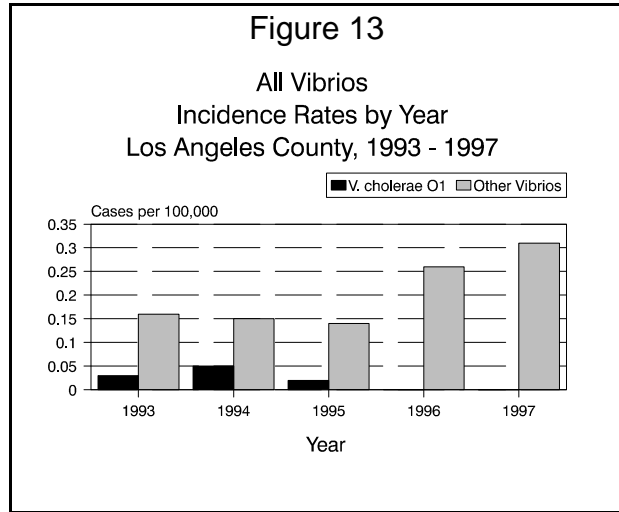


CHOLERA AND OTHER VIBRIOSES

CRUDE DATA	
Number of Cases	28
Annual Incidence ^a	
LA County	0.31
California	N/A
United States	N/A
Case Fatality	
LA County	3.6%
United States	N/A

^aCases per 100,000 population.



ETIOLOGY

The genus *Vibrio* consists of gram-negative, curved, motile rods, and contains about a dozen species known to cause illness in man. The most common *Vibrio* species in Los Angeles County (LAC) in 1997 were *V. parahaemolyticus*, *V. fluvialis*, and *V. vulnificus*.

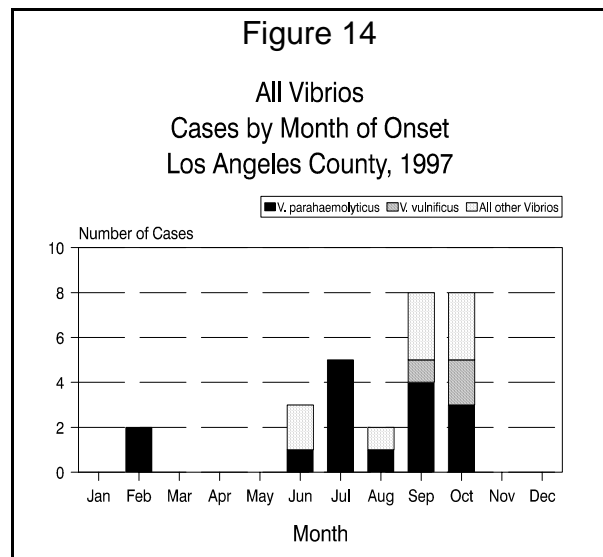
DISEASE ABSTRACT

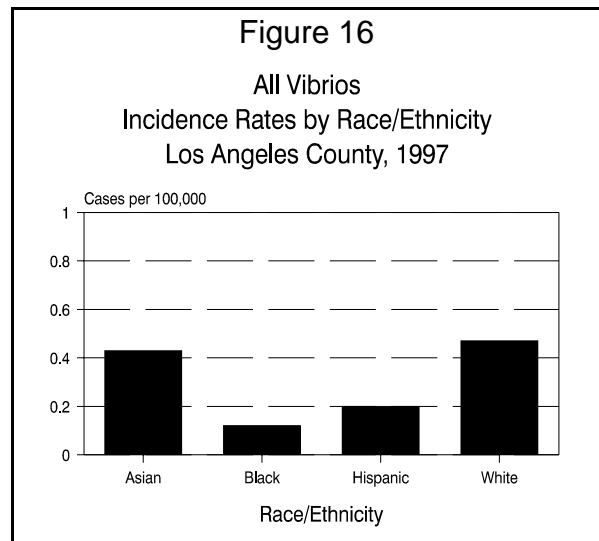
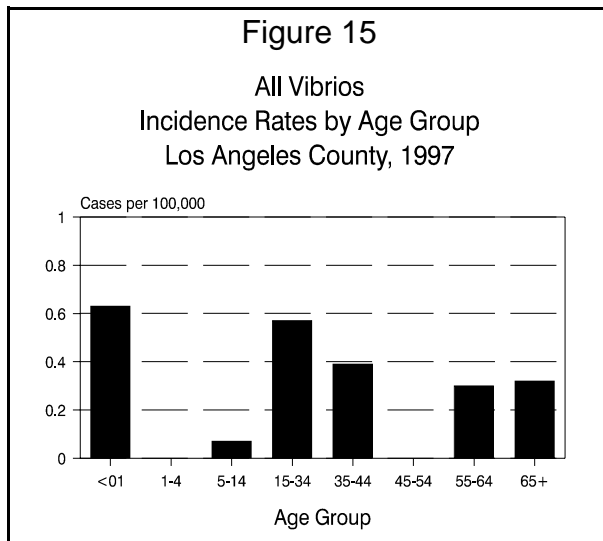
There were no cases of cholera in LAC in 1996 and 1997. The number of reported *V. parahaemolyticus* cases increased significantly in 1997, equaling the total number of cases reported in the previous three years, and more than doubling that reported in 1996 (Figure 13). As is usual, the majority of cases were male.

STRATIFIED DATA

Seasonality: The majority of cases occurred in the summer and fall months (Figure 14). The El Nino weather phenomenon, which occurred in the latter part of the year and increased water temperatures in the Pacific Ocean, may have played a role in the increased number of *V. parahaemolyticus* cases.

Age: Only two (7%) of 28 cases were under 15 years of age, in contrast to other bacterial





causes of gastroenteritis. The majority (54%) of cases were in the 15- to 34-year-old age group. Incidence rates are shown in Figure 15.

Sex: Nineteen (68%) of the cases were male. Males may be more at risk for infection because of their tendency to engage in behaviors such as drinking alcohol and eating raw seafood.

Race/Ethnicity: Fourteen (50%) of the cases were White, eight (29%) were Hispanic, five (18%) were Asian, and one was Black. Incidence rates are shown in Figure 16.

Table 1. Vibrio Cases by Species and Demographic Characteristics, Los Angeles County, 1997

Species	Number Reported	Average Age (Range)	Seasonal Clustering	Notable Risk Factors
<i>V. parahaemolyticus</i>	16	34 (15-71)	Summer, Fall	Seafood (10), Ocean water (2)
<i>V. fluvialis</i>	4	35 (0-82)	Summer, Fall	Fish (1)
<i>V. vulnificus</i>	3	44 (22-67)	Fall	Seafood (3), Ocean water (1)
<i>V. alginolyticus</i>	2	18 (10-25)	Fall	Ocean water (2)
<i>V. cholera non-O1</i>	1	58	Summer	Seafood
<i>V. furnissii</i>	1	33	Summer	Seafood
<i>V. hollisae</i>	1	35	Fall	Unknown

PREVENTION

Risk from vibrioses can be prevented or reduced by avoiding seawater contamination of food (especially raw fish and shellfish) or drink. *V. vulnificus* is a particular risk for persons with pre-existing liver disease, frequently leading to soft tissue invasion, limb amputation, and death.

COMMENTS

In August 1997, the California Department of Health Services issued a warning about eating raw oysters, mussels, and clams harvested off the coasts of British Columbia and Washington State due to the risk of infection with *V. parahaemolyticus*. This came after a temporary closing of all oyster harvesting in British Columbia and a temporary ban on the sale of raw and undercooked shellfish in all restaurants in the Vancouver and Richmond municipalities. Over 100 cases of vibrioses were identified in British Columbia alone.

Only one LAC case of *V. parahaemolyticus* was found to be associated with shellfish harvested from the affected areas. The case, a 71-year-old male, had taken a cruise to Alaska, and had eaten raw oysters served on the ship. The oysters were purchased in British Columbia three days before the ban went into effect.

The increase in *V. parahaemolyticus* cases in LAC in 1997 apparently was not associated with shellfish from British Columbia and Washington. However, warm summer temperatures and the recurrence of El Nino in the Pacific may have caused increased numbers of *V. parahaemolyticus*, which is a natural resident of marine waters, and thus facilitated the increases seen in both locations.