

Suspected Norovirus Gastroenteritis Associated with a Restaurant

December

Hennepin County

On December 26, 2017, the Minnesota Department of Health (MDH) Foodborne Diseases Unit contacted Hennepin County Human Services and Public Health (HCPH) Epidemiology after they received a complaint of gastrointestinal illness from a party of four, living in two separate households that ate at a restaurant in the Seward neighborhood in Minneapolis, Minnesota on December 23. The Minneapolis Health Department (MHD) was notified, and an investigation was initiated.

MHD sanitarians visited the restaurant on December 26 to initiate employee illness screening, evaluate food preparation and handling procedures, implement norovirus interventions, interview food workers about illness history and work duties, and gather additional patron contact information from December 23.

HCPH Epidemiology staff and MDH staff interviewed additional restaurant patrons identified from credit card receipts and online orders from December 23. A case was defined as a restaurant patron who subsequently developed vomiting and/or diarrhea (≥ 3 loose stools in a 24-hour period). Stool samples were requested to be submitted to the MDH Public Health Laboratory (PHL).

Seventy patrons were interviewed using information from credit card receipts and online orders from the implicated meal date. The majority of patrons interviewed ordered delivery from the restaurant, which could skew results if an ill server was the source of transmission. Seven patrons (10%) met the case definition. Two additional individuals reported mild illness that did not meet the case definition and were excluded from further analyses. Five cases (71%) were female, with a median age of 34 years (range, 23 to 42 years). All cases reported diarrhea, six (86%) cramps, five (71%) vomiting, five (71%) nausea, and two (29%) fever. The median incubation period was 30 hours (range, 3 to 38.5 hours). The median duration of illness for the five cases who had recovered at time of interview was 32 hours (range, 14 to 76 hours). No cases were hospitalized or died, and none submitted a stool specimen to the MDH Public Health Laboratory (PHL) for testing.

Cases reported eating a variety of foods from the menu, including a garden salad with Caesar dressing, a Greek salad, a vegetarian pizza slice, a pepperoni pizza slice, "The Bear" pizza, "Athena" pizza, buffalo chicken wings with bleu cheese dip, a pesto turkey hoagie, and soda. In the univariate analysis, consumption of the Greek salad (2 of 5 cases vs. 1 of 60 controls; odds ratio [OR], 24.0; 95% confidence interval [CI], 1.8 to 313.0; $p = 0.02$), and consumption of the pesto turkey hoagie (2 of 5 cases vs. 1 of 60 controls; OR, 24; 95% CI, 1.8 to 313; $p = 0.02$) were significantly associated with illness.

MHD sanitarians interviewed 77 of 86 restaurant employees about illness history and job duties. Six employees reported recent gastrointestinal illness, with symptoms including nausea, vomiting or diarrhea. Onset dates for these illnesses ranged from December 7 through December 23. Four of the ill employees reported working while symptomatic, including one server who reported diarrhea prior to their shift on December 23. No employees submitted a stool specimen to the MDH PHL for testing. An employee illness screening log was initiated on December 26 and remained in place until January 2. No further employee illness was reported. The restaurant did not report any further patron illness complaints.

During the environmental assessment, MHD sanitarians did not identify any activities where restaurant employees used bare-hand contact when handling ready-to-eat foods. Employees were observed using gloves or utensils, and utilizing proper handwashing techniques.

This was a foodborne outbreak of gastroenteritis associated with a restaurant in Minneapolis. While an etiology was not confirmed, the incubation periods and symptoms were characteristic of norovirus gastroenteritis. Consumption of the Greek salad and pesto turkey hoagie were significantly associated with illness. One or more ill or recently ill employees was the likely source of the outbreak. There were multiple ill employees at the restaurant, including an employee who worked while ill on December 23.