CENTERS FOR DISEASE CONTROL AND PREVENTION

Trends in Reportable Sexually Transmitted Diseases in the United States, 2003

National Data on Chlamydia, Gonorrhea and Syphilis

Sexually transmitted diseases (STDs) continue to be a major health threat in the United States. CDC estimates that 19 million STD infections occur annually, almost half of them among youth ages 15 to 24.[1] In addition to potentially severe health consequences, STDs pose a tremendous economic burden, with direct medical costs as high as $15.5 billion in a single year.[2]

This document summarizes the most recent national data on reportable STDs — chlamydia, gonorrhea and syphilis — which are published in CDC's 2003 *STD Surveillance Report*. The report is available at www.cdc.gov/std/stats. These data represent only a small proportion of the overall toll of STDs. Many STDs are not reportable, including common viral infections such as human papillomavirus (HPV) and herpes, and many STDs go undiagnosed or unreported.

Key trends are summarized by disease. Chlamydia remains widespread, and its significant threat to women's health underscores the need for increased screening among young, sexually active women. On a national level, gonorrhea is at an all-time low, but racial disparities and growing drug-resistance remain key concerns. Syphilis data underscore continued success among women and African Americans overall, but increases among men who have sex with men (MSM) point to the need for intensified prevention and treatment efforts in that population.

Chlamydia: Widespread But Still Underdiagnosed

Chlamydia remains the most commonly reported infectious disease in the United States. In 2003, 877,478 chlamydial infections were reported to CDC, up from 834,555 cases reported in 2002. Because many cases are not reported or even diagnosed, it is estimated that there are actually 2.8 million new cases of chlamydia each year.[1] The national rate of reported chlamydia in 2003 was 304.3 cases per 100,000 population, an increase of 5.1 percent from 2002 (289.4 cases per 100,000 population). The increase in reported cases and rates likely reflects the continued expansion of screening efforts, the use of increasingly sensitive diagnostic tests, and improved case reporting, rather than an actual increase in annual infections.

Health Consequences of Chlamydia

Chlamydia is a bacterial infection that can easily be cured with antibiotics. If left untreated, however, chlamydia can cause severe health consequences for women, including pelvic inflammatory disease (PID), ectopic pregnancy and infertility. Like other STDs, chlamydia can also facilitate the transmission of HIV.

Because chlamydia is usually asymptomatic and is most common among young women, the CDC recommendation for annual chlamydia screening for sexually active women under age 26 should be an important priority for young women and their health care providers. Unfortunately, far too many young sexually active women are not being tested by their providers for this condition.[3] CDC also recommends screening of older women with risk factors such as new or multiple sex partners.

Gonorrhea: U.S. Rate at All-Time Low

Gonorrhea is the second most commonly reported infectious disease in the U.S., with 335,104 cases reported in 2003. Much like chlamydia, gonorrhea is believed to be underreported. An estimated 718,000 new infections occur each year.[1]

Between 2002 and 2003, the national gonorrhea rate decreased by 4.8 percent, from 122.0 to 116.2 cases per 100,000 population — the lowest rate ever reported for this disease. Gonorrhea rates varied widely between U.S. states in 2003, ranging from 264.4 in Louisiana to 5.1 in Idaho. Forty-two states reported rates above the Department of Health and Human Services' Healthy People 2010 goal of 19.0 cases per 100,000 population.

Despite Some Areas of Success, Major Racial Disparities Remain

The gonorrhea rate among African Americans declined from 2002 to 2003, falling 8.1 percent (from 713.7 to 655.8); however, African Americans remained the group most heavily affected by gonorrhea. Reported rates of gonorrhea in African Americans were 20 times greater than those of whites in 2003, down from 23 times greater in 2002. Rates also fell 8 percent among American Indians/Alaska Natives (from 112.5 to 103.5). In contrast, rates increased 3.6 percent among Latinos (from 69.2 to 71.7), 6.5 percent among Asians/Pacific Islanders (from 21.4 to 22.8) and 5.5 percent among whites (from 31.0 to 32.7).

Drug Resistance Growing

Antimicrobial resistance is an increasingly important concern in the treatment and prevention of gonorrhea, particularly for MSM.[4] Overall, 4.1 percent of gonorrhea isolates tested through CDC's Gonococcal Isolate Surveillance Project demonstrated resistance to fluoroquinolones, compared to 2.2 percent in 2002 and 0.7 percent in 2001. Among MSM, 15 percent of reported gonorrhea isolates were resistant to these antibiotics.

In April 2004, CDC recommended that fluoroquinolones no longer be used as treatment for gonorrhea in MSM. In addition, in California and Hawaii, where resistant cases have been widespread for several years, and in Washington, where resistant cases have appeared more recently, fluoroquinolones are no

longer recommended to treat any cases of gonorrhea. The currently available antibiotics recommended by CDC for treatment of fluoroquinolone-resistant gonorrhea are expensive and must be administered by injection, instead of taken orally.

Health Consequences of Gonorrhea

While gonorrhea is easily cured, untreated cases can lead to serious health consequences. In men, untreated gonorrhea can cause epididymitis, a painful condition of the testicles that can lead to infertility. Among women, gonorrhea is a major cause of PID, which can lead to chronic pelvic pain, ectopic pregnancy and infertility. In addition, gonorrhea increases the risk of HIV transmission.

Syphilis: Increases Among MSM, Declines in Other Populations

After an all-time low in 2000, the syphilis rate in the U.S. rose for the third consecutive year in 2003, increasing 19 percent during the three-year period. Between 2002 and 2003 alone, the national rate of primary and secondary syphilis (P&S) — the early stages of the disease that indicate recent infection — increased by 4.2 percent, from 2.4 to 2.5 cases per 100,000 population. Overall, the total number of reported P&S cases increased from 6,862 to 7,177 cases.

Resurgence Among MSM

Outbreaks of syphilis among MSM have been reported in several U.S. cities in recent years, and are believed to be largely responsible for the increasing national syphilis rate. Recent CDC research suggests that more than 60 percent of all P&S cases reported in 2003 occurred among MSM.[5] Among men overall, the rate of syphilis increased 13.5 percent between 2002 and 2003 (from 3.7 to 4.2 cases per 100,000 population) and 68 percent between 2000 and 2003 (from 2.5 to 4.2).

Declines Seen Among African Americans, Women, and Infants

Syphilis rates continued to decline in 2003 among African Americans and women. P&S syphilis rates among African Americans declined 17.9 percent in 2003 (from 9.5 to 7.8 cases per 100,000 population) and 33.3 percent among African-American women, in particular (from 6.3 to 4.2). The disparity between African Americans and whites also continued to narrow, from rates that were 8 times higher for African Americans in 2002 to 5 times higher in 2003.

Additionally, there was a 27.3 percent decline in the syphilis rate among women overall (from 1.1 to 0.8). Rates of congenital syphilis, which occur when an infected pregnant woman passes syphilis to her

fetus, also declined 8.8 percent between 2002 and 2003, from 11.3 to 10.3 cases per 100,000 live births, continuing a downward trend that began in 1991.

Wide Geographical Variations Noted

As in previous years, syphilis rates varied widely between cities in 2003. Among the 25 cities with the highest P&S rates (see accompanying table and map), 14 experienced increases between 2002 and 2003. Of those, several experienced significant increases in both their syphilis rates and rankings, including New Orleans (a 178.9 percent increase), which moved from number 41 to 22; St. Petersburg, Florida (129.2 percent, from 38th to 20th); and Albuquerque, New Mexico (70.3 percent, from 30th to 18th).

Significant reductions in syphilis rates were also seen in some cities, including Detroit (down 53.3 percent, from 2nd to 4th in the rankings); Fort Worth, Texas (down 50.8 percent, from 6th to 10th); and Minneapolis (down 43.8 percent, from 14th to 21st).

Health Consequences of Syphilis

Although syphilis is easily curable in its early stages, untreated syphilis can lead to serious long-term complications and even death. Congenital syphilis can cause stillbirth, death soon after birth, and neurological problems in children who survive. Syphilis, like gonorrhea and certain other STDs, facilitates the transmission of HIV.

References

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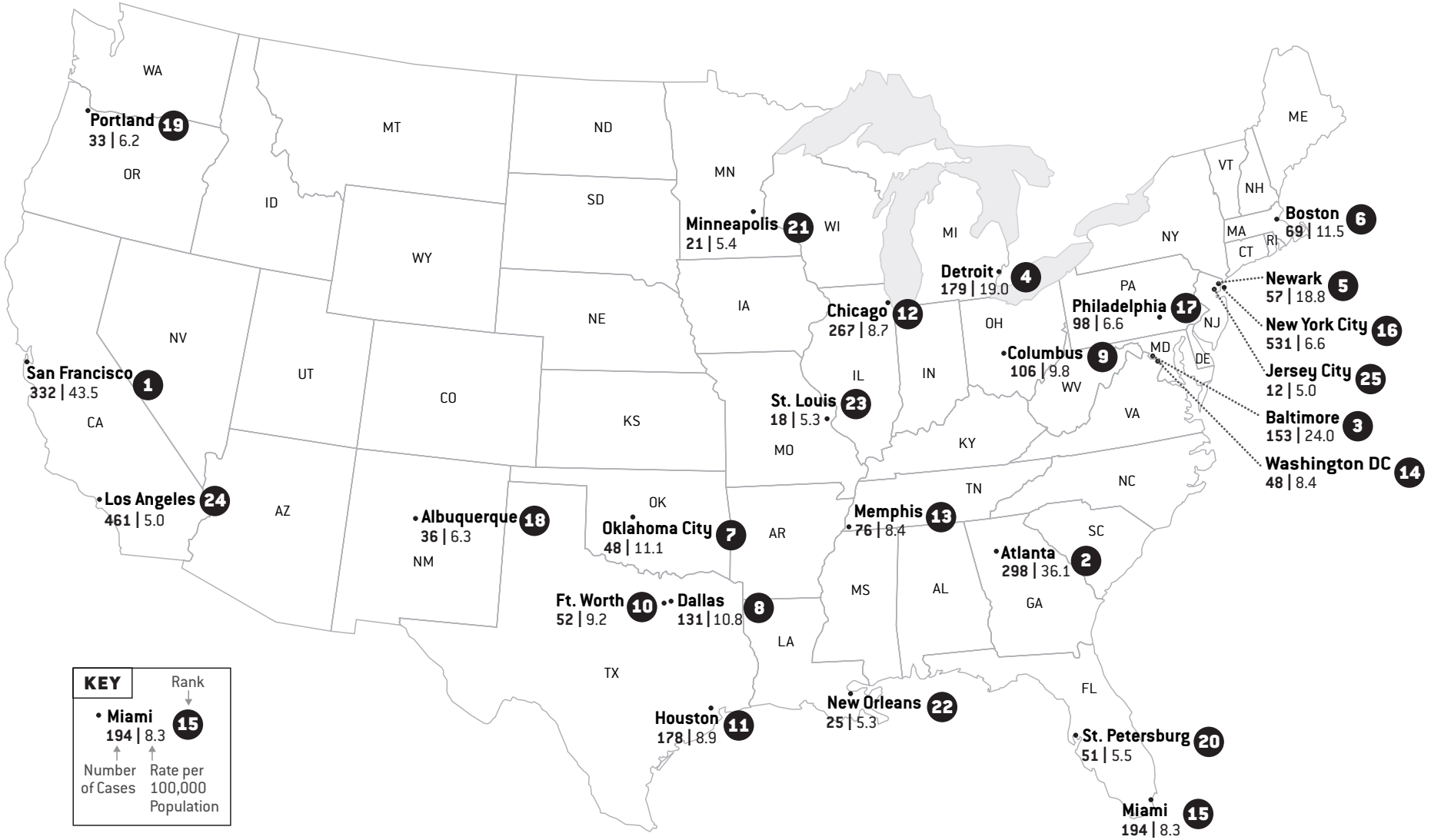
Cities with Highest Reported Rates of Primary and Secondary Syphilis, 2003



Primary and Secondary Syphilis by City, 2001–2003

2003 Rank	2002 Rank	2001 Rank	City	Cases, 2003	Rate per 100,000 Population, 2003	Rate per 100,000 Population, 2002	Case Rate Change, 2002–2003
1	1	6	San Francisco, CA	332	43.5	41.2	5.6%
2	3	2	Atlanta, GA	298	36.1	31.1	16.1%
3	5	3	Baltimore, MD	153	24.0	18.9	27.0%
4	2	1	Detroit, MI	179	19.0	40.7	–53.3%
5	4	5	Newark, NJ	57	18.8	20.8	–9.6%
6	16	28	Boston, MA	69	11.5	8.0	43.8%
7	8	12	Oklahoma City, OK	48	11.1	12.0	–7.5%
8	7	11	Dallas, TX	131	10.8	15.8	–31.6%
9	15	20	Columbus, OH	106	9.8	8.8	11.4%
10	6	15	Fort Worth, TX	52	9.2	18.7	–50.8%
11	19	18	Houston, TX	178	8.9	5.6	58.9%
12	9	10	Chicago, IL	267	8.7	11.4	–23.7%
13	13	4	Memphis, TN	76	8.4	9.8	–14.3%
14	11	14	Washington, DC	48	8.4	10.2	–17.6%
15	12	13	Miami, FL	194	8.3	9.9	–16.2%
16	20	27	New York City, NY	531	6.6	5.4	22.2%
17	24	19	Philadelphia, PA	98	6.6	4.5	46.7%
18	30	43	Albuquerque, NM	36	6.3	3.7	70.3%
19	31	40	Portland, OR	33	6.2	3.7	67.6%
20	38	45	St. Petersburg, FL	51	5.5	2.4	129.2%
21	14	17	Minneapolis, MN	21	5.4	9.6	–43.8%
22	41	21	New Orleans, LA	25	5.3	1.9	178.9%
23	28	25	St. Louis, MO	18	5.3	3.8	39.5%
24	26	34	Los Angeles, CA	461	5.0	3.9	28.2%
25	18	35	Jersey City, NJ	12	5.0	6.6	–24.2%