



## 2005 Minnesota Sexually Transmitted Disease Statistics

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### Overall Summary:

In 2005 the number of reported bacterial sexually transmitted diseases reached their highest level ever with 15,875 cases reported. This represents an overall increase of eight percent from the previous year and is part of a continued trend observed over the past five years. The rate increases varied by disease, with chlamydia rates increasing by 5 percent and gonorrhea and primary/secondary syphilis increasing by 18 and 159 percent, respectively.

The 2005 STD surveillance data are available both in a slide presentation and a series of tables on the Minnesota Department of Health website (<http://www.health.state.mn.us/divs/idepc/dtopics/stds/stdstatistics.html>). The number of cases and rates (per 100,000 persons) for all reportable bacterial sexually transmitted diseases (STDs) for the years 2001 through 2005 are presented in Table 1 by year of diagnosis. Tables 2a-c display chlamydia, gonorrhea and primary/secondary syphilis case numbers and rates by residence, age, gender, and race/ethnicity for 2005. Chlamydia and gonorrhea case numbers and rates by county for 2005 are shown in Table 3.

### Chlamydia:

Over the past 10 years the chlamydia rate in Minnesota has doubled and this increase has been observed across gender, geographical areas, age and race groups. The increases seen over the past 10 years are likely due to a combination of factors including the use of improved STD testing technology, improved screening practices by clinicians, the addition of an active surveillance component to Minnesota's STD surveillance system, and an actual increase of the level of disease in the population. However, given the continued increases over time, true increases in the level of disease are most likely the driving factor. Chlamydia rates are highest among women (355 per 100,000), Blacks (1,335 per 100,000), and persons aged 20-24 years of age (1,496 per 100,000). Additionally, the chlamydia rate is highest among Minneapolis residents (717 per 100,000), although in the past year the greatest increases occurred among suburban (9%) and Greater Minnesota (6%) residents. Persons aged 15-24 years accounted for seventy percent (70%) of reported chlamydia cases. Racial disparities continue to be an issue in STDs, with the chlamydia rate among Blacks being 12 times that among Whites. Disparities are also evident for other racial/ethnic groups with the rates for American Indians, Asian/Pacific Islanders and Hispanics being 5, 3, and 6 times higher than the rate among Whites, respectively.

### Gonorrhea:

Over the past 5 years there has been a slight but steady increase in Minnesota's gonorrhea rate. In 2005 the number of reported gonorrhea cases was the highest it has been since 1990. As with chlamydia, gonorrhea rates are highest among females (77 per 100,000), Blacks (775 per 100,000), and persons aged 20-24 years of age (320 per 100,000). Also as with chlamydia, the gonorrhea rate is highest among Minneapolis residents, however unlike chlamydia the greatest increases in gonorrhea occurred among Minneapolis and St. Paul residents. While the gonorrhea rate is higher among women than men, the difference in the rates is much smaller than for chlamydia. This can be explained by the fact that gonorrhea is more likely to be symptomatic than chlamydia and therefore men are more likely to get tested. Disparities between Whites and persons of color are also evident in the gonorrhea rates with rates among Blacks, American Indians, Hispanics, and Asian/Pacific Islanders being 35, 5, 4, and 1.5 times higher respectively than the rate among Whites.

An additional concern with gonorrhea has been the emergence of quinolone-resistant gonorrhea (QRNG) in Minnesota. The prevalence for QRNG has increased five fold from 1.5% in 2002 to 6.8% in 2005. Of particular concern is the high prevalence among gay/bisexual males, which has increased from zero in 2002, to 30% in 2005. Additionally twelve percent of cases among gay/bisexual males were also infected with HIV. CDC no longer recommends the use of fluoroquinolones to treat gonorrhea in gay/bisexual males or for persons that may have acquired the infection in Hawaii, California and other areas with high QRNG prevalence (see: <http://www.cdc.gov/mmwr/preview/mmwehtml/mm5316a1.htm>).

#### Primary & Secondary Syphilis:

The number of cases of primary/secondary syphilis increased from 27 in 2004 to 70 in 2005. This represents the highest number of primary/secondary cases since 2002 when the beginning of a syphilis outbreak among gay/bisexual men was observed. Additionally, cases of early latent syphilis also increased from 21 to 46. Overall the number of cases of early syphilis (which includes primary, secondary, and early latent stages) increased from 48 to 115 between 2004 and 2005. Gay/bisexual males continued to account for the majority (92%) of cases among males. Additionally, thirty-eight percent of gay/bisexual males diagnosed with early syphilis were co-infected with HIV. Similar trends have been observed in other parts of the country. MDH continues to collaborate with local physicians, clinics, and community-based organizations to increase community awareness and syphilis testing among MSM.

#### Summary Points:

- Between 2004-2005, cases of Chlamydia, Gonorrhea and P&S Syphilis increased to their highest levels ever
- STD rates continue to be highest in Minneapolis and St. Paul. However Chlamydia rates increased most in the suburbs (9%) and Greater MN (6%).
- STD rates are highest among persons of color
- Chlamydia (7 in 10) and gonorrhea (5 in 10) rates are highest among adolescents and young adults; syphilis rates are highest among adults
- The number of early syphilis cases more than doubled, with cases increasing almost three fold among gay/bisexual men
- Prevalence of antibiotic-resistant gonorrhea has increased five fold between 2002 and 2005, specifically among gay/bisexual men

Sources and Limitations of Data: In Minnesota, laboratory-confirmed infections of chlamydia, gonorrhea, syphilis, and chancroid are monitored by the MDH through a combined physician and laboratory-based surveillance system. State law (Minnesota Rule 4605.7040) requires both physicians and laboratories to report all cases of these four bacterial STDs directly to the MDH. Other common sexually transmitted conditions caused by viral pathogens, such as herpes simplex virus (HSV) and human papillomavirus (HPV), are not reported to the MDH. Factors that impact the completeness and accuracy of the available data on STDs include: level of screening, individual test-seeking behavior, accuracy of diagnostic tests, and compliance with case reporting. Thus, any changes in STD rates may be due to one of these factors or due to actual changes in STD occurrence.

Population counts used to calculate rates by residence, by gender, and by race/ethnicity were obtained from the U.S. Census Bureau. Rates were calculated using each year's case data and population counts from the 2000 Census. The 2000 Census data on race include the number of persons by race alone or in combination with one or more races. Thus, persons who identified themselves by more than one race are "overcounted" in the denominators.

**Table 1. Number of Cases and Rates (per 100,000 persons) of  
Chlamydia, Gonorrhea, Syphilis, and Chancroid -- Minnesota, 2001 - 2005**

Disease	2001		2002		2003		2004		2005	
	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
Chlamydia	8,369	170	10,118	206	10,807	220	11,601	236	12,187	248
Gonorrhea	2,708	55	3,050	62	3,237	66	2,957	60	3,481	71
All Stages of Syphilis	135	2.7	149	3.0	198	4.0	145	2.9	207	4.2
Primary/Secondary Syphilis	33	0.7	59	1.2	48	1.0	27	0.5	70	1.4
Early Latent Syphilis	16	0.3	23	0.5	45	0.9	21	0.4	46	0.9
Late Latent Syphilis <sup>I</sup>	81	1.6	65	1.3	105	2.1	95	1.9	84	1.7
Other Syphilis	3	0.1	1	0.0	0	0.00	1	0.02	5	0.1
Congenital Syphilis <sup>II</sup>	2	3.0	1	1.5	0	0.0	1	1.4	2	2.8
Chancroid	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

Note: Data exclude cases diagnosed in federal or private correctional facilities

<sup>I</sup> Late latent syphilis includes neurosyphilis

<sup>II</sup> Congenital syphilis rate per 100,000 live births

**Table 2a. Number of Cases and Rates (per 100,000 persons) of Chlamydia by Residence, Age, Race/Ethnicity and Gender - Minnesota 2005**

Group	Chlamydia						
	Males		Females		Total <sup>I</sup>		
	Cases	%	Cases	%	Cases	%	Rate
<b>Residence<sup>II</sup></b>							
Minneapolis	895	27%	1,846	21%	2,742	22%	717
St. Paul	486	14%	1,230	14%	1,718	14%	598
Suburban <sup>III</sup>	1,002	30%	2,617	30%	3,621	30%	184
Greater Minnesota	817	24%	2,776	31%	3,597	30%	158
<b>Age</b>							
< 15 yrs	15	0%	117	1%	132	1%	12
15-19 yrs	582	17%	3,118	35%	3,703	30%	989
20-24 yrs	1,320	39%	3,501	40%	4,823	40%	1496
25-29 yrs	711	21%	1,269	14%	1,982	16%	620
30-34 yrs	344	10%	477	5%	822	7%	233
35-39 yrs	183	5%	180	2%	363	3%	88
40-44 yrs	116	3%	81	1%	197	2%	48
45-49 yrs	57	2%	47	1%	105	1%	29
50-54 yrs	18	1%	16	0%	34	0%	11
55+ yrs	18	1%	8	0%	26	0%	3
<b>Race<sup>IV</sup> /Ethnicity</b>							
White	1,131	34%	3,843	44%	4,980	41%	115
Black	1,222	36%	1,891	21%	3,115	26%	1535
American Indian	58	2%	357	4%	415	3%	512
Asian/PI	114	3%	361	4%	475	4%	282
Other	63	2%	184	2%	248	2%	x
Unknown <sup>V</sup>	776	23%	2,178	25%	2,954	24%	x
Hispanic <sup>VI</sup>	273	8%	621	7%	895	7%	624
<b>Total</b>	<b>3,364</b>	<b>100%</b>	<b>8,814</b>	<b>100%</b>	<b>12,187</b>	<b>100%</b>	<b>248</b>

Note: Data exclude cases diagnosed in federal or private correctional facilities

<sup>I</sup> Total includes 9 cases of Chlamydia diagnosed in Transgendered persons

<sup>II</sup> Residence missing for 509 cases of Chlamydia

<sup>III</sup> Suburban is defined as the seven-county metropolitan area (Anoka, Carver, Dakota, Hennepin, Ramsey, Scott and Washington Counties, excluding the cities of Minneapolis and St. Paul).

<sup>IV</sup> U.S. Census 2000 data necessary to calculate race-specific rates (specifically a breakdown of the state population by "Race alone or in Combination with one or more races" by gender) is not available. When these data become available this table will be updated.

<sup>V</sup> No comparable population data available to calculate rates.

<sup>VI</sup> Persons of Hispanic origin may be of any race.

**Table 2b. Number of Cases and Rates (per 100,000 persons) of Gonorrhea by Residence, Age, Race/Ethnicity and Gender - Minnesota 2005**

Group	Gonorrhea						
	Males		Females		Total <sup>I</sup>		
	Cases	%	Cases	%	Cases	%	Rate
<b>Residence<sup>II</sup></b>							
Minneapolis	713	45%	560	29%	1,274	37%	333
St. Paul	281	18%	401	21%	684	20%	238
Suburban <sup>III</sup>	355	23%	542	28%	898	26%	46
Greater Minnesota	157	10%	336	18%	493	14%	22
<b>Age</b>							
< 15 yrs	8	1%	28	1%	36	1%	3
15-19 yrs	182	12%	615	32%	797	23%	213
20-24 yrs	415	26%	616	32%	1,033	30%	320
25-29 yrs	312	20%	324	17%	636	18%	199
30-34 yrs	196	12%	149	8%	346	10%	98
35-39 yrs	160	10%	68	4%	228	7%	55
40-44 yrs	146	9%	58	3%	204	6%	50
45-49 yrs	73	5%	32	2%	105	3%	29
50-54 yrs	37	2%	8	0%	45	1%	15
55+ yrs	42	3%	8	0%	51	1%	5
<b>Race<sup>IV</sup>/Ethnicity</b>							
White	383	24%	591	31%	976	28%	23
Black	857	55%	715	38%	1,574	45%	775
American Indian	30	2%	66	3%	96	3%	118
Asian/PI	16	1%	37	2%	53	2%	31
Other	11	1%	60	3%	71	2%	x
Unknown <sup>V</sup>	274	17%	437	23%	711	20%	x
Hispanic <sup>VI</sup>	66	4%	56	3%	122	4%	85
<b>Total</b>	<b>1,571</b>	<b>100%</b>	<b>1,906</b>	<b>100%</b>	<b>3,481</b>	<b>100%</b>	<b>71</b>

Note: Data exclude cases diagnosed in federal or private correctional facilities

<sup>I</sup> Total includes 4 cases of Gonorrhea diagnosed in Transgendered persons

<sup>II</sup> Residence missing for 132 cases of Gonorrhea

<sup>III</sup> Suburban is defined as the seven-county metropolitan area (Anoka, Carver, Dakota, Hennepin, Ramsey, Scott and Washington Counties, excluding the cities of Minneapolis and St. Paul).

<sup>IV</sup> U.S. Census 2000 data necessary to calculate race-specific rates (specifically a breakdown of the state population by "Race alone or in Combination with one or more races" by gender) is not available. When these data become available this table will be updated.

<sup>V</sup> No comparable population data available to calculate rates.

<sup>VI</sup> Persons of Hispanic origin may be of any race.

**Table 2c. Number of Cases and Rates (per 100,000 persons) of Primary & Secondary (P&S) Syphilis by Residence, Age, Race/Ethnicity and Gender - Minnesota 2005**

Group	Primary & Secondary Syphilis						
	Males		Females		Total <sup>I</sup>		
	Cases	%	Cases	%	Cases	%	Rate
<b>Residence<sup>II</sup></b>							
Minneapolis	41	61%	1	50%	42	60%	11.0
St. Paul	7	10%	0	0%	8	11%	2.8
Suburban <sup>III</sup>	16	24%	1	50%	17	24%	0.9
Greater Minnesota	3	4%	0	0%	3	4%	0.1
<b>Age</b>							
< 15 yrs	0	0%	0	0%	0	0%	0.0
15-19 yrs	0	0%	1	50%	1	1%	0.3
20-24 yrs	7	10%	0	0%	7	10%	2.2
25-29 yrs	9	13%	0	0%	9	13%	2.8
30-34 yrs	9	13%	0	0%	9	13%	2.5
35-39 yrs	15	22%	0	0%	15	21%	3.6
40-44 yrs	11	16%	1	50%	13	19%	3.2
45-49 yrs	7	10%	0	0%	7	10%	1.9
50-54 yrs	8	12%	0	0%	8	11%	2.7
55+ yrs	1	1%	0	0%	1	1%	0.1
<b>Race<sup>IV</sup>/Ethnicity</b>							
White	54	81%	0	0%	55	79%	1.3
Black	6	9%	2	100%	8	11%	3.9
American Indian	1	1%	0	0%	1	1%	1.2
Asian/PI	1	1%	0	0%	1	1%	0.6
Other	4	6%	0	0%	4	6%	x
Unknown <sup>V</sup>	1	1%	0	0%	1	1%	x
Hispanic <sup>VI</sup>	5	7%	0	0%	5	7%	3.5
Total	67	100%	2	100%	70	100%	1.4

Note: Data exclude cases diagnosed in federal or private correctional facilities

<sup>I</sup> Total includes 1 case of P&S Syphilis diagnosed in a Transgendered person

<sup>II</sup> Residence missing for 0 cases of P&S Syphilis

<sup>III</sup> Suburban is defined as the seven-county metropolitan area (Anoka, Carver, Dakota, Hennepin, Ramsey, Scott and Washington Counties, excluding the cities of Minneapolis and St. Paul).

<sup>IV</sup> U.S. Census 2000 data necessary to calculate race-specific rates (specifically a breakdown of the state population by "Race alone or in Combination with one or more races" by gender) is not available. When these data become available this table will be updated.

<sup>V</sup> No comparable population data available to calculate rates.

<sup>VI</sup> Persons of Hispanic origin may be of any race.

**Table 3. Number of Cases and Rates<sup>1</sup> (per 100,000 persons) of Chlamydia and Gonorrhea by County of Residence -- Minnesota, 2005**

County	Chlamydia		Gonorrhea		County	Chlamydia		Gonorrhea	
	Cases	Rate	Cases	Rate		Cases	Rate	Cases	Rate
Aitkin	6	39	0	-	Marshall	3	-	0	-
Anoka	530	178	122	41	Martin	15	69	0	-
Becker	39	130	4	-	Meeker	27	119	4	-
Beltrami	180	454	22	55	Mille Lacs	28	125	8	36
Benton	45	131	5	15	Morrison	27	85	2	-
Big Stone	0	-	0	-	Mower	86	223	11	28
Blue Earth	224	400	45	80	Murray	6	65	0	-
Brown	18	67	1	-	Nicollet	27	91	3	-
Carlton	41	129	7	22	Nobles	33	158	0	-
Carver	51	73	6	9	Norman	2	-	0	-
Cass	50	184	0	-	Olmsted	289	233	43	35
Chippewa	15	115	1	-	Otter Tail	25	44	2	-
Chisago	85	207	8	19	Pennington	20	147	2	-
Clay	69	135	8	16	Pine	24	90	0	-
Clearwater	10	119	0	-	Pipestone	7	71	0	-
Cook	4	-	2	-	Polk	32	102	1	-
Cottonwood	20	164	0	-	Pope	3	-	0	-
Crow Wing	69	125	16	29	Ramsey	2038	399	775	152
Dakota	688	193	142	40	Red Lake	8	186	2	-
Dodge	13	73	0	-	Redwood	19	113	3	-
Douglas	17	52	0	-	Renville	18	105	4	-
Faribault	24	148	2	-	Rice	84	148	15	26
Fillmore	16	76	3	-	Rock	2	-	0	-
Freeborn	46	141	4	-	Roseau	13	80	1	-
Goodhue	80	181	8	18	St. Louis	477	238	81	40
Grant	3	-	0	-	Scott	180	201	16	18
Hennepin	4307	386	1728	155	Sherburne	86	134	18	28
Houston	19	96	2	-	Sibley	7	46	0	-
Hubbard	16	87	1	-	Stearns	380	285	66	50
Isanti	23	74	6	19	Steele	52	154	5	15
Itasca	72	164	7	16	Stevens	5	50	1	-
Jackson	9	80	0	-	Swift	10	84	3	-
Kanabec	9	60	3	-	Todd	11	45	0	-
Kandiyohi	118	286	8	19	Traverse	1	-	0	-
Kittson	1	-	0	-	Wabasha	25	116	1	-
Koochiching	16	111	2	-	Wadena	9	66	0	-
Lac qui Parle	5	62	0	-	Waseca	21	108	2	-
Lake	15	136	1	-	Washington	287	143	67	33
Lake of the Woods	5	111	0	-	Watsonwan	19	160	4	-
Le Sueur	22	87	0	-	Wilkin	4	-	0	-
Lincoln	3	-	0	-	Winona	90	180	13	26
Lyon	49	193	6	24	Wright	99	110	18	20
McLeod	30	86	4	-	Yellow Medicine	12	108	3	-
Mahnomen	5	96	1	-					

Note: Data exclude cases diagnosed in federal or private correctional facilities

<sup>1</sup> Rates not calculated for counties with fewer than 5 cases