	2	0.2	4	0.3	61.5	35.7
Franklin County, OH	58	10.6	111	20.2	10	1.8	18	3.2	5.9	6.3
Philadelphia County, PA	129	19.0	142	20.9	7	0.9	8	1.0	21.1	20.9
Shelby County, TN	112	25.8	138	31.7	79	16.6	60	12.6	1.6	2.5
Bexar County, TX	120	15.4	130	16.7	35	4.3	54	6.6	3.6	2.5
Dallas County, TX	95	7.9	136	11.3	57	4.9	77	6.6	1.6	1.7
Harris County, TX	359	18.2	291	14.7	95	4.8	89	4.5	3.8	3.3
Jefferson County, TX	32	26.1	74	60.4	7	5.9	67	56.1	4.4	1.1
Tarrant County, TX	59	6.9	66	7.7	28	3.3	37	4.3	2.1	1.8
King County, WA	111	11.9	127	13.7	1	0.1	1	0.1	119.0	137.0

* Cases per 100,000 population

† Counties and independent cities are listed alphabetically by state.

Table 33. Primary and secondary syphilis—Reported cases and rates per 100,000 population by age group and sex: United States, 2004–2008

Age Group	Cases			Rates		
	Total	Male	Female	Total	Male	Female
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
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
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
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	13.5	3.5
25–29	1,841	1,576	265	8.7	14.6	2.6
30–34	1,500	1,306	193	7.7	13.2	2.0
35–39	1,721	1,530	191	8.1	14.4	1.8
40–44	1,745	1,553	192	7.9	14.2	1.7
45–54	1,664	1,464	200	3.8	6.8	0.9
55–64	409	379	30	1.3	2.4	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
10–14	27	8	19	0.1	0.1	0.2
15–19	903	585	318	4.2	5.3	3.0
20–24	2,398	1,878	520	11.4	17.3	5.1
25–29	2,257	1,853	404	10.7	17.2	3.9
30–34	1,734	1,490	244	8.9	15.0	2.5
35–39	1,810	1,569	241	8.5	14.7	2.3
40–44	1,777	1,575	202	8.1	14.4	1.8
45–54	2,028	1,792	236	4.6	8.3	1.1
55–64	458	412	46	1.4	2.6	0.3
65+	105	97	8	0.3	0.6	0.0
TOTAL	13,500	11,258	2,242	4.5	7.6	1.5

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 34 A. Primary and secondary syphilis—Reported cases by race/ethnicity, age group and sex: United States, 2004–2008

Age Group	White, Non-Hispanic			African-American, 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	
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	486	431	54	954	784	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	489	132	187	171	16	24	24	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	4,049	3,668	381	5,274	4,170	1,104	1,887	1,720	167	171	164	7	85	52	33	
2008	10–14	2	1	1	23	7	16	2	0	2	0	0	0	0	0	0
	15–19	123	72	50	645	411	235	126	98	29	7	5	2	2	0	2
	20–24	453	366	87	1,543	1,161	381	357	308	49	34	34	0	11	8	3
	25–29	583	500	83	1,203	926	277	412	375	37	45	41	4	15	11	3
	30–34	552	499	53	772	617	155	349	317	33	49	49	0	12	8	3
	35–39	688	615	73	742	607	134	345	317	28	30	27	2	5	2	3
	40–44	781	718	63	684	562	122	282	267	15	24	23	1	5	4	1
	45–54	996	935	61	779	624	155	225	206	19	22	22	0	5	4	1
	55–64	229	219	9	185	151	33	36	34	2	7	7	0	2	1	1
	65+	62	59	3	30	25	5	11	11	0	2	2	0	0	0	0
TOTAL	4,469	3,983	486	6,607	5,093	1,514	2,146	1,931	214	220	211	9	58	40	18	

NOTE: These tables should be used only for race/ethnicity comparisons. See Table 33 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, Idaho did not report age and/or race/ethnicity for most cases and its 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 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 34 B. Primary and secondary syphilis—Rates per 100,000 population by race/ethnicity, age group and sex: United States, 2004–2008

Age Group	White, Non-Hispanic			African-American, 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	0.2	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	13.9	17.5	10.3	2.4	3.4	1.4	0.0	0.0	0.0	3.1	1.8	4.5
20–24	2.6	4.1	1.1	36.8	57.2	15.9	8.9	14.6	2.3	1.5	2.6	0.4	6.0	5.5	6.5
25–29	3.9	6.8	0.9	33.1	55.5	11.5	8.5	13.8	1.8	3.0	5.9	0.2	7.6	7.6	7.6
30–34	4.4	7.9	0.9	24.3	42.1	8.2	8.2	13.7	1.5	2.9	5.4	0.5	11.6	18.1	5.1
35–39	5.3	9.7	0.7	25.7	44.6	8.9	8.1	14.4	0.7	2.3	4.8	0.0	8.9	11.7	6.2
40–44	5.8	10.7	0.8	22.0	37.8	8.2	8.3	15.1	0.7	2.3	4.5	0.2	3.6	5.0	2.3
45–54	2.6	4.9	0.3	12.1	20.7	4.8	3.9	7.1	0.7	1.2	2.5	0.0	2.8	4.6	1.2
55–64	0.9	1.7	0.0	4.7	8.9	1.3	1.5	2.9	0.2	0.2	0.3	0.0	0.0	0.0	0.0
65+	0.2	0.3	0.0	1.2	2.5	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	13.8	22.9	5.5	4.2	7.3	0.8	1.2	2.4	0.1	3.4	4.2	2.6
10–14	0.0	0.0	0.0	0.7	0.4	1.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
15–19	0.9	1.1	0.8	19.1	24.0	14.1	3.4	5.1	1.6	0.8	1.1	0.5	0.9	0.0	1.9
20–24	3.5	5.4	1.4	50.5	75.1	25.3	9.7	15.6	2.8	3.6	7.0	0.0	5.2	7.3	2.9
25–29	4.6	7.8	1.3	41.7	65.6	18.8	9.9	16.1	2.0	3.9	7.1	0.7	7.6	11.7	3.4
30–34	4.8	8.6	0.9	30.7	51.6	11.7	8.7	14.5	1.8	3.7	7.5	0.0	7.1	10.3	4.0
35–39	5.1	9.1	1.1	27.9	48.5	9.6	9.5	16.3	1.6	2.2	4.2	0.3	3.2	2.5	3.9
40–44	5.3	9.8	0.9	24.9	43.8	8.3	8.8	15.9	1.0	2.1	4.1	0.2	3.0	4.9	1.2
45–54	3.1	5.9	0.4	15.2	26.4	5.6	4.7	8.6	0.8	1.1	2.3	0.0	1.5	2.6	0.6
55–64	0.9	1.8	0.1	5.7	10.4	1.8	1.3	2.6	0.1	0.5	1.2	0.0	0.9	0.9	0.9
65+	0.2	0.5	0.0	0.9	2.0	0.3	0.4	1.0	0.0	0.2	0.4	0.0	0.0	0.0	0.0
TOTAL	2.2	4.0	0.5	17.3	28.0	7.6	4.7	8.2	1.0	1.5	3.0	0.1	2.3	3.2	1.4

NOTE: These tables should be used only for race/ethnicity comparisons. See Table 33 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, Idaho did not report age and/or race/ethnicity for most cases and its 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 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 35. Early latent syphilis—Reported cases and rates by state/area and region listed in alphabetical order: United States and outlying areas, 2004–2008

State/Area	Cases					Rates per 100,000 Population				
	2004	2005	2006	2007	2008	2004	2005	2006	2007	2008
Alabama	231	184	341	363	440	5.1	4.0	7.4	7.8	9.5
Alaska	1	8	6	3	2	0.2	1.2	0.9	0.4	0.3
Arizona	219	134	186	269	258	3.8	2.3	3.0	4.2	4.1
Arkansas	56	48	67	115	144	2.0	1.7	2.4	4.1	5.1
California	873	1,153	1,369	1,421	1,648	2.4	3.2	3.8	3.9	4.5
Colorado	24	27	38	35	91	0.5	0.6	0.8	0.7	1.9
Connecticut	16	19	27	20	28	0.5	0.5	0.8	0.6	0.8
Delaware	25	9	16	14	23	3.0	1.1	1.9	1.6	2.7
District of Columbia	113	103	77	84	77	20.4	18.7	13.2	14.3	13.1
Florida	856	726	760	1,155	1,252	4.9	4.1	4.2	6.3	6.9
Georgia	333	380	366	423	563	3.8	4.2	3.9	4.4	5.9
Hawaii	3	4	2	11	9	0.2	0.3	0.2	0.9	0.7
Idaho	26	13	3	3	6	1.9	0.9	0.2	0.2	0.4
Illinois	322	397	267	224	271	2.5	3.1	2.1	1.7	2.1
Indiana	45	42	46	39	83	0.7	0.7	0.7	0.6	1.3
Iowa	12	6	6	6	11	0.4	0.2	0.2	0.2	0.4
Kansas	12	18	18	25	54	0.4	0.7	0.7	0.9	1.9
Kentucky	24	23	36	34	47	0.6	0.6	0.9	0.8	1.1
Louisiana	316	252	481	722	809	7.0	5.6	11.2	16.8	18.8
Maine	0	2	7	5	10	0.0	0.2	0.5	0.4	0.8
Maryland	213	289	193	320	313	3.8	5.2	3.4	5.7	5.6
Massachusetts	96	105	82	116	149	1.5	1.6	1.3	1.8	2.3
Michigan	121	69	43	73	99	1.2	0.7	0.4	0.7	1.0
Minnesota	21	46	58	55	47	0.4	0.9	1.1	1.1	0.9
Mississippi	130	162	197	269	232	4.5	5.5	6.8	9.2	7.9
Missouri	58	108	93	120	145	1.0	1.9	1.6	2.0	2.5
Montana	0	0	0	0	1	0.0	0.0	0.0	0.0	0.1
Nebraska	0	2	1	3	0	0.0	0.1	0.1	0.2	0.0
Nevada	24	64	119	174	168	1.0	2.7	4.8	6.8	6.5
New Hampshire	0	0	2	13	4	0.0	0.0	0.2	1.0	0.3
New Jersey	344	289	314	343	415	4.0	3.3	3.6	3.9	4.8
New Mexico	69	53	85	66	45	3.6	2.7	4.3	3.4	2.3
New York	744	1,084	993	1,149	1,372	3.9	5.6	5.1	6.0	7.1
North Carolina	261	215	294	247	221	3.1	2.5	3.3	2.7	2.4
North Dakota	0	0	0	0	2	0.0	0.0	0.0	0.0	0.3
Ohio	184	136	115	135	224	1.6	1.2	1.0	1.2	2.0
Oklahoma	62	64	121	115	117	1.8	1.8	3.4	3.2	3.2
Oregon	29	16	19	6	18	0.8	0.4	0.5	0.2	0.5
Pennsylvania	183	204	286	309	309	1.5	1.6	2.3	2.5	2.5
Rhode Island	15	5	6	10	7	1.4	0.5	0.6	0.9	0.7
South Carolina	204	222	174	143	192	4.9	5.2	4.0	3.2	4.4
South Dakota	0	0	6	4	3	0.0	0.0	0.8	0.5	0.4
Tennessee	206	203	233	304	312	3.5	3.4	3.9	4.9	5.1
Texas	1,069	1,013	1,312	1,467	1,733	4.8	4.4	5.6	6.1	7.2
Utah	5	7	7	2	10	0.2	0.3	0.3	0.1	0.4
Vermont	0	0	2	1	6	0.0	0.0	0.3	0.2	1.0
Virginia	108	148	165	177	238	1.4	2.0	2.2	2.3	3.1
Washington	51	63	81	76	98	0.8	1.0	1.3	1.2	1.5
West Virginia	9	3	6	9	16	0.5	0.2	0.3	0.5	0.9
Wisconsin	55	58	60	91	78	1.0	1.0	1.1	1.6	1.4
Wyoming	0	0	0	0	1	0.0	0.0	0.0	0.0	0.2
U.S. TOTAL	7,768	8,176	9,186	10,768	12,401	2.6	2.8	3.1	3.6	4.1
Northeast	1,398	1,708	1,719	1,966	2,300	2.6	3.1	3.1	3.6	4.2
Midwest	830	882	713	775	1,017	1.3	1.3	1.1	1.2	1.5
South	4,216	4,044	4,839	5,961	6,729	4.0	3.8	4.4	5.4	6.1
West	1,324	1,542	1,915	2,066	2,355	2.0	2.3	2.8	2.9	3.4
Guam	0	0	3	3	2	0.0	0.0	1.8	1.7	1.2
Puerto Rico	353	432	368	408	241	9.1	11.0	9.4	10.3	6.1
Virgin Islands	8	7	0	1	0	7.4	6.4	0.0	0.9	0.0
OUTLYING AREAS	361	439	371	412	243	8.7	10.5	8.8	9.7	5.8
TOTAL	8,129	8,615	9,557	11,180	12,644	2.7	2.9	3.1	3.7	4.1

Table 36. Early latent syphilis—Reported cases and rates in selected metropolitan statistical areas* (MSAs) listed in alphabetical order: United States, 2004–2008

Metropolitan Statistical Area	Cases					Rates per 100,000 Population				
	2004	2005	2006	2007	2008	2004	2005	2006	2007	2008
Atlanta-Sandy Springs-Marietta, GA	281	314	293	363	402	6.0	6.4	5.7	6.9	7.6
Austin-Round Rock, TX	59	59	51	66	109	4.2	4.1	3.4	4.1	6.8
Baltimore-Towson, MD	167	211	136	185	214	6.3	7.9	5.1	6.9	8.0
Birmingham-Hoover, AL	42	82	220	196	199	3.9	7.5	20.0	17.7	18.0
Boston-Cambridge-Quincy, MA-NH	70	84	65	95	124	1.6	1.9	1.5	2.1	2.8
Buffalo-Cheektowaga-Tonawanda, NY	4	3	14	6	10	0.3	0.3	1.2	0.5	0.9
Charlotte-Gastonia-Concord, NC-SC	58	71	98	63	62	3.9	4.7	6.2	3.8	3.8
Chicago-Naperville-Joliet, IL-IN-WI	322	395	269	209	251	3.4	4.2	2.8	2.2	2.6
Cincinnati-Middletown, OH-KY-IN	8	13	7	12	23	0.4	0.6	0.3	0.6	1.1
Cleveland-Elyria-Mentor, OH	33	21	11	21	48	1.5	1.0	0.5	1.0	2.3
Columbus, OH	72	41	55	47	89	4.3	2.4	3.2	2.7	5.1
Dallas-Fort Worth-Arlington, TX	380	381	532	468	496	6.7	6.5	8.9	7.6	8.1
Denver-Aurora, CO	22	22	32	30	68	0.9	0.9	1.3	1.2	2.8
Detroit-Warren-Livonia, MI	103	59	34	47	45	2.3	1.3	0.8	1.1	1.0
Hartford-WestHartford-East Hartford, CT	5	7	10	8	10	0.4	0.6	0.8	0.7	0.8
Houston-Baytown-Sugar Land, TX	246	207	291	468	555	4.7	3.9	5.3	8.3	9.9
Indianapolis, IN	24	19	18	20	56	1.5	1.2	1.1	1.2	3.3
Jacksonville, FL	75	56	56	51	86	6.1	4.5	4.4	3.9	6.6
Kansas City, MO-KS	23	51	41	70	79	1.2	2.6	2.1	3.5	4.0
Las Vegas-Paradise, NV	19	57	112	170	166	1.2	3.3	6.3	9.3	9.0
Los Angeles-Long Beach-Santa Ana, CA	445	666	851	893	910	3.4	5.2	6.6	6.9	7.1
Louisville, KY-IN	16	16	18	12	20	1.3	1.3	1.5	1.0	1.6
Memphis, TN-MS-AR	170	171	174	222	199	13.6	13.6	13.7	17.3	15.5
Miami-Fort Lauderdale-Miami Beach, FL	477	302	304	440	563	8.9	5.6	5.6	8.1	10.4
Milwaukee-Waukesha-West Allis, WI	37	36	46	65	60	2.4	2.4	3.0	4.2	3.9
Minneapolis-St. Paul-Bloomington, MN-WI	19	43	52	54	43	0.6	1.4	1.6	1.7	1.3
Nashville-Davidson-Murfreesboro, TN	30	29	42	56	54	2.1	2.0	2.9	3.7	3.5
New Orleans-Metairie-Kenner, LA	85	68	127	222	239	6.4	5.2	12.4	21.5	23.2
New York-Newark-Edison, NY-NJ-PA	1,012	1,281	1,178	1,360	1,628	5.4	6.8	6.3	7.2	8.7
Oklahoma City, OK	47	36	74	65	72	4.1	3.1	6.3	5.4	6.0
Orlando, FL	90	124	91	160	148	4.8	6.4	4.6	7.9	7.3
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	220	171	280	310	305	3.8	2.9	4.8	5.3	5.2
Phoenix-Mesa-Scottsdale, AZ	165	97	166	165	160	4.4	2.5	4.1	3.9	3.8
Pittsburgh, PA	8	28	43	45	43	0.3	1.2	1.8	1.9	1.8
Portland-Vancouver-Beaverton, OR-WA	23	12	9	5	11	1.1	0.6	0.4	0.2	0.5
Providence-New Bedford-Fall River, RI-MA	25	10	9	12	13	1.5	0.6	0.6	0.7	0.8
Richmond, VA	18	24	29	45	81	1.6	2.0	2.4	3.7	6.7
Riverside-San Bernardino-Ontario, CA	40	64	64	49	89	1.1	1.6	1.6	1.2	2.2
Rochester, NY	4	13	8	5	5	0.4	1.3	0.8	0.5	0.5
Sacramento-Arden-Arcade-Roseville, CA	11	11	23	16	39	0.5	0.5	1.1	0.8	1.9
Salt Lake City, UT	5	3	5	2	10	0.5	0.3	0.5	0.2	0.9
San Antonio, TX	79	144	172	115	203	4.3	7.6	8.9	5.8	10.2
San Diego-Carlsbad-San Marcos, CA	84	117	123	156	179	2.9	4.0	4.2	5.2	6.0
San Francisco-Oakland-Fremont, CA	235	220	220	200	281	5.7	5.3	5.3	4.8	6.7
San Jose-Sunnyvale-Santa Clara, CA	13	18	18	25	25	0.7	1.0	1.0	1.4	1.4
Seattle-Tacoma-Bellevue, WA	42	60	74	70	91	1.3	1.9	2.3	2.1	2.7
St. Louis, MO-IL	31	34	30	57	70	1.1	1.2	1.1	2.0	2.5
Tampa-St. Petersburg-Clearwater, FL	103	101	177	294	275	4.0	3.8	6.6	10.8	10.1
Virginia Beach-Norfolk-Newport News, VA-NC	45	78	74	54	69	2.7	4.7	4.5	3.3	4.2
Washington-Arlington-Alexandria, DC-VA-MD-WV	182	208	171	265	224	3.5	4.0	3.2	5.0	4.2
U.S. MSA TOTAL	5,774	6,338	6,997	8,034	9,201	3.7	4.0	4.3	4.9	5.7

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

Table 37. Late and late latent syphilis* – Reported cases and rates by state/area and region listed in alphabetical order: United States and outlying areas, 2004–2008

State/Area	Cases					Rates per 100,000 Population				
	2004	2005	2006	2007	2008	2004	2005	2006	2007	2008
Alabama	232	193	262	254	286	5.1	4.2	5.7	5.5	6.2
Alaska	6	5	8	6	6	0.9	0.8	1.2	0.9	0.9
Arizona	572	455	521	650	789	10.0	7.7	8.4	10.3	12.4
Arkansas	142	124	92	122	149	5.2	4.5	3.3	4.3	5.3
California	2,293	2,527	2,773	2,777	2,995	6.4	7.0	7.6	7.6	8.2
Colorado	90	70	73	63	133	2.0	1.5	1.5	1.3	2.7
Connecticut	108	88	106	87	109	3.1	2.5	3.0	2.5	3.1
Delaware	26	15	38	31	20	3.1	1.8	4.5	3.6	2.3
District of Columbia	174	148	120	153	147	31.4	26.9	20.6	26.0	25.0
Florida	1,364	1,422	1,445	1,830	2,272	7.8	8.0	8.0	10.0	12.4
Georgia	701	898	977	1,142	1,345	7.9	9.9	10.4	12.0	14.1
Hawaii	25	42	46	38	30	2.0	3.3	3.6	3.0	2.3
Idaho	25	21	6	10	13	1.8	1.5	0.4	0.7	0.9
Illinois	614	663	760	522	720	4.8	5.2	5.9	4.1	5.6
Indiana	164	182	111	121	128	2.6	2.9	1.8	1.9	2.0
Iowa	19	13	43	37	48	0.6	0.4	1.4	1.2	1.6
Kansas	49	51	41	44	41	1.8	1.9	1.5	1.6	1.5
Kentucky	79	54	78	63	77	1.9	1.3	1.9	1.5	1.8
Louisiana	979	696	551	516	485	21.7	15.4	12.9	12.0	11.3
Maine	5	3	6	7	7	0.4	0.2	0.5	0.5	0.5
Maryland	399	387	526	482	374	7.2	6.9	9.4	8.6	6.7
Massachusetts	307	168	172	128	114	4.8	2.6	2.7	2.0	1.8
Michigan	470	297	210	262	227	4.6	2.9	2.1	2.6	2.3
Minnesota	96	89	83	72	102	1.9	1.7	1.6	1.4	2.0
Mississippi	212	160	237	305	320	7.3	5.5	8.1	10.4	11.0
Missouri	114	114	166	124	171	2.0	2.0	2.8	2.1	2.9
Montana	0	0	1	0	2	0.0	0.0	0.1	0.0	0.2
Nebraska	8	12	26	23	21	0.5	0.7	1.5	1.3	1.2
Nevada	189	169	117	104	71	8.1	7.0	4.7	4.1	2.8
New Hampshire	21	17	20	9	17	1.6	1.3	1.5	0.7	1.3
New Jersey	319	375	297	345	364	3.7	4.3	3.4	4.0	4.2
New Mexico	97	68	66	62	96	5.1	3.5	3.4	3.1	4.9
New York	2,979	2,054	2,833	2,766	2,903	15.5	10.7	14.7	14.3	15.0
North Carolina	285	213	352	516	480	3.3	2.5	4.0	5.7	5.3
North Dakota	0	0	2	1	2	0.0	0.0	0.3	0.2	0.3
Ohio	148	153	192	219	185	1.3	1.3	1.7	1.9	1.6
Oklahoma	79	50	58	33	51	2.2	1.4	1.6	0.9	1.4
Oregon	50	52	51	33	53	1.4	1.4	1.4	0.9	1.4
Pennsylvania	273	308	335	264	313	2.2	2.5	2.7	2.1	2.5
Rhode Island	62	35	51	30	30	5.7	3.3	4.8	2.8	2.8
South Carolina	194	239	155	176	120	4.6	5.6	3.6	4.0	2.7
South Dakota	0	2	10	1	2	0.0	0.3	1.3	0.1	0.3
Tennessee	459	493	527	537	548	7.8	8.3	8.7	8.7	8.9
Texas	2,244	2,336	2,501	2,780	3,071	10.0	10.2	10.6	11.6	12.8
Utah	59	33	38	23	5	2.5	1.3	1.5	0.9	0.2
Vermont	2	0	2	0	1	0.3	0.0	0.3	0.0	0.2
Virginia	380	361	343	328	281	5.1	4.8	4.5	4.3	3.6
Washington	135	144	160	135	159	2.2	2.3	2.5	2.1	2.5
West Virginia	6	12	13	11	14	0.3	0.7	0.7	0.6	0.8
Wisconsin	43	37	42	12	43	0.8	0.7	0.8	0.2	0.8
Wyoming	3	1	1	2	5	0.6	0.2	0.2	0.4	1.0
U.S. TOTAL	17,300	16,049	17,644	18,256	19,945	5.9	5.4	5.9	6.1	6.6
Northeast	4,076	3,048	3,822	3,636	3,858	7.5	5.6	7.0	6.6	7.1
Midwest	1,725	1,613	1,686	1,438	1,690	2.6	2.4	2.5	2.2	2.5
South	7,955	7,801	8,275	9,279	10,040	7.5	7.3	7.6	8.4	9.1
West	3,544	3,587	3,861	3,903	4,357	5.3	5.3	5.6	5.6	6.2
Guam	13	16	7	24	37	7.8	9.5	4.1	13.8	21.3
Puerto Rico	608	554	535	682	381	15.6	14.2	13.6	17.3	9.7
Virgin Islands	4	5	4	4	1	3.7	4.6	3.7	3.6	0.9
OUTLYING AREAS	625	575	546	710	419	15.0	13.7	13.0	16.8	9.9
TOTAL	17,925	16,624	18,190	18,966	20,364	6.0	5.5	6.0	6.2	6.7

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

Table 38. Late and late latent syphilis* — Reported cases and rates in selected metropolitan statistical areas† (MSAs) listed in alphabetical order: United States, 2004–2008

Metropolitan Statistical Area	Cases					Rates per 100,000 Population				
	2004	2005	2006	2007	2008	2004	2005	2006	2007	2008
Atlanta-Sandy Springs-Marietta, GA	522	714	814	929	1,068	11.1	14.5	15.8	17.6	20.2
Austin-Round Rock, TX	85	89	74	94	127	6.0	6.1	4.9	5.9	7.9
Baltimore-Towson, MD	195	209	283	236	186	7.4	7.9	10.6	8.8	7.0
Birmingham-Hoover, AL	40	57	94	93	110	3.7	5.2	8.5	8.4	9.9
Boston-Cambridge-Quincy, MA-NH	256	149	147	98	86	5.8	3.4	3.3	2.2	1.9
Buffalo-Cheektowaga-Tonawanda, NY	11	4	7	9	7	1.0	0.3	0.6	0.8	0.6
Charlotte-Gastonia-Concord, NC-SC	45	61	83	133	100	3.1	4.0	5.2	8.1	6.1
Chicago-Naperville-Joliet, IL-IN-WI	576	611	687	469	650	6.1	6.5	7.2	4.9	6.8
Cincinnati-Middletown, OH-KY-IN	24	18	37	31	20	1.2	0.9	1.8	1.5	0.9
Cleveland-Elyria-Mentor, OH	11	9	24	33	15	0.5	0.4	1.1	1.6	0.7
Columbus, OH	72	76	67	99	84	4.3	4.4	3.9	5.6	4.8
Dallas-Fort Worth-Arlington, TX	701	792	809	881	934	12.3	13.6	13.5	14.3	15.2
Denver-Aurora, CO	56	51	51	43	98	2.4	2.2	2.1	1.7	4.0
Detroit-Warren-Livonia, MI	400	238	155	187	154	8.9	5.3	3.5	4.2	3.4
Hartford-WestHartford-East Hartford, CT	28	35	32	27	51	2.4	2.9	2.7	2.3	4.3
Houston-Baytown-Sugar Land, TX	783	685	856	1,032	1,024	15.1	13.0	15.5	18.3	18.2
Indianapolis, IN	68	80	56	49	53	4.2	4.9	3.4	2.9	3.1
Jacksonville, FL	70	41	63	102	153	5.7	3.3	4.9	7.8	11.8
Kansas City, MO-KS	40	53	75	49	55	2.1	2.7	3.8	2.5	2.8
Las Vegas-Paradise, NV	167	139	95	85	52	10.1	8.1	5.3	4.6	2.8
Los Angeles-Long Beach-Santa Ana, CA	1,451	1,649	1,759	1,588	1,722	11.2	12.8	13.6	12.3	13.4
Louisville, KY-IN	60	40	42	33	34	5.0	3.3	3.4	2.7	2.8
Memphis, TN-MS-AR	242	272	287	326	306	19.4	21.6	22.5	25.5	23.9
Miami-Fort Lauderdale-Miami Beach, FL	769	742	773	997	1,326	14.3	13.7	14.1	18.4	24.5
Milwaukee-Waukesha-West Allis, WI	28	18	16	9	32	1.8	1.2	1.1	0.6	2.1
Minneapolis-St. Paul-Bloomington, MN-WI	79	74	65	59	75	2.5	2.4	2.0	1.8	2.3
Nashville-Davidson-Murfreesboro, TN	145	126	112	100	138	10.4	8.9	7.7	6.6	9.1
New Orleans-Metairie-Kenner, LA	259	190	133	157	75	19.6	14.4	13.0	15.2	7.3
New York-Newark-Edison, NY-NJ-PA	3,058	2,241	2,905	2,913	3,089	16.3	12.0	15.4	15.5	16.4
Oklahoma City, OK	42	28	18	12	26	3.7	2.4	1.5	1.0	2.2
Orlando, FL	106	183	217	277	184	5.7	9.5	10.9	13.6	9.1
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	361	284	315	253	287	6.2	4.9	5.4	4.3	4.9
Phoenix-Mesa-Scottsdale, AZ	468	363	424	486	468	12.6	9.4	10.5	11.6	11.2
Pittsburgh, PA	2	15	18	17	17	0.1	0.6	0.8	0.7	0.7
Portland-Vancouver-Beaverton, OR-WA	35	43	40	34	32	1.7	2.1	1.9	1.6	1.5
Providence-New Bedford-Fall River, RI-MA	81	37	65	44	33	5.0	2.3	4.0	2.7	2.1
Richmond, VA	56	50	49	46	53	4.9	4.3	4.1	3.8	4.4
Riverside-San Bernardino-Ontario, CA	174	208	203	194	202	4.6	5.3	5.0	4.8	4.9
Rochester, NY	25	17	68	55	37	2.4	1.6	6.6	5.3	3.6
Sacramento-Arden-Arcade-Roseville, CA	33	8	78	40	100	1.6	0.4	3.8	1.9	4.8
Salt Lake City, UT	42	23	21	14	2	4.1	2.2	2.0	1.3	0.2
San Antonio, TX	164	178	156	142	190	8.8	9.4	8.0	7.1	9.5
San Diego-Carlsbad-San Marcos, CA	124	133	202	273	292	4.2	4.5	6.9	9.2	9.8
San Francisco-Oakland-Fremont, CA	258	165	156	263	277	6.2	4.0	3.7	6.3	6.6
San Jose-Sunnyvale-Santa Clara, CA	39	56	22	76	84	2.2	3.2	1.2	4.2	4.7
Seattle-Tacoma-Bellevue, WA	93	100	122	99	115	2.9	3.1	3.7	3.0	3.5
St. Louis, MO-IL	85	86	89	82	129	3.1	3.1	3.2	2.9	4.6
Tampa-St. Petersburg-Clearwater, FL	110	139	140	119	212	4.3	5.2	5.2	4.4	7.8
Virginia Beach-Norfolk-Newport News, VA-NC	100	105	85	89	80	6.1	6.4	5.2	5.4	4.8
Washington-Arlington-Alexandria, DC-VA-MD-WV	511	453	496	514	425	9.9	8.7	9.4	9.7	8.0
U.S. MSA TOTAL	13,150	12,137	13,585	13,990	15,069	8.3	7.6	8.4	8.6	9.3

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

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

Table 39. Congenital syphilis—Reported cases and rates in infants <1 year of age by state, ranked by rates: United States, 2008

Rank*	State†	Cases	Rate per 100,000 Live Births
1	Louisiana	23	36.3
2	Texas	127	31.8
3	Maryland	23	29.7
4	Arizona	30	29.3
5	Nevada	9	22.5
6	Arkansas	9	22.0
7	Alabama	12	19.0
8	New Mexico	4	13.4
9	Tennessee	10	11.9
10	Illinois	20	11.1
11	California	62	11.0
	U.S. TOTAL‡	431	10.1
12	New York	23	9.2
13	Michigan	10	7.8
14	North Carolina	10	7.8
15	Georgia	11	7.4
16	Florida	17	7.2
17	Oklahoma	3	5.6
18	Pennsylvania	8	5.4
19	Connecticut	2	4.8
20	West Virginia	1	4.8
21	Virginia	4	3.7
22	New Jersey	4	3.5
23	South Carolina	2	3.2
24	Missouri	2	2.5
25	Ohio	3	2.0
26	Kentucky	1	1.7
27	Wisconsin	1	1.4
	YEAR 2010 TARGET		1.0
	Alaska	0	0.0
	Colorado	0	0.0
	Delaware	0	0.0
	Hawaii	0	0.0
	Idaho	0	0.0
	Indiana	0	0.0
	Iowa	0	0.0
	Kansas	0	0.0
	Maine	0	0.0
	Massachusetts	0	0.0
	Minnesota	0	0.0
	Mississippi	0	0.0
	Montana	0	0.0
	Nebraska	0	0.0
	New Hampshire	0	0.0
	North Dakota	0	0.0
	Oregon	0	0.0
	Rhode Island	0	0.0
	South Dakota	0	0.0
	Utah	0	0.0
	Vermont	0	0.0
	Washington	0	0.0
	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 0 cases and a rate of 0.0, but excludes outlying areas (Guam with 0 cases and rate of 0.0, Puerto Rico with 8 cases and rate of 16.5, and Virgin Islands with 0 cases and rate of 0.0).

Table 40. 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, 2004–2008

State/Area*	Cases					Rates per 100,000 Live Births				
	2004	2005	2006	2007	2008	2004	2005	2006	2007	2008
Alabama	11	5	9	9	12	18.5	8.3	14.2	14.2	19.0
Alaska	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Arizona	26	28	16	30	30	27.8	29.1	15.6	29.3	29.3
Arkansas	4	7	10	12	9	10.4	17.9	24.4	29.3	22.0
California	68	75	69	87	62	12.5	13.7	12.3	15.5	11.0
Colorado	2	1	2	2	0	2.9	1.5	2.8	2.8	0.0
Connecticut	0	1	0	2	2	0.0	2.4	0.0	4.8	4.8
Delaware	1	0	0	0	0	8.8	0.0	0.0	0.0	0.0
District of Columbia	1	0	1	1	0	12.6	0.0	11.7	11.7	0.0
Florida	16	16	21	20	17	7.3	7.1	8.9	8.4	7.2
Georgia	6	1	9	9	11	4.3	0.7	6.1	6.1	7.4
Hawaii	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Idaho	3	0	0	0	0	13.3	0.0	0.0	0.0	0.0
Illinois	26	23	15	10	20	14.4	12.8	8.3	5.5	11.1
Indiana	4	2	0	2	0	4.6	2.3	0.0	2.3	0.0
Iowa	0	0	0	1	0	0.0	0.0	0.0	2.5	0.0
Kansas	2	0	1	0	0	5.0	0.0	2.4	0.0	0.0
Kentucky	1	0	1	0	1	1.8	0.0	1.7	0.0	1.7
Louisiana	19	13	16	37	23	29.1	21.3	25.2	58.4	36.3
Maine	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Maryland	10	16	19	23	23	13.4	21.3	24.5	29.7	29.7
Massachusetts	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Michigan	23	17	13	15	10	17.7	13.3	10.2	11.8	7.8
Minnesota	1	3	1	0	0	1.4	4.2	1.4	0.0	0.0
Mississippi	3	0	0	0	0	7.0	0.0	0.0	0.0	0.0
Missouri	3	3	3	1	2	3.9	3.8	3.7	1.2	2.5
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	1	1	16	7	9	2.8	2.7	40.0	17.5	22.5
New Hampshire	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
New Jersey	13	16	15	11	4	11.3	14.1	13.0	9.6	3.5
New Mexico	3	6	7	6	4	10.6	20.8	23.4	20.0	13.4
New York	22	10	24	16	23	8.8	4.1	9.6	6.4	9.2
North Carolina	9	11	7	7	10	7.5	8.9	5.5	5.5	7.8
North Dakota	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Ohio	2	2	0	1	3	1.3	1.3	0.0	0.7	2.0
Oklahoma	2	1	2	3	3	3.9	1.9	3.7	5.6	5.6
Oregon	0	0	0	2	0	0.0	0.0	0.0	4.1	0.0
Pennsylvania	0	1	3	8	8	0.0	0.7	2.0	5.4	5.4
Rhode Island	1	0	0	0	0	7.8	0.0	0.0	0.0	0.0
South Carolina	10	4	2	1	2	17.7	6.9	3.2	1.6	3.2
South Dakota	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Tennessee	9	4	6	4	10	11.3	4.9	7.1	4.7	11.9
Texas	65	67	79	99	127	17.0	17.4	19.8	24.8	31.8
Utah	1	0	2	0	0	2.0	0.0	3.7	0.0	0.0
Vermont	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Virginia	6	3	3	1	4	5.8	2.9	2.8	0.9	3.7
Washington	0	0	0	2	0	0.0	0.0	0.0	2.3	0.0
West Virginia	0	0	0	1	1	0.0	0.0	0.0	4.8	4.8
Wisconsin	1	2	0	1	1	1.4	2.8	0.0	1.4	1.4
Wyoming	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
U.S. TOTAL	375	339	372	431	431	9.1	8.2	8.7	10.1	10.1
Northeast	36	28	42	37	37	5.3	4.2	6.2	5.4	5.4
Midwest	62	52	33	31	36	7.0	5.9	3.7	3.4	4.0
South	173	148	185	227	253	11.3	9.6	11.5	14.1	15.7
West	104	111	112	136	105	10.2	10.8	10.5	12.7	9.8
Guam	0	1	0	2	0	0.0	31.4	0.0	59.0	0.0
Puerto Rico	11	13	15	10	8	21.5	25.7	30.9	20.6	16.5
Virgin Islands	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
OUTLYING AREAS	11	14	15	12	8	19.6	25.3	27.9	22.4	14.9
TOTAL	386	353	387	443	439	9.3	8.4	9.0	10.3	10.2

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

Table 41. Congenital Syphilis—Reported cases and rates in infants <1 year of age by race/ethnicity of mother: United States, 2004–2008

Year of Birth	Race/Ethnicity	Cases	Rate per 100,000 Live Births
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	26.6
	Hispanic	124	12.6
	Asian/Pacific Islander	15	6.8
	American Indian/Alaska Native	5	12.2
	Other	2	NA
	Unknown	6	NA
	TOTAL	339	8.2
2006	White, Non-Hispanic	39	1.7
	Black, Non-Hispanic	151	24.3
	Hispanic	151	14.5
	Asian/Pacific Islander	10	4.3
	American Indian/Alaska Native	5	11.7
	Other	5	NA
	Unknown	11	NA
	TOTAL	372	8.7
2007	White, Non-Hispanic	53	2.3
	Black, Non-Hispanic	191	30.7
	Hispanic	144	13.9
	Asian/Pacific Islander	20	8.6
	American Indian/Alaska Native	8	18.7
	Other	4	NA
	Unknown	11	NA
	TOTAL	431	10.1
2008	White, Non-Hispanic	65	2.8
	Black, Non-Hispanic	215	34.6
	Hispanic	133	12.8
	Asian/Pacific Islander	7	3.0
	American Indian/Alaska Native	6	14.0
	Other	1	NA
	Unknown	4	NA
	TOTAL	431	10.1

NA = Not applicable.

Table 42. Chancroid—Reported cases and rates by state/area listed in alphabetical order: United States and outlying areas, 2004–2008

State/Area	Cases					Rates per 100,000 Population				
	2004	2005	2006	2007	2008	2004	2005	2006	2007	2008
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	1	0	0	0	0.0	0.0	0.0	0.0	0.0
Arkansas	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
California	1	1	0	1	2	0.0	0.0	0.0	0.0	0.0
Colorado	0	0	0	0	2	0.0	0.0	0.0	0.0	0.0
Connecticut	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Delaware	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
District of Columbia	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Florida	1	1	1	3	0	0.0	0.0	0.0	0.0	0.0
Georgia	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Hawaii	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Idaho	2	0	0	0	0	0.1	0.0	0.0	0.0	0.0
Illinois	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Indiana	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Iowa	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Kansas	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Kentucky	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Louisiana	2	4	1	4	0	0.0	0.1	0.0	0.1	0.0
Maine	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Maryland	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Massachusetts	3	1	0	1	4	0.0	0.0	0.0	0.0	0.1
Michigan	2	0	1	0	0	0.0	0.0	0.0	0.0	0.0
Minnesota	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Mississippi	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Missouri	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Montana	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Nebraska	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Nevada	1	0	0	0	0	0.0	0.0	0.0	0.0	0.0
New Hampshire	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
New Jersey	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
New Mexico	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
New York	4	1	5	5	2	0.0	0.0	0.0	0.0	0.0
North Carolina	1	5	5	2	4	0.0	0.1	0.1	0.0	0.0
North Dakota	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Ohio	0	1	0	0	1	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	1	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Pennsylvania	1	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Rhode Island	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
South Carolina	4	0	0	0	1	0.1	0.0	0.0	0.0	0.0
South Dakota	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Tennessee	1	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Texas	3	1	5	5	8	0.0	0.0	0.0	0.0	0.0
Utah	1	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Vermont	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Virginia	0	0	1	0	0	0.0	0.0	0.0	0.0	0.0
Washington	0	0	0	0	1	0.0	0.0	0.0	0.0	0.0
West Virginia	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Wisconsin	0	0	0	2	0	0.0	0.0	0.0	0.0	0.0
Wyoming	0	1	0	0	0	0.0	0.2	0.0	0.0	0.0
U.S. TOTAL	30	17	19	23	25	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	1	3	0	0	0	0.0	0.1	0.0	0.0	0.0
Virgin Islands	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
OUTLYING AREAS	1	3	0	0	0	0.0	0.1	0.0	0.0	0.0
TOTAL	31	20	19	23	25	0.0	0.0	0.0	0.0	0.0

Table 43. Selected STDs and complications—Initial visits to physicians' offices, National Disease and Therapeutic Index: United States, 1966–2008

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

* 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 between 13% and 16%; and 1,000,000–5,000,000 are between 9% and 13%.

SOURCE: IMS Health, Integrated Promotional Services, IMS Health Report, 1966–2008 Hardcopy. See Appendix (Other Data Sources) for more information.

APPENDIX

APPENDIX

Interpreting STD Surveillance Data

Sexually Transmitted Disease Surveillance, 2008 presents surveillance information derived from the official statistics for the reported occurrence of nationally notifiable STDs in the United States, test positivity and prevalence data from numerous prevalence monitoring initiatives, sentinel surveillance of gonococcal antimicrobial resistance, and national health care services surveys.

Nationally Notifiable STD Surveillance

Nationally notifiable STD surveillance data are collected and compiled from reports sent by the STD control programs and health departments in 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, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention, Centers for Disease Control and Prevention. 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: 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: 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 (42 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 via NETSS and on hardcopy forms through June 10, 2009 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

2000–2008 Rates and Population

The National Center for Health Statistics released bridged race population counts for 2000–2007 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 2007–2008 rates for outlying areas were calculated using the 2007 population estimates.

Because of use of the updated population data, rates for the period 2000–2007 may be different from prior Surveillance Reports.

1990–1999 Rates and Population

The population counts for 1990 through 1999 incorporated the bridged single-race estimates of the April 1, 2000 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 through 1980 are based on population estimates from the Bureau of Census and currently maintained by the Division of STD Prevention (DSTDP).

1941–2008 Congenital Syphilis Rates and Live Births

Congenital syphilis (CS) data in Table 1 of *Sexually Transmitted Disease Surveillance 2008* represent the number of congenital syphilis cases per 100,000 live births for all years during the period 1941 through 2008. Previous publications presented congenital syphilis rates per 100,000 population for 1941 through

1994 and rates for cases diagnosed at younger than 1 year of age per 100,000 live births for 1995 through 2007. To allow for trends in congenital syphilis rates to be compared over the period 1941 through 2008, live births are used as the denominator for congenital syphilis and case counts are no longer limited to those diagnosed within the first year of life. Congenital syphilis morbidity (i.e., case reports) is assigned by year of birth. Rates of congenital syphilis for 1963 through 1988 were calculated using published live birth data (NCHS; Vital Statistics Report, United States, 1988 [Vol.1-Natality]). Congenital syphilis rates for 1989 through 2006 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 2007 through 2008 were calculated using live birth data for 2006.

Reporting Practices

Although most state and local STD programs generally adhere to the national notifiable STD case definitions collaboratively developed by the Council of State and Territorial Epidemiologists and CDC, 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 state and local STD jurisdictions, the reporting from publicly supported institutions (e.g., STD clinics) has been more complete than from other sources (e.g., private practitioners). Thus, trends may not be representative of all segments of the population.

Reporting of Metropolitan Statistical Area-specific Surveillance Data

Sexually Transmitted Disease Surveillance, 2008 continues the presentation of STD incidence data and rates for the fifty 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.

MSAs are defined by the OMB 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. STD programs that treat all parts of an MSA as if they were as urban as the densely settled core ignore the rural conditions that may exist in some parts of the area. In short, MSAs are not 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 greater than 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 1984 through 2008 are presented as STD clinic or non-STD clinic only (Table A2).

Definition of DHHS Regions

The ten U.S. 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

Trends in chlamydia morbidity reporting from many state and local jurisdictions are more reflective of changes in diagnostic, screening, and reporting practices than of actual trends in disease incidence. In particular, morbidity trends are likely highly influenced by changes in test technology, as use of more sensitive NAATs tests increases. As more jurisdictions 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.

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 state and local STD programs greatly enhanced active case finding for congenital syphilis since 1988. For these reasons, as well as increasing morbidity, the number of reported cases increased dramatically between 1989 and 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 1995 through 2008.

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 were calculated for the following: women attending family planning clinics and prenatal clinics, men and women entering the National Job Training Program, and men and women entering corrections facilities. In addition, chlamydia test positivity was calculated for women attending Indian Health Service clinics. Syphilis seroreactivity was calculated for men who have sex with men attending STD clinics in the MSM Prevalence Monitoring Project. 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 these 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.

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.

Because only selected corrections facilities participated in the Prevalence Monitoring Project, state-specific positivity for 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 IPP, 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 GISP, a sentinel system of selected STD clinics in approximately 25-30 GISP sentinel sites and 4-5 regional laboratories in the United States. For more details on findings from GISP, refer to the GISP website at <http://www.cdc.gov/std/GISP>.

For 2008, the antimicrobial agents tested in GISP were: ceftriaxone, azithromycin, spectinomycin, ciprofloxacin, penicillin, and tetracycline.

Below are the antimicrobial susceptibility criteria used in GISP for 2008. The majority of the antimicrobial susceptibility criteria are also recommended by the Clinical and Laboratory Standards Institute (CLSI):³⁻⁶

- * Ceftriaxone, MIC \geq 0.5 $\mu\text{g/ml}$ (decreased susceptibility)
- * Azithromycin, MIC \geq 2.0 $\mu\text{g/ml}$ (decreased susceptibility)
- Spectinomycin, MIC \geq 128.0 $\mu\text{g/ml}$ (resistance)
- Ciprofloxacin, MIC 0.125 - 0.5 $\mu\text{g/ml}$ (intermediate resistance)
- Ciprofloxacin, MIC \geq 1.0 $\mu\text{g/ml}$ (resistance)
- Penicillin, MIC \geq 2.0 $\mu\text{g/ml}$ (resistance)
- Tetracycline, MIC \geq 2.0 $\mu\text{g/ml}$ (resistance)

NOTE: The CLSI criteria for decreased susceptibility and resistance to ceftriaxone and azithromycin and for susceptibility to azithromycin have not been established for *N. gonorrhoeae*.

Other Surveillance Data Sources

National Health and Nutrition Examination Survey (NHANES)

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

interviews, standardized physical examinations, and the collection of biological samples in special mobile examination centers. In 1999, NHANES became a continuous survey with data released every 2 years. The sampling plan of the survey is a stratified, multistage, probability cluster design that selects a sample representative of the U.S. civilian noninstitutionalized population.

National Disease and Therapeutic Index (NDTI)

The information on the number of initial visits to private physicians' offices for STDs was based on analysis of data from NDTI (machine-readable files or summary statistics for 1966 through 2008). 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 PID or ectopic pregnancy was based on analysis of data from the National Hospital Discharge Survey (machine-readable files for 1980 through 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.*

The estimates generated using NHDS data are based on statistical surveys and therefore have sampling variability associated with the estimates.

Healthy People 2010 Objectives

Healthy People 2010⁷ is a set of health objectives for the United States 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, HP2010 was developed through a broad consultation process, built on the best scientific knowledge and designed to measure programs over time. HP2010 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 HP2010—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.

HP 2010 targets were based on a national baseline. For most HP2010 objectives, one target was set for all population groups to reach by the year 2010, and

was set as a “better than the best” measure for any racial or ethnic group at the baseline. For example, at the 1997 baseline for objective 25-2, gonorrhea rate per 100,000 population, the Asian/Pacific Islander group had the “best” rate of 20 cases per 100,000 population. Using the “better than the best” methodology resulted in the target for that objective being set at 19 per 100,000 population, even though the overall rate for the U.S. in 1997 was 123 cases per 100,000 population.

Government Performance and Results Act of 1993 (GPRA) Goals

GPRA of 1993 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 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. *Sex Transm Dis* 1977;4:135-9.

³ National Committee for Clinical Laboratory Standards. 1993. Approved standard M7 - A3. Methods for dilution antimicrobial susceptibility tests for bacteria that grow aerobically. National Committee for Clinical Laboratory Standards, Villanova, PA.

⁴ National Committee for Clinical Laboratory Standards. 1998. Approved standard M100-38. Performance standards for antimicrobial susceptibility testing. National Committee for Clinical Laboratory Standards, Wayne, PA.

⁵ National Committee for Clinical Laboratory Standards. 2002. Approved standard M100-S12, 22. Performance standards for antimicrobial susceptibility testing. National Committee for Clinical Laboratory Standards, Wayne, PA.

⁶ Clinical and Laboratory Standards Institute. January 2007. Approved standard M100-S17, 27 (1). Performance standards for antimicrobial susceptibility testing; Seventeenth Informational Supplement.

⁷ 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, 2008

State	Primary and Secondary Syphilis				Gonorrhea			Chlamydia		
	Percent Unknown Race/Ethnicity	Percent Unknown Age	Percent Unknown Sex	Percent Unknown Sex Partner	Percent Unknown Race/Ethnicity	Percent Unknown Age	Percent Unknown Sex	Percent Unknown Race/Ethnicity	Percent Unknown Age	Percent Unknown Sex
Alabama	2.2	0.0	0.0	2.2	23.5	0.0	0.1	27.2	0.0	0.0
Alaska*	0.0	0.0	0.0	100.0	0.3	0.0	0.0	0.5	0.0	0.0
Arizona	2.8	0.0	0.0	58.0	21.8	0.0	0.1	28.6	0.0	0.0
Arkansas	0.0	0.0	0.0	30.6	7.4	0.0	0.0	6.1	0.0	0.0
California	3.4	0.0	0.1	10.1	32.2	0.0	0.5	34.2	0.0	0.4
Colorado	3.1	0.0	0.0	12.5	30.5	0.0	0.1	59.7	0.0	0.2
Connecticut	2.9	0.0	0.0	2.9	25.1	0.0	0.1	36.8	0.0	0.1
Delaware	0.0	0.0	0.0	100.0	2.4	0.0	0.0	3.2	0.0	0.0
District of Columbia	2.7	0.0	0.0	26.0	28.7	0.0	0.5	36.6	0.0	0.7
Florida	5.9	0.0	0.1	3.1	13.0	0.0	0.2	17.4	0.0	0.3
Georgia	0.8	0.0	0.0	20.7	39.3	0.0	0.7	47.6	0.0	1.0
Hawaii	0.0	0.0	0.0	0.0	33.8	0.0	0.0	50.3	0.0	0.0
Idaho*	28.6	0.0	0.0	28.6	27.8	0.0	0.0	30.0	0.0	0.3
Illinois	4.0	0.0	0.0	27.1	8.8	0.0	0.0	12.1	0.0	0.0
Indiana	0.0	0.0	0.0	7.9	12.6	0.0	0.2	16.6	0.0	0.3
Iowa	0.0	0.0	0.0	18.8	7.1	0.0	0.0	11.0	0.0	0.0
Kansas	0.0	0.0	0.0	6.7	21.6	0.0	0.0	32.7	0.0	0.0
Kentucky	5.4	0.0	0.0	21.5	29.6	0.0	0.2	36.2	0.0	0.3
Louisiana	1.1	0.0	0.0	100.0	14.0	0.0	0.5	18.8	0.0	0.8
Maine	0.0	0.0	0.0	0.0	5.2	0.0	0.0	15.7	0.0	0.0
Maryland	0.8	0.0	0.0	10.6	29.0	0.0	0.1	36.2	0.0	0.1
Massachusetts	5.1	0.0	0.0	6.9	27.5	0.0	0.1	36.8	0.0	0.1
Michigan	2.4	0.0	0.0	17.1	39.8	0.0	0.8	42.1	0.0	0.4
Minnesota	3.4	0.0	0.0	9.5	13.3	0.0	0.0	15.3	0.0	0.0
Mississippi	2.7	0.0	0.0	1.6	21.1	0.0	0.0	25.0	0.0	0.0
Missouri	0.0	0.0	0.0	1.3	15.2	0.0	0.0	23.2	0.0	0.0
Montana*	14.3	0.0	0.0	100.0	32.8	0.0	0.8	24.9	0.0	0.3
Nebraska	20.0	0.0	0.0	33.3	24.0	0.0	0.1	34.2	0.0	0.2
Nevada	18.2	0.0	0.0	2.6	27.8	0.0	0.0	37.8	0.0	0.0
New Hampshire	0.0	0.0	0.0	5.0	8.0	0.0	0.0	11.4	0.0	0.0
New Jersey	0.4	0.0	0.0	9.3	30.7	0.0	0.0	44.4	0.0	0.1
New Mexico	6.8	0.0	0.0	6.8	20.0	0.0	0.1	17.4	0.0	0.0
New York	9.7	0.0	0.0	19.5	35.1	0.0	0.0	44.7	0.0	0.0
North Carolina	0.0	0.0	0.0	100.0	7.4	0.0	0.5	9.5	0.0	0.4
North Dakota*	0.0	0.0	0.0	0.0	30.8	0.0	0.0	26.8	0.0	0.1
Ohio	7.4	0.0	0.0	8.0	26.0	0.0	1.9	33.6	0.0	2.7
Oklahoma	0.0	0.0	0.0	7.0	6.4	0.0	0.2	9.3	0.0	0.5
Oregon	3.8	0.0	0.0	100.0	8.2	0.0	0.0	17.1	0.0	0.0
Pennsylvania	4.0	0.0	0.0	1.1	20.5	0.0	0.0	22.7	0.0	0.0
Rhode Island	0.0	0.0	0.0	0.0	10.4	0.0	0.0	20.9	0.0	0.1
South Carolina	1.0	0.0	0.0	6.1	26.5	0.0	0.3	32.1	0.0	0.4
South Dakota*	0.0	0.0	0.0	0.0	1.9	0.0	0.0	2.7	0.0	0.1
Tennessee	0.0	0.0	0.0	1.2	7.1	0.0	0.0	10.0	0.0	0.0
Texas	0.6	0.0	0.0	2.3	4.4	0.0	0.1	5.1	0.0	0.1
Utah	0.0	0.0	0.0	16.0	0.0	0.0	0.0	0.0	0.0	0.0
Vermont	0.0	0.0	0.0	45.5	0.0	0.0	0.0	0.2	0.0	0.0
Virginia	0.4	0.0	0.0	2.6	14.7	0.0	0.1	23.6	0.0	0.2
Washington	4.4	0.0	0.0	1.7	24.0	0.0	0.2	23.4	0.0	0.3
West Virginia	0.0	0.0	0.0	23.1	9.0	0.0	0.0	13.9	0.0	0.0
Wisconsin	1.5	0.0	0.0	7.7	25.5	0.0	0.2	29.6	0.0	0.3
Wyoming*	33.3	0.0	0.0	100.0	26.6	0.0	0.0	35.3	0.0	0.2
U.S. TOTAL	3.2	0.0	0.0	18.3	20.3	0.0	0.3	26.4	0.0	0.3

* 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, 2008**

Disease	Non-STD Clinic			STD Clinic			Total		
	Male	Female	Total*	Male	Female	Total*	Male†	Female†	Total†
Chlamydia	189,994	719,718	911,842	95,798	89,943	185,879	313,779	893,004	1,210,523
Gonorrhea	89,741	136,913	227,213	49,495	27,825	77,368	153,103	182,577	336,742
Primary Syphilis	1,889	216	2,105	1,224	149	1,373	3,230	372	3,602
Secondary Syphilis	5,589	1,211	6,803	2,203	622	2,825	8,025	1,870	9,898
Early Latent Syphilis	6,054	2,330	8,387	2,696	997	3,695	8,997	3,399	12,401
Late and Late Latent Syphilis [§]	9,401	5,298	14,718	2,411	1,285	3,698	12,821	7,102	19,945
Chancroid	10	12	22	0	0	0	11	14	25

* Total includes unknown sex.

† Total includes unknown reporting source.

‡ Total includes unknown sex and reporting source.

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

Table A3. Healthy People 2010 Sexually Transmitted Diseases Objective Status

HP2010 Objectives		Baseline Year	Baseline	2004	2005	2006	2007	2008	HP 2010 Target
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%	6.9%	6.9%	7.1%	7.5%	7.8%	3.0%
	b. Females aged 15 to 24 years attending STD clinics*	1997	12.2%	15.3%	15.4%	14.8%	15.3%	16.3%	3.0%
	c. Males aged 15 to 24 years attending STD clinics*	1997	15.7%	20.8%	20.5%	20.8%	22.4%	23.7%	3.0%
	d. Females aged 24 years or less enrolled in National Job Training Program	2002	10.1%	9.7%	9.2%	13.1%	13.2%	12.8%	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	112.4	114.6	119.7	118.0	111.6	19.0
	b. Females aged 15 to 44 years	2002	279.0	267.0	275.0	289.0	291.0	285.0	42.0
25-3	Eliminate sustained domestic transmission of primary and secondary syphilis (cases per 100,000 population)	1997	3.2	2.7	2.9	3.3	3.8	4.5	0.2
25-4	Reduce the proportion of adults aged 20 to 29 years with genital herpes infection	1988-94	17.0%	10.0%†	NA	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%	NA	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%	NA	NA	NA	NA	NA	15.0%
25-9	Reduce congenital syphilis (cases per 100,000 live births)	1997	27.0	9.1	8.2	8.7	10.1	10.1	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	NA	53.0	NA	52.0	NA	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	NA	27.0	NA	27.0	NA	30.0
	c. Increase the proportion of adolescents (grades 9 through 12) who used condoms at last intercourse	1999	58.0	NA	63.0	NA	62.0	NA	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	2003	25	32	35	37	38	42	62
	b. Females aged 25 years and under enrolled in Medicaid MCOs	2003	41	47	51	52	52	56	62

HP 2010 Objective	Data Source
25-1 a, b, c	Regional Infertility Prevention Projects (IPP), STD Surveillance System (STDSS), NCHHSTP, CDC.
25-1 d	National Job Training Program, STD Surveillance System (STDSS), NCHHSTP, CDC.
25-2 a, b	STD Surveillance System (STDSS), NCHHSTP, CDC.
25-3	STD Surveillance System (STDSS), NCHHSTP, CDC.
25-4	National Health and Nutrition Examination Survey (NHANES), NCHS, CDC.
25-6	National Survey of Family Growth (NSFG), NCHS, CDC.
25-7	National Survey of Family Growth (NSFG), NCHS, CDC.
25-9	STD Surveillance System, NCHHSTP, CDC, National Vital Statistics System- Natality (NVSS-N), NCHS, CDC.
25-11 a, b, c	Youth Risk Behavior Surveillance System (YRBSS), NCCDPHP, CDC.
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 chlamydia positivity.

† Data for years 1999-2004.

NA=Not available.

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

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

GPRA Goals	Baseline	Actual Performance		Long-Term Goal
	2002	2007	2008	2010
Goal 1: Reduction in PID (as measured by initial visits to physicians in women 15 to 44 years of age)	197,000	146,000	104,000	168,000
a. Prevalence of Chlamydia in high-risk women <25 years*	10.1%	13.2%	12.8%	15.1%
b. Prevalence of Chlamydia in women <25 years in family planning clinics*	5.6%	6.9%	7.4%	7.4%
c. Incidence of Gonorrhea/100, 000 population in women 15–44 years of age	278.0	291.0	285.0	296
Goal 2: Elimination of Syphilis (as measured by incidence of P&S Syphilis/100,000 population)	2.4	3.8	4.5	2.2
a. Incidence of P&S Syphilis/100, 000 population—men	3.8	6.6	7.6	7.2
b. Incidence of P&S Syphilis/100, 000 population—women	1.1	1.1	1.5	1.2
c. Incidence of Congenital Syphilis/100, 000 live births	10.2	10.1	10.1	9.4
d. Black:white rate ratio of P&S Syphilis	8:1	7:1	8:1	6.7:1

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

*Median state-specific chlamydia prevalence/positivity.

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, Infection (Revised 6/09)

Clinical description

Infection with *Chlamydia trachomatis* may result in urethritis, epididymitis, cervicitis, acute salpingitis, or other syndromes when sexually transmitted; however, the infection is often asymptomatic in women. Perinatal infections may result in inclusion conjunctivitis and pneumonia in newborns. Other syndromes caused by *C. trachomatis* include lymphogranuloma venereum (see Lymphogranuloma Venereum) and trachoma.

Laboratory criteria for diagnosis

- Isolation of *C. trachomatis* by culture or
- Demonstration of *C. trachomatis* in a clinical specimen by detection of antigen or nucleic acid

Case classification

Confirmed: a case that is laboratory confirmed

Gonorrhea (Revised 9/96)

Clinical description

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

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

Clinical description

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

Laboratory criteria for diagnosis

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

Case classification

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.

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

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 $>10,000$ 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 September 23, 2009.

State/City/Outlying Area	STD Project Directors	STD Program Managers	State Epidemiologists	Laboratory Directors
Alabama	Charles Woernle	Anthony Merriweather	Charles Woernle	Sharon Massingale
Alaska	Mollie Rosier	Donna Cecere	Joe McLaughlin	Bernard Jilly
Arizona	Judy Norton	Roxanne Ereth	Kenneth Komatsu	Victor Waddell
Arkansas	Kevin Detner	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	Susan Philip	Wendy Wolf	Gilberto Chavez	Sally Liska
Colorado	Ralph Wilmoth	Ralph Wilmoth	Ken Gershman	David Butcher
Connecticut	Matthew Cartter	Heidi Jenkins	Matthew Cartter	John Fontana
Delaware	James Welch	Catherine Mosley	Paula Eggers (Acting)	Jane Getchell
District of Columbia	Shannon Hader	John Heath	John Davies-Cole	Maurice Knuckles
Florida	Karla Schmitt	Karla Schmitt	Richard Hopkins	Max Salfinger
Georgia	Vacant	Vacant	Susan Lance	Elizabeth Franko
Hawaii	Peter Whiticar	Roy Ohye	Sarah Park	A. Christian Whelen
Idaho	Kathy Cohen	Annabeth Elliott	Christine Hahn	Christopher Ball
Illinois	Charlie Rabins	Ed Renier	Craig Conover	Tom Johnson
Chicago	Will Wong	John Paffel	Craig Conover	Susan Gerber
Indiana	Larry Harris	Clay Koher	James Howell	Judith Lovchik
Iowa	Mary Jones	Karen Thompson	Patricia Quinlisk	Christopher Atchison
Kansas	Brenda Walker	Derek Coppedge	Charles Hunt	Dennis Dobson
Kentucky	Robert Brawley	Chang Lee	Kraig Humbaugh	Stephanie Gibson
Louisiana	Lisa Ann Longfellow	Lisa Ann Longfellow	Raoult Ratard	Stephen Martin
Maine	James Markiewicz	Jennah Godo	Dora Mills	Kenneth Pote
Maryland	Barbara Conrad	Glen Oltoff	David Blythe	Jack DeBoy
Baltimore	Vacant	Victoria Stovall	David Blythe	Jack DeBoy
Massachusetts	Thomas Bertrand	Thomas Bertrand	Alfred DeMaria	Mary Gilchrist
Michigan	Kristine Judd	Kristine Judd	Corrine Miller	Frances Downes
Minnesota	Christine Jones	Peter Carr	Ruth Lynfield	Joanne Bartkus
Mississippi	Craig Thompson	Craig Thompson	Mary Currier	Daphne Ware
Missouri	Michael Herbert	Michael Herbert	Sarah Patrick	Bill Whitmar
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	Gary Ludwig	Patricia Mason	Christina Tan	Dennis Flynn
New Mexico	Daniel Burke	Carmelita Garcia	C. Mack Sewell	David Mills
New York	F. Bruce Coles	Dennis Murphy	Perry Smith	Lawrence Sturman
New York City	Susan Blank	Steve Rubin	Perry Smith	Sara Beatrice
North Carolina	Evelyn Foust	Evelyn Foust	Megan Davies	Leslie Wolf
North Dakota	Vacant	Julie Wagendorf	Kirby Kruger	Myra Kosse
Ohio	Jan Keagy	Amy LaGesse	Forrest Smith	Rosemarie Gearhart
Oklahoma	Jan Fox	Kristen Eberly	Kristy Bradley	Garry McKee
Oregon	Vada Latin	Doug Harger	Katrina Hedberg	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	Andre Rawls (Acting)	Vickie Boazman-Holmes (Acting)	James Gibson	Arthur Wozniak
South Dakota	Laurie Gill	David Morgan	Lon Kightlinger	Michael Smith
Tennessee	Jeanece Seals	Jane Russell	Tim Jones	David Smalley
Texas	Ann Robbins	Jim Lee	Vincent Fonseca	Susan Neill
Utah	Emily Holmes	Lynn Meinor	Robert Rolfs	Patrick Luedtke
Vermont	Daniel Daltry	Daniel Daltry	Patsy Kelso	Mary Celotti
Virginia	Kathryn Hafford	Kathryn Hafford (Acting)	Keri Hall	James Pearson
Washington	Mark Aubin	Mark Aubin	Anthony Marfin	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	Laumoli Salamo	Fara Utu	Sharmain Edwards	Utoofli Mago
Federated States of Micronesia	Vita Skilling	Maylean Ekiek	Nena Nena	
Government of the Marshall Islands	Justina Langidrik	Zachraias Zachraias		Paul Lalita
Northern Marianas (CNMI)	Joseph Villagomez	John Moreno	James Hofschneider	Kevin Villagomez
Guam	Josie O'Mallan	Bernadette Schumann	Lourdes Duguies	Josie O'Mallan
Puerto Rico	Greduvel Duran-Guzman	Trinidad Garcia	John Rullan	Myriam Garcia-Negron
Republic of Palau	Victor Yano	Johana Ngiruchelbad	Julie Erb-Alvarez	Francis Permetteet
Virgin Islands	Darlene Carty	Gritell Martinez	Eugene Tull	Joseph Mark