

The Colorado Department of Public Health and Environment
Disease Control and Environmental Epidemiology
Sexually Transmitted Infection/Human Immunodeficiency Virus
Surveillance Program



**Sexually Transmitted Infection
Surveillance Report
Through December 31, 2007**

February 2009

Colorado Department of Public Health and Environment

Sexually Transmitted Infection Surveillance Report

Through December 31, 2007

For more information or additional copies of this report, please contact:

Division of Disease Control and Environmental Epidemiology
STI/HIV Surveillance Program
CDPHE-DCEED-Surv-A3
4300 Cherry Creek Drive South
Denver, Colorado 80246

(303) 692-2700
Fax: (303) 782-0904
<http://www.cdphe.state.co.us/dc/HIVandSTD/surveillance.html>

Sexually Transmitted Infection Morbidity ~ Through December 31, 2007

The State of Colorado

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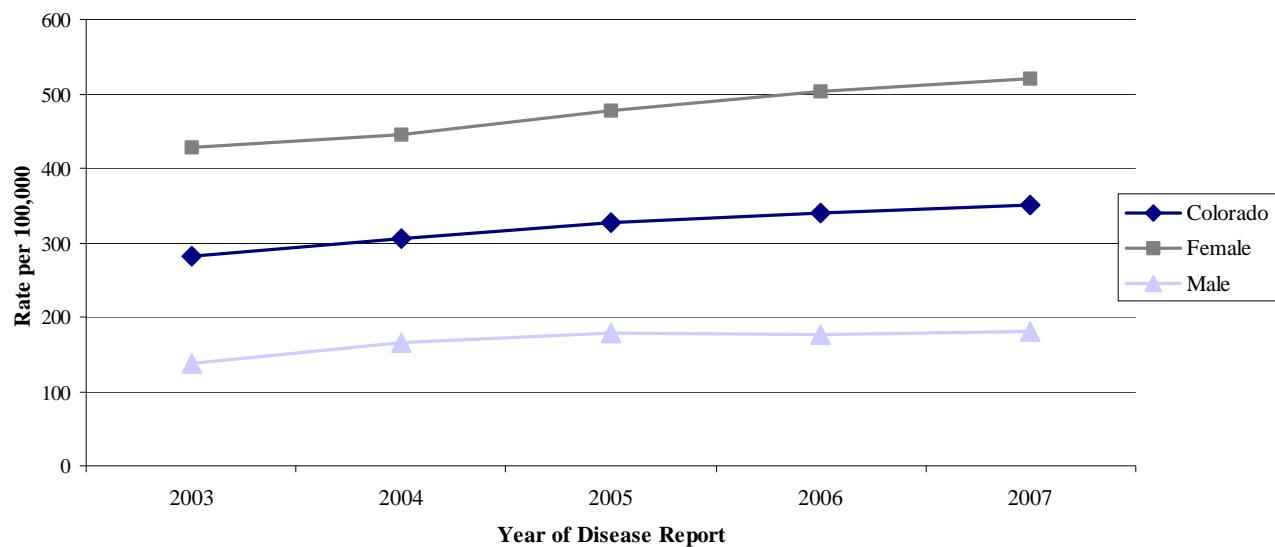
EXECUTIVE SUMMARY

The Colorado Department of Public Health and Environment's (CDPHE) Sexually Transmitted Infection (STI) Surveillance Report summarizes the morbidity data and rates of reported chlamydia, gonorrhea, and primary and secondary syphilis cases in Colorado. These infections, as well as chancroid, early latent syphilis, and lymphogranuloma venereum are designated as reportable sexually transmitted infections in Colorado, however, for the purposes of this report, only chlamydia, gonorrhea and primary and secondary syphilis will be highlighted.

CHLAMYDIA

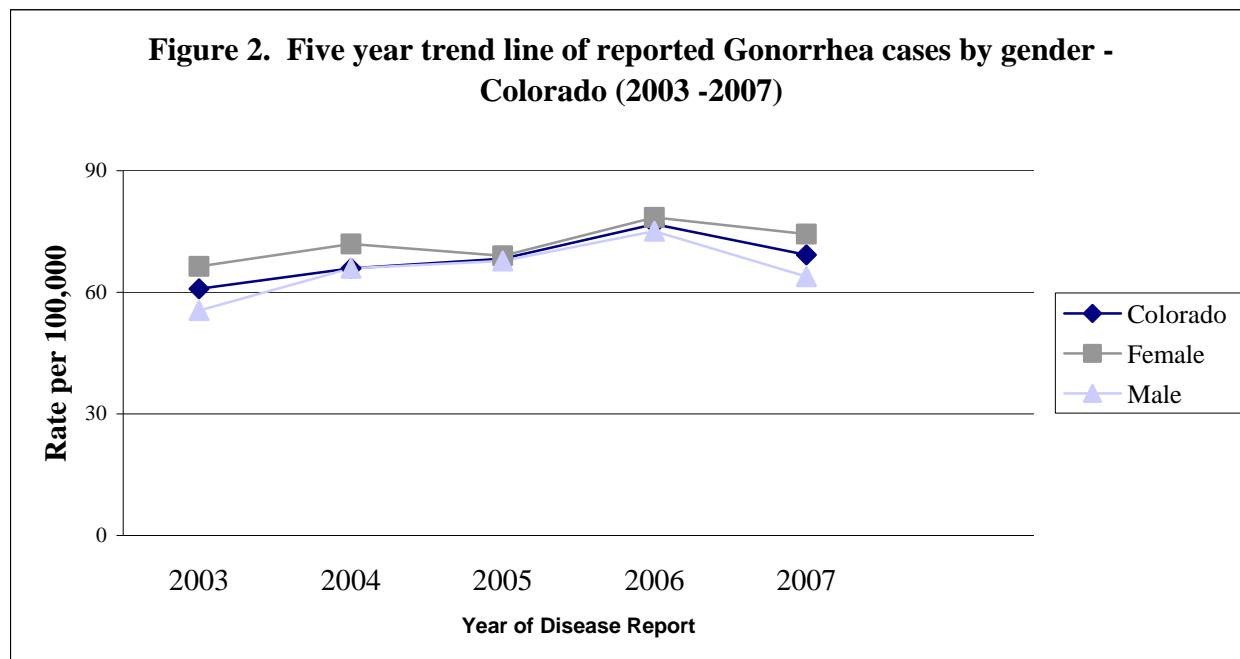
Similar to national trends¹, Colorado has experienced a significant increase in the number of reported Chlamydia cases from 2003 to 2007. The calculated rate of chlamydia in 2003 was 281.7 per 100,000 population. In 2007, this number increased to 350.2 per 100,000 population, representing an overall percent increase of 33.1 percent for this time frame. Females continue to have higher rates of chlamydia reported than males (520.8 and 181.5 per 100,000 population, respectively). The largest proportion of chlamydia cases in 2007 was reported among young adults 20 to 24 years old; accounting for 36.4 percent of the statewide infections. Among females, the age group 20-24 accounts for 36.7 percent of all female cases. Males 20 to 24 years old account for 35.5 percent of all male cases. Chlamydia continues to disproportionately effect people of color, especially Non-Hispanic Blacks. While Non-Hispanic Whites make up the majority of Colorado's population (74.5 percent), this population only represented 13.6 percent of the chlamydia disease burden in 2007. In 2007 Non-Hispanic Blacks accounted for 9.1 percent of reported chlamydia case, but only represented 3.7 percent of the state's population.² Hispanics account for 16.0 percent of chlamydia cases in 2007, but represents 14.8 percent of the state population.²

Figure 1. Five year trend line of reported Chlamydia cases by gender - Colorado (2003-2007)



GONORRHEA

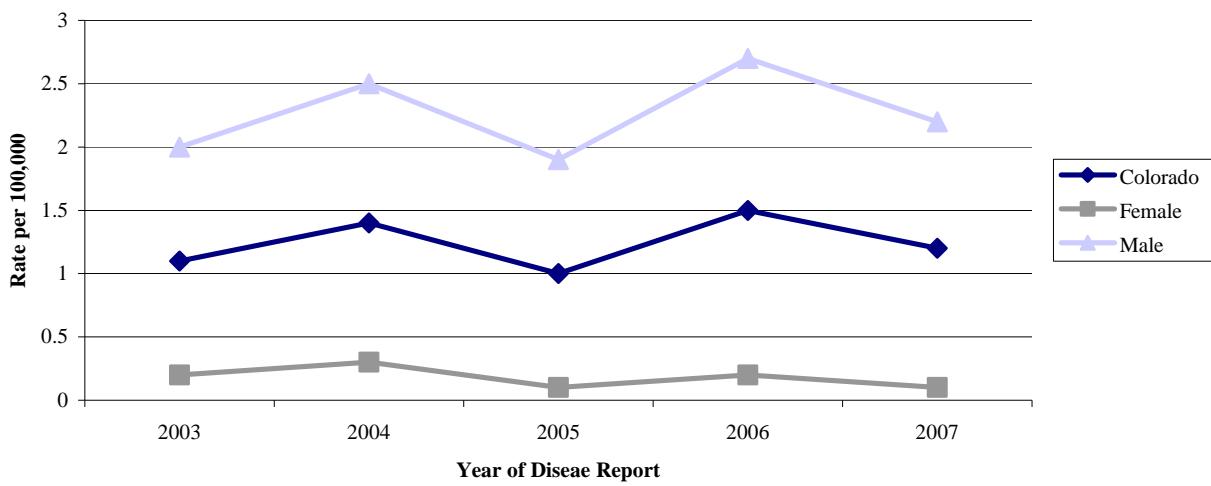
In Colorado, gonorrhea cases continued to mirror national trends with an increase in reported cases from 2,792 cases in 2003 to 3,396 cases in 2007. Unlike the gender distribution of reported chlamydia cases, gonorrhea is more evenly distributed among males (46.5 percent) and females (53.5 percent). In 2007, the gonorrhea rate for males was 63.6 per 100,000 population and 74.4 per 100,000 population for females. Overall, CDPHE has observed significant increases in the number of reported gonorrhea cases since 2003, although the number of reported gonorrhea cases decreased from 2006 to 2007.



SYPHILIS

Reported cases of primary and secondary syphilis continue to be of concern in Colorado. Statewide trends indicate an overall increase of primary and secondary syphilis cases; from 51 cases in 2003 to 57 cases in 2007, with a peak of 69 cases in 2006. Consistent with national trends, primary and secondary syphilis infections are disproportionately found in males, who represented 96.5 percent of all reported cases in 2007. Additionally, 44.1 percent of the reported primary and secondary syphilis cases in 2007 occurred in HIV infected persons. Likewise, 77.3 percent of primary and secondary syphilis with known risk behaviors were men who have sex with men.

Figure 3. Five year trend line of reported primary and secondary Syphilis cases - Colorado (2003 -2007)



DATA SOURCES AND METHODS

The Colorado Board of Health requires public and private health care providers to submit confidential disease case reports to the STI/HIV surveillance program for gonorrhea and primary and secondary syphilis cases. (The surveillance program collects, compiles and disseminates information on gonorrhea, syphilis, chlamydia, and HIV infection, and contacts health care providers to ensure that clients receive adequate treatment.) Chlamydia, however, is only required to be reported by laboratories. The surveillance program enters case reports and positive laboratory results in their Sexually Transmitted Disease Management Information System (STD*MIS) in a confidential, secure environment. Data in STD*MIS is archived annually in May to establish a finalized data set containing the previous year's disease reports. This four-month gap between the end of the calendar year and archiving the database allows the STI/HIV Surveillance Program to accommodate reporting delays, thereby ensuring a more complete data set. STD*MIS is the primary data source for this report.

The Colorado Board of Health requires disease reports include the following information: patient name, date of birth, gender, race, ethnicity, address (including city, county and phone number), physician's name, address and phone number. However, the quality and usefulness of specific data elements varies widely. Race and ethnicity are widely under-reported. As a result of incomplete race and ethnicity data, disease rates for these demographic variables were not calculated. It should be noted that in 2007, 60.3 percent of reported chlamydia cases were missing race data and 37.8 percent of reported gonorrhea cases were missing race data.

Crude incidence rates (number of new reported cases, divided by the total estimated population) were calculated on an annual basis per 100,000 persons. In this report, disease case rates were calculated by county for 2003 through 2007, using population estimates published by the Colorado State Demography Office. While disease rates were calculated for counties reporting fewer than five cases, rates based on low case counts are considered statistically unreliable.

DATA LIMITATIONS

The Centers for Disease Control and Prevention's (CDC) clinical practice recommendations state all bacterial sexually transmitted infections should receive laboratory confirmation. Nevertheless, sexually transmitted infections are known to be underreported through our public health surveillance systems. Depending on diagnosing practices, completeness of reporting varies by health care provider, particularly private versus publicly funded care. Some items are known to be underreported or misreported, such as race and ethnicity. Caution should be exercised in interpreting these data in light of known limitations.

GUIDELINES TO PREVENT MISUSE OF DATA

The following guidelines are provided to help prevent data misuse and should always be considered when reviewing data from any source:

1. Data presented in this report represents new, incident cases of infection reported during 2006 and 2007, not unique persons diagnosed with disease, e.g., a person may have repeat infections within a given year.
2. Data presented in this report are based on cases reported to the STI/HIV Surveillance Program within the Disease Control and Environmental Epidemiology Division at CDPHE. These data represent infections in persons receiving care for symptomatic and asymptomatic sexually transmitted infections, reproductive health services or other care in public and private settings.
3. Incremental changes in numbers of cases may appear disproportionately large if the actual number of cases is small. For example, if two cases of chlamydia are reported one year and three cases are reported in the next year, there has been a 50 percent increase in cases. The increase is misleading because one additional case does not constitute a significant change in disease burden.

GLOSSARY

Case ~ An episode of disease. If the same infection occurs within 30 days of the original case report date, the infection is deemed a repeat infection, an inadequately treated infection or duplicate report and is not counted.

Confidence intervals ~ Are used to indicate the reliability of an estimate.

Crude Rate ~ The number of events, (e.g., reported cases, divided by the total estimated population). In general, no rates should be calculated if the number of events is fewer than five, as these rates are considered unstable.

Denominator ~ The lower portion of a fraction used to calculate a rate or ratio, usually, the estimated population. Sources of denominator data in this report include the U.S. Census Bureau's Colorado population estimates for race and ethnicity and the CDPHE, Health Statistics Section's Colorado Health Information Dataset.

NETSS ~ National Electronic Telecommunications System for Surveillance

Numerator ~ The upper portion of the fraction used to calculate a rate or ratio, (e.g., new cases diagnosed and reported by providers to the STI/HIV Surveillance Program).

CHLAMYDIA

Table 1. Reported Cases of Chlamydia for Colorado by Race/Ethnicity, Age and Gender (2003-2007)

Category	2003^		Females		Males		2004^		Females		Males	
	Total	(%)	Total	(%)	Total	(%)	Total	(%)	Total	(%)	Total	(%)
Total Number of Cases	12915	100.0	9763	75.6	3152	32.3	14163	100.0	10294	72.7	3869	27.3
Total Population*	4,584,560		2,277,644		2,306,916		4,649,550		2,311,056		2,338,494	
Disease Rate per 100,000	281.7		428.6		136.6		304.6		445.4		165.4	
95% Confidence Intervals*	(276.8, 286.6)		(420.1, 437.1)		(131.9, 141.4)		(299.6, 309.6)		(436.8, 454.0)		(160.2, 170.7)	
Race Ethnicity												
Asian	92	0.7	63	1.1	29	0.8	78	0.6	54	0.5	24	0.6
Black	1457	11.3	817	25.1	640	38.1	1584	11.2	835	8.1	749	19.4
Hispanic	2583	20.0	1826	21.3	757	19.2	2754	19.4	1902	18.5	852	22.0
American Indian	67	0.5	61	0.5	6	0.2	79	0.6	58	0.6	21	0.5
White	2160	16.7	1495	18.5	665	19.2	2058	14.5	1377	13.4	681	17.6
Unknown	6556	50.8	5501	33.6	1055	22.4	7610	53.7	6068	58.9	1542	39.9
Age Group												
0-4	25	0.2	17	0.2	8	0.3	36	0.3	25	0.2	11	0.3
5-9	1	0.0	1	0.0	0	0.0	2	0.0	2	0.0	0	0.0
10-14	162	1.3	153	1.8	9	0.3	173	1.2	165	1.6	8	0.2
15-19	3951	30.6	3434	31.8	517	16.4	4275	30.2	3633	35.3	642	16.6
20-24	5002	38.7	3759	33.9	1243	39.4	5408	38.2	3828	37.2	1580	40.8
25-29	2026	15.7	1387	15.0	639	20.3	2380	16.8	1554	15.1	826	21.3
30-34	880	6.8	548	8.2	332	10.5	983	6.9	615	6.0	368	9.5
35-39	381	3.0	206	4.5	175	5.6	436	3.1	244	2.4	192	5.0
40-44	210	1.6	96	2.6	114	3.6	217	1.5	106	1.0	111	2.9
45-54	118	0.9	49	1.7	69	2.2	147	1.0	63	0.6	84	2.2
55-64	18	0.1	7	0.1	11	0.3	39	0.3	17	0.2	22	0.6
>65	8	0.1	4	0.1	4	0.1	26	0.2	12	0.1	14	0.4
Missing	133	1.0	102	0.1	31	1.0	41	0.3	30	0.3	11	0.3

* Confidence intervals are used to indicate the reliability of an estimate.

Table 1. Reported Cases of Chlamydia for Colorado by Race/Ethnicity, Age and Gender (2003-2007)-continued

Category	2005^^						2006^^					
	Total		Females		Males		Total		Females		Males	
	Total	(%)	Total	(%)	Total	(%)	Total	(%)	Total	(%)	Total	(%)
Total Number of Cases	15432	100.0	11219	72.7	4213	27.3	16313	100.0	12037	50.9	4276	49.1
Total Population*	4,718,554		2,346,444		2,372,110		4,813,554		2,393,556		2,419,998	
Disease Rate per 100,000	327.0		478.1		177.6		338.9		502.9		176.7	
95% Confidence Intervals	(321.9, 332.2)		(469.2, 486.9)		(172.3, 183.0)		(333.8, 344.2)		(494.0, 511.9)		(171.5, 182.1)	
Race Ethnicity												
Asian	81	0.5	55	0.5	26	0.6	103	0.6	69	0.6	34	0.8
Black	1588	10.3	869	7.7	719	17.1	1732	10.6	953	7.9	779	18.2
Hispanic	3227	20.9	2212	19.7	1015	24.1	3280	20.1	2436	20.2	844	19.7
American Indian	99	0.6	81	0.7	18	0.4	105	0.6	80	0.7	25	0.6
White	2017	13.1	1297	11.6	720	17.1	2340	14.3	1638	13.6	702	16.4
Unknown	8420	54.6	6705	59.8	1715	40.7	8753	53.7	6861	57.0	1892	44.2
Age Group												
0-4	22	0.1	14	0.1	8	0.2	20	0.1	14	0.1	6	0.1
5-9	2	0.0	0	0.0	2	0.0	2	0.0	0	0.0	2	0.0
10-14	160	1.0	145	1.3	15	0.4	150	0.9	142	1.2	8	0.2
15-19	4691	30.4	3974	35.4	717	17.0	4629	28.4	3943	32.8	686	16.0
20-24	5748	37.2	4187	37.3	1561	37.1	6290	38.6	4618	38.4	1672	39.1
25-29	2527	16.4	1630	14.5	897	21.3	2913	17.9	1941	16.1	972	22.7
30-34	1087	7.0	658	5.9	429	10.2	1131	6.9	737	6.1	394	9.2
35-39	540	3.5	294	2.6	246	5.8	588	3.6	350	2.9	238	5.6
40-44	257	1.7	111	1.0	146	3.5	246	1.5	122	1.0	124	2.9
45-54	206	1.3	79	0.7	127	3.0	209	1.3	100	0.8	109	2.5
55-64	61	0.4	30	0.3	31	0.7	47	0.3	18	0.1	29	0.7
>65	28	0.2	15	0.1	13	0.3	30	0.2	11	0.1	19	0.4
Missing	103	0.7	82	0.7	21	0.5	58	0.4	41	0.3	17	0.4

Table 1. Reported Cases of Chlamydia for Colorado by Race/Ethnicity, Age and Gender (2003-2007) continued

Category	2007^^					
	Total		Females		Males	
	Total	(%)	Total	(%)	Total	(%)
Total Number of Cases	17186	100.0	12707	73.9	4479	26.1
Total Population*	4,908,152		2,440,007		2,468,145	
Disease Rate per 100,000	350.2		520.8		181.5	
95% Confidence Intervals	(344.9, 355.4)		(511.7, 529.8)		(176.2, 186.8)	
Race Ethnicity						
Asian	26	0.2	2	0.0	24	0.5
Black	1572	9.1	863	6.8	709	15.8
Hispanic	2757	16.0	1962	15.4	795	17.7
American Indian	129	0.8	88	0.7	41	0.9
White	2339	13.6	1621	12.8	718	16.0
Unknown	10363	60.3	8171	64.3	2192	48.9
Age Group						
0-4	27	0.2	7	0.1	20	0.4
5-9	6	0.0	4	0.0	2	0.0
10-14	182	1.1	161	1.3	21	0.5
15-19	5389	31.4	4437	34.9	952	21.3
20-24	6252	36.4	4660	36.7	1592	35.5
25-29	2968	17.3	1997	15.7	971	21.7
30-34	1237	7.2	800	6.3	437	9.8
35-39	579	3.4	350	2.8	229	5.1
40-44	261	1.5	141	1.1	120	2.7
45-54	199	1.2	109	0.9	90	2.0
55-64	55	0.3	22	0.2	33	0.7
>65	19	0.1	11	0.1	8	0.2
Missing	12	0.1	8	0.1	4	0.1

* Population estimates provided by the Colorado Demography Office

^Data Source: 2003-2004 data from the 2006 Frozen STD*MIS Data base

^^ Data Source: 2005-2007 data from the CDPHE NETTS Data transfer to CDC

Table 2. Total number of reported Chlamydia Cases and rates per 100,000 population by county - Colorado (2003-2007)

County	Number of Cases					Rate per 100,000 Population				
	2003	2004	2005	2006	2007	2003	2004	2005	2006	2007
Adams	1168	1418	1447	1254	1810	306	362.9	359.9	302.2	426.6
Alamosa	53	68	68	60	82	340.8	434.8	431.3	380.7	513.2
Arapahoe	1138	1397	1566	1599	2225	218.6	264.7	293.1	294.8	403.3
Archuleta	14	8	9	6	24	125	69.8	76.8	49.1	189.2
Baca	3	2	4	0	2	68.8	46.4	93.7	0	47.4
Bent	10	12	11	11	8	156.3	188.5	174.2	175.4	127
Boulder	513	587	590	555	624	180.9	206	206.4	192.3	214.7
Broomfield	56	77	76	108	78	128.8	172.5	166.1	227.3	160.7
Chaffee	9	20	10	17	28	53.7	118.8	59.2	100.5	161.6
Cheyenne	2	1	2	1	0	91.2	46.2	93.9	48.8	0
Clear Creek	2	3	1	0	10	20.7	31.6	10.5	0	103.8
Conejos	7	8	3	14	15	82.8	94.2	34.9	162.9	173.4
Costilla	6	6	4	9	6	161	160.1	110.1	249.2	164.7
Crowley	4	3	5	2	9	68.7	51.5	87.2	32.8	147.2
Custer	1	1	0	3	0	25.7	25.4	0	75	0
Delta	40	34	48	48	50	134.8	113.1	158.6	156.5	159.1
Denver	3510	3615	4223	3735	3819	620	635.4	738.5	643.7	650
Dolores	0	1	0	0	0	0	54.3	0	0	0
Douglas	134	156	170	200	281	59.4	65.2	67.6	75.3	102.3
Eagle	48	45	37	53	73	102.3	93.8	74.9	104.1	139
El Paso	2190	2340	2495	2836	2560	399.9	421.9	441.3	490.7	10801.2
Elbert	22	12	10	16	24	99	53.5	43.9	68.8	4
Fremont	37	45	41	64	55	77.8	94.8	85.9	133	112.5
Garfield	62	83	94	130	159	128.1	168.3	185.5	245.8	287.5
Gilpin	3	4	2	5	7	61	81.6	40	98.3	135
Grand	6	18	12	13	12	43.7	129.1	86.3	91.4	81.4
Gunnison	24	29	17	19	29	171.4	204.3	119.2	131.5	198.1
Hinsdale	0	0	0	0	0	0	0	0	0	0
Huerfano	10	13	10	14	21	124.1	163.2	126.1	174.7	255.2
Jackson	0	1	4	0	2	0	63.9	262.5	0	129.4
Jefferson	873	1060	1033	1004	1274	164.5	199	194	187.8	236.6
Kiowa	1	2	1	2	0	64.6	130.9	65.3	130.3	0
Kit Carson	19	8	12	13	14	235.8	100.6	152.2	166.3	178.2
La Plata	62	87	99	138	142	132.5	184.4	206.2	283.1	282.9
Lake	11	7	15	13	17	139.2	88.3	188.7	161.5	203.4
Larimer	490	574	563	705	647	184.6	213.3	207	254.8	229.8
Las Animas	38	22	10	29	30	233	135.5	61.5	176.2	178.6
Lincoln	6	1	3	1	5	97.7	16.6	50.8	17.3	85.9
Logan	36	49	49	52	53	164.3	224.5	226.8	239.7	240.4
Mesa	429	398	427	470	523	343	311.4	326.8	346.9	378.4
Mineral	0	1	0	0	0	106.4	0	0	0	0
Moffat	29	26	33	30	42	217.2	193.7	245.7	218.6	303
Montezuma	47	29	74	86	66	191.5	116.8	297.7	339.4	255.1
Montrose	66	76	93	66	74	182.7	205.8	245.5	171.3	186.1
Morgan	46	51	52	68	82	162.9	179.8	183.4	238.3	281.3

Table 2. Total number of reported Chlamydia Cases and rates per 100,000 population by county - Colorado (2003-2007) continued

County	Number of Cases					Rate per 100,000 Population				
	2003	2004	2005	2006	2007	2003	2004	2005	2006	2007
Otero	60	56	49	46	75	303.8	284.8	250.3	236.6	383
Ouray	0	1	3	3	2	0	23.9	69.8	68.8	44.8
County	2003	2004	2005	2006	2007	2003	2004	2005	2006	2007
Park	5	8	6	13	11	31	48.9	36.2	77.3	63.3
Phillips	2	2	5	2	2	44	43.4	108.1	43.1	42.9
Pitkin	29	25	18	20	23	176.7	153.7	109.6	121.9	138.4
Prowers	26	31	32	38	36	183.5	220.9	229.1	275.4	258.8
Pueblo	594	580	648	746	838	399.5	387.4	428.8	486.8	536.5
Rio Blanco	5	10	4	17	12	83	163.8	65.9	270.4	188.9
Rio Grande	24	27	32	30	32	186.2	204.8	245.5	234.4	248.5
Routt	8	11	29	47	33	37.4	50.8	132.4	211.8	144.4
Saguache	0	1	2	0	5	0	15.3	30.6	0	75
San Juan	0	1	0	0	0	0	178.9	0	0	0
San Miguel	15	8	11	13	12	209.2	110.8	150.5	177	158.3
Sedgwick	0	1	0	1	3	0	37.1	0	38.3	113.9
Summit	53	43	35	52	95	195.5	156.7	127.2	185.9	330
Teller	16	29	20	32	20	72.2	131.1	89.5	140.8	86.1
Washington	2	1	0	1	2	39.2	20.1	0	20.2	40.4
Weld	420	572	585	629	715	200.3	262.6	256.6	265.5	293.5
Yuma	2	2	3	2	4	20	20.1	30.1	20	39.6
Unknown	335	239	527	1172	284					
Colorado Total	12821	14046	15432	16313	17186	281.7	304.6	327	338.9	350.2
Non-Denver Metro	5998	6400	6993	8521	7777	254.2	267.8	288.2	344.3	307.2
Denver Metro	6823	7646	8439	7792	9409	306.7	338.4	368.2	333.3	395.9

[^] Denver Metro Counties include: Adams, Arapahoe, Denver, Douglas and Jefferson Counties

GONORRHEA

Table 3. Reported Cases of Gonorrhea for Colorado by Race/Ethnicity, Age and Gender (2003-2007)

Category	2003						2004^					
	Total		Females		Males		Total		Females		Males	
	Total	(%)	Total	(%)	Total	(%)		Total	(%)	Total	(%)	
Total Number of Cases	2792	100.0	1512	54.2	1280	45.8	3063	100.0	1661	54.2	1401	45.7
Total Population*	4,584,560		2,277,644		2,306,916		4,649,550		2,311,056		2,338,494	
Disease Rate per 100,000	60.9		66.4		55.5		65.9		71.9		59.9	
95% Confidence Interval*	(58.7, 63.2)		(63.1, 69.8)		(52.5, 58.6)		(63.5, 68.2)		(68.5, 75.4)		(56.8, 63.1)	
Race Ethnicity												
Asian	26	0.9	16	1.1	10	0.8	19	0.6	10	0.6	8	0.6
Black	868	31.1	380	25.1	488	38.1	915	29.9	397	23.7	518	37.4
Hispanic	568	20.3	322	21.3	246	19.2	594	19.6	354	21.3	240	17.5
American Indian	10	0.4	7	0.5	3	0.2	17	0.6	13	0.8	4	0.3
White	525	18.8	279	18.5	246	19.2	630	19.6	311	18.4	319	21.2
Unknown	795	28.5	508	33.6	287	22.4	889	29.7	576	35.2	312	23.1
Age Group												
0-4	5	0.2	3	0.2	2	0.2	5	0.2	1	0.1	4	0.3
5-9	0	0.0	0	0.0	0	0.0	1	0.0	1	0.1	0	0.0
10-14	31	1.1	27	1.8	4	0.3	41	1.3	36	2.1	5	0.4
15-19	643	23.0	481	31.8	162	12.7	641	20.8	465	27.9	175	12.4
20-24	851	30.5	513	33.9	338	26.4	910	29.6	547	33.1	363	25.5
25-29	466	16.7	227	15.0	239	18.7	530	17.6	265	16.2	265	19.3
30-34	306	11.0	124	8.2	182	14.2	355	11.6	148	9.0	207	14.8
35-39	213	7.6	68	4.5	145	11.3	238	7.7	88	5.1	150	10.8
40-44	148	5.3	39	2.6	109	8.5	160	5.1	55	3.3	105	7.4
45-54	101	3.6	25	1.7	76	5.9	144	4.7	45	2.6	99	7.2
55-64	18	0.6	2	0.1	16	1.3	31	1.0	9	0.5	22	1.6
>65	5	0.2	2	0.1	3	0.2	5	0.2	0	0.0	5	0.4
Missing	5	0.2	1	0.1	4	0.3	2	0.1	1	0.1	1	0.1

* Confidence intervals are used to indicate the reliability of an estimate.

Table 3. Reported Cases of Gonorrhea for Colorado by Race/Ethnicity, Age and Gender (2003-2007) continued

Category	2005						2006					
	Total		Females		Males		Total		Females		Males	
	Total	(%)	Total	(%)	Total	(%)	Total	(%)	Total	(%)	Total	(%)
Total Number of Cases	3224	100.0	1619	50.2	1605	49.8	3695	100.0	1878	50.9	1817	49.1
Total Population*	4,718,554		2,346,444		2,372,110		4,813,554		2,393,556		2,419,998	
Disease Rate per 100,000	68.3		69.0		67.7		76.8		78.5		75.1	
95% Confidence Interval	(66.0, 70.7)		(65.6, 72.4)		(64.4, 71.0)		(74.3, 79.2)		(74.9, 82.0)		(71.6, 78.5)	
Race Ethnicity												
Asian	15	0.5	7	0.5	8	0.5	15	0.4	5	0.3	10	0.6
Black	849	25.9	358	21.1	491	30.7	1058	28.6	420	22.4	638	35.1
Hispanic	747	22.7	391	23.9	356	21.6	808	21.9	432	23.0	376	20.7
American Indian	20	0.6	12	0.7	8	0.5	22	0.6	15	0.8	7	0.4
White	637	19.1	295	18.0	342	20.3	721	19.5	349	18.6	372	20.5
Unknown	948	31.2	548	35.9	400	26.4	1071	29.0	657	35.0	414	22.8
Age Group												
0-4	3	0.1	1	0.1	2	0.1	1	0.0	0	0.0	1	0.1
5-9	2	0.1	2	0.1	0	0.0	2	0.1	2	0.1	0	0.0
10-14	30	0.9	25	1.5	5	0.3	36	1.0	32	1.7	4	0.2
15-19	697	21.6	494	29.2	203	12.6	834	22.6	580	30.9	254	14.0
20-24	965	29.9	546	32.3	419	26.1	1162	31.4	653	34.8	509	28.0
25-29	565	17.5	260	15.4	305	19.0	682	18.5	312	16.6	370	20.4
30-34	346	10.7	131	7.7	215	13.4	361	9.8	140	7.5	221	12.2
35-39	243	7.5	72	4.3	171	10.7	254	6.9	89	4.7	165	9.1
40-44	152	4.7	49	2.9	103	6.4	167	4.5	40	2.1	127	7.0
45-54	167	5.2	33	2.0	134	8.3	152	4.1	25	1.3	127	7.0
55-64	40	1.2	2	0.1	38	2.4	35	0.9	4	0.2	31	1.7
>65	10	0.3	1	0.1	9	0.6	8	0.2	1	0.1	7	0.4
Missing	4	0.1	3	0.2	1	0.1	1	0.0	0	0.0	1	0.1

Table 3. Reported Cases of Gonorrhea for Colorado by Race/Ethnicity, Age and Gender (2003-2007) continued

	2007^^					
	Total		Females		Males	
Category	Total	(%)	Total	(%)	Total	(%)
Total Number of Cases	3396	100.0	1816	53.5	1578	46.5
Total Population*	4,908,152		2,440,007		2,468,145	
Disease Rate per 100,000	69.2		74.4		63.9	
95% Confidence Interval	(66.9, 71.5)		(71.0, 77.8)		(60.8, 67.1)	
Race Ethnicity						
Asian	12	0.4	5	0.3	7	0.4
Black	864	25.4	358	19.7	506	32.1
Hispanic	564	16.6	322	17.7	241	15.3
American Indian	29	0.9	13	0.7	16	1.0
White	643	18.9	327	18.0	316	20.0
Unknown	1284	37.8	791	43.6	492	31.2
Age Group						
0-4	1	0.0	1	0.1	0	0.0
5-9	0	0.0	0	0.0	0	0.0
10-14	26	0.8	21	1.2	5	0.3
15-19	799	23.5	572	31.5	227	14.4
20-24	1074	31.6	611	33.6	462	29.3
25-29	617	18.2	306	16.9	311	19.7
30-34	332	9.8	132	7.3	200	12.7
35-39	188	5.5	70	3.9	118	7.5
40-44	161	4.7	57	3.1	103	6.5
45-54	167	4.9	38	2.1	129	8.2
55-64	27	0.8	7	0.4	20	1.3
>65	3	0.1	0	0.0	3	0.2
Missing	1	0.0	1	0.1	0	0.0

* Population estimates provided by the Colorado Demography Office

^Data Source: 2003-2004 data from the 2006 Frozen STD MIS Data base

^^ Data Source: 2005-2007 data from the CDPHE NETTS Data transfer to CDC

Table 4. Total number of reported Gonorrhea Cases and rates per 100,000 population by county - Colorado (2003-2007)

County	Number of Cases						Rate per 100,000 Population			
	2003	2004	2005	2006	2007	2003	2004	2005	2006	2007
Adams	275	281	225	233	294	72.0	71.9	56.0	56.1	69.3
Alamosa	8	6	8	8	9	51.4	38.4	50.7	50.8	56.3
Arapahoe	393	420	377	498	557	75.5	79.6	70.6	91.8	101.0
Archuleta	0	3	0	0	1	0.0	26.2	0.0	0.0	7.9
Baca	0	0	0	0	2	0.0	0.0	0.0	0.0	47.4
Bent	0	0	0	3	1	0.0	0.0	0.0	47.8	15.9
Boulder	46	53	55	57	56	16.2	18.6	19.2	19.8	19.3
Broomfield	13	20	18	29	10	29.9	44.8	39.3	61.0	20.6
Chaffee	1	0	1	2	1	6.0	0.0	5.9	11.8	5.8
Cheyenne	1	0	1	0	0	45.6	0.0	47.0	0.0	0.0
Clear Creek	1	1	0	1	5	10.4	10.5	0.0	10.5	51.9
Conejos	2	0	1	0	0	23.7	0.0	11.6	0.0	0.0
Costilla	1	1	0	3	0	26.8	26.7	0.0	83.1	0.0
Crowley	0	1	0	0	3	0.0	17.2	0.0	0.0	49.1
Custer	1	0	0	0	0	25.7	0.0	0.0	0.0	0.0
Delta	2	1	7	5	6	6.7	3.3	23.1	16.3	19.1
Denver	1216	1226	1311	1281	1146	214.8	215.5	229.3	220.8	195.1
Dolores	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Douglas	23	50	33	31	55	10.2	20.9	13.1	11.7	20.0
Eagle	2	8	5	10	11	4.3	16.7	10.1	19.6	20.9
El Paso	377	389	552	734	561	68.8	70.1	97.6	127.0	2367.0
Elbert	0	0	0	3	1	0.0	0.0	0.0	12.9	0.2
Fremont	8	9	4	9	10	16.8	19.0	8.4	18.7	20.5
Garfield	0	4	5	13	16	0.0	8.1	9.9	24.6	28.9
Gilpin	0	0	2	0	0	0.0	0.0	40.0	0.0	0.0
Grand	1	0	1	1	1	7.3	0.0	7.2	7.0	6.8
Gunnison	2	0	3	3	1	14.3	0.0	21.0	20.8	6.8
Hinsdale	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Huerfano	4	2	2	0	0	49.6	25.1	25.2	0.0	0.0
Jackson	0	0	2	0	0	0.0	0.0	131.2	0.0	0.0
Jefferson	155	213	180	174	169	29.2	40.0	33.8	32.5	31.4
Kiowa	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Kit Carson	1	0	1	1	1	12.4	0.0	12.7	12.8	12.7
La Plata	5	7	12	16	11	10.7	14.8	25.0	32.8	21.9
Lake	0	0	2	1	0	0.0	0.0	25.2	12.4	0.0
Larimer	24	43	57	63	65	9.0	16.0	21.0	22.8	23.1
Las Animas	8	5	1	2	2	49.1	30.8	6.1	12.1	11.9
Lincoln	2	0	1	1	0	32.6	0.0	16.9	17.3	0.0
Logan	1	2	3	4	7	4.6	9.2	13.9	18.4	31.8
Mesa	22	28	50	79	89	17.6	21.9	38.3	58.3	64.4
Mineral	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Moffat	0	2	0	1	6	0.0	14.9	0.0	7.3	43.3
Montezuma	6	7	1	2	2	24.4	28.2	4.0	7.9	7.7
Montrose	4	3	4	5	6	11.1	8.1	10.6	13.0	15.1
Morgan	6	5	5	11	7	21.3	17.6	17.6	38.5	24.0

Table 4. Total number of reported Gonorrhea Cases and rates per 100,000 population by county - Colorado (2003-2007) continued

County	Number of Cases					Rate per 100,000 Population				
	2003	2004	2005	2006	2007	2003	2004	2005	2006	2007
Otero	7	3	1	5	9	35.4	15.3	5.1	25.7	46.0
Ouray	0	0	1	0	0	0.0	0.0	23.3	0.0	0.0
Park	6	1	1	3	1	37.2	6.1	6.0	17.8	5.8
Phillips	1	1	0	1	0	22.0	21.7	0.0	21.6	0.0
Pitkin	2	0	1	2	1	12.2	0.0	6.1	12.2	6.0
Prowers	3	3	4	6	2	21.2	21.4	28.6	43.5	14.4
Pueblo	97	143	154	191	136	65.2	95.5	101.9	124.6	87.1
Rio Blanco	0	2	1	1	1	0.0	32.8	16.5	15.9	15.7
Rio Grande	4	2	1	3	3	31.0	15.2	7.7	23.4	23.3
Routt	2	3	4	2	3	9.4	13.8	18.3	9.0	13.1
Saguache	0	0	0	1	1	0.0	0.0	0.0	15.2	15.0
San Juan	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
San Miguel	2	1	2	1	1	27.9	13.8	27.4	13.6	13.2
Sedgwick	0	0	0	0	1	0.0	0.0	0.0	0.0	38.0
Summit	7	5	4	10	4	25.8	18.2	14.5	35.8	13.9
Teller	6	4	4	5	2	27.1	18.1	17.9	22.0	8.6
Washington	0	0	2	1	1	0.0	0.0	40.5	20.2	20.2
Weld	38	61	105	129	75	18.1	28.0	46.0	54.5	30.8
Yuma	0	0	0	2	2	0.0	0.0	0.0	20.0	19.8
Unknown	9	8	9	48	21					
Colorado Total	2795	3027	3224	3695	3376	60.9	65.9	68.3	76.8	69.2
Non-Denver Metro	733	837	1098	1478	1155	31.1	35.0	45.3	59.7	45.6
Denver Metro	2062	2190	2126	2217	2221	92.7	96.9	92.7	94.8	93.5

^a Denver Metro Counties include: Adams, Arapahoe, Denver, Douglas and Jefferson Counties

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Table 4. Reported Cases of Primary and Secondary Syphilis for Colorado by Race/Ethnicity, Age and Gender (2003-2007)

Category	2003				2004			
	Total		Females		Males		Total	
	Total	(%)	Total	(%)	Total	(%)	Total	(%)
Total Number of Cases	51	100.0	5	9.8	46	90.2	65	100.0
Total Population*	4,586,782		2,278,684		2,308,098		4,653,000	
Disease Rate per 100,000	1.1		0.2		2.0		1.4	
95% Confidence Intervals*	(0.8, 1.5)		Not able to calculate		(1.5, 2.7)		(1.1, 1.8)	
Race Ethnicity								
Asian	0	0.0	0	0.0	0	0.0	2	3.1
Black	11	21.6	2	40.0	9	19.6	7	10.8
Hispanic	9	17.6	2	40.0	7	15.2	15	23.1
American Indian	1	2.0	0	0.0	1	2.2	0	0.0
White	29	56.9	1	20.0	28	60.9	39	60.0
Unknown	1	2.0	0	0.0	1	2.2	2	3.1
Age Group								
0-4	0	0.0	0	0.0	0	0.0	0	0.0
5-9	0	0.0	0	0.0	0	0.0	0	0.0
10-14	0	0.0	0	0.0	0	0.0	0	0.0
15-19	1	2.0	1	20.0	0	0.0	1	1.5
20-24	3	5.9	0	0.0	3	6.5	6	9.2
25-29	4	7.8	0	0.0	4	8.7	7	10.8
30-34	11	21.6	1	20.0	10	21.7	15	23.1
35-39	13	25.5	2	40.0	11	23.9	13	20.0
40-44	10	19.6	1	20.0	9	19.6	10	15.4
45-54	8	15.7	0	0.0	8	17.4	9	13.8
55-64	1	2.0	0	0.0	1	2.2	2	3.1
>65	0	0.0	0	0.0	0	0.0	2	3.4
Missing	0	0.0	0	0.0	0	0.0	0	0.0

* Confidence intervals are used to indicate the reliability of an estimate.

Table 4. Reported Cases of Primary and Secondary Syphilis for Colorado by Race/Ethnicity, Age and Gender (2003-2007)
continued

Category	2005					2006						
	Total		Females		Males		Total		Females		Males	
	Total	(%)	Total	(%)	Total	(%)	Total	(%)	Total	(%)	Total	(%)
Total Number of Cases	47	100.0	2	4.3	45	95.7	69	100.0	5	7.2	64	92.8
Total Population*	4,722,460		2,346,838		2,375,622		4,722,460		2,346,838		2,375,622	
Disease Rate per 100,000	1.0		0.1		1.9		1.5		0.2		2.7	
95% Confidence Interval	(0.7,1.3)		N/A		(1.3, 2.4)		(1.1, 1.8)		N/A		(2.0, 3.4)	
Race Ethnicity												
Asian	0	0.0	0	0.0	0	0.0	2	2.9	1	20.0	1	1.6
Black	5	10.6	0	0.0	5	11.1	3	4.3	0	0.0	3	4.7
Hispanic	10	21.3	2	100.0	8	17.8	13	18.8	2	40.0	11	17.2
American Indian	1	2.1	0	0.0	1	2.2	1	1.4	0	0.0	1	1.6
White	27	57.4	0	0.0	27	60.0	45	65.2	2	40.0	43	67.2
Unknown	4	8.5	0	0.0	4	8.9	5	7.2	0	0.0	5	7.8
Age Group												
0-4	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
5-9	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
10-14	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
15-19	2	4.3	1	50.0	1	2.2	2	2.9	0	0.0	2	3.1
20-24	5	10.6	1	50.0	4	8.9	14	20.3	1	20.0	13	20.3
25-29	3	6.4	0	0.0	3	6.7	10	14.5	2	40.0	8	12.5
30-34	8	17.0	0	0.0	8	17.8	9	13.0	1	20.0	8	12.5
35-39	15	31.9	0	0.0	15	33.3	6	8.7	1	20.0	5	7.8
40-44	9	19.1	0	0.0	9	20.0	11	15.9	0	0.0	11	17.2
45-54	1	2.1	0	0.0	1	2.2	12	17.4	0	0.0	12	18.8
55-64	4	8.5	0	0.0	4	8.9	3	4.3	0	0.0	3	4.7
>65	0	0.0	0	0.0	0	0.0	2	2.9	0	0.0	2	3.1
Missing	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

Table 4. Reported Cases of Primary and Secondary Syphilis for Colorado by Race/Ethnicity, Age and Gender (2003-2007)
continued

Category	2007					
	Total		Females		Males	
	Total	(%)	Total	(%)	Total	(%)
Total Number of Cases	57	100.0	2	7.2	55	92.8
Total Population*	4,908,152		2,440,007		2,468,145	
Disease Rate per 100,000	1.2		0.1		2.2	
95% Confidence Interval	(0.9, 1.5)		N/A		(1.6, 2.8)	
Race Ethnicity						
Asian	0	0.0	0	0.0	0	0.0
Black	5	8.8	1	50.0	4	7.3
Hispanic	15	26.3	0	0.0	15	27.3
American Indian	0	0.0	0	0.0	0	0.0
White	32	56.1	0	0.0	32	58.2
Unknown	5	8.8	1	50.0	4	7.3
Age Group						
0-4	0	0.0	0	0.0	0	0.0
5-9	0	0.0	0	0.0	0	0.0
10-14	0	0.0	0	0.0	0	0.0
15-19	1	1.8	0	0.0	1	1.8
20-24	9	15.8	0	0.0	9	16.4
25-29	8	14.0	0	0.0	8	14.5
30-34	9	15.8	1	50.0	8	14.5
35-39	7	12.3	1	50.0	6	10.9
40-44	17	29.8	0	0.0	17	30.9
45-54	5	8.8	0	0.0	5	9.1
55-64	1	1.8	0	0.0	1	1.8
>65	0	0.0	0	0.0	0	0.0
Missing	0	0.0	0	0.0	0	0.0

* Population estimates provided by the Colorado Demography Office

^Data Source: 2003-2004 data from the 2006 Frozen STD MIS Data base

^^ Data Source: 2005-2007 data from the CDPHE NETTS Data transfer to CDC

Table 5. Total number of reported Primary and Secondary Syphilis Cases and Rates per 100,000 population by county - Colorado (2003-2007)

County	Total Number of Cases					Rate per 100,000 Population				
	2003	2004	2005	2006	2007	2003	2004	2005	2006	2007
Adams	1	6	2	9	5	0.26	1.54	0.50	2.17	1.18
Alamosa	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00
Arapahoe	6	6	4	7	6	1.15	1.14	0.75	1.29	1.09
Archuleta	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00
Baca	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00
Bent	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00
Boulder	4	3	2	0	1	1.41	1.05	0.70	0.00	0.34
Broomfield	1	0	1	0	1	2.30	0.00	2.19	0.00	2.06
Chaffee	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00
Cheyenne	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00
Clear Creek	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00
Conejos	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00
Costilla	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00
Crowley	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00
Custer	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00
Delta	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00
Denver	32	41	28	37	30	5.65	7.21	4.90	6.38	5.11
Dolores	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00
Douglas	1	0	0	1	1	0.44	0.00	0.00	0.38	0.36
Eagle	0	1	0	0	0	0.00	2.08	0.00	0.00	0.00
El Paso	3	3	1	5	6	0.55	0.54	0.18	0.87	25.32
Elbert	0	0	0	0	1	0.00	0.00	0.00	0.00	0.17
Fremont	0	0	1	1	0	0.00	0.00	2.10	2.08	0.00
Garfield	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00
Gilpin	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00
Grand	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00
Gunnison	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00
Hinsdale	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00
Huerfano	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00
Jackson	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00
Jefferson	2	3	3	0	2	0.38	0.56	0.56	0.00	0.37
Kiowa	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00
Kit Carson	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00
La Plata	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00
Lake	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00
Larimer	1	0	0	0	1	0.38	0.00	0.00	0.00	0.36
Las Animas	0	0	0	1	1	0.00	0.00	0.00	6.07	5.95
Lincoln	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00
Logan	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00
Mesa	0	1	0	1	0	0.00	0.78	0.00	0.74	0.00
Mineral	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00
Moffat	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00
Montezuma	0	0	0	1	0	0.00	0.00	0.00	3.95	0.00
Montrose	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00
Morgan	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00

Table 5. Total number of reported Primary and Secondary Syphilis Cases and Rates per 100,000 population by county – Colorado (2003-2007) continued

County	Total Number of Cases					Rate per 100,000 Population				
	2003	2004	2005	2006	2007	2003	2004	2005	2006	2007
Otero	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00
Ouray	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00
Park	0	0	0	2	0	0.00	0.00	0.00	11.90	0.00
Phillips	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00
Pitkin	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00
Prowers	0	0	1	0	0	0.00	0.00	7.16	0.00	0.00
Pueblo	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00
Rio Blanco	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00
Rio Grande	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00
Routt	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00
Saguache	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00
San Juan	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00
San Miguel	0	0	0	1	0	0.00	0.00	0.00	13.62	0.00
Sedgwick	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00
Summit	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00
Teller	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00
Washington	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00
Weld	0	0	2	2	1	0.00	0.00	0.88	0.84	0.41
Yuma		0	0	0	0	0.00	0.00	0.00	0.00	0.00
Unknown	0	1	1	1	1					
Colorado Total	51	65	46	69	57	1.1	1.4	1.0	1.5	1.2
Non-Denver Metro	9	9	9	15	13	0.38	0.38	0.37	0.61	0.51
Denver Metro	42	56	37	54	44	1.89	2.48	1.61	2.31	1.85

^ Denver Metro Counties include: Adams, Arapahoe, Denver, Douglas and Jefferson Counties

REFERENCES

1. Centers for Disease Control and Prevention. Sexually Transmitted Disease Surveillance, 2005. Atlanta GA: U.S. Department of Health and Human Services, November 2006.
 2. US Census Bureau. Community Survey 2006. Demographic Profile:
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