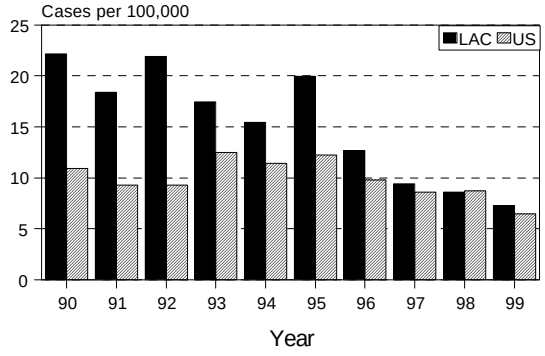
SHIGELLOSIS

CRUDE DATA	
Number of Cases	665
Annual Incidence[a]	
LA County	7.30
California	7.13
United States	6.43
Age at Onset	
Mean	17
Median	8
Range	<1-87 yrs
Case Fatality	
LA County	0.2%
United States	N/A

[a]Cases per 100,000 population.

Figure 81

Shigellosis
Incidence Rates by Year
LAC and US, 1990-1999



ETIOLOGY

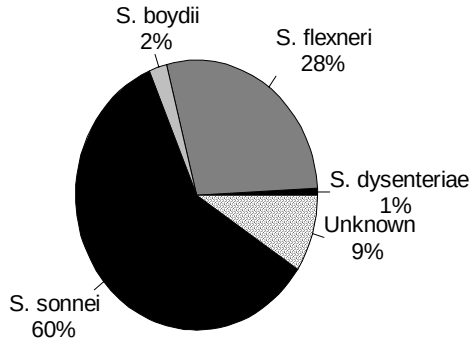
Shigella is a gram-negative bacillus with four serogroups: *S. dysenteriae* (group A)*, S. flexneri* (group B)*, S. boydii* (group C)*, and S. sonnei* (group D)*.*

DISEASE ABSTRACT

There has been a steadily decreasing incidence of shigellosis since 1990 (Figure 81). *S. sonnei* was the most common serogroup followed by *S. flexneri* (Figure 82). There were eight shigellosis outbreaks reported in 1999; six were community outbreaks (four pre-school/school, one baby-sitting group, one family wedding reception) and two were foodborne illness incidents in commercial establishments.

Figure 82

Shigellosis
by Serogroup, LA County, 1999



STRATIFIED DATA

Trends: Compared to the previous year, the overall rate decreased by 15%. Only two age groups did not have a reduced incidence rate; age groups 1-4 and 15-34 had a small increase. Reasons for the decline in reported overall incidence are unknown. Speculation points to a combination of better food safety control measures, less testing of symptomatic patients as a money saving effort, and failure to report.

Shigellosis incidence rates continue to be highest among the younger age groups, with more than half of all cases occurring in those under 15 and approximately one-third under the age of five.

Seasonality: The typical seasonal increase in shigellosis occurs during the summer and early fall with peak incidence in August. This pattern continued in 1999 (Figure 83).

Age: Eighty-three percent (549) of all shigellosis cases occurred among persons under 35, and 74% (407) of those were in children under 15. The highest rate, 36.3 per 100,000 population, was seen among 1- to 4-year-olds (Figure 84). In contrast, 62% of male cases of *S. flexneri* occurred in age 15 years and older.

Sex: The male-to-female rate ratio for **all** shigellosis was 1:1.5. The male-to-female ratios for *S. sonnei* and *S. flexneri* in cases age 15 years and older were 0.9:1 and 2:1, respectively.

Race/Ethnicity: In 1999, the **incidence** of shigellosis continued to be highest among Hispanics (9.82 cases per 100,000 population), but rates decreased in all races (Figure 85). Seventy-four percent of the **total number** of shigellosis cases were in Hispanics; however, 57% of *S. flexneri* and 67% of *S. sonnei* in male cases ≥15 years were White.

Location: The highest rates of shigellosis in 1999 were in the Southeast (16.16 per 100,000), East LA (13.62 per 100,000), and Compton (13.43 per 100,000) Health Districts (Map 1).

COMMENTS

Potential Sources: Exposure during international travel and exposure to an ill individual in the household were the most commonly reported potential sources. Other reported exposures included contact with an ill individual outside the household, contact with a

Figure 83

Shigellosis
Cases by Month of Onset
Los Angeles County, 1999

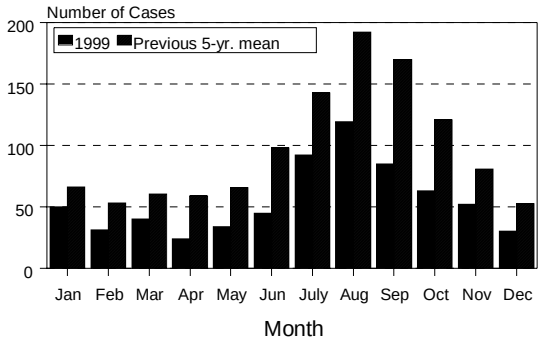


Figure 84

Shigellosis
Incidence Rates by Age Group
Los Angeles County, 1998-1999

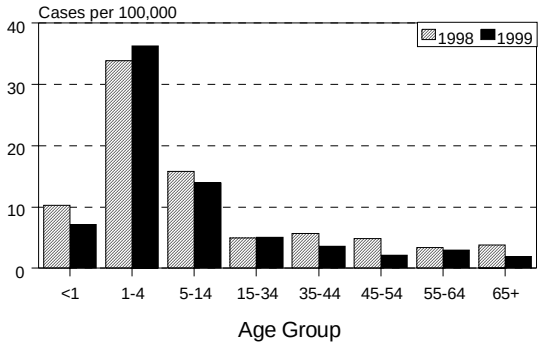
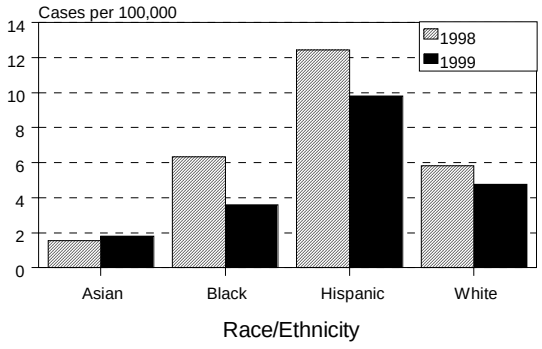


Figure 85

Shigellosis
Age-adjusted Rates by Race/Ethnicity
Los Angeles County, 1998-1999

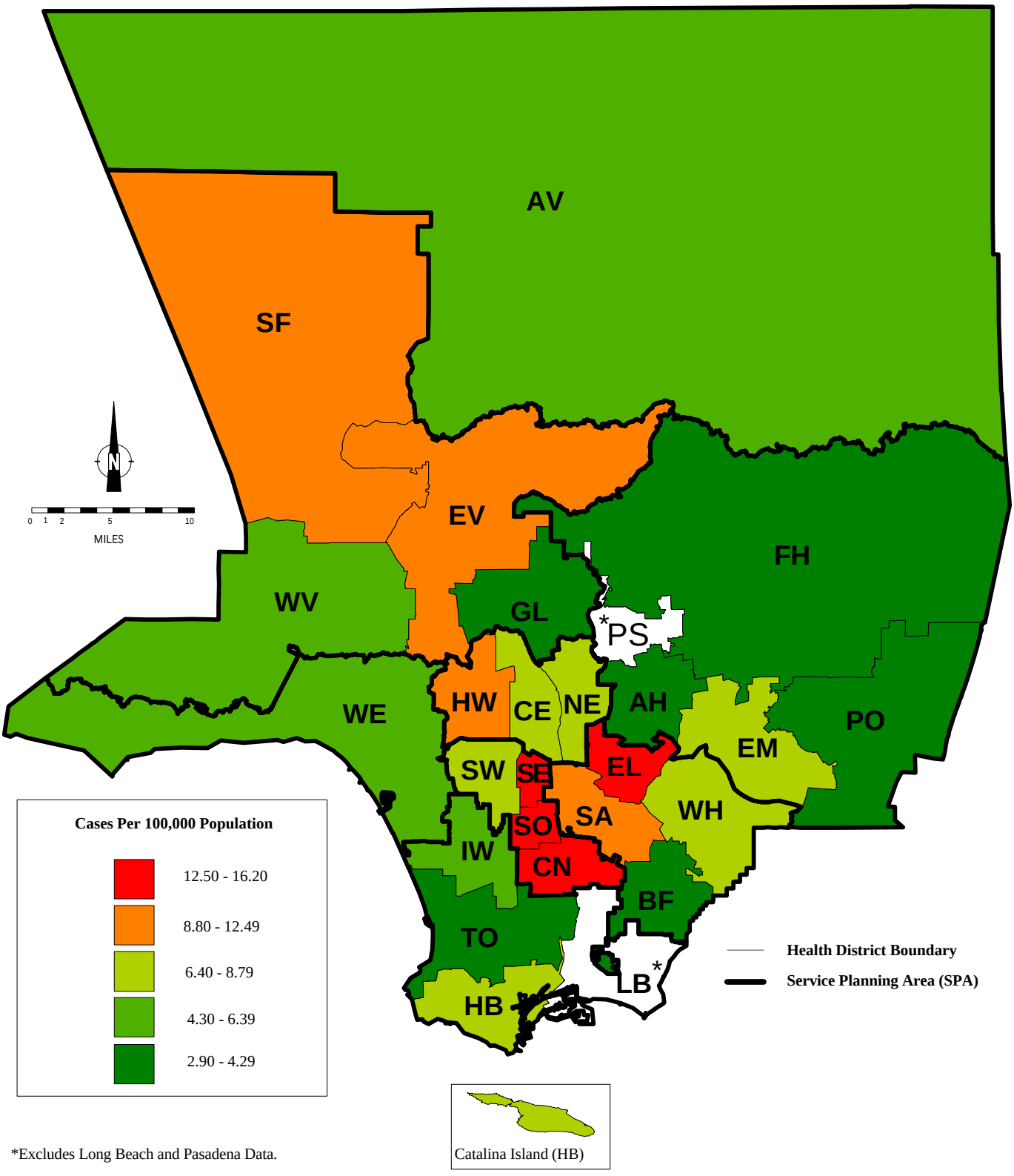


daycare center, travel within the United States, participation in an outdoor activity (e.g., hiking, camping, swimming), and drinking untreated water.

This year, 37% percent of the *S. flexneri* and 24% of the *S. sonnei* cases in males with known sexual preference ≥15 years of age admitted to being men who have sex with men (MSM). Certain sexual practices of this group may have been a potential source of infection. The practices most likely to be a mode of transmission are oral-anal and oral-genital sex where fecal transmission is likely. It was not possible to ascertain whether there has been a recent increase in high-risk behavior among MSM.

Transmission Risks: Individuals in sensitive occupations (e.g., foodhandling, healthcare workers) or sensitive situations (e.g., daycare) may pose a transmission risk to the community. Cases and symptomatic contacts in sensitive occupations or situations are routinely removed from work or the situation until they are negative on stool specimens tested in the Public Health Laboratory.

MAP 11. Shigellosis
Rates by Health District, Los Angeles County, 1999*



*Excludes Long Beach and Pasadena Data.