

***Campylobacter jejuni* Infections Associated with Raw Milk Consumption Among a 5th Grade Class**

May

Hennepin County

On May 23, 2012, the Minnesota Department of Health (MDH) foodborne illness hotline received an illness complaint from a Hennepin County resident who reported that her child and six or seven other students became ill after drinking raw milk during a 5th grade field trip to Wisconsin. During May 9-11, 2012, approximately 60 students from a Hennepin County grade school, their teachers, and adult chaperones participated in an annual 5th grade capstone experience at a farm school near Glenwood City, Wisconsin. On May 24, MDH notified the Hennepin County Public Health Department (HCPHD) epidemiology unit and Wisconsin Division of Public Health (WDPH), and an investigation was initiated.

The complainant reported that a 5th grade teacher had purchased raw milk and distributed it to students in the class. This teacher was contacted and interviewed about the raw milk sale and his illness history. On May 10, the students and their chaperones took a trip to a nearby dairy farm and petting zoo in Dunn County. Before returning to the farm school campus, the teacher purchased a gallon of raw milk and shared it with the teachers and the students in his class. He later brought the remaining milk home and served it to his 6-year-old son, who became ill 9 days later. On May 11, another teacher returned to the same farm to purchase another gallon before returning home to Minnesota.

A list of adult chaperones, teachers, and students present on the trip was obtained from the school's principal. It was estimated that 60 students and adults attended the trip; two of the four 5th grade classes in attendance visited the nearby farm during the field trip and had an individual in their party purchase raw milk. Interviews focused on individuals associated with these two classes. The Wisconsin Department of Agriculture, Trade and Consumer Protection (WDATCP) conducted an investigation on the dairy farm and collected bulk tank milk samples for testing. A case was defined as any individual who attended the field trip in Wisconsin or consumed a food item purchased during the field trip, and subsequently developed diarrhea (≥ 3 loose stools in a 24-hour period). All cases were asked if they were willing to submit a stool sample to the MDH Public Health Laboratory for culture.

Illness histories and exposure information were obtained from 21 individuals, and seven (33%) met the case definition. Of the seven cases, all reported diarrhea and cramps, five (71%) reported fever (maximum temperature range, 102-103° F), two (29%) reported vomiting, and two (29%) reported blood in their stool. One case sought medical care for their illness and no cases were hospitalized.

Consuming raw milk was significantly associated with illness (6 of 7 cases vs. 4 of 18 controls; odds ratio, 21.0; 95% confidence interval, 1.9 to 229.4; $p = 0.004$). The median incubation period was 6 days (range, 3 to 10 days).

The index case was confirmed to have *Campylobacter jejuni* via stool culture. Stool kits were sent to the remaining six cases. Only one of the kits was returned for testing. This specimen also was culture-positive for *C. jejuni*. Raw milk samples collected at the farm by the WDATCP also tested positive for *C. jejuni*. Isolates of *C. jejuni* from both cases and the raw milk were indistinguishable by pulsed-field gel electrophoresis (Minnesota subtype designation CMP31).

This was an outbreak of campylobacteriosis associated with consumption of raw milk obtained from a Wisconsin farm. Raw milk is a well-known vehicle for *Campylobacter* in humans.