



Morbidity and Mortality Weekly Report (MMWR)

Notes from the Field: *Vibrio mimicus* Infection from Consuming Crayfish --- Spokane, Washington, June 2010

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On June 24, 2010, the Spokane (Washington) Regional Health District (SRHD) was notified of two hospitalized patients under intensive care with severe dehydration whose stool specimens yielded *Vibrio mimicus*. CDC was asked to assist with the environmental and epidemiologic investigation. Investigators learned that both persons had consumed crayfish on June 20, 2010. The previous day, live crayfish obtained from an online seafood company had been boiled and served warm at a party. The chef reported that the boiled crayfish were served out of a cooler that had contained live crayfish, and the cooler had not been cleaned before being used to serve the cooked crayfish. After the party, the remaining crayfish were refrigerated overnight in different containers and served cold as leftovers the following evening on June 20.

Questionnaires were administered to 21 (95%) of 22 persons who had attended either the party on June 19 or the meal of leftovers on June 20. A case was defined as an illness in any person who had attended the party or the meal and experienced acute, watery diarrhea during June 19--25. Four cases were identified. Consuming leftover crayfish was associated with illness. Of eight persons who consumed leftover crayfish, four (50%) became ill compared with zero of the 13 persons who did not consume leftover crayfish (relative risk = 14; Fisher's exact test p value = 0.007). No other food items or environmental exposures were associated with illness. *V. mimicus* was isolated from cultures of stool specimens, and genes encoding cholera toxin were identified by polymerase chain reaction (PCR) in all three ill persons who submitted specimens. Two persons were hospitalized in an intensive-care unit with severe dehydration, metabolic acidosis, and acute renal failure. The two patients received intravenous fluid rehydration, bicarbonate infusions, and antibiotics; they recovered fully. The other two persons had mild, self-limited diarrheal illness. Frozen leftover crayfish samples submitted to the Food and Drug Administration (FDA) on July 21 for testing did not yield *V. mimicus* by culture, nor were cholera toxin genes detected using PCR.

V. mimicus has been recognized as a cause of gastroenteritis transmitted by raw oysters, fish, turtle eggs, prawns, squid, and crayfish (1). *V. mimicus*, when carrying genes that encode cholera toxin, can cause severe watery diarrhea. Consumers and physicians should be aware that improperly handled marine and aquatic animal products can be a source of *V. mimicus* infections. Consumers should avoid cross-contamination of cooked seafood and other foods with raw seafood and juices from raw seafood and should follow FDA recommendations for selecting seafood and preparing it safely (3).

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