SPECIAL FOCUS PROFILES

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Special Focus Profiles

The **Special Focus Profiles** highlight trends and distribution of sexually transmitted diseases (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, men who have sex with men (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-FF 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 pelvic inflammatory disease (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 chlamydia 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]

Gonorrhea and chlamydia can also 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 ophthalmia neonatorum, prevention of neonatal pneumonia requires prenatal detection and treatment.

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 (e.g., types 16, 18, 31, 33, 35, and 45), are causally related to cervical cancer; these types also cause Pap smear abnormalities. Other types (e.g., types 6 and 11) cause genital warts, low grade Pap smear abnormalities and, rarely, recurrent respiratory papillomatosis in infants born to infected mothers.[9]

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 2004 and 2005, the rate of chlamydia infections in women increased from 480.6 to 496.5 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 13).

Chlamydia – Infertility Prevention Program

In 2005, the median state-specific chlamydia test positivity among 15- to 24-year-old women tested in selected prenatal clinics in 25 states, Puerto Rico, and the Virgin Islands was 8.0% (range 2.8% to 16.9%) (Figure E).

In 2005, 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 6.3% (range 3.0% to 20.3%) (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 and two outlying areas in 2005 (Figure B, Table 13).

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 (119.1 per 100,000 females) increased slightly in 2005.

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 five consecutive years (Figure 12 and Tables 13 and 14).

Gonorrhea – Infertility Prevention Program

In 2005, the median state-specific gonorrhea test positivity among 15- to 24-year- old women screened in selected family planning clinics in 41 states, Puerto Rico, the District of Columbia, and the Virgin Islands was 1.0% (range 0.0%-3.8%) (Figure 21). Median gonorrhea positivity in family planning clinics has shown minimal change in recent years (1.0% in 2001).

In 2005, 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 0.9% (range 0.0% to 3.2%) (Figure F). Median gonorrhea positivity in prenatal clinics has shown minimal change in recent years (0.9% in 2001).

Primary and Secondary Syphilis by State

The HP 2010 target for primary and secondary (P&S) syphilis is 0.2 case per 100,000 population. In 2005, 29 states and two outlying areas had rates of P&S syphilis for women that were greater than 0.2 case per 100,000 population (Table 25).

Congenital Syphilis

The HP 2010 target for congenital syphilis is 1.0 case per 100,000 live births. In 2005, 26 states, Guam, and Puerto Rico had rates higher than this target (Table 38).

The number of congenital syphilis cases closely follows the trend of P&S syphilis among women (Figure 37). Peaks in congenital syphilis usually occur one year after peaks in P&S syphilis among women. The congenital syphilis rate peaked in 1991 at 107.3 cases per 100,000 live births, and declined by 92.5% to 8.0 cases per 100,000 live births in 2005 (Figure 38, Table 37). 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).

The 2005 rate of congenital syphilis for the United States is currently eight times higher than the HP2010 target of 1.0 case per 100,000 live births.

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 chlamydia infections are difficult to obtain. Definitive diagnosis of these conditions can be complex.

Hospitalizations for PID have declined steadily throughout the 1980s and early 1990s, but have remained relatively constant between 1995 and 2004 (Figure H). A greater proportion of women diagnosed with PID in the 1990s have been treated in outpatient instead of inpatient settings when compared to women diagnosed with PID in the 1980s.[14]

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 2005 (Figure I and Table 42).

In 2003, an estimated 168,837 cases of PID were diagnosed in emergency departments among women 15 to 44 years of age. In 2004 this estimate increased to 170,076 (National Hospital Ambulatory Medical Care Survey, NCHS). As of the date of publication of this report, 2005 data are not available.

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. Beginning in 1989, hospitalizations for ectopic pregnancy have generally declined over time (Figure G). Data suggest that nearly half of all ectopic pregnancies are treated on an outpatient basis.[15]

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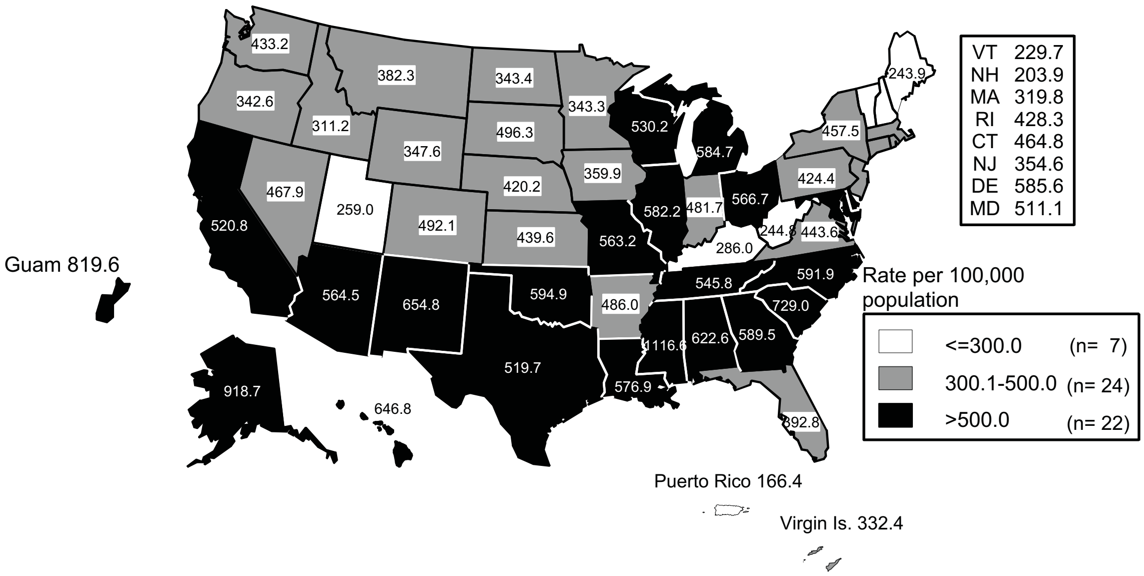
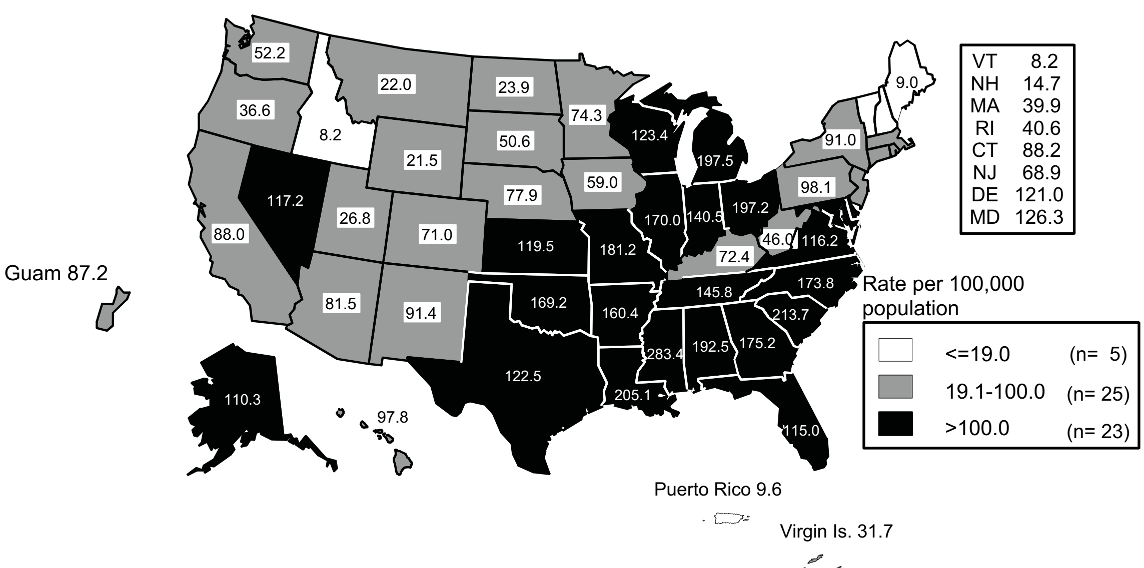
Figure A. Chlamydia — Rates among women by state: United States and outlying areas, 2005



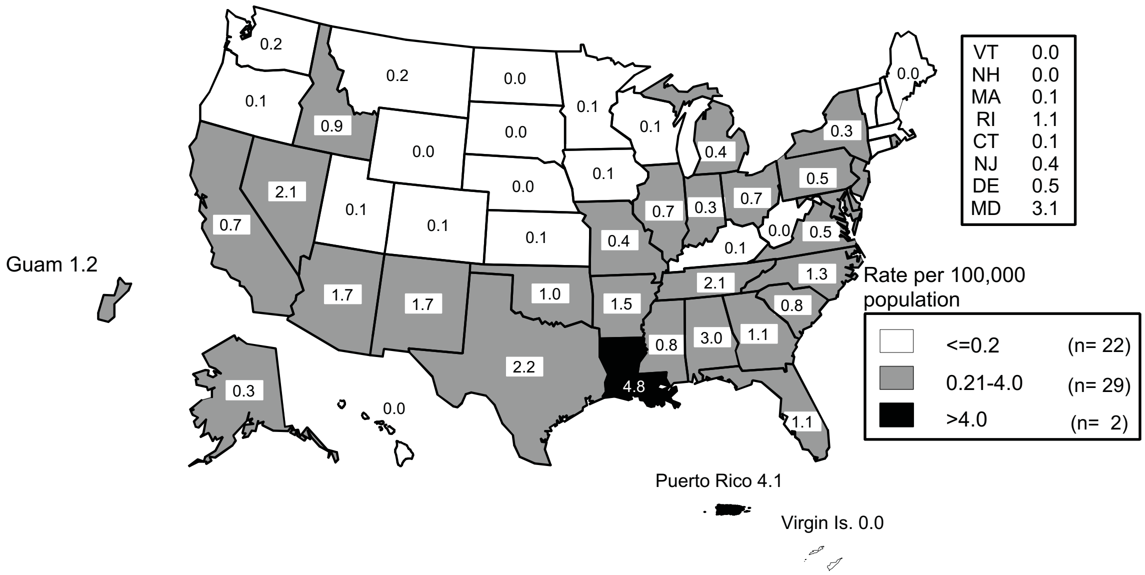
Note: The total chlamydia infection rate among women in the United States and outlying areas (Guam, Puerto Rico and Virgin Islands) was 492.2 per 100,000 female population.

Figure B. Gonorrhea — Rates among women by state: United States and outlying areas, 2005



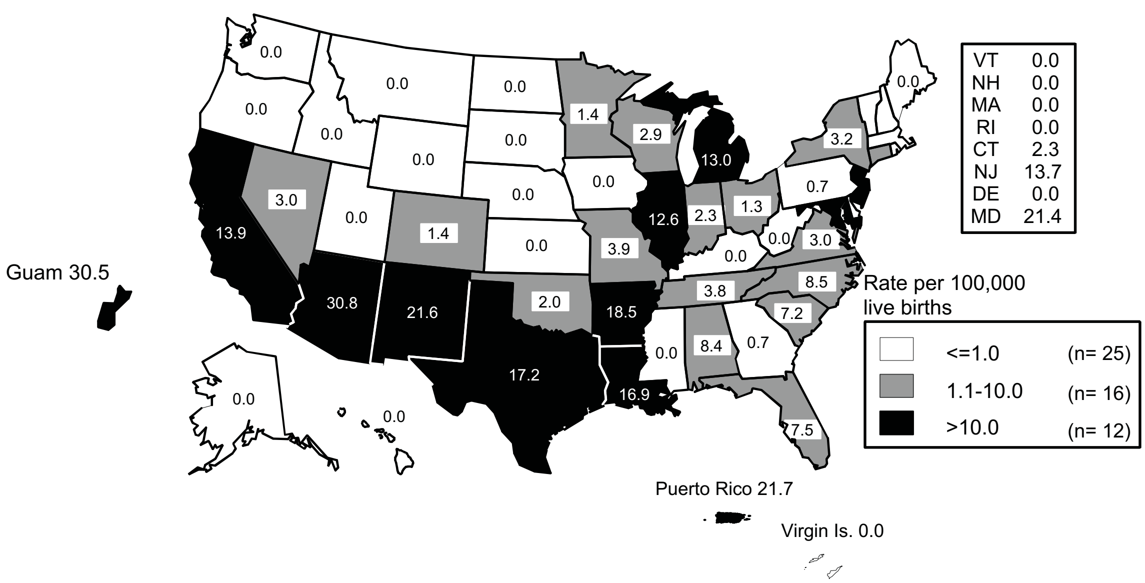
Note: The total gonorrhea infection rate among women in the United States and outlying areas (Guam, Puerto Rico and Virgin Islands) was 117.5 per 100,000 female population.

Figure C. Primary and secondary syphilis — Rates among women by state: United States and outlying areas, 2005



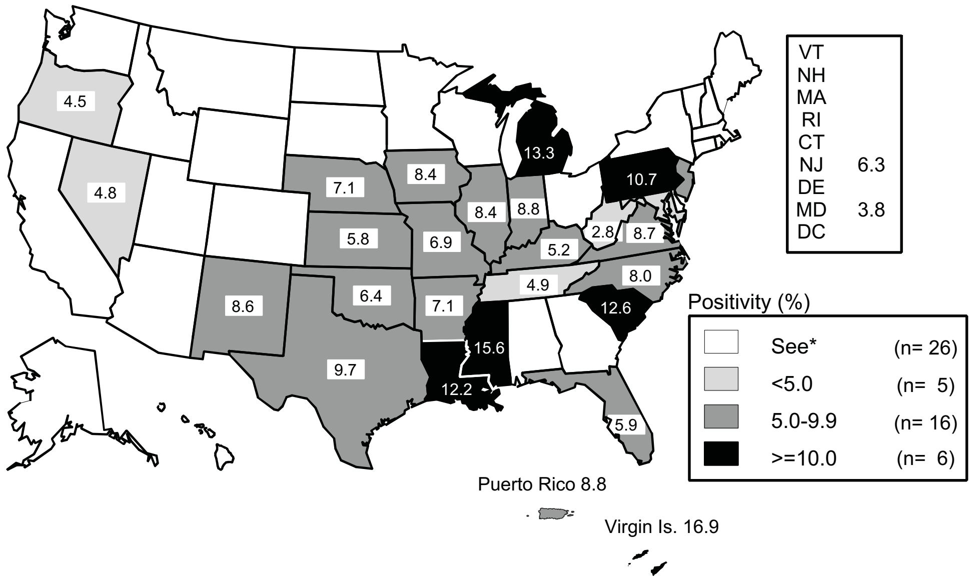
Note: The total rate of P&S syphilis among women in the United States and outlying areas (Guam, Puerto Rico and Virgin Islands) was 0.9 per 100,000 female population.

Figure D. Congenital syphilis — Rates for infants < 1 year of age by state: United States and outlying areas, 2005



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 8.2 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, 2005

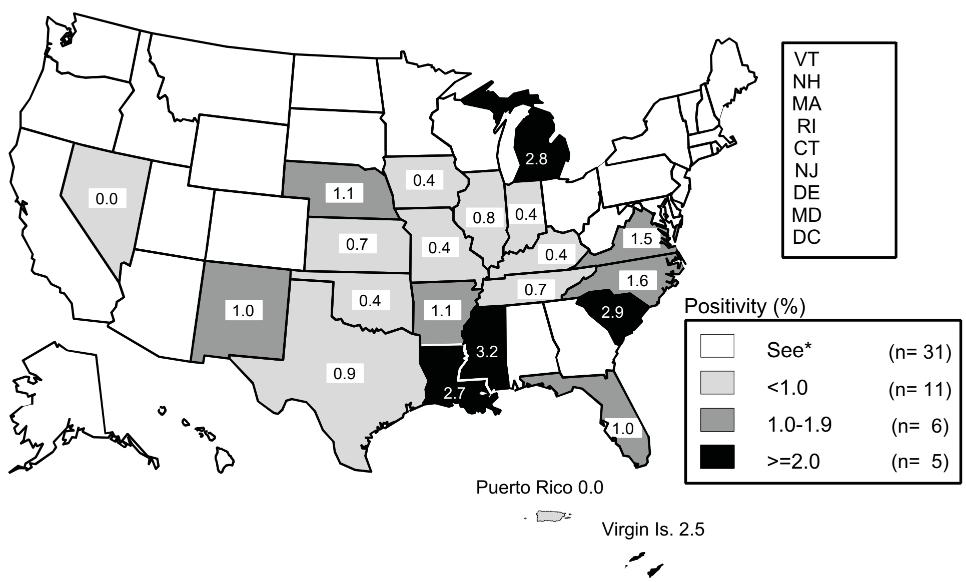


*States/areas not meeting minimum inclusion criteria in prenatal clinics.

Note: Includes states and outlying areas that reported chlamydia positivity data on at least 100 women aged 15-24 years during 2005.

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, 2005

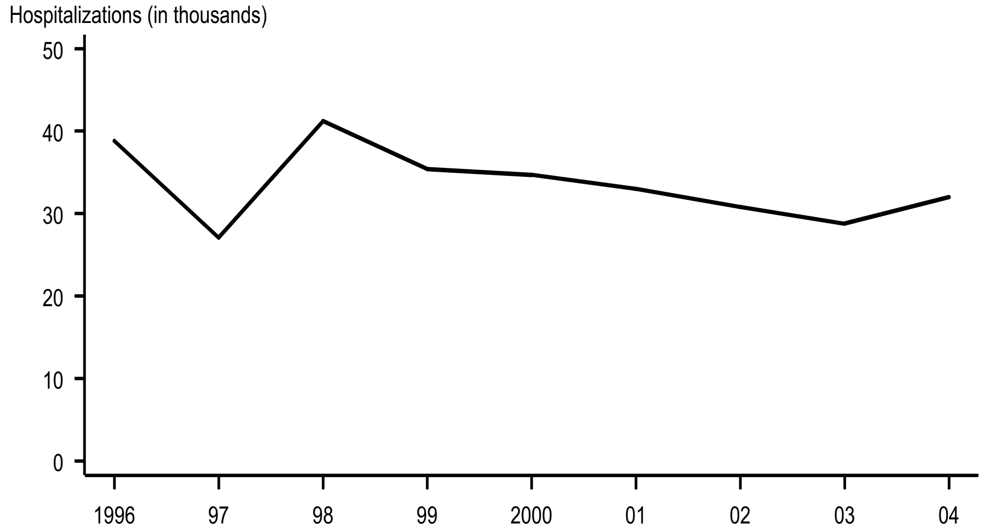


*States/areas not meeting minimum inclusion criteria in prenatal clinics.

Note: Includes states and outlying areas that reported gonorrhea positivity data on at least 100 women aged 15-24 years during 2005.

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

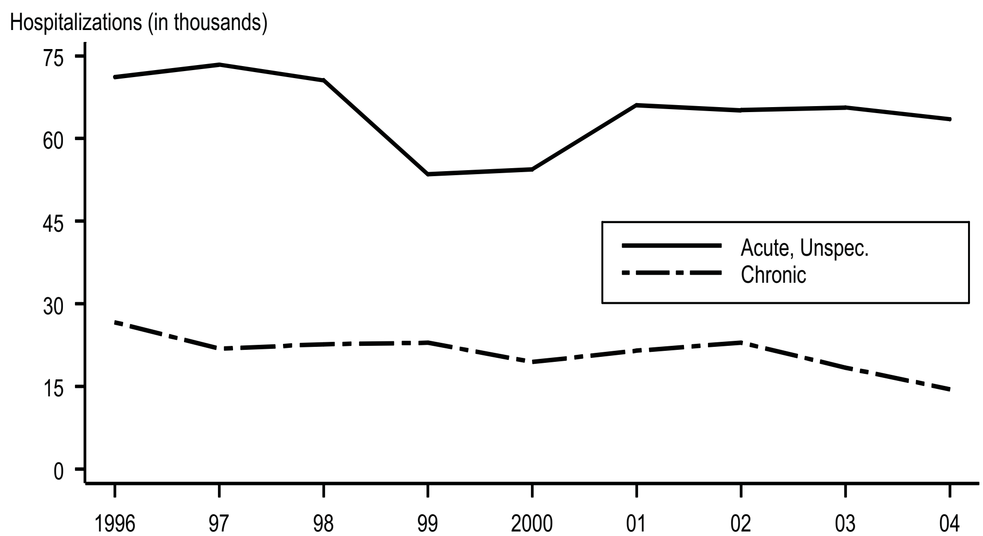
Figure G. Ectopic pregnancy — Hospitalizations of women 15 to 44 years of age: United States, 1996–2004



Note: The relative standard error for these estimates ranges from 10% to 14%. Data only available through 2004.

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

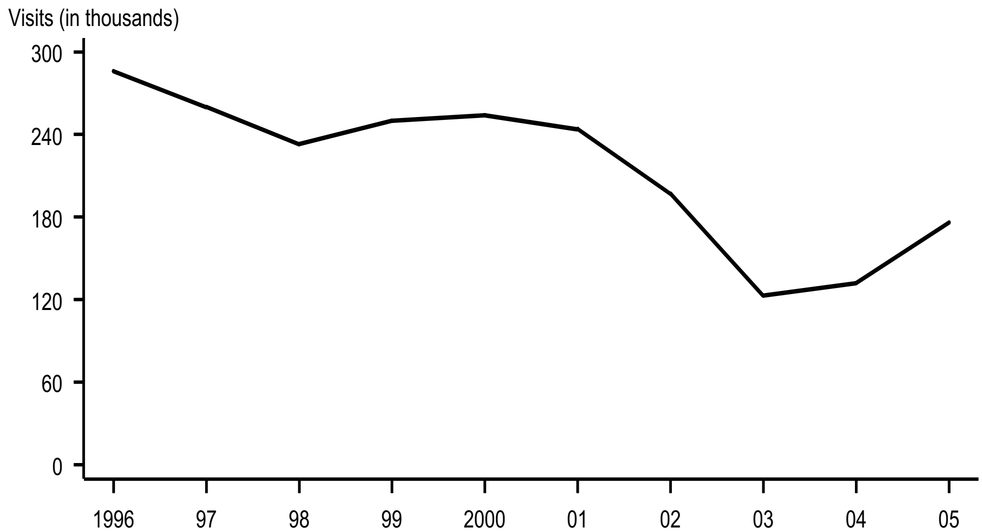
Figure H. Pelvic inflammatory disease — Hospitalizations of women 15 to 44 years of age: United States, 1996–2004



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 2004.

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, 1996–2005



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

Observations

Chlamydia

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

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 5 of 10 HHS regions between 2004 and 2005, increased in four regions, and remained the same in one region (Figure J).

Gonorrhea

As in previous years, 15- to 19-year-old women had the highest rate of gonorrhea (624.7 per 100,000 population) compared to women in all other age categories (Figure 18 and Table 19). Among men, 20- to 24-year-olds had the highest rate of gonorrhea (436.8 per 100,000 population, Figure 18 and Table 19).

Gonorrhea rates among 15- to 19-year-old women and 15- to 19-year-old men had been decreasing in recent years, but in 2005 gonorrhea rates showed slight increases in both groups (Figures 19 and 20, Table 19).

Similarly, gonorrhea rates among 20- to 24-year-old women and 20- to 24-year-old men had been decreasing in recent years, but in 2005 the gonorrhea rates in both groups increased slightly (Figures 19 and 20, Table 19).

Primary and Secondary Syphilis

Syphilis rates in women are highest in the 20-24 year age group, 3.0 cases per 100,000 population in 2005. Rates among

15-19 year olds have decreased each year from 2.5 cases per 100,000 population in 2001 to 1.5 in 2004, but increased to 1.9 in 2005 (Figure 34, Table 31).

In men, rates among 20- to 24-year-olds increased each year from 4.8 cases per 100,000 population in 2001 to 8.1 in 2005 (Table 31). Rates among 15-19 year olds had been low but increased to 2.4 in 2005 (Table 31).

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 16-24 years-old.

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 39 states, District of Columbia, and Puerto Rico in 2005, based on their place of residence before program entry, the median state-specific chlamydia prevalence was 9.2% (range 3.1% to 14.5%) (Figure K). Among men entering the program from 48 states, the District of Columbia, and Puerto Rico in 2005, the median state-specific chlamydia prevalence was 8.1% (range 0.0% to 14.8%) (Figure L).

Data from National Job Training Program centers that submit gonorrhea specimens from female students aged 16-24 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 32 states and District of Columbia the median state-specific gonorrhea prevalence was 2.4% (range 0.0% to 6.6%) in 2005 (Figure M). Among men entering the program from 14 states in 2005, the median state-specific gonorrhea prevalence was 2.2% (range 0.0% to 6.1%) (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 3.7% to 33.7%) (Table AA) and a median gonorrhea positivity of 4.7% (range 0.9% to 14.2%) (Table CC). See **Special Focus Profiles** (STDs in Persons Entering Corrections Facilities).

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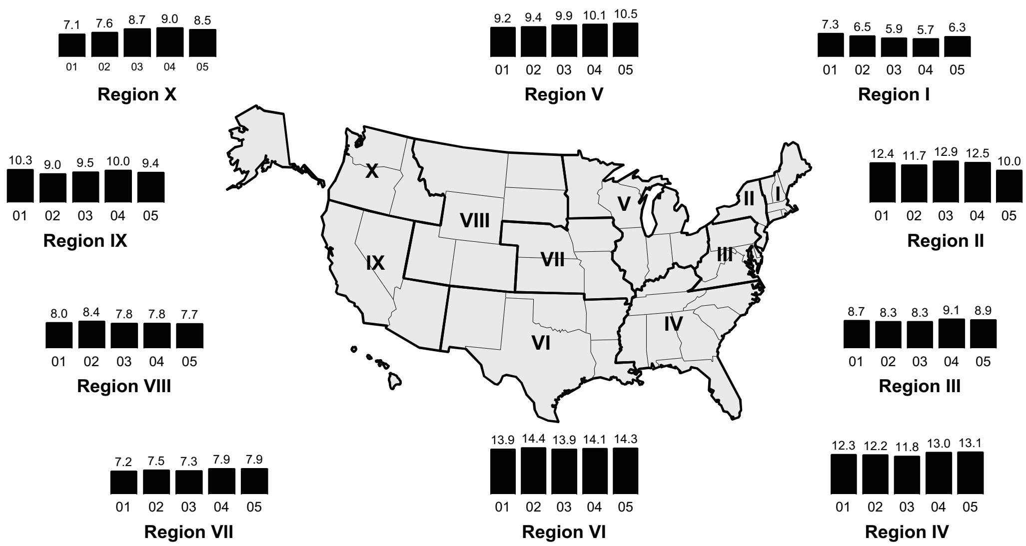
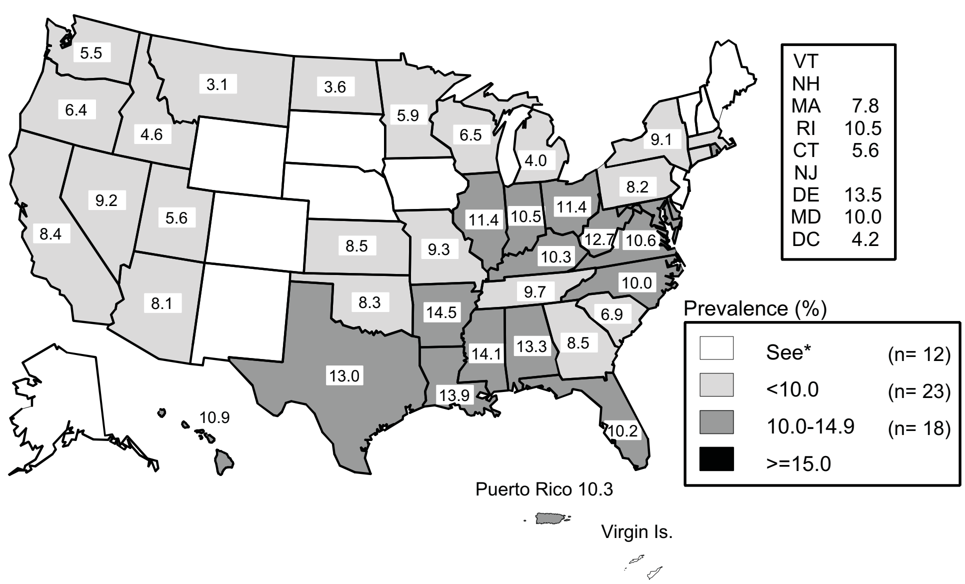
Figure J. Chlamydia — Trends in positivity among 15- to 19-year-old women tested in family planning clinics by HHS region, 2001–2005



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

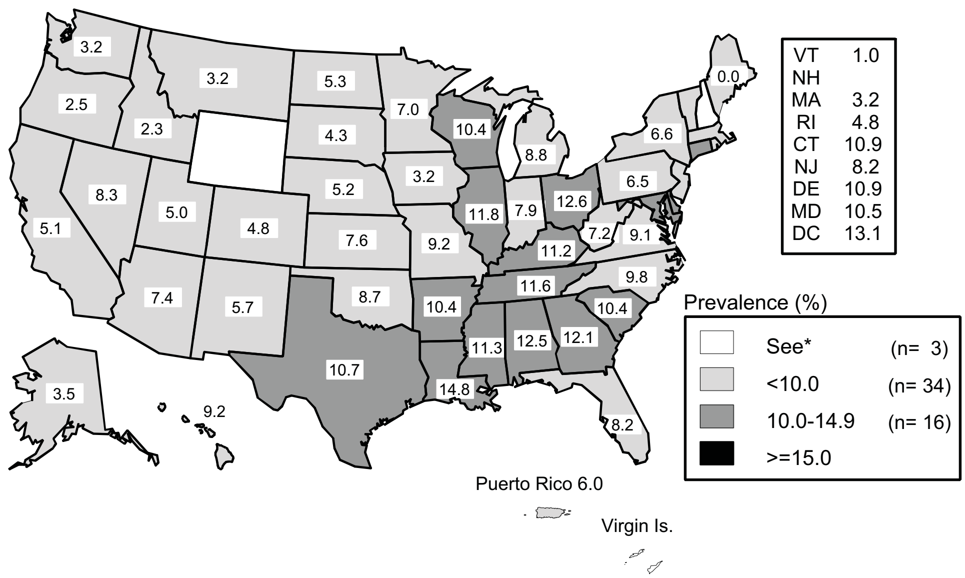
Figure K. Chlamydia — Prevalence among 16- to 24-year-old women entering the National Job Training Program by state of residence: United States and outlying areas, 2005



*Fewer than 100 women residing in these states/areas and entering the National Job Training Program were screened for chlamydia in 2005.

Note: The median state-specific chlamydia prevalence among female students entering the National Job Training Program in 2005 was 9.2% (range 3.1% to 14.5%).

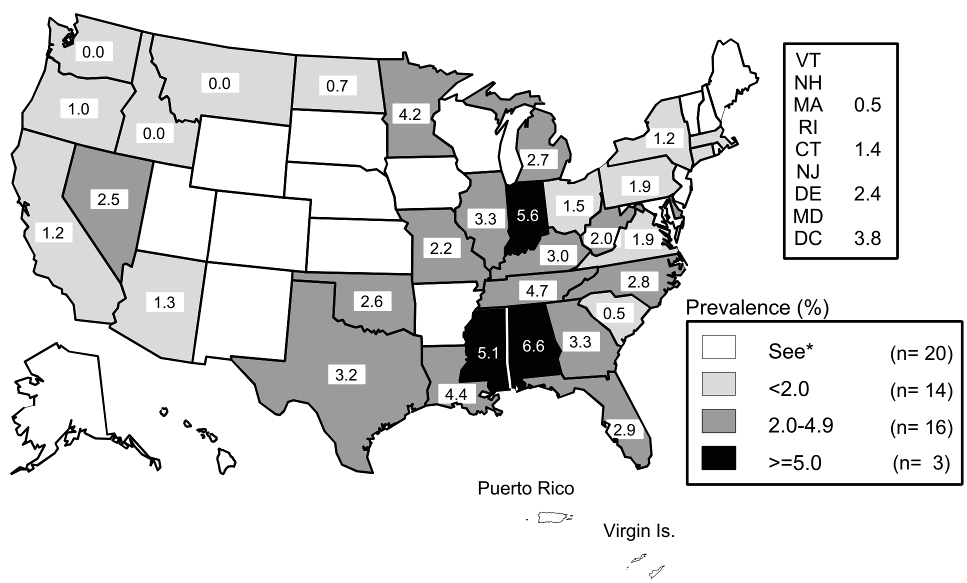
Figure L. Chlamydia — Prevalence among 16- to 24-year-old men entering the National Job Training Program by state of residence: United States and outlying areas, 2005



*Fewer than 100 men residing in these states/areas and entering the National Job Training Program were screened for chlamydia in 2005.

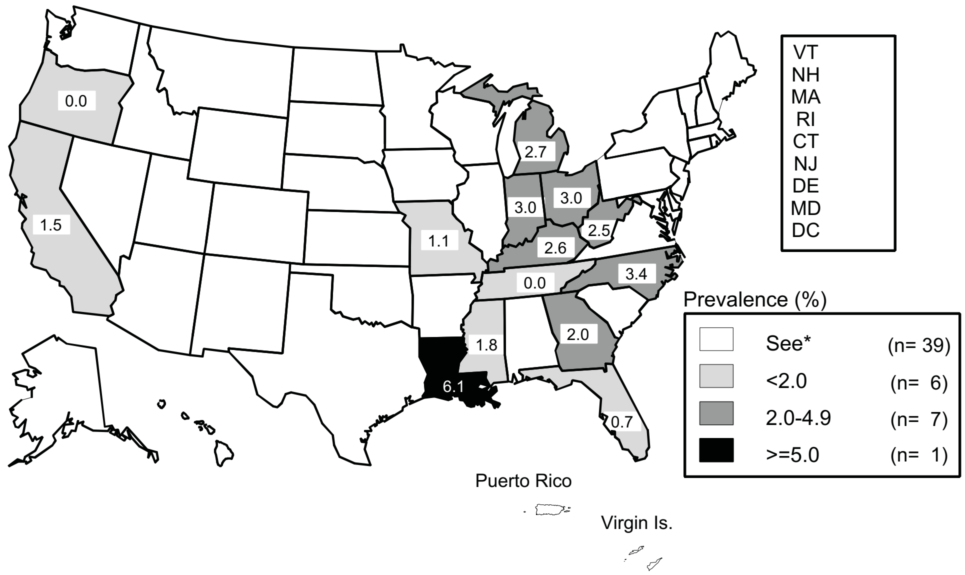
Note: The median state-specific chlamydia prevalence among male students entering the National Job Training Program in 2005 was 8.1% (range 0.0% to 14.8%).

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, 2005



*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 2005.

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, 2005



*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 2005.

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.

Notifiable STDs

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 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.

In 2005, 22.2% of reports on gonorrhea cases were missing information on race or ethnicity (ranging by state from 0.0% to 50.7%), and 26.3% of reports on chlamydia cases were missing race or ethnicity (Table A1). To adjust for missing data, cases in 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. Only 4.8% of syphilis cases were missing race or ethnicity.

Observations

Chlamydia

In 2005, 41.6% of all chlamydia cases occurred among blacks, 28.8% occurred among whites, and 18.1% occurred among Hispanics (Table 10A). The rate of chlamydia among black females in the United States was more than seven times higher than the rate among white females (1,729.0 and 237.2 per 100,000 population, respectively) (Figure O, Table 10B). The chlamydia rate among black males was more than 11 times higher than that among white males (717.8 and 63.6 per 100,000 population, respectively).

Gonorrhea

In 2005, approximately 68% of the total number of cases of gonorrhea reported to CDC occurred among African Americans (Table 20A). In 2005, the rate of gonorrhea among African Americans was 626.4 cases per 100,000 population, among American Indian/Alaska Natives the rate was 131.7, and among Hispanics the rate was 74.8. These rates are 18, 4, and 2 times higher, respectively, than the rate among whites in 2005 of 35.2 cases per 100,000 population. The rate of gonorrhea among Asian/Pacific Islanders in 2005 was 25.9 cases per 100,000 population (Figure 17, Table 20B).

All racial and ethnic groups saw slight increases in gonorrhea rates from 2004 to 2005. Despite this slight increase in 2005, between 2001 and 2005, the gonorrhea rate among African Americans declined by 17.8% (762.0 and 626.4 cases per 100,000 population, respectively). During the same five year period, gonorrhea rates increased by 28.4% among American Indian/Alaska Natives,19.7% among whites, 6.4% among Hispanics, and 5.3% among Asian/Pacific Islanders (Table 20B).

In 2005, gonorrhea rates among African-American men were 24 times higher than among white men; gonorrhea rates among African-American women were 14 times higher than among white women (Figure P).

In 2005, 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 15-19 years had a gonorrhea rate of 2,814.0 cases per 100,000 females. This rate was 14 times greater than the 2005 rate among white females of similar age (204.7). African-American men in the 15- to 19-year-old age category had a 2005 gonorrhea rate of 1,417.5 cases per 100,000 males, which was 36 times higher than the rate among 15- to 19-year-old white males of 39.7 per 100,000. Among 20- to 24-year-olds, the gonorrhea rate among African Americans was 15 times greater than that among whites (2,452.9 and 161.0 cases per 100,000 population, respectively) (Table 20B).

From 2001 to 2004, gonorrhea rates among 15- to 19-year-old African-American females and males decreased 21.0% and 22.4%, respectively. However, both groups saw slight increases from 2004 to 2005 (3.3% and 4.2%), the first increases for these groups in recent years (Figures Q and R).

Primary and Secondary Syphilis

The syphilis epidemic in the late 1980s occurred primarily among heterosexual, minority populations.[1] During the 1990s, the rate of primary and secondary (P&S) syphilis declined among all racial and ethnic groups (Figure 32). From 2001 to 2005, the overall rate of P&S syphilis and rates among non-Hispanic whites, Hispanics, and Asian/Pacific Islanders increased; the rates among American Indian/Alaska Natives fluctuated; and the rates among African Americans decreased between 2001 and 2003, but then increased between 2004 and 2005.

Between 2004 and 2005, the rates of primary and secondary syphilis increased 11.4% among African Americans; 12.9% among African-American men and 4.8% among African-American women (Table 32B). Between 2004 and 2005, P&S syphilis rates for African Americans in most age groups increased. (Table 32B).

Between 2004 and 2005, the rates of primary and secondary syphilis increased 6.5% among Hispanics; from 5.4 to 5.5 among Hispanic men and from 0.7 to 0.9 among Hispanic women (Table 32B). Between 2003 and 2004, P&S syphilis rates for Hispanics in most age groups increased. (Table 32B).

In 2005, 41% of all cases of P&S syphilis reported to CDC occurred among African Americans and 40% of all cases occurred among non-Hispanic whites (Table 32A). Compared to non-Hispanic whites, the 2005 rate for African Americans was 5.4 times higher, and for Hispanics, 1.8 times higher (Table 32B).

In 2005, the rate of P&S syphilis among African Americans was highest among women aged 20-24 years (13.5) and among men aged 25-29 (38.2) (Table 32B). For Hispanics, the rate was highest among women aged 20-24 years (2.9) and among men aged 35-39 years (14.0) (Table 32B).

Congenital Syphilis

In 2005, the rate of congenital syphilis (based on the mother's race/ethnicity) was 25.9 cases per 100,000 live births among African Americans and 13.4 cases per 100,000 live births among Hispanics. These rates are 19.9 and 10.3 times higher, respectively, than the 2005 rate among non-Hispanic whites (1.3 cases per 100,000 live births) (Figure V, Table 40).

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[1] Nakashima AK, Rolfs RT, Flock ML, Kilmarx P, Greenspan JR. Epidemiology of syphilis in the United States, 1941 through 1993. *Sexually Transmitted Diseases* 1996;23:16-23.

Figure O. Chlamydia — Rates by race/ethnicity and sex: United States, 2005

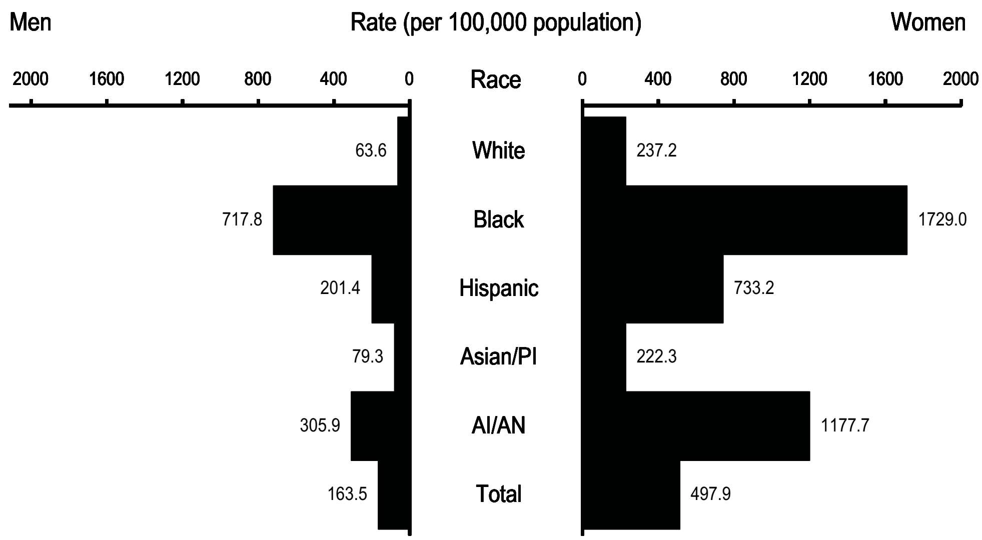


Figure P. Gonorrhea — Rates by race/ethnicity and sex: United States, 2005

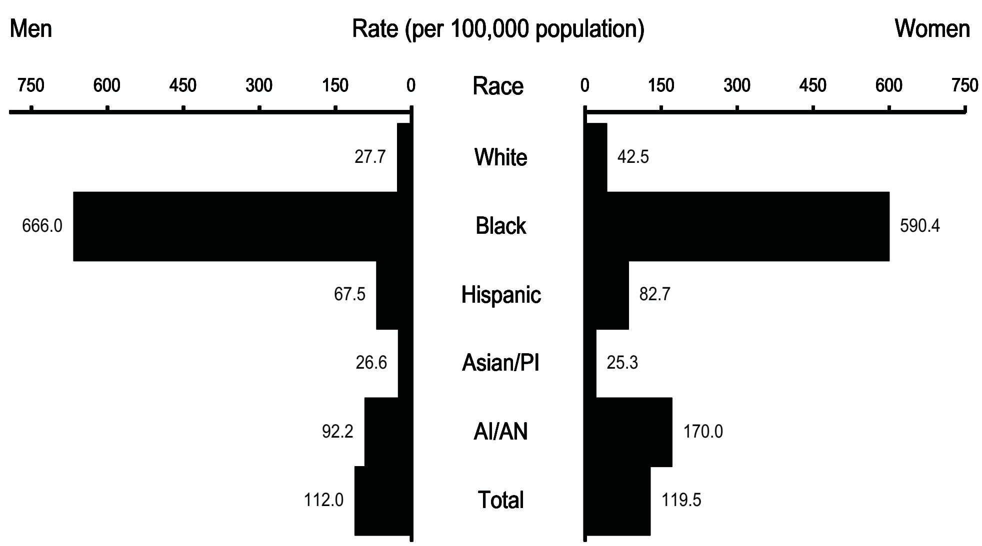


Figure Q. Gonorrhea — Rates among 15- to 19-year-old females by race/ethnicity: United States, 1996–2005

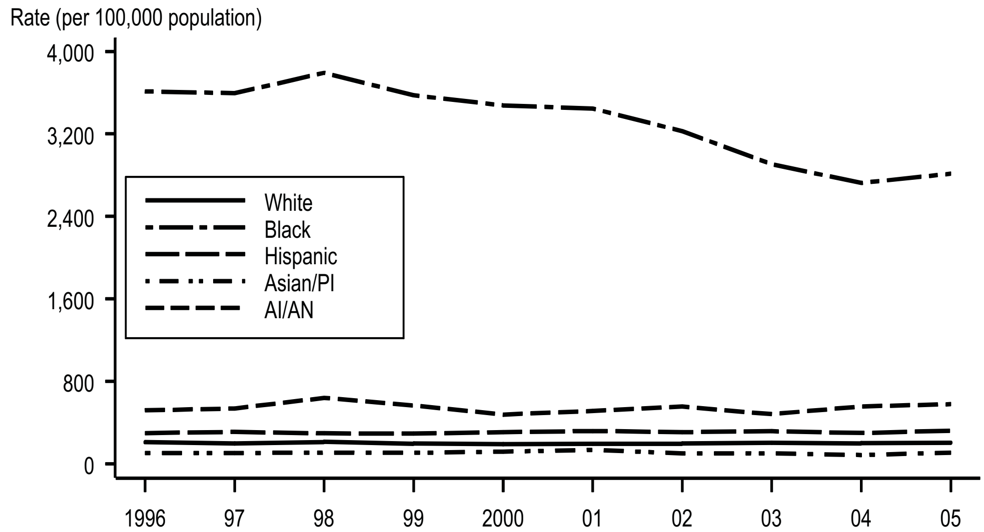


Figure R. Gonorrhea — Rates among 15- to 19-year-old males by race/ethnicity: United States, 1996–2005

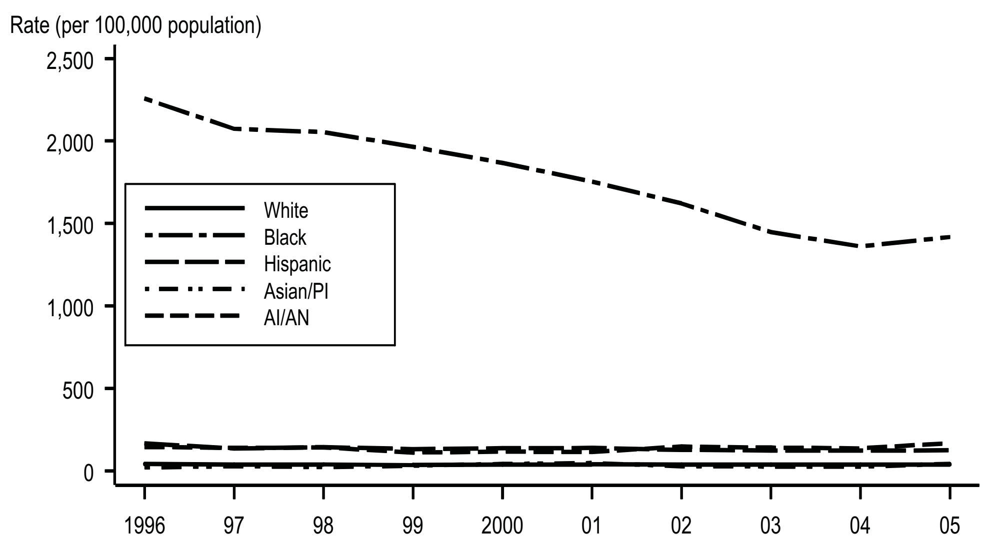


Figure S. Primary and secondary syphilis — Rates by race/ethnicity and sex: United States, 2005

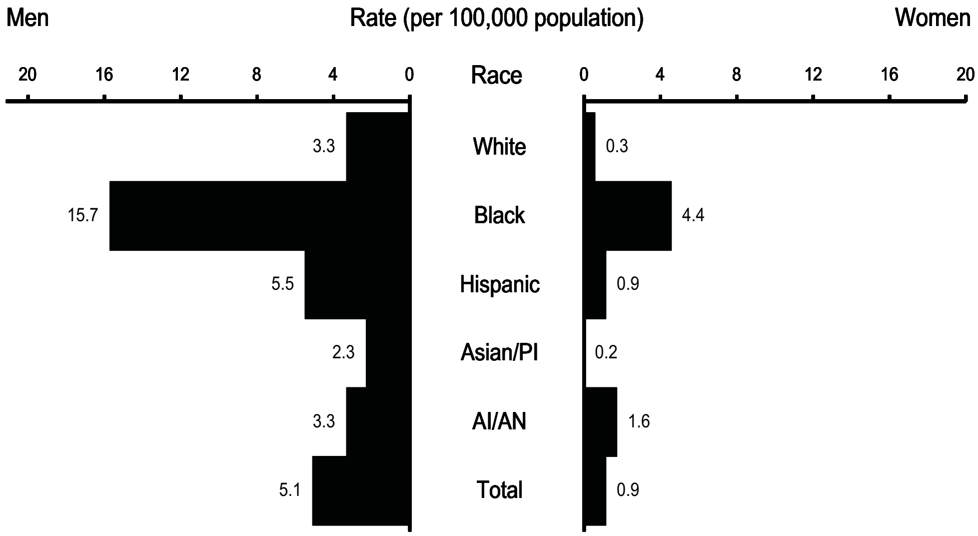


Figure T. Primary and secondary syphilis — Rates among 15- to 19-year-old females by race/ethnicity: United States, 1996–2005

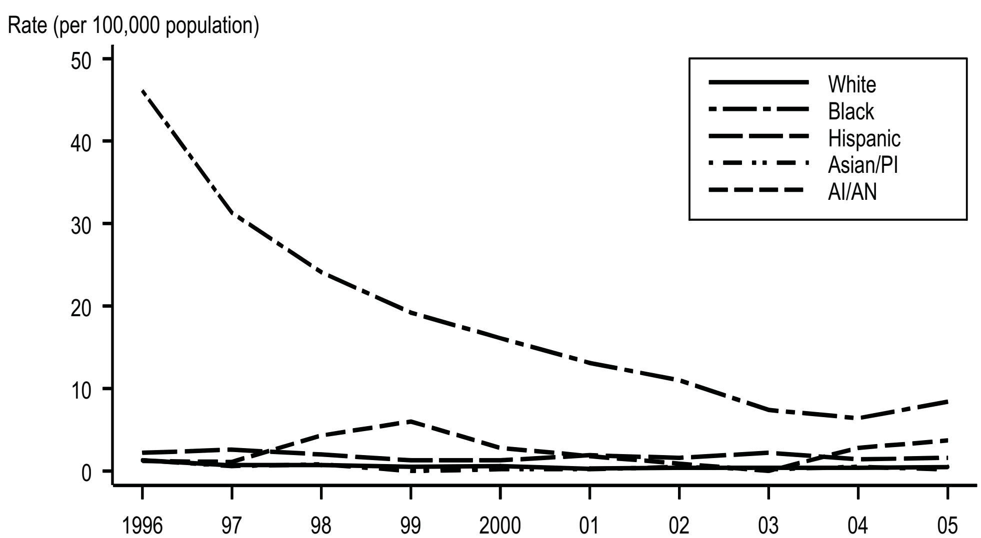


Figure U. Primary and secondary syphilis — Rates among 15- to 19-year-old males by race/ethnicity: United States, 1996–2005

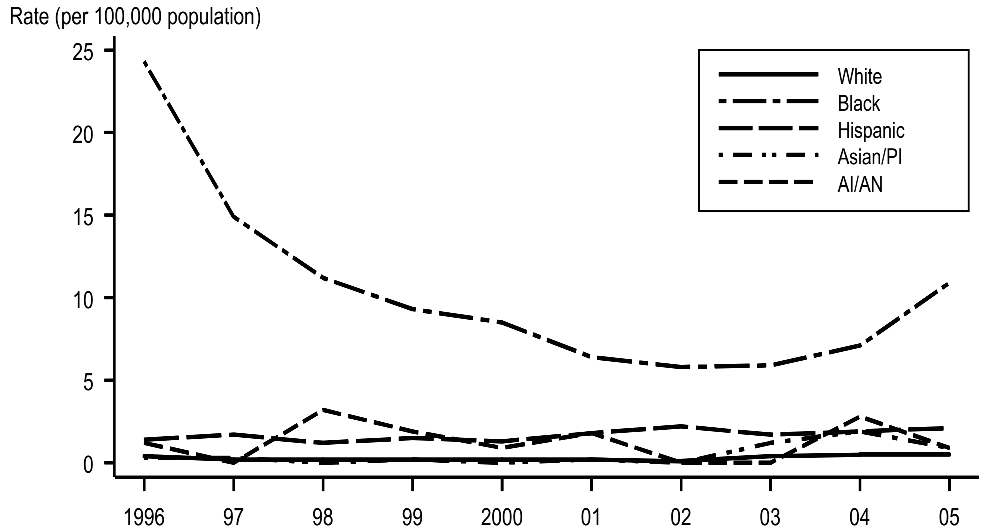
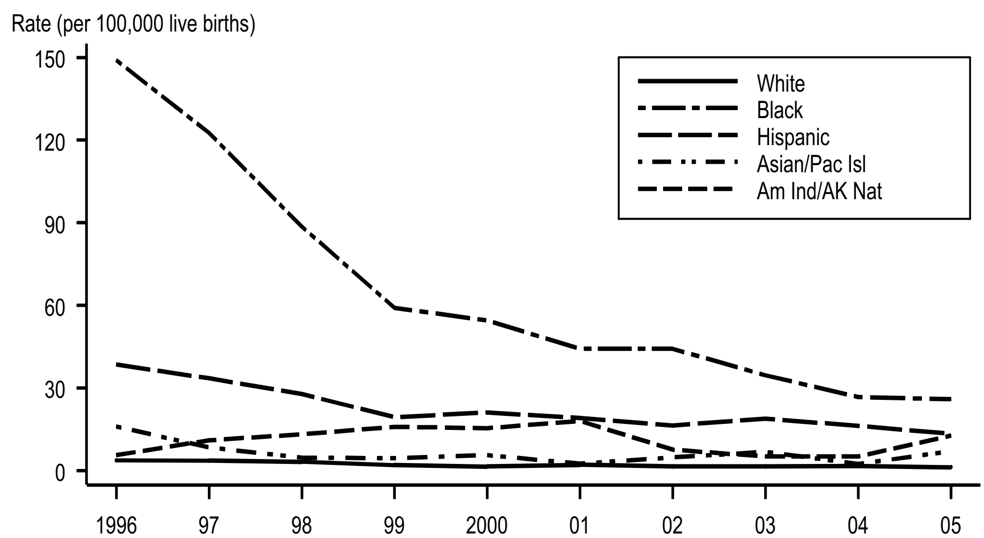


Figure V. Congenital syphilis — Rates among infants < 1 year of age by mother's race/ethnicity: United States, 1996–2005



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 Gonococcal Isolate Surveillance Project (GISP) suggest that an increasing number of men who have sex with men (MSM) are acquiring STDs.[1-7] Data also suggest that an increasing number of MSM are engaging 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 incidence 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 and HIV Risk Behaviors among Men Who Have Sex with Men (MSM Prevalence Monitoring Project), STD Clinics, 1999–2005

From 1999 through 2005, nine U.S. cities participating in the MSM Prevalence Monitoring Project submitted syphilis, gonorrhea, chlamydia, and HIV test data to CDC from 107,370 MSM visits to STD clinics; data from 89,998 MSM visits were submitted from six public STD clinics (Denver, Long Beach, New York City, Philadelphia, San Francisco, and Seattle) and data from 17,372 MSM visits were submitted from three STD clinics in community-based, gay men's health clinics (Chicago, the District of Columbia, and Houston). In 2005, eight U.S. cities submitted information from 18,455 MSM STD clinic visits.

The MSM Prevalence Monitoring Project includes data from culture and non-culture tests collected during routine care and reflects testing practices at participating clinics. City-specific medians and ranges were calculated for the proportion of tests done and STD and HIV test positivity.

Gonorrhea

From 1999 to 2005 the number of gonorrhea tests for all anatomic sites combined has increased in all eight cities. The trend in the number of positive gonorrhea tests for all anatomic sites has 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 2005, 78% (range: 57-95%) of MSM were tested for urethral gonorrhea, 26% (range: 3-69%) were tested for rectal gonorrhea, and 26% (range: 4-87%) were tested for pharyngeal gonorrhea.

In 2005, median clinic urethral gonorrhea positivity in MSM was 11% (range: 8-14%), median rectal gonorrhea positivity was 8% (range: 4-10%), and median pharyngeal gonorrhea positivity was 7% (range: 1-21%).

Syphilis

In 2005, 79% (range: 60-92%) of MSM visiting participating STD clinics had a nontreponemal serologic test for syphilis (STS) [RPR or VDRL] performed compared with 69% (range: 54-93%) in 1999.

Overall, median syphilis seroreactivity among MSM tested increased from 4% (range: 4-13%) in 1999 to 11% (range: 5-13%) in 2005 (Figure X).

Chlamydia

In 2005, a median of 78% (range: 58-94%) of MSM visiting participating STD clinics were tested for urethral chlamydia; median urethral chlamydia positivity was 6% (range: 5-8%).

HIV Infection

In 2005, a median of 68% (range: 31-82%) of MSM visiting STD clinics in the project and not previously known to be HIV-positive were tested for HIV; median HIV positivity was 4% (range: 3-7%). HIV positivity varied by race/ethnicity, but was higher in African-American and Hispanic MSM. HIV positivity was 3% (range: 2-4%) in whites, 7% (range 3-12%) in African Americans, and 7% (range: 3-10%) in Hispanics (Figure Y).

In 2005, 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 9-15%). HIV prevalence was 10% (range: 7-13%) in whites, 20% (range: 15-27%) in African Americans, and 15% (range: 7-20%) in Hispanics.

STDs by Race/Ethnicity

In 2005, by race/ethnicity, urethral gonorrhea positivity was 11% (range: 7-13%) in whites, 15% (range: 9-23) in African Americans, and 9% (range: 6-15%) in Hispanics. Rectal gonorrhea positivity was 8% (range: 4-11%) in whites, 4% (range: 2-7%) in African Americans, and 8% (range: 4-11%) in Hispanics. Pharyngeal gonorrhea positivity was 5% (range: 1-12%) in whites, 8% (range: 1-9%) in African Americans, and 4% (range: 1-10%) in Hispanics (Figure Y).

Median syphilis seroreactivity was 9% (range: 3-12%) in whites; 14% (range: 9-32%) in African Americans, and 14% (range: 4-19%) in Hispanics (Figure Y).

Urethral chlamydia was 6% (range: 4-8%) in whites; 7% (range: 3-15%) in African Americans, and 6% (range: 3-8%) in Hispanics (Figure Y).

STDs by HIV Status, STD Clinics, 2005

In 2005, by HIV status, urethral gonorrhea positivity was 18% (range:15-27) in HIV-positive MSM and 9% (range 7-14%) in MSM who were HIV-negative or of unknown HIV status; rectal gonorrhea positivity was 10% (range: 6-19%) in HIV-positive MSM and 7% (range: 3-9%) in MSM who were HIV-negative or of unknown HIV status; pharyngeal gonorrhea positivity was 6% (range: 1-11%) in HIV-positive MSM and 6% (range: 1-20%) in MSM who were

HIV-negative or of unknown HIV status (Figure Z).

Median syphilis seroreactivity was 23% (range: 18-43%) in HIV-positive MSM and 8% (range: 3-12%) in MSM who were HIV-negative or of unknown HIV status (Figure Z).

Median urethral chlamydia positivity was 7% (range: 5-10%) in HIV-positive MSM and 6% (range: 5-8%) in MSM who were HIV-negative or of unknown HIV status (Figure AA).

Nationally Notifiable Syphilis Surveillance Data

Primary and secondary (P&S) syphilis increased in the United States between 2001 and 2005, with a 78.6% increase in the number of P&S syphilis cases among men and a 31.9% decrease in the number of cases among women (Tables 25 and 26). In 2005, the rate of reported P&S syphilis among men (5.1 cases per 100,000 males) was 5.7 times greater than the rate among women (0.9 cases per 100,000 females) (Figure S, Table 23). 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 2.1 in 2001 to 5.7 in 2005 (Figure 33, Tables 25 and 26). The increase in the male-to-female rate ratio occurred among all racial and ethnic groups between 2001 and 2005. Additional information on syphilis can be found in the Syphilis section (**National Profile**).

Gonococcal Isolate Surveillance Project (GISP)

The Gonococcal Isolate Surveillance Project (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.[12]

GISP also reports the percentage of *N. gonorrhoeae* isolates obtained from MSM. Overall, the proportion of isolates from MSM in GISP clinics has been increasing steadily from 4% in 1988 to 20.2% in 2004 and now 21.9% in 2005, with most of the increase occurring after 1993 (Figure AA). 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 BB).

Due to increases in the proportion of *N. gonorrhoeae* isolates from MSM that are quinolone-resistant (Figure 25), in 2006 CDC recommended that quinolones no longer be used to treat gonorrhea among MSM.[13,14]

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[1] Centers for Disease Control and Prevention. Gonorrhea among men who have sex with men – selected sexually transmitted disease clinics, 1993–1996. *MMWR* 1997;46:889-92.

[2] Centers for Disease Control and Prevention. Resurgent bacterial sexually transmitted disease among men who have sex with men – King County, Washington, 1997–1999. *MMWR* 1999;48:773-7.

[3] Centers for Disease Control and Prevention. Outbreak of syphilis among men who have sex with men – Southern California, 2000. *MMWR* 2001;50:117-20.

[4] Fox KK, del Rio C, Holmes K, et. al. Gonorrhea in the HIV era: A reversal in trends among men who have sex with men. *Am J Public Health* 2001;91:959-964.

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[6] Centers for Disease Control and Prevention. Primary and secondary syphilis – United States, 2003–2004. *MMWR* 2006;55:269-73.

[7] Beltrami JF, Shouse RL, Blake PA. Trends in infectious diseases and the male to female ratio: possible clues to changes in behavior among men who have sex with men. *AIDS Educ Prev* 2005;17:S49-S59.

[8] Stall R, Hays R, Waldo C, Ekstrand M, McFarland W. The gay '90s: a review of research in the 1990s on sexual behavior and HIV risk among men who have sex with men. *AIDS* 2000;14:S1-S14.

[9] Scheer S, Chu PL, Klausner JD, Katz MH, Schwarcz SK. Effect of highly active antiretroviral therapy on diagnoses of sexually transmitted diseases in people with AIDS. *Lancet* 2001;357:432-5.

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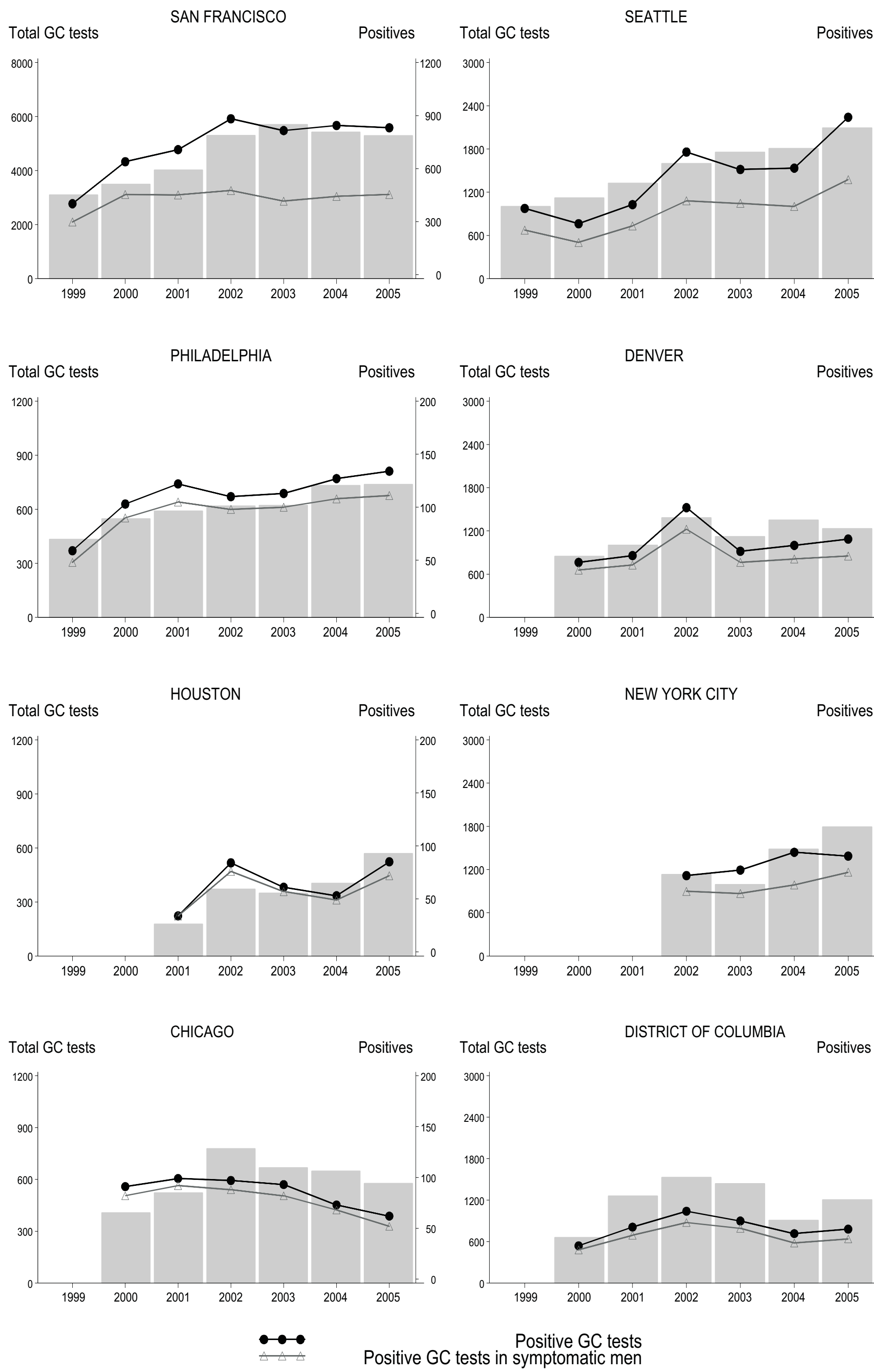
[11] Centers for Disease Control and Prevention. *HIV/AIDS Surveillance Report, 2003*, (Vol. 15). Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention; 2004.

[12] Centers for Disease Control and Prevention. *Sexually Transmitted Disease Surveillance 2005 Supplement: Gonococcal Isolate Surveillance Project (GISP) Annual Report 2005*. Atlanta, GA: U.S. Department of Health and Human Services (available first quarter 2007).

[13] Centers for Disease Control and Prevention. Increases in fluoroquinolone-resistant *Neisseria gonorrhoeae* among men who have sex with men – United States, 2003, and revised recommendations for gonorrhea treatment, 2004. *MMWR* 2004;53:335-338.

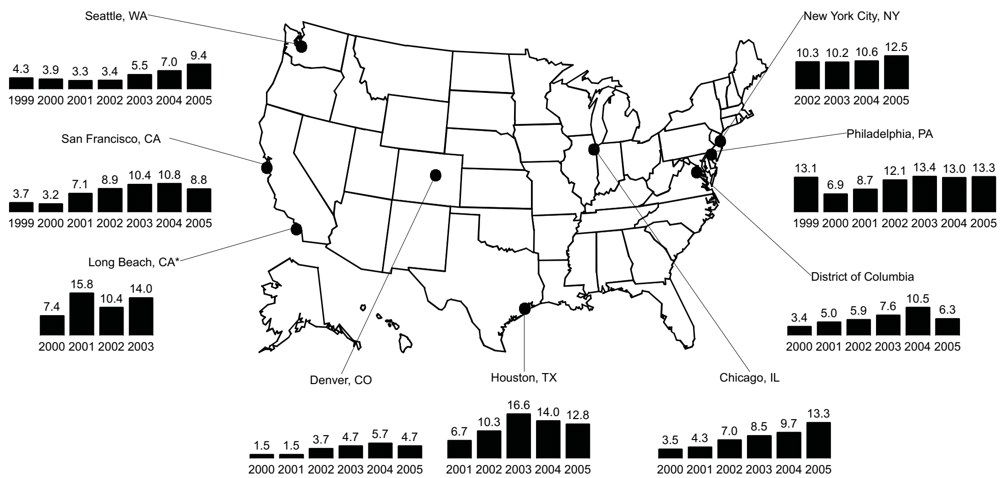
[14] Centers for Disease Control and Prevention. Sexually Transmitted Diseases Treatment Guidelines, 2006. *MMWR*, 2006;55(No. RR-11).

Figure W. MSM Prevalence Monitoring Project — Number of gonorrhea tests and number of positive tests in men who have sex with men, STD clinics, 1999–2005



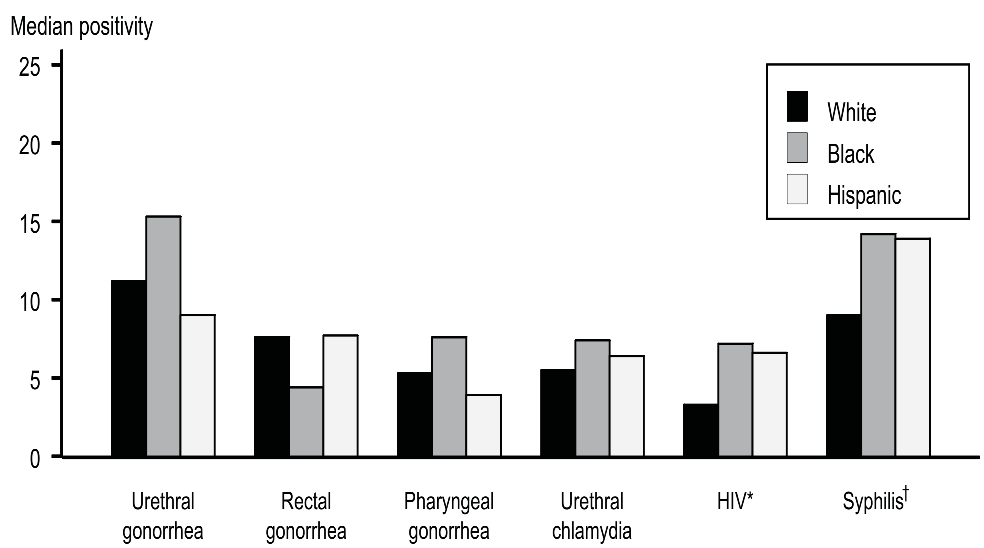
Note: The bars represent the number of GC tests at all anatomic sites (pharyngeal, rectal, and urethral) each year. The scales on the left and right axis differ. The bar graphs use the scale on the left. The line graphs use the scale on the right.

Figure X. MSM Prevalence Monitoring Project — Syphilis serologic reactivity among men who have sex with men, STD clinics, 1999–2005



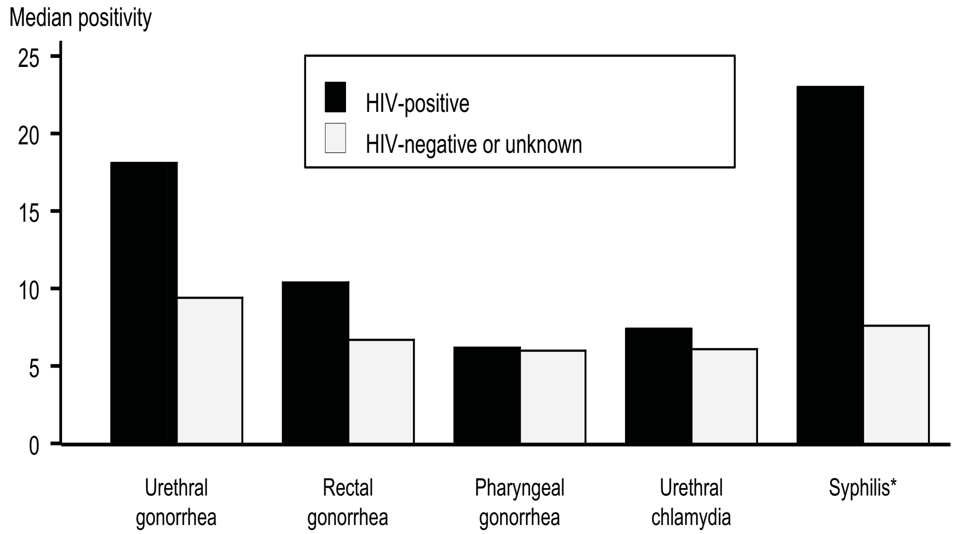
*Data not reported in 2004 or 2005.

Figure Y. MSM Prevalence Monitoring Project — Test positivity for gonorrhea, chlamydia, and HIV and seroreactivity to syphilis among men who have sex with men, by race/ethnicity, STD clinics, 2005



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

Figure Z. MSM Prevalence Monitoring Project — Test positivity for gonorrhea and chlamydia and syphilis seroreactivity among men who have sex with men, by HIV status, STD clinics, 2005



*Seroreactivity.

Figure AA. Gonococcal Isolate Surveillance Project (GISP) — Percent of urethral *Neisseria gonorrhoeae* isolates obtained from men who have sex with men attending STD clinics, 1988–2005

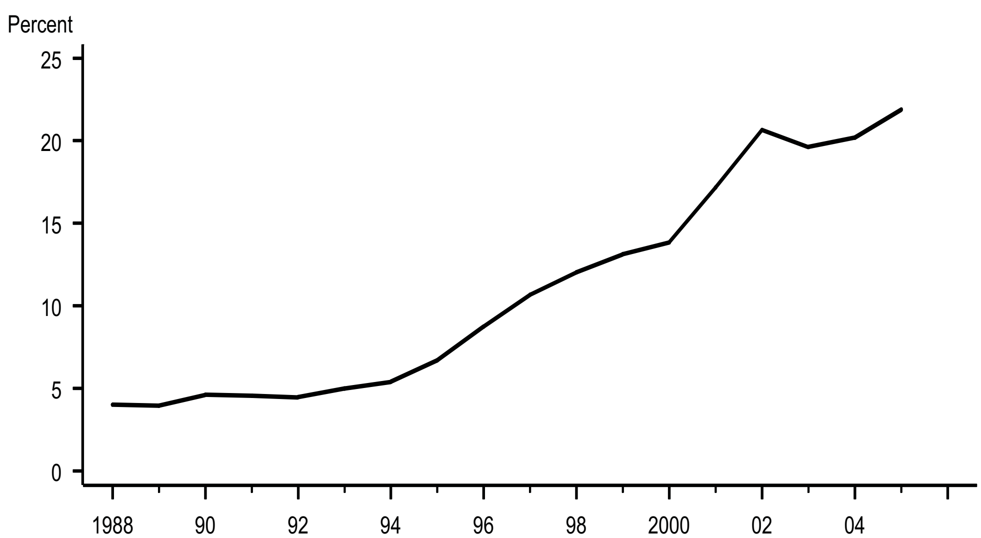
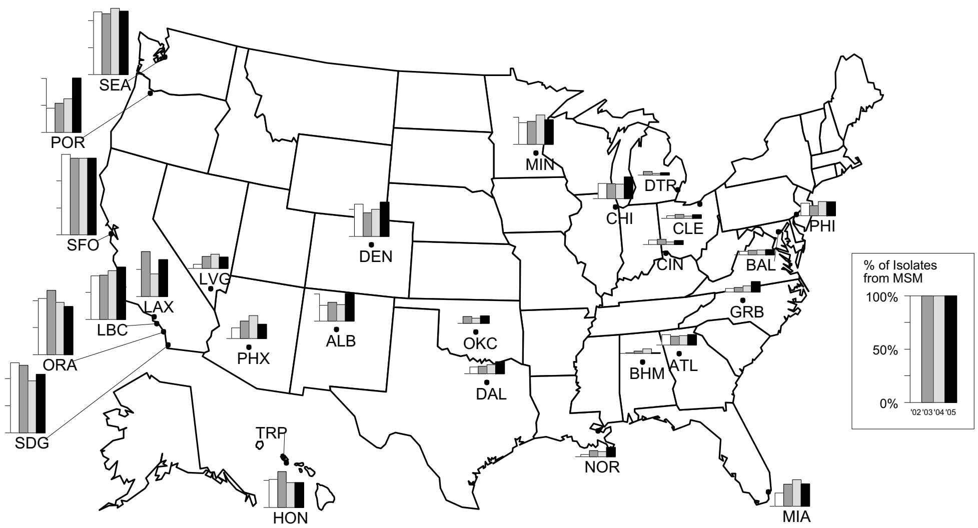


Figure BB. Gonococcal Isolate Surveillance Project (GISP) — Percent of *Neisseria gonorrhoeae* isolates obtained from men who have sex with men attending STD clinics, 2002–2005



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; 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] 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] Reduction of chlamydia and gonorrhea in the community may also result from chlamydia and gonorrhea screening and treatment in jails.[6] 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 2005, STD screening data from corrections facilities were reported from 32 states for chlamydia, 29 states for gonorrhea, and 13 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 Regional Infertility Prevention Project (IPP). IPP provided CDC with line-listed data for chlamydia, gonorrhea, and syphilis (syphilis line-listed data only from San Francisco and Los Angeles).

The tables and figures shown in this section represent 58,977 chlamydia tests in women and 141,132 in men; 49,675 gonorrhea tests in women and 120,676 in men; and 69,661 syphilis serologic tests in women and in 226,619 men entering corrections facilities during 2005.

Chlamydia

In adolescent women entering 57 juvenile corrections facilities, the median chlamydia positivity by facility was 14.2% (range 3.7% to 33.7%); positivity was uniformly high (greater than 10%) in all facilities reporting data (Table AA). Positivity in women was also uniformly higher than in men. In adolescent men entering 87 juvenile corrections facilities, the median chlamydia positivity was 6.0% (range 0.0% to 44.8%).

In women 12 to 19 years of age entering juvenile corrections facilities, the overall chlamydia positivity was 16.3% (Figure CC). Positivity was high (greater than 10%) for all ages and uniformly higher in women than in men. Positivity in women increased from 12.8% for those aged 12 years to 17.2% for those aged 16 years and, then, declined to 16.1% for those aged 19 years. In men 12 to 19 years of age entering juvenile corrections facilities, the overall chlamydia positivity was 6.6%. Chlamydia positivity increased from 1.7% for those aged 12 years to 11.5% for those aged 19 years.

In women entering 38 adult corrections facilities, the median positivity for chlamydia by facility was 7.4% (range 1.7% to 21.4%) (Table BB). In men entering 41 adult corrections facilities, the median chlamydia positivity was 8.1% (range 2.3% to 20.8%).

In women entering adult corrections facilities, the overall chlamydia positivity was 8.9% (Figure DD). Chlamydia positivity decreased with age from 19.1% for those aged < 20 years to 3.9% for those aged > 34 years. Similar trends were also observed in adult men. Positivity was higher in women than in men for all age groups. Positivity in young adult women (< 25 years) was similar to positivity in adolescent women, but positivity in young adult men (< 25 years) was higher than in adolescent men. Although overall chlamydia positivity in women entering adult correction facilities was significantly lower than in women entering juvenile corrections facilities, chlamydia positivity in women aged < 20 years attending adult corrections facilities was higher than in women attending juvenile corrections facilities.

Gonorrhea

The median positivity by facility for gonorrhea in women entering 38 juvenile corrections facilities was 4.7% (range 0.9% to 14.2%). Positivity in women was uniformly higher than in men. The median positivity for gonorrhea in men entering 65 juvenile corrections facilities was 1.0% (range 0.0% to 19.0%) (Table CC).

In women 12 to 19 years of age entering juvenile corrections facilities, the overall gonorrhea positivity was 5.9% (Figure EE). Gonorrhea positivity increased with age from 2.2% for those aged 12 years to 6.5% for those aged 16 years, and then, declined to 4.8% for those aged 19 years. Positivity in women was higher than in men for all ages.

In women entering 33 adult facilities, the median positivity by facility was 2.8% (range 0.0% to 13.8%) (Table DD). In men entering 35 adult corrections facilities, the median gonorrhea positivity was 2.3% (range 0.0% to 11.8%).

In women entering adult corrections facilities, the overall gonorrhea positivity was 3.9%. Gonorrhea positivity decreased with age from 7.3% for those aged < 20 years to 2.2% for those aged > 34 years (Figure FF). A similar trend was also observed in adult men. Positivity in women was higher than in men for all age groups. Women aged < 20 years attending adult facilities had higher gonorrhea positivity than women attending juvenile detention facilities. This was also true for men.

Syphilis

The median syphilis serologic positivity (RPR quantitative test) by facility was 1.3% (range 0.0% to 14.6%) in adolescent women entering nine juvenile corrections facilities and 0.6% (range 0.0% to 6.9%) in adolescent men entering 8 juvenile corrections facilities (Table EE).

In women entering 23 adult corrections facilities the median serologic positivity was 5.2% (range 1.2% to 12.6%) (Table FF).

In men at 32 adult corrections facilities, the median syphilis serologic positivity was 3.7% (range 0.4% to 9.5%)

[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.

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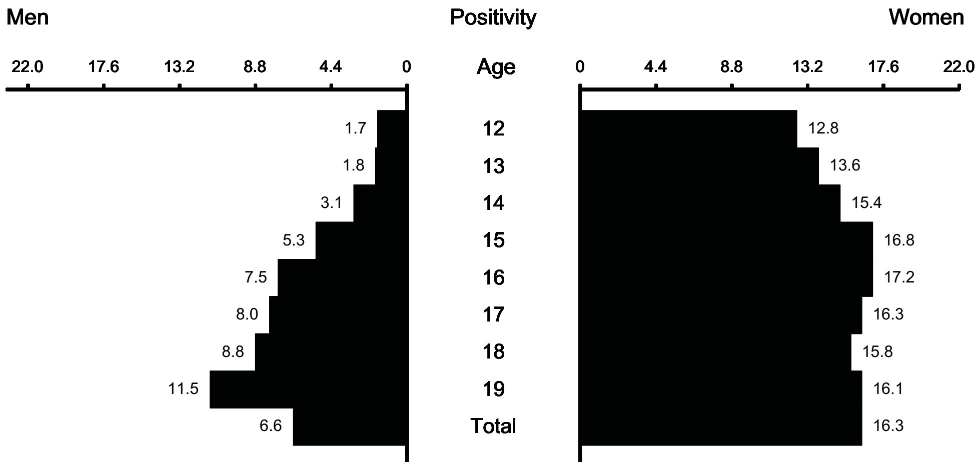
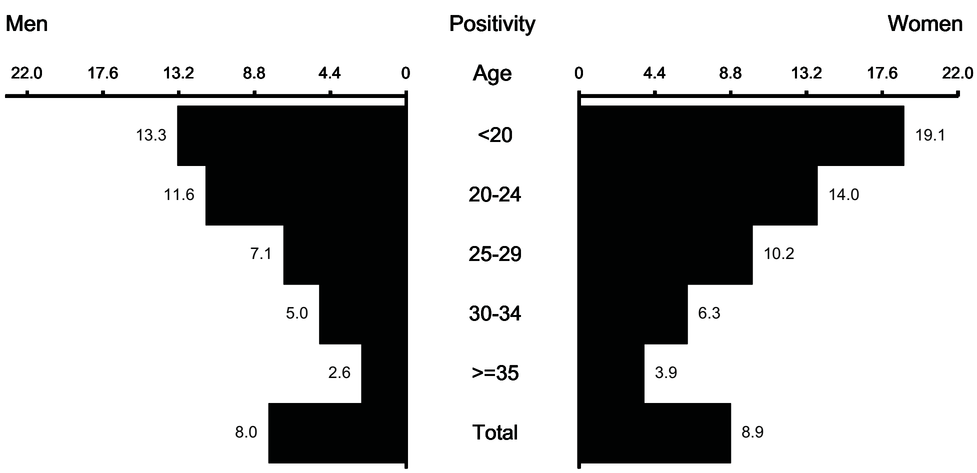
Figure CC. Chlamydia — Positivity by age, juvenile corrections facilities, 2005



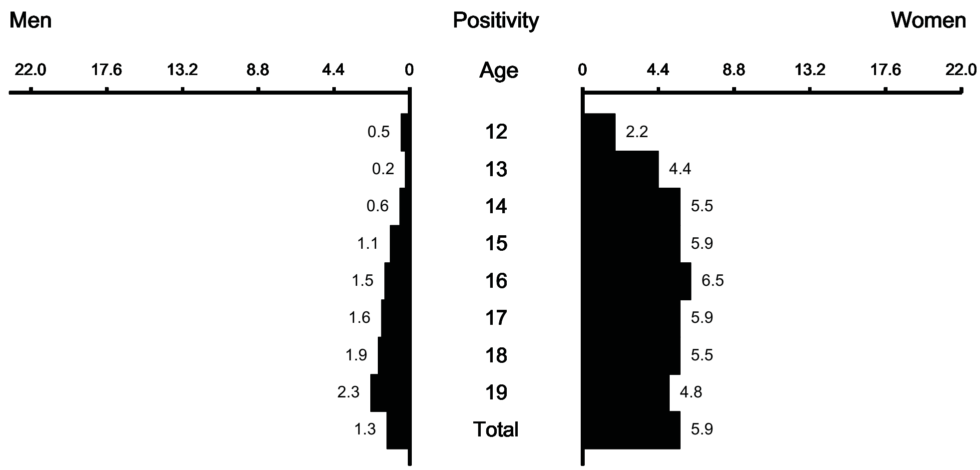
Note: Percent positivity is presented from facilities reporting > 100 test results.

Figure DD. Chlamydia — Positivity by age, adult corrections facilities, 2005



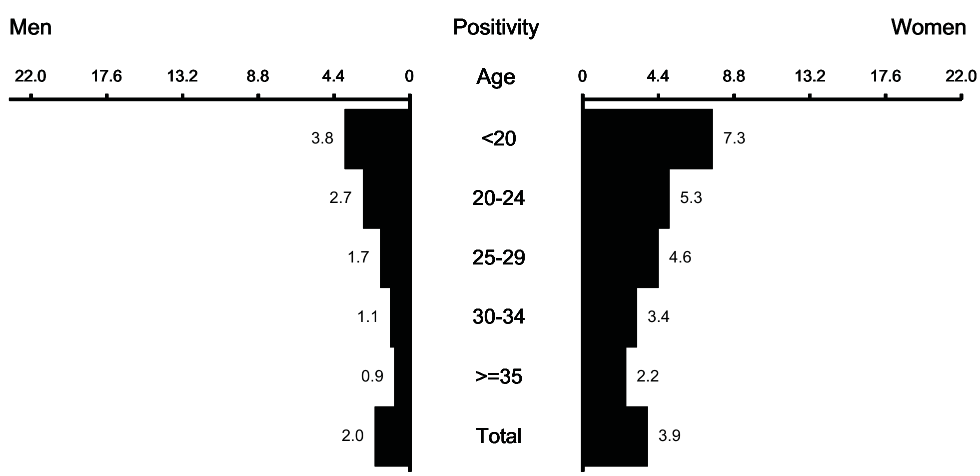
Note: Percent positivity is presented from facilities reporting > 100 test results.

Figure EE. Gonorrhea — Positivity by age, juvenile corrections facilities, 2005



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

Figure FF. Gonorrhea — Positivity by age, adult corrections facilities, 2005



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

Table AA. Chlamydia — Positivity among men and women in juvenile corrections facilities, 2005

State	Men			Women		
	No. of Facilities	*No. of Tests*	*Median % Positivity (Range)*	*No. of Facilities*	*No. of Tests*	*Median % Positivity (Range)*
Arizona	3	4,570	7.2 (5.6-7.6)	3	1,629	20.5 (14.7-21.1)
California*	21	29,033	5.1 (2.0-44.8)	22	12,395	13.0 (3.7-22.8)
Colorado	2	275	10.1 (6.9-13.2)	0	–	–
Connecticut	1	505	1.6	2	239	10.9 (10.6-11.1)
Delaware	1	962	5.8	1	254	13.4
Georgia	1	1,183	11.4	1	773	25.0
Hawaii	1	138	4.3	1	114	18.4
Illinois	3	5,160	9.4 (6.2-10.3)	1	561	23.0
Indiana	1	1,464	7.1	1	482	16.4
Kentucky	7	1,752	5.5 (2.4-8.9)	1	187	11.2
Massachusetts	7	3,458	5.0 (2.1-7.0)	2	769	12.0 (4.8-19.2)
Michigan	3	845	8.1 (6.0-8.4)	2	365	17.3 (14.0-20.6)
Mississippi	1	399	12.5	2	390	21.3 (18.5-24.0)
Missouri	1	463	8.9	1	115	16.5
Nebraska	1	959	5.9	1	317	12.3
Nevada	2	964	8.4 (4.7-12.1)	2	307	25.4 (17.1-33.7)
New Jersey	3	2,592	8.2 (7.5-10.6)	1	214	29.0
New Mexico	1	414	11.1	0	–	–
New York	5	3,675	3.6 (0.0-7.1)	2	802	13.9 (13.0-14.9)
North Dakota	1	102	7.8	0	–	–
Ohio	1	972	12.2	2	366	16.8 (9.4-24.2)
Oregon	3	1,542	5.5 (3.2-6.9)	2	403	9.0 (6.7-11.3)
Pennsylvania	4	3,152	10.1 (3.6-15.9)	1	388	20.6
Texas	3	6,750	7.4 (0.5-8.3)	2	1,726	24.5 (22.5-26.5)
Utah	2	721	5.1 (4.6-5.7)	2	387	14.2 (14.1-14.3)
Virginia	1	809	9.1	0	–	–
Washington	4	964	5.9 (3.4-8.3)	2	255	17.2 (12.1-22.3)
West Virginia	1	111	3.6	0	–	–
Wisconsin	2	601	5.4 (5.0-5.7)	0	–	–
Total	87	74,535	6.0 (0.0-44.8)	57	23,438	14.2 (3.7-33.7)

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, 2005

State	Men			Women		
	No. of Facilities	*No. of Tests*	*Median % Positivity (Range)*	*No. of Facilities*	*No. of Tests*	*Median % Positivity (Range)*
Arizona	0	–	–	1	819	15.3
California*	6	4,784	4.2 (3.3-6.9)	6	7,109	8.4 (5.0-20.4)
Colorado	1	254	19.3	1	154	19.5
Delaware	0	–	–	1	448	4.7
Georgia	1	101	20.8	1	4,622	8.0
Hawaii	0	–	–	2	290	12.3 (3.1-21.4)
Illinois	5	14,365	10.0 (8.1-12.0)	4	10,290	8.4 (5.7-10.4)
Iowa	2	894	11.2 (10.8-11.7)	2	677	8.3 (2.0-14.6)
Kentucky	0	–	–	1	510	4.3
Massachusetts	2	3,826	5.3 (4.7-6.0)	3	1,220	3.4 (3.3-4.7)
Michigan	1	320	13.1	0	–	–
Missouri	1	4,296	7.4	2	800	4.8 (3.6-6.0)
Montana	0	–	–	1	269	2.6
Nebraska	4	2,301	7.0 (6.6-19.2)	1	303	17.2
Nevada	1	178	16.3	1	149	17.4
New York	2	8,349	7.5 (4.0-11.1)	1	282	6.4
North Dakota	1	565	8.1	0	–	–
Oregon	1	145	15.9	1	231	9.5
Pennsylvania	3	18,702	5.7 (2.4-7.5)	1	3,160	9.5
South Carolina	1	290	12.8	1	112	5.4
Texas	1	623	16.2	2	1,424	13.3 (9.3-17.3)
Utah	0	–	–	1	106	20.8
Washington	0	–	–	1	1,285	4.4
West Virginia	2	765	4.4 (2.3-6.5)	0	–	–
Wisconsin	6	5,839	9.7 (5.5-17.2)	3	1,279	6.4 (1.7-7.2)
Total	41	66,597	8.1 (2.3-20.8)	38	35,539	7.4 (1.7-21.4)

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, 2005

	Men			Women		
State	No. of Facilities	No. of Tests	Median % Positivity (Range)	No. of Facilities	No. of Tests	Median % Positivity (Range)
Arizona	3	4,580	0.9 (0.6-1.2)	3	1,633	4.8 (2.5-7.0)
California*	8	19,732	0.6 (0.2-19.0)	7	6,101	4.2 (1.1-11.7)
Colorado	2	275	1.1 (0.0-2.3)	0	–	–
Connecticut	1	505	0.4	2	241	1.7 (1.6-1.8)
Delaware	1	880	1.4	1	227	3.5
Georgia	1	1,178	3.1	1	763	12.8
Hawaii	1	138	0.0	1	114	3.5
Illinois	3	5,161	2.9 (1.1-3.4)	1	559	11.1
Indiana	1	1,416	2.0	1	475	7.2
Kentucky	7	1,752	0.6 (0.0-2.5)	1	188	2.1
Massachusetts	5	2,499	1.6 (0.5-2.2)	1	414	5.8
Michigan	3	753	2.5 (1.0-3.8)	2	315	5.1 (4.8-5.3)
Mississippi	1	396	2.3	2	384	8.8 (8.4-9.2)
Missouri	1	463	2.4	1	116	8.6
Nebraska	1	959	1.1	1	317	2.5
Nevada	2	952	2.0 (0.3-3.7)	2	306	6.2 (2.3-10.1)
New Jersey	3	2,593	2.1 (0.7-2.8)	1	214	7.5
New Mexico	1	414	1.2	0	–	–
New York	3	2,304	1.5 (0.0-1.8)	1	419	4.1
Ohio	1	972	3.2	2	366	8.1 (1.9-14.2)
Pennsylvania	4	3,091	0.9 (0.0-3.3)	1	388	3.9
Texas	3	6,748	0.9 (0.0-1.0)	2	1,729	6.6 (5.6-7.5)
Utah	2	721	1.0 (0.8-1.1)	2	386	2.3 (2.2-2.4)
Washington	4	965	0.4 (0.0-0.9)	2	254	4.2 (0.9-7.5)
West Virginia	1	117	2.6	0	–	–
Wisconsin	2	598	1.2 (0.0-2.4)	0	–	–
Total	65	60,162	1.0 (0.0-19.0)	38	15,909	4.7 (0.9-14.2)

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, 2005

	Men			Women		
State	No. of Facilities	No. of Tests	Median % Positivity (Range)	No. of Facilities	No. of Tests	Median % Positivity (Range)
Arizona	0	–	–	1	820	6.6
California*	6	4,409	2.1 (0.8-3.5)	5	7,003	3.0 (1.1-13.8)
Colorado	1	254	7.9	1	154	7.1
Delaware	0	–	–	1	430	1.4
Georgia	0	–	–	1	4,605	3.3
Hawaii	0	–	–	2	290	4.5 (0.6-8.4)
Illinois	5	14,364	3.4 (1.6-5.1)	4	10,290	4.6 (1.3-6.8)
Iowa	2	894	0.9 (0.8-1.0)	2	677	0.2 (0.0-0.4)
Kentucky	0	–	–	1	510	0.8
Michigan	1	225	2.2	0	–	–
Missouri	1	4,299	1.7	2	800	1.5 (0.9-2.2)
Montana	0	–	–	1	267	0.0
Nebraska	4	2,301	0.4 (0.0-7.2)	1	303	5.0
Nevada	1	178	11.8	1	149	9.4
New York	1	7,393	0.4 (0.4-0.4)	0	–	–
Pennsylvania	3	18,679	0.6 (0.0-1.2)	1	3,159	3.6
South Carolina	1	290	5.5	1	112	6.3
Texas	1	623	5.5	2	1,424	4.2 (2.5-5.8)
Utah	0	–	–	1	106	7.5
Washington	0	–	–	1	1,282	1.4
West Virginia	2	770	4.3 (2.3-6.4)	1	110	0.0 (0.0-0.0)
Wisconsin	6	5,835	2.6 (0.3-9.0)	3	1,275	2.7 (0.2-2.8)
Total	35	60,514	2.3 (0.0-11.8)	33	33,766	2.8 (0.0-13.8)

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, 2005

	Men			Women		
State	No. of Facilities	No. of Tests	Median % Positivity (Range)	No. of Facilities	No. of Tests	Median % Positivity (Range)
California*	3	12,690	0.5 (0.3-0.6)	3	2,982	1.3 (0.8-1.6)
Mississippi	1	856	6.9	2	1,119	10.5 (6.4-14.6)
Ohio	1	1,654	6.0	1	135	0.0
Pennsylvania	1	4,811	0.0	1	748	0.1
Texas	2	1,257	0.6 (0.5-0.7)	2	366	2.8 (0.6-5.1)
Total	8	21,268	0.6 (0.0-6.9)	9	5,350	1.3 (0.0-14.6)

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, 2005

	Men			Women		
State	No. of Facilities	No. of Tests	Median % Positivity (Range)	No. of Facilities	No. of Tests	Median % Positivity (Range)
California*	6	997	4.5 (2.0-6.7)	2	323	4.3 (3.4-5.2)
Illinois	1	65,421	1.0	1	10,671	3.3
Maryland	1	13,606	2.7	1	4,455	8.9
Massachusetts	1	3,609	0.8	1	522	1.3
Mississippi	6	1,963	7.3 (4.6-9.5)	0	–	–
North Carolina	5	3,318	2.6 (1.3-4.8)	5	1,085	8.6 (6.3-12.6)
New Jersey	1	11,431	2.8	1	2,178	3.0
New York†	0	–	–	1	10,974	2.6
Ohio	1	29,428	8.5	1	5,431	1.8
Pennsylvania	0	–	–	1	4,422	10.9
Tennessee	3	14,062	2.0 (1.9-5.5)	3	6,560	3.6 (2.8-12.5)
Texas	6	60,447	2.5 (0.9-3.5)	5	17,102	6.3 (3.1-6.6)
Wisconsin	1	1,141	0.4	1	588	1.2
Total	32	205,423	3.7 (0.4-9.5)	23	64,311	5.2 (1.2-12.6)

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.