



VIBRIOSIS

CRUDE DATA	
Number of Cases	14
Annual Incidence ^a	
LA County	0.15
United States	N/A
Age at Diagnosis	
Mean	42
Median	39.5
Range	12–85 years
Case Fatality	
LA County	0%
United States	varies by species

^a Cases per 100,000 population.

DESCRIPTION

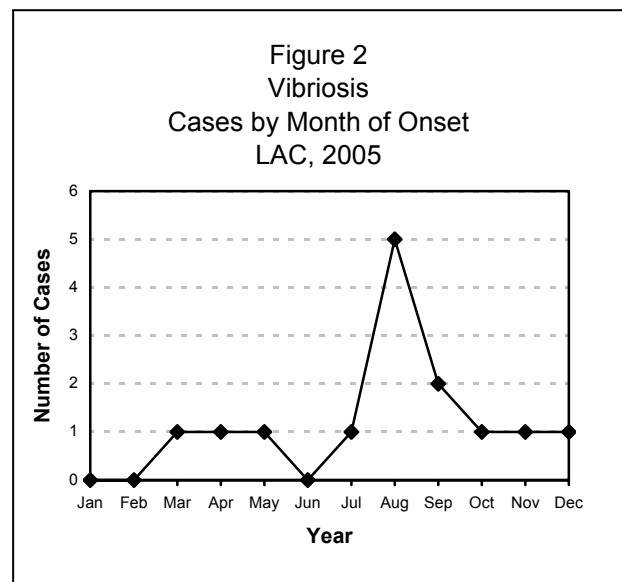
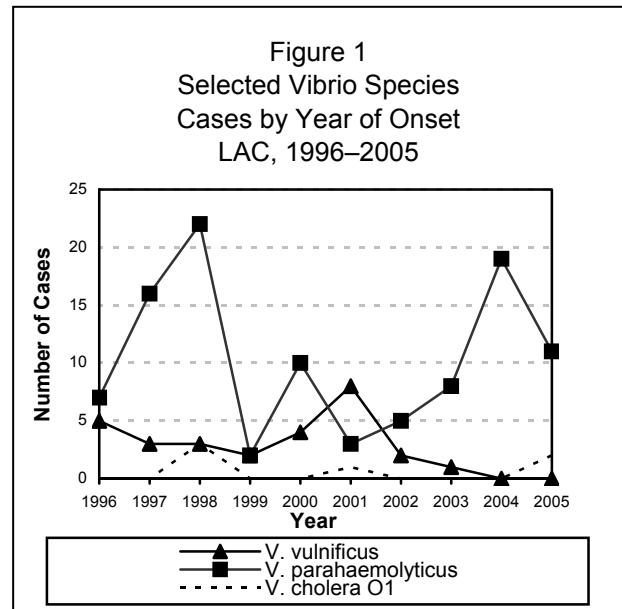
The genus *Vibrio* consists of Gram-negative, curved, motile rods, and contains about a dozen species known to cause human illness. Transmission is most often through ingestion via a foodborne route, but also from contact between broken skin and contaminated water. Presenting symptoms vary by species and mode of transmission. The *Vibrio* species of greatest public health importance in the US are: *V. vulnificus* which causes a primary septicemia and is often associated with oysters harvested in the Gulf of Mexico, and *V. parahaemolyticus*, which presents as gastrointestinal illness. Cholera, a potentially fatal diarrheal disease caused by *V. cholerae* serotypes O1 and O139, is rarely imported into the US.

DISEASE ABSTRACT

- Fourteen cases of vibriosis were reported in 2005, a decrease from N=26 cases reported in 2004.
- No fatal cases of vibriosis were reported in 2005.
- No cases of *V. vulnificus* or toxigenic *V. cholerae* O1/O139 were reported in 2005.

STRATIFIED DATA

Trends: Over the last 10 years, case reports of *Vibrio* infections peaked in 1998 with 36 cases (7 cases were part of an outbreak). Reported cases of *V. vulnificus* held steady at zero in 2004, a substantial decline compared to the 10-year peak of eight cases occurring during in 2001 (Figure 1). *V. cholerae* non-





O1/non-O139 cases increased from zero in 2004 to two cases in 2005 after a peak of 3 cases in 1998 and 1 in 2001.

Seasonality: Among reported vibriosis cases with distinct onset dates, the majority (77%, n=14) occurred between June and October (Figure 2). *Vibrio* infections typically increase during the warmer summer months.

Age: *Vibrio* cases were all adults except for two juveniles ages 12 and 17. The average age of cases was 42 years (Table 1).

Sex: Over half of the cases were female (57%, n=8, Table 1).

Race/Ethnicity: Reported cases were most often Latino (52% n=12, Table 1), similar to last year.

Severity: For vibriosis cases with distinct onset and resolution dates (n=12), duration of illness averaged 4.5 days (range 2-8). Four cases required hospitalization.

Table 1. *Vibrio* Cases by Species, Race, Age and Sex—LAC, 2005

Species	No. of cases	Race (no. of cases)	Mean Age, years (range)	Sex Ratio M:F
<i>V. parahaemolyticus</i>	11	Asian (1), Latino (5), White (4), Black (1)	49 (24-79)	2.8:1
<i>V. cholerae</i> non-O1/O139	2	Latino (2)	31.5 (12-51)	0:2
<i>V. alginolyticus</i>	1	White (1)	42 (26-44)	1:0

Species-specific Risk Factors:

- *Vibrio parahaemolyticus*

Eleven cases of *V. parahaemolyticus* were reported during 2005. All eleven were identified through stool culture. Seven reported eating seafood recently, with three specifying raw oysters.

- *Vibrio cholerae* non-O1/O139

Two cases of non-toxicogenic *V. cholerae* gastroenteritis were reported in 2005. Both were related to travel to Mexico.

- *Vibrio alginolyticus*

The only *V. alginolyticus* infection was a wound infection. The patient had been exposed to seawater.

COMMENTS

In LAC, risk of *Vibrio* infection can be prevented or reduced by avoiding eating raw fish and shellfish. For the first time in ten years, there were no cases of *V. vulnificus* infection. This decrease is most likely due to a state-mandated oyster ban that took effect in 2003 banning Gulf Coast Oysters harvested between April 1st and October 31st. Oysters from Gulf Coast waters during warm months pose a higher risk for *V. vulnificus* contamination. Adult males may be more at risk for *Vibrio* infections because of their tendency to engage in behaviors exposing them to seawater or to eat raw or partially cooked seafood, especially oysters.

ADDITIONAL RESOURCES

Mouzin E, Mascola L, Tormey M, Dassey DE. Prevention of *Vibrio vulnificus* infections. Assessment of regulatory educational strategies. JAMA 1997; 278(7):576–578. Abstract available at: www.jama.ama-assn.org/cgi/content/abstract/278/7/576



Disease information regarding *Vibrio vulnificus* is available from the CDC at:
www.cdc.gov/ncidod/dbmd/diseaseinfo/vibriovulnificus_g.htm

Disease information regarding *Vibrio parahaemolyticus* is available from the CDC at:
www.cdc.gov/ncidod/dbmd/diseaseinfo/vibrioparahaemolyticus_g.htm

.