

# **Sexually Transmitted Diseases**

**2006 Annual Report**

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February 2007

<http://www.sonoma-county.org/health/ph/data/index.htm>

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## Executive Summary

Sexually transmitted diseases (STDs) continue to be a problem in Sonoma County. The diseases covered in this report include Chlamydia, Gonorrhea and primary and secondary (P&S) Syphilis, although AIDS, Chancroid, Non-Gonococcal Urethritis, and Pelvic Inflammatory Disease are also reportable conditions.<sup>1</sup> It is widely accepted that only one in four cases of STDs are ever diagnosed and reported. Despite underreporting, current rates of nearly all STDs are resurging at an alarming rate. In addition to complications from the diseases themselves, STDs can increase the risk of HIV transmission. Of particular concern in Sonoma County:

### Chlamydia

- The rate of Chlamydia has steadily increased from a rate of 81.7 new cases per 100,000 population in 1999 to 163 new cases per 100,000 population in 2006.<sup>2</sup>
- In 2006, Women 20-24 years old had the highest incidence rate of Chlamydia.
- People of color, particularly Hispanics and African Americans are disproportionately affected by Chlamydia.

### Gonorrhea

- The 2006 rate of Gonorrhea, 26 cases per 100,000 persons, remains above the Healthy People 2010 goal of 19 cases per 100,000 population.<sup>3</sup> The upward trend in the rate of infections began in 1999.
- Women 20-24 and men 24-29 years old have the highest incidence rates of Gonorrhea.

### Primary and Secondary Syphilis

- Six cases of P&S Syphilis were reported in 2006, all in White males.
- Since 2003, all cases of P&S Syphilis have been reported among males.
- The 2004-06 rate of P&S Syphilis in Sonoma County is 1.6 cases per 100,000 population, higher than the Healthy People 2010 goal of 0.2 cases per 100,000 population.<sup>4</sup>

In addition to rates of disease, the trend in total reported cases has also been increasing over time in Sonoma County (Table 1).

**Table 1 - Cases of Selected STDs by Year, Sonoma County 1996-2006**

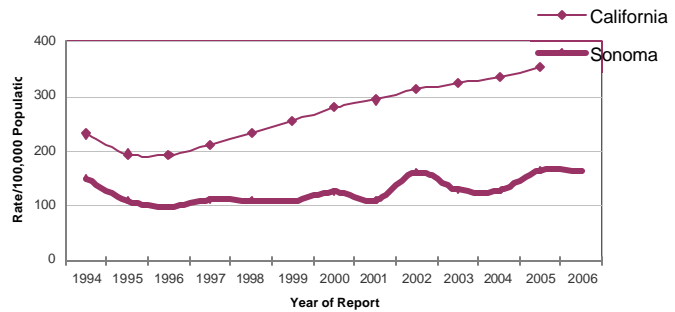
	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Chlamydia	423	484	488	492	578	513	760	613	613	803	801
Gonorrhea	41	42	32	32	63	34	88	117	142	149	126
P&S Syphilis	0	0	3	1	2	1	18	13	6	12	6

# Chlamydia

Chlamydia is the most commonly reported STD in the United States. In particular, Chlamydia is a health problem for women. Up to 40% of women with untreated Chlamydia develop pelvic inflammatory disease (PID) and one in 5 women with PID become infertile.<sup>5</sup> In pregnant women, chlamydia can also cause significant and sometimes permanent damage to the unborn child. Because the majority of chlamydia infections cause no symptoms, this disease is significantly under-diagnosed. Consequently, the facts and figures presented below represent only a fraction of the true burden of disease in Sonoma County.

Although Sonoma's case rate is lower than that of California, the rate appears to be increasing over the past six years (Figure 1). The 2006 rate of 162 cases per 100,000 persons represents slight decrease over the 2005 rate, but remains consistently high. There are several possible factors contributing to the increasing trend starting in 2001 and continuing to 2006, including better testing methodology and improved screening.<sup>6</sup>

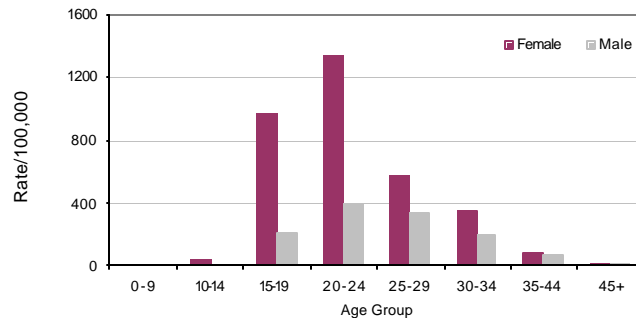
**Figure 1 - Chlamydia Case Rate  
Sonoma County and California, 1994-2006**



Women of childbearing age have significantly higher rates of Chlamydia compared to males, although these rates are biased since the majority of screening programs are directed towards women. In Sonoma County, groups with the highest rates are women aged 20-24 (1,341 cases/100,000) followed by women aged 15-19 (970 cases/100,000) (Figure 2). In males, the highest rate is also among men aged 20-24 (396 cases/100,000). Similar figures are reported on the state and national level. In 2005, women aged 20-24 had the highest rate in California (2,704 cases/100,000) and women aged 15-19 had the highest rate nationally (2,797 cases/100,000).<sup>7,8</sup>

Comparing the proportion of Chlamydia cases reported in 2006 by race and ethnicity to the population distribution of Sonoma County shows that Chlamydia affects Hispanic and African American men and women more than other groups (Table 2). Notably, the age-adjusted rate of Chlamydia infections in African American women is over three times higher than the rate in White, non-Hispanic women (648 vs. 173 cases/100,000, respectively).

**Figure 2 - Chlamydia: Age and Gender Specific Rates  
Men and Women in Sonoma County, 2006**



This is also seen in males, with an incidence rate in African American men three times higher than then the rate in White, non-Hispanic men (238 vs. 73 cases/100,000, respectively).

**Table 2 - Chlamydia: Race, Ethnicity and Gender-Specific Rates  
Age-Adjusted Rates per 100,000 Population, Sonoma County, 2006**

	Chlamydia			Population	
	Case	Percent	Rate	Number	Percent
<b>County Total*</b>	<b>799</b>	<b>100%</b>	<b>165.2</b>	<b>492,930</b>	<b>100%</b>
<b>Female Total</b>	<b>568</b>	<b>71%</b>	<b>242.0</b>	<b>248,473</b>	<b>50%</b>
White	270	48%	173.0	181,551	73%
Hispanic	205	36%	379.7	44,397	18%
Asian/Pacific Islander	12	2%	112.6	10,447	4%
African American	25	4%	648.4	3,377	1%
American Indian/Alaska Native	7	1%	220.7	2,994	1%
Unknown	49	9%	--	--	--
<b>Male Total</b>	<b>230</b>	<b>29%</b>	<b>93.8</b>	<b>244,457</b>	<b>50%</b>
White	112	49%	72.6	171,232	70%
Hispanic	80	35%	123.2	51,334	21%
Asian/Pacific Islander	<5	<5%	**	9,486	4%
African American	11	5%	238.4	4,183	2%
American Indian/Alaska Native	<5	<5%	**	2,800	1%
Unknown	20	9%	--	--	--

\*2 cases with unknown gender are excluded from the Male/Female strata.

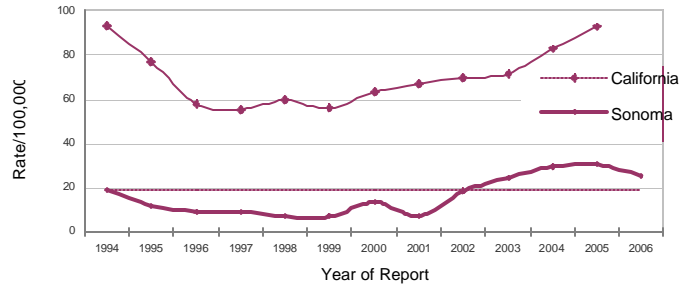
\*\* Rates are unstable due to small numbers

The increased burden of Chlamydia on non-Whites is also reflected in the proportion of cases reporting Hispanic ethnicity or African American race. Eighteen percent of females and 21% of males in Sonoma County are Hispanic, yet Hispanic persons accounted for 36% of female cases and 35% of male cases in 2006. Similarly, 1-2% of the County population reports African American race, but both African American men and women account for 4-5% of cases.

## Gonorrhea

Once decreasing across the nation, the incidence rate of Gonorrhea in California and Sonoma County has been steadily increasing since 1999 (Figure 4). In Sonoma County, the 2006 rate of 26 cases per 100,000 persons remains above the Healthy People 2010 goal of 19 new cases per 100,000 population.<sup>9</sup> The increasing incidence of Gonorrhea cases is not nationwide and appears to be unique to the west coast.<sup>10</sup>

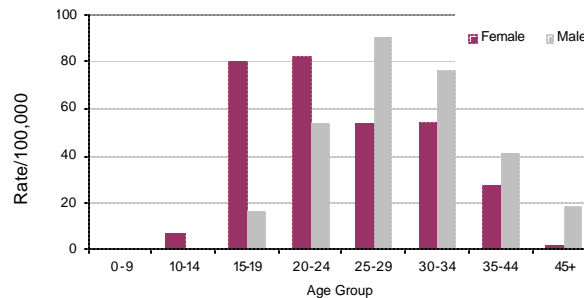
**Figure 3 - Gonorrhea Case Rate  
Sonoma County and California, 1994-2006**



Gonorrhea affects young adults of both genders and is also prevalent among middle-aged men. The rates of gonorrhea are highest in women 20 to 24 years of age (82 cases/100,000) and men 25 to 29 years of age (90 cases/100,000) (Figure 5). Several factors contribute to the higher proportion of cases seen in men compared to women. First, the symptoms of gonorrheal infection in men are much more pronounced than in women, and most often will prompt a health care visit. Second, this disease and other STDs have been resurging among gay and bisexual men, thereby increasing the proportion of males with Gonorrhea.<sup>11</sup>

Similar figures are reported on the state and national level. In 2004, women and men aged 20-24 had the highest age-specific rate in California (401 cases/100,000, 319 cases/100,000) and women aged 15-19 and men aged 20-24 had the highest age-specific rate nationally (625 cases/100,000, 437 cases/100,000).<sup>12,13</sup>

**Figure 4. Gonorrhea: Age and Gender Specific Rates  
Men and Women in Sonoma County, 2006**



Comparing the proportion of Gonorrhea cases reported in 2006 to the population distribution of Sonoma County, Gonorrhea affects Hispanics more than other groups (Table 3). Eighteen percent of females and 21% of males in Sonoma County are Hispanic, yet Hispanic persons accounted for 40% of female cases and 23% of male cases in 2006.

This trend is also reflected in the disease incidence. The age-adjusted rate of gonorrhea infection among Hispanic females is over twice the rate for White, non-Hispanic females (Table 3). Untreated, Gonorrhea can have devastating health affects for both men and women, including infertility (causing PID in women) and blood or joint infection.<sup>14</sup>

**Table 3 - Gonorrhea: Race, Ethnicity and Gender-Specific Rates**  
**Age-Adjusted Rates per 100,000 Population, Sonoma County, 2006**

	Gonorrhea			Population	
	Rate	Case	Percent	Number	Percent
<b>County Total*</b>	<b>26.6</b>	<b>126</b>	<b>100%</b>	<b>492,930</b>	<b>100%</b>
<b>Female Total</b>	<b>24.1</b>	<b>55</b>	<b>44%</b>	<b>248,473</b>	<b>50%</b>
White	18.5	28	51%	181,551	73%
Hispanic	42.1	22	40%	44,397	18%
Asian/Pacific Islander	0.0	0	0%	10,447	4%
African American	**	<5	7%	3,377	1%
American Indian/Alaska Native	0.0	0	0%	2,994	1%
Unknown	--	<5	<5%	--	--
<b>Male Total</b>	<b>29.2</b>	<b>71</b>	<b>54%</b>	<b>244,457</b>	<b>50%</b>
White	27.2	44	62%	171,232	70%
Hispanic	24.4	16	23%	51,334	21%
Asian/Pacific Islander	**	<5	<5%	9,486	4%
African American	**	<5	<5%	4,183	2%
American Indian/Alaska Native	0.0	0	0%	2,800	1%
Unknown	--	7	10%	--	--

\*\* Rates are unstable due to small numbers

## Syphilis

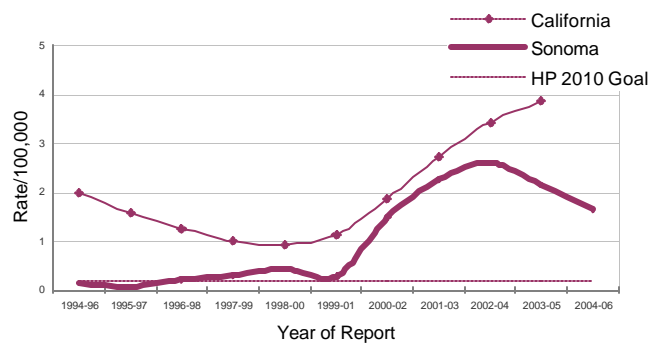
### Primary and Secondary Syphilis

From 1996 - 1997, no cases of P&S Syphilis were reported in Sonoma County. Unfortunately, the nationwide trend towards increasingly low levels of disease has dramatically reversed, starting in 2000 in California and 2001 in Sonoma County. The 2006 rate of disease in Sonoma County is 1.2 cases per 100,000 population, six times higher than the Healthy People 2010 goal of 0.2 cases per 100,000 population.<sup>15</sup>

Since 2003, all cases of P&S Syphilis reported in Sonoma County have been male. In 2006, the majority of cases were among males aged 30-44. All of these cases were reported White race.

This is similar to California overall where the rate of P&S Syphilis in males is 13 times higher than the rate in females.<sup>16</sup> Among all California males, the age group with the highest case rate is also those aged 35-44.<sup>17</sup>

**Figure 5. P&S Syphilis Rate - Three-year Rolling Average**  
**Sonoma County and California, 1994 - 2006**



### Early Latent Syphilis and Other Latent Disease

If not diagnosed and treated in an early stage, Syphilis can persist and cause long-term health problems. In Sonoma County, the demographics of persons diagnosed with late stage syphilis are different than those diagnosed at earlier stages (Table 4). Since 2001, all persons diagnosed with primary, secondary or early latent disease have been males, and the majority were White (76% P&S, 65% Early Latent). Persons diagnosed with later stage disease (unknown duration >1 year) include women (32%) and a larger proportion of Hispanics (54%).

**Table 4 – Syphilis: Demographic Comparison by Stage of Disease**  
Sonoma County, 2001 - 2006

		Primary and Secondary		Early Latent (<1 Year)		Unknown Duration (>1 Year)	
		N	%	N	%	N	%
<b>Gender</b>							
	Women	0	0	0	0	13	32
	Men	55	100	20	100	28	68
<b>Race/Ethnicity</b>							
	White/Caucasian	42	76	13	65	15	36
	Hispanic	10	18	4	20	22	54
	Asian/Pacific Islander	<5	--	0	0	<5	--
	African American	0	0	<5	--	<5	--
	Other/Unknown	<5	--	<5	--	<5	--
<b>Age Group</b>							
	15-19	<5	--	0	0	0	0
	20-24	5	9	4	20	<5	--
	25-29	<5	--	4	20	9	22
	30-34	7	13	<5	--	8	19
	35-44	24	44	<5	--	10	24
	45+	14	25	7	35	12	29
<b>Total</b>		<b>55</b>		<b>20</b>		<b>41</b>	

Syphilis has been targeted nationally for eradication. This disease is easy to diagnose and cure. In addition to improving community health overall, the effect of syphilis eradication would significantly reduce two other significant health events, namely the increased risk of transmission of HIV and the devastating effects on the fetus when exposed in utero.

Responding to the rise in rates of Syphilis in the community of men who have sex with men (MSM), Public Health launched a campaign of outreach and education. The goal was to inform MSM about the epidemic, and encourage individuals to be tested for STDs on a regular basis if they shared risk of exposure. This campaign consisted of flyers and informational cards that were distributed in the community, and educational sessions oriented to community members and service providers. Also, in January 2003, Public Health opened a "male" STD clinic that has been very popular.

## References

1. Unless otherwise noted, all data in this chapter came from the California Department of Health Services, Automated Vital Statistic System.
2. See Chin J, ed. *Control of Communicable Diseases Manual 2000* for definitions of the communicable diseases listed in this chapter.
3. 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.
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17. *Ibid*