

STDs in Adolescents and Young Adults

Public Health Impact

Compared to older adults, adolescents (10- to 19-year-olds) and young adults (20- to 24-year-olds) are at higher risk for acquiring STDs for a number of reasons. In addition, 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 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.

Observations

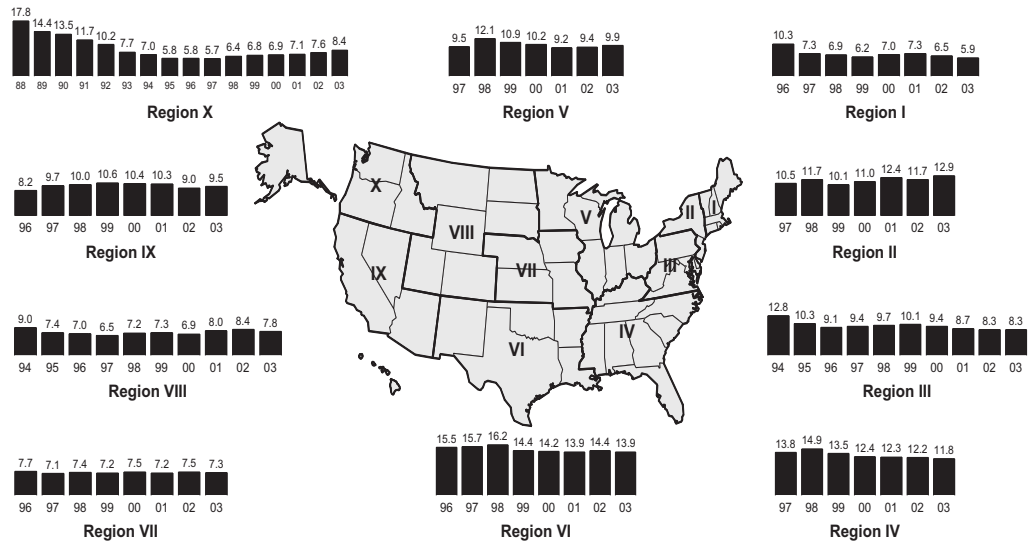
- Numerous prevalence studies in various clinic populations have shown that sexually active adolescents have high rates of chlamydia infection.¹⁻³ The Regional Infertility Prevention Projects that routinely perform large scale screening for detecting chlamydia infections among women attending family planning clinics demonstrate that younger women consistently have higher positivity than older women, even when prevalence declines. An example is the Region X Chlamydia Project, which has screened women in family planning clinics since 1988 (Figure L).
- After adjusting trends in chlamydia positivity to account for changes in laboratory test methods and associated increases in test sensitivity (see **Appendix**), for 15- to 19-year-old women chlamydia test positivity decreased in 5 of 10 HHS regions from 2002 through 2003, increased in 4 regions, and remained the same in 1 region (Figure K). Although chlamydia positivity has declined in the past year in some regions presumably due to the effectiveness of screening and treatment of women, continued expansion of screening programs to populations with higher prevalence of disease may have contributed to increases in positivity in other regions.
- As in previous years, 15- to 19-year-old women had the highest rates of gonorrhea compared to women in all other age categories (Figure S and Table 20). Women aged 20-29 had the highest rates of primary and secondary syphilis in 2003 (Figure U and Table 33). Among men, 20- to 24-year-olds had the highest rate of gonorrhea (Figure T and Tables 20 and 33).
- In 15- to 19-year-old women, the 2003 gonorrhea rate of 634.7 cases per 100,000 females was an 11.7% decrease from the 1999 rate of 718.4. Among young women in the 20- to 24-year-old group, the rate of gonorrhea in 2003 decreased only 3.3% from 615.6 in 1999 to 595.2 in 2003. Since 1999, the rates in these two age groups have been converging (Figure S, Table 20).

- Rates of gonorrhea among male adolescents generally decreased between the years 1991 and 2003 (Figure T, Table 20). Among 15- to 19-year-old males, the gonorrhea rate declined by 21.0% from 332.2 in 1999 to 262.4 in 2003. Among 20- to 24-year-old males, the gonorrhea rate declined by 16.1% from 555.5 in 1999 to 465.9 in 2003.
- Since 1990, approximately 20,000 female National Job Training Program entrants have been screened each year for chlamydia. This program, administered by the U.S. Department of Labor at more than 100 sites throughout the country, is a job training program for economically-disadvantaged youth aged 16-24 years-old.
- Chlamydia infection is widespread geographically and highly prevalent among economically-disadvantaged young women in the National Job Training Program.³ Among women entering the program from 39 states and Puerto Rico in 2003, based on their place of residence before program entry, the median state-specific chlamydia prevalence was 9.9% (range 3.4% to 16.0%) (Figure M). Among men entering the program from 38 states and Puerto Rico from July through December 2003, the median state-specific chlamydia prevalence was 7.8% (range 1.5% to 12.7%) (Figure N).
- Data from National Job Training Program centers that submit gonorrhea specimens from female students aged 16-24 years to a national contract laboratory indicates a high prevalence of gonococcal infection in this population. Specimens from at least 100 students from each of 34 states and Puerto Rico were tested by the contract laboratory; the median state-specific gonorrhea prevalence was 2.1% (range 0.0% to 6.3%) in 2003 (Figure Q). Among men entering the program from 10 states from July through December 2003, the median state-specific gonorrhea prevalence was 2.8% (range 1.4% to 6.3%) (Figure R).
- The Adolescent Women Reproductive Health Monitoring Project was established in 1999 to monitor STD prevalence and reproductive health measures among adolescent women (less than 20 years old) in non-traditional venues, including school-based clinics, juvenile corrections facilities, drug treatment centers, and organizations serving street youth. In 2003, urine-based test results from this screening project identified a median site-specific chlamydia positivity of 11.3% (range 6.7% to 18.2%) (Figure O) and a median site-specific gonorrhea positivity of 1.9% (range 0.6% to 3.7%) (Figure P) at 25 school-based clinics.
- Among adolescent women attending juvenile corrections facilities, data from the Adolescent Women Reproductive Health Monitoring Project and the Jail STD Prevalence Monitoring Project identified a median chlamydia positivity of 15.9% (range 2.7% to 33.5%) (Figure JJ) and a median gonorrhea positivity of 5.7% (range 0.5% to 15.9%) (Figure LL). See **Special Focus Profiles** (STDs in Persons Entering Corrections Facilities).
- Syphilis rates in women in all age groups are similar and low (Figure U). In men rates in 15- to 19-year-olds remain low but increases have been observed in 20- to 24-year-olds (Figure V).

¹ Centers for Disease Control and Prevention. Recommendations for the prevention and management of *Chlamydia trachomatis* infections, 1993. *MMWR* 1993;42(No. RR-12).

- ² Lossick J, DeLisle S, Fine D, Mosure DJ, Lee V, Smith C. Regional program for widespread screening for *Chlamydia trachomatis* in family planning clinics. In: Bowie WR, Caldwell HD, Jones RP, et al., eds. *Chlamydial Infections: Proceedings of the Seventh International Symposium of Human Chlamydial Infections*, Cambridge, Cambridge University Press 1990, pp. 575-9.
- ³ Mertz, KJ, Ransom RL, St. Louis ME, Groseclose SL, Hadgu A, Levine WC, Hayman C. Decline in the prevalence of genital chlamydia infection in young women entering a National Job Training Program, 1990-1997. *Am J Pub Health* 2001;91(8):1287-1290.

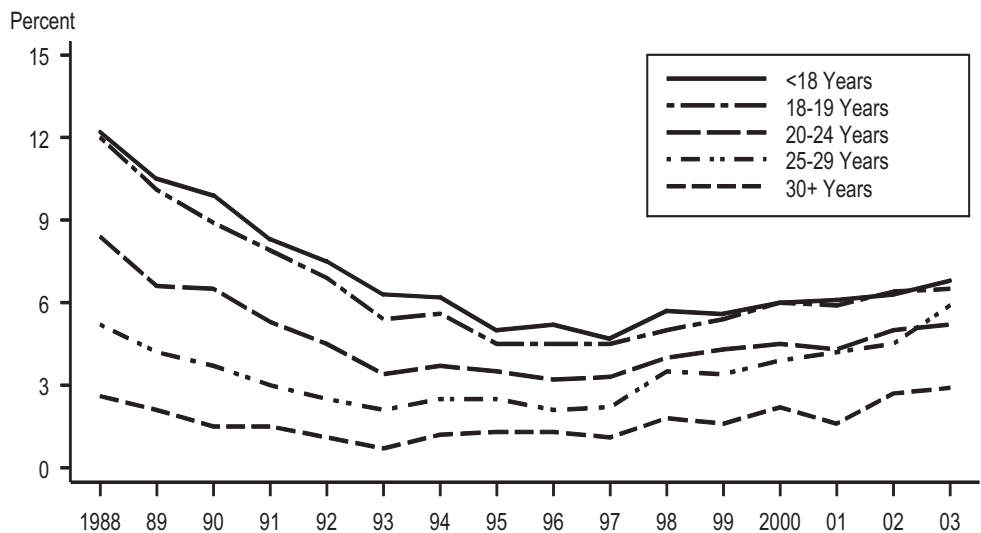
Figure K. Chlamydia — Trends in positivity among 15- to 19-year-old women tested in family planning clinics by HHS regions, 1988–2003



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. No data on laboratory test method available for Region VII in 1995 and Regions IV and V in 1996. See Appendix for definition 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

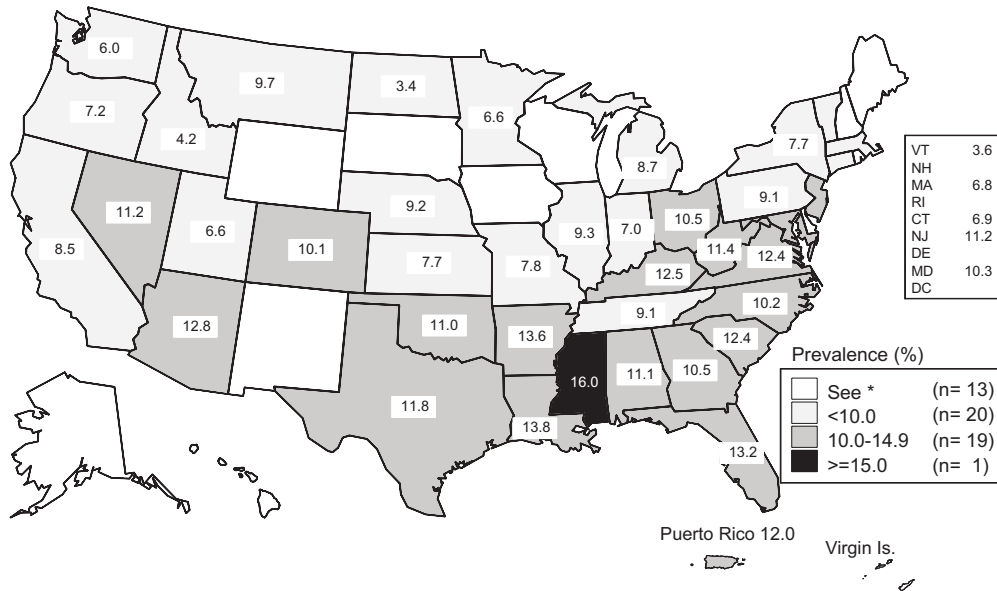
Figure L. Chlamydia — Positivity among women tested in family planning clinics by age group: Region X, 1988–2003



Note: Women who met screening criteria were tested. Trends not adjusted for changes in laboratory test method and associated increases in test sensitivity in 1994 and 1999–2003.

SOURCE: Regional Infertility Prevention Projects: Region X Chlamydia Project

Figure M. Chlamydia — Prevalence among 16- to 24-year-old women entering the National Job Training Program by state of residence: United States and outlying areas, 2003

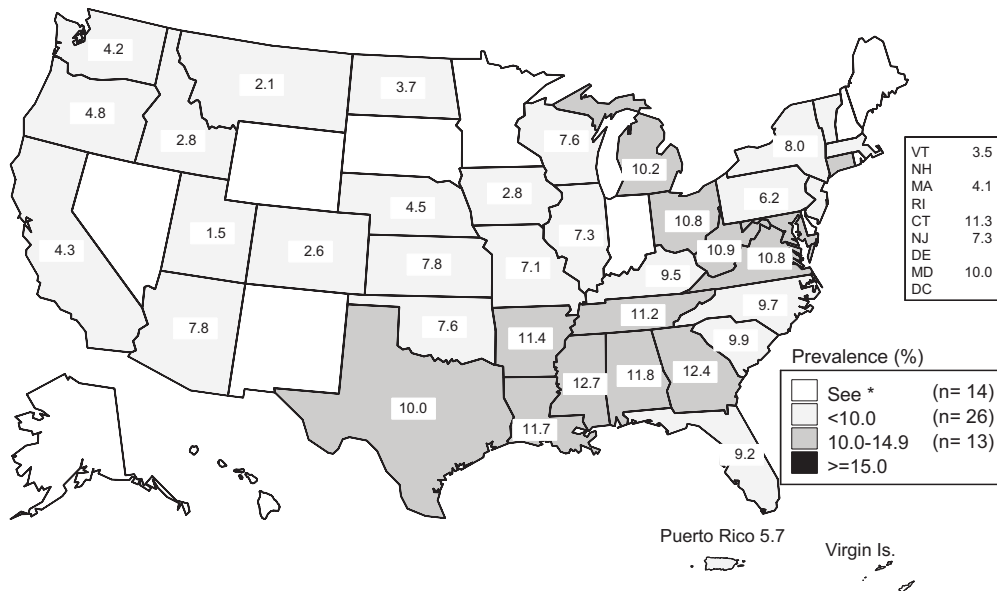


*Fewer than 100 women residing in these states and entering the National Job Training Program were screened for chlamydia in 2003.

Note: The overall chlamydia prevalence among female students entering the National Job Training Program in 2003 was 9.9%.

SOURCE: U.S. Department of Labor

Figure N. Chlamydia — Prevalence among 16- to 24-year-old men entering the National Job Training Program by state of residence: United States and outlying areas, 2003



*Fewer than 100 men residing in these states and entering the National Job Training Program were screened for chlamydia in 2003.

Note: The overall chlamydia prevalence among male students entering the National Job Training Program for the period July-December 2003 was 8.0%.

SOURCE: U.S. Department of Labor

Figure O. Chlamydia — Adolescent Women Reproductive Health Monitoring Project chlamydia positivity in school-based clinics, 2003

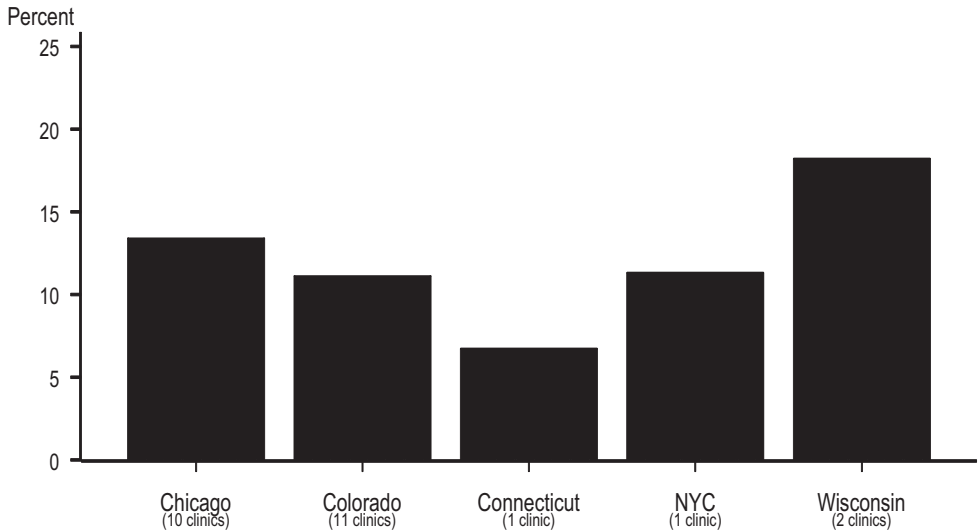


Figure P. Gonorrhea — Adolescent Women Reproductive Health Monitoring Project gonorrhea positivity in school-based clinics, 2003

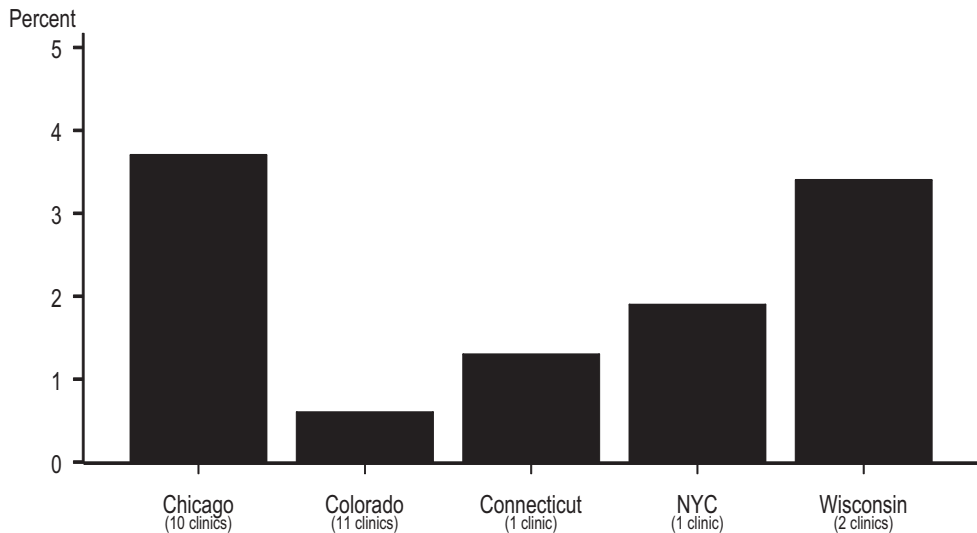
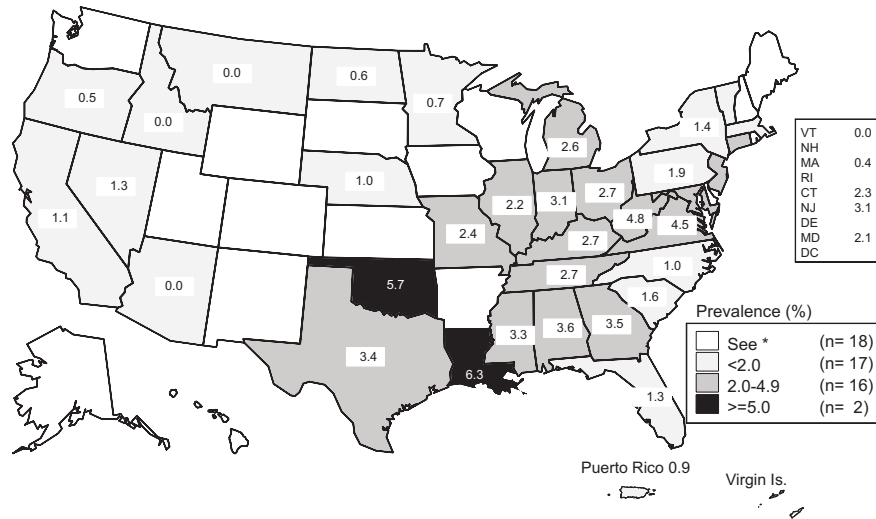


Figure Q. Gonorrhea — Prevalence among 16- to 24-year-old women entering the National Job Training Program by state of residence: United States and outlying areas, 2003

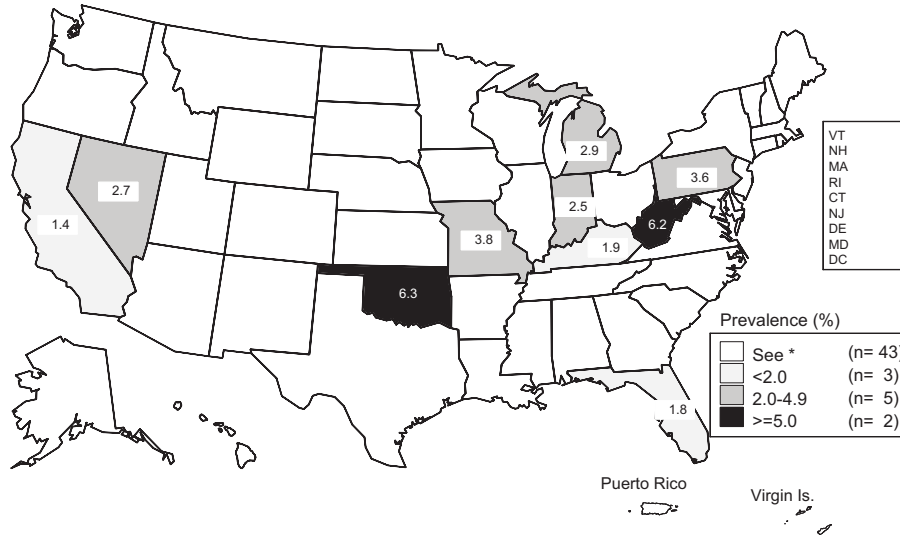


*Fewer than 100 women residing in these states and entering the National Job Training Program were screened for gonorrhea by the national contract laboratory in 2003.

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. The overall gonorrhea prevalence among female students entering the National Job Training Program in 2003 was 2.3%.

SOURCE: U.S. Department of Labor

Figure R. Gonorrhea — Prevalence among 16- to 24-year-old men entering the National Job Training Program by state of residence: United States and outlying areas, 2003



*Fewer than 100 men residing in these states and entering the National Job Training Program were screened for gonorrhea by the national contract laboratory in 2003.

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. The overall gonorrhea prevalence among male students entering the National Job Training Program for the period July-December 2003 was 2.8%.

SOURCE: U.S. Department of Labor

Figure S. Gonorrhea — Age-specific rates among women 10 to 44 years of age: United States, 1981–2003

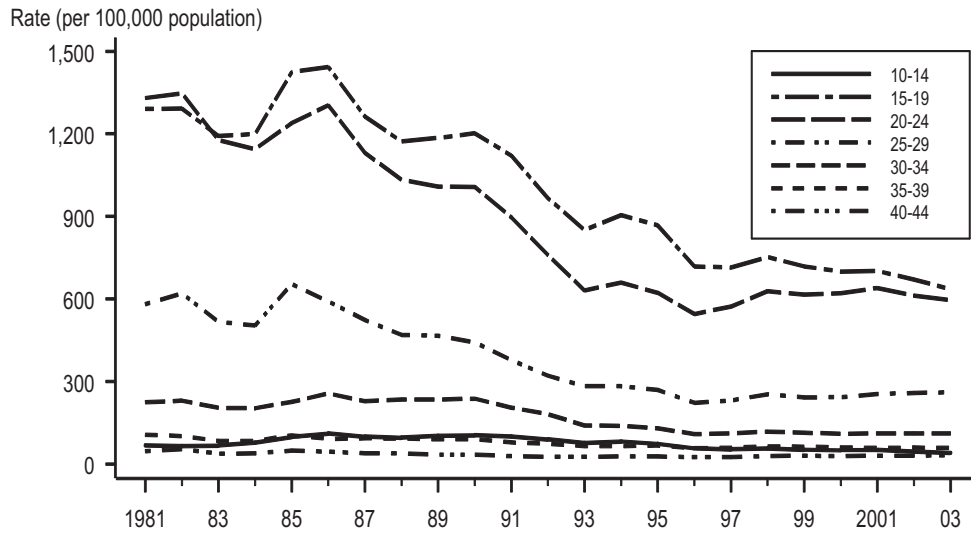


Figure T. Gonorrhea — Age-specific rates among men 10 to 44 years of age: United States, 1981–2003

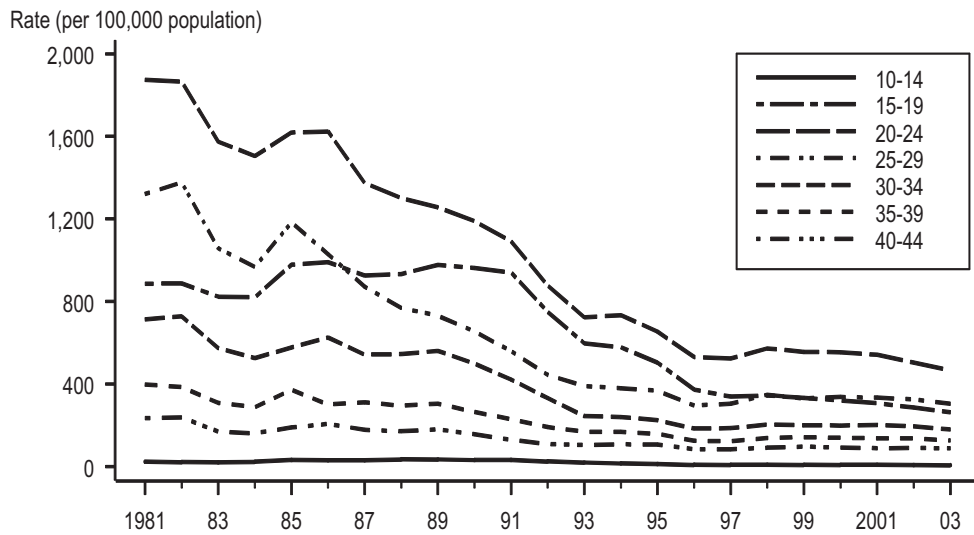


Figure U. Primary and secondary syphilis — Age-specific rates among women 10 to 44 years of age: United States, 1981–2003

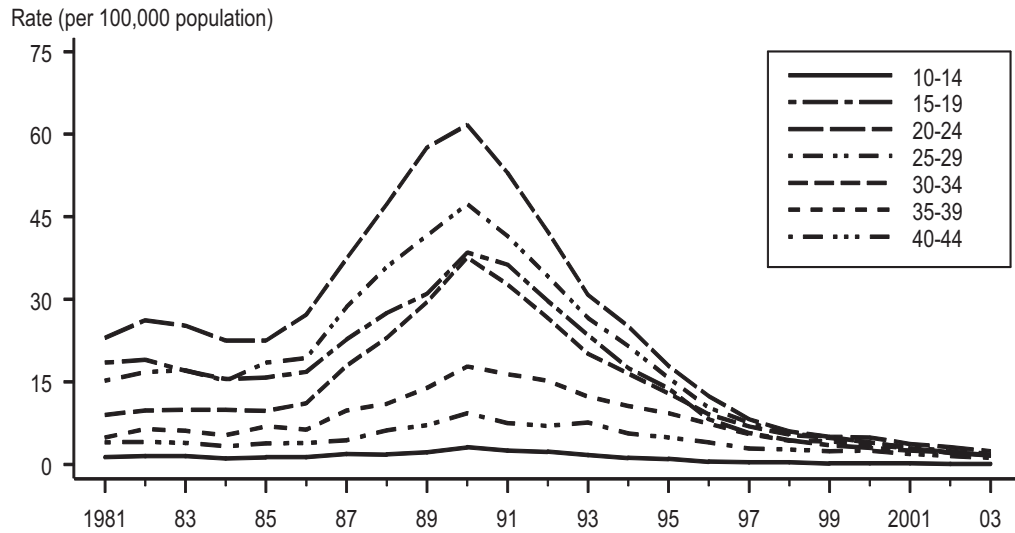


Figure V. Primary and secondary syphilis — Age-specific rates among men 10 to 44 years of age: United States, 1981–2003

