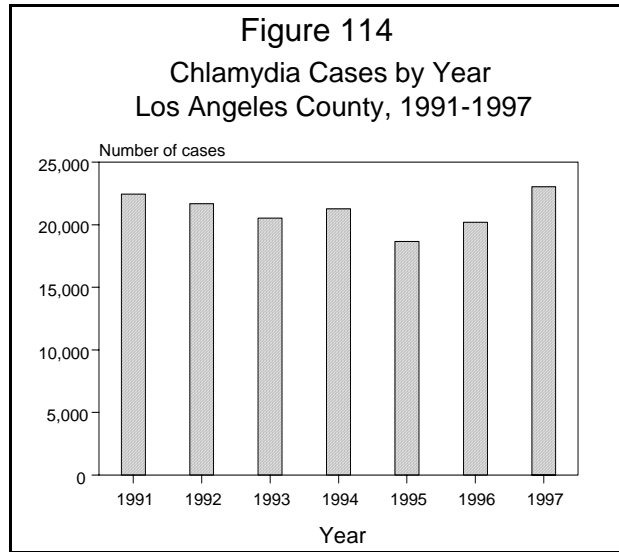


## CHLAMYDIAL INFECTION

CRUDE DATA	
Number of Cases	23,021
Annual Incidence <sup>a</sup>	
LA County	254.3
California	210.7
United States	207.0
Age at Onset	
Mean	23
Median	21
Range	0 - 94 yrs
Case Fatality	
LA County	0.0%
United States	N/A



<sup>a</sup>Cases per 100,000 population. U.S. and California rates are provisional.

### ETIOLOGY

*Chlamydia trachomatis*, a sexually transmitted, gram-negative, obligate intracellular bacterium.

### DISEASE ABSTRACT

Chlamydia cases increased substantially from 1996 to 1997. Rates increased for all racial/ethnic groups and for most age groups. Increases in chlamydia rates were seen in most health districts.

### STRATIFIED DATA

**Trends:** The STD Program received 23,021 reported cases of genital chlamydial infection in 1997, an increase of 14.6% over 1996, when 20,191 cases were reported (Figure 114). The increase in chlamydia cases contrasts with a decline in gonorrhea and syphilis cases during the same period. Chlamydia incidence is approximately three times the combined incidence of gonorrhea and syphilis. During the seven years since it became a reportable disease in California, the overall chlamydia rate has ranged from a high of 276 cases per 100,000 in 1991 to a low of 213 cases per 100,000 in 1995. However, patterns in chlamydia rates may be influenced by frequency of screening or by greater compliance with reporting requirements by health care providers and laboratories.

**Seasonality:** None

**Age:** Adolescents and young adults aged 15-24 account for 64% of all reported cases. The highest age-specific rates of chlamydia were seen among 15- to 19-year-olds (1,351 cases per 100,000) and 20- to 24-year-olds (1,328 cases per 100,000; Table 17; Figure 115). The rate for

15- to 19-year-olds increased 20% over last year; the rate for 20- to 24-year-olds increased 27%.

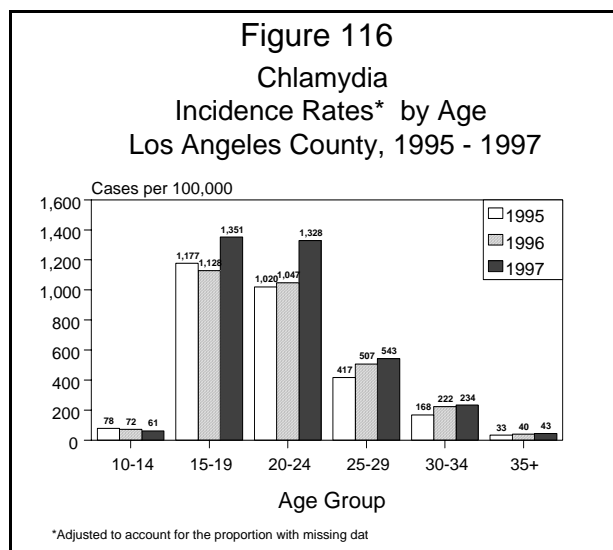
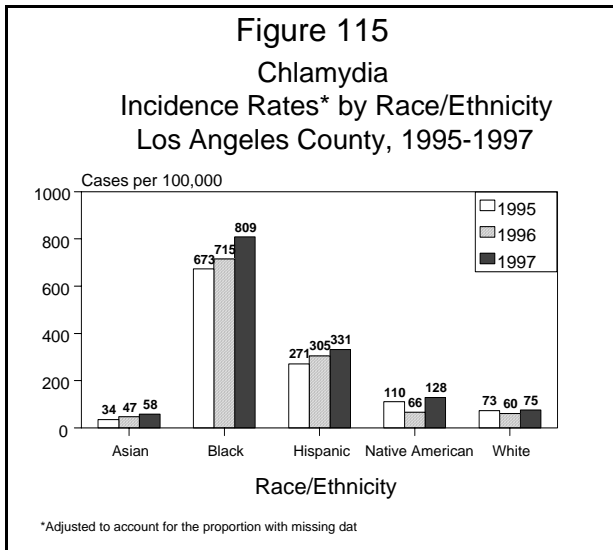
**Sex:** The male-to-female rate ratio in 1997 was 1:3.3, a decrease from the 1996 ratio of 1:3.6. This difference arises partially due to gender-specific screening protocols; asymptomatic female cases are often discovered during routine screening for other purposes, such as visits to prenatal care and family planning clinics, while asymptomatic male cases often go undiagnosed.

**Race:** Blacks had the highest chlamydia rate (809 cases per 100,000), followed by Hispanics (331), Native Americans (128), Whites (75), and Asians and Pacific Islanders (59); (Table 17 and Figure 116). These rates are little affected when age-adjusted. Chlamydia incidence increased for all racial groups in 1997, with the largest increases seen among Native Americans (+94%), Whites (+25%), and Asians (+25%). Smaller gains were observed in Blacks (+13%) and in Hispanics (+8%).

**Location:** There are six “core” health districts where social and economic factors play an important role in producing relatively higher risks of contracting STDs. In these districts -- Central, Compton, Inglewood, South, Southeast, and Southwest — Disease Intervention Specialists (DIS) play central roles in case investigation and management, partner notification and treatment, and STD health education. While gonorrhea and syphilis rates are typically higher in “core” districts, only about a third of the reported chlamydia cases were detected from these core districts (Table 18). However, overall incidence rate in these six districts was double that of the non-core districts (521 vs. 194 cases per 100,000).

**Comments:** A recent analysis conducted by the STD Program demonstrated that 44% of chlamydia cases were reported by both the lab and the provider, 49% were reported only by clinical laboratories, and 6% were reported only by providers. Substantial underreporting of chlamydia continues in part because providers are unaware of their reporting responsibilities, and if aware, non-compliant with California reporting requirements.

Recent advances in STD diagnostic technology now permit the use of urine specimens for the detection of chlamydia. These highly sensitive assays (e.g., PCR and LCR) eliminate the need for



urethral swab collection in men and pelvic examinations in women. This should result in the detection of many more asymptomatic cases, and may lead to an increase in reported chlamydia cases in the future. In LAC, 13% of chlamydia tests in 1997 were performed using amplification-based assays.

Pronounced increases in chlamydia incidence among 15- to 24-year-olds may also reflect increased emphasis on early screening and detection. Because chlamydial infection can adversely affect fertility and women's health, identifying and treating cases among young females is a departmental priority.

**Table 17. Chlamydia Cases and Rates by Race/Ethnicity, Gender, and Age  
Los Angeles County, 1996-1997**

	Number of Cases		Rate <sup>a</sup>		Percent Change in Rate
	1997	1996	1997	1996	
<b><u>Race/Ethnicity</u></b>					
American Indian/Eskimo/Aleut	32	13	128.3	66.3	94
Asian/Pacific Islander	378	271	58.8	47.2	25
Black	3,717	3,170	808.6	714.9	13
Hispanic	7,459	6,313	331.1	305.3	8
White	1,248	969	74.9	60.0	25
Unknown	10,187	9,455	--	--	--
<b><u>Gender</u></b>					
Male	5,323	4,381	118.1	98.1	20
Female	17,682	15,808	389.5	356.2	9
Unknown	16	2	--	--	--
<b><u>Age</u></b>					
0-9	78	96	5.1	5.9	-14
10-14	415	445	61.2	71.9	-15
15-19	7,406	6,576	1351.2	1,127.9	20
20-24	7,224	5,932	1328.2	1,047.1	27
25-29	3,743	3,326	543.0	506.5	7
30-34	1,833	1,634	233.8	222.4	5
35+	1,756	1,542	43.2	40.4	7
Unknown	566	640	--	--	--
<b>County Total</b>	<b>23,021</b>	<b>20,191</b>	<b>254.3</b>	<b>227.4</b>	<b>12</b>

<sup>a</sup> Cases per 100,000 population per year. Estimates of race-, sex- and age-specific rates have been adjusted to account for the proportion of cases with missing data by assuming that each sub-category's proportions of the known and unknown cases are equivalent. An STD Program study showed no significant difference in demographic characteristics between known and unknown chlamydia and gonorrhea cases. Estimate of the health district-specific rate has been adjusted to account for the proportion of cases with unknown health district by the same assumptions.

**Table 18. Chlamydia Cases and Rates by Health District  
Los Angeles County, 1996-1997**

<u>Health District<sup>b</sup></u>	Number of Cases		Rate <sup>a</sup>		Percent Change in Rate
	1997	1996	1997	1996	
South <sup>c</sup>	994	926	723.8	650.8	11
Southwest <sup>c</sup>	1,836	1,626	617.9	510.7	21
Southeast <sup>c</sup>	634	679	520.6	504.0	3
Compton <sup>c</sup>	1,188	1,077	519.8	453.9	15
Inglewood <sup>c</sup>	1,553	1,653	459.5	482.2	-5
Central <sup>c</sup>	934	799	380.5	285.2	33
Northeast	816	690	291.8	223.6	31
Hollywood-Wilshire	1,159	1,011	286.8	237.6	21
San Antonio	982	815	280.6	220.7	27
East Los Angeles	515	400	280.4	203.3	38
East Valley	869	858	250.3	244.2	2
Harbor	400	386	241.3	228.4	6
El Monte	817	822	208.7	203.4	3
West Valley	1,206	917	196.2	144.6	36
Bellflower	542	550	183.0	185.2	-1
Whittier	492	470	184.2	173.0	6
Torrance	591	474	157.7	127.7	23
Pomona	689	760	152.6	167.3	-9
San Fernando <sup>d</sup>	912	750	164.5	139.3	18
Foothill	358	359	138.5	139.7	-1
West	682	610	132.9	117.8	13
Glendale	352	319	124.2	115.1	8
Alhambra	369	373	114.9	116.8	-2
Unknown District	4,131	2,865	--	--	--
<b>County Total</b>	<b>23,021</b>	<b>20,191</b>	<b>254.3</b>	<b>227.4</b>	<b>12</b>

<sup>a</sup> Cases per 100,000 population per year. Estimates of district-specific rates have been adjusted to account for the proportion with missing data by assuming that each district's proportions of the known and unknown cases are equivalent.

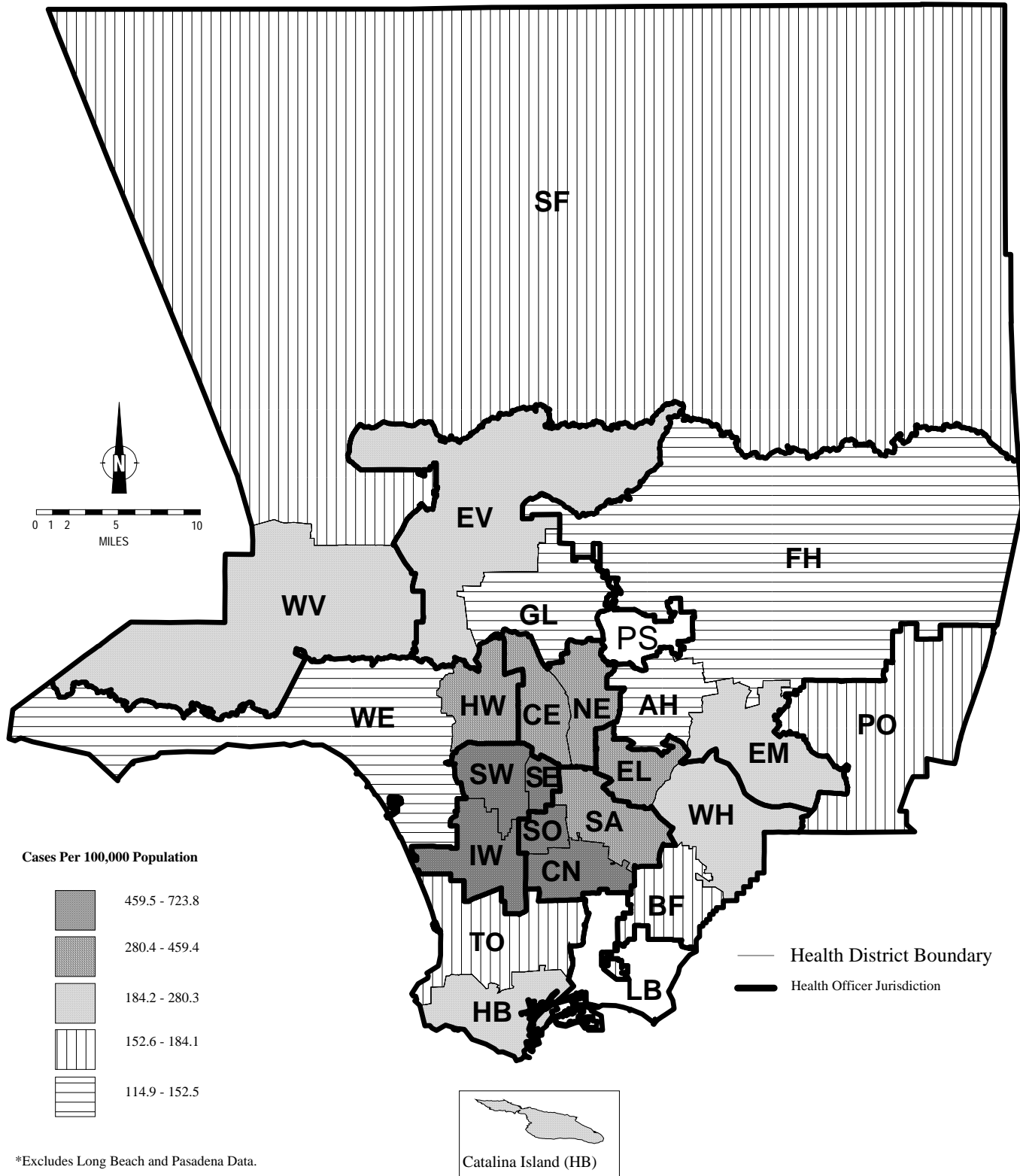
<sup>b</sup> The health district case figures do not reflect the revised boundaries adopted in April 1994.

<sup>c</sup> Core district.

<sup>d</sup> Includes Antelope Valley

# MAP 13. Chlamydia

## Rates by Health District, Los Angeles County, 1997\*



\*Excludes Long Beach and Pasadena Data.