

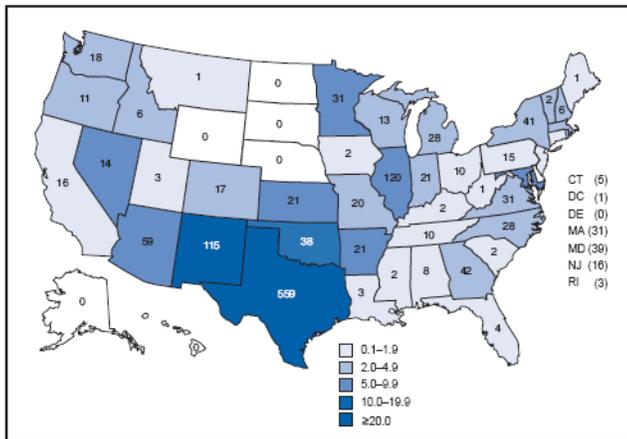
- Salmonellosis Outbreak Summary
- Scombroid Poisoning Associated with a Local Store

Salmonellosis Outbreak Summary

Nationwide

On August 29, 2008, the Centers for Disease Control and Prevention (CDC) and collaborators published a summary of a multistate outbreak of *Salmonella* Saintpaul¹ and announced that this outbreak – which included 1,442 cases in persons from 43 states (Figure 1), the District of Columbia, and Canada, appeared to be over. CDC was initially notified by the New Mexico Department of Health on May 22, 2008 of a cluster of four (4) persons infected with *Salmonella* Saintpaul strains that were indistinguishable from each other by pulse-field gel electrophoresis (PFGE) and 15 other persons with *Salmonella* infection whose isolates had not yet been characterized. About 20% of the cases (286 persons) were hospitalized and the infection may have contributed to two deaths. The outbreak began late in April 2008, and most persons became ill in May or June (Figure 2). Nevada had 14 outbreak-associated cases, nine (9) of whom were residents of Washoe County.

FIGURE 1. Number* and incidence rate† of laboratory-confirmed cases of *Salmonella* Saintpaul (outbreak strain), by state — United States, 2008§



* N = 1,442.
 † Per 1 million population.
 § As of August 25, 2008.

CDC and its collaborators conducted seven (7) different epidemiologic studies between May 26 and July 11 to identify food vehicle(s) for this outbreak. Preliminary epidemiologic and microbiologic results support the conclusion that jalapeño peppers were a major vehicle by which the pathogen was transmitted. In addition, serrano peppers were also a vehicle and tomatoes were a possible vehicle early in the outbreak. Contamination of produce

items may have occurred on the farm or during processing or distribution. The mechanism of contamination has not been determined.

Countywide

Nine (9) outbreak-associated cases were reported in Washoe County. The onset dates ranged from May 26, 2008 to June 30, 2008. Seven (7) were ill in the month of June. Seven (7) of nine (9) were male, and the median age of patients was 21 years (range: 7-30 years). Two (2) patients had histories of travel outside of Nevada (one in Mexico and one in New Mexico) during their incubation periods.



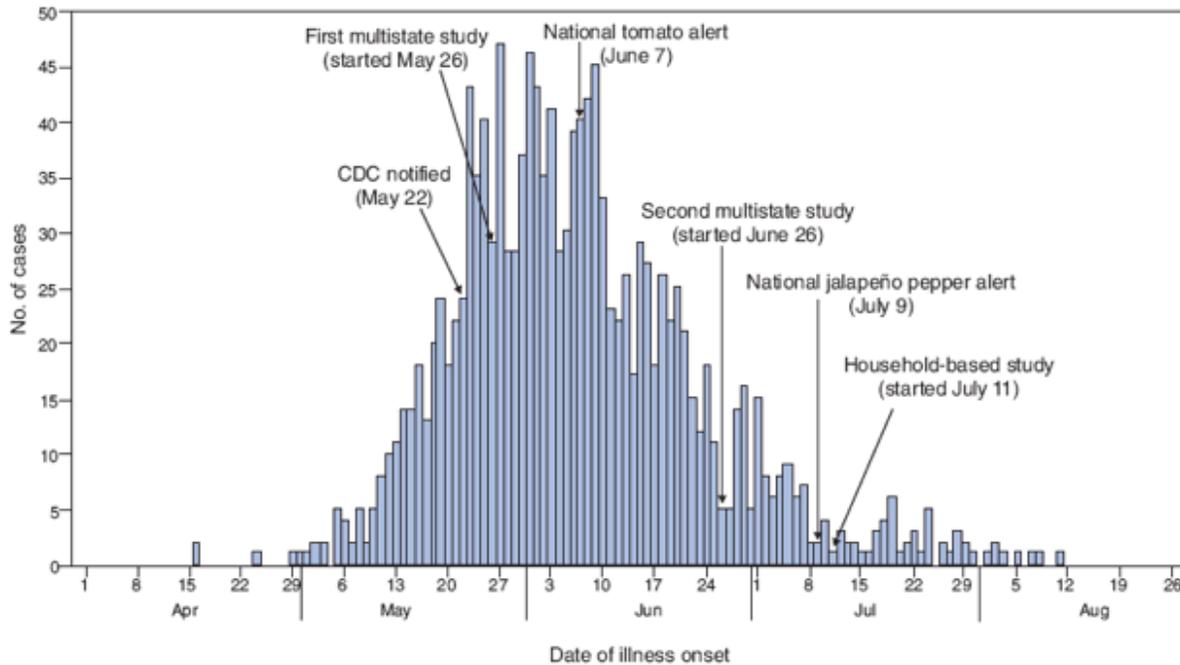
The Washoe County District Health Department (WCDHD) worked closely on this outbreak with CDC and the Nevada State Health Division (NSHD). Beginning on June 26, CDC along with state and local health departments in 29 states conducted a second multistate case-control study of laboratory-confirmed infections identified through PulseNet, a national molecular laboratory surveillance tool for selected enteric bacterial pathogens. WCDHD participated in this study by conducting intensive interviews of cases and controls using an extended questionnaire developed by CDC. The locally collected data were submitted to CDC for data analysis.

Salmonella Saintpaul

More than 2,400 *Salmonella* serotypes have been described and reported. Each year, approximately 36,000 laboratory-confirmed cases of *Salmonella* infection are reported in the United States. *Salmonella* Saintpaul is an uncommon serotype, causing, on average 1.6% of all reported laboratory-confirmed *Salmonella* infections each year. In Washoe County, during the five year period between 2003 and 2007, 177 laboratory-confirmed *Salmonella* cases were reported. Five (2.8%) of these were serotyped as *Salmonella* Saintpaul. Because many persons with *Salmonella* illness do not seek care or submit a stool specimen, it is possible more illnesses have occurred beyond what has been officially reported. Ordering a stool culture in a suspect patient with *Salmonella* infection is highly encouraged. **To report, please call 775-328-2447 or fax to 775-328-3764.**

¹ CDC. Outbreak of *Salmonella* Serotype Saintpaul Infections Associated with Multiple Raw Produce Items – United States, 2008. August 29, 2008/Vol.57/No.34. www.cdc.gov/mmwr

FIGURE 2. Number of laboratory-confirmed cases (n = 1,414) of *Salmonella* Saintpaul (outbreak strain), by date of illness onset — United States, 2008*



* Includes cases with onset information received as of August 25, 2008. Some illness onset dates (n = 366) were estimated by subtracting 3 days from the specimen date. Illness that began during July 29–August 25 might not yet be reported.

SCOMBROID POISONING ASSOCIATED WITH A LOCAL STORE

On July 2, 2008, a local emergency room physician notified the Washoe County District Health Department (WCDHD) of two probable cases of scombroid fish poisoning from one household. WCDHD staff, in conjunction with the Food & Drug Administration (FDA), investigated the suspected source of the illnesses.



On July 1, 2008, a Reno couple was seen at a local hospital with similar symptoms including rash on the upper body, itching or tingling sensation in the throat, headaches, tachycardia, and neck pain. The couple, ages 28 and 36, reported onset of symptoms, within thirty minutes, after cooking and consuming fresh tuna burger patties they purchased from a local retail grocery.

WCDHD staff contacted the food establishment and notified the operator of the two probable cases and requested they pull all fresh tuna product from sale to the public to prevent additional exposure and potential illness. The local FDA office was also notified. WCDHD staff conducted an on-site visit in order to review food handling procedures for the receiving, storage, and processing of fresh tuna. The tuna burgers were made from a 'kabob grade' tuna that is ground into tuna burgers at the establishment. There was no leftover ground tuna available, however; tuna loins from the same supplier were available and specimens were collected and delivered to the Nevada State Health Laboratory (NSHL) and then forwarded to

FDA for testing. Test results from the submitted food samples showed that histamine levels were within acceptable levels.

Scombroid fish poisoning is an acute illness that occurs after eating fish containing high levels of histamine or other biogenic amines. Symptoms typically include facial flushing, sweating, rash, a burning or peppery taste in the mouth, diarrhea, and abdominal cramps and usually resolve within several hours without medical intervention. More severe symptoms (e.g., respiratory distress, swelling of the tongue and throat, and blurred vision) can occur and require medical treatment with antihistamines. Fish from the family Scombridae (e.g., tuna and mackerel) contain high levels of free histidine in muscle tissue and are the most common sources of scombroid fish poisoning; however, other fish (e.g., mahi mahi, amberjack, bluefish, abalone, and sardines) also have been implicated. The only effective method for prevention of scombroid fish poisoning is consistent temperature control of fish at <math><40^{\circ}\text{F}</math> (<math><4.4^{\circ}\text{C}</math>) at all times between catching and consumption.²

Scombroid fish poisoning accounts for less than 0.5% of foodborne illnesses reported in the United States. In 2006, a total of 30 scombroid fish poisoning outbreaks involving 102 persons were reported to CDC from 12 state health departments³. **Healthcare providers must report food poisoning to WCDHD at 328-2447 per Nevada law NAC 441A.**

² CDC. Scombroid Fish Poisoning Associated with Tuna Steaks – Louisiana and Tennessee, 2006. MMWR. August 17, 2007/Vol.56/No.32

³ CDC. Summary Statistics for Foodborne Outbreaks, 2006. www.cdc.gov