

Salmonellosis Associated with Raw Meat Consumption of a Custom-Slaughter Cow

August

Cottonwood County

On August 28, 2012, the Minnesota Department of Health (MDH) received a report from a Cottonwood County health care facility that seven individuals of Laotian descent developed a diarrheal illness after participating in a gathering of approximately 80 persons at a temple on August 19, where they consumed a raw meat dish known as laab. On August 28, Cottonwood-Jackson Community Health Services and the Minnesota Department of Agriculture (MDA) were contacted and an investigation was initiated. An interview with a hospital translator revealed that no temple existed in the county; rather, what was reported to have been a common gathering was actually multiple household gatherings involving the same meat source. On August 25, a member of the Laotian community purchased a cow at an auction in Goodhue County, slaughtered the animal, and sold the meat to his neighbors over the next 2 days. Members of the community used the meat to prepare traditional dishes such as laab.

A case was defined as an individual who consumed beef supplied by the aforementioned community member on or after August 25 and subsequently developed diarrhea (≥ 3 loose stools in a 24-hour period) and/or had a positive stool culture for *Salmonella* Enteritidis or another enteric pathogen.

Twenty-four cases were identified; all were identified after presenting to area healthcare facilities. Five (21%) of 24 cases were hospitalized for their illness. All 24 (100%) were culture-confirmed with *Salmonella* and isolates were forwarded to the MDH Public Health Laboratory. Of the 24 cases, 15 (63%) were interviewed by MDH regarding their exposures and illness histories. No well controls were identified during these interviews. Of the 15 interviewed cases, all reported diarrhea, 13 (87%) reported a fever (maximum temperature range, 101 to 104° F), 9 (69%) reported abdominal cramps, 5 (33%) reported vomiting, and 3 (25%) of 12 reported blood in their stool. The median incubation period was 15 hours (range, 10 to 36 hours).

All of the *Salmonella* isolates were *Salmonella* Enteritidis. Two (8%) of 24 reported cases also tested positive for *Campylobacter jejuni*. *Salmonella* Enteritidis pulsed-field gel electrophoresis (PFGE) subtypes in this outbreak were as follows: SE1B1 (n=22), SE192B204 (n=1), and SE139B205 (n=1).

MDA made several attempts to contact the individual responsible for purchasing and slaughtering the cow, and selling the implicated meat, but was unable to reach this individual. A sample of the meat was obtained from one of the cases at presentation to the hospital. The meat was tested in the MDA laboratory and was culture-positive for *Salmonella* Enteritidis SE1B1.

This was an outbreak of salmonellosis and campylobacteriosis associated with consumption and/or handling of undercooked beef. Undercooked beef can be a source of *Salmonella* infection and other enteric pathogens. It is important to cook beef to an internal temperature of at least 160° F before consumption.