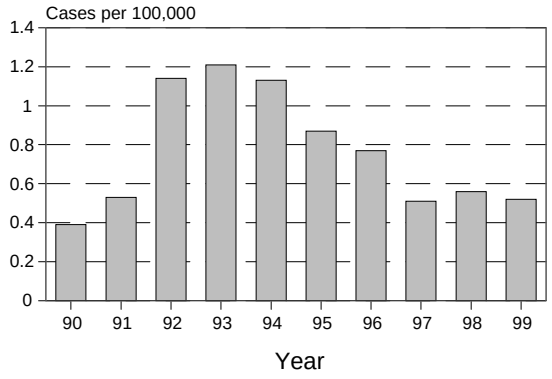
COCCIDIOIDOMYCOSIS

CRUDE DATA	
Number of Cases	48
Annual Incidence[a]	
LA County	0.52
California[b]	2.80
United States	N/A
Age at Onset	
Mean	41
Median	40
Range	13-83 yrs
Case Fatality	
LA County	8.3%
United States	N/A

[a] Cases per 100,000 population.
[b] California Department of Health Services Surveillance and Statistics Section.

Figure 10

Coccidioidomycosis
Incidence Rates by Year
Los Angeles County, 1990-1999



ETIOLOGY

Coccidioides immitis, a dimorphic fungus found in the soil.

DISEASE ABSTRACT

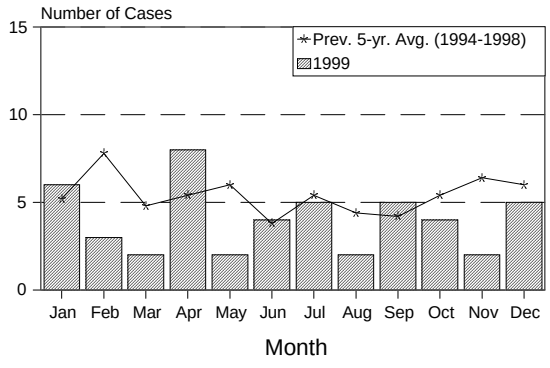
The coccidioidomycosis incidence rate for 1999 has remained approximately the same since 1997 and is lower than the five-year average.

STRATIFIED DATA

Trends: The incidence of coccidioidomycosis remained the same from 0.51 cases per 100,000 population in 1997 to 0.52 in 1999 but is lower than the peak of 1.21 in 1993. This is far below the previous 10-year average incidence of 0.75 but similar to the incidence rate seen in 1991(Figure 10).

Figure 11

Coccidioidomycosis
Cases by Month of Onset
Los Angeles County,1999



Seasonality: In 1999, the number of cases varied from two to eight cases per month. The two months with the highest number of cases was January (6 cases) and April (8 cases) . The number of cases in January, April, and September were above the previous five-year average (Figure 11).

Age: The highest incidence rate was observed in the 55-64 age group (1.11 cases per 100,000 population), followed by the 35-44 (0.80), 45-54 (0.65), and 15-34 (0.58) age groups (Figure 12). Overall, the predominance of males influenced the crude rates for all age groups. There were no cases under the age of 13.

Sex: The male-to-female rate ratio was 3:1. The mean age for males was 40 years and for females it was 45. The gender difference is likely due to occupational and recreational dust exposure of males although this is not clearly evident from the information collected (Figure 12). The most commonly reported occupations were construction worker (4), gardener (4), and student (4). Also, four cases were unemployed and three were retired. No female cases reported being pregnant.

Race/Ethnicity: As shown in Figure 13, a higher incidence was observed among Blacks (0.78 cases per 100,000 population) with incidence substantially lower in Hispanics (0.52), Whites (0.40) and Asians (0.36). Ethnic groups considered at highest risk for **disseminated disease** (spreading to and infecting many parts of the body) are Blacks, Filipinos and other Asians, Mexican Americans, and Native Americans. Of the two cases with disseminated disease, there were one Black and one Hispanic.

Location: Antelope Valley District had the highest rate of coccidioidomycosis at 2.84 per 100,000 population (9 cases) followed by West Valley with a rate of 1.37 (10) and San Fernando with 1.08 (4). The West Valley District had the highest number of cases.

Travel: Fourteen cases reported travel within four weeks before onset of illness: six traveled within California (San Joaquin Valley and the Central Valley) and eight traveled outside California to such places as Arizona and Mexico. Traditionally, coccidioidomycosis is known to be endemic in these areas as well as California. One case traveled to Hawaii before onset but this area is not known to be endemic.

Figure 12

Coccidioidomycosis
Incidence Rates by Age and Sex
Los Angeles County, 1999

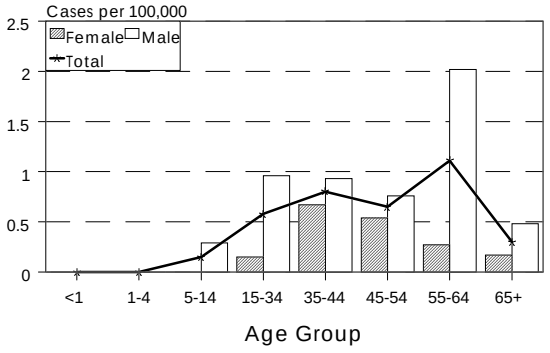


Figure 13

Coccidioidomycosis
Incidence Rates by Race/Ethnicity
Los Angeles County, 1999

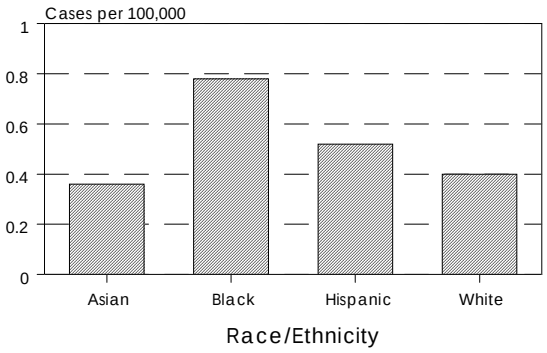
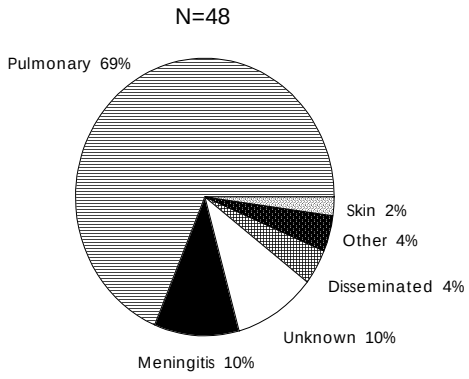


Figure 14

Coccidioidomycosis
by Site of Infection, LA County, 1999



Underlying Disease: Of the eight cases with known underlying disease, four cases were diabetics, one was infected with HIV, and one case each had malignancy, kidney problems and history of heroin abuse. Two cases died.

Site of Infection and Hospitalization: Of the cases reported in 1999, sites of infection were reported as 69% primary pulmonary, 4% disseminated, and 10% meningitis; in 10% of the cases infection site was unknown (Figure 14). Seventy-one percent (34) of cases were culture-confirmed. Of the 39 cases where information was available, 92% (36) were hospitalized.

COMMENTS

Coccidioidomycosis is a disease associated with exposure to dust containing *Coccidiodes immitis* spores. Environmental conditions conducive to an increased occurrence of coccidioidomycosis are as follows: arid to semi-arid regions, dust storms, lower altitude, hotter summers, warmer winters, and sandy, alkaline soils. Southern California is a known endemic area. Since there is no safe and effective vaccine or drug to prevent this disease, prevention lies mainly in dust control such as planting grass in dusty areas, putting oil on roadways, wetting down soil, air conditioning homes, and wearing masks or respirators. Other options may be to warn individuals who are at high risk for severe disease not to travel to endemic areas when conditions (dusty) are most dangerous for exposure.