Sexually Transmitted Disease Surveillance 2006

Division of STD Prevention

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Selected STD Surveillance and Prevention References and Websites

Supplemental STD Surveillance Reports – 2006

- *2006 Chlamydia Prevalence Monitoring Project*: **http://www.cdc.gov/std/chlamydia2006/**
- *2006 Gonococcal Isolate Surveillance Project*: **http://www.cdc.gov/std/GISP2006/**
- *2006 Syphilis Surveillance Project*: **http://www.cdc.gov/std/Syphilis2006/**

STD Surveillance Reports 1993 – 2006

- **http://www.cdc.gov/nchstp/dstd/Stats_Trends/Stats_and_Trends.htm**

STD Data on Wonder

- **http://wonder.cdc.gov/std.html**

STD Fact Sheets

- **http://www.cdc.gov/std/healthcomm/fact_sheets.htm**

STD Treatment Guidelines

- **http://www.cdc.gov/STD/treatment/**

STD Program Evaluation Guidelines

http://www.cdc.gov/std/program/pupestd.htm

STD Program Operation Guidelines

- **http://www.cdc.gov/std/program/default.htm**

Recommendations for Public Health Surveillance of Syphilis in the United States

- **http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5233a7.htm**

Behavioral Surveillance

- Youth Risk Behavior Surveillance System: **http://www.cdc.gov/HealthyYouth/yrbs/index.htm**
- National Survey of Family Growth: Advance Data 362. Sexual Behavior and Selected Health Measures: Men and Women 15-44 Years of Age, United States, 2002. 56 pp. (PHS) 2003-1250: **http://www.cdc.gov/nchs/products/pubs/pubd/ad/361-370/ad362.htm**

Foreword

"STDs are hidden epidemics of enormous health and economic consequence in the United States. They are hidden because many Americans are reluctant to address sexual health issues in an open way and because of the biologic and social characteristics of these diseases. All Americans have an interest in STD prevention because all communities are impacted by STDs and all individuals directly or indirectly pay for the costs of these diseases. STDs are public health problems that lack easy solutions because they are rooted in human behavior and fundamental societal problems. Indeed, there are many obstacles to effective prevention efforts. The first hurdle will be to confront the reluctance of American society to openly confront issues surrounding sexuality and STDs. Despite the barriers, there are existing individual- and community-based interventions that are effective and can be implemented immediately. That is why a multifaceted approach is necessary to both the individual and community levels.

To successfully prevent STDs, many stakeholders need to redefine their mission, refocus their efforts, modify how they deliver services, and accept new responsibilities. In this process, strong leadership, innovative thinking, partnerships, and adequate resources will be required. The additional investment required to effectively prevent STDs may be considerable, but it is negligible when compared with the likely return on the investment. The process of preventing STDs must be a collaborative one. No one agency, organization, or sector can effectively do it alone; all members of the community must do their part. A successful national initiative to confront and prevent STDs requires widespread public awareness and participation and bold national leadership from the highest levels."[1]

[1]Concluding statement from the Institute of Medicine's Summary Report, *The Hidden Epidemic: Confronting Sexually Transmitted Diseases*, National Academy Press, Washington, DC, 1997, p.43.

Preface

Sexually Transmitted Disease Surveillance, 2006 presents statistics and trends for sexually transmitted diseases (STDs) in the United States through 2006. This annual publication is intended as a reference document for policy makers, program managers, health planners, researchers, and others who are concerned with the public health implications of these diseases. ***The figures and tables in this edition supersede those in earlier publications of these data.***

The surveillance information in this report is based on the following sources of data: (1) case reports from state and local STD programs; (2) the Regional Infertility Prevention Projects, the National Job Training Program, the Corrections STD Prevalence Monitoring Project, and the Men Who Have Sex With Men (MSM) Prevalence Monitoring Project; (3) the Gonococcal Isolate Surveillance Project (GISP); and (4) national surveys implemented by federal and private organizations.

The STD surveillance systems operated by state and local STD control programs, which provide the case report data for chlamydia, gonorrhea, syphilis, and chancroid are the data sources of many of the figures and most of the statistical tables in this publication. These systems are an integral part of program management at all levels of STD prevention and control in the United States. Because of incomplete diagnosis and reporting, the number of STD cases reported to CDC is less than the actual number of cases occurring in the United States population. Case report data for other STDs are not available because they are not nationally notifiable diseases.

Sexually Transmitted Disease Surveillance, 2006 consists of four parts. The **National Profile** contains figures that provide an overview of STD morbidity in the United States. The accompanying text identifies major findings and trends for selected STDs. The **Special Focus Profiles** contain figures and text describing STDs in selected subgroups and populations that are a focus of national and state prevention efforts. The **Detailed Tables** provide statistical information about STDs at the county, metropolitan statistical area (MSA), regional, state, and national levels. The **Appendix** includes information on interpreting the STD surveillance data used to produce this report, Healthy People 2010 STD objectives, Government Performance and Results Act (GPRA) goals, and STD surveillance case definitions.

Selected figures and tables in this document identify goals that reflect progress towards some of the Healthy People 2010 (HP2010) national health status objectives for STDs.[1] **Appendix** Table A3 displays progress made towards the HP2010 targets for STDs. These targets are used as reference points throughout this edition of *Sexually Transmitted Disease Surveillance 2006*.

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

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[1] U.S. Department of Health and Human Services. *Healthy People 2010*. 2nd ed. With Understanding and Improving Health and Objectives for Improving Health. 2 vols. Washington, DC: U.S. Government Printing Office, November 2000.

Acknowledgments

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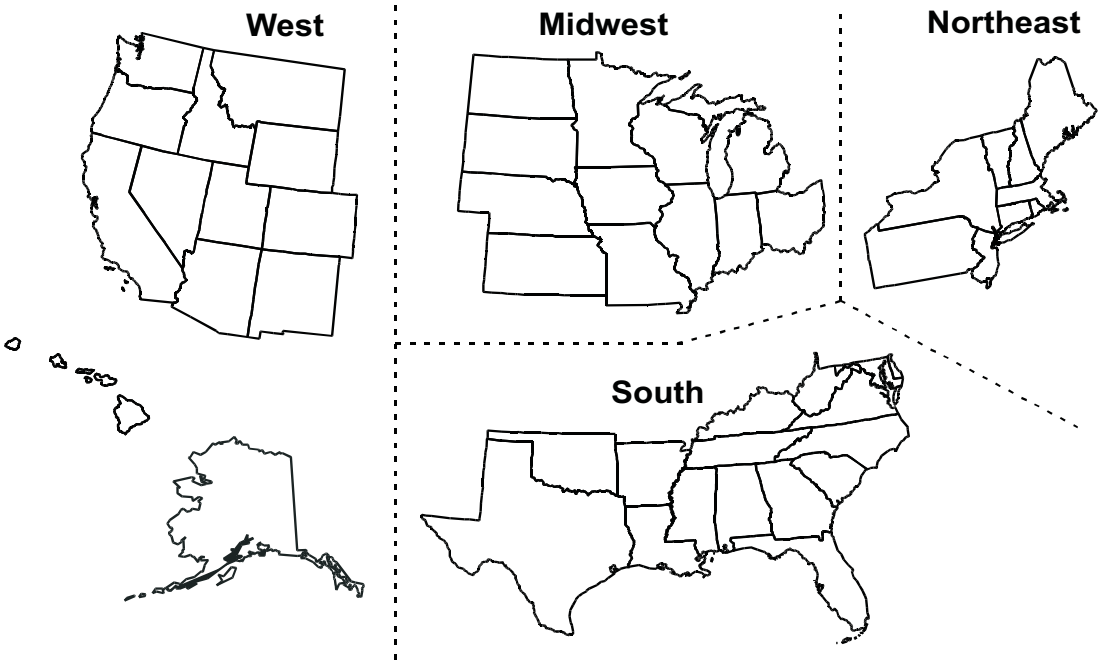

West	Midwest	South	Northeast
Alaska	Illinois	Alabama	Connecticut
Arizona	Indiana	Arkansas	Maine
California	Iowa	Delaware	Massachusetts
Colorado	Kansas	District of Columbia	New Hampshire
Hawaii	Michigan	Florida	New Jersey
Idaho	Minnesota	Georgia	New York
Montana	Missouri	Kentucky	Pennsylvania
Nevada	Nebraska	Louisiana	Rhode Island
New Mexico	North Dakota	Maryland	Vermont
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Utah	South Dakota	North Carolina	
Washington	Wisconsin	Oklahoma	
Wyoming		South Carolina	
		Tennessee	
		Texas	
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		West Virginia	

National Overview of Sexually Transmitted Diseases, 2006

The logo on the cover of *Sexually Transmitted Disease Surveillance, 2006* is a reminder of the multifaceted, national dimensions of the morbidity, mortality, and costs that result from sexually transmitted diseases (STDs) in the United States. It highlights the central role of STD prevention in improving health among women and infants and in promoting HIV prevention. Organized collaboration among interested, committed public and private organizations and communities is the key to reducing STDs and their related health burdens. As noted in the report of the Institute of Medicine, *The Hidden Epidemic: Confronting Sexually Transmitted Diseases*,[1] surveillance is a key component of our efforts to prevent and control these diseases.

This overview summarizes national surveillance data on the three notifiable diseases for which there are federally-funded control programs: chlamydia, gonorrhea, and syphilis. Several observations for 2006 are worthy of note.

Chlamydia

In 2006, 1,030,911 cases of genital *Chlamydia trachomatis* infection were reported to CDC (Table 1). This case count corresponds to a rate of 347.8 cases per 100,000 population, an increase of 5.6% compared with the rate in 2005. Rates of reported chlamydial infections among women have been increasing annually since the late 1980s when public programs for screening and treatment of women were first established to avert pelvic inflammatory disease and related complications. The continued increase in chlamydia case reports in 2006 most likely represents a continued increase in screening for this infection, more sensitive tests, and more complete national reporting, but it may also reflect a true increase in morbidity.

In 2006, the overall rate of chlamydial infection in the United States among women (515.8 cases per 100,000 females) was almost three times the rate among men (173.0 cases per 100,000 males), reflecting the large number of women screened for this disease (Tables 4 and 5). However, with the increased availability of urine testing, men are increasingly being tested for chlamydial infection.[2] From 2002 through 2006, the chlamydia rate in men increased by 36% (compared with a 16% increase in women over this period).

Data from multiple sources on prevalence of chlamydial infection in defined populations have been useful in monitoring disease burden and guiding chlamydia screening programs.

In 2006, the median state-specific chlamydia test positivity among women 15 to 24 years of age who were screened at selected family planning clinics in all states, the District of Columbia, Puerto Rico, and the Virgin Islands was 6.7% (range 2.8% to 16.9%) (Figures 8 and 9).

At selected prenatal clinics in 23 states, Puerto Rico, and the Virgin Islands the

median state-specific chlamydia prevalence was 8.1% (range 3.5% to 16.7%) (Figure E).

The prevalence of infection is greater among economically-disadvantaged women 16 to 24 years of age who entered the National Job Training Program in 2006 from 40 states, the District of Columbia, and Puerto Rico. The median state-specific prevalence was 13.1% (range 4.9% to 20.0%) (Figure K). Among men entering the program in 2006 from 48 states, the District of Columbia, and Puerto Rico the median state-specific chlamydia prevalence was 7.9% (range 1.8% to 12.4%) (Figure L).

The prevalence is even greater among adolescent women entering 57 juvenile detention centers; the median chlamydia positivity by facility was 14.2% (range 2.8% to 29.4%) (Table AA).

Among adolescent men entering 83 juvenile detention centers, the median chlamydia positivity was 5.3% by facility (range 0.5% to 46.7%) (Table AA).

Although these data on prevalence are not entirely comparable because of differences in the populations screened, in the performance characteristics of the screening tests, and variations in screening criteria, they provide important information on the continuing high burden of disease in the United States.

Gonorrhea

Following a 74% decline in the rate of reported gonorrhea from 1975 to 1997, overall gonorrhea rates appeared to plateau. In 2006, 358,366 cases of gonorrhea were reported in the United States, corresponding to a rate of 120.9 per 100,000 population, an increase of 5.5% percent since 2005 and an increase for the second consecutive year. (Figure 11 and Table 1). This rate considerably exceeds the Healthy People 2010 (HP2010) target of 19 cases per 100,000 population.

As in previous years, in 2006 the South had the highest gonorrhea rate among the four regions of the country (Table 12). Although the gonorrhea rate in the South declined for many years, in 2006, it rose by 12% from 2005 to a rate of 159.2 cases per 100,000 population. The rate in the West continued to increase slightly in 2006 while rates in the Northeast declined and the rate in the Midwest showed little change.

For the fifth consecutive year, the gonorrhea rate in women in 2006 was higher (124.3 per 100,000 population) than the rate among men (116.8 per 100,000 population) (Figure 12). As with chlamydia, gonorrhea rates in women 15 to 24 years of age are particularly high. In men, they are highest among men 20 to 29 years of age (Figure 18). In 2006, the gonorrhea rate among African American men was 25 times higher than among white men; the gonorrhea rate for African American women was 14 times higher than that for white women.

In 2006, data on gonorrhea prevalence in defined populations were available from several sources. These data showed a continuing high burden of disease in adolescents and young adults in some parts of the United States.

For 16- to 24-year-old women entering the National Job Training Program in 36 states, the District of Columbia and Puerto Rico in 2006, the median state-specific gonorrhea prevalence was 2.4% (range 0.0% to 7.1%).

Among men entering the program from 20 states, the median state-specific gonorrhea prevalence was 3.6% (range 0.0% to 6.2%).

Among women entering juvenile corrections facilities the median gonorrhea positivity was 3.8% (range 0.0% to 12.2%); the median gonorrhea positivity for men entering juvenile corrections facilities was 0.9% (range 0.0% to 4.5%).

Among women entering adult corrections facilities, the median gonorrhea positivity was 4.1% (range 0.0% to 10.9%). In men, the median gonorrhea positivity was 2.3% (range 0.0% to 18.3%) in adult corrections facilities.

Among men who have sex with men (MSM) attending eight STD clinics, the median clinic urethral gonorrhea positivity was 10% (range 8% to 13%).

In the Gonococcal Isolate Surveillance Project (GISP), a sentinel surveillance project located in 28 STD clinics throughout the United States, the proportion of isolates among MSM that were resistant to ciprofloxacin increased in 2006 to 39%. The overall proportion of resistant isolates among heterosexuals doubled from 3.8% in 2005 to 7% in 2006. As a result of the high prevalence of quinolone resistant *N. gonorrhoeae* among MSM and heterosexuals, CDC revised the *2006 STD Treatment Guidelines*. Fluoroquinolones are no longer recommended for the treatment of gonorrhea and associated conditions such as pelvic inflammatory disease.[3]

Syphilis

The rate of primary and secondary (P&S) syphilis reported in the United States decreased during the 1990s and in 2000 was the lowest since reporting began in 1941. The low rate of syphilis and the concentration of the majority of syphilis cases in a small number of geographic areas led to the development of the National Plan to Eliminate Syphilis from the United States, which was announced by the Surgeon General in 1999 and updated in 2006.[4] The rate of P&S syphilis in the United States declined by 89.7% from 1990 through 2000. However, the rate of P&S syphilis has increased each year since 2001, mostly in men, but also in women for the past two years. In 2006, 9,756 cases of P&S syphilis cases were reported to CDC, corresponding to a rate of 3.3 cases per 100,000 population, a 13.8% increase from 2005. Since 2001, the rate of P&S syphilis has increased 57%. After 14 years of decline, the rate of congenital syphilis increased in 2006 to 8.5 cases per 100,000 live births from 8.2 in 2005. There were 349 cases of congenital syphilis reported.

Although wide disparities exist in the rates of STDs among racial and ethnic groups, there has been a reduction in these differences for syphilis over the past seven years. The P&S syphilis rate for 2006 among African Americans was 5.9 times the rate among whites, reflecting a substantial decline from 1999, when the rate among African Americans was 29 times greater than that among whites (Table 33B). While this has reflected decreasing rates among African Americans, it also reflects increases among white men during the past five years. In 2006, increases were observed among both African-American men (18.3 cases per 100,000 population, up from 15.5 in 2005) and African-American women (4.9 cases per 100,000 population, up from 4.4 in 2005). An increase was also observed among white men (3.5 cases per 100,000 population), up from 3.3 in 2005, while the rate in white women remained the same (0.3 per 100,000 population).

While syphilis elimination efforts have successfully focused on heterosexual minority populations at risk for syphilis, increases in syphilis among MSM since 2001 and more recent increases among women and African Americans highlight the importance of continually reassessing and refining surveillance, prevention, and control strategies.

[1] Institute of Medicine. *The Hidden Epidemic: Confronting Sexually Transmitted Diseases*, Committee on Prevention and Control of Sexually Transmitted Diseases, National Academy Press, Washington, DC, 1997.

[2] Centers for Disease Control and Prevention. Male chlamydia screening consultation, Atlanta, Georgia, May 28-29, 2006, Meeting Report, May 22, 2007. Available at: http://www.cdc.gov/std/chlamydia/ChlamydiaScreening-males.pdf. Accessed October 16, 2007.

[3] Centers for Disease Control and Prevention. Update to CDC's Sexually Transmitted Diseases Treatment Guidelines, 2006: Fluoroquinolones No Longer Recommended for Treatment of Gonococcal Infections. MMWR, 2007;56:332-336.

[4] Division of STD Prevention. *The National Plan to Eliminate Syphilis from the United States*. National Center for HIV, STD, and TB Prevention, Centers for Disease Control and Prevention, 2006.