STDs in Adolescents and Young Adults

Public Health Impact
Estimates suggest that even though young people aged 15–24 years represent only 25% of the sexually experienced population, they acquire nearly half of all new STDs.\(^1\) Compared with older adults, sexually active adolescents aged 15–19 years and young adults aged 20–24 years are at higher risk of acquiring STDs for a combination of behavioral, biological, and cultural reasons. For some STDs, such as \textit{C. trachomatis}, adolescent females may have increased susceptibility to infection because of increased cervical ectopy. The higher prevalence of STDs among adolescents also may reflect multiple barriers to accessing quality STD prevention services, including lack of health insurance or ability to pay, lack of transportation, discomfort with facilities and services designed for adults, and concerns about confidentiality. Traditionally, intervention efforts have targeted individual-level factors associated with STD risk which do not address higher-level factors (e.g., peer norms and media influences) that may also influence behaviors.\(^3\) Interventions for at-risk adolescents and young adults that address underlying aspects of the social and cultural conditions that affect sexual risk-taking behaviors are needed, as are strategies designed to improve the underlying social conditions themselves.\(^3,4\)

Observations

\textbf{Chlamydia}

Rates of reported chlamydial infection among persons aged 15–19 years and 20–24 years continue to increase. During 2009–2010, rates increased 2.8% for those aged 15–19 years and 7.5% for those aged 20–24 years (Table 10).

\textbf{15- to 19-Year-Old Women}—In 2010, the rate among women aged 15–19 years was 3,378.2 cases per 100,000 females, a 1.9% increase from the 2009 rate of 3,314.7 cases per 100,000 (Figure 5, Table 10).

\textbf{20- to 24-Year-Old Women}—In 2010, women aged 20–24 years had the highest rate of chlamydia (3,407.9 cases per 100,000 females) compared with any other age or sex group. Chlamydia rates for women in this age group increased 8.8% during 2009–2010.

\textbf{15- to 19-Year-Old Men}—Chlamydia rates for men aged 15–19 years increased 6.0% from 730.5 cases per 100,000 males in 2009 to 774.3 cases per 100,000 in 2010.

\textbf{20- to 24-Year-Old Men}—In 2010, as in previous years, men aged 20–24 years had the highest rate of chlamydia (1,187.0 cases per 100,000 males). Chlamydia rates for men in this age group increased 8.8% during 2009–2010.

\textbf{Gonorrhea}

During 2009–2010, gonorrhea rates increased for persons aged 15–19 years (1.4%) and 20–24 years (4.9%).

\textbf{15- to 19-Year-Old Women}—In 2010, as in previous years, women aged 15–19 years had the highest rate of gonorrhea (570.9 cases per 100,000 females) compared with any other age or sex group (Figure 19, Table 21). During 2009–2010, gonorrhea rates for women of this age group increased 0.9%.

\textbf{20- to 24-Year-Old Women}—In 2010, as in previous years, women aged 20–24 years had the second highest rate of gonorrhea (560.7 cases per 100,000 females) compared with any other age or sex group (Figure 19, Table 21). During 2009–2010, gonorrhea rates for women in this age group increased 3.8%.

\textbf{15- to 19-Year-Old Men}—In 2010, as in previous years, men aged 15–19 years had the second highest rate of gonorrhea (253.4 cases per 100,000 males) (Figure 19, Table 21). During 2009–2010, gonorrhea rates for men in this age group increased 2.1% (Figure 21, Table 20).

\textbf{20- to 24-Year-Old Men}—In 2010, as in previous years, men aged 20–24 years had the highest rate of gonorrhea (421.0 cases per 100,000 males) (Figure 19, Table 21). During 2009–2010, gonorrhea rates for men in this age group increased 6.2%.

\textbf{Primary and Secondary Syphilis}

Syphilis rates among women aged 15–19 years increased annually from 2004–2009 from 1.5 cases per 100,000 females to 3.3 cases in 2009, but decreased to 3.0 in 2010. Rates in women have been highest each year.
among those aged 20–24 years with 4.5 cases per 100,000 females in 2010 (Figures 39 and 40, Table 34).

Rates among men aged 15–19 years are much lower than the rates among men in older age groups (Figure 39). However, rates in this group have increased since 2002, from 1.3 cases per 100,000 males to 5.6 cases in 2010. Rates among men aged 20–24 years have also increased since 2002, from 5.2 cases per 100,000 males to 21.9 cases in 2010. Not only did men aged 20–24 years see large increases in rates, they also had the highest rate of syphilis among men of any age group since 2008 (Table 34). These changes reflect a significant shift in the age distribution of syphilis; rates were highest among men aged 35–39 years during 2002–2005.

**Prevalence Monitoring**

Chlamydia test positivity among women aged 15–19 years screened in selected family planning clinics increased in most of the 10 HHS regions during 2006–2010 (Figure J). In region IX, positivity increased through 2009 and then decreased in 2010, which may be attributable to an increase in reported tests in 2010 due to the implementation of an electronic data system. Test positivity data presented in Figure J are not adjusted for changes in laboratory test methods and associated increases in test sensitivity.

**National Job Training Program**

Since 1990 about 20,000 female NJTP entrants have been screened each year for chlamydia. Since 2004, about 35,000 male entrants have been screened annually. This educational program for socioeconomically disadvantaged youth aged 16–24 years is administered at more than 100 sites throughout the country. The data presented are from sites where more than 100 persons were screened in 2010.

Chlamydial infection is widespread geographically and highly prevalent among socioeconomically disadvantaged young women and men entering the NJTP. Specimens from students in each state and outlying area were tested by a single national contract laboratory.*

Among women entering the program in 44 states, the District of Columbia, and Puerto Rico, the median state-specific chlamydia prevalence was 11.4% (range: 5.2% to 21.3%) (Figure K). Among men entering the program in 48 states, the District of Columbia, and Puerto Rico, the median state-specific chlamydia prevalence was 7.2% (range: 1.8% to 12.7%) (Figure L).

The data from NJTP centers that submit gonorrhea specimens from female students aged 16–24 years to the national contract laboratory indicated a high prevalence of gonococcal infection in this population. Among women entering the program in 43 states, the District of Columbia, and Puerto Rico, the median state-specific gonorrhea prevalence in 2010 was 1.9% (range: 0.0% to 4.7%) (Figure M). Among men entering the program in 33 states, the District of Columbia, and Puerto Rico, the median state-specific gonorrhea prevalence was 0.8% (range: 0.0% to 2.7%) (Figure N).

**Juvenile Corrections Facilities**

Among adolescent females entering selected juvenile corrections facilities, the median facility-specific chlamydia positivity was 14.5% (range: 4.0% to 26.5%); the median gonorrhea positivity was 4.1% (range: 0.0% to 8.9%). Among adolescent males entering selected juvenile corrections facilities, the median facility-specific chlamydia positivity was 6.5% (range: 0.5 to 13.8%); the median gonorrhea positivity rate was 0.6% (range: 0.0% to 4.8%). See the STDs in Persons Entering Corrections Facilities section for more details.

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


NOTE: See Definition of HHS Regions in the Appendix for definitions.

* Fewer than 100 women who resided in these states/areas and entered the National Job Training Program were screened for chlamydia in 2010.
Figure L. **Chlamydia—Prevalence Among Men Aged 16–24 Years Entering the National Job Training Program, by State of Residence, United States and Outlying Areas, 2010**

* Fewer than 100 men who resided in these states/areas and entered the National Job Training Program were screened for chlamydia in 2010.

Figure M. **Gonorrhea—Prevalence Among Women Aged 16–24 Years Entering the National Job Training Program, by State of Residence, United States and Outlying Areas, 2010**

* Fewer than 100 women who resided in these states/areas and entered the National Job Training Program were screened for gonorrhea in 2010.

**NOTE:** Many training centers use local laboratories to test female students for gonorrhea; these results are not available to CDC. For this map, gonorrhea test results for students at centers that submitted 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 Men Aged 16–24 Years Entering the National Job Training Program, by State of Residence, United States and Outlying Areas, 2010

* Fewer than 100 men who resided in these states/areas and entered the National Job Training Program were screened for gonorrhea in 2010.

**NOTE:** Many training centers use local laboratories to test male students for gonorrhea; these results are not available to CDC. For this map, gonorrhea test results for students at centers that submitted 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.