

Norovirus Gastroenteritis Associated with a Restaurant

October

Hennepin County

On October 24, 2012, the Hennepin County Human Services and Public Health Department (HSPHD) epidemiology unit received a complaint of gastrointestinal illness among a large church group that had eaten catered foods from a restaurant in Maple Grove on October 21. The Minnesota Department of Health (MDH) and HSPHD environmental health unit were notified on October 24, and an investigation was initiated.

A list of names from the church group and additional patrons identified from restaurant catering and take-out orders on October 21 were provided to HSPHD. HSPHD epidemiologists interviewed the patrons about food consumption and illness history. A case was defined as a restaurant patron who developed vomiting and/or diarrhea (≥ 3 loose stools in a 24-hour period) after eating food from the restaurant. Two patrons agreed to submit stool samples to the MDH Public Health Laboratory for bacterial and viral testing.

HSPHD sanitarians visited the restaurant on October 25 to evaluate food preparation and handling procedures and to interview food workers about illness history and work duties.

Forty patrons were interviewed by HSPHD epidemiologists, including 27 patrons from the church group and 13 patrons identified from other catering or take-out orders. Nineteen cases (all from the church group) were identified. The median incubation period for the cases was 27.5 hours (range, 6 to 41.5 hours). Seventeen (89%) cases reported cramps, 14 (74%) vomiting, 11 (58%) diarrhea, 1 (5%) fever, and none bloody stools. The median duration of illness was 24 hours (range, 7 to 48 hours). Stool specimens collected from two cases tested positive for norovirus GII.

Twenty-one controls were interviewed (8 from the church group and 13 from other catering and take-out orders). Cases and controls from the church group all reported eating a wide variety of the foods. Catered foods from the restaurant included chicken, ribs, shredded pork, brisket, beans, coleslaw, cornbread muffins, and French fries. Non-catered food/beverage items included homemade cookies, bars, lemonade, fruit punch, and bottled soda. A large bowl of ice with tongs was provided by the party host, and guests served themselves. Controls identified from other catering and take-out orders on October 21 also reported eating a wide variety of meats and side dishes from the restaurant. No food item was statistically associated with illness.

HSPHD sanitarians visited the restaurant on October 25 and did not note any critical violations. Illness histories and job duty information were obtained from 57 restaurant employees. Five employees reported recent gastrointestinal illness. Two servers reported illness prior to the implicated meal date (onsets on October 14 and 16), and a linecook, host, and server reported illness onset after the implicated meal date (October 22 and 25). The two ill employees with illness onsets on October 25 were excluded from work until 72 hours after the resolution of symptoms.

HSPHD sanitarians provided norovirus education to the restaurant and a reminder that ill employees must be excluded from work for 72 hours following the resolution of gastrointestinal symptoms. They further stressed the importance of proper handling of food and beverages, use of gloves when handling

ready-to-eat foods, good handwashing, and thorough disinfection. The restaurant conducted a full cleaning and disinfection of the facility and agreed to daily screen all employees for gastrointestinal illness before starting their shift.

This was a foodborne outbreak of norovirus gastroenteritis associated with a restaurant in Maple Grove. The vehicle of transmission was not identified; however, the most plausible scenario is that ready-to-eat foods were contaminated by an ill or recently ill food worker.