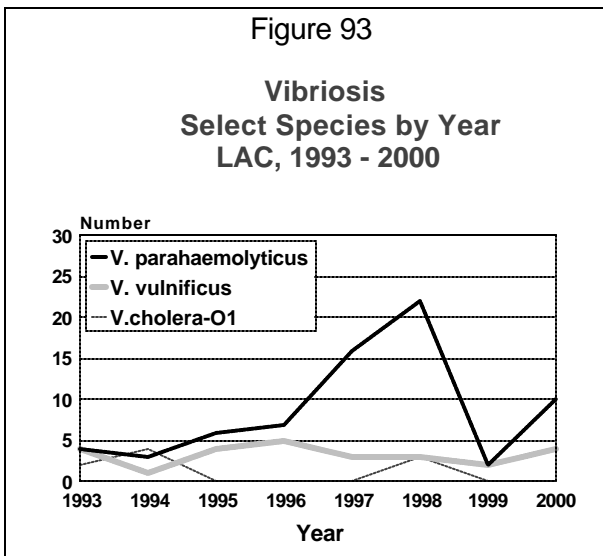


VIBRIOSIS

| CRUDE DATA | |
|-------------------------------|--------------------------|
| Number of Cases | 18 |
| Annual Incidence ^a | |
| LA County | 0.19 |
| California | N/A |
| United States | N/A |
| Age at Onset | |
| Mean | 41 years |
| Median | 42 years |
| Range | 29 - 55 years |
| Case Fatalities | |
| LA County | 11% (n = 2) ^b |
| United States | N/A |

^a Cases per 100,000 population.

^b Both deaths were due to *V. vulnificus*.



ETIOLOGY

The genus *Vibrio* consists of gram-negative, curved, motile rods, and contains about a dozen species known to cause illness in man. Transmission is most often through ingestion of food or water contaminated with the organism, but also from contaminated seawater coming in contact with a break in the skin. Presenting symptoms vary by infecting species and mode of transmission. *Vibrio vulnificus* present as a primary septicemia while *V. cholerae* and *V. parahaemolyticus* presents as a gastrointestinal illness. Cholera vaccine was once available in the US, but had not been recommended, due to limited protectiveness and potential for side effects. It is no longer available in the US. The vibrio species of greatest public health importance are *V. cholerae*-O1, *V. vulnificus*, and *V. parahaemolyticus*.

DISEASE ABSTRACT

- *Vibrio* species reported in LAC in 2000 included *V. vulnificus* with 4 reports and *V. parahaemolyticus* with 10.
- All 4 *V. vulnificus* cases were associated with oyster consumption; 2 died, for a 50% case-fatality rate.
- Four cases with infections by other vibrio species included 1 case of *V. alginolyticus* and 3 of *V. fluvialis*.
- No cases of *V. cholerae*-O1 or *V. cholerae* non-O1 were reported.

STRATIFIED DATA

Trends: In 2000, there were 18 cases. In the last eight years, *Vibrio* infection incidence peaked in 1998 with 36 reports, due mainly to an increase of *V. parahaemolyticus*.

Seasonality: Eighty-three percent (15/18) of cases occurred in May and September, which is consistent with the historical increase in cases seen during the warmer summer months.

Age, Sex, Race/Ethnicity: Vibrioses occurred predominately among Hispanic adult males (Table 8).

Location: SPA 2 had the most cases with 6, followed by SPA 3 with 4, SPA 6 with 2, and SPAs 4 and 7 with 2 cases each.

COMMENTS

In LAC, risk from vibrioses can be prevented or reduced by avoiding seawater contamination of food (especially raw fish and shellfish) or drink. Infection with *V. vulnificus* is a particular risk for persons with pre-existing liver disease, frequently leading to sepsis, soft tissue invasion, limb amputation, and a high case fatality. Adult males may be more at risk for Vibrio infections because of their tendency to engage in behaviors exposing them to seawater contamination or higher levels of raw or partially cooked seafood consumption, especially oysters.

Table 8. Vibrio Cases, by Species, Race, Age, and Sex, LAC, 2000

| Species | Race/ Ethnicity | Mean Age (Range) | Sex Ratio (M:F) |
|-------------------------------------|-------------------------------------------|-------------------------|------------------------|
| <i>V. parahaemolyticus</i> (n = 10) | 6 Hispanic, 2 Asian 1 White, 1 unknown | 40 years (29 - 52) | 4:1 |
| <i>V. vulnificus</i> (n = 4) | 4 Hispanic | 45 years (31- 55) | 4:0 |
| Vibrioses, other * (n = 4) | 3 Hispanic, 1 unknown | 40 years (30 - 53) | 3:1 |

* Other species = *V. alginolyticus* (1) and *V. fluvialis* (3).

ADDITIONAL RESOURCES

CDC websites:

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

CDC vibrio cholera

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

CDC *Vibrio parahaemolyticus*

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

Acute Communicable Disease Control website:

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