Norovirus Gastroenteritis Associated with a Holiday Party at a Restaurant

December Hennepin County

On December 15, 2011, the Minnesota Department of Health (MDH) foodborne illness hotline received a complaint of gastrointestinal illness from the director of a clinic that held their holiday party at a restaurant in Bloomington on December 12. The City of Bloomington Environmental Health (CBEH) Program was contacted and an investigation was initiated immediately.

CBEH sanitarians visited the restaurant on December 15 to evaluate food preparation and handling procedures, interview food workers, and collect credit card receipts for additional patrons from December 11 to 13. The clinic provided a list of holiday party attendees. CBEH staff interviewed holiday party attendees and other restaurant patrons about food consumption and illness history. A case was defined as a holiday party attendee or other restaurant patron who developed vomiting or diarrhea (≥3 loose stools in a 24-hour period) after eating at the restaurant. Stool samples collected from consenting holiday party attendees were submitted to the MDH Public Health Laboratory for bacterial and viral testing.

Thirty-four holiday party attendees were interviewed, and 15 (44%) met the case definition. Five additional holiday party attendees reported illness that did not met the case definition and were excluded from analysis; three of these individuals reported illness onsets prior to the event. The median incubation period for the cases was 31.5 hours (range, 10 to 54.5 hours). The median duration of illness was 24 hours (range, 5 to 68 hours). All 15 cases reported diarrhea, 11 (73%) vomiting, 10 (67%) cramps, 7 (47%) fever, and none bloody stools. A stool specimen submitted by one ill holiday party attendee tested positive for norovirus GII. CBEH staff contacted five additional groups who ate at the restaurant from December 11 to 13 and none reported illness.

No food items were significantly associated with illness. Foods at the holiday party were served buffet style and included a vegetable tray, olive and cheese tray, shrimp cocktail, baked brie, beef pinwheel, pot stickers, meatballs, buffalo chicken dip, Thai tidbits, Caesar salad, garlic toast, cookies, bars, and chocolate-dipped desserts.

CBEH sanitarians interviewed 12 restaurant employees, and none reported recent vomiting or diarrhea. However, two employees reported fever and abdominal pain during the week prior to the event. CBEH sanitarians also received complaints from patrons that the restaurant lacked hot water in their restrooms. The restaurant reported that their hot water heater had been broken and that the restaurant was without hot water on December 12.

This was a foodborne outbreak of norovirus gastroenteritis associated with a holiday party held at a restaurant in Bloomington. No vehicle was identified, and the source of the contamination was not confirmed. However, holiday party attendees with illness onsets prior to the event were identified which coupled with the lack of adequate handwashing facilities at the restaurant and buffet-style food service at the event suggests that an ill event attendee may have served as the source of contamination.