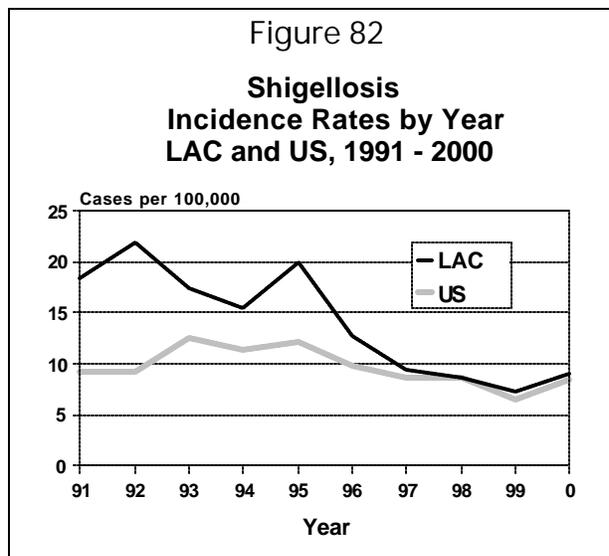


SHIGELLOSIS

CRUDE DATA	
Number of Cases	832
Annual Incidence ^a	
LA County	9
California	8.6 ^b
United States	8.4 ^b
Age at Onset	
Mean	21 years
Median	15 years
Range	< 1 - 96 years
Case Fatality	
LA County	0.1%
United States	N/A

^a Cases per 100,000 population.

^b National Electronic Telecommunications System for Surveillance.

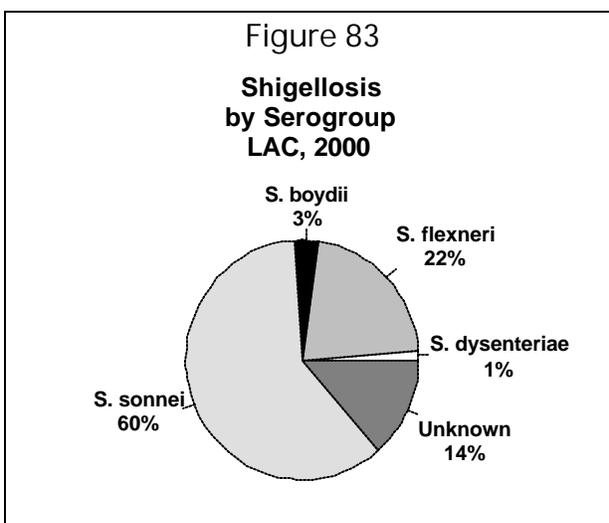


ETIOLOGY

Shigellosis is caused by a gram-negative bacillus with four serogroups: *Shigella dysenteriae* (group A), *S. flexneri* (group B), *S. boydii* (group C) and *S. sonnei* (group D). Infection may occur with ingestion of as few as 10 organisms. Transmission occurs when individuals fail to thoroughly wash their hands after defecation and spread infective particles to others, either directly by physical contact—including some forms of sexual contacts—or indirectly through contaminated food. Common symptoms include diarrhea, fever, nausea, vomiting, and tenesmus. Stool may contain blood or mucus depending on the serogroup. In general, the elderly, the debilitated, and the malnourished are more susceptible to severe disease outcomes. There is no commercial vaccine available.

DISEASE ABSTRACT

- In 2000, *S. sonnei* was the most common serogroup, followed by *S. flexneri*.
- There were 3 shigellosis outbreaks reported in 2000. All were community outbreaks (licensed day care, family picnic, and multi-state outbreak associated with a contaminated commercial product).
- *Shigella spp.* has been hyperendemic in MSM since at least 1998. There was an upsurge of *S. sonnei* among MSM in 2000, coincidental with an outbreak in San Francisco.
- Of cases in 2000, 13% were hospitalized.



- One death was associated with shigellosis, but the cause of death was listed as influenza.

STRATIFIED DATA

Trends: The shigellosis rate in 2000 (9.0 per 100,000) was significantly increased from 1999 (7.2 per 100,000). This rate is still significantly lower than rates seen prior to 1996 (Figure 82). The recent increase can be attributed to the large multi-state outbreak during the month of January and high rates among MSM.

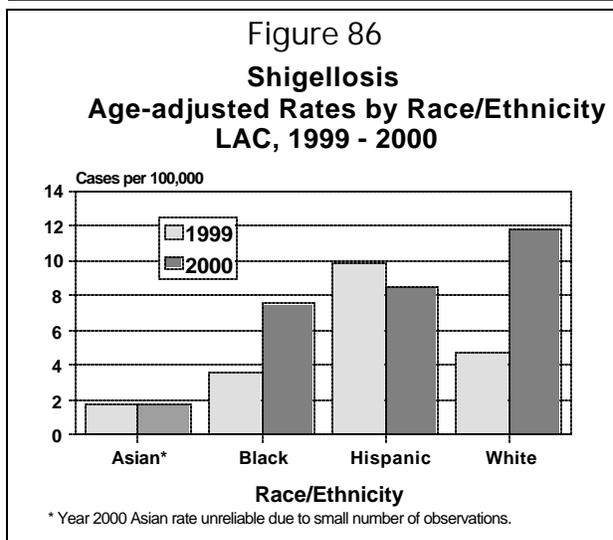
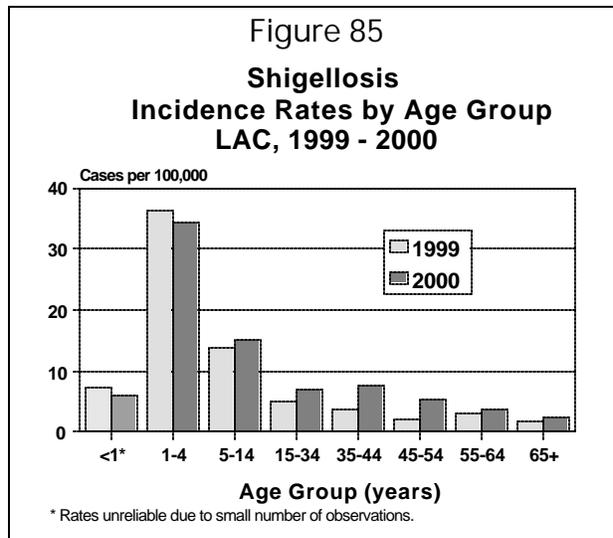
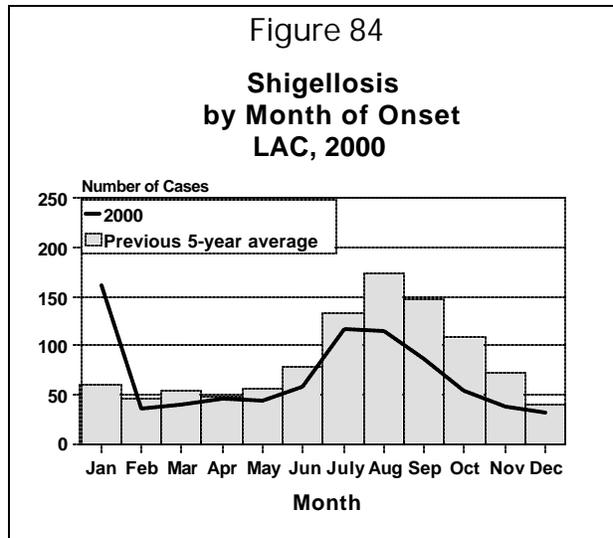
Seasonality: The typical seasonal increase in shigellosis that occurs during the summer and early fall was again evident in 2000 (Figure 84).

Age: The highest rate of shigellosis in any age group, 34 per 100,000, was seen among children aged 1-4 years (Figure 85). Rates did not differ significantly from 1999-2000 for any age group, except for an increase among persons aged 35-44 years and 45-54 years. The rate for persons aged 35-44 years increased from 3.6 per 100,000 in 1999 to 7.7 per 100,000 in 2000. The rate for persons aged 45-54 years increased from 2.1 per 100,000 in 1999 to 5.4 per 100,000 in 2000.

Sex: The male-to-female rate ratio for all shigellosis was 1:1.2. The male-to-female ratio for *S. sonnei* changed from 0.9:1 in 1999 to 1.3:1 in 2000. For *S. flexneri*, no such change was seen (1.7:1 in 2000, 2:1 in 1999).

Race/Ethnicity: In 2000, the incidence of shigellosis was highest among Whites (12 cases per 100,000 population), which significantly increased from the 1999 rate of 5 per 100,000. In contrast, Hispanic cases, with the highest rate in 1999, declined to 8.5 per 100,000 (Figure 86). Blacks also experienced a significant increase from 3.6 per 100,000 in 1999 to 7.5 in 2000.

Location: SPAs 2, 4 and 6 had the highest rates. SPA 4 rates were significantly higher and



SPA 3 rates were significantly lower than the county average. Hollywood-Wilshire, San Fernando and Southeast Health District rates also were significantly higher than the county average.

COMMENTS

Exposure during international travel and exposure to an ill individual in the household were the most commonly reported potential sources for acquiring Shigella. Other potential exposures include contact with an ill individual outside the household, contact with a daycare center, travel within the United States, participation in an outdoor activity (e.g., hiking, camping, swimming), and drinking untreated water. Indirect exposure due to consumption of food contaminated by an ill individual is another potential source—for example, the large number of cases in January was primarily due to a large, multi-state outbreak involving a contaminated commercial food product.

The increase in rate for the Hollywood-Wilshire Health District is most likely due to increases in MSM, as are increases seen in adult men aged 35-54 years. Certain sexual practices (such as those in which there is direct contact with fecal material) are a potential source of infection, especially among MSM. The rate for shigellosis among males aged 15 and older, who admitted to having sex with men increased from 12 per 100,000 in 1999 to 35 per 100,000 in 2000. A brochure targeting MSM will be developed by LAC-DHS in response to their increased risk.

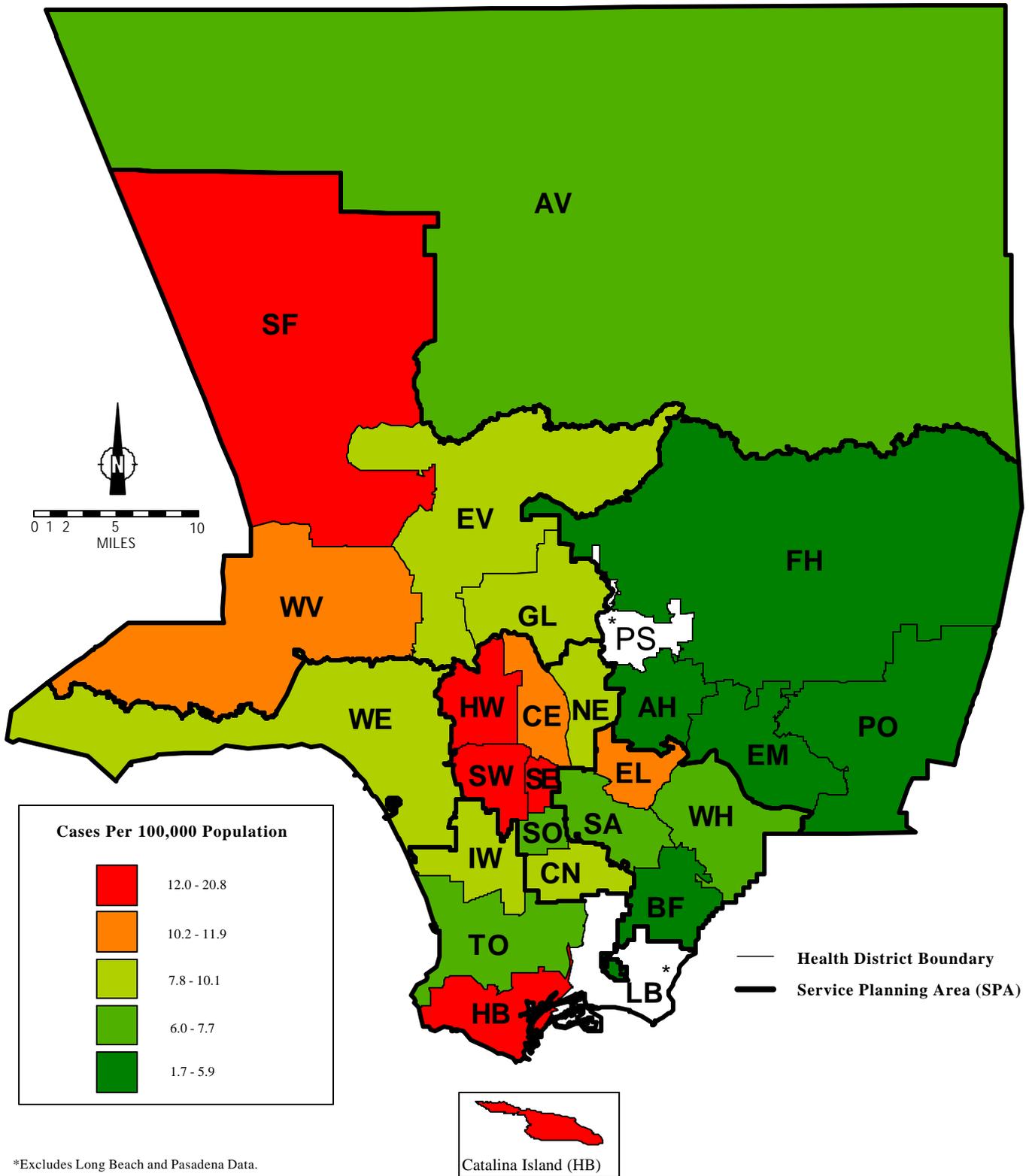
Other individuals at increased risk include those in sensitive occupations (foodhandlers and healthcare workers) or sensitive situations (e.g., daycare). They may pose a transmission risk to the community. Cases and symptomatic contacts in sensitive occupations or situations are routinely removed from work or the sensitive situation until testing by the Public Health Laboratory shows they are no longer shedding the bacterium in their stool.

ADDITIONAL RESOURCES

http://www.cdc.gov/ncidod/dbmd/diseaseinfo/shigellosis_g.htm

<http://lapublichealth.org/acd/procs/b73/b73index.htm>

MAP 12. Shigellosis Rates by Health District, Los Angeles County, 2000*



*Excludes Long Beach and Pasadena Data.