

Hospitalization rates also were substantially higher among non-Hispanic blacks, compared with non-Hispanic whites, Hispanics, and Asians/Pacific Islanders. Black race has been associated previously with increased risk for coccidioidomycosis hospitalization (7). In addition, blacks and persons of Filipino ancestry have been found to have increased risk for disseminated coccidioidomycosis, possibly because of underlying differences in susceptible host genetics (1,10). Immunocompromised persons and women in their second and third trimesters of pregnancy also have increased risk for disseminated disease (1).

The findings in this report are subject to at least three limitations. First, because not all persons with coccidioidomycosis seek medical care and not all diagnosed cases are reported to local health departments, this report likely underestimates the actual rate of coccidioidomycosis in California. Second, for cases in which patients were hospitalized, medical chart review was not performed to confirm laboratory diagnosis or cause of death from coccidioidomycosis, resulting in possible overestimation of hospitalizations and deaths in persons with coccidioidomycosis diagnosed. Finally, Kern County's public health laboratory performs much of the coccidioidomycosis testing for patients in that county and might be more likely to report cases routinely than laboratories in most other counties in the San Joaquin Valley region where this is not the practice. In 2009, California plans to make coccidioidomycosis a laboratory-reportable disease to improve completeness and timeliness of case reporting and delivery of targeted public health recommendations during periods of increased disease.

Given the recent increases in coccidioidomycosis in California and Arizona, heightened consideration of this disease is warranted in the differential diagnosis of any patient with ILI, pneumonia, or signs of disseminated infection who has lived or traveled in areas where coccidioidomycosis is endemic. Because intensive dust exposure appears to increase the risk for infection, CDC recommends that persons living or traveling in regions where coccidioidomycosis is endemic who are at risk for severe or disseminated disease (e.g., older persons, pregnant women, immunocompromised persons, and persons of black race or Filipino ancestry) should avoid exposure to outdoor dust as much as possible.\* When such exposure is unavoidable, measures to reduce inhalation of outdoor dust, such as wetting soil and using respiratory protection when engaging in soil-disturbing activities, might be effective. However, options for environmental control of coccidioidomycosis are limited, and no safe, effective vaccine for the disease exists currently. Developing such a vaccine appears to be the best option for preventing disease in those persons at risk for coccidioidomycosis (9).

#### Acknowledgments

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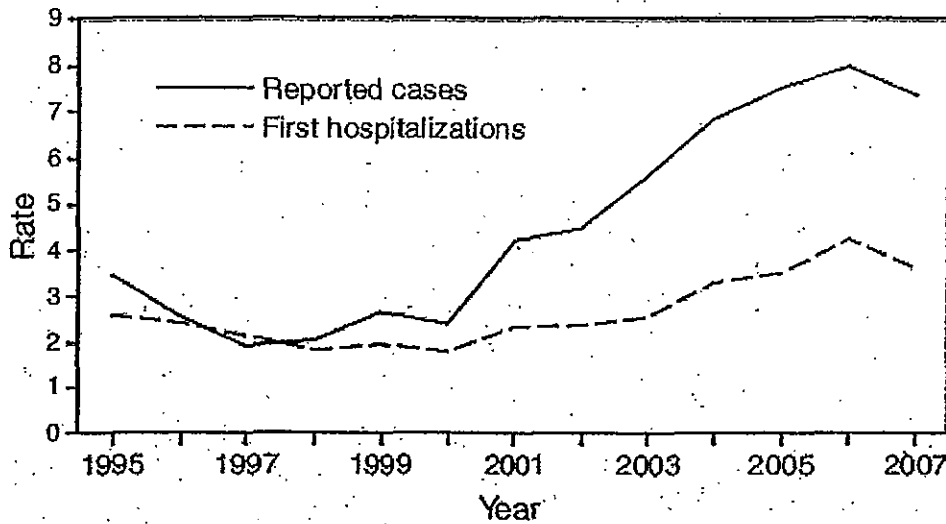
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\* Additional information available at <http://wwwn.cdc.gov/travel/yellowbookch4-coccidioidomycosis.aspx>.

Figure 1

**FIGURE 1. Rates\* of reported cases of coccidioidomycosis and first hospitalizations among persons with coccidioidomycosis diagnosed — California, 1995–2007†**



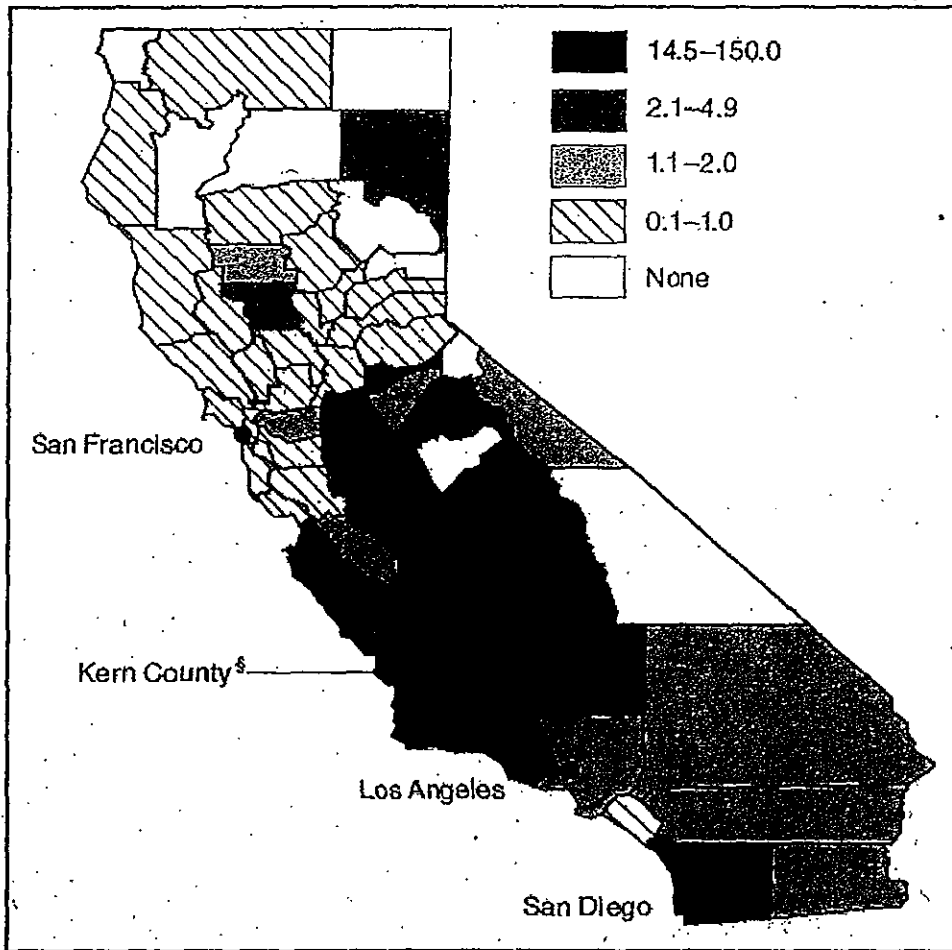
\* Per 100,000 population.

† Data on reported cases of coccidioidomycosis are from California Department of Public Health Confidential Morbidity Reports. Data on first hospitalizations of persons with coccidioidomycosis diagnosed are from the California Patient Discharge Data Set. Population data are from California Department of Finance population projections.

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Figure 2

**FIGURE 2. Average annual rate\* of reported cases of coccidioidomycosis, by county — California, 2000–2007†**



\* Per 100,000 population.

† Data on reported cases are from California Department of Public Health Confidential Morbidity Reports. County population data are from California Department of Finance population projections.

§ Kern County, located in the San Joaquin Valley region, where coccidioidomycosis is endemic, had the highest rate among counties (150.0 cases per 100,000 population).

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[Table](#)

TABLE. Total numbers and average annual rates\* of reported cases of coccidioidomycosis and first hospitalizations and deaths among persons with coccidioidomycosis diagnosed, by selected characteristics — California, 1995–1999 and 2000–2007†

Characteristic	1995–1999		2000–2007	
	No. of cases	Rate	No. of cases	Rate
<b>Reported cases</b>				
<b>Age group (yrs)</b>				
0–9	182	0.7	532	1.3
10–19	393	1.7	1,695	3.9
20–29	677	2.7	2,793	7.0
30–39	921	3.4	3,379	7.7
40–49	761	3.3	3,518	8.0
50–59	528	3.6	2,180	7.5
60–69	350	3.5	1,307	6.7
70–79	220	2.8	755	5.5
≥80	95	2.3	365	4.2
<b>Sex</b>				
Male	2,572	3.2	10,909	7.6
Female	1,529	1.9	5,848	4.0
<b>Region</b>				
California, overall	4,126	2.5	16,970	5.9
San Joaquin Valley‡	2,829	17.9	12,855	44.1
Kern County	2,003	63.1	8,847	150.0
<b>First hospitalizations</b>				
<b>Age group (yrs)</b>				
0–9	47	0.2	151	0.4
10–19	148	0.6	361	0.8
20–29	348	1.4	853	2.1
30–39	574	2.1	1,409	3.2
40–49	709	3.1	1,851	4.2
50–59	609	4.1	1,690	5.1
60–69	509	5.0	1,130	5.8
70–79	439	5.6	785	5.8
≥80	170	4.2	427	5.0
<b>Sex</b>				
Male	2,237	2.8	5,960	4.1
Female	1,316	1.6	2,698	1.9
<b>Region</b>				
California, overall	3,553	2.2	8,657	3.0
San Joaquin Valley‡	1,418	9.0	4,360	15.0
Kern County	704	22.2	2,206	37.4
<b>Race/Ethnicity<sup>1</sup></b>				
Black, non-Hispanic	349	—	1,005	5.3
White, non-Hispanic	1,947	—	3,800	3.0
Hispanic	881	—	2,869	2.9
Asian/Pacific Islander	212	—	552	1.7
American Indian/ Alaska Native	13	—	28	1.4
Multiracial/Other	60	—	192	3.4
<b>Deaths</b>	307	0.19	752	0.26

\* Per 100,000 population.

† Data on reported cases are from California Department of Public Health Confidential Morbidity Reports. Data on first hospitalizations of persons with coccidioidomycosis diagnosed are from the California Patient Discharge Data Set. Denominator data are from California Department of Finance population projections.

‡ Includes the following California counties: Fresno, Kern, Kings, Madera, Merced, San Joaquin, Stanislaus, and Tulare.

<sup>1</sup> Hospitalization rates by racial/ethnic population could not be calculated for 1995–1999 because population estimates for this period included inconsistent race/ethnicity categories.

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