

National *Salmonella* Outbreak Associated with Consumption of Fresh Tomatoes and Jalapeno Peppers

Since May of 2008, the Centers for Disease Control and Prevention (CDC), state public health departments, the Indian Health Service and the US Food and Drug Administration (FDA) have been investigating a multi-state outbreak of *Salmonella* serotype Saintpaul associated with the consumption of fresh produce, including certain tomatoes, and jalapeno and serrano peppers imported from Mexico. As of August 7, 2008, 1401 cases have been reported to the CDC from 43 states, the District of Columbia and Canada; two of those cases originated in Vermont. Onset of symptoms occurred between April 10 and July 24, patients ranged from <1-99 years of age, and 50% were female. There have been at least 267 hospitalizations, and two deaths occurred in Texas where infection with the illness may have been a contributing factor.

Epidemiology: A steady rise in numbers of *Salmonella* Saintpaul was identified in May 2008 by PulseNet, the CDC's national laboratory network for foodborne disease surveillance. An initial epidemiologic investigation in New Mexico and Texas comparing foods eaten by ill and well persons identified consumption of raw tomatoes as strongly linked to illness. After a public warning concerning tomatoes was issued by the FDA on June 7, 2008, cases continued to occur, but at a lower rate. Subsequently, several clusters of infection associated with specific restaurants around the country were detected and consumption of items containing raw tomatoes, jalapeno peppers and serrano peppers were found to be associated with illness. These epidemiological studies indicate that more than one food vehicle was involved in the outbreak. While this is a very rare occurrence, there have been outbreaks previously in the US where more than one food source has been implicated. For more information on the outbreak, please see: <http://www.cdc.gov/salmonella/saintpaul/>

PulseNet and PFGE: PulseNet is a national network of public health and food regulatory agency laboratories coordinated by the CDC. Participants perform molecular subtyping (or "fingerprinting") by pulsed-field gel electrophoresis (PFGE) of foodborne disease-causing bacteria, including *E. Coli* O157, *Salmonella*, *Shigella* and *Listeria*. DNA "fingerprints" are submitted electronically to a database at the CDC, allowing for rapid comparison of patterns and early identification of possible outbreaks. The Vermont Department of Health Laboratory is a participant in PulseNet. To learn more about PulseNet, go to: <http://www.cdc.gov/pulsenet/index.htm>

Traceback and food safety: While tomatoes consumed early in the outbreak are still under investigation, tomatoes currently on the market are safe. The outbreak strain of *Salmonella* Saintpaul has been isolated by the FDA twice from jalapeno peppers and once from Serrano peppers grown, harvested, or packed in Mexico. These foods were sampled as a result of traceback investigations related to the restaurant clusters; FDA recall of these peppers from the market is ongoing. The FDA is advising consumers to avoid raw jalapeno and serrano peppers grown, harvested or packed in Mexico. Commercially canned, pickled and cooked peppers are not connected with the outbreak, and peppers grown in the US are safe.

Recommendations: While the outbreak appears to be over, Vermonters who think they may be ill from eating raw jalapeno or serrano peppers should contact their health care provider, and notify the health department at (802)863-7240. Health care providers are asked to continue to be alert for symptoms of *Salmonella* and obtain stool specimens for the organism when indicated.

The *Infectious Disease Bulletin* can be viewed at:

<http://healthvermont.gov/pubs/IDB/index.aspx>

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