

***Campylobacter jejuni* Infections Associated with an Event at a Restaurant**

November

Hennepin County

On November 17, 2017, a campylobacteriosis case who reported attending an event on November 5 at a restaurant was identified through routine surveillance at the Minnesota Department of Health (MDH). On November 20, a second campylobacteriosis case also reported attending the same event prior to illness onset. The Minneapolis Health Department (MHD) Environmental Health Unit and Hennepin County Human Services and Public Health Department Epidemiology Unit were notified, and an investigation was initiated.

All *Campylobacter* cases reported to MDH are interviewed about exposures and food consumption as part of routine foodborne disease surveillance in Minnesota. Epidemiologists reviewed the information gathered during the interviews of *Campylobacter* spp. cases to identify other potential cases associated with eating at the restaurant, or other raw oyster exposures. MDH interviewed additional attendees of the event that were identified through ticket purchase records.

Cases were defined as persons who had *C. jejuni* isolated from stool cultures or who had diarrhea (≥ 3 loose stools in a 24-hour period) of at least 3 days in duration, or diarrhea and fever after attending the event.

MHD sanitarians visited the restaurant on November 21 to inquire about employee illness and additional patron complaints, assess oyster handling, collect tags for oysters served at the event, and gather additional information on the event including food served and contact information for attendees.

A total of 69 (43%) of approximately 159 ticket holders were interviewed; 15 (22%) met the case definition, including the two laboratory-confirmed cases identified through routine surveillance. An additional seven attendees reported mild illness and were excluded from further analyses. All 15 cases reported diarrhea, 10 (67%) abdominal cramps, 8 (53%) fever, 3 (20%) vomiting, and 2 (13%) bloody stools. The median incubation period was 3 days (range, 1 to 5 days). The median duration of illness was 5 days (range, 2 to 14 days) for the 12 cases who had recovered by the time of interview. Three cases sought medical attention, including one at an emergency department. No cases were hospitalized or died. The two laboratory-confirmed cases were indistinguishable by pulsed-field gel electrophoresis.

Thirteen types of raw oysters from the east (n=8) and west (n=5) coasts were served at the event. Additional foods at the event included shrimp cocktail, shrimp ceviche, lobster roll, BBQ pork sliders, salmon cake sliders, crab cake sliders, fried walleye tacos, smoked gouda bacon shells & cheese, lobster claws, tuna poke, crispy buffalo shrimp, cornmeal fried oysters, oysters Rockefeller, meat and cheese platter, and desserts. All cases and controls consumed raw oysters. In the univariate analysis, no food was associated with illness. The only foods that were consumed more frequently by cases than controls and were consumed by more than half of cases were the walleye tacos (9 of 14 cases vs. 19 of 45 controls; odds ratio [OR], 2.7; 95% confidence interval [CI], 0.8 to 9.4; $p = 0.13$), lobster roll (9 of 13 cases vs. 28 of 45 controls, OR, 1.4; 95% CI, 0.4 to 5.1; $p = 0.75$), and shrimp cocktail (13 of 14 cases vs. 40 of 46 controls; OR, 2.0; 95% CI, 0.2 to 17.7; $p = 1.0$).

For the event, east coast oysters provided by Supplier A were stored on a refrigerated truck outside the restaurant. These oysters were pre-washed and stored in cold packs in the Supplier A. West coast oysters were received from Supplier B and stored in the walk-in cooler and handled per the restaurant's usual practice. Oysters have designated blue containers for oysters only and are rinsed in a prep sink that is washed, rinsed and sanitized between uses. They are stored in the back section of a walk-in cooler with other meats and seafood, but are separate from raw beef and chicken. No potential for cross-contamination or issues with handling during the assessment or recent routine inspection were noted. All other foods at the event with the exception of the meat & cheese platter and desserts (provided by Supplier A) were prepared by the restaurant.

Six oyster shucking stations were located throughout dining room that were staffed by kitchen employees as well as front-of-house staff. Two hand wash sinks were located at the bar and one by the entrance of main kitchen. Condiments such as cocktail sauce and horseradish were placed out for customer self-service in the center of the dining room. No employee illness or additional patron complaints were reported. The sanitarians noted that this was a high volume event with oysters coming from multiple locations in the facility, food handling by employees that do not typically handle food, and some barriers to handwashing.

This was a foodborne outbreak of *Campylobacter jejuni* infections associated with an event at a restaurant. Raw oysters have previously been identified as the vehicle of transmission in *Campylobacter* outbreaks in other states. Oysters were the most plausible vehicle of transmission since

all other foods were determined to be unlikely sources. However, this could not be shown definitively. Because patrons did not know specific sources or types of oysters, differences in oyster consumption by type for cases versus controls could not be assessed.