

Sexually Transmitted Disease Surveillance 2007 Supplement

Syphilis Surveillance Report

**Division of STD Prevention
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The report is also available by Internet via the CDC home page at: <http://www.cdc.gov/std/Syphilis2007/>

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Update: U.S. Syphilis Elimination Effort

In October 1999, the Centers for Disease Control and Prevention (CDC), in collaboration with federal, state, local, and non-governmental partners, launched the National Plan to Eliminate Syphilis.¹ The plan's five key strategies included: 1) enhanced surveillance, 2) rapid outbreak response activities, 3) enhanced clinical and laboratory services, 4) strengthened community involvement and organizational partnerships, and 5) enhanced health promotion. In the seven years since its establishment, numerous gains have been made in reducing disease incidence in key groups, raising professional and public awareness of syphilis, increasing financial investment into public Sexually Transmitted Disease (STD) clinic services, and building local public health and community capacity to fight this devastating disease.

However, new challenges have emerged. After reaching a nadir in 2000, case reports of primary and secondary syphilis are again on the increase, and today more than 60% of new infections are estimated to occur in men who have sex with men.² Syphilis is now increasingly diagnosed in the private sector, generating concerns about the effectiveness of its detection and

management in this setting. The evolving epidemiology, changing risk groups, and social environments pose challenges for elimination and STD program activities. Moreover, public health services face increasing pressures from rising demand and decreasing financial resources; and the social contexts of poverty, racism, homophobia, and socio-economic discrimination continue to drive the concentration of the disease in those with high-risk sexual behaviors, poor access to care, or both.

In 2006 CDC, in consultation with state, local, and community partners, updated the national plan to eliminate syphilis.³ The 2006 plan, *Together We Can SEE: The National Plan to Eliminate Syphilis from the United States* provides a dynamic, evidence-based framework to guide current and future syphilis elimination efforts and promotes culturally competent prevention and control services.⁴ By 2010, interim elimination targets will be to:

- reduce rates of primary and secondary syphilis in the United States to 2.2 cases per 100,000 population;
- reduce congenital syphilis to 3.9 cases per 100,000 live births; and

- reduce the Black:White racial disparity to 3:1.

In order to achieve this, CDC will focus syphilis elimination activities towards achieving three strategic goals: investment in and enhancement of public health services; prioritization of evidence-based, culturally competent interventions; and increasing accountability for syphilis elimination services and interventions. Each of the three goals in the updated plan

corresponds with three specific strategies, resulting in a total of nine strategies : 1) Surveillance, 2) Clinical and Laboratory Services, 3) Community Mobilization, 4) Health Care Provider Mobilization, 5) Tailoring of Interventions, 6) Evidence-based Action Planning, 7) Monitoring and Evaluation, 8) Training and Staff Development, and 9) Research. The 3-by-3 approach to implementing syphilis elimination is illustrated below.

SYPHILIS ELIMINATION GOAL	SYPHILIS ELIMINATION STRATEGIES
<p>Investment in, and enhancement of, public health services and interventions - Public health services will achieve excellence in the diagnosis, management, and reporting of syphilis and its adverse outcomes, especially those at greatest risk of health disparities.</p>	<ol style="list-style-type: none"> 1. Improve and enhance syphilis surveillance and outbreak response 2. Improve and quality assure clinical and partner services 3. Improve and quality assure laboratory services
<p>Prioritization of evidence-based, culturally competent interventions - Public health services will improve the advocacy, acceptability, and appropriateness of their response to syphilis epidemics through the creation of productive and proactive partnerships with external stakeholders.</p>	<ol style="list-style-type: none"> 1. Mobilization of affected communities 2. Tailoring intervention strategies for affected populations. 3. Mobilization of, and creating alliances with health care providers
<p>Accountable services and interventions - Public health services will improve the effectiveness of their interventions by improving accountability for their planning, implementation, and evaluation.</p>	<ol style="list-style-type: none"> 1. Training and staff development 2. Evidence-based action planning, monitoring, and evaluation 3. Research and development

This updated plan provides guidance to assist local, state, and national partners to effectively focus on the infectious syphilis epidemic in order to get the most important things done in the most cost-effective, ethical, and acceptable ways possible. Further details on the recommended strategies and recommended activities are contained in the Syphilis Elimination Technical Appendix (SETA).⁵

In 1999, the persistence of syphilis in the United States was said to reflect a failure in our public health capacity. Today, population-wide changes in sexual behavior, in turn driven by a number of social and economic factors, continue to influence which locale and who is affected by this disease. However, the benefits of elimination - improvements in health, reductions in healthcare costs, development of public health capacity, and reductions in racial disparities - nevertheless remain as pertinent today as ever.

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Introduction

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.⁷

Reports of outbreaks and increased numbers of primary and secondary syphilis cases among men who have sex with men have been documented and characterized by high rates of HIV co-infection and high-risk sexual behavior.⁸⁻¹¹ In recent years, men who have sex with men have accounted for an increasing number of estimated primary and secondary syphilis cases in the United States¹² and now account for 65% of primary and secondary syphilis based on information available from 44 states and Washington, D.C.¹⁴

After decreasing from 2001 to 2004, the rate of primary and secondary syphilis among women increased from 0.8 cases per 100,000 population in 2004 to 1.1 cases per 100,000 population in 2007.¹⁴ After 14 years of decline in the United States, the rate of congenital syphilis increased 15.4% from 2006 to 2007 (from 9.1 to 10.5 cases per 100,000 live births).¹⁴ Despite the majority of U.S. syphilis cases occurring

among men who have sex with men, heterosexual syphilis is an emerging problem given the recent increases among women and infants.

Additionally, a substantial proportion of early syphilis cases is from correctional facilities,¹⁵ in which high rates of reactive serologies and disease are known to occur,¹⁶⁻¹⁹ particularly in areas experiencing heterosexual syphilis epidemics.¹⁵⁻¹⁷ Information from both case reports and STD Prevalence Monitoring Projects is important for STD prevention, treatment, planning, and evaluation activities.

The use of data to inform, evaluate, and modify interventions and other activities is critical to the effort to prevent syphilis. To that end, this *Syphilis Surveillance Report* consists of national and state profiles that contain and describe figures and tables, which provide an overview of syphilis morbidity in the United States. These profiles present adult and congenital syphilis trends and other statistics in the United States through 2007 and are based on case reports from the 65 sexually transmitted disease (STD) project areas. Case report data are the foundation of surveillance systems, which are operated by state and local health department STD control programs.

Any comments or suggestions that would improve the usefulness of

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

National Profile of Syphilis Surveillance Data

Overall

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 1941.¹⁴ However, the number of cases of P&S syphilis increased during 2000–2007.

In 2007, P&S syphilis cases reported to CDC increased to 11,466 from 9,756 in 2006, an increase of 17.5% (Figure 1). The rate of P&S syphilis in the United States was 15.2% higher in 2007 than in 2006 (3.8 vs. 3.3 cases per 100,000 population).¹⁴

During 2006–2007, the number of cases reported to CDC increased 17.2% for early latent syphilis (from 9,186 to 10,768), 3.5% for late and late latent syphilis (from 17,644 to 18,256), and 10.7% for the total number of cases of syphilis (P&S, early latent, late, late latent, and congenital syphilis) (from 36,959 to 40,920).¹⁴

Sex

The overall increase in primary and secondary (P&S) syphilis cases during 2000–2007 was observed primarily among men.¹⁴ During 2006–2007, P&S syphilis reported to CDC increased among men (from 8,293 to 9,769 cases) and

women (from 1,458 to 1,692 cases).¹⁴

During 2006–2007, the rate of P&S syphilis increased 17.9% among men (from 5.6 cases to 6.6 cases per 100,000 men) and increased 10.0% among women (from 1.0 cases to 1.1 cases per 100,000 women) (Figure 2).¹⁴

In 2007, the rate of P&S syphilis was highest among women in the 20–24 year-old age group (3.5 cases per 100,000 population) and among men in the 25–29 year-old (14.9 cases per 100,000 population) and 35–39 year-old age groups (14.4 cases per 100,000 population) (Figure 3).¹⁴ During 2004–2006, the highest rates of syphilis among women were in the same age group (20–24 year-old). This year (2007) marks the first time since 1997 that the rate of P&S syphilis in 25–29 year-old men exceeded the rate in 35–39 year-old men.

The male-to-female (M:F) rate ratio for P&S syphilis has risen steadily since 1996 when it was 1.2 (Figure 4), suggesting an increase in syphilis among men who have sex with men during this time. In 2007, the rate of P&S syphilis in males was 6.0 times that in females, an increase from 5.7 in 2006. From 2006–2007, the M:F

rate ratio increased in the District of Columbia and in 14 of 35 states (40%) that reported at least 25 cases in 2007.¹⁴

During 2006–2007, the M:F rate ratio for P&S syphilis increased among blacks (from 3.7 to 4.1) and Hispanics (from 7.5 to 9.4), decreased among whites (from 11.7 to 9.3) and American Indian/Alaska Natives (from 2.5 to 1.7), and remained unchanged for Asian/Pacific Islanders (24.0).¹⁴

P&S Syphilis by Sex and Sex Behavior

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

The stage of disease was reported as follows: for heterosexual men, 829 of 1,930 (43.0%) had primary syphilis and 1,101 (57.0%) had secondary syphilis. Of 1,692 female patients, 303 (17.9%) had primary syphilis and 1,389 (82.1%) had secondary syphilis. Of 5,831 men who had sex with men, 1,415 (24.3%) had primary syphilis and 4,416 (75.7%) had secondary syphilis (Figure 5).

Of 1,692 females with P&S syphilis, 381 (22.5%) were white, 1,104 (65.2%) were black, 167 (9.9%) were Hispanic, and 40 (2.4%) were of other race/ethnicities. Of 1,892 heterosexual men, 373 (19.7%) were white, 1,154 (61.0%) were black, 310 (16.4%) were Hispanic, and 55 (2.9%) were of other race/

ethnicities. Of 5,636 men who had sex with men, 2,376 (42.2%) were white, 1,937 (34.4%) were black, 1,125 (20.0%) were Hispanic, and 198 (3.5%) were of other race/ethnicities (Figure 6).

Congenital Syphilis

During 1996–2003, the rate of primary and secondary (P&S) syphilis reported among women decreased from 3.9 to 0.8 cases per 100,000 population. Since 2004, this rate has increased, up to 1.1 cases per 100,000 population in 2007 (Figure 7).¹⁴ During 1996–2005, the average yearly percent decrease in the congenital syphilis (CS) rate was 14.1%.¹⁴ This decrease ended in 2006 when a 11.0% increase was observed since 2005. Between 2006 and 2007, the rate of congenital syphilis increased 15.4% (from 9.1 to 10.5 cases per 100,000 live births).¹⁴

In 2007, 29 states, the District of Columbia, and two outlying areas had rates of congenital syphilis that exceeded the HP 2010 target of 1.0 case per 100,000 live births (Figure 8).¹⁴

Race/Ethnicity

During 1990–1996, rates of primary and secondary (P&S) syphilis decreased among all racial and ethnic groups. From 1997 to 2000, rates of P&S syphilis were fairly stable in all racial and ethnic groups except blacks, in whom the rate continued to decrease steadily.¹⁴

During 2000–2007, the P&S syphilis rate increased among non-Hispanic whites (from 0.5 to 2.0 cases per 100,000 population), Hispanics (from 1.6 to 4.3 cases per 100,000 population), and Asian/Pacific Islanders (from 0.3 to 1.2 cases per 100,000 population) (Figure 9). During 2000–2003, the P&S syphilis rate among blacks decreased (from 12.0 to 7.7 cases per 100,000 population), but during 2003–2007, the rate increased to 14.0 per 100,000 population. In 2007, rates of P&S syphilis for both men and women were highest in black men and black women (Figure 10). The rate among American Indian/Alaska Natives increased during 2000–2001 (from 2.2 to 3.8 cases per 100,000 population), decreased to 2.1 cases per 100,000 population in 2002, and then increased to 4.3 cases per 100,000 population in 2007.¹⁴

In 2007, 46.0% of reported cases of P&S syphilis occurred among blacks compared with 43.2% of cases reported in 2006.¹⁴ Although the rate of P&S syphilis remains higher among blacks than among non-Hispanic whites, the difference in rates between the two populations has decreased over time. In 2006 and 2007, the rate of P&S syphilis was 5.9 and 7.0 times higher among blacks than among non-Hispanic whites, respectively, in contrast to 1992 when the black rate was 62 times that of the non-Hispanic white rate.

In 2007, the rates of P&S syphilis were highest among black men aged 20 to 24 years and 25 to 29

years (57.5 and 57.4 cases per 100,000 population, respectively) (Figure 11), and black women aged 20 to 24 years (16.0 cases per 100,000 population).¹⁴

Geography

In 2007, the South continued to have a higher rate of primary and secondary (P&S) syphilis (5.1 cases per 100,000 population) than any other region in the United States, and cases in the South accounted for 48.8% of total P&S syphilis cases reported, compared to 47.1% in 2006.¹⁴ (See page 11 for definition of regions). Since 2000, however, the percentage of cases from the South has decreased from 62%. At the same time, the percentage of cases from the West has increased from 10.5% in 2000 to 24.1% in 2007.

During 2006–2007, the P&S syphilis rate increased 21.4% in the South (from 4.2 to 5.1 cases per 100,000 population), 30.8% in the Northeast (from 2.6 to 3.4), 8.1% in the West (from 3.7 to 4.0) and 5.6% in the Midwest (from 1.8 to 1.9). The 2007 rates in all regions were greater than the HP 2010 target of 0.2 cases per 100,000 population (Figure 12).²⁰

During 2006–2007, M:F P&S syphilis rate ratios increased in the Northeast (from 15.3 to 18.1), Midwest (from 6.5 to 7.6) and West (from 10.0 to 11.5) and decreased in the South (from 3.7 to 3.6).¹⁴

Of the 30 counties and independent cities with the most cases in 2007, 14 counties and two independent cities had increases in the M:F P&S syphilis rate ratio, and

14 counties had a decrease between 2006 and 2007 (Table 1).

In 2007, P&S syphilis rates in only three states were less than or equal to the HP 2010 target of 0.2 case per 100,000 population (Figure 13).¹⁴

In 2007, 2,275 of 3,140 counties (72.5%) in the United States reported no cases of P&S syphilis compared with 2,360 (75.2%) in 2006. Of 865 counties reporting at least one case of P&S syphilis in 2007, five (0.6%) had rates at or below the HP2010 target of 0.2 case per 100,000 population. Rates of P&S syphilis were above the HP2010 target for 860 counties in 2007 (Figure 14). These 860 counties (27.4% of the total number of counties in the United States) accounted for 99.9% of the total P&S syphilis cases reported in 2007.¹⁴

In 2007, half of the total number of P&S syphilis cases were reported from 23 counties and two cities.¹⁴

Corrections STD Prevalence Monitoring

The median percentage of reactive syphilis tests by facility was 3.9% (range, 0.0–21.7) for women entering 32 adult corrections facilities and 1.4% (range, 0.0–7.8) for men entering 60 adult corrections facilities in 2007 (Table 2).

Source of Case Report

The proportion of P&S syphilis cases reported from sources other than STD clinics increased from 1999 to 2007 among both men (42% to 68%) and women (49% to 60%) (Table 3). Men who have sex with men were more frequently reported by private physicians (36.7%) than by STD clinics (27.1% (Figure 15)). More cases among women and heterosexual men were reported by STD clinics than by private physicians.

Interpreting STD Surveillance Data

Data Limitations

Syphilis data should be interpreted with caution. Case report data are likely to underestimate the true burden of disease in the United States, because of underreporting of diagnosed cases, infected persons not accessing health care, and persons who are otherwise not screened. The prevalence of reactive serologies from persons entering correctional facilities may not reflect the prevalence of syphilis in communities where the facilities are located or where the inmates were living at the time of arrest. Because confirmatory test results were not available for the majority of serologic tests for syphilis, biologic false positives could not be excluded from the proportion calculations.

Sources of Data

Syphilis case report data are used to create the tables and graphics in this report and are from either hardcopy summary reporting forms (monthly, quarterly, and annual) or individual case records transmitted electronically via the National Electronic Telecommunications System for Surveillance (NETSS), which is the system that provides notifiable disease information that is published in the *Morbidity and Mortality Weekly Report*

(*MMWR*). Project areas have been in the process of converting from hardcopy reporting of STD data to electronic submissions of individual line-listed data since 1996. In 2007, primary and secondary (P&S) syphilis data from hardcopy reports were used from Puerto Rico, Guam, and Virgin Islands. Data on reported cases of P&S syphilis were analyzed for this report because these cases best represent the incidence of infectious syphilis (i.e., newly acquired infections within a specific time period). For congenital syphilis (CS), 29 states and outlying territories used hardcopy reports. Reports and corrections sent to CDC on hardcopy forms and electronically via NETSS through June 25, 2008, were used to create the line-graphs, bar charts, and county-level maps in this report.

Sixteen states reported information from syphilis serology data from persons entering correctional facilities.

Population Denominators and Rate Calculations

2000–2007 Rates and Population

The National Center for Health Statistics released bridged race

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

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

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

1990–1999 Rates and Population

The population counts for 1990–1999 incorporated the bridged

single-race estimates of the April 1, 2000 resident population. These files were prepared by the U.S. Census Bureau with support from the National Cancer Institute.

1981–1989 Rates and Population

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

1941–1980 Rates and Population

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

Definition of Regions

The four regions referred to in the text and figures include the following jurisdictions: Northeast=Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont; Midwest=Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin; South=Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia; West=Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

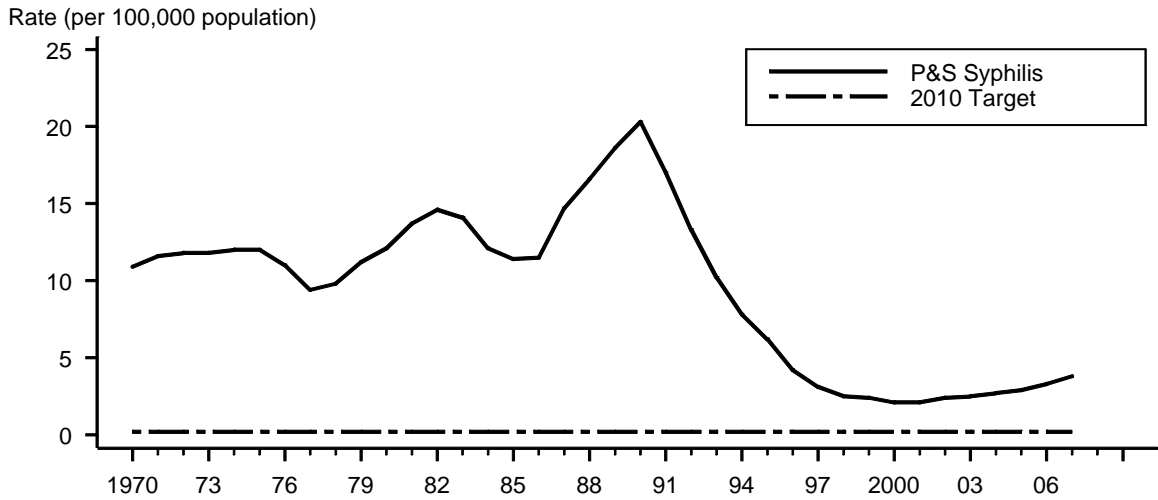
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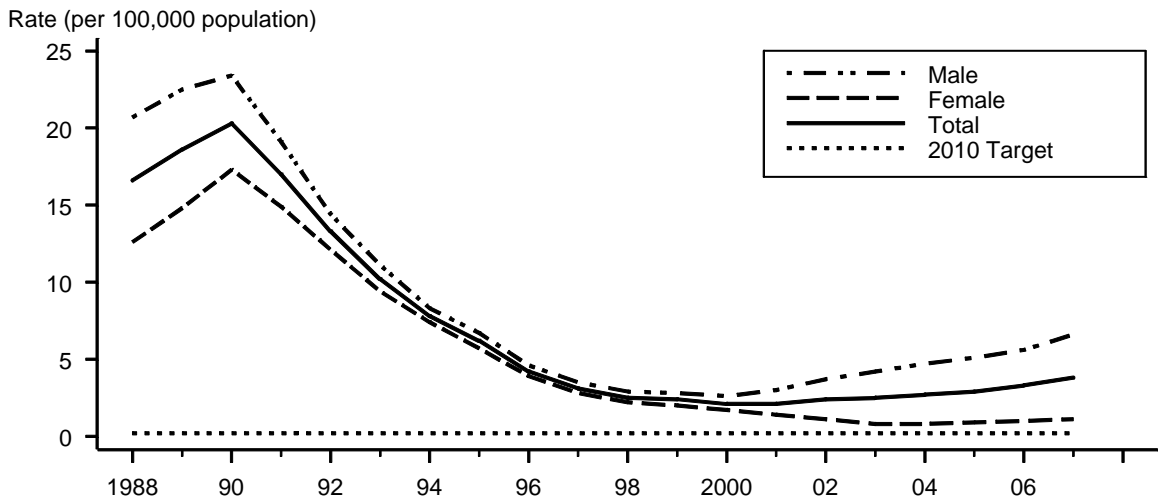
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Figure 1. Primary and secondary syphilis — Reported rates: United States, 1970–2007 and the Healthy People 2010 target



Note: The Healthy People 2010 (HP2010) target for primary and secondary syphilis is 0.2 case per 100,000 population.

Figure 2. Primary and secondary syphilis — Rates: Total and by sex: United States, 1988–2007 and the Healthy People 2010 target



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

Figure 3. Primary and secondary syphilis — Age- and sex-specific rates: United States, 2007

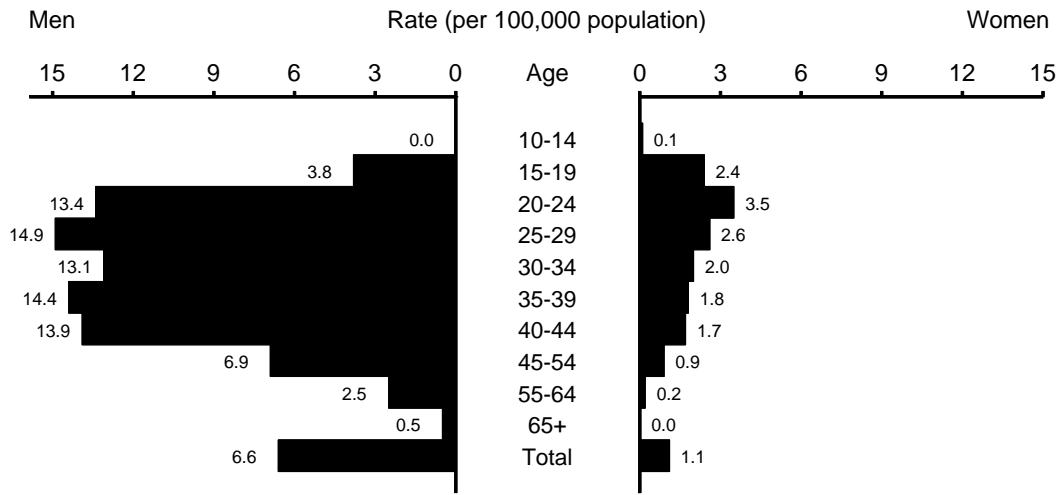


Figure 4. Primary and secondary syphilis — Male-to-female rate ratios: United States, 1998–2007

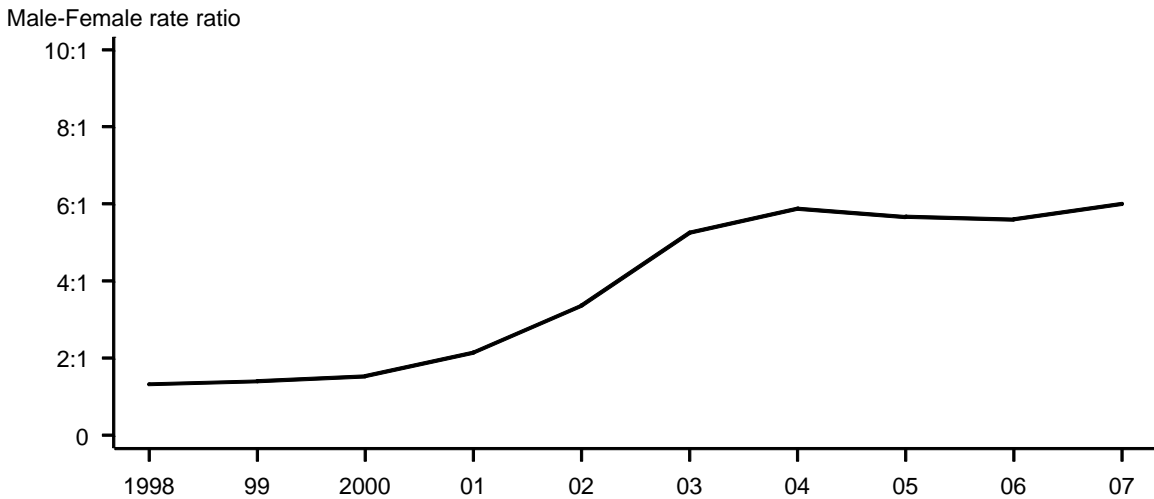
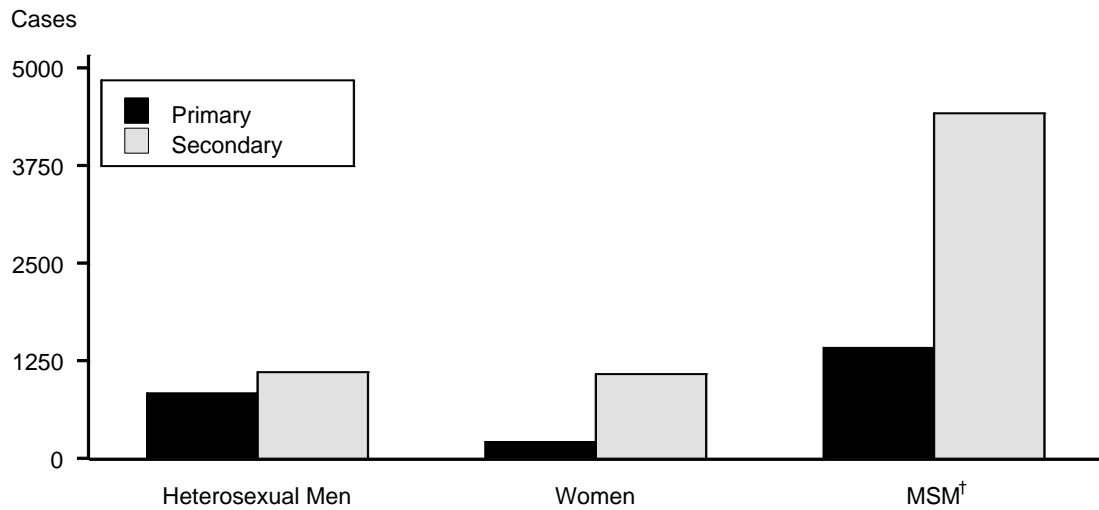
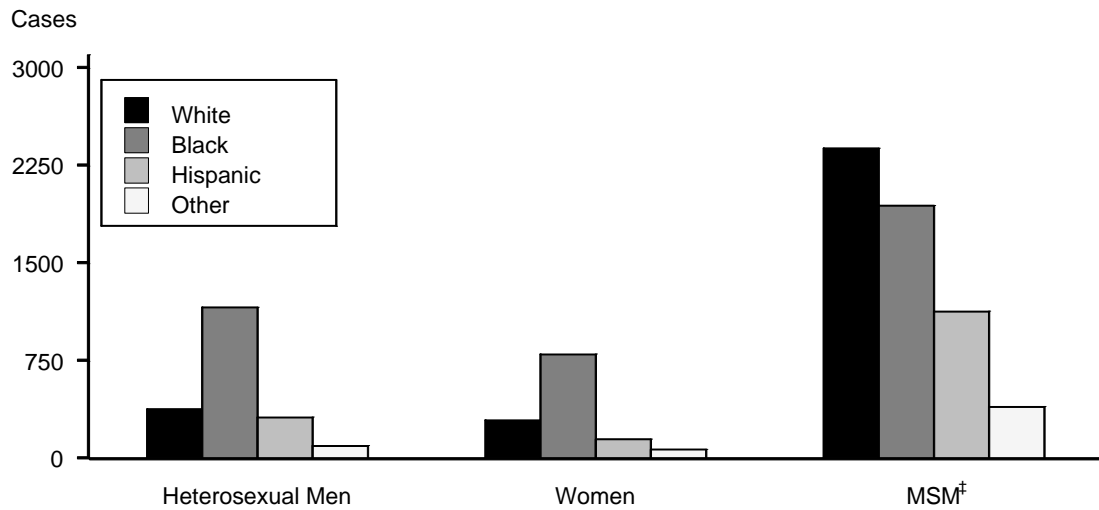


Figure 5. Primary and secondary syphilis — Reported cases* by stage and sexual orientation, 2007



*21% of reported male cases with P&S syphilis were missing sex of sex partner information.
 †MSM denotes men who have sex with men.

Figure 6. Primary and secondary syphilis — Reported cases* by sexual orientation and race/ethnicity†, 2007



*21% of reported male cases with P&S syphilis were missing sex of sex partner information;
 3% of reported males cases with sex of partner data were missing race/ethnicity data.
 †No imputation was done for race/ethnicity.
 ‡MSM denotes men who have sex with men.

Figure 7. Congenital syphilis (CS) — Reported cases for infants < 1 year of age and rates of primary and secondary syphilis among women: United States, 1998–2007

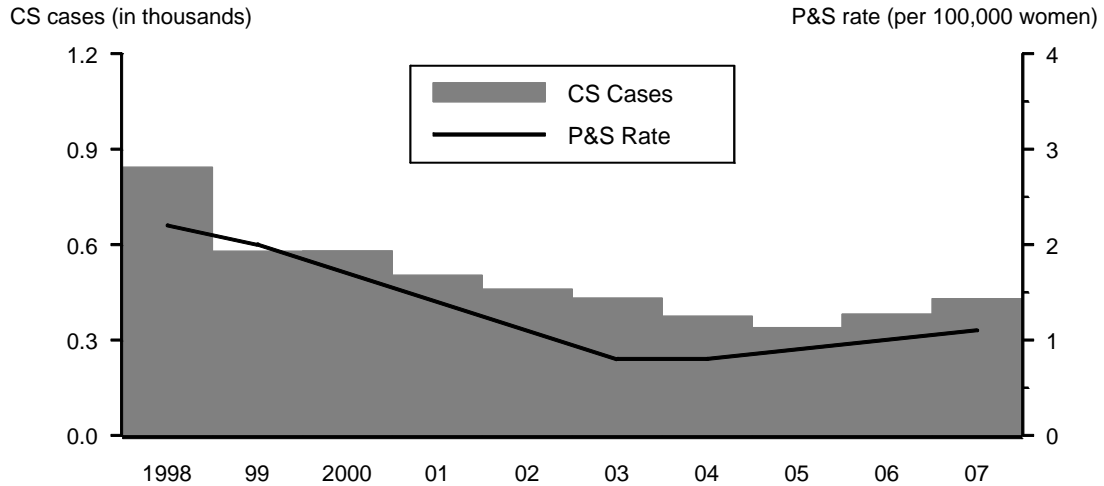


Figure 8. Congenital syphilis — Rates for infants < 1 year of age by state: United States and outlying areas, 2007

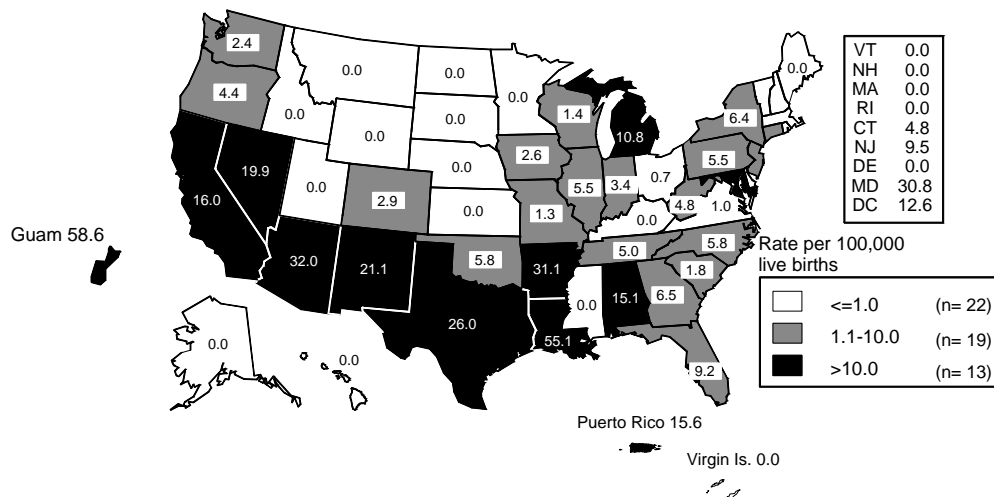


Figure 9. Primary and secondary syphilis — Rates by race/ethnicity: United States, 1998–2007

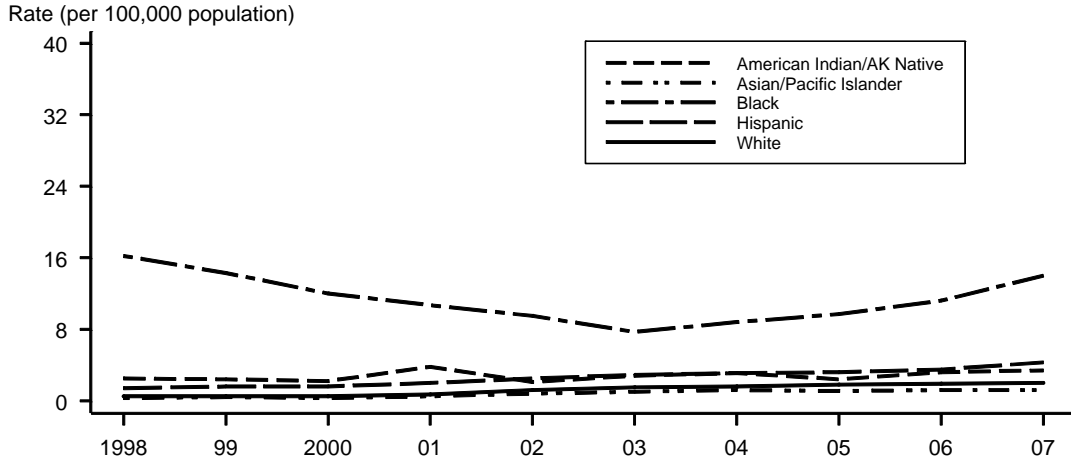


Figure 10. Primary and secondary syphilis — Rates by race/ethnicity and sex: United States, 2007

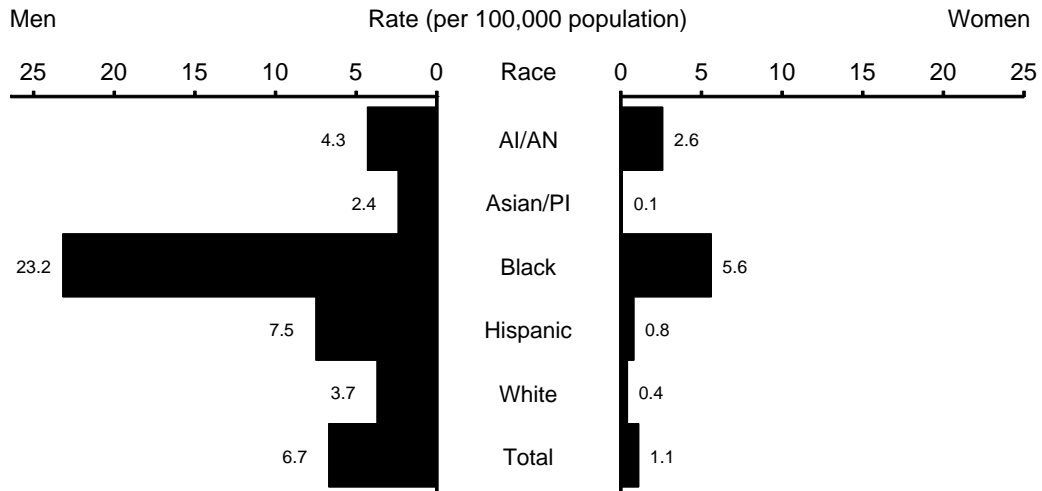


Figure 11. Age Distribution of Male Primary and Secondary Syphilis among Black and White Men

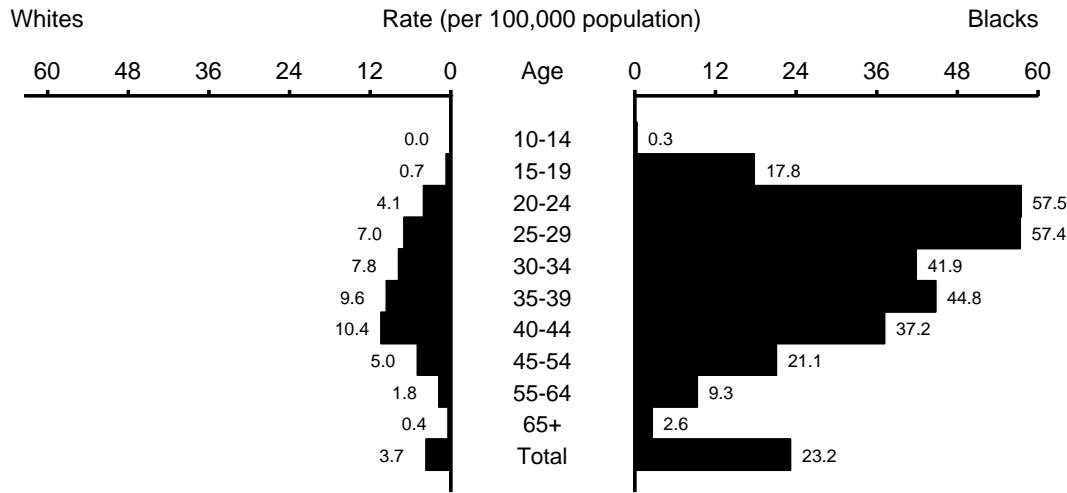
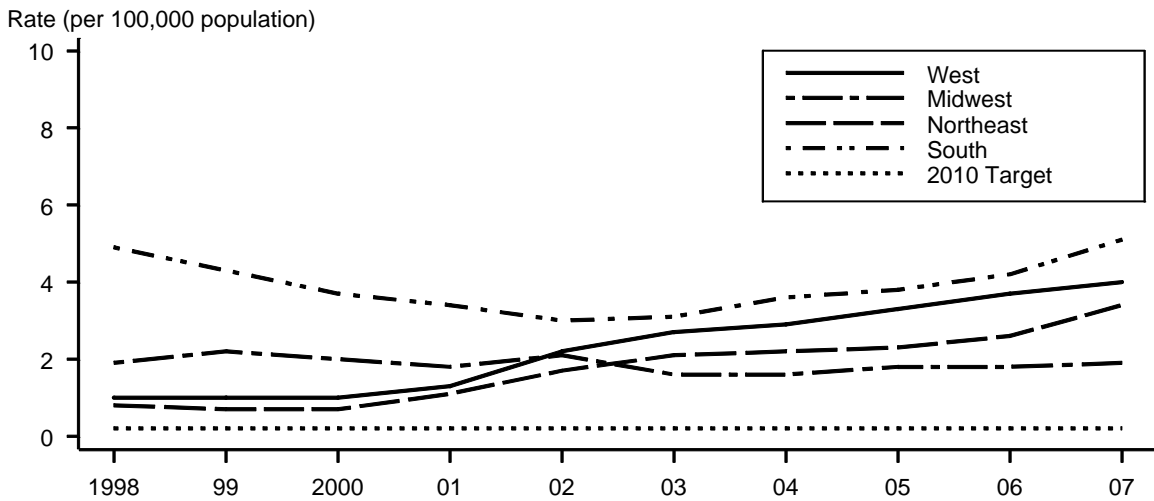
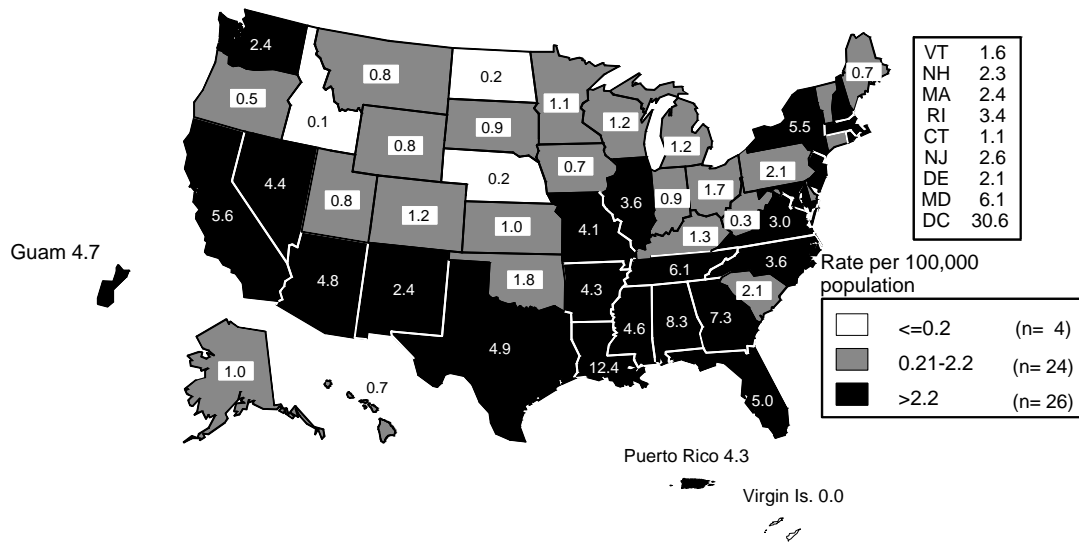


Figure 12. Primary and secondary syphilis — Rates by region: United States, 1998–2007 and the Healthy People 2010 target



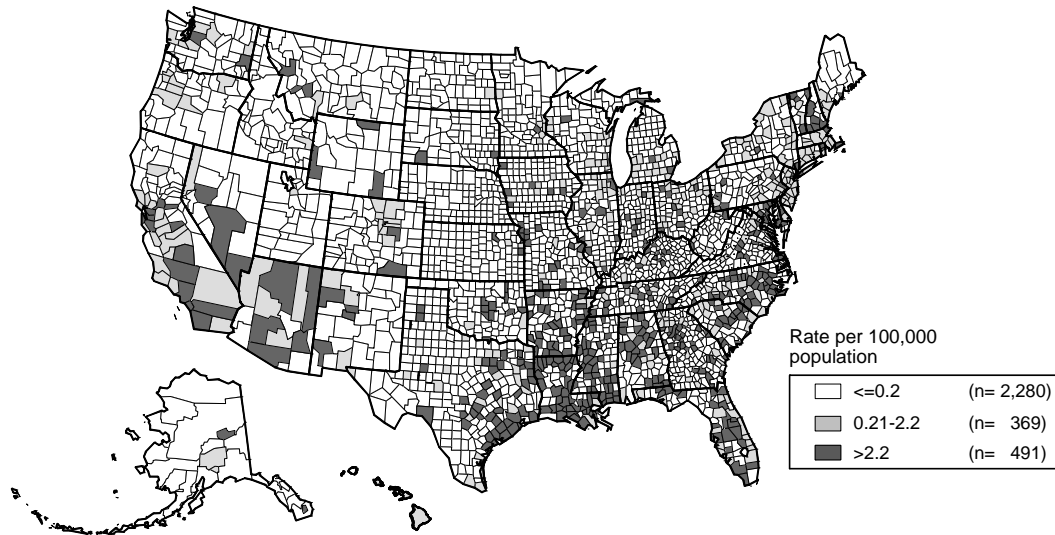
Note: The Healthy People 2010 target for P&S syphilis is 0.2 case per 100,000 population.

Figure 13. Primary and secondary syphilis — Rates by state: United States and outlying areas, 2007



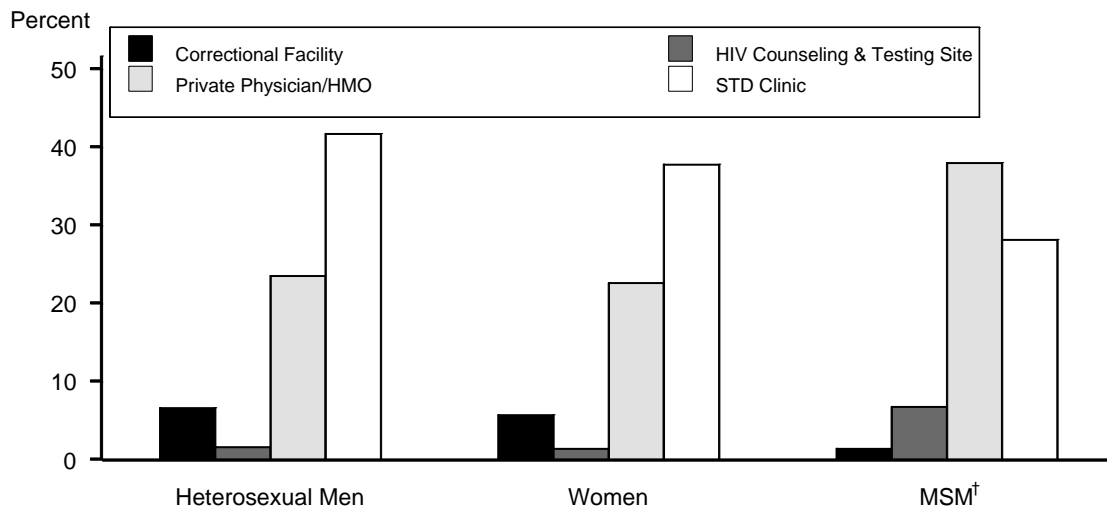
Note: The total rate of P&S syphilis for the United States and outlying areas (Guam, Puerto Rico and Virgin Islands) was 3.8 per 100,000 population. The Healthy People 2010 target is 0.2 case per 100,000 population.

Figure 14. Primary and secondary syphilis — Rates by county: United States, 2007



Note: The Healthy People 2010 target for P&S syphilis is 0.2 case per 100,000 population. In 2007, 2,275 (72.5%) of 3,140 counties in the U.S. reported no cases of P&S syphilis.

Figure 15. Primary and secondary syphilis — Percentage of reported cases* by sexual orientation and selected reporting sources, 2007



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

†MSM denotes men who have sex with men.

Table 1. 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 2007: United States, 2006–2007

<i>Cities</i>	<i>Males</i>				<i>Females</i>				<i>Male-to-Female Rate Ratios</i>	
	<i>2006</i>		<i>2007</i>		<i>2006</i>		<i>2007</i>		<i>2006</i>	<i>2007</i>
	<i>Cases</i>	<i>Rates</i>	<i>Cases</i>	<i>Rates</i>	<i>Cases</i>	<i>Rates</i>	<i>Cases</i>	<i>Rates</i>		
Jefferson County, AL	149	47.9	95	30.5	89	25.8	71	20.5	1.9	1.5
Madison County, AL	13	8.7	72	48.3	2	1.3	32	20.6	6.7	2.3
Maricopa County, AZ	135	7.1	162	8.5	18	1.0	26	1.4	7.1	6.1
Los Angeles County, CA	798	16.2	866	17.6	68	1.4	52	1.0	11.6	17.6
Orange County, CA	75	5.0	136	9.1	4	0.3	6	0.4	16.7	22.8
San Diego County, CA	223	15.1	335	22.6	12	0.8	12	0.8	18.9	28.3
San Francisco County, CA	241	63.7	199	52.6	2	0.5	3	0.8	127.4	65.8
Washington, D.C.	110	40.3	173	63.4	6	1.9	5	1.6	21.2	39.6
Broward County, FL	147	16.9	161	18.5	8	0.9	17	1.9	18.8	9.7
Hillsborough County, FL	54	9.5	72	12.6	14	2.4	43	7.3	4.0	1.7
Miami-Dade County, FL	173	14.9	173	14.9	30	2.4	37	3.0	6.2	5.0
Orange County, FL	71	13.7	107	20.6	10	1.9	12	2.3	7.2	9.0
DeKalb County, GA	170	48.2	135	38.3	12	3.2	6	1.6	15.1	23.9
Fulton County, GA	226	47.7	276	58.3	16	3.3	17	3.5	14.5	16.7
Cook County, IL	317	12.3	364	14.1	32	1.2	27	1.0	10.3	14.1
Orleans County, LA	41	39.2	80	76.5	13	10.9	37	31.1	3.6	2.5
Prince George's County, MD	56	13.9	89	22.0	4	0.9	5	1.1	15.4	20.0
Baltimore (City), MD	113	38.4	112	38.1	46	13.6	28	8.3	2.8	4.6
Jackson County, MO	72	22.4	89	27.7	13	3.8	18	5.3	5.9	5.2
Clark County, NV	100	11.1	91	10.1	32	3.7	11	1.3	3.0	7.8
Bronx County, NY	98	15.4	109	17.1	3	0.4	7	1.0	38.5	17.1
Kings County, NY	152	12.8	244	20.6	7	0.5	11	0.8	25.6	25.8
New York County, NY	233	30.3	387	50.4	7	0.8	7	0.8	37.9	63.0
Queens County, NY	76	6.9	136	12.4	1	0.1	2	0.2	69.0	62.0
Philadelphia County, PA	124	18.3	129	19.0	1	0.1	7	0.9	183.0	21.1
Shelby County, TN	88	20.2	112	25.7	44	9.3	79	16.6	2.2	1.5
Bexar County, TX	100	13.2	120	15.8	31	3.9	35	4.4	3.4	3.6
Dallas County, TX	124	10.4	95	8.0	82	7.1	57	4.9	1.5	1.6
Harris County, TX	316	16.2	359	18.4	58	3.0	95	4.9	5.4	3.8
King County, WA	145	15.9	111	12.1	2	0.2	1	0.1	79.5	121.0

*Cases per 100,000 population
 Counties and independent cities are listed alphabetically by state.

Table 2. Syphilis — Positivity among men and women in adult corrections facilities, 2007

State	Men			Women		
	No. of Sites	No. of Tests	Median % Reactive (Range)	No. of Sites	No. of Tests	Median % Reactive (Range)
Arizona	1	27,629	2.0	1	6,310	4.3
Connecticut	0	-	-	1	3,108	2.0
Illinois	3	575	0.7 (0.0-1.4)	1	111	3.6
Indiana	1	1,120	0.4	1	1,284	1.4
Kentucky	1	324	0.3	1	332	0.3
Louisiana	0	-	-	1	1,003	28.0
Maryland	12	37,183	0.8 (0.3-3.7)	6	8,821	3.4 (0.8-8.5)
Massachusetts	16	17,546	1.1 (0.0-3.0)	4	3,883	0.9 (0.5-1.2)
Michigan	1	8,638	1.5	1	736	4.9
Mississippi	3	1,678	7.2 (4.0-12.6)	0	-	-
Missouri	3	6,103	1.8 (1.1-47.0)	2	956	2.5 (1.1-4.0)
New Jersey	3	31,007	1.8 (0.7-3.8)	3	3,762	0.0 (0.0-8.9)
New York*	2	8,782	1.7 (1.1-2.4)	2	1,802	4.0 (2.3-5.7)
North Carolina	6	4,908	0.7 (0.0-0.8)	5	1,418	1.8 (0.0-3.5)
Oklahoma	1	1,402	0.0	1	2,019	0.0
Tennessee	1	8,027	3.3	1	5,322	9.4
Texas	4	31,096	3.0 (0.5-6.0)	4	6,643	7.7 (4.7-12.5)
Washington	1	7,270	4.0	1	1,500	0.0
Wisconsin	1	487	0.6	0	-	-
TOTAL	60	193,775	1.4 (0.0-7.8)	32	34,335	3.9 (0.0-21.7)

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

*New York data are based on confirmatory tests.

Table 3. Primary and secondary syphilis — Reported cases by sex and reporting source: United States, 1999-2007.

Year	<i>Male</i>				<i>Female</i>				<i>Total</i>			
	<i>Non-STD Source</i>		<i>STD Source</i>		<i>Non-STD Source</i>		<i>STD Source</i>		<i>Non-STD Source</i>		<i>STD Source</i>	
	<i>Cases</i>	<i>Percent</i>	<i>Cases</i>	<i>Percent</i>	<i>Cases</i>	<i>Percent</i>	<i>Cases</i>	<i>Percent</i>	<i>Cases</i>	<i>Percent</i>	<i>Cases</i>	<i>Percent</i>
1999	1610	42	2224	58	1352	49	1425	51	2964	45	3652	55
2000	1565	44	1967	56	1193	49	1252	51	2758	46	3221	54
2001	2099	51	2035	49	1025	52	942	48	3125	51	2978	49
2002	3132	59	2135	41	869	55	725	45	4001	58	2861	42
2003	3979	67	1886	32	741	61	444	36	4722	66	2331	32
2004	4374	65	2244	33	762	61	477	38	5137	64	2722	34
2005	5031	68	2222	30	853	64	463	35	5885	67	2686	31
2006	5447	66	2630	32	890	61	531	36	6340	65	3163	32
2007	6602	68	2852	29	1018	60	617	36	7622	66	3472	30

*The sum of male and female cases may not equal total cases because of some male or female cases with missing information for reporting source. Sex was not identified for < 1% of P&S syphilis cases during 1999-2007.

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