



## VIBRIOSIS

CRUDE DATA	
Number of Cases	14
Annual Incidence <sup>a</sup>	
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

<sup>a</sup> Cases per 100,000 population.

### DESCRIPTION

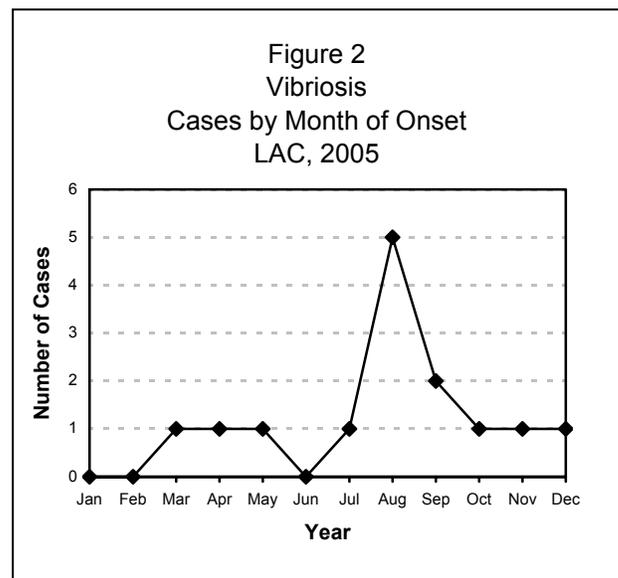
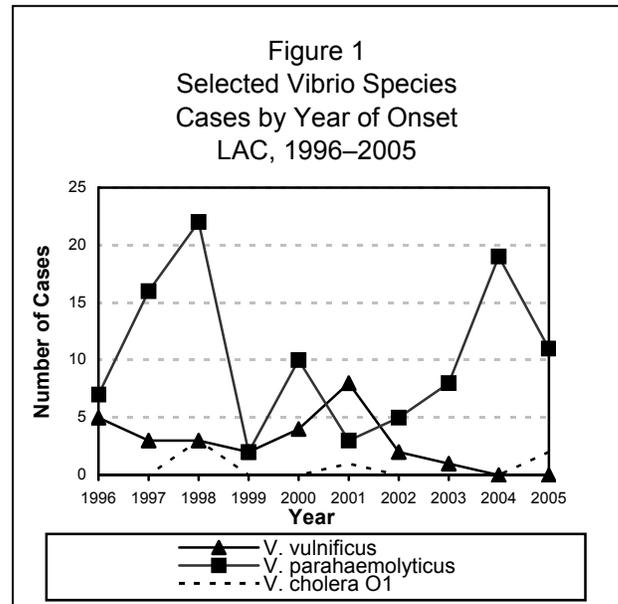
The genus *Vibrio* consists of Gram-negative, curved, motile rods, and contains about a dozen species known to cause human illness. Transmission is most often through ingestion via a foodborne route, but also from contact between broken skin and contaminated water. Presenting symptoms vary by species 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-toxigenic *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 1<sup>st</sup> and October 31<sup>st</sup>. 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](http://www.jama.ama-assn.org/cgi/content/abstract/278/7/576)



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Disease information regarding *Vibrio vulnificus* is available from the CDC at:  
[www.cdc.gov/ncidod/dbmd/diseaseinfo/vibriovulnificus\\_g.htm](http://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](http://www.cdc.gov/ncidod/dbmd/diseaseinfo/vibrioparahaemolyticus_g.htm)

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