

***Campylobacter jejuni* Infections Associated with a Private Hobby Farm**

August

Winona County

On August 15, 2012, the Minnesota Department of Health (MDH) foodborne illness hotline received a complaint of diarrhea, cramps, and fever (one reported a temperature of 102.5° F) among two co-workers who had eaten at a restaurant in Rochester, Minnesota on August 7. One also reported bloody stools, and both had ongoing diarrhea at the time of the report. The co-workers claimed they did not have any other common meals in the preceding week. Incubation periods were 15 and 27 hours from the restaurant meal. Both had eaten various pizzas from the restaurant buffet, and one had eaten cherry tomatoes from the salad bar. Olmsted County Public Health Services (OCPHS) was notified, and an investigation was initiated.

When stool samples from the two co-workers subsequently tested positive for *Campylobacter jejuni*, the risk factors for *C. jejuni* infection were explained, and the co-workers were asked again about any common experiences, including visits to a farm, fair, etc. The original complainant recalled working together with his co-worker on the co-worker's Winona County hobby farm on August 5.

OCPHS sanitarians visited the restaurant on August 15 to evaluate food preparation and handling procedures, interview employees (and exclude them from work as necessary based on their symptom history and a possible *Salmonella* etiology), obtain credit card receipts, and procure a complete list of foods served on August 7.

OCPHS staff interviewed restaurant patrons to obtain information on food/beverage consumption and illness history using contact information from credit card receipts.

A case was defined as a person who had contact with the Winona County hobby farm and subsequently had a stool sample test positive for *Campylobacter jejuni*. Stool samples were submitted to the MDH Public Health Laboratory (PHL) for bacterial and viral testing.

The two co-workers from the original complaint were the only cases identified in this outbreak. Both were males aged 30-40 years. Both reported diarrhea of at least 8-day duration, stomach cramps, and fever (temperature of 102.5° F for one). One had bloody stools, and neither had vomiting. Neither case was hospitalized. The incubation period for both cases was 3 days from the August 5 farm work. Stool samples from both cases were positive for nalidixic acid-resistant *Campylobacter jejuni*. The isolates had indistinguishable pulsed-field gel electrophoresis (PFGE) patterns (Minnesota pattern designation CMP31). The samples were negative for *Salmonella*, Shiga toxin-producing *E. coli*, *Shigella*, and norovirus.

Most of the animals on the hobby farm, which included 102 chickens, 16 turkeys, 9 swine, 6 cats, a dog, and a billy goat, were the farm owner's children's 4H animals; therefore, most of the daily animal chores were conducted by the owner's three children. The owner reported that he typically spent about 1 hour per day in contact with the animals' environment, and less than 1 hour per day in direct contact with the animals. He reported that he frequently, but not always, washes his hands with soap and water after working/doing chores and before eating.

On August 5, the two men worked on an outdoor demolition project near the animal barn. They walked through the barn to look at the animals and may have touched fences and other parts of the animals' environment, but denied direct contact with the animals. The farm owner's co-worker reported that he did not wash his hands prior to having a tuna sandwich for lunch that day inside the home. The owner's children helped with the demolition project, but did not become ill.

No sanitation issues were identified at the Rochester restaurant. The restaurant does not use any raw meat products, and the case's incubation periods were not consistent with *C. jejuni* infection acquired at the restaurant.

This was an outbreak of *Campylobacter jejuni* infections associated with working on a private hobby farm that included chickens and turkeys. The outbreak was initially reported to the foodborne illness hotline as a suspected restaurant outbreak, and the co-workers involved later recalled working together on the hobby farm 3 days before their illness onsets. The most likely sources of *C. jejuni* were the chickens and turkeys on the hobby farm, and the route of transmission was via contact with the animals' environment. Lack of handwashing prior to eating after contacting the animals' environment likely contributed to at least one infection.