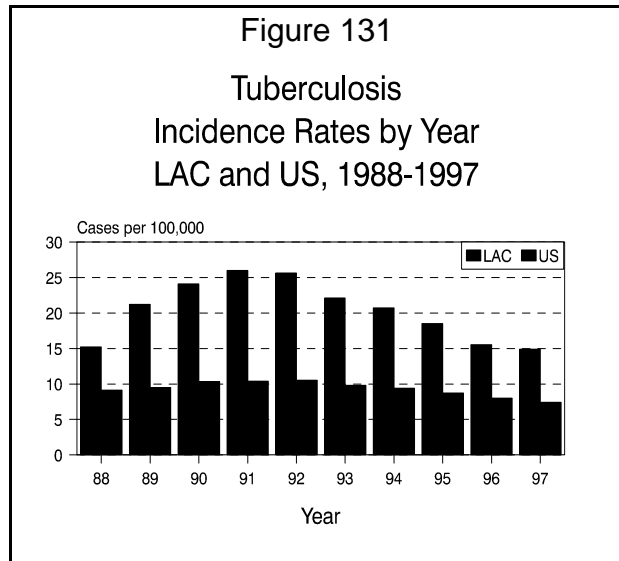


TUBERCULOSIS

CRUDE DATA	
Number of Cases	1,347
Annual Incidence ^a	
LA County	14.9
California	11.8
United States	7.4
Age at Diagnosis	
Mean	46
Median	44
Range	<1-105 yrs
Case Fatality	
LA County	N/A
United States ^b	0.5

^a Cases per 100,000 population.

^b Provisional data based on the NCHS 80-90% samples of 1995 data.



ETIOLOGY

Tuberculosis is a specific disease caused by the presence of *Mycobacterium tuberculosis* and/or *Mycobacterium bovis* which may affect almost any tissue or organ of the body; the most common site of disease is the lungs.

DISEASE ABSTRACT

The proportion of TB cases in high-risk groups such as those with HIV infection or the homeless continues to gradually decline, although there was a slight increase in the proportion of foreign-born cases.

Reported TB cases have declined for five years since reported cases peaked in 1992, the year with the most reported cases in LAC in several decades. Demographic data in 1997 resembles that for previous years except for a slight increase among Asians.

STRATIFIED DATA

Trends: In 1997, 1,347 TB cases were reported in LAC, with a rate of 14.9 cases per 100,000 population. This represents a 2% decrease in the number of TB cases from 1996 (1,375 cases) and a 4% decrease in the incidence rate (15.5 cases per 100,000 in 1996). In 1997, LAC comprised 33% of all TB cases in California (4,059 cases) and 7% of the TB cases in the United States (19,855 cases)(Table 27). LAC's rate continues to be twice the US rate (Figure 131).

Seasonality: None.

Age: Age-specific rates are shown in Figure 153. The largest proportion of cases in LAC continues to be among 15- to 34-year-olds (27%) (Table 28), followed by the elderly (22%), traditionally the age group with the highest national rate. From 1992 through 1997, incidence rates increased after age 14 (Table 29).

Sex: In 1997, 64% (n=858) of TB cases were male (Table 28). Males also had a higher overall rate (19.0 cases per 100,000 population compared to 10.8 in females). The male-to-female rate ratio was 1.8:1 (Table 29).

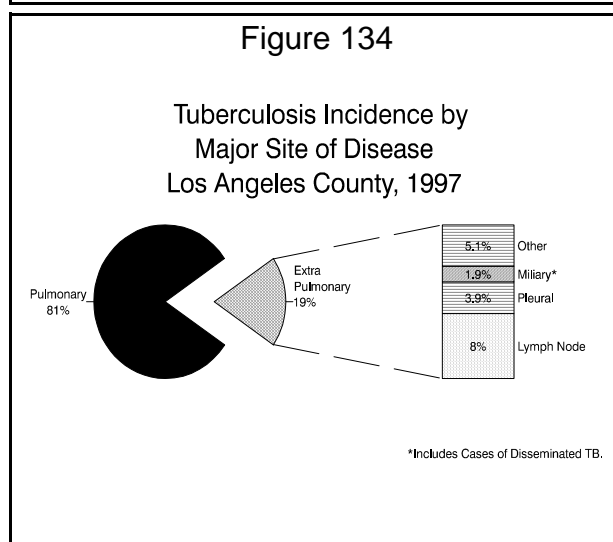
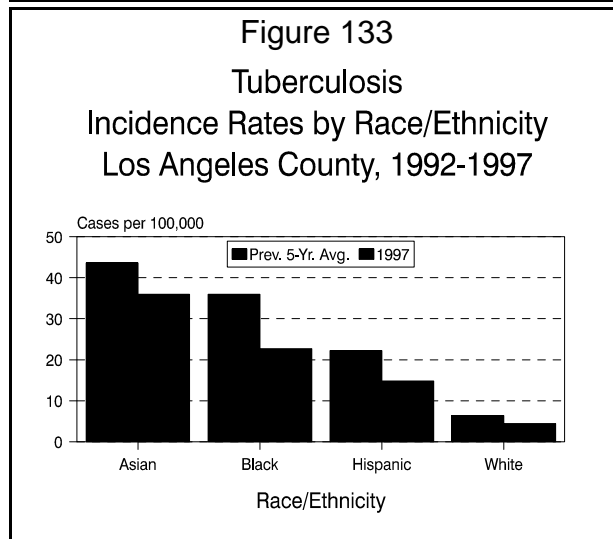
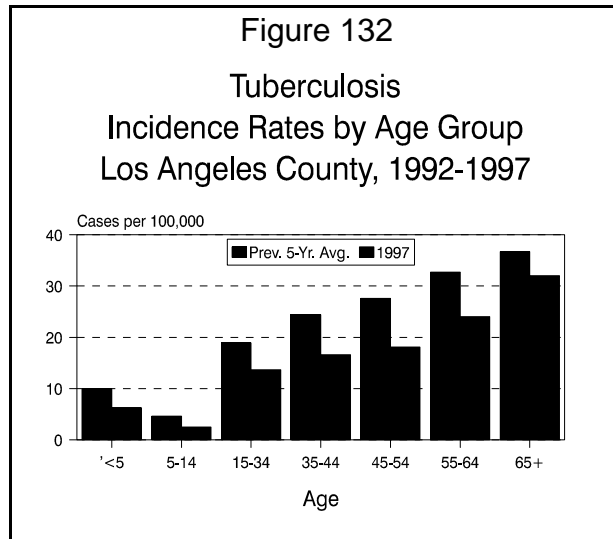
Race/Ethnicity: The largest proportion of TB cases was among Hispanics (44%), followed by Asians/Others (32%), Blacks (14%) and Whites (10%) (Table 28). Annual race-specific incidence rates were highest among Asians/Others (36.0 cases per 100,000 population) (Figure 133, Table 29).

Anatomical Site: The majority (81%) of the 1,347 cases were diagnosed with pulmonary tuberculosis. Table 30 shows the anatomical site breakdown for 1997.

Foreign-born Cases: A total of 71% of LAC TB cases reported in 1997 were among persons born outside of the US. This is a 4% increase from 1996. Mexico was the most frequently identified country of birth (26% of foreign-born TB cases), followed by the Philippines (12%) and Vietnam and South Korea (5% each).

Homeless Cases: A total of 115 (9%) cases were reported as homeless. Of these, 89% were male. The greatest proportion (43%) of homeless cases were Hispanic, followed by Blacks (37%).

HIV-infected Cases: Of the 1,347 TB cases, 807 (60%) had HIV test results reported. Of the 1,347 TB cases, 125 cases (9%) were identified as co-infected with HIV either through reported HIV test results or matching with the LAC DHS



AIDS registry. Of the 115 homeless TB cases, 97 (84%) had HIV test results reported and 23 (20%) were co-infected with HIV.

Location: In 1997, Central Health District reported the highest TB rate, with 51.8 cases per 100,000. Central Health District also reported the most TB cases with risk factors such as homelessness, foreign birth, HIV co-infection, injection/non-injection drug use and excessive alcohol use.

COMMENTS

Bacteriologic confirmation of disease was obtained in 81% (1,064) of the 1,312 cases tested. Where bacteriological testing was negative or not done, case confirmation was made on the basis of clinical improvement and/or x-ray changes following therapy with appropriate anti-tuberculosis drugs.

The 2% decrease in TB cases from 1996 to 1997 is less than the average 11% decrease seen over the previous four years (1992-1996) and is less than the 15% decrease in 1996 from 1995, indicating that the rate of decline of TB in LAC may be slowing.

Table 27. Tuberculosis Cases and Rates,^a Los Angeles County, California and the United States, 1980-1997

Year	Los Angeles County		California		United States	
	Cases	Rate	Cases	Rate	Cases	Rate
1980	1,438	19.2	4,279	18.1	27,749	12.3
1981	1,816	24.7	4,520	18.7	27,373	11.9
1982	1,422	18.6	3,606	14.5	25,520	11.0
1983	1,428	18.3	3,469	13.8	23,846	10.2
1984	1,293	16.5	3,306	12.9	22,255	9.4
1985	1,495	19.9	3,492	13.2	22,201	9.3
1986	1,362	17.9	3,442	12.7	22,768	9.4
1987	1,302	16.9	3,719	13.4	22,517	9.3
1988	1,190	15.2	3,468	12.2	22,436	9.1
1989	1,681	21.2	4,212	14.5	23,495	9.5
1990	1,936	24.1	4,889	16.3	25,701	10.3
1991	2,121	26.0	5,273	17.2	26,283	10.4
1992	2,198	25.6	5,382	17.2	26,673	10.5
1993	1,940	22.1	5,173	16.2	25,287	9.8
1994	1,794	20.7	4,860	14.9	24,361	9.4
1995	1,622	18.5	4,677	14.8	22,860	8.7
1996	1,375	15.5	4,313	13.5	21,337	8.0
1997	1,347	14.9	4,059	11.8	19,855	7.4

^aCases per 100,000 population.

**Table 28. Annual Tuberculosis Cases, by Sex, Age, and Race/Ethnicity
Los Angeles County, 1988-1997**

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Sex										
Male	778	1,094	1,224	1,351	1,420	1,260	1,143	1,049	905	858
Female	412	587	712	770	778	680	651	572	470	489
Age										
<5	43	78	97	123	118	92	75	80	51	50
5-14	31	53	74	78	79	74	57	34	42	37
15-34	402	574	635	724	748	615	540	451	343	361
35-44	189	299	371	419	418	359	357	300	270	253
45-54	143	193	220	257	281	266	258	250	208	192
55-64	167	184	222	206	228	225	193	195	154	158
65 +	215	300	316	314	326	309	314	312	307	296
Unknown	0	0	1	0	0	0	0	0	0	0
Race										
White	171	239	227	237	266	220	184	195	148	132
Black	225	267	325	385	383	374	333	272	227	187
Hispanic	501	712	859	1,004	991	906	786	701	619	597
Asian/Other	290	460	523	494	555	439	488	453	380	431
Unknown	3	3	2	1	3	1	3	1	1	0
Total	1,190	1,681	1,936	2,121	2,198	1,940	1,794	1,622	1,375	1,347

**Table 29. Annual Tuberculosis Incidence Rates,^a by Sex, Age and Race/Ethnicity^b
Los Angeles County, 1988-1997**

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Sex										
Male	20.4	28.3	31.2	33.9	33.0	28.6	26.4	24.0	20.4	19.0
Female	10.3	14.5	17.4	18.5	18.1	15.5	15.0	13.0	10.6	10.8
Age										
<5	6.8	12.2	15.1	18.9	14.6	10.7	8.5	9.9	5.8	6.3
5-14	2.8	4.7	6.5	6.8	6.5	6.0	4.7	2.7	2.9	2.5
15-34	14.9	21.2	23.3	26.4	25.2	20.6	19.1	16.5	13.1	13.7
35-44	17.0	26.3	31.9	35.4	31.6	26.2	25.3	19.9	19.1	16.6
45-54	18.5	24.5	27.3	31.1	32.6	29.6	28.2	26.5	21.2	18.1
55-64	24.3	26.6	32.0	29.3	37.6	37.1	32.1	32.0	24.6	24.1
65+	26.5	36.1	37.1	36.2	39.4	37.0	39.1	34.8	33.3	31.9
Race										
White	5.0	7.1	6.8	7.2	8.0	6.7	6.3	6.3	4.9	4.4
Black	24.9	29.4	35.7	42.1	41.7	40.3	40.0	30.9	27.2	22.7
Hispanic	19.3	26.5	31.0	35.2	29.8	26.1	20.4	18.9	15.9	14.8
Asian/Other	31.9	48.0	52.0	46.7	53.3	40.0	47.2	43.5	34.0	36.0
Incidence	15.2	21.2	24.1	26.0	26.0	22.1	20.7	18.5	15.5	14.9

^a Cases per 100,000 population.

^b Rates for 1990 and 1991 were calculated using population estimations based on the 1980 Census; 1992-1997 rates were calculated using population estimation based on 1990 census.

Table 30. Tuberculosis Incidence by

Major Site of Disease, Los Angeles County, 1997

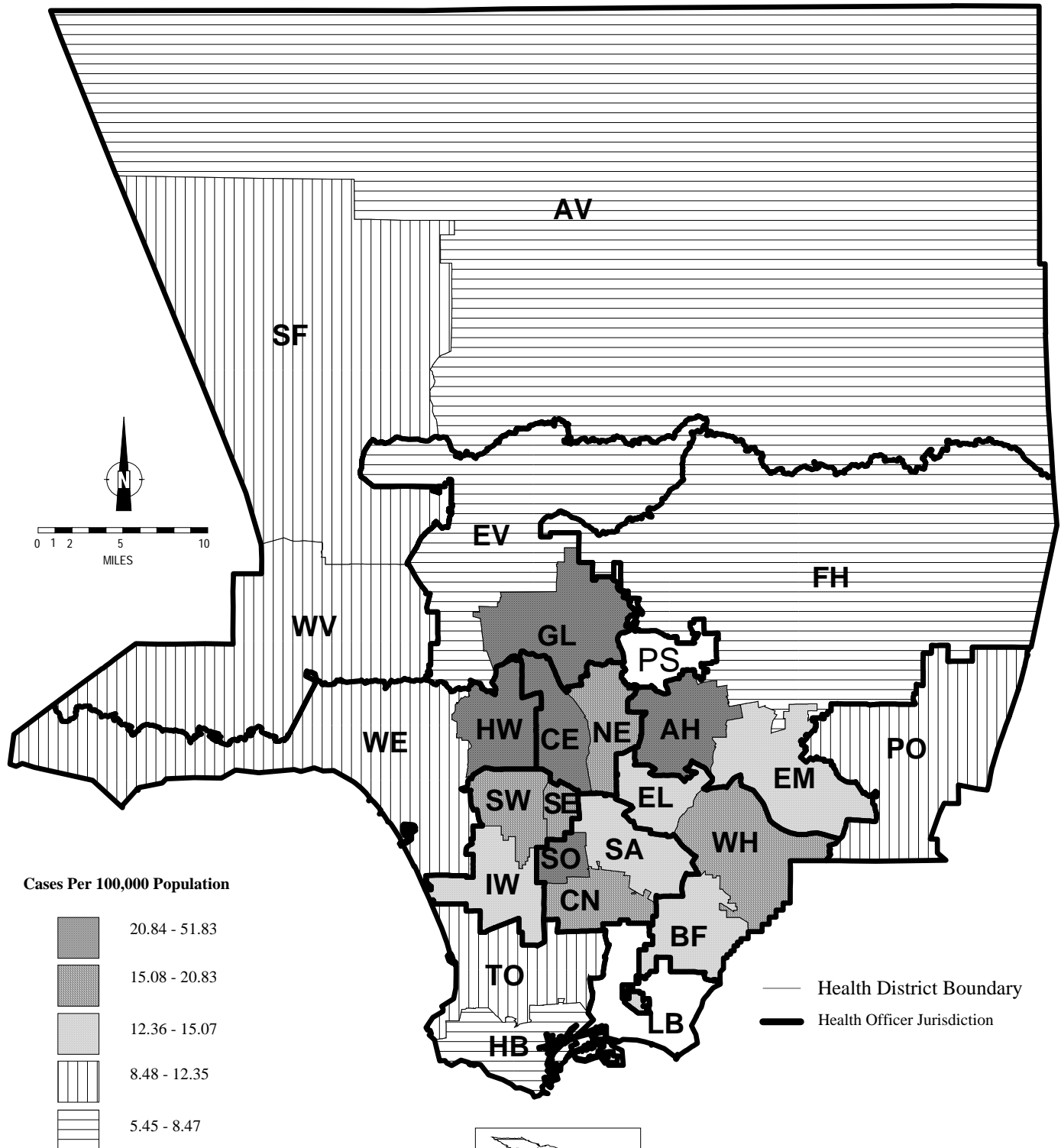
Disease Site	Number of Cases	Percent
Pulmonary	1,093	81.1
Lymph Node	107	8.0
Pleural	52	3.9
Miliary/Disseminated	26	1.9
Meningeal	14	1.0
Peritoneal	7	.5
Bone/Joint	19	1.4
Genitourinary	17	1.3
Other	12	.9
Total	1,347	100.0

PUBLICATIONS LIST

1. Nitta AT, Davidson PT, Kilman RJ. Laboratory errors and misdiagnosis of tuberculosis [reply to letter]. *JAMA* 1997;277:883.
2. Barnes PF, Yang Z, Preston-Martin S, Pogoda JM, Jones BE, Otaya M, Eisenach KD, Knowles L, Harvey S, Cave D. Patterns of tuberculosis transmission in central Los Angeles. *JAMA* 1997;278:1159-63.

MAP 17. Tuberculosis

Rates by Health District, Los Angeles County, 1997*



*Excludes Long Beach and Pasadena Data.

