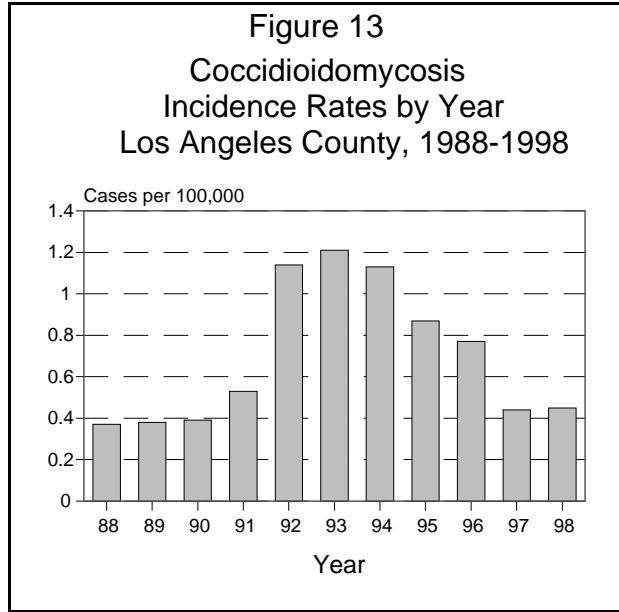


# COCCIDIOIDOMYCOSIS

CRUDE DATA	
Number of Cases	41
Annual Incidence <sup>a</sup>	
LA County	0.45
California <sup>b</sup>	2.10
United States	N/A
Age at Onset	
Mean	43
Median	40
Range	18-76 yrs
Case Fatality	
LA County	19.5%
United States	N/A



<sup>a</sup>Cases per 100,000 population.  
<sup>b</sup>California Department of Health Services Surveillance and Statistics Section.

## ETIOLOGY

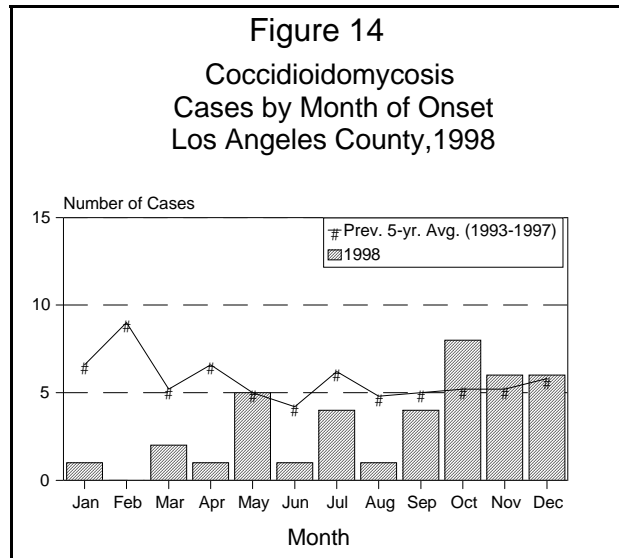
*Coccidioides immitis*, a dimorphic fungus found in the soil.

## DISEASE ABSTRACT

The coccidioidomycosis incidence rate for 1998 has declined since 1993 and is lower than the five-year average.

## STRATIFIED DATA

**Trends:** The incidence of coccidioidomycosis declined from 0.77 cases per 100,000 population in 1996 to 0.44 in 1997 and 0.45 in 1998. This is far below the previous 10-year average incidence of 0.72 but similar to the late 1980s incidence (Figure 13).



**Seasonality:** In 1998, more cases were observed in the fall months compared to the previous five-year average (Figure 14). The most noticeable difference is the lack of cases in the first few months of the year.

**Age:** The highest incidence rate was observed in the 65 years and older age group (0.94 cases per 100,000 population), followed by the 45-54 (0.93), 55-64 (0.66), and 15-34 (.52) age groups (Figure 15). Overall, the predominance of males influenced the crude rates for all age groups except the 55-64 year old age group. There were no cases under the age of 18.

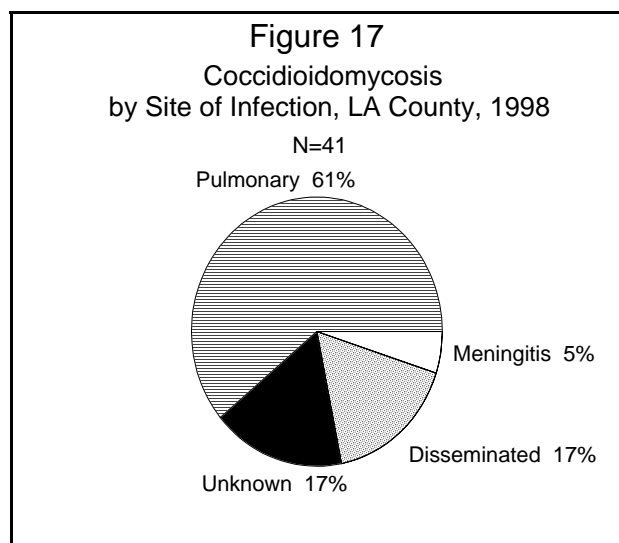
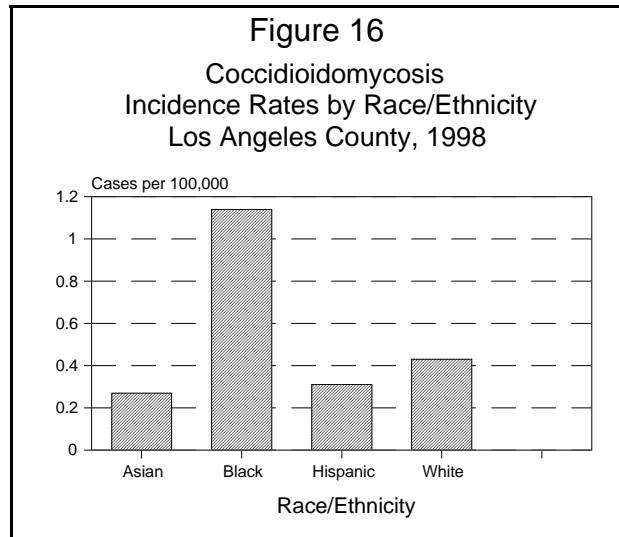
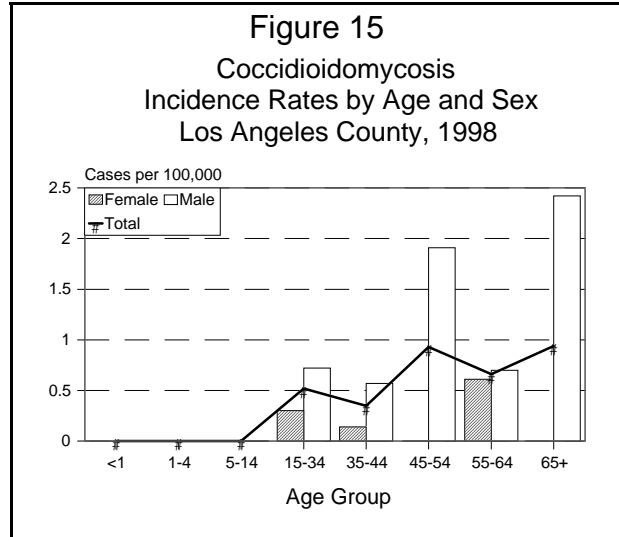
**Sex:** The male-to-female rate ratio was 4:1. The mean age for males was 45 years and 37 for females. The difference was likely due to occupational and recreational dust exposure of males although this was not clearly evident from the information collected (Figure 15). No female cases reported being pregnant.

**Race/Ethnicity:** As shown in Figure 16, a higher incidence was observed among Blacks (1.14 cases per 100,000 population) with incidence substantially lower in Whites (0.43) and Hispanics (0.31). The incidence rate in Asians was the lowest (0.27). 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 seven cases with disseminated disease, there were four Blacks, two Hispanics, and one Asian.

**Location:** Antelope Valley District had the highest rate of coccidioidomycosis at 1.28 per 100,000 population (4 cases) followed by Northeast with a rate of 1.14 (4), Central with 1.01 (3), and San Fernando with 1.01(4). The West Valley District had the highest number of cases (7).

**Travel:** Nine cases reported travel within four weeks before onset of illness: seven traveled within California and two traveled outside California to Nevada and Mexico. Traditionally, coccidioidomycosis is known to be endemic in these areas as well as in California.

**Underlying Disease:** Of the eight cases with known underlying disease, two cases were



diabetics, two were HIV positive, one had chronic hepatitis B, one had leukemia, one had cardiac problems and one had a history of asthma. Fifty percent of these cases died.

**Site of Infection:** Of the cases reported in 1998, sites of infection were reported as 61% primary pulmonary, 17% disseminated, 5% meningitis, and 17% of the case infection sites were unknown (Figure 17).

## **COMMENTS**

Coccidioidomycosis is a disease associated with exposure to dust containing *Coccidioides 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 when exposure is likely. 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. Future areas of study should examine weather patterns and geography using geographic information systems to quantify the effects on the incidence of coccidioidomycosis.