SPECIAL FOCUS PROFILES

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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, minorities, MSM, and persons entering corrections facilities. The **Special Focus Profiles** refer to figures located in disease-specific sections in the **National Profile** and additional figures and tables (Figures A-EE and Tables AA-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. If not adequately treated, 20% to 40% of women infected with chlamydia[1] and 10% to 40% of women infected with gonorrhea[2] may develop PID. Among women with PID, tubal scarring can cause involuntary infertility in 20%, ectopic pregnancy in 9%, and chronic pelvic pain in 18%.[3] Approximately 70% of chlamydial infections and 50% of gonococcal infections in women are asymptomatic.[4-6] These infections are detected primarily through screening programs. The vague symptoms associated with chlamydial and gonococcal PID cause 85% of women to delay seeking medical care, thereby increasing the risk of infertility and ectopic pregnancy.[7] Data from a randomized controlled trial of chlamydia screening in a managed care setting suggest that such screening programs can reduce the incidence of PID by as much as 60%.[8]

Human papillomavirus (HPV) infections are highly prevalent, especially among young sexually-active women. While the great majority of HPV infections in women resolve within one year, they are a major concern because persistent infection with specific types are causally related to cervical cancer; these types also cause Pap smear abnormalities. Other types cause genital warts, low grade Pap smear abnormalities and, rarely, recurrent respiratory papillomatosis in infants born to infected mothers.[9]

Direct Impact on Pregnancy

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

Genital infections with herpes simplex virus are extremely common, may cause painful outbreaks, and may have serious consequences for pregnant women including potentially fatal neonatal infections.[10]

When a woman has a syphilis infection during pregnancy, she may transmit the infection to the fetus *in utero*. This may result in fetal death or an infant born with physical and mental developmental disabilities. Most cases of congenital syphilis are easily preventable if women are screened for syphilis and treated early during prenatal care.[11]

Observations

Chlamydia – United States

Between 2005 and 2006, the rate of chlamydial infections in women increased from 492.2 to 515.8 per 100,000 females (Figure 1, Table 4). Chlamydia rates exceed gonorrhea rates among women in all states (Figures A and B, Tables 4 and 14).

Chlamydia – Infertility Prevention Program

Prenatal Clinics - In 2006, the median state-specific chlamydia test positivity among 15- to 24-year-old women screened in selected prenatal clinics in 23 states, Puerto Rico, and the Virgin Islands was 8.1% (range 3.5% to 16.7%) (Figure E).

Family Planning Clinics - In 2006, 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 states and outlying areas was 6.7% (range 2.8% to 16.9%) (Figures 8 and 9).

Gonorrhea – United States

Gonorrhea rates among women were higher than the overall HP 2010 target of 19.0 cases per 100,000 population[12] in 46 states, Washington D.C., and two outlying areas in 2006 (Figure B, Table 14).

Like chlamydia, gonorrhea is often asymptomatic in women. Gonorrhea screening, therefore, is an important strategy for the identification of gonorrhea among women. Large-scale screening programs for gonorrhea in women began in the 1970s. After an initial increase in cases detected through screening, gonorrhea rates for both women and men declined steadily throughout the 1980s and early 1990s, and then reached a plateau (Figure 11). The gonorrhea rate for women (124.3 per 100,000 females) increased slightly in 2006 for the second consecutive year (Table 14).

Although the gonorrhea rate in men has historically been higher than the rate in women, the gonorrhea rate among women has been higher than the rate among men for six consecutive years (Figure 12 and Tables 14 and 15).

Gonorrhea – Infertility Prevention Program

Prenatal Clinics - In 2006, 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 3.2%) (Figure F). Median gonorrhea positivity in prenatal clinics has shown minimal change in recent years.

Family Planning Clinics - In 2006, the median state-specific gonorrhea test positivity among 15- to 24-year-old women screened in selected family planning clinics in 43 states, Puerto Rico, the District of Columbia, and the Virgin Islands was 1.1% (range 0.0%-4.8%) (Figure 21). Median gonorrhea positivity in family planning clinics has shown minimal change in recent years.

Primary and Secondary Syphilis by State

The HP 2010 target for primary and secondary (P&S) syphilis is 0.2 cases per 100,000 population. In 2006, 32 states, the District of Columbia, and two outlying areas had rates of P&S syphilis for women that were greater than 0.2 case per 100,000 population (Table 26).

Congenital Syphilis

The HP 2010 target for congenital syphilis is 1.0 case per 100,000 live births. In 2006, 26 states, the District of Columbia, and Puerto Rico had rates higher than this target (Table 38).

Trends in congenital syphilis usually follow trends in P&S syphilis among women, with a lag of one to two years (Figure 37). 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 (Figure 38, Table 39). The rate of P&S syphilis among

women declined 94.8% (from 17.3 to 0.9 cases per 100,000 females) during 1990–2005 (Figure 27).

After 14 years of decline in the United States, the rate of congenital syphilis increased 3.7% between 2005 and 2006 (from 8.2 to 8.5 cases per 100,000 live births) (Figure 38, Table 39).

The 2006 rate of congenital syphilis for the United States is currently 8.5 times higher than the HP 2010 target of 1.0 case per 100,000 live births (Table 38).

While most cases of congenital syphilis occur among infants whose mothers have had some prenatal care, late or limited prenatal care has been associated with congenital syphilis. Failure of health care providers to adhere to maternal syphilis screening recommendations also contributes to the occurrence of congenital syphilis.[13]

Pelvic Inflammatory Disease

Accurate estimates of pelvic inflammatory disease (PID) and tubal factor infertility resulting from gonococcal and chlamydial infections are difficult to obtain. Definitive diagnoses of these conditions can be complex. Hospitalizations for PID have declined steadily throughout the 1980s and early 1990s,[14,15] but have remained relatively constant between 1995 and 2005 (Figure H).

The estimated number of initial visits to physicians' offices for PID from the National Disease and Therapeutic Index (NDTI) has generally declined from 1993 through 2006 (Figure I and Table 42).

In 2004, an estimated 170,076 cases of PID were diagnosed in emergency departments among women 15 to 44 years of age. In 2005 this estimate decreased to 147,642 (National Hospital Ambulatory Medical Care Survey, NCHS). As of the date of publication of this report, 2006 data are not available.

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. Because of the subjective methods by which PID is diagnosed, racial disparity data should be interpreted with caution.[15]

Ectopic Pregnancy

Evidence suggests that health care practices associated with clinical management of ectopic pregnancy changed in the late 1980s and early 1990s. Before that time, treatment of ectopic pregnancy usually required admission to a hospital. Hospitalization statistics were therefore useful for monitoring trends in ectopic pregnancy. From 1996 to 2005, hospitalizations for ectopic pregnancy have remained generally stable (Figure G). As of the date of publication of this report, 2006 data are not available. Data suggest that nearly half of all ectopic pregnancies are treated on an outpatient basis.[16]

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[9] 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.

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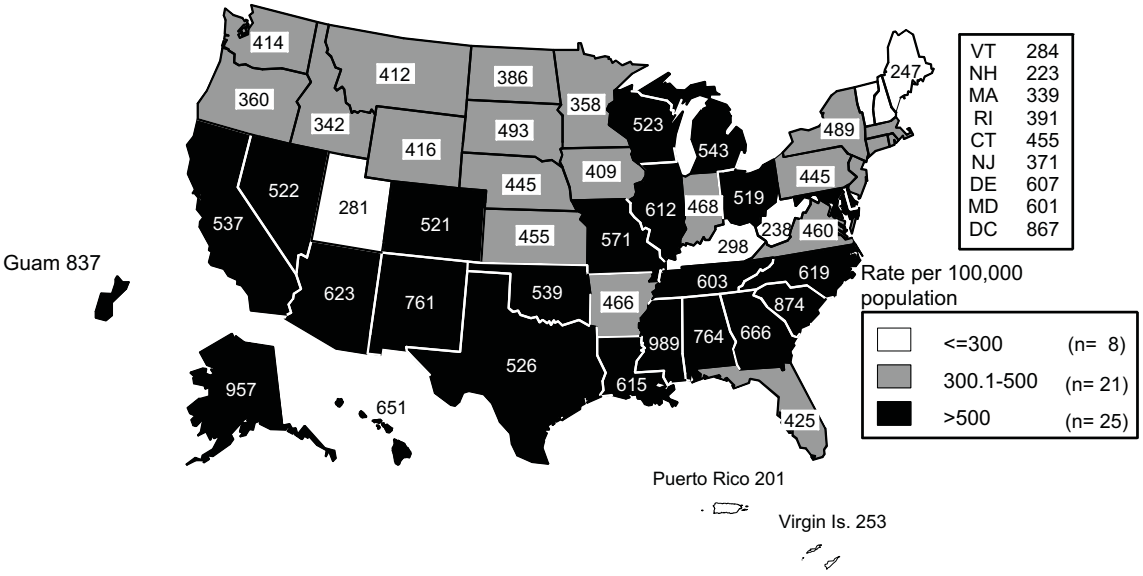
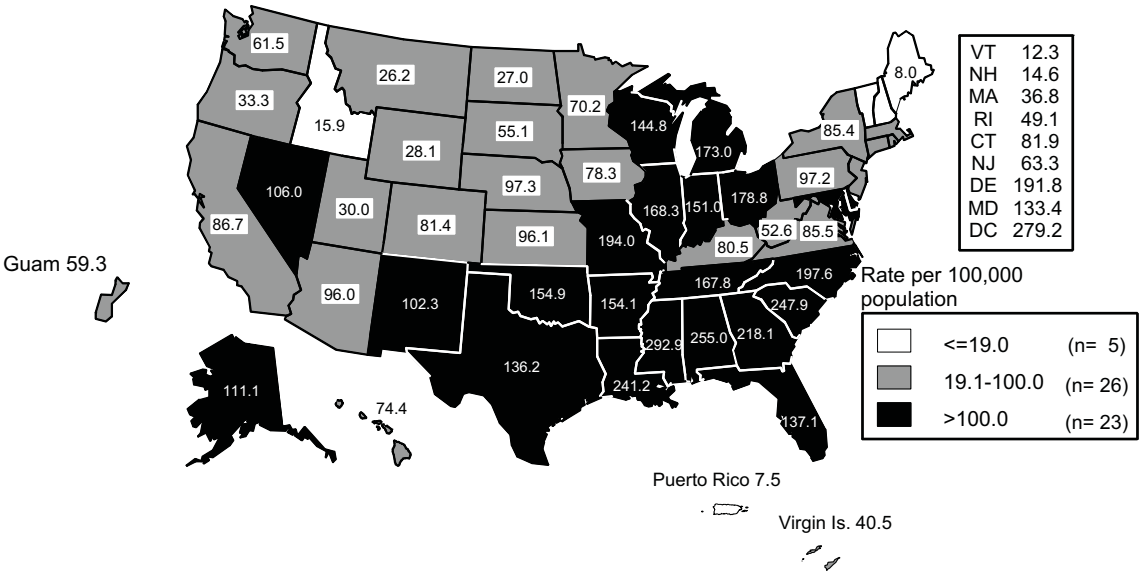
[16] Centers for Disease Control and Prevention. Ectopic pregnancy in the United States, 1990–1992. *MMWR* 1995;44:46-8

Figure A. Chlamydia — Rates among women by state: United States and outlying areas, 2006



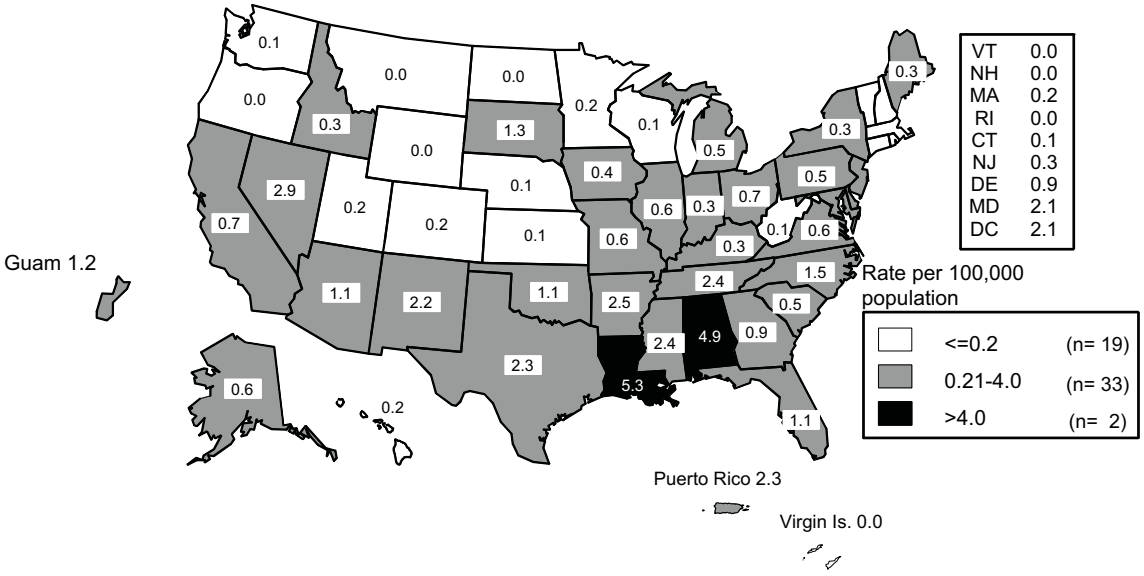
Note: The total chlamydial infection rate among women in the United States and outlying areas (Guam, Puerto Rico and Virgin Islands) was 511.7 per 100,000 female population.

Figure B. Gonorrhea — Rates among women by state: United States and outlying areas, 2006



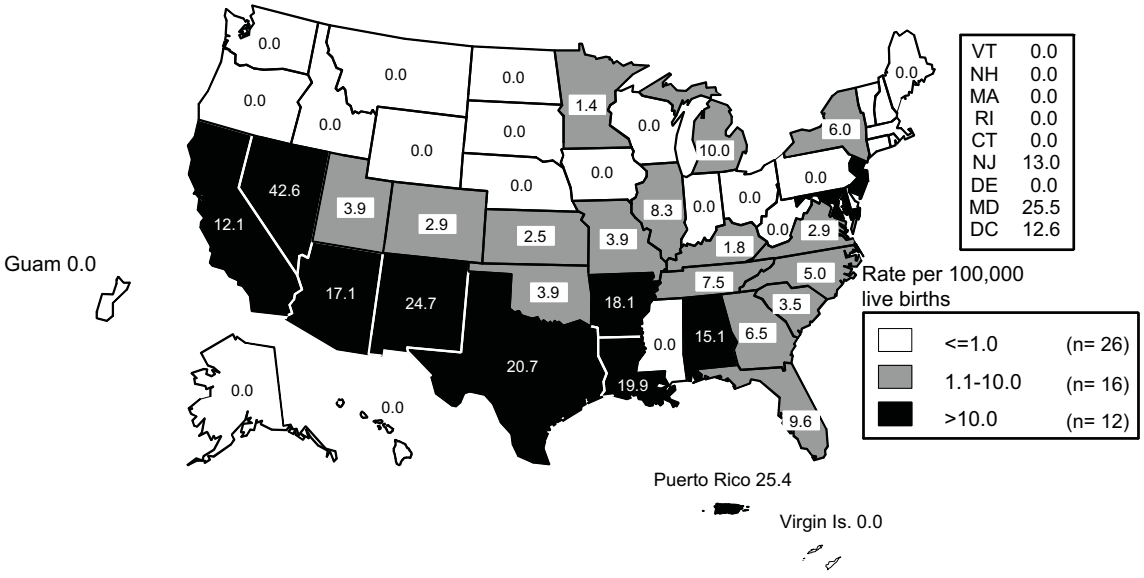
Note: The total gonorrhea infection rate among women in the United States and outlying areas (Guam, Puerto Rico and Virgin Islands) was 122.7 per 100,000 female population.

Figure C. Primary and secondary syphilis — Rates among women by state: United States and outlying areas, 2006



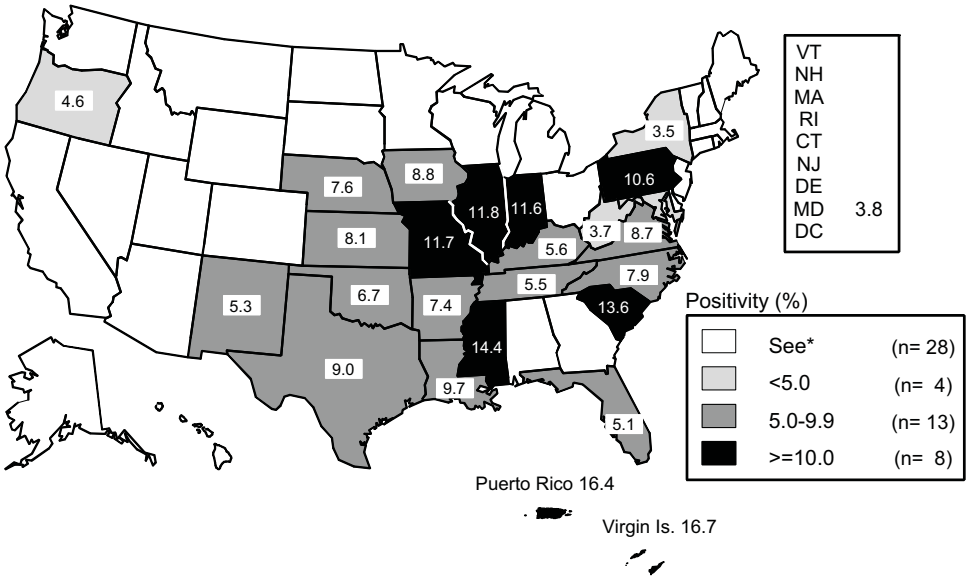
Note: The total rate of P&S syphilis among women in the United States and outlying areas (Guam, Puerto Rico, and Virgin Islands) was 1.0 per 100,000 female population.

Figure D. Congenital syphilis — Rates for infants < 1 year of age by state: United States and outlying areas, 2006



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 8.5 per 100,000 live births. The Healthy People 2010 target is 1.0 case per 100,000 live births.

Figure E. Chlamydia — Positivity in 15- to 24-year-old women tested in prenatal clinics by state: United States and outlying areas, 2006

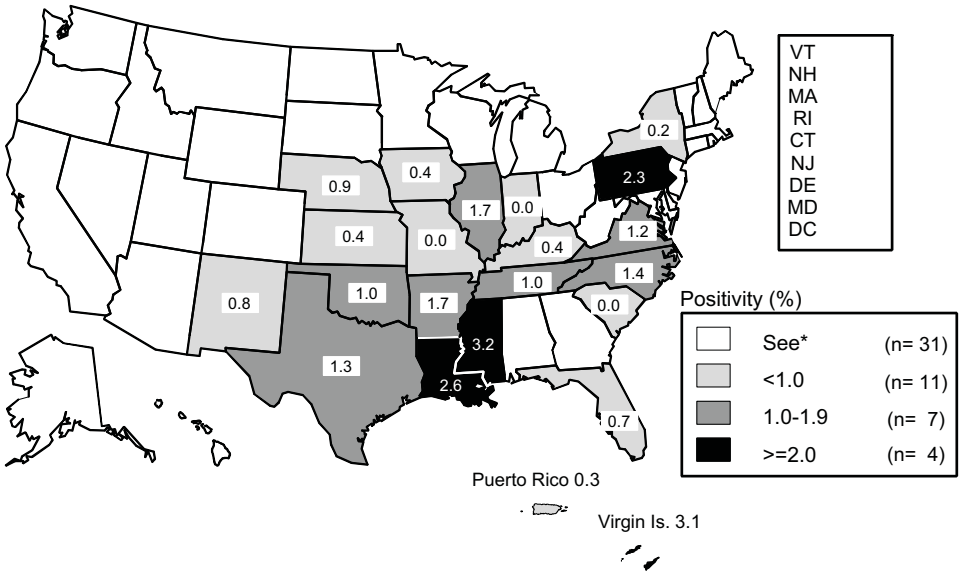


*States/areas not meeting minimum inclusion criteria in prenatal clinics.

Note: Includes states and outlying areas that reported chlamydia positivity data on at least 100 women aged 15 to 24 years during 2006.

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

Figure F. Gonorrhea — Positivity in 15- to 24-year-old women tested in prenatal clinics by state: United States and outlying areas, 2006

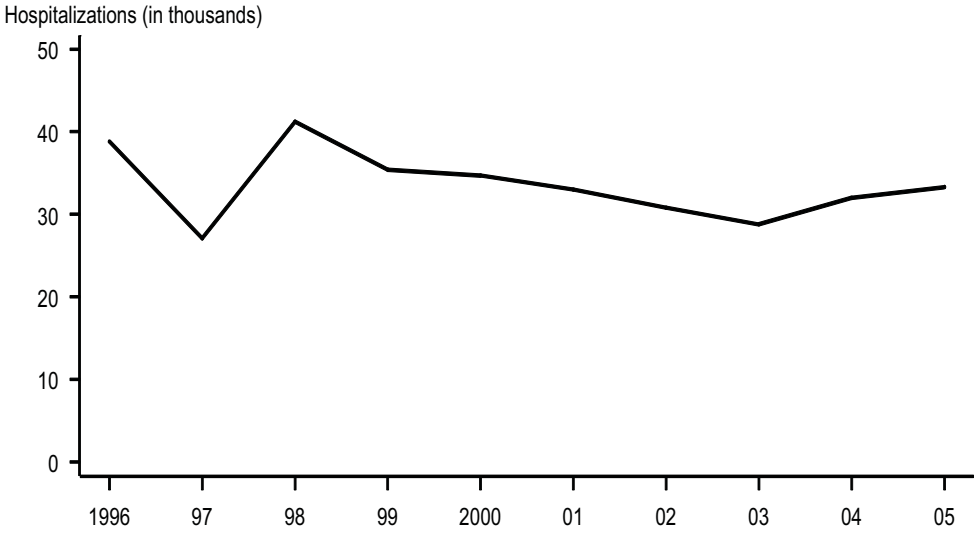


*States/areas not meeting minimum inclusion criteria in prenatal clinics.

Note: Includes states and outlying areas that reported gonorrhea positivity data on at least 100 women aged 15 to 24 years during 2006.

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

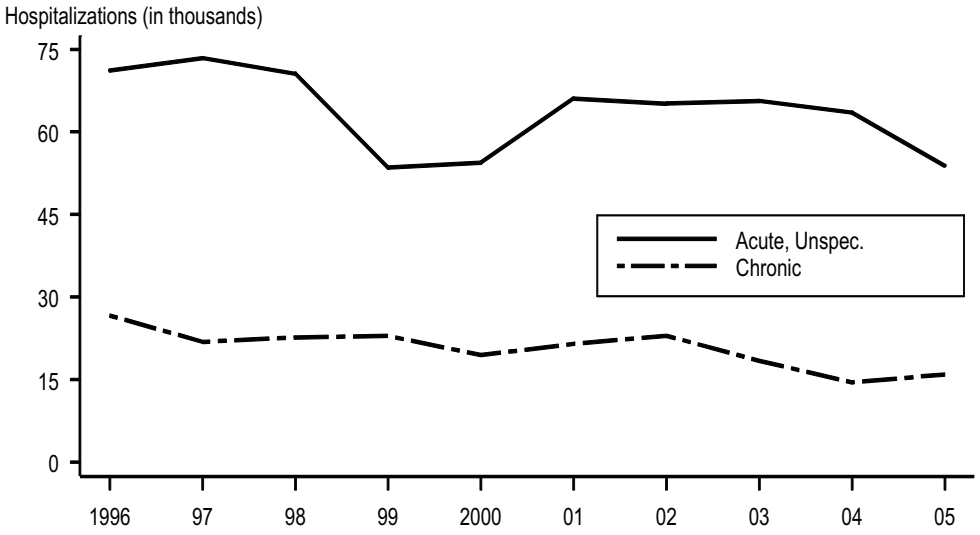
Figure G. Ectopic pregnancy — Hospitalizations of women 15 to 44 years of age: United States, 1996–2005



Note: The relative standard error for these estimates is 11.4%. Data only available through 2005.

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

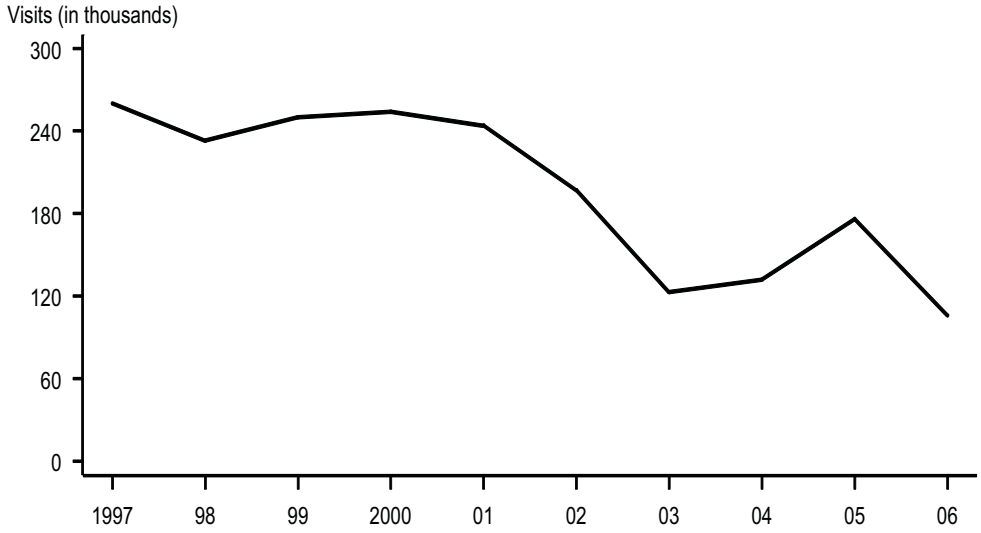
Figure H. Pelvic inflammatory disease — Hospitalizations of women 15 to 44 years of age: United States, 1996–2005



Note: The relative standard error for these estimates of the total number of acute unspecified PID cases ranges from 8% to 11%. The relative standard error for these estimates of the total number of chronic PID cases ranges from 11% to 18%. Data only available through 2005.

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

Figure I. Pelvic inflammatory disease — Initial visits to physicians' offices by women 15 to 44 years of age: United States, 1997–2006



Note: The relative standard error for these estimates range from 19% to 30%. See Appendix (Other Data Sources) and Table 42.

SOURCE: National Disease and Therapeutic Index (IMS Health)

STDs in Adolescents and Young Adults

Public Health Impact

Compared to older adults, sexually-active adolescents 10 to 19 years of age and young adults 20 to 24 years of age are at higher risk for acquiring STDs for a combination of behavioral, biological, and cultural reasons. For some STDs, for example, *Chlamydia trachomatis*, adolescent women may have a physiologically increased susceptibility to infection due to increased cervical ectopy. The higher prevalence of STDs among adolescents also reflects multiple barriers to accessing quality STD prevention services, including lack of insurance or other ability to pay, lack of transportation, discomfort with facilities and services designed for adults, and concerns about confidentiality. Recent estimates suggest that while representing 25% of the ever sexually active population, 15 to 24 years of age acquire nearly half of all new STDs.[1]

Observations

Chlamydia

After adjusting trends in chlamydia positivity to account for changes in laboratory test methods and associated increases in test sensitivity (see **Appendix**), chlamydia test positivity in 15- to 19-year-old women decreased in two of 10 HHS regions between 2005 and 2006, increased in seven regions, and remained the same in one region (Figure J).

Numerous prevalence studies in various clinic populations have shown that sexually-active adolescents have high rates of chlamydial infection.[2,3] The Infertility Prevention Project (IPP) provides routine screening for detecting chlamydial infections among women attending family planning clinics. IPP prevalence data demonstrate that younger women consistently have higher positivity than older women, even when overall prevalence declines.

Gonorrhea

For the second consecutive year, gonorrhea rates for persons 15 to 19 and 20 to 24 years of age increased. Between 2005 and 2006, the increase for those 15 to 19 years of age was 6.3%, and for those 20 to 24 years of age was 4.4% (Table 20).

15- to 19-Year-Old Women - As in previous years, in 2006 15- to 19-year-old women had the highest rate of gonorrhea (647.9 per 100,000 population) compared to any other age/sex group (Figure 19 and Table 20).

20- to 24-Year-Old Women - In 2006, as in previous years, 20- to 24-year-old women had the second highest rate of gonorrhea (605.7 per 100,000 population) compared to any other age/sex group.

15- to 19-Year-Old Men - Gonorrhea rates for 15- to 19-year-old men increased 8.4% from 257.5 per 100,000 population in 2005 to 279.1 per 100,000 population in 2006 (Figure 20, Table 20).

20- to 24-Year-Old Men - As in previous years in 2006, 20- to 24-year old men had

the highest rate of gonorrhea (454.1 per 100,000 population).

Primary and Secondary Syphilis

Syphilis rates among 15- to 19- year old women have increased since 2004 from 1.5 cases per 100,000 population, to 1.9 in 2005 and to 2.3 in 2006. Rates in women have been the highest each year in the 20 to 24 year age group. In this age group there were 2.9 cases per 100,000 population in 2006 (Figure 34, Table 32).

In men, rates among those 15 to 19 years of age have increased since 2002 from 1.3 cases per 100,000 population in 2002 to 2.3 in 2005 and 3.1 in 2006. Rates in men have been the highest each year in the 35 to 39 year old age group. There were 13.5 cases per 100,000 population in 2006 (Figure 34, Table 32).

National Job Training Program

Since 1990, approximately 20,000 female National Job Training Program entrants have been screened each year for chlamydia. This program, administered by the National Job Training Program at more than 100 sites throughout the country, is a job training program for economically-disadvantaged youth aged 16 to 24 years of age.

Chlamydial infection is widespread geographically and highly prevalent among economically-disadvantaged young women and men in the National Job Training Program.[4-6] Specimens from at least 100 students from each state and outlying area were tested by a national contract laboratory.* Among women entering the program from 40 states, the District of Columbia, and Puerto Rico in 2006, based on their place of residence before program entry, the median state-specific chlamydia prevalence was 13.1% (range 4.9% to 20.0%) (Figure K). This reflects a substantial increase from 2005 when the median state-specific chlamydia prevalence was 9.2%, and it appears due to the use of more sensitive tests. Among men entering the program from 48 states, the District of Columbia, and Puerto Rico in 2006, the median state-specific chlamydia prevalence was 7.9% (range 1.8% to 12.4%) (Figure L), which is little change from the chlamydia prevalence of 8.1% in 2005. There was no change in the test types used among men.

Data from National Job Training Program centers that submit gonorrhea specimens from female students aged 16 to 24 years to a national contract laboratory indicated a high prevalence of gonococcal infection in this population. Specimens from at least 100 students from each state and outlying areas were tested by the contract laboratory. Among women entering the program from 36 states, the District of Columbia, and Puerto Rico the median state-specific gonorrhea prevalence was 2.4% (range 0.0% to 7.1%) in 2006 (Figure M). Among men entering the program from 20 states in 2006, the median state-specific gonorrhea prevalence was 3.6% (range 0.0% to 6.2%) (Figure N).

Juvenile Corrections Facilities

Among adolescent women attending juvenile corrections facilities, data from the Corrections STD Prevalence Monitoring Project identified a median chlamydia positivity of 14.2% (range 2.8% to 29.4%) (Table AA) and a median gonorrhea positivity of 3.8% (range 0.0% to 12.2%) (Table CC). *See* **Special Focus Profiles** (STDs in Persons Entering Corrections Facilities).

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

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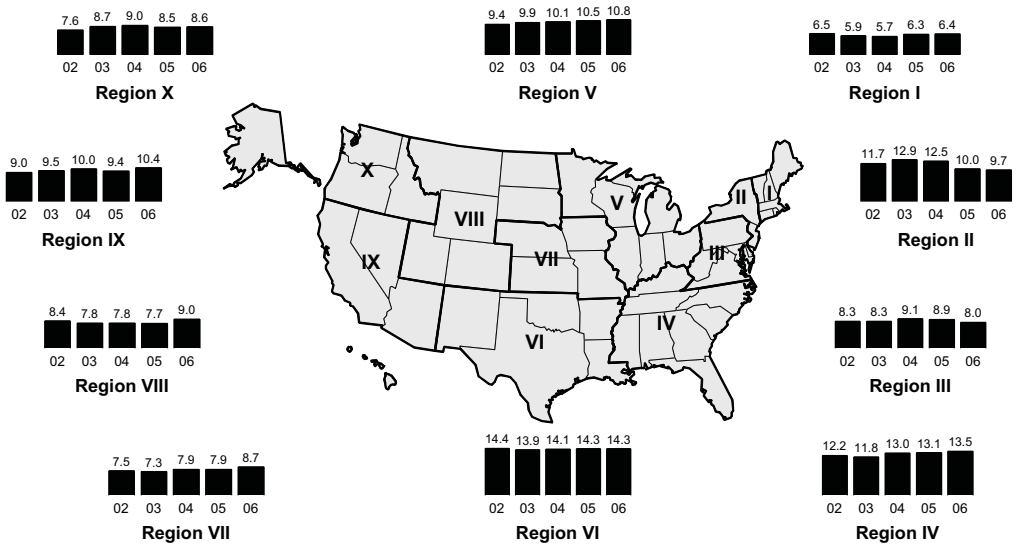
[6] Joesoef MR, Mosure DJ. Prevalence of chlamydia in young women entering the National Job Training Program 1998–2004. *Sexually Transmitted Diseases* 2006;33(9):571-575.

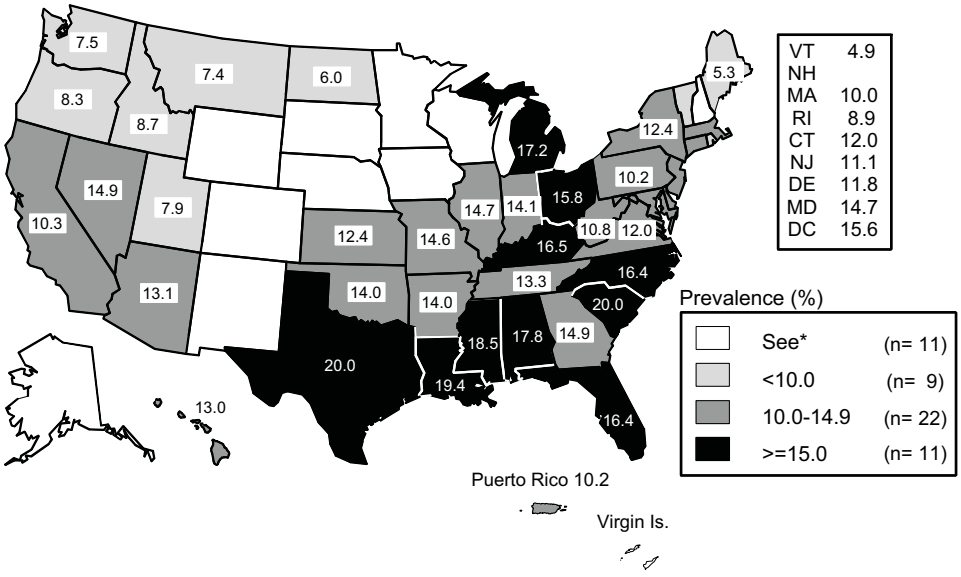
Figure J. Chlamydia — Trends in positivity among 15- to 19-year-old women tested in family planning clinics by HHS region, 2002–2006



Note: Trends adjusted for changes in laboratory test method and associated increases in test sensitivity. See Appendix (Chlamydia, Gonorrhea, and Syphilis Prevalence Monitoring) for more information. See Appendix for definitions of Health and Human Services (HHS) regions.

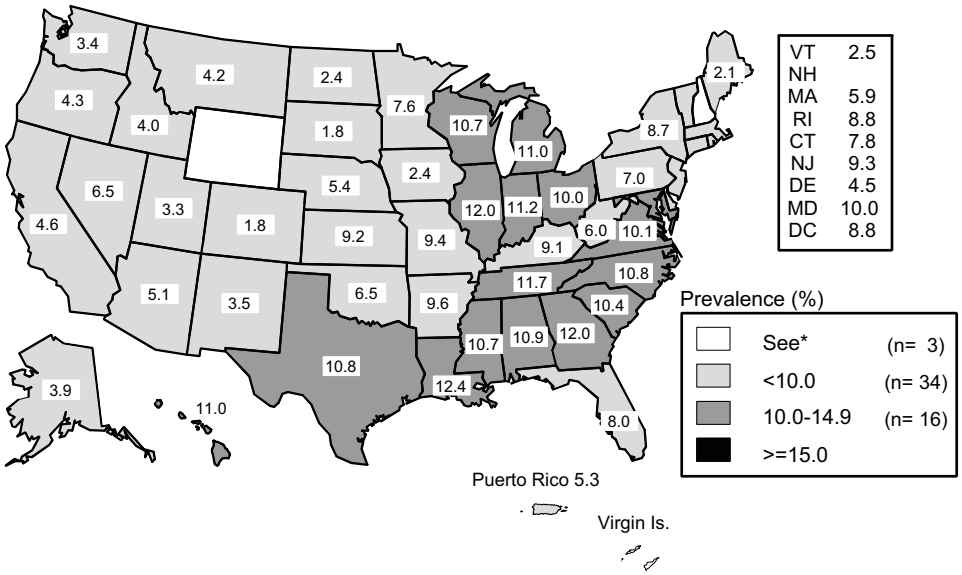
SOURCE: Regional Infertility Prevention Projects; Office of Population Affairs; Local and State STD Control Programs; Centers for Disease Control and Prevention

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, 2006



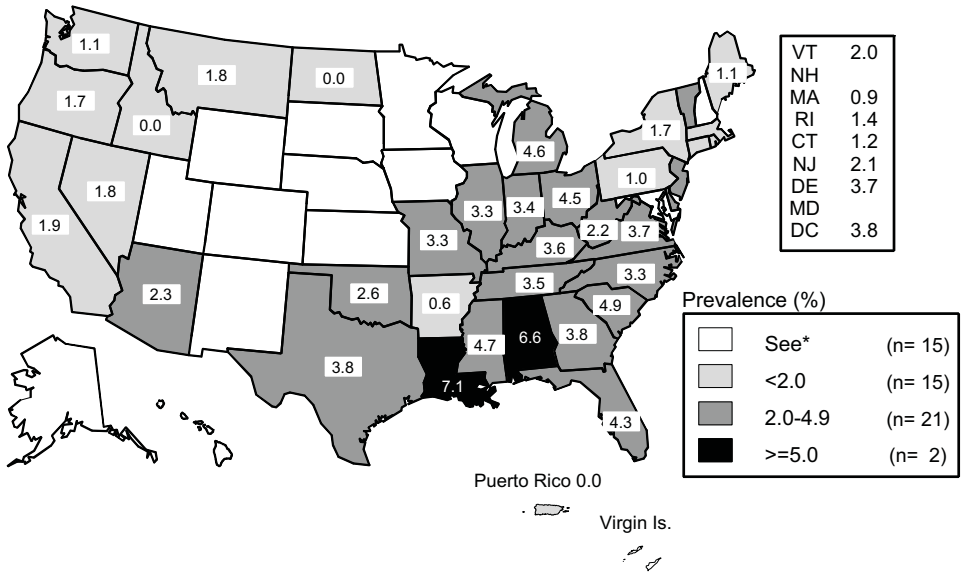
*Fewer than 100 women residing in these states/areas and entering the National Job Training Program were screened for chlamydia in 2006.

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, 2006



*Fewer than 100 men residing in these states/areas and entering the National Job Training Program were screened for chlamydia in 2006.

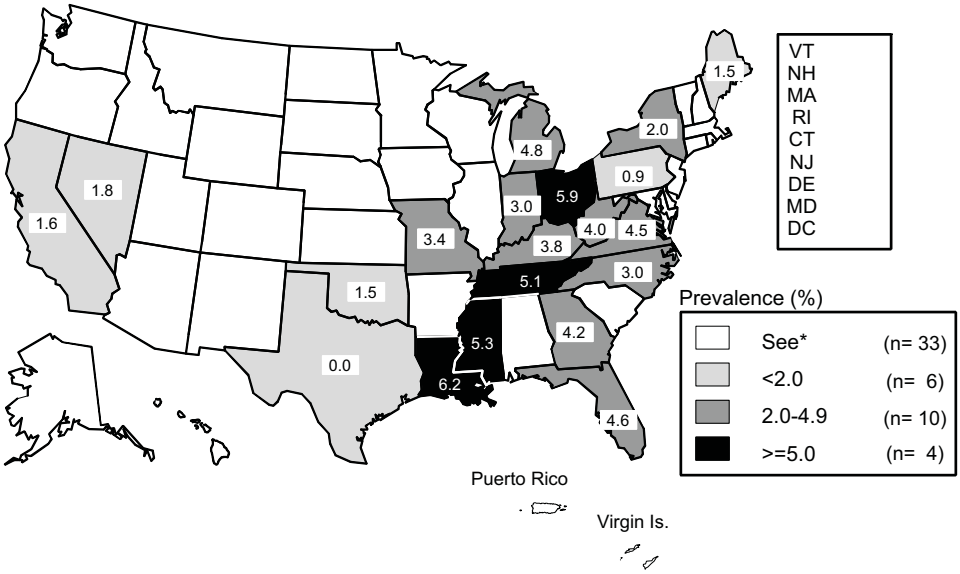
Figure M. Gonorrhea — Prevalence among 16- to 24-year-old women entering the National Job Training Program by state of residence: United States and outlying areas, 2006



*Fewer than 100 women residing in these states/areas and entering the National Job Training Program were screened for gonorrhea by the national contract laboratory in 2006.

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.

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, 2006



*Fewer than 100 men residing in these states/areas and entering the National Job Training Program were screened for gonorrhea by the national contract laboratory in 2006.

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.

STDs in Racial and Ethnic Minorities

Public Health Impact

Surveillance data show higher rates of reported STDs among some minority racial or ethnic groups when compared with rates among whites. Race and ethnicity in the United States are risk markers that correlate with other more fundamental determinants of health status such as poverty, access to quality health care, health care seeking behavior, illicit drug use, and living in communities with high prevalence of STDs. Acknowledging the disparity in STD rates by race or ethnicity is one of the first steps in empowering affected communities to organize and focus on this problem.

STD Reporting Practices

Surveillance data are based on cases of STDs reported to state and local health departments (see **Appendix**). In many areas, reporting from public sources, (for example, STD clinics) is thought to be more complete than reporting from private sources. Since minority populations may utilize public clinics more than whites, differences in rates between minorities and whites may be increased by this reporting bias. However, prevalence data from community-based surveys such as the National Health and Nutrition Exam Survey (NHANES) and AddHealth confirm the existence of marked STD disparities.[1,2]

Completeness of Race/Ethnicity Data

Chlamydia - In 2006, 26.3% of reports on chlamydia cases were missing race or ethnicity (Table A1).

Gonorrhea - In 2006, 21.6% of reports on gonorrhea cases were missing information on race or ethnicity (ranging by state from 0.0% to 46.8%).

Syphilis - In 2006, only 4.1% of reports on syphilis cases were missing information on race or ethnicity (ranging by state from 0.0% to 33.3%).

To adjust for missing 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 the reporting bias.

Observations

Chlamydia

All racial and ethnic groups except Asian/Pacific Islanders reported increases in chlamydia rates from 2005 to 2006. From 2002 to 2006, chlamydia rates increased by 17.2% among African Americans; 23.7% among American Indian/Alaska Natives; 12.7% among Hispanics; and 20.6 among whites (Table 11B). Rates decreased by 5.9% among Asian/Pacific Islanders.

African Americans - In 2006, approximately 47% of all chlamydia cases occurred among African Americans (Table 11A). Overall, the rate of chlamydia among African Americans in the United States was more than eight times that among whites. The rate of chlamydia among African-American women was more than seven times higher than the rate

among white women (1,760.9 and 237.0 per 100,000 population, respectively) (Figure O, Table 11B). The chlamydia rate among African American men was more than 11 times higher than that among white men (741.2 and 66.0 per 100,000 population, respectively).

American Indian/Alaska Natives - In 2006, the chlamydia rate among American Indian/Alaska Natives was 797.3 cases per 100,000 population, over five times higher than the rate among whites (153.1).

Asian/Pacific Islanders - In 2006, the chlamydia rate among Asian/Pacific Islanders was 132.1 cases per 100,000 population, a decrease from the 2005 rate of 148.4.

Hispanics - In 2006, the chlamydia rate among Hispanics was 477.0 cases per 100,000 population, three times higher than the rate among whites (153.1).

Gonorrhea

All racial and ethnic groups except Asian/Pacific Islanders saw slight increases in gonorrhea rates from 2005 to 2006. Despite this slight increase in 2006, between 2002 and 2006, the gonorrhea rate among African Americans declined by 7.7% (from 713.7 in 2002 to 658.4 cases per 100,000 population in 2006). During the same five year period, gonorrhea rates increased by 22.9% among American Indian/Alaska Natives,17.7% among whites, 11.8% among Hispanics, and decreased by 1.4% among Asian/Pacific Islanders (Table 21B).

From 2005 to 2006, gonorrhea rates among 15- to 19-year-old African-American women and men increased for the second consecutive year (Figures Q and R).

African Americans - In 2006, approximately 69% of the total number of reported cases of gonorrhea occurred among African Americans (Table 21A). In 2006, the rate of gonorrhea among African Americans was 658.4 cases per 100,000 population. Overall, the rate of gonorrhea among African Americans in the United States was 18 times greater than that among whites.

In 2006, the gonorrhea rate among African-American men was 25 times higher than that among white men; the gonorrhea rate among African-American women was 14 times higher than that among white women (Figure P).

In 2006, gonorrhea rates were highest for African Americans aged 15 to 19 and 20 to 24 years among all racial, ethnic, and age categories. African-American women aged 15 to 19 years had a gonorrhea rate of 2,898.1 cases per 100,000 women. This rate was 14 times greater than the 2006 rate among white women of similar age (208.7). African-American men in the 15- to 19-year-old age category had a 2006 gonorrhea rate of 1,503.8 cases per 100,000 men, which was 39 times higher than the rate among 15- to 19-year-old white men of 38.4 per 100,000. Among those aged 20 to 24 years, the gonorrhea rate among African Americans was 16 times greater than that among whites (2,560.7 and 165.0 cases per 100,000 population, respectively) (Table 21B).

American Indian/Alaska Natives - In 2006 the gonorrhea rate among American Indian/Alaska Natives was 138.3 which was four times higher than the rate among whites in 2006 of 36.5 cases per 100,000 population.

Asian/Pacific Islanders - In 2006 the gonorrhea rate among Asian/Pacific Islanders was 21.1 cases per 100,000 population which was nearly two times lower than the rate among whites.

Hispanics - In 2006, the gonorrhea rate among Hispanics was 77.4 which was two times higher than the rate among whites.

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 32). Between 2002 and 2006, the rate of P&S syphilis increased among all racial and ethnic groups.

African Americans - Between 2005 and 2006, the rate of P&S syphilis among African Americans increased 16.5% (from 9.7 to 11.3). In 2006, 43.2% of all cases of P&S syphilis reported to CDC were among African Americans and 38.4% of all cases were among non-Hispanic whites (Table 33A). Compared to whites, the overall 2006 rate for African Americans was 5.9 times higher (Table 33B). In 2006, the P&S rate among African-American men was more than five times higher than that among white men; the rate among African-American women was more than 16 times higher than that among white women. In some age groups, particularly 15-19 year old African-American men, disparities have increased markedly in recent years as rates of disease have increased (Figure U).

American Indian/Alaska Natives - Between 2005 and 2006, the rate of P&S syphilis among American Indian/Alaska Natives increased 37.5% (from 2.4 to 3.3). In 2006, 0.8% of all cases of P&S syphilis reported to CDC were among American Indian/Alaska Natives (Table 33A). Compared to whites, the 2006 rate for American Indian/Alaska Natives was 1.7 times higher (Table 33B).

Asian/Pacific Islanders - Between 2005 and 2006, the rate of P&S syphilis among Asian/Pacific Islanders increased 18.2% (from 1.1 to 1.3). In 2006, 1.8% of all cases of P&S syphilis reported to CDC were among Asian/Pacific Islanders (Table 33A). Compared to whites, the 2006 rate for Asian/Pacific Islanders was 0.7 times higher (Table 33B).

Hispanics - Between 2005 and 2006, the rate of P&S syphilis among Hispanics increased 12.5% (from 3.2 to 3.6). In 2006, 15.8% of all cases of P&S syphilis reported to CDC were among Hispanics (Table 33A). Compared to whites, the 2006 rate for Hispanics was 1.9 times higher (Table 33B).

Congenital Syphilis

In 2006, the rate of congenital syphilis (based on the mother's race/ethnicity) was 24.2 cases per 100,000 live births among African Americans and 15.4 cases per 100,000 live births among Hispanics. These rates are 15.1 and 9.6 times higher, respectively, than the 2005 rate among whites (1.6 cases per 100,000 live births) (Figure V, Table 40).

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Figure O. Chlamydia — Rates by race/ethnicity and sex: United States, 2006

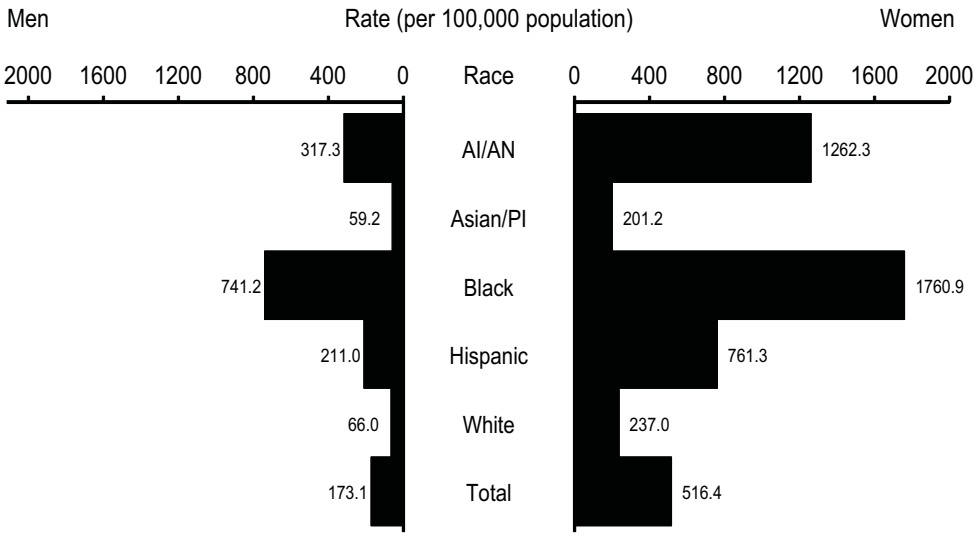


Figure P. Gonorrhea — Rates by race/ethnicity and sex: United States, 2006

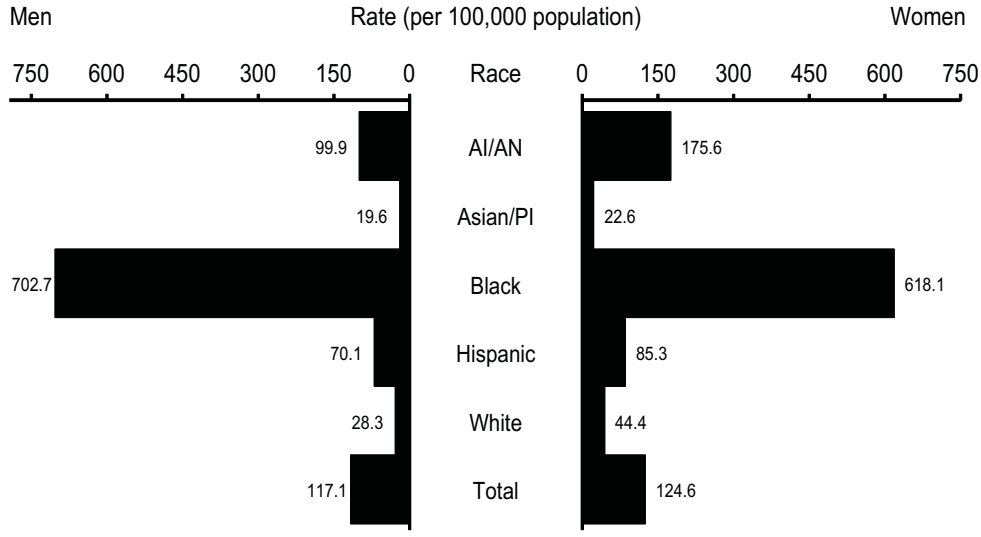


Figure Q. Gonorrhea — Rates among 15- to 19-year-old females by race/ethnicity: United States, 1997–2006

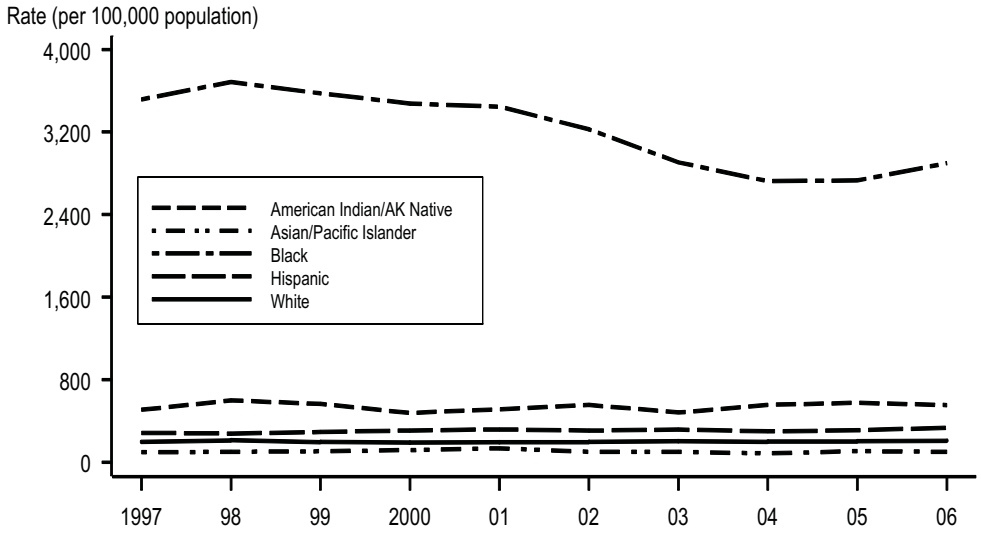


Figure R. Gonorrhea — Rates among 15- to 19-year-old males by race/ethnicity: United States, 1997–2006

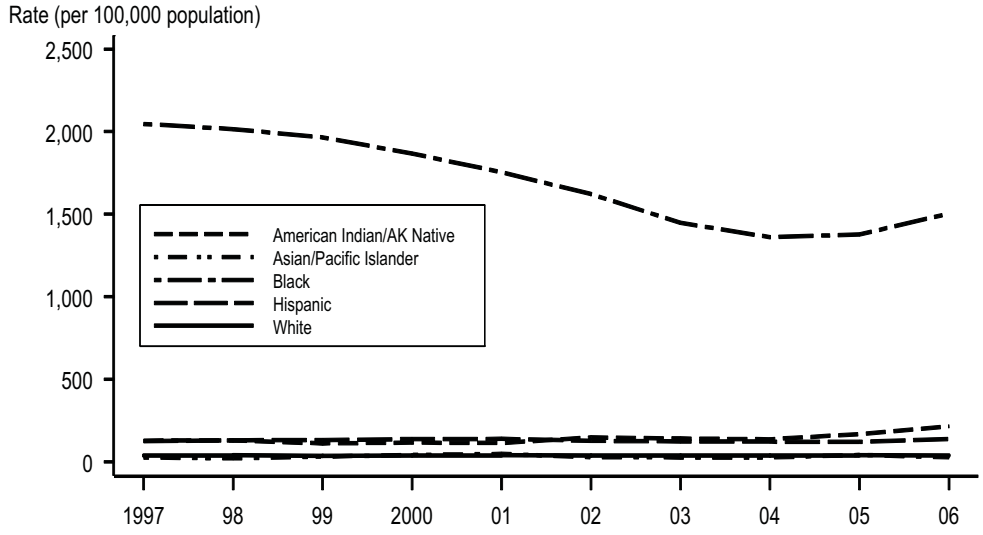


Figure S. Primary and secondary syphilis — Rates by race/ethnicity and sex: United States, 2006

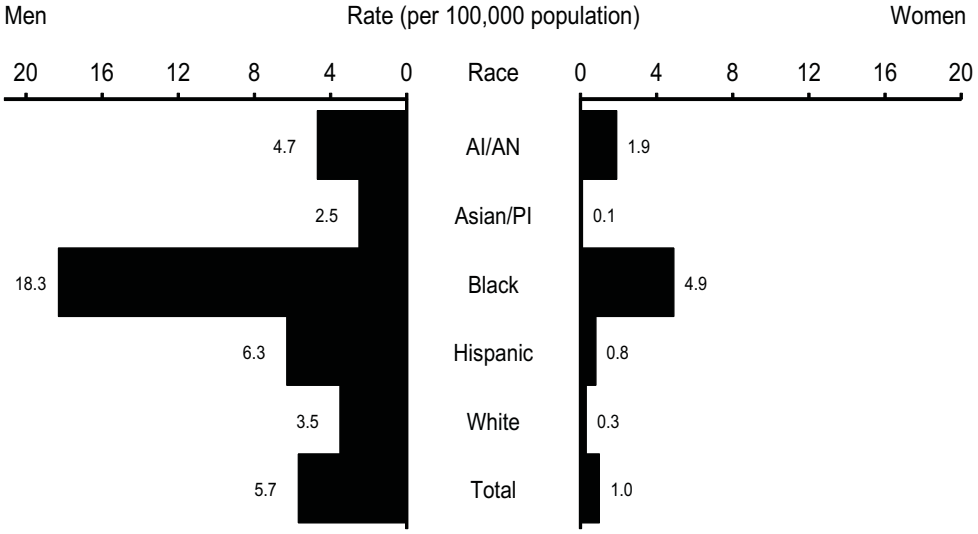


Figure T. Primary and secondary syphilis — Rates among 15- to 19-year-old females by race/ethnicity: United States, 1997–2006

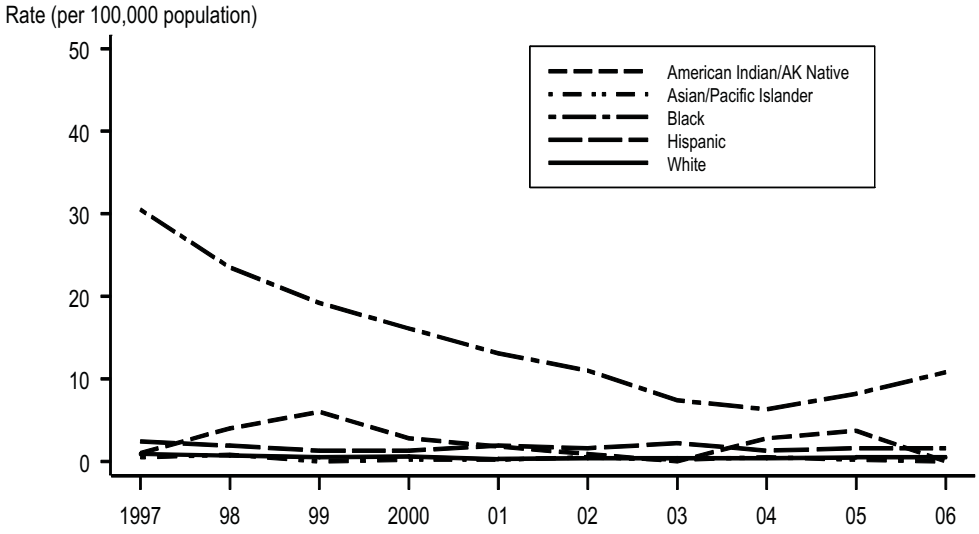


Figure U. Primary and secondary syphilis — Rates among 15- to 19-year-old males by race/ethnicity: United States, 1997–2006

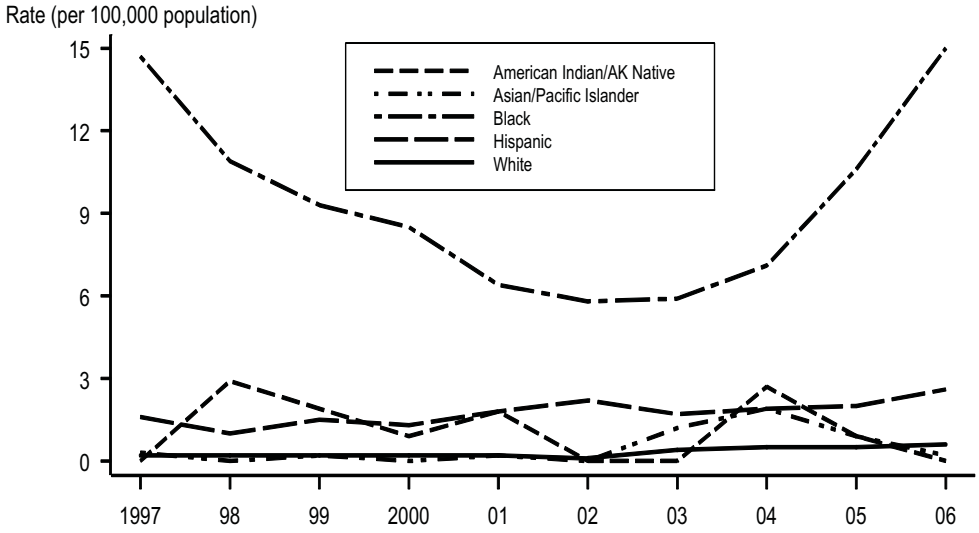
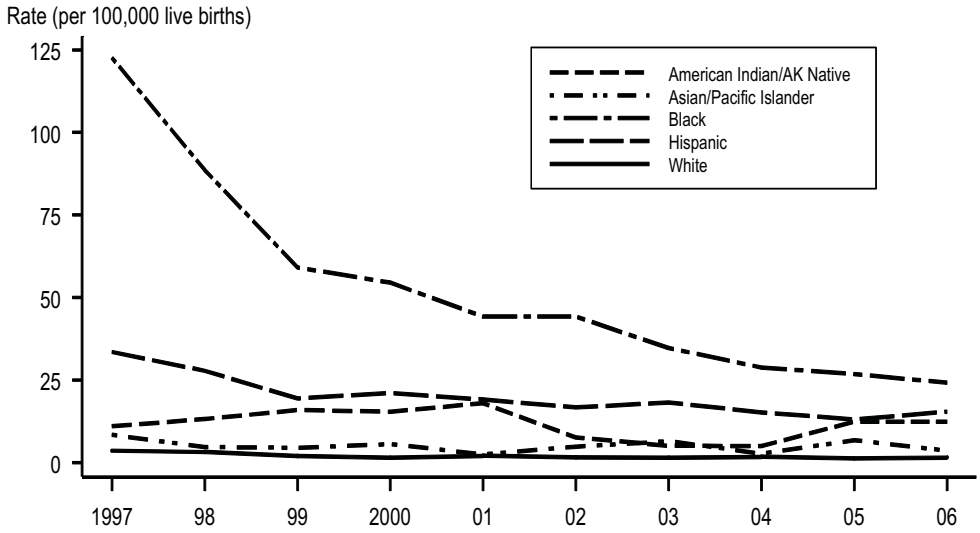


Figure V. Congenital syphilis — Rates among infants < 1 year of age by mother's race/ethnicity: United States, 1997–2006



Note: The Healthy People 2010 target for congenital syphilis is 1.0 case per 100,000 live births. Less than 5% of cases had missing maternal race/ethnicity information and were excluded.

STDs in Men Who Have Sex with Men

Public Health Impact

Data from several U.S. cities and projects, including syphilis outbreak investigations and the GISP suggest that an increasing number of MSM are acquiring STDs.[1-7] Data also suggest that an increasing number of MSM engage in sexual behaviors that place them at risk for STDs and HIV infection.[8] Several factors may be contributing to this change, including the availability of highly active antiretroviral therapy (HAART) for HIV infection.[9] Because STDs and the behaviors associated with acquiring them increase the likelihood of acquiring and transmitting HIV infection,[10] the rise in STDs among MSM may be associated with an increase in HIV diagnoses among MSM.[11]

Observations

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

Monitoring Trends in Prevalence of STDs, HIV and Risk Behaviors among Men Who Have Sex with Men (MSM Prevalence Monitoring Project), STD Clinics, 1999-2006

From 1999 through 2006, eight U.S. cities participating in the MSM Prevalence Monitoring Project submitted syphilis, gonorrhea, chlamydia, and HIV test data to CDC from 120,164 MSM visits to STD clinics; data from 98,866 MSM visits were submitted from five public STD clinics (Denver, New York City, Philadelphia, San Francisco, and Seattle) and data from 21,298 MSM visits were submitted from three STD clinics in community-based, gay men's health clinics (Chicago, the District of Columbia, and Houston).

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

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

Gonorrhea

Between 1999 and 2006 the number of gonorrhea tests for all anatomic sites combined increased in all eight cities. The trend in the number of positive gonorrhea tests for all anatomic sites varied by city. For all cities, the number of symptomatic positive gonorrhea tests accounts for the majority of the overall positive tests (Figure W).

In 2006, 75% (range: 56-94%) of MSM were tested for urethral gonorrhea, 40% (range: 3-61%) were tested for rectal gonorrhea, and 53% (range: 6-87%) were tested for pharyngeal gonorrhea.

In 2006, median clinic urethral gonorrhea positivity in MSM was 10% (range: 8-13%), median rectal gonorrhea positivity was 7% (range: 2-13%), and median pharyngeal gonorrhea positivity was 7% (range: 1-15%).

Chlamydia

In 2006, a median of 75% (range: 58-93%) of MSM visiting participating STD clinics were tested for urethral chlamydia, compared to 65% (range: 58-68%) in 1999. In 2006, the median urethral chlamydia positivity was 6% (range: 5-8%).

Syphilis

In 2006, 83% (range: 61-94%) of MSM visiting participating STD clinics had a nontreponemal serologic test for syphilis (RPR or VDRL) performed, compared with 69% (range: 54-93%) in 1999 (Figure X).

Overall, median seroreactivity among MSM tested for syphilis increased from 4% (range: 4-13%) in 1999 to 10% (range: 6-18%) in 2006.

Syphilis seroreactivity is used to estimate syphilis prevalence and is correlated with prevalence of P%S syphilis in this population.[14]

HIV Infection

Overall, the percent of MSM tested for HIV in STD clinics increased between 1999 and 2006. In 2006, a median of 73% (range: 28-85%) of MSM visiting STD clinics that were not previously known to be HIV-positive were tested for HIV, while 44% (range: 21-55%) were tested in 1999. In 2006, median HIV positivity in MSM was 4% (range: 2-7%) (Figure Y).

In 2006, median HIV prevalence among MSM, including persons previously known to be HIV-positive and persons testing HIV-positive at their current visit, was 12% (range: 10-16%).

HIV/STDs by Race/Ethnicity

HIV positivity varied by race/ethnicity, but was highest in African-American MSM. HIV positivity was 3% (range: 1-4%) in whites, 10% (range: 3-13%) in African Americans, and 4% (range: 2-6%) in Hispanics.

HIV prevalence was 11% (range: 7-16%) in whites, 21% (range: 15-25%) in African Americans, and 14% (range: 8-19%) in Hispanics.

In 2006, urethral gonorrhea positivity was 9% (range: 6-12%) in whites, 14% (range: 9-19) in African Americans, and 7% (range: 4-21%) in Hispanics. Rectal gonorrhea positivity was 8% (range: 3-11%) in whites, 10% (range: 2-12%) in African Americans, and 9% (range: 2-11%) in Hispanics. Pharyngeal gonorrhea positivity was 8% (range: 1-15%) in whites, 6% (range: 1-12%) in African Americans, and 7% (range: 1-28%) in Hispanics.

Urethral chlamydia was 5% (range: 3-8%) in whites; 7% (range: 5-13%) in African Americans, and 6% (range: 4-8%) in Hispanics.

Median syphilis seroreactivity was 7% (range: 6-11%) in whites; 15% (range:

8-26%) in African Americans, and 14% (range: 7-26%) in Hispanics.

STDs by HIV Status, STD Clinics, 2006

In 2006, urethral gonorrhea positivity was 14% (range: 12-31) in HIV-positive MSM and 8% (range: 7-12%) in MSM who were HIV-negative or of unknown HIV status; rectal gonorrhea positivity was 11% (range: 3-18%) in HIV-positive MSM and 6% (range: 2-14%) in MSM who were HIV-negative or of unknown HIV status; pharyngeal gonorrhea positivity was 6% (range: 1-19%) in HIV-positive MSM and 7% (range: 1-14%) in MSM who were HIV-negative or of unknown HIV status.

Median urethral chlamydia positivity was 7% (range: 5-9%) in HIV-positive MSM and 6% (range: 4-8%) in MSM who were HIV-negative or of unknown HIV status.

Median syphilis seroreactivity was 30% (range: 17-44%) in HIV-positive MSM and 7% (range: 5-13%) in MSM who were HIV-negative or of unknown HIV status.

Nationally Notifiable Syphilis Surveillance Data

P&S syphilis increased in the United States between 2002 and 2006, with a 54.1% increase in the number of P&S syphilis cases among men and a 9.1% decrease in the number of cases among women (Tables 26 and 27). In 2006, the rate of reported P&S syphilis among men (5.7 cases per 100,000 males) was 5.7 times greater than the rate among women (1.0 cases per 100,000 females) (Tables 26 and 27). Trends in the syphilis male-to-female rate ratio, which are assumed to reflect, in part, syphilis trends among MSM,[7] have been increasing in the United States during recent years (Figure 33). The overall male-to-female syphilis rate ratio has risen steadily from 3.4 in 2002 to 5.7 in 2006 (Figure 33, Tables 26 and 27). The increase in the male-to-female rate ratio occurred among all racial and ethnic groups between 2002 and 2006.

In recent years, MSM have accounted for an increasing number of estimated syphilis cases in the United States[15] and in 2006 accounted for 64% of P&S syphilis cases in the United States based on information reported from 29 states and Washington, D.C.[16]

Additional information on syphilis can be found in the Syphilis section (**National Profile**).

Gonococcal Isolate Surveillance Project (GISP)

The GISP, a collaborative project among selected STD clinics, was established in 1986 to monitor trends in antimicrobial susceptibilities of strains of *Neisseria gonorrhoeae* in the United States.[17,18]

GISP also reports the percentage of *N. gonorrhoeae* isolates obtained from MSM. Overall, the proportion of isolates from MSM in GISP clinics increased steadily from 4% in 1988 to 21.5% in 2006 (Figure Z). Additional information on GISP may be found in the Gonorrhea section (**National Profile**).

The proportion of isolates coming from MSM varies geographically with the largest percentage from the West Coast (Figure AA).

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[14] Helms DJ, Weinstock HS, et. al. Increases in syphilis among men who have sex with men attending STD clinics, 2000-2005. In: program and abstracts of the 17 Biennial meeting of the ISSTDR, Seattle, WA, July 29-August 1, 2007 [abstract P-608].

[15] 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

[16] Beltrami JF, Weinstock HS. Primary and secondary syphilis among men who have sex with men in the United States, 2005. In: program and abstracts of the 17 Biennial meeting of the ISSTDR, Seattle, WA, July 29-August 1, 2007 [abstract O-069].

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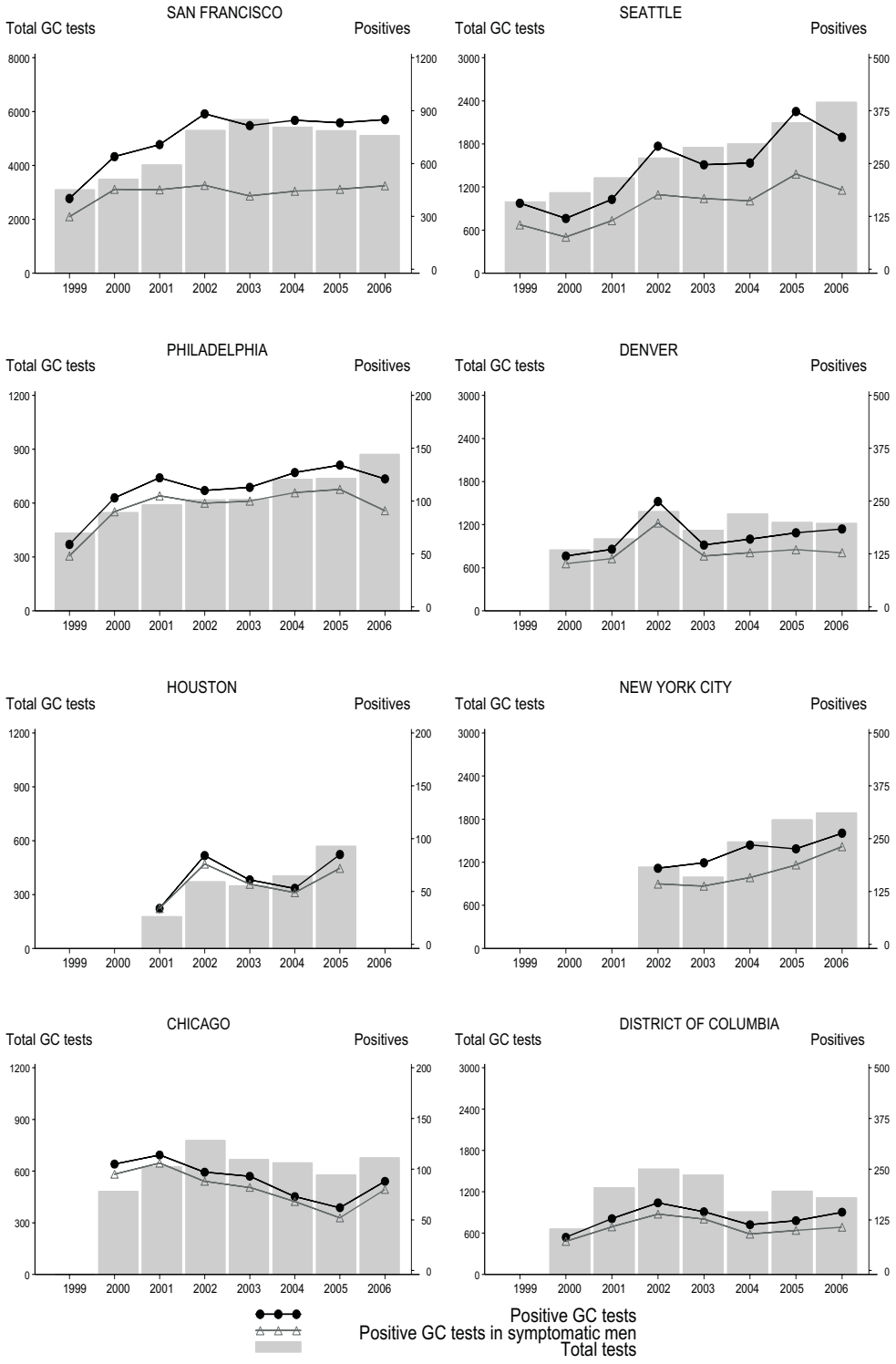
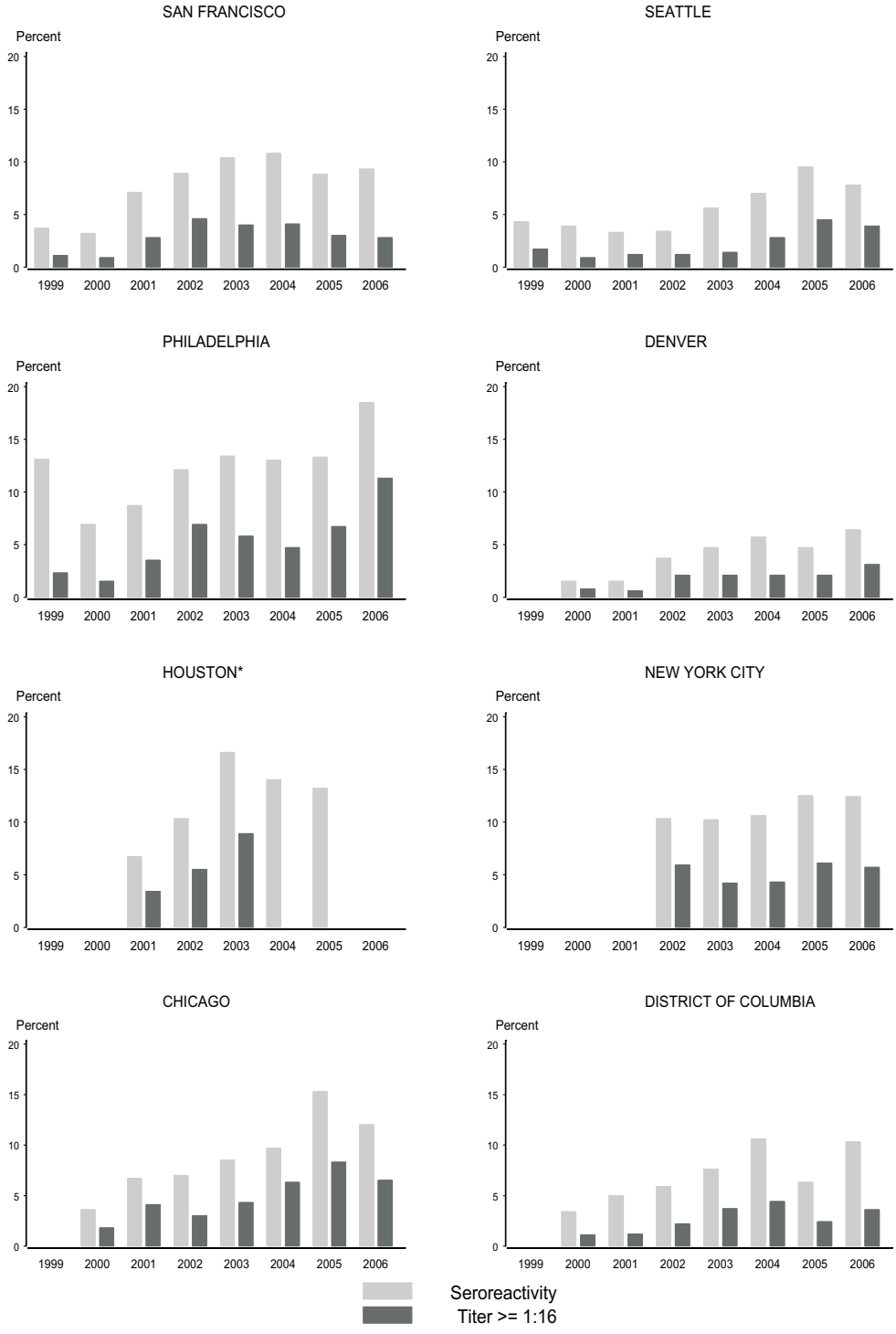
Figure W. MSM Prevalence Monitoring Project — Number of gonorrhea tests and number of positive tests in men who have sex with men, STD clinics, 1999–2006



Note: The bars represent the number of GC tests at 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.

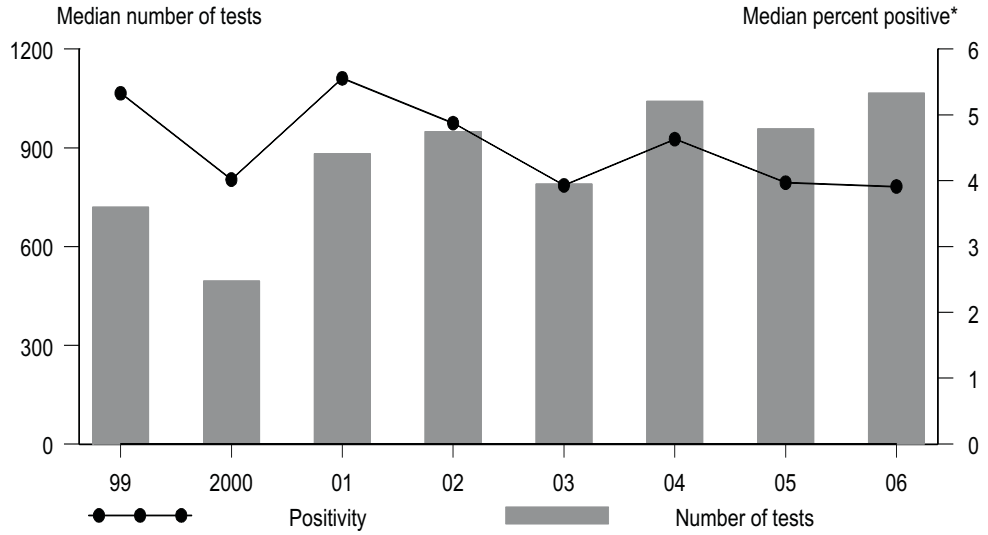
Figure X. MSM Prevalence Monitoring Project — Syphilis serologic reactivity among men who have sex with men, STD clinics, 1999–2006



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

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

Figure Y. MSM Prevalence Monitoring Project — City-specific median number of HIV tests and positivity among men who have sex with men, STD clinics, 1999–2006



*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. Gonococcal Isolate Surveillance Project (GISP) — Percent of urethral *Neisseria gonorrhoeae* isolates obtained from men who have sex with men attending STD clinics, 1988–2006

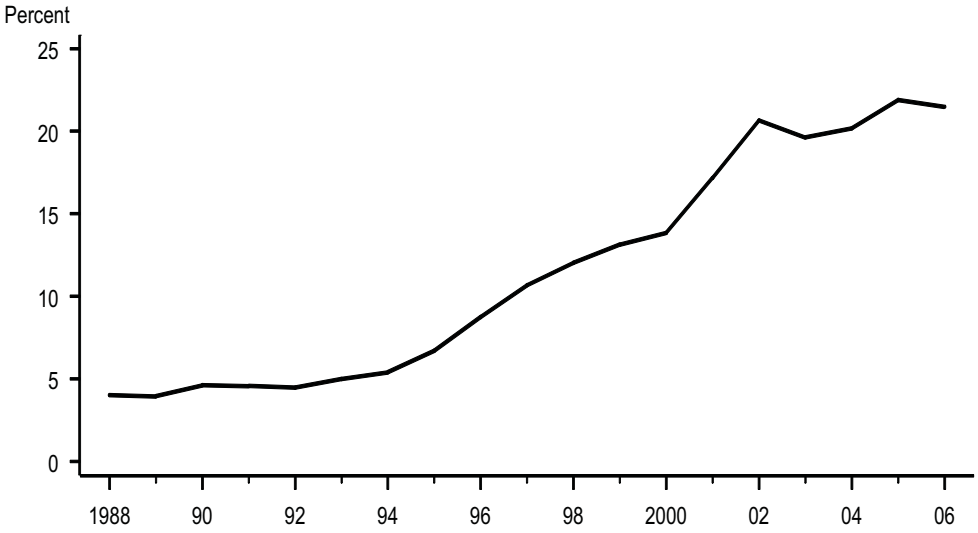
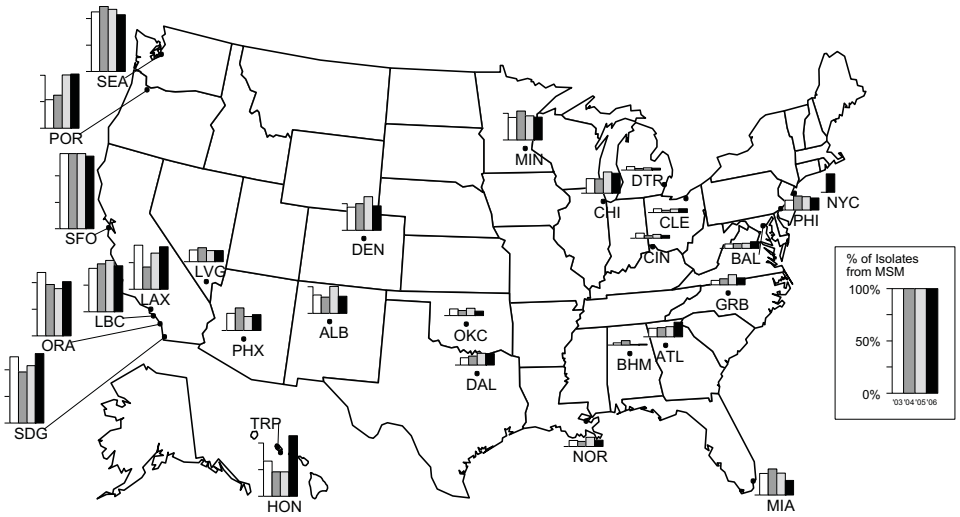


Figure AA. Gonococcal Isolate Surveillance Project (GISP) — Percent of *Neisseria gonorrhoeae* isolates obtained from men who have sex with men attending STD clinics, 2003–2006



Note: Not all clinics participated in GISP for the last 4 years. Clinics 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; HON=Honolulu, HI; LAX=Los Angeles, CA; LBC=Long Beach, CA; LVG=Las Vegas, NV; MIA=Miami, FL; MIN=Minneapolis, MN; GRB=Greensboro, NC; 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; 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] The prevalence rates fro chlamydia and gonorrhea in these settings are consistently among the highest observed in any venue. 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.[4] Collecting positivity data and analyzing trends in STD prevalence in the inmate population can provide a tool for monitoring trends in STD prevalence in the general community.[3-4]

Description of Population

In 2006, STD screening data from corrections facilities were reported from 34 states for chlamydia, 30 states for gonorrhea, and 16 states for syphilis. These data were reported in response to CDC's request for data, as part of the Corrections STD Prevalence Monitoring Project and/or the Infertility Prevention Project (IPP). IPP provided CDC with line-listed data for chlamydia and gonorrhea.

The figures and tables shown in this section represent 48,445 chlamydia tests in women and 124,201 in men; 39,688 gonorrhea tests in women and 106,088 in men; and 36,445 syphilis serologic tests in women and 155,054 in men entering corrections facilities during 2006.

Chlamydia

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

Adolescent Men - In adolescent men entering 83 juvenile corrections facilities, median chlamydia positivity by facility was 5.3% (range: 0.5% to 46.7%) (Table AA). In men 12 to 18 years of age entering these juvenile corrections facilities, the overall chlamydia positivity was 6.4% (Figure BB). Chlamydia positivity increased from 0.4% for adolescent men aged 12 years to 9.5% for those aged 18 years.

Adolescent Women - In adolescent women entering 57 juvenile corrections facilities, median chlamydia positivity by facility was 14.2% (range: 2.8% to 29.4%); positivity was greater than 10% in almost all facilities reporting data (Table AA). In women 12 to 18 years of age entering these juvenile corrections facilities, the overall chlamydia positivity was 14.3% (Figure BB). Positivity in women increased from 6.6% for those aged 12 years to 15.6% for those aged 16 years and, then, declined to 11.8% for those aged 18 years.

Men - In men entering 59 adult corrections facilities, the median chlamydia positivity by facility was 8.8% (range 0.9% to 26.7%) (Table BB). Positivity in young adult men (< 25 years) in these facilities was higher than that observed in adolescent men attending juvenile facilities (Figure CC). Chlamydia positivity decreased with age from 10.3% for those younger than 20 years of age to 2.5% for those older than 34 years.

Women - In women entering 39 adult corrections facilities, median positivity for chlamydia by facility was 8.3% (range: 1.3% to 22.3%) (Table BB). Overall, in women entering these adult corrections facilities, the chlamydia positivity was 9.3% (Figure CC). Chlamydia positivity decreased with age from 19.1% for those younger than 20 years to 3.8% for those older than 34 years. Chlamydia positivity in women entering adult correction facilities was significantly lower than that in women entering juvenile corrections facilities. 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, positivity in women was uniformly higher than in men for all age groups.

Adolescent Men - The median positivity for gonorrhea by facility in men entering 62 juvenile corrections facilities was 0.9% (range: 0.0% to 4.5%) (Table CC). The overall positivity was 1.3% in men 12 to 18 years of age attending these facilities. (Figure DD) Gonorrhea positivity increased with age from 0.5% for those aged 12 years to 2.0% for those aged 18.

Adolescent Women - The median positivity for gonorrhea by facility in women entering 37 juvenile corrections facilities was 3.8% (range: 0.0% to 12.2%) (Table CC). In women 12 to 18 years of age entering these juvenile corrections facilities, the overall gonorrhea positivity was 5.2% (Figure DD). Gonorrhea positivity did not vary by age.

Men - In men entering 52 adult corrections facilities, the median gonorrhea positivity was 2.3% (range: 0.0% to 18.3%) (Table DD). Overall gonorrhea positivity for men attending these facilities was 2.1%. Gonorrhea positivity was highest in men aged 20 to 24 years at 2.7%, declining with age to 1.4% in men older than 34 years. Men aged younger than 20 years attending adult facilities had higher gonorrhea positivity than men attending juvenile detention facilities.

Women - In women entering 35 reporting adult facilities, the median positivity by facility was 4.2% (range: 0.0% to 10.9%) (Table DD). Overall, in women entering adult corrections facilities, the gonorrhea positivity was 4.5% (Figure EE). Gonorrhea positivity decreased with age from 8.4% for those younger than 20 years to 2.4% for those older than 34 years. Women younger than 20 years attending adult facilities had higher gonorrhea positivity than women attending juvenile detention facilities.

Syphilis

Adolescent Men - The median syphilis serologic positivity by facility was 0.0% (range: 0.0% to 3.5%) in adolescent men entering 15 juvenile corrections facilities (Table EE).

Adolescent Women - The median syphilis serologic positivity by facility was 1.4% (range: 0.4% to 1.8%) in adolescent women entering five juvenile corrections facilities (Table EE).

Men - In men entering 58 adult corrections facilities, the median syphilis serologic positivity by facility was 1.4% (range: 0.0% to 7.8%) (Table FF).

Women - In women entering 32 adult corrections facilities, the median serologic positivity by facility was 3.9% (range: 0.0% to 21.7%) (Table FF).

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

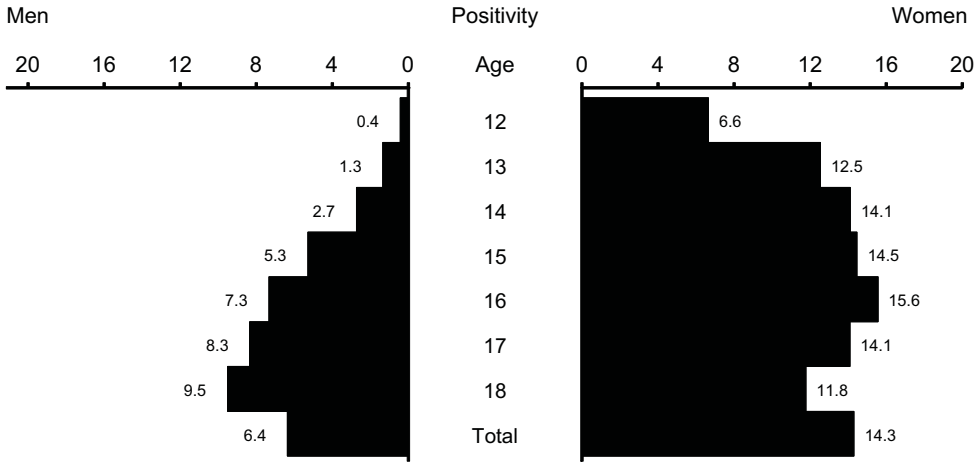
[2] Centers for Disease Control and Prevention. Syphilis screening among women arrestees at the Cook County Jail – Chicago, 1996. *MMWR* 1998;47:432-3.

[3] Mertz KJ, Schwebke JR, Gaydos CA, Beideinger HA, Tulloch SD, Levine WC. Screening women in jails for chlamydial and gonococcal infection using urine tests: Feasibility, acceptability, prevalence and treatment rates. *Sexually Transmitted Diseases* 2002;29:271-276.

[4] Kahn R, Voigt R, Swint E, Weinstock H. Early syphilis in the United States identified in corrections facilities, 1999–2002. *Sexually Transmitted Diseases* 2004;31:360-364.

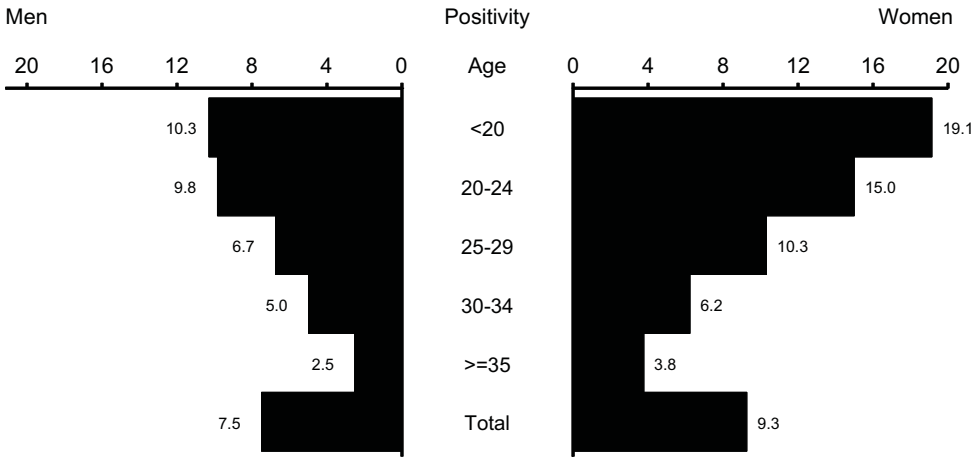
[5] Blank S, McDonnell DD, Rubin SR et al. New approaches to syphilis control. Finding opportunities for syphilis treatment and congenital syphilis prevention in a women's correctional setting. *Sexually Transmitted Diseases* 1997; 24:218-26.

Figure BB. Chlamydia — Positivity by age, juvenile corrections facilities, 2006



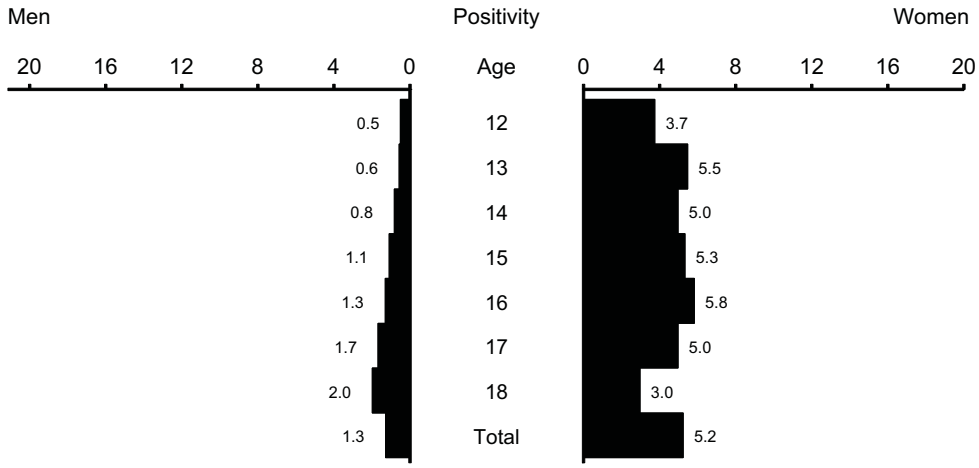
Note: Percent positivity is presented from facilities reporting > 100 test results.

Figure CC. Chlamydia — Positivity by age, adult corrections facilities, 2006



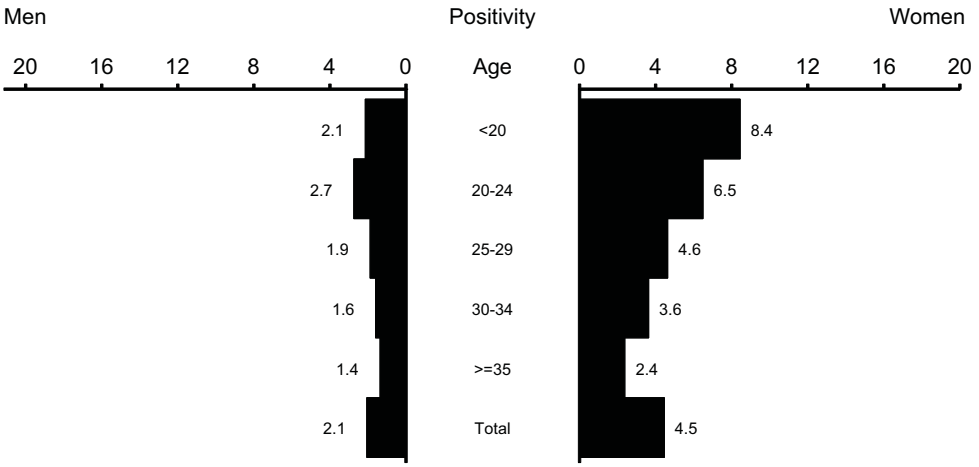
Note: Percent positivity is presented from facilities reporting > 100 test results.

Figure DD. Gonorrhea — Positivity by age, juvenile corrections facilities, 2006



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

Figure EE. Gonorrhea — Positivity by age, adult corrections facilities, 2006



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

Table AA. Chlamydia — Positivity among men and women in juvenile corrections facilities, 2006

	Men			Women		
State	No. of Facilities	No. of Tests	Median % Positivity (Range)	No. of Facilities	No. of Tests	Median % Positivity (Range)
Arizona	4	4,315	7.8 (5.2-9.6)	4	1,358	18.9 (2.8-20.5)
California*	19	26,939	5.2 (0.5-46.7)	23	11,846	12.2 (4.0-21.2)
Connecticut	2	537	3.2 (2.7-3.8)	1	111	14.4
Hawaii	1	126	7.1	–	–	–
Idaho	1	201	2.0	–	–	–
Illinois	4	5,158	8.0 (1.4-9.5)	1	578	20.9
Indiana	1	1,194	7.4	1	374	14.4
Kentucky	8	1,924	4.4 (1.9-9.5)	2	315	18.6 (15.0-22.2)
Maryland	4	2,034	4.2 (2.0-5.1)	2	567	13.9 (12.3-15.5)
Massachusetts	2	977	2.6 (2.6-2.7)	1	362	5.8
Michigan	1	426	8.7	1	159	17.0
Minnesota	1	191	9.4	–	–	–
Mississippi	–	–	–	1	143	13.3
Missouri	1	431	7.2	1	114	12.3
Nebraska	1	654	6.1	1	234	13.7
Nevada	2	1,404	7.4 (3.8-11.0)	2	374	22.4 (15.4-29.4)
New Jersey	4	3,144	9.8 (5.1-18.0)	1	206	19.9
New York	6	5,122	5.1 (2.0-10.3)	5	1,230	18.4 (13.4-22.0)
North Dakota	1	161	9.3	–	–	–
Ohio	3	3,132	10.1 (7.2-10.1)	3	789	19.7 (6.5-23.0)
Oregon	3	1,310	5.7 (4.0-12.3)	2	361	9.7 (7.4-12.0)
Pennsylvania	3	471	3.9 (2.3-11.9)	–	–	–
Tennessee	1	1,755	4.0	1	769	10.8
Utah	2	415	6.7 (5.8-7.6)	2	323	16.6 (12.9-20.4)
Virginia	1	728	10.2	–	–	–
Washington	4	889	4.6 (1.7-9.1)	2	273	13.3 (4.6-22.0)
West Virginia	1	132	3.8	–	–	–
Wisconsin	2	586	3.7 (2.5-5.0)	–	–	–
Total	83	64,356	5.3 (0.5-46.7)	57	20,486	14.2 (2.8-29.4)

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

Table BB. Chlamydia — Positivity among men and women in adult corrections facilities, 2006

State	Men			Women		
	No. of Facilities	*No. of Tests*	*Median % Positivity (Range)*	*No. of Facilities*	*No. of Tests*	*Median % Positivity (Range)*
Arizona	6	1,337	14.3 (3.6-17.0)	4	1,736	11.9 (8.9-12.9)
California*	7	4,416	5.5 (3.1-7.9)	5	7,264	10.3 (4.6-18.2)
Delaware	1	776	5.9	2	960	9.2 (7.3-11.1)
Hawaii	–	–	–	2	235	12.3 (4.5-20.0)
Illinois	6	15,688	9.8 (8.5-10.9)	3	8,676	7.8 (4.8-8.3)
Indiana	1	1,928	8.5	1	834	12.6
Iowa	3	986	12.5 (9.7-19.2)	2	657	9.2 (2.8-15.7)
Maryland	1	573	6.3	–	–	–
Massachusetts	2	2,964	6.4 (5.6-7.1)	2	746	4.7 (3.8-5.6)
Michigan	3	717	12.3 (11.6-21.6)	–	–	–
Missouri	1	3,785	6.6	1	824	4.9
Montana	–	–	–	1	191	2.6
Nebraska	3	1,593	6.6 (5.5-16.7)	1	234	10.3
Nevada	1	297	12.5	1	190	15.8
New Mexico	1	338	9.2	–	–	–
New York	2	8,866	6.2 (3.7-8.7)	1	317	5.0
North Dakota	1	649	7.1	–	–	–
Oregon	2	236	17.6 (15.9-19.2)	1	229	3.5
Pennsylvania	5	2,730	12.1 (4.8-23.1)	3	811	7.3 (2.4-9.2)
South Carolina	1	451	10.6	1	211	8.1
Texas	5	4,693	9.1 (1.3-26.7)	4	2,093	18.7 (17.0-22.3)
Utah	–	–	–	1	153	17.6
Washington	–	–	–	1	668	4.9
West Virginia	3	1,133	1.8 (0.9-2.1)	–	–	–
Wisconsin	5	5,897	10.8 (5.1-15.4)	3	1,045	4.8 (1.3-5.8)
Total	60	60,053	8.9 (0.9-26.7)	40	28,074	8.5 (1.3-22.3)

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

Table CC. Gonorrhea — Positivity among men and women in juvenile corrections facilities, 2006

State	Men			Women		
	No. of Facilities	*No. of Tests*	*Median % Positivity (Range)*	*No. of Facilities*	*No. of Tests*	*Median % Positivity (Range)*
Arizona	4	4,313	1.1 (0.6-1.9)	4	1,353	3.8 (1.9-6.2)
California*	7	17,889	0.6 (0.3-1.0)	7	5,313	5.0 (0.7-12.2)
Connecticut	2	538	0.0	1	111	1.8
Hawaii	1	126	0.0	–	–	–
Idaho	1	198	1.0	–	–	–
Illinois	4	5,160	2.1 (0.7-2.5)	1	578	9.9
Indiana	1	1,192	2.2	1	374	8.0
Kentucky	8	1,924	0.5 (0.0-3.4)	2	315	5.4 (2.4-8.3)
Maryland	4	2,075	0.2 (0.0-0.8)	2	575	4.3 (2.9-5.7)
Michigan	1	426	1.6	1	159	5.7
Minnesota	1	191	2.6	–	–	–
Mississippi	–	–	–	1	142	3.5
Missouri	1	432	1.4	1	114	3.5
Nebraska	1	654	1.2	1	234	3.8
Nevada	2	1,404	1.5 (0.5-2.5)	2	373	6.5 (2.9-10.1)
New Jersey	4	3,146	1.6 (0.7-4.5)	1	206	4.4
New York	4	4,511	1.4 (0.2-1.9)	4	1,058	3.4 (0.0-5.3)
Ohio	3	3,132	2.1 (1.1-3.4)	3	789	8.1 (2.2-9.1)
Pennsylvania	3	451	0.0	–	–	–
Tennessee	1	1,754	1.3	1	769	3.8
Utah	2	415	0.7 (0.0-1.3)	2	323	3.4 (2.4-4.4)
Washington	4	889	0.7 (0.4-1.6)	2	274	1.5 (0.0-3.0)
West Virginia	1	107	3.7	–	–	–
Wisconsin	2	585	0.5 (0.0-1.0)	–	–	–
Total	62	51,512	0.9 (0.0-4.5)	37	13,060	3.8 (0.0-12.2)

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

Table DD. Gonorrhea — Positivity among men and women in adult corrections facilities, 2006

State	Men			Women		
	No. of Facilities	*No. of Tests*	*Median % Positivity (Range)*	*No. of Facilities*	*No. of Tests*	*Median % Positivity (Range)*
Arizona	6	1,336	10.3 (0.0-18.3)	4	1,736	7.0 (4.0-7.4)
California*	7	4,420	1.6 (1.3-3.1)	5	7,263	3.8 (1.6-8.6)
Delaware	1	746	1.1	2	923	6.1 (4.4-7.7)
Hawaii	–	–	–	2	235	3.6 (0.0-7.2)
Illinois	6	15,749	3.3 (1.0-6.6)	3	8,717	4.3 (1.0-6.8)
Indiana	1	1,928	2.7	1	834	8.6
Iowa	3	986	2.4 (0.8-3.4)	2	657	1.1 (0.6-1.7)
Maryland	1	578	1.0	–	–	–
Michigan	3	717	3.7 (2.1-13.8)	–	–	–
Missouri	1	3,786	1.6	1	825	3.2
Montana	–	–	–	1	190	0.0
Nebraska	3	1,593	1.5 (0.3-7.4)	1	234	5.1
Nevada	1	298	3.0	1	190	2.6
New Mexico	1	338	1.2	–	–	–
New York	1	8,131	0.5	–	–	–
Pennsylvania	4	2,285	5.2 (0.9-15.0)	3	778	3.1 (0.0-6.4)
South Carolina	1	450	3.1	1	211	3.8
Texas	5	4,691	1.7 (0.0-16.3)	4	2,094	9.0 (6.5-10.9)
Utah	–	–	–	1	152	7.2
Washington	–	–	–	1	667	1.3
West Virginia	3	862	2.2 (0.9-2.5)	–	–	–
Wisconsin	5	5,890	3.3 (0.3-7.0)	3	1,037	0.7 (0.1-3.4)
Total	53	54,784	2.3 (0.0-18.3)	36	26,743	4.1 (0.0-10.9)

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

Table EE. Syphilis— Positivity among men and women in juvenile corrections facilities, 2006

	Men			Women		
State	No. of Facilities	No. of Tests	Median % Positivity (Range)	No. of Facilities	No. of Tests	Median % Positivity (Range)
Arizona	2	2,536	0.4 (0.3-0.4)	1	615	1.5
California*	1	113	3.5	0	–	–
Illinois	1	2,895	0.7	1	527	1.3
Kentucky	1	405	0.3	0	–	–
Maryland	8	5,316	0.0 (0.0-0.1)	2	605	1.1 (0.4-1.8)
North Carolina	1	417	0.0	0	–	–
Texas	1	1,117	0.3	1	363	1.4
Total	15	12,799	0.0 (0.0-3.5)	5	2,110	1.4 (0.4-1.8)

Note: The median positivity by facility is presented from facilities reporting > 100 test results. *Includes San Francisco project area.

Table FF. Syphilis— Positivity among men and women in adult corrections facilities, 2006

	Men			Women		
State	No. of Facilities	No. of Tests	Median % Positivity (Range)	No. of Facilities	No. of Tests	Median % Positivity (Range)
Arizona	1	25,009	2.6	1	5,382	5.6
California*	1	679	5.3	2	3,364	4.0 (2.5-5.4)
Florida	5	6,463	3.4 (2.9-4.3)	1	229	12.2
Illinois	1	320	0.3	1	117	1.7
Indianapolis	1	1,276	1.2	1	605	1.8
Kentucky	1	1,215	0.3	1	360	0.3
Louisiana	0	–	–	1	926	21.7
Maryland	10	24,971	1.8 (0.6-3.1)	7	3,540	4.1 (0.0-10.4)
Massachusetts	18	18,773	0.9 (0.0-1.4)	4	3,919	1.8 (1.2-3.1)
Mississippi	3	895	3.4 (2.5-7.8)	0	–	–
Missouri	2	5,957	1.6 (1.0-2.1)	2	1,191	4.0 (1.6-6.3)
New York †	2	8,513	1.3 (1.1-1.4)	2	1,023	2.6 (1.6-3.6
North Carolina	5	3,969	1.4 (0.9-4.8)	3	1,544	7.8 (4.3-9.3)
Tennessee	2	9,695	3.3 (2.3-4.2)	1	5,275	9.4
Texas	5	33,863	3.3 (2.0-5.6)	4	6,654	6.9 (3.7-10.6)
Wisconsin	1	657	0.0	1	206	0.0
Total	58	142,255	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. *Includes San Francisco project area. †New York data is for confirmatory results.