

**Subway *Shigella sonnei* Outbreak:**  
Investigation Report IL2010-060  
Lombard  
DuPage County, Illinois  
Dates of Incident: February 24 – March 1, 2010  
Number of Persons Ill: 328

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Introduction

On Monday, 3/1/10, numerous complaint calls were received by the DuPage County Health Department (DCHD) at the East Public Health Center, from people who had eaten at the Subway facility at 1009 E. Roosevelt Road, Lombard. By 4 PM on 3/1/10, complaints were received by seven separate parties stating they ate at Subway on 2/25/10 and 2/26/10, and then became ill an average of 20 hours later. A total of 15 ill persons were interviewed and two not ill on 3/1/10.

This evidence demonstrated that this Subway was related to at least 15 people becoming ill and the DCHD made the decision to request the facility close, until further notice, at 4 PM Monday 3/1/10.

DuPage County Health Department Disease control received a case report for lab-confirmed *Shigella spp.*, which upon further investigation, was found to have eaten at the Subway restaurant in Lombard on 2/25/10.

Additional reports of cases came in over the next few weeks from both hospital and provider reports of lab-confirmed *Shigella*, suspected *Shigella*, not yet lab confirmed, and self-report of illness from patrons of the Subway Lombard, resulting in a total of 328 ill cases. Increased clusters of gastrointestinal illness were reported in two schools, both of which had at least one case of lab-confirmed *Shigella*.

DCHD provided a thorough review of procedures for hand washing, glove usage, vegetable preparation, cleaning, sanitizing and employee illness with the facility owner, corporate staff and facility employees. The review was based on the Subway® Operations Manual, which was adjusted for this facility by Subway, and the Illinois Food Service Sanitation Code (77 Ill. Adm. Code 750). The Subway facility's annual food permit was reinstated by the DCHD on 4/12/10, after all employees had provided two specimens that tested negative for *Shigella spp.*

Environmental

**Methods:**

A questionnaire was designed, and a data base was created using a spreadsheet. Interviews were conducted over the phone or in person using the questionnaire to obtain food histories from the exposed.

The nine employees of Subway were interviewed to determine work history and history of illness.

On 3/4/10, DCHD issued a press release regarding the investigation of gastrointestinal illness at the Subway restaurant. This release was followed by other media stories, which raised public awareness of the outbreak and generated an increase in case reporting. Due to the increase in calls received, a call center to help address Subway-related calls was set up at the Central Public Health Center (CPHC) on 3/5/10. The call center was staffed to receive additional complaints and perform case histories through the weekend of 3/6/10 and week days until 3/15/10, when the call volume diminished. Calls after 3/15/10 were handled via regular channels.

Twenty-one surface swab samples were collected on 3/8/10 and 3/10/10 by EHS staff from various within the Subway facility. The entire facility had been cleaned and sanitized two times between 3/1/10 and 3/8/10 by staff from the owner's other facilities.

### **Results:**

Histories were obtained for 330 ill persons and 16 not ill persons.

None of the Subway staff reported any illness during the initial interviews. During a second round of interviews with Subway staff, one employee did report gastrointestinal illness symptoms experienced on 2/27/10.

## Epidemiology

### **Methods:**

#### Surveillance

##### *Case Finding and Assessment*

Cases were detected in several ways: some reported to DCHD from healthcare providers or Infection Control staff at local hospitals, some were reported directly from the patron, and some were identified through interview with cases, parents of cases, work colleagues or school officials. All cases were encouraged to see healthcare providers for stool testing and treatment if needed. If patients did not have access to a regular provider, DCHD offered stool testing at no charge.

On 3/4/10, IDPH sent out two memos about the cluster investigation: 1) hospital infection control practitioners, emergency departments, infectious control physicians and hospital laboratories, 2) local health departments and regional offices of IDPH. Both memos included preliminary details about the cluster. The memo for health departments included the restaurant name, the provider memo included details of the epidemiology of *Shigella*, and testing and reporting requirements.

##### *Outbreak Case Definition*

A **confirmed** case associated with the outbreak is defined as:

a) a laboratory confirmed case with isolation of *Shigella sonnei* from a clinical specimen of a person with a history of exposure (e.g. having eaten food purchased and/or prepared) from the Subway restaurant located at 1009 E. Roosevelt Road in Lombard, Illinois between 2/23/10 and 3/1/10.

or

b) a laboratory confirmed case with isolation of *Shigella sonnei* from a clinical specimen of a person with a history of exposure (e.g. having eaten food purchased and/or prepared) from the Subway restaurant located at 1009 E. Roosevelt Road in Lombard, Illinois within unknown timeframe and developed diarrheal illness with symptom onset 2/25/10 to 3/5/10.

A **probable** case is defined as:

a person with a history of exposure (e.g. having eaten food purchased and/or prepared) from the Subway restaurant located at 1009 E. Roosevelt Road in Lombard, Illinois between 2/23/10 and 3/1/10 and developed diarrheal illness with symptom onset 2/25/10 to 3/5/10, and no laboratory testing was performed to confirm diagnosis of shigellosis.

**Not a case:**

a person with a history of exposure (e.g. having eaten food purchased and/or prepared) from the Subway restaurant between 2/23/10 to 3/1/10 and developed diarrheal illness with symptom onset 2/25/10 to 3/5/10 and confirmatory testing for shigellosis was negative.

A **secondary** case:

a person with clinically compatible illness with or without laboratory confirmation who is epidemiologically-linked to a laboratory confirmed or probable case with a history of exposure (e.g. having eaten food purchased and/or prepared ) from the Subway between 2/23/10 to 3/1/10, but he himself did not eat at the Subway restaurant located at 1009 E. Roosevelt Road in Lombard, Illinois, and diarrheal illness onset is after onset of the index case who ate at the Subway restaurant located at 1009 E. Roosevelt Road in Lombard, Illinois.

### Epidemiological Investigation

#### *Questionnaire Design and Administration:*

A questionnaire that combined the INEDSS, IDPH case investigation form and the Environmental Health questionnaire with specific menu items was developed. A line list of all ill cases was created that included: onset date, exposure date, report date, case status, initials, age, gender, address, associated congregate facilities or high-risk occupation settings, and hospital admission dates.

#### *Epidemic Curve*

An epidemic curve was constructed to monitor the duration of the outbreak and the magnitude of secondary transmission.

#### *Map*

A map was generated that plotted: cases by residential address, the Subway location and the two schools reporting unusual increases in gastrointestinal illness.

#### *Case Control Study*

A case control study was conducted among patrons who ate at the Subway restaurant in Lombard. Meal companions were identified as controls.

Cases included were patrons with lab-confirmed Shigellosis, who ate at the restaurant between 2/23/10 and 3/1/10. Cases were excluded from analysis if they ate multiple meals or were secondary cases.

Controls included persons who ate at the restaurant between 2/23/10 and 3/1/10 and did not report any symptoms of illness. Due to the limited number of controls, meal dates for controls only ranged from 2/24/10 to 2/28/10.

### **Results:**

#### Surveillance

#### *Case Finding and Assessment*

The investigation identified 140 confirmed cases of *Shigella*. Of the 140 lab confirmed cases investigated, 132 were associated with the outbreak and 126 reported eating at this Subway between 2/23/10 and 3/1/10. Confirmed cases that were



associated with the Subway, Lombard location were also linked to two clusters of increased GI illness in one elementary school and one high school in Lombard. There were nine confirmed secondary cases (7%). Among the probable cases, 196 additional persons met the case definition, but did not receive laboratory testing, 194 reported eating at the Subway Lombard between 2/23/10 and 3/1/10. There were six probable secondary cases (3%). Date of onset ranged from 2/25/10 to 3/20/10 in the 328 total cases linked to this outbreak. The age range of cases was from nine months to 84 years. One hundred and eighty one (55%) of the cases were female. Thirteen (10%) of the confirmed cases were hospitalized. One hospitalized case is deceased; it is not known if the case died from *Shigella* or due to underlying conditions. Individuals linked to this outbreak that met the clinical case definition, but had negative stool samples were classified as not a case.

<b>Shigella sonnie, Case Counts</b>			
	Confirmed	Probable	Total
Cases Linked to Outbreak	132	196	328
Ate at the Subway	126	194	320
Secondary Transmission	9	6	15
Exposure dates	2/23 – 3/1	2/23 – 3/1	---
Onset dates	2/25 – 3/20	2/25 – 3/14	---
Hospitalized	13	0	13
Discharged	13	0	13
Death	1	0	1

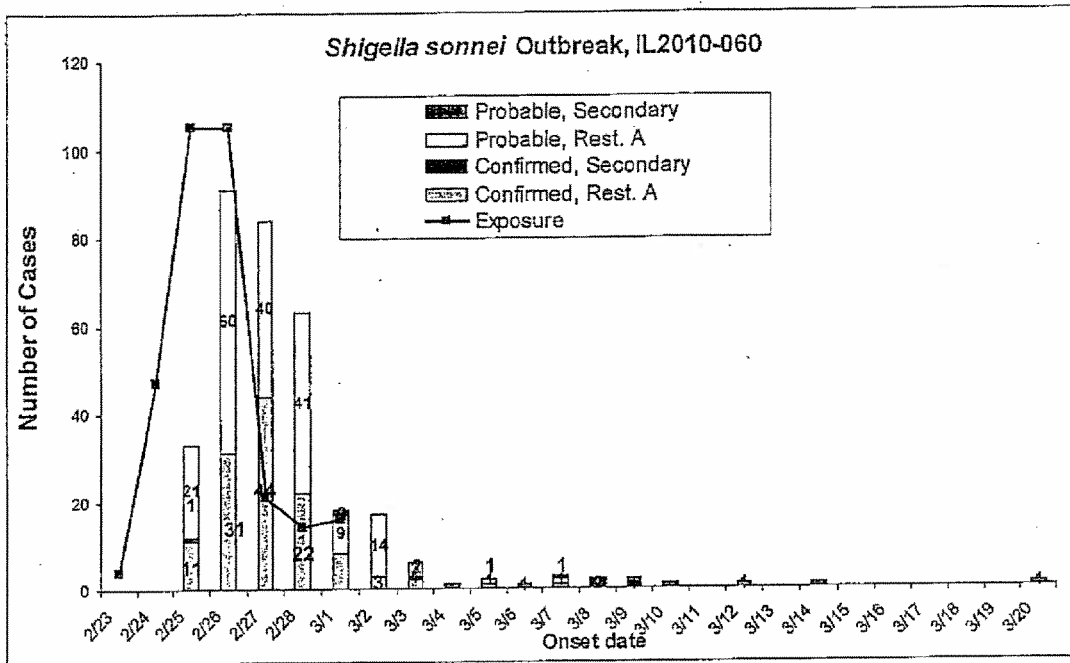
<b>Case Characteristics</b>			
	Confirmed	Probable	Total
Gender			
Male	51 (39%)	96 (49%)	147
Female	81 (61%)	100 (51%)	181
Median Age (range)	39 (0-84)	31 (1-65)	328

On 3/1/10, St. Pius Catholic School of Lombard reported an increase in gastrointestinal illness among a group of parents/volunteers that ate at the Subway Lombard on February 26. Further investigation also identified cases of illness in the associated Catholic High School, Montini. Students there became ill following exposure to Subway sandwiches that had been picked up for a group and brought to their facility. One daycare facility, Creative Montessori, had reports of two cases of *Shigella* in children that attend the center.

### Epidemiological Investigation

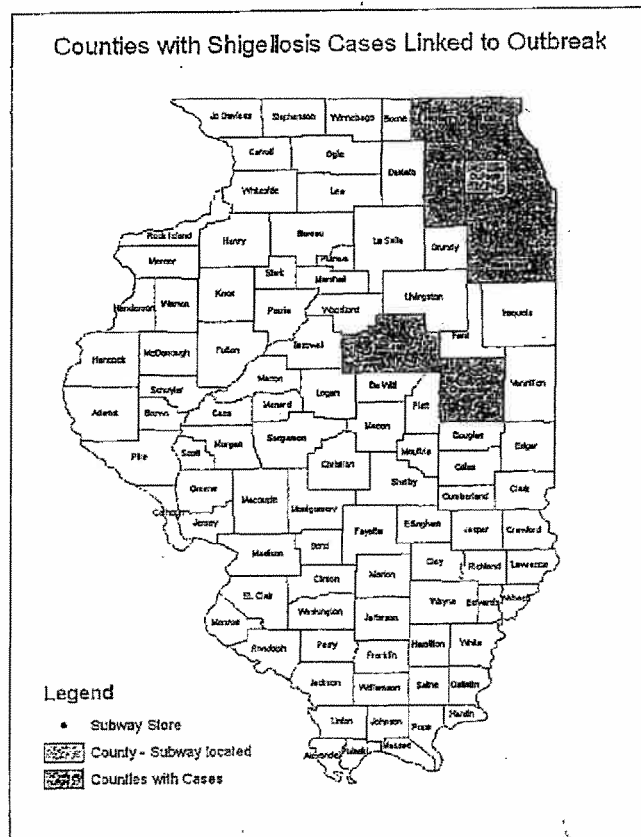
#### Epidemic Curve

The epidemic curve shows a sudden onset of illness, and a single peak indicating a point source exposure primarily occurring on 2/25/10 and 2/26/10. The epidemic curve also indicates that secondary transmission was very limited.

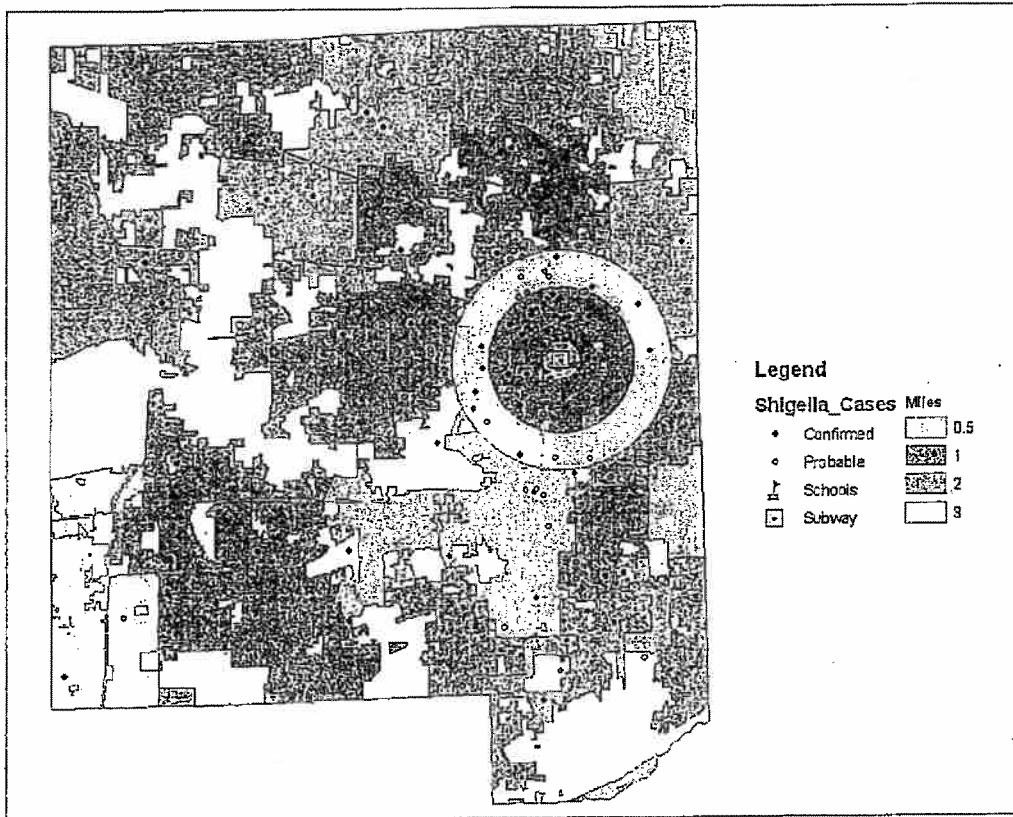


**Maps**

The counties that had cases of *Shigellosis* that were linked to the outbreak are highlighted in the map below. *Shigellosis* cases were located in several counties in Illinois. Three cases were located out of state.



The map below indicates the geographic distribution of the confirmed and probable cases in DuPage County. The majority of cases (53%) occurred within a three mile radius of the Subway Lombard. The two schools that experienced increases in gastrointestinal illness were both located within a one mile radius of the Subway restaurant.



**Case Control Study**

The table below summarizes the results of the case control study analysis. There were 116 cases and 16 controls in the final analysis. Among all the food items tested, tomato and 9-grain bread were statistically associated with an increased risk of illness, and Italian bread and Monterey Cheddar Cheese were statistically associated with a decreased risk of illness.

The results indicate that among persons who ate at this Subway between 2/23/10 and 3/1/10, persons who ate tomatoes were 6.16 times more likely to become ill than persons who did not eat tomatoes and persons who ate 9-grain bread were 5.89 times more likely to become ill than persons who did not eat 9-grain bread.

Case Control Results				
Item Consumed	Cases exposed N (%)	Controls exposed N (25%)	Odds Ratio OR (C.I.)	p-value
Tomato	78 (67%)	4 (25%)	6.16 (1.86, 20.37)	0.0011
9 grain bread	53 (46%)	2 (12%)	5.89 (1.28, 27.09)	0.0116
Italian Bread	21 (18%)	9 (56%)	0.17 (0.06, 0.51)	0.0006
M.C. Cheese	5 (4%)	3 (19%)	0.20 (0.04, 0.92)	0.0242

## Laboratory

### **Methods:**

#### *Environmental Testing*

Twenty-one surface swab samples were obtained from various surfaces within the Subway facility. The State of Illinois Springfield laboratory completed the analysis of the surface samples.

#### *Bacterial Testing of Human Specimens*

The nine employees were tested for *Shigella* using a fecal swab sample. The State of Illinois Chicago laboratory completed the analysis of the swab samples.

Six exposed individuals who had been interviewed were tested for *Shigella* using a fecal swab sample. The State of Illinois Chicago laboratory completed the analysis of the swab samples.

Stool specimens were collected for enteric bacterial pathogens. Results were received from area hospital labs, IDPH lab and commercial labs. Susceptibility testing was performed in a subset of all cases.

### **Results:**

#### *Environmental Testing*

Two of the employees tested on 3/3/10 were positive for *Shigella*.

All surface swabs were negative for *Shigella*.

#### *Bacterial Testing of Human Specimens*

One hundred and thirty two cases linked to this outbreak tested positive for *Shigella sonnei*. Isolates that were tested for susceptibility were resistant to trimethoprim / sulfamethoxazole.

## Discussion

*Shigella* is a bacterial infection that causes gastrointestinal illness that includes symptoms of diarrhea, sometimes bloody diarrhea, fever, abdominal cramps, nausea, and vomiting. The mode of transmission is fecal-oral route usually spread through vectors, such as contaminated food/water or person-to person. It has a low infective dose of between 10 and 100 organisms. The incubation period is between 12 and 96 hours. It is usually a mild, self-limiting illness, lasting 4 to 7 days with negligible case-fatality rates. An infected person can be contagious for up to four weeks if shedding of the organism continues in the stool, and can be shortened with use of antimicrobial therapy.

The CDC averaged over 17,000 cases of *Shigella* reported annually from 2005 to 2007, while in Illinois the average number of cases reported in that time period was over 600. In DuPage County, prior to 2010, our 4-year median number of reported *Shigellosis* cases was 23, with an annual range between 13 and 28 cases.

This outbreak quickly ended after the suspected point source was eliminated on 3/1/10. In the two schools with confirmed cases, notification letters were sent to parents, staff and students educating them about *Shigella* and how to prevent transmission. One daycare that also had two cases received a letter for all parents, staff and students. In order to decrease secondary transmission in the community, an IDPH memo was prepared on 3/6/10 discussing the use of antibiotics in the management of *Shigellosis*. While antibiotic therapy is typically not essential for cure, recommendations were made

to providers to treat ill persons who tested positive for *Shigella*, for public health purposes. Due to the resistance patterns observed, fluoroquinolones were recommended for adults and an appropriate cephalosporin for children. Azithromycin was also suggested as an alternative.

In cases where secondary transmission was identified, additional testing of possible index cases was offered, to determine if an index case had prolonged shedding and would benefit from treatment. Persons in sensitive occupations were required to submit two negative stool specimens before returning to work. Children were excluded from school or daycare until 24 hours after symptoms resolved.

During the early days of the outbreak, cases that did not have lab testing performed were initially classified as suspect until enough information was available on exposure dates to determine probable case status through epidemiological link. This increased the number of probable cases significantly.

The last reported case of *Shigella* associated with this outbreak was 3/20/10.

### Conclusions

DCHD gathered illness and exposure data on 346 individuals who ate at the Subway from 2/24/10 through 3/1/10. Employee testing found two persons positive for *Shigella*, but neither presented with symptoms prior to the outbreak.

The results show that two products were associated with an increased risk of illness among patrons of the Subway, Lombard facility; those were tomatoes and 9-grain bread. It could not be determined if the products were contaminated with *Shigella* by an employee of the facility or if the products arrived at the facility already contaminated. The employee illness could have been due to exposure to the same contamination as patrons of the store and food products were not available for testing.

A limitation of this case-control study is the lack of controls, most meal companions of cases also became ill. The request for patron names and contact information was made on 3/23/10 in order to identify more controls for this study. Credit card receipts were requested from the Subway owner, Subway corporate and Bank of America. All responded that the requested information was not available.

### Recommendations

DCHD advised the Subway facility to develop monitoring logs to keep track of their hygienic practices, produce washing, and cleaning and sanitizing. Education in-services were performed by the DCHD and Subway Corporation for the staff of the Subway. DCHD advised the owner to continue with education on an ongoing basis.

# IL2010-060 Subway Employee Sampling Log

Case ID	Employee Name	Job Title	Original Sample Date	Resample due to Rectal Swab (RS) taken originally	Result	Treatment Needed	Treatment Completed	2nd Sample Date	Resample due to Rectal Swab (RS) taken on 2nd sample	Result	Treatment Needed	Treatment Completed	3rd Sample Date	Result	4th Sample Date	Result
E1	Gi Pa	Full time	03/02/10	N/A	Pos	yes	03/12/10	03/16/10	N/A	Pos	yes	3/30/2010	04/06/10	Neg	4/13/10	Neg
E2	Us Pa	Full time	03/02/10	N/A	Pos	yes	03/12/10	03/16/10	N/A	Neg	no	N/A	03/21/10	Neg	N/A	N/A
E3	Sh Pa	Full time	03/02/10	N/A	Neg	no	N/A	03/16/10 (RS)	03/16/10	Neg	no	N/A	N/A	N/A	N/A	N/A
E4	Na Pa	Full time	03/02/10	N/A	Neg	no	N/A	03/16/10 (RS)	03/16/10	Neg	no	N/A	N/A	N/A	N/A	N/A
E5	Di Pa	Full time	03/02/10	N/A	Neg	no	N/A	03/16/10 (RS)	03/16/10	Neg	no	N/A	N/A	N/A	N/A	N/A
E6	Su Pa	Full time	03/02/10	N/A	Neg	no	N/A	03/16/10 (RS)	03/16/10	Neg	no	N/A	N/A	N/A	N/A	N/A
E7	Fa Ya	part time	03/10/10 (RS)	03/16/10	Neg	no	N/A	03/22/10	N/A	Neg	no	N/A	N/A	N/A	N/A	N/A
E8	Kr Pa	part time	03/10/10 (RS)	03/16/10	Neg	no	N/A	03/22/10	N/A	Neg	no	N/A	N/A	N/A	N/A	N/A
E9	Da Pa	owner	03/08/10 (RS)	03/16/10	Neg	no	N/A	03/22/10	N/A	Neg	no	N/A	N/A	N/A	N/A	N/A

RS = rectal swab

All other samples were fecal swabs, the recommended method of sampling

All nine employees have received two negatives as of 4/19/10.

## IL2010-060 Shigella surface samples

Samples collected from: Subway Sandwich EstD# 60493, 1009 E Roosevelt Rd, Lombard, IL 60148  
 Collected by: Matt Fullam, DuPage County Health Department  
 Analyzed by: IDPH Springfield Lab #17001, 825 N Rutledge St, Springfield, IL 62794; TEL: 217-782-6562

Sample #	Collected	Lab #	Surface	Test performed	Results	Remarks
1	3/8/2010	2447	Middle cutting board		No test performed	Sponge not hydrated.
2	3/8/2010	2448	Interior ice shoot	Shigella sonnei	Not found	
3	3/8/2010	2449	Front handsink	Shigella sonnei	Not found	
4	3/8/2010	2450	Bread storage unit handle	Shigella sonnei	Not found	
5	3/8/2010	2451	Walk-in cooler handle	Shigella sonnei	Not found	
6	3/8/2010	2452	Tomato slicer	Shigella sonnei	Not found	
7	3/8/2010	2453	Front counter		No test performed	Sponge not hydrated.
8	3/8/2010	2454	Front (East) cutting board		No test performed	Sponge not hydrated.
9	3/8/2010	2455	Prep. Counter (Back)		No test performed	Sponge not hydrated.
10	3/8/2010	2456	Back handsink	Shigella sonnei	Not found	
11	3/8/2010	2457	Prep. Sink	Shigella sonnei	Not found	
12	3/8/2010	2458	Front reach-in cooler handles	Shigella sonnei	Not found	
13	3/8/2010	2459	Lettuce food container		No test performed	Sponge not hydrated.
14	3/8/2010	2460	Walk-in cooler shelving		No test performed	Sponge not hydrated.
15	3/8/2010	2461	Women's restroom handle (door)	Shigella sonnei	Not found	
16	3/8/2010	2462	Kitchen exit door handle	Shigella sonnei	Not found	
17	3/8/2010	2463	Store phone		No test performed	Sponge not hydrated.
18	3/8/2010	2464	Metal tuna bowl		No test performed	Sponge not hydrated.
19	3/8/2010	2465	Front display cooler		No test performed	Sponge not hydrated.
20	3/10/2010	2519	Back prep counter	Shigella sonnei	Not found	
21	3/10/2010	2520	Front counter at register	Shigella sonnei	Not found	
22	3/10/2010	2521	Front counter cutting boards	Shigella sonnei	Not found	
23	3/10/2010	2522	Black Cambro lettuce containers	Shigella sonnei	Not found	
24	3/10/2010	2523	Large metal tuna prep bowl	Shigella sonnei	Not found	
25	3/10/2010	2524	Walk-in cooler shelving unit	Shigella sonnei	Not found	
26	3/10/2010	2525	Front register touch screen	Shigella sonnei	Not found	
27	3/10/2010	2526	Inside front display cooler	Shigella sonnei	Not found	
28	3/10/2010	2527	Phone above back prep area	Shigella sonnei	Not found	
29	3/10/2010	2528	Toaster oven door and handle	Shigella sonnei	Not found	
30	3/10/2010	2529	Can opener	Shigella sonnei	Not found	

<input type="checkbox"/> Ill	<input type="checkbox"/> Not Ill	Report Date	Report Time
Investigator:			
<b>Interview Information</b>			
Person Interviewed Name (if not the subject)			
Relationship To Subject			
Phone Number ( ) -		Alternate Phone ( ) -	
<b>Subject Name</b>			
Age	<input type="checkbox"/> Male	<input type="checkbox"/> Female	
Address			
City		State	Zip Code
Occupation			
If healthcare, child care or food service related provide information below:			
<b>Business Name</b>			
Address			
City		State	Zip Code
Phone Number ( ) -		Alternate Phone ( ) -	

<b>Suspected Event/ Food Information</b>			
Event or Establishment Name Subway Restaurant			
Address 1009 E Roosevelt Road (near intersection of Roosevelt Rd (Rt.38) and Meyers/Westmore Road			
City Lombard		State IL	Zip Code
Suspected food eaten	Date / /	Hour	<input type="checkbox"/> am <input type="checkbox"/> pm
Subject became ill (onset time)	Date / /	Hour	<input type="checkbox"/> am <input type="checkbox"/> pm
Incubation period ( hour suspected food eaten -- onset time ) # of hours _____			
Duration of illness # of hours _____		<input type="checkbox"/> Still ill at time of call	

Menu Items				
<input checked="" type="checkbox"/> If pre-listed food was eaten	Portions			
	1	2	3	
<input type="checkbox"/> Honey Oat bread	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/> Italian Bread	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/> 9-Grain Wheat Bread	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/> Italian Herb & cheese Bread	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/> Flat Bread	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/> Oven roasted Chicken Sandwich	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/> Black Forest Ham Sandwich	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/> Turkey Breast Sandwich	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/> Turkey & Black Forest Ham Sandwich	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/> Tuna Sandwich	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/> Sweet Onion Chicken Teriyaki Sand.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/> Big Philly Cheesesteak Sandwich	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/> Veggie Delight Sandwich	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/> Subway Club sandwich Turk/Ham/RB	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/> Chicken Bacon Ranch Sandwich	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/> Roast Beef Sandwich	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/> Subway Melt Turk/Ham/Bacon	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/> Cold Cut Combo	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Signs & Symptoms				
Y	?	N		Duration
				Hours
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Nausea	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Vomiting	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Diarrhea	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	If yes, were stools watery?	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	If yes, were stools bloody?	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Stomach Cramps (non-menstrual)	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Fever	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> subjective or °F (max)	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Headache	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Chills	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Dehydration	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Unusual Fatigue (prostration)	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Muscle Aches (myalgia)	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Dizziness	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Burning Sensation (mouth)	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Metallic Taste	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Salivation	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Double/ Blurred Vision	

See page 2 of Menu list for additional items

<b>IL2010-060 Shigella Foodborne Illness Case History</b>	Date: / /
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<b>Grocery Stores / Markets frequently visited</b>			
<b>If ill answer the following questions</b>			
<b>Y</b>	<b>?</b>	<b>N</b>	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Have other family members, co-workers or friends been recently ill with similar symptoms who were not participants of the suspected meal?
			If yes, list:
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Do you have any known allergies to food or food additives?
			If yes, list:
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Do you have any medical conditions that might be relevant to your illness?
			If yes, list:
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Did you miss any work or school due to this illness?
			If yes, how long?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Did you see a physician regarding this illness?
			Physician's name:
			Diagnosis: _____ Phone Number ( ) - _____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Were you treated at a hospital? _____ Length of stay _____
			Hospital Name _____
			City _____ Phone Number ( ) - _____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Were specimen(s) taken for testing?
			If yes, by whom? <input type="checkbox"/> Physician <input type="checkbox"/> Hospital <input type="checkbox"/> Health Department
			Specimen Type: <input type="checkbox"/> Stool <input type="checkbox"/> Blood <input type="checkbox"/> Other
			Findings:

<b>Additional Meals Eaten</b>			
Did you attend or eat at any other special event or food establishment in DuPage County within the last 3 days? <input type="checkbox"/> No <input type="checkbox"/> Yes, if yes continue below			
<b>Source of Meal</b>	<b>Source of Meal</b>	<b>Source of Meal</b>	<b>Source of Meal</b>
Date Eaten: / /	Date Eaten: / /	Date Eaten: / /	Date Eaten: / /
Time <input type="checkbox"/> am <input type="checkbox"/> pm	Time <input type="checkbox"/> am <input type="checkbox"/> pm	Time <input type="checkbox"/> am <input type="checkbox"/> pm	Time <input type="checkbox"/> am <input type="checkbox"/> pm
<b>Food(s) Consumed:</b>	<b>Food(s) Consumed:</b>	<b>Food(s) Consumed:</b>	<b>Food(s) Consumed:</b>

<b>Other Event/ Meal Participants</b>				
<b>Name</b>	<b>Phone</b>	<b>Ill</b>	<b>Not Ill</b>	<b>?</b>
	( ) -	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	( ) -	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	( ) -	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	( ) -	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	( ) -	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	( ) -	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>XL2010-060 Shigella Foodborne Illness Case History</b>	<b>Date:</b> / /
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Menu Items		Subway Restaurants ,IL2010-060		
<input checked="" type="checkbox"/> If pre-listed food was eaten		Amounts Consumed		
		1/2	All	None
<input type="checkbox"/>	Meatball Marinara Sandwich	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	BLT Sandwich	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	The Feast Sandwich- Salami/Ham/ RBeef/Turkey/ Cheese	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Spicy Italian- Pepperoni/Salami	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Italian Mmelt Sandwich - Pepperoni/Salami/Ham	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Pepper Jack Cheese	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Monterey Cheddar Cheese	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	American Cheese	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Lettuce	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Tomato	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Onion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Sweet Banana Peppers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Cucumbers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Pickles	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Green Peppers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Olives	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Jalepenos hot peppers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Chipotle southwest Sauce	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Ranch sauce	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Mayo	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Light Mayo	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Oil & Vinegar	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Mustard	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Honey Mustard	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Red wine vinegar	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Salt & Pepper	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Italian seasonings (oregano)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Cheese & Broccoli Soup	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Chips: specify type	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Cookies:specify type	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Apples	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Yogurt	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Fountain drink: specify type	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Bottled Beverage: specify type	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Milk	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Juice Box	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Ice	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

IL2010-060 Shigella Foodborne Illness Case History	Date: / /
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General

# National Outbreak Reporting System



## Foodborne Disease Transmission, Person-to-Person Disease Transmission, Animal Contact

This form is used to report enteric foodborne, person-to-person, and animal contact-related disease outbreak investigations. This form has 5 sections, General, Laboratory, Person to Person, Animal contact, and Food, as indicated by tabs at the top of each page. Complete the General and Laboratory tabs for all modes of transmission and complete additional sections as indicated by the mode of transmission. Please complete as much of all sections as possible.

CDC USE ONLY

CDC Report ID

State Report ID  
IL 2010-060

Form Approved  
OMB No. 0920-0004

### General Section

#### Primary Mode of Transmission (check one)

- Food (Complete General, Lab, and Food tabs)
- Water (Complete CDC 52.12)
- Animal contact (Complete General, Lab, and Animal Contact tabs)
- Person-to-person (Complete General, Lab, and Person-to-Person tabs)
- Environmental contamination other than food/water (Complete General and Lab tabs)
- Indeterminate/Other/Unknown (Complete General and Lab tabs)

#### Investigation Methods (check all that apply)

- Interviews only of ill persons
- Case-control study
- Cohort study
- Food preparation review
- Water system assessment: Drinking water
- Water system assessment: Nonpotable water
- Treated or untreated recreational water venue assessment
- Investigation at factory/production/treatment plant
- Investigation at original source (e.g., farm, water source, etc.)
- Food product or bottled water traceback
- Environment/food/water sample testing
- Other

Comments

#### Dates (mm/dd/yyyy)

Date first case became ill (required) 02/25/10 Date last case became ill 03/20/10  
 Date of initial exposure 02/23/10 Date of last exposure 03/01/10  
 Date of report to CDC (other than this form) 1/1  
 Date of notification to State/Territory or Local/Tribal Health Authorities 03/01/10

#### Geographic Location

Reporting state: IL  
 Exposure occurred in multiple states  
 Exposure occurred in a single state, but cases resided in multiple states  
 Other states: Iowa, Arizona, Wisconsin  
 Reporting county: DuPage  
 Exposure occurred in multiple counties in reporting state  
 Exposure occurred in a single county, but cases resided in multiple counties in reporting state  
 Other counties: McHenry, Lake, Kane, Cook, Kendall, Will, Kankakee, McLean, Champaign  
 City/Town/Place of exposure: 1009 E. Roosevelt Rd, Lombard IL  
*Do not include proprietary or private facility names*

#### Primary Cases

Number of Primary Cases		Sex (estimated percent of the primary cases)	
# Lab-confirmed cases	124 (A)	Male	47 %
# Probable cases	190 (B)	Female	53 %
# Estimated total primary ill	314		
# Cases	Total # of cases for whom info is available	Approximate percent of primary cases in each age group	
# Died	1	<1 year	0 %
# Hospitalized	13	20-49 years	59 %
# Visited Emergency Room	28	1-4 years	2 %
# Visited health care provider (excluding ER visits)	110	5-9 years	4 %
		10-19 years	14 %
		≥ 75 years	1 %
		Unknown	0 %

**General**

**Incubation Period; Duration of Illness, Signs or Symptoms for Primary Cases only**

Incubation Period (circle appropriate units)			Duration of Illness (among recovered cases-circle appropriate units)		
Shortest	1.5hr	Min, Hours, Days	Shortest	25 Days	Min, Hours, Days
Median	30hr	Min, Hours, Days	Median	6 Days	Min, Hours, Days
Longest	252hr	Min, Hours, Days	Longest	21 Days	Min, Hours, Days
Total # of cases for whom info is available	314		Total # of cases for whom info is available	314	

Unknown incubation period       Unknown duration of illness

**Signs or Symptoms (refer to terms from appendix, if appropriate, to describe other common characteristics of cases)**

Feature	# Cases with signs or symptoms	Total # cases for whom info available
Vomiting	132	314
Diarrhea	306	314
Bloody stools	93	314
Fever	231	314
Abdominal cramps	260	314
HUS		
Asymptomatic		
*		
*		
*		

**Secondary Cases**

Mode of Secondary Transmission (check all that apply)	Number of Secondary Cases	
<input type="checkbox"/> Food <input type="checkbox"/> Water <input type="checkbox"/> Animal contact <input type="checkbox"/> Person-to-person <input type="checkbox"/> Environmental contamination other than food/water <input checked="" type="checkbox"/> Indeterminate/Other/Unknown	# Lab-confirmed secondary cases	(A) 8
	# Probable secondary cases	(B) 6
	Total # of secondary cases	14
	Total # of cases (Primary + Secondary)	

**Environmental Health Specialists Network (if applicable)**

EHS-Net Evaluation ID: 1.) \_\_\_\_\_ 2.) \_\_\_\_\_ 3.) \_\_\_\_\_

**Traceback (for food and bottled water only, not public water)**

Please check if traceback conducted

Source name (if publicly available)	Source type (e.g. poultry farm, tomato processing plant, bottled water factory)	Location of source		Comments
		State	Country	

**Recall**

Please check if any food or bottled water product was recalled

Type of item recalled:

Comments:

**Reporting Agency**

Agency name: DuPage County Health Dept.      E-mail: mfullam@dupagehealth.org  
 Contact name: Matt Fullam      Contact title: Sanitarian II  
 Phone no.: 630.682.7400 x5315      Fax no.: 630.620.8660

**Remarks** Briefly describe important aspects of the outbreak not covered above. Please indicate if any adverse outcomes occurred in special populations (e.g., pregnant women, immunocompromised persons)

Two schools reported increase in gastrointestinal illness  
 One daycare had 2 cases of Shigella

**Laboratory Section**Etiology known?  Yes  NoIf etiology is *unknown*, were patient specimens collected?  Yes  No  Unknown

If yes, how many specimens collected? (provide numeric value) \_\_\_\_\_

What were they tested for? (check all that apply)  Bacteria  Chemicals/Toxins  Viruses  Parasites**Etiology**(Name the bacterium, chemical/toxin, virus, or parasite. If available, include the serotype and other characteristics such as phage type, virulence factors, and metabolic profile. Confirmation criteria available at [http://www.cdc.gov/foodborneoutbreaksguide\\_fd.htm](http://www.cdc.gov/foodborneoutbreaksguide_fd.htm) or [http://www.cdc.gov/mmwr/2000/Vol\\_49/SS-1/App\\_B](http://www.cdc.gov/mmwr/2000/Vol_49/SS-1/App_B))

Genus	Species	Serotype	Confirmed outbreak etiology	Other Characteristics	Detected in	Lab-confirmed cases
Shigella	sonnei		<input checked="" type="checkbox"/> yes <input type="checkbox"/> no		1, 4	132
			<input type="checkbox"/> yes <input type="checkbox"/> no			
			<input type="checkbox"/> yes <input type="checkbox"/> no			

\*Detected in (choose all that apply): 1 - patient specimen 2 - food specimen 3 - environment specimen 4 - food worker specimen

**Isolates**

(For bacterial pathogens, provide a representative for each distinct pattern; provide lab ID for all specimens submitted for viral sequencing)

State Lab ID	PulseNet Outbreak Code	CDC PulseNet Pattern Designation for Enzyme 1	CDC PulseNet Pattern Designation for Enzyme 2	Other Molecular Designation	Other Molecular Designation

**Person to Person**

Major setting of exposure (choose one)

- Camp  Hotel  Private setting (residential home)  School  
 Child day care  Nursing home  Religious facility  Ship  
 Community-wide  Prison or detention facility  Restaurant  Workplace  
 Hospital  Other, please specify: \_\_\_\_\_

**Attack rates for major settings of exposure**

Group (based on setting)	Estimated exposed in major setting	Estimated ill in major setting	Crude attack rate ((estimated ill / estimated exposed) * 100)
residents, guests, passengers, patients, etc.			
staff, crew, etc.			

\*e.g., number of persons on ship, number of residents in nursing home or affected ward

**Other settings of exposure (choose all that apply)**

- Camp  Hotel  Private setting (residential home)  School  
 Child day care  Nursing home  Religious facility  Ship  
 Community-wide  Prison or detention facility  Restaurant  Workplace  
 Hospital  Other, please specify: \_\_\_\_\_

**Animals and their environment**

Setting of exposure	Type of animal	Remarks

## Food-specific data

 Food vehicle undeterminedTotal # of cases exposed to implicated food 320

Food	1	2	3
Name of food (excluding any preparation)			
Ingredient(s) (enter all that apply)			
Contaminated ingredients (enter all that apply)			
Reason(s) suspected (enter all that apply from list in appendix)			
Method of processing (enter all that apply from list in appendix)			
Method of preparation (select one from list in appendix)			
Level of preparation (select one from list in appendix)			
Contaminated food imported to US?	<input type="checkbox"/> Yes, Country _____ <input type="checkbox"/> Yes, Unknown <input type="checkbox"/> No	<input type="checkbox"/> Yes, Country _____ <input type="checkbox"/> Yes, Unknown <input type="checkbox"/> No	<input type="checkbox"/> Yes, Country _____ <input type="checkbox"/> Yes, Unknown <input type="checkbox"/> No
Was product both produced under domestic regulatory oversight and sold?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
Location where food was prepared (Check all that apply)		Location of exposure (where food was eaten) (Check all that apply)	
<input checked="" type="checkbox"/> Restaurant – 'Fast-food' (drive up service or pay at counter)	<input type="checkbox"/> Nursing home, assisted living facility, home care	<input checked="" type="checkbox"/> Restaurant – 'Fast-food' (drive up service or pay at counter)	<input type="checkbox"/> Nursing home, assisted living facility, home care
<input type="checkbox"/> Restaurant – Sit-down dining	<input type="checkbox"/> Hospital	<input type="checkbox"/> Restaurant – Sit-down dining	<input type="checkbox"/> Hospital
<input type="checkbox"/> Restaurant – Other or unknown type	<input type="checkbox"/> Child day care center	<input type="checkbox"/> Restaurant – Other or unknown type	<input type="checkbox"/> Child day care center
<input type="checkbox"/> Private home	<input type="checkbox"/> School	<input type="checkbox"/> Private home	<input type="checkbox"/> School
<input type="checkbox"/> Banquet Facility (food prepared and served on-site)	<input type="checkbox"/> Prison, jail	<input type="checkbox"/> Banquet Facility (food prepared and served on-site)	<input type="checkbox"/> Prison, jail
<input type="checkbox"/> Carterer (food prepared off-site from where served)	<input type="checkbox"/> Church, temple, religious location	<input type="checkbox"/> Carterer (food prepared off-site from where served)	<input type="checkbox"/> Church, temple, religious location
<input type="checkbox"/> Fair, festival, other temporary or mobile services	<input type="checkbox"/> Camp	<input type="checkbox"/> Fair, festival, other temporary or mobile services	<input type="checkbox"/> Camp
<input type="checkbox"/> Grocery store	<input type="checkbox"/> Picnic	<input type="checkbox"/> Grocery store	<input type="checkbox"/> Picnic
<input type="checkbox"/> Workplace, not cafeteria	<input type="checkbox"/> Other (describe in Prepared/Remarks)	<input type="checkbox"/> Workplace, not cafeteria	<input type="checkbox"/> Other (describe in Eaten/Remarks)
<input type="checkbox"/> Workplace cafeteria	<input type="checkbox"/> Unknown	<input type="checkbox"/> Workplace cafeteria	<input type="checkbox"/> Unknown
Remarks:		Remarks:	

**Contributing Factors (Check all that contributed to this outbreak)**

Contributing factors unknown

**Contamination Factor**

C1  C2  C3  C4  C5  C6  C7  C8  C9  C10  C11  C12  C13  C14  C15  C-N/A

**Proliferation/Amplification Factor (bacterial outbreaks only)**

P1  P2  P3  P4  P5  P6  P7  P8  P9  P10  P11  P12  P-N/A

**Survival Factor**

S1  S2  S3  S4  S5  S-N/A

**The confirmed or suspected point of contamination (Check one)**

Before preparation  Preparation

If 'before preparation':  Pre-Harvest  Processing  Unknown

**Reason suspected (Check all that apply)**

Environmental evidence

Laboratory evidence

Epidemiologic evidence

Prior experience makes this a likely source

Was food-worker implicated as the source of contamination?  Yes  No

If yes, please check only one of the following

- Laboratory and epidemiologic evidence
- Epidemiologic evidence
- Laboratory evidence
- Prior experience makes this a likely source

**School Questions**

(Complete this section only if school is checked in either sections "Location where food was prepared" or "Location of exposure (where food eaten)")

**1. Did the outbreak involve a single or multiple schools?**

- Single
- Multiple (If yes, number of schools \_\_\_\_\_)

**2. School characteristics (for all involved students in all involved schools)**

a. Total approximate enrollment  
\_\_\_\_\_ (number of students)

Unknown or undetermined

b. Grade level(s)

Preschool

Grade school (grades K-12)

Please check all grades affected:  K  1st  2nd  3rd  4th  5th  6th  7th  8th  9th  10th  11th  12th

College/university/technical school

Unknown or Undetermined

c. Primary funding of involved schools

Public

Private

Unknown

**3. Describe the preparation of the implicated item: (check all that apply)**

- Heat and serve (item mostly prepared or cooked off site, reheated on-site)
- Served a-la-carte
- Serve only (preheated or served cold)
- Cooked on-site using primary ingredients
- Provided by a food service management company
- Provided by a fast-food vendor
- Provided by a pre-plate company
- Part of a club or fundraising event
- Made in the classroom
- Brought by a student/teacher/parent
- Other (describe in General/Remarks)
- Unknown or Undetermined

**4. How many times has the state, county or local health department inspected this school cafeteria or kitchen in the 12 months before the outbreak?\***

- Once
- Twice
- More than two times
- Not inspected
- Unknown or Undetermined

**5. Does the school have a HACCP plan in place for the school feeding program?\***

- Yes
- No
- Unknown or Undetermined

\*If multiple schools are involved, please answer according to the most affected school

6. Was implicated food item provided to the school through the National School Lunch/Breakfast Program?

- Yes  
 No  
 Unknown or Undetermined

If yes; was the implicated food item donated/purchased by:

- USDA through the Commodity Distribution Program  
 The state/school authority  
 Other (describe in General/Remarks)  
 Unknown or Undetermined

### Ground Beef

1. What percentage of ill persons (for whom information is available) ate ground beef raw or undercooked? \_\_\_\_\_ %
2. Was ground beef case-ready?  Yes  No  Unknown  
 (Case-ready ground beef is meat that comes from a manufacturer packaged for sale that is not altered or repackaged by the retailer)
3. Was the beef ground or reground by the retailer?  
 Yes  No  Unknown
- If yes, was anything added to the beef during grinding (such as shop trim or any product to alter the fat content)? \_\_\_\_\_

### Additional Salmonella Questions

(Complete this section for Salmonella outbreaks)

1. Phage type(s) of patient isolates:

\_\_\_\_\_ if RDNC\* then include # \_\_\_\_\_

\_\_\_\_\_ if RDNC\* then include # \_\_\_\_\_

\_\_\_\_\_ if RDNC\* then include # \_\_\_\_\_

\_\_\_\_\_ if RDNC\* then include # \_\_\_\_\_

\* Reacts, Does Not Conform

### Eggs

1. Were eggs (check all that apply)

- in shell, unpasteurized?  
 in shell, pasteurized?  
 packaged liquid or dry?  
 stored with inadequate refrigeration during or after sale?  
 consumed raw?  
 consumed undercooked?  
 pooled?

2. Was Salmonella enteritidis found on the farm?  Yes  No  Unknown

Comment (e.g., eggs and patients isolates matched by phage type): \_\_\_\_\_