Sexually Transmitted Disease Surveillance 2008

Division of STD Prevention
November 2009
Acknowledgments

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Selected STD Surveillance and Prevention References and Websites

http://www.cdc.gov/std/stats/

STD Data on Wonder
http://wonder.cdc.gov/std.html

STD Data Management & Information Technology
http://www.cdc.gov/std/Program/data-mgmt.htm

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](http://www.cdc.gov/HealthyYouth/yrbs/index.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.”

Preface

*Sexually Transmitted Disease Surveillance, 2008* presents statistics and trends for sexually transmitted diseases (STDs) in the United States through 2008. 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) notifiable disease reporting from state and local STD programs; (2) projects that monitor STD prevalence in various settings including: the Regional Infertility Prevention Projects (IPP); the National Job Training Program; the Indian Health Service; the Men Who Have Sex With Men (MSM) Prevalence Monitoring Project; the Gonococcal Isolate Surveillance Project (GISP); and (3) 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 the Centers for Disease Control and Prevention (CDC) is less than the actual number of cases occurring in the United States population. National summary data of case reports for other STDs are not available because they are not nationally notifiable diseases.

*Sexually Transmitted Disease Surveillance, 2008* consists of four parts: (1) 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. (2) 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. (3) The **Detailed Tables** provide statistical information about STDs at the county, metropolitan statistical area (MSA), regional, state, and national levels. (4) The **Appendix (Interpreting STD Surveillance Data)** includes information on interpreting the STD surveillance data used to produce this report; Healthy People 2010 (HP2010) STD objectives and progress toward meeting them; Government Performance and Results Act (GPRA) goals and progress toward meeting them; and STD surveillance case definitions.

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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<thead>
<tr>
<th>Acronym</th>
<th>Full Form</th>
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<tbody>
<tr>
<td>Add Health</td>
<td>National Longitudinal Study of Adolescent Health</td>
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<td>CDC</td>
<td>Centers for Disease Control and Prevention</td>
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<tr>
<td>CSF</td>
<td>Cerebrospinal Fluid</td>
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<td>DHHS</td>
<td>Department of Health and Human Services</td>
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<td>DSTDP</td>
<td>Division of STD Prevention</td>
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<td>GISP</td>
<td>Gonococcal Isolate Surveillance Project</td>
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<tr>
<td>GPRA</td>
<td>Government Performance and Results Act</td>
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<tr>
<td>HEDIS</td>
<td>Healthcare Effectiveness Data and Information Set</td>
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<tr>
<td>HIV</td>
<td>Human Immunodeficiency Virus</td>
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<td>HP2010</td>
<td>Healthy People 2010</td>
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<td>HPV</td>
<td>Human Papillomavirus</td>
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<td>HSV</td>
<td>Herpes Simplex Virus</td>
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<td>IPP</td>
<td>Infertility Prevention Project</td>
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<td>MICs</td>
<td>Minimum Inhibitory Concentrations</td>
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<td>MMWR</td>
<td>Morbidity and Mortality Weekly Report</td>
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<td>MPC</td>
<td>Mucopurulent Cervicitis</td>
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<td>MSA</td>
<td>Metropolitan Statistical Area</td>
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<td>MSM</td>
<td>Men Who Have Sex With Men</td>
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<td>NAATs</td>
<td>Nucleic Acid Amplification Tests</td>
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<tr>
<td>NDTI</td>
<td>National Disease and Therapeutic Index</td>
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<tr>
<td>NGU</td>
<td>Nongonococcal Urethritis</td>
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<td>NHANES</td>
<td>National Health and Nutrition Examination Survey</td>
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<td>NHDS</td>
<td>National Hospital Discharge Survey</td>
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<tr>
<td>OMB</td>
<td>Office of Management and Budget</td>
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<tr>
<td>P&amp;S</td>
<td>Primary and Secondary</td>
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<tr>
<td>PID</td>
<td>Pelvic Inflammatory Disease</td>
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<tr>
<td>QRNG</td>
<td>Quinolone-resistant <em>Neisseria gonorrhoeae</em></td>
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<tr>
<td>RPR</td>
<td>Rapid Plasma Reagin</td>
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<tr>
<td>STD</td>
<td>Sexually Transmitted Disease</td>
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<tr>
<td>VDRL</td>
<td>Venereal Disease Research Laboratory</td>
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West
- Alaska
- Arizona
- California
- Colorado
- Hawaii
- Idaho
- Montana
- Nevada
- New Mexico
- Oregon
- Utah
- Washington
- Wyoming

Midwest
- Illinois
- Indiana
- Iowa
- Kansas
- Michigan
- Minnesota
- Missouri
- Nebraska
- North Dakota
- Ohio
- South Dakota
- Wisconsin

South
- Alabama
- Arkansas
- Delaware
- District of Columbia
- Florida
- Georgia
- Kentucky
- Louisiana
- Maryland
- Mississippi
- North Carolina
- Oklahoma
- South Carolina
- Tennessee
- Texas
- Virginia
- West Virginia

Northeast
- Connecticut
- Maine
- Massachusetts
- New Hampshire
- New Jersey
- New York
- Pennsylvania
- Rhode Island
- Vermont
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 2008 are worthy of note.

**Chlamydia**

In 2008, 1,210,523 cases of sexually transmitted *Chlamydia trachomatis* infection were reported to CDC (Table 1). This is the largest number of cases ever reported to CDC for any condition. This case count corresponds to a rate of 401.3 cases per 100,000 population, an increase of 9.2% compared with the rate in 2007. 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 (PID) and related complications. In 2008, the chlamydia rate in black men was 12 times higher than that in white men; the chlamydia rate in black women was eight times higher than that in white women.

The continued increase in chlamydia case reports in 2008 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 2008, the overall rate of chlamydial infection in the United States among women (583.8 cases per 100,000 females) was almost three times the rate among men (211.1 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. From 2004 through 2008, the chlamydia rate in men increased by 45% (compared with a 21.5% 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 2008, 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 50 states, the District of Columbia, Puerto Rico, and the Virgin Islands was 7.4% (range: 3.1% to 15.0%) (Figures 9 and 10).

At selected prenatal clinics in 22 states, Puerto Rico, and the Virgin Islands the median state-specific chlamydia positivity was 7.9% (range: 1.8% to 19.2%) (Figure B).

The prevalence of infection is greater among economically-disadvantaged women 16 to 24 years of age who entered the National Job Training Program in 2008 from 39 states, the District of Columbia, and Puerto Rico. The median state-specific prevalence was 12.8% (range: 5.4% to 20.8%) (Figure K). Among men entering the program in 2008 from 48 states, the District of Columbia, and Puerto Rico the median state-specific chlamydia prevalence was 7.0% (range: 0.8% to 14.4%) (Figure L).

**Gonorrhea**

Following a 74% decline in the rate of reported gonorrhea from 1975 to 1997, overall gonorrhea rates have plateaued over the past eleven years. In 2008, 336,742 cases of gonorrhea were reported in the United States, corresponding to a rate of 111.6 cases
per 100,000 population, decreased from the rate in 2007 of 118.9 cases (Figure 13 and Table 1).

As in previous years, in 2008 the South had the highest gonorrhea rate among the four regions of the country (Table 13). Although the gonorrhea rate in the South declined for many years, it increased by 11% between 2005 and 2006 and has continued at that slightly elevated plateau through 2008. The rate in the West decreased slightly in 2007 and again in 2008 after a 29% increase between 2003 and 2006. While rates decreased in the Northeast and Midwest from 2007 to 2008, they have remained relatively stable over the past 10 years (Figure 15).

From 1996 to 2008 the rate of gonorrhea has been similar in men and women (Figure 14). In 2008 the gonorrhea rate in women was 119.4 per 100,000 population compared to a rate of 103.0 per 100,000 population in men (Figure 14). As with chlamydia, gonorrhea rates in women are highest in the 15 to 24 year age group. In men, they are highest in the 20 to 24 year age group (Figure 18). In 2008, the gonorrhea rate in black men was 28 times higher than that in white men; the gonorrhea rate in black women was 16 times higher than that in white women.

As with chlamydia in 2008, 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 parts of the United States.

In 2008, the median state-specific gonorrhea test positivity among 15- to 24-year-old women screened in selected family planning clinics in 43 states, the District of Columbia, Puerto Rico, and the Virgin Islands was 0.9% (range: 0.0% to 3.8%) (Figure 23). In 2008, the median state-specific gonorrhea test positivity among 15- to 24-year-old women screened in selected prenatal clinics in 20 states, Puerto Rico, and the Virgin Islands was 1.0% (range: 0.0% to 5.0%) (Figure D).

For 16- to 24-year-old women entering the National Job Training Program in 37 states, the District of Columbia, and Puerto Rico in 2008, the median state-specific gonorrhea prevalence was 2.7% (range: 0.0% to 5.0%) (Figure M).

Among men entering the program from 34 states, the District of Columbia, and Puerto Rico, the median state-specific gonorrhea prevalence was 0.8% (range: 0.0% to 2.8%) (Figure N).

Among women entering juvenile corrections facilities the median gonorrhea positivity was 3.6% (range: 0.0% to 19.0%); the median gonorrhea positivity for men entering juvenile corrections facilities was 0.9% (range: 0.0% to 4.4%).

Among MSM, including men who have sex with both women and men, attending eight STD clinics, the median clinic urethral gonorrhea positivity was 8.0% (range: 4.0% to 12.0%).

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, which was announced by the Surgeon General in 1999 and updated in 2006. The rate of P&S syphilis in the United States declined 89.7% between 1990 and 2000. However, the rate of P&S syphilis has increased each year since 2001, mostly in men, but also in women for the past four years. In 2008, 13,500 cases of P&S syphilis were reported to CDC. This is the highest number of cases since 1995 and corresponds to a rate of 4.5 cases per 100,000 population, an 18% increase from 2007. Since 2004, the rate of P&S syphilis has increased 67%. After 14 years of decline, the rate of congenital syphilis increased in 2006 and 2007. There were 431 cases of congenital syphilis reported in 2008, the same number reported in 2007.

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 ten years. The P&S syphilis rate for 2008 in blacks was eight times the rate in whites, which is substantially lower than the disparity observed in 1999, when the rate among blacks was 29 times greater than that among whites (Table 34B).
However, since 2003, increases in syphilis among blacks have been higher than increases among whites, reversing some of the gains made in this health disparity. In 2008, increases were observed among both black men (28.0 cases per 100,000 population, up from 22.9 in 2007) and black women (7.6 cases per 100,000 population, up from 5.5 in 2007). Much smaller increases were observed among white men (4.0 cases per 100,000 population, up from 3.7 in 2007) and white women (0.5 per 100,000 population, up from 0.4 per 100,000 in 2007).

While syphilis elimination efforts\(^2\) initially focused on minority populations in general, increases in syphilis among MSM of all races and ethnicities since 2001 and more recent increases among women and blacks highlight the importance of continually reassessing and refining surveillance, prevention, and control strategies.

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