



**Salmonella Gastroenteritis Outbreak
Associated with a Potluck Event - Logandale, Nevada
Interim Report**

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BACKGROUND

On October 21, 2013, the infection preventionist (IP) from Mesa View Hospital in Mesquite, Nevada informed the Southern Nevada Health District (SNHD) of an outbreak of gastrointestinal illness potentially associated with a potluck meal that was held in Logandale, Nevada on October 19. The initial report stated that approximately 125-150 of 250 attendees had become ill. Symptoms included nonbloody diarrhea, nausea, vomiting, and fever (100.1-105.1°F). Several stool specimens had been collected and results were pending. No food from the event was available for testing. SNHD initiated an investigation on the same day as the report.

METHODS

Epidemiology: We requested that area healthcare providers (HCPs)/facilities report information on case-patients seen in their respective facilities daily on a standardized line list. We also requested that the potluck organizer provide a list of attendees and, if possible, indicate which of them reported illness. We posted a notice on Nevada's HAVBED (Hospital Available Beds for Emergencies and Disasters) network requesting that medical facilities report any similar cases with no known association with the potluck in order to determine if the outbreak was more widespread.

Our current case definition is illness in a person who consumed food at the Logandale potluck event on Saturday, October 19, and experienced signs/symptoms of gastroenteritis (diarrhea, vomiting, and/or fever) within 72 hours of the event as reported by a healthcare provider.

We are compiling clinical information to determine incubation period, symptoms, attack-rate, and duration of illness. No cohort study is planned for several reasons. Many foods were similar in type but could not be sufficiently distinguished from one another to allow for an effective statistical study; e.g., there were about 12

different kinds of salsa, a number of salads, and multiple pans of beans or rice prepared by different participants. No leftover foods were obtainable for testing. No licensed or regulated facility was involved in food preparation. Thus, in this instance, it is at least initially felt prudent to emphasize education toward prevention of future foodborne outbreaks rather than to devote significant resources to an analytic epidemiologic study.

Laboratory: We asked HCPs to indicate whether patients submitted clinical specimens for laboratory testing. Southern Nevada Public Health Laboratory (SNPHL) contacted local commercial and hospital laboratories to determine the type of specimen and test ordered on each of these case-patients. In addition, because the local commercial laboratories lack the capability to test all of the potential foodborne pathogens for which we wanted to screen, SNHD staff worked with the SNPHL and the event organizers to create a stool kit distribution and specimen collection site in Logandale. We delivered twelve stool collection kits and asked the potluck's organizers to identify ill persons and to request that they submit a specimen to SNPHL, which enabled the screening of all of the most important pathogens, including ones the commercial laboratories lack the capability to detect.

SNPHL is performing bacterial cultures for *Salmonella*, *Shigella*, *Campylobacter*, *Yersinia*, Shiga toxin-producing *Escherichia coli* (STEC) O157 and non-O157; STEC enzyme immunoassay (EIA); and norovirus real-time reverse transcriptase polymerase chain reaction (rRT-PCR) testing on stool specimens. Specimens will be sent to a special laboratory for *Clostridium perfringens* and *Bacillus cereus* toxin testing if another agent is not first identified.

SNPHL will perform serotyping and Pulsed Field Gel Electrophoresis (PFGE) of any culture positive specimens. SNPHL will also obtain serotype and PFGE results from out-of-state public health laboratories if case-patients sought healthcare out of state.

Mitigation: In order to prevent further spread of illness, we disseminated timely information to healthcare providers, first responders, and the affected community.

Results:

Epidemiology: As of October 24, group representatives reported that the estimated number of affected individuals is 140-150. Area HCPs have reported 85 cases. There are also reports of persons who did not attend the potluck having become ill. These persons are all believed to be contacts of potluck attendees (e.g., household members). SNHD has not yet received a list of all persons that attended the event.

The majority of the persons attending the potluck were from the Logandale/Mesquite/Moapa area; however, some attendees were Utah residents. Case-patient demographic and symptom data gathered as of October 24 are shown below (Table).

Table. Case-Patient Demographics and Symptoms for 85 Patients Reported by HCPs as of October 26

Age	7 months – 88 years; median (44 years)
Gender	Female: 48 (56%)
	Male: 37 (44%)
Symptoms	Diarrhea: 84 (100%)*
	Vomiting: 80 (98%)**
	Fever: 45 (54%)***
Number of specimens submitted to local commercial or hospital laboratories	27
Number of specimens submitted to SNPHL	9
Number of specimens submitted to out-of-state commercial or hospital laboratories	1

* Calculated using information for 84 case-patients for whom diarrhea was assessed.

** Calculated using information for 82 case-patients for whom vomiting was assessed.

*** Calculated using information for 83 case-patients for whom fever was assessed.

Laboratory: Line lists submitted by area HCPs indicate that 28 case-patients submitted clinical specimens between October 19 and October 22. SNPHL confirmed that 27 stool specimens were received by a local laboratory. Nine ill persons submitted stool specimens directly to SNHD for testing by SNPHL. On October 22, Dixie Regional Medical Center, St. George, Utah reported that *Salmonella* was presumptively isolated from one case-patient who resides in Utah. On October 27, SNPHL confirmed that *Salmonella infantis* was isolated from 6 of 9 samples submitted directly to the laboratory. SNPHL further confirmed that an isolate submitted by Sunrise Hospital on October 24 was *S. infantis*. These serotype test results indicate that the causative agent of this outbreak is *Salmonella infantis*.

Mitigation: On October 21, with the help of group organizers, we disseminated a public notice that included information about the possible outbreak, the ensuing investigation, and foodborne illness prevention. A fact sheet about foodborne illness was attached to this notice, which included information on how to obtain more information. Additional information about the illness and investigation was also disseminated through ongoing verbal communication with group leaders. Additionally, SNHD notified the Mesquite Public Health Center, the Clark County School District Health Office, and first responders.

CONCLUSIONS

A gastroenteritis outbreak occurred among attendees of a potluck dinner that was held in Logandale, Nevada on October 19, 2013. Confirmatory test results indicate that *Salmonella infantis* was the causative agent. Therefore, at this time no testing for *B. cereus* or *C. perfringens* is planned. Because no epidemiologic study is being performed and no leftover foods were available for testing, it remains unknown which specific food item(s) were associated with illness. This outbreak appears to be isolated to the group that attended the potluck and their close contacts and poses no significant threat to members of the general public.

Future Actions:

1. SNPHL will follow up on all pending testing being performed at local commercial and hospital laboratories.
2. SNPHL will complete testing on the 9 specimens submitted directly to SNHD.
3. SNPHL will perform serotyping and Pulsed Field Gel Electrophoresis (PFGE) testing on all *Salmonella* isolates submitted.
4. SNHD will continue to perform surveillance for cases and complete descriptive epidemiology to characterize the outbreak.
5. A final report will be written and distributed after the outbreak investigation is concluded.

Recommendations as of October 28:

1. Ill persons with should visit their HCPs if they feel like they would normally seek care for their symptoms. No additional stool samples are needed for diagnosis of the outbreak.
2. Ill persons should not attend school or child care or work in a sensitive occupation such as food handling, child care, or elder care until symptoms have resolved.
3. HCPs are advised that confirmatory results indicate that the causative agent is *Salmonella infantis*.
4. All suspected cases of *Salmonella* infection related to this outbreak should be reported to the health authority. Illness clusters (e.g., restaurants, schools,

hotels, or private events) are reportable under Nevada Administrative Code sections 441A.525 and the SNHD Regulations Governing the Reporting of Diseases, Exposures, and Sentinel Health Events, Section 4.9. Reports should be made to the SNHD Office of Epidemiology at (702) 759-1300, option 2, and can be made 24 hours a day, seven days a week.