

Appendix I

NATIONAL OUTBREAK REPORTING SYSTEM (NORS) FORMS

- 1) Foodborne Outbreak Form (CDC 52.13)
- 2) Waterborne Outbreak Form (CDC 52.12)

For additional information contact the KDPH Division of
Epidemiology and Health Planning,
Reportable Disease Section, (502) 564-3261

or

the CDC NORS website

<http://www.cdc.gov/outbreaknet/nors/>

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1) Foodborne Outbreak Form (CDC 52.13)



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

Form Approved
 OMB No. 0920-0004

General Section

Primary Mode of Transmission (check one)

Food (Complete General, Lab, and Food tabs)

Person-to-person (Complete General, Lab, and Person-to-Person tabs)

Water (Complete CDC 52.12)

Environmental contamination other than food/water (Complete General and Lab tabs)

Animal contact (Complete General, Lab, and Animal Contact 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) ____/____/____

Date last case became ill ____/____/____

Date of initial exposure ____/____/____

Date of last exposure ____/____/____

Date of report to CDC (other than this form) ____/____/____

Date of notification to State/Territory or Local/Tribal Health Authorities ____/____/____

Geographic Location

Reporting state: _____
 Exposure occurred in multiple states
 Exposure occurred in a single state, but cases resided in multiple states
 Other states: _____

Reporting county: _____
 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: _____

City/Town/Place of exposure: _____
Do not include proprietary or private facility names

Primary Cases

Number of Primary Cases		Sex (estimated percent of the primary cases)				
# Lab-confirmed cases	(A)	Male		%		
# Probable cases	(B)	Female		%		
# Estimated total primary ill						
	# Cases	Total # of cases for whom info is available	Approximate percent of primary cases in each age group			
# Died			<1 year	%	20–49 years	%
# Hospitalized			1–4 years	%	50–74 years	%
# Visited Emergency Room			5–9 years	%	≥ 75 years	%
# Visited health care provider (excluding ER visits)			10–19 years	%	Unknown	%

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National Outbreak Reporting System

CS11983 1

APPENDIX I

General					
Incubation Period, Duration of Illness, Signs or Symptoms for Primary Cases only					
Incubation Period <i>(circle appropriate units)</i>			Duration of Illness <i>(among recovered cases-circle appropriate units)</i>		
Shortest		Min, Hours, Days	Shortest		Min, Hours, Days
Median		Min, Hours, Days	Median		Min, Hours, Days
Longest		Min, Hours, Days	Longest		Min, Hours, Days
Total # of cases for whom info is available			Total # of cases for whom info is available		
<input type="checkbox"/> Unknown incubation period			<input type="checkbox"/> Unknown duration of illness		
Signs or Symptoms <i>(*refer to terms from appendix, if appropriate, to describe other common characteristics of cases)</i>					
Feature	# Cases with signs or symptoms		Total # cases for whom info available		
Vomiting					
Diarrhea					
Bloody stools					
Fever					
Abdominal cramps					
HUS					
Asymptomatic					
*					
*					
*					
Secondary Cases					
Mode of Secondary Transmission <i>(check all that apply)</i>			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 type="checkbox"/> Indeterminate/Other/Unknown			# Lab-confirmed secondary cases		(A)
			# Probable secondary cases		(B)
			Total # of secondary cases		
			Total # of cases (Primary + Secondary)		
Environmental Health Specialists Network <i>(if applicable)</i>					
EHS-Net Evaluation ID: 1.) _____ 2.) _____ 3.) _____					
Traceback <i>(for food and bottled water only, not public water)</i>					
<input type="checkbox"/> Please check if traceback conducted					
Source name <i>(if publicly available)</i>	Source type <i>(e.g. poultry farm, tomato processing plant, bottled water factory)</i>	Location of source		Comments	
		State	Country		
Recall					
<input type="checkbox"/> Please check if any food or bottled water product was recalled					
Type of item recalled:					
Comments:					
Reporting Agency					
Agency name: _____			E-mail: _____		
Contact name: _____			Contact title: _____		
Phone no.: _____			Fax no.: _____		
Remarks <i>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)</i>					

Laboratory	Person-to-Person	Animal Contact				
Laboratory Section						
Etiology known? <input type="checkbox"/> Yes <input type="checkbox"/> No						
If etiology is <i>unknown</i> , were patient specimens collected? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown						
If yes, how many specimens collected? (provide numeric value) _____						
What were they tested for? (check all that apply) <input type="checkbox"/> Bacteria <input type="checkbox"/> Chemicals/Toxins <input type="checkbox"/> Viruses <input type="checkbox"/> Parasites						
Etiology <small>(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/foodborneoutbreaks/guide_fd.htm or MMWR2000/Vol. 49/SS-1/App. B)</small>						
Genus	Species	Serotype	Confirmed outbreak etiology	Other Characteristics	Detected in*	# Lab-confirmed cases
			<input type="checkbox"/> yes			
			<input type="checkbox"/> yes			
			<input type="checkbox"/> yes			
			<input type="checkbox"/> yes			
*Detected in (choose all that apply): 1 - patient specimen 2 - food specimen 3 - environment specimen 4 - food worker specimen						
Isolates <small>(For bacterial pathogens, provide a representative for each distinct pattern; provide lab ID for all specimens submitted for viral sequencing)</small>						
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)						
<input type="checkbox"/> Camp <input type="checkbox"/> Child day care <input type="checkbox"/> Community-wide <input type="checkbox"/> Hospital		<input type="checkbox"/> Hotel <input type="checkbox"/> Nursing home <input type="checkbox"/> Prison or detention facility <input type="checkbox"/> Other, please specify: _____		<input type="checkbox"/> Private setting (residential home) <input type="checkbox"/> Religious facility <input type="checkbox"/> Restaurant		<input type="checkbox"/> School <input type="checkbox"/> Ship <input type="checkbox"/> Workplace
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) x 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)						
<input type="checkbox"/> Camp <input type="checkbox"/> Child day care <input type="checkbox"/> Community-wide <input type="checkbox"/> Hospital		<input type="checkbox"/> Hotel <input type="checkbox"/> Nursing home <input type="checkbox"/> Prison or detention facility <input type="checkbox"/> Other, please specify: _____		<input type="checkbox"/> Private setting (residential home) <input type="checkbox"/> Religious facility <input type="checkbox"/> Restaurant		<input type="checkbox"/> School <input type="checkbox"/> Ship <input type="checkbox"/> Workplace
Animals and their environment						
Selling of exposure	Type of animal	Remarks				

APPENDIX I

Food			
Food-specific data			
<input type="checkbox"/> Food vehicle undetermined		Total # of cases exposed to implicated food _____	
Food	1	2	3
Name of food <i>(excluding any preparation)</i>			
Ingredient(s) <i>(enter all that apply)</i>			
Contaminated ingredients <i>(enter all that apply)</i>			
Reason(s) suspected <i>(enter all that apply from list in appendix)</i>			
Method of processing <i>(enter all that apply from list in appendix)</i>			
Method of preparation <i>(select one from list in appendix)</i>			
Level of preparation <i>(select one from list in appendix)</i>			
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 <i>both</i> produced under domestic regulatory oversight <i>and</i> 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 <i>(Check all that apply)</i>		Location of exposure (where food was eaten) <i>(Check all that apply)</i>	
<input type="checkbox"/> Restaurant – ‘Fast-food’ <i>(drive up service or pay at counter)</i>	<input type="checkbox"/> Nursing home, assisted living facility, home care	<input type="checkbox"/> Restaurant – ‘Fast-food’ <i>(drive up service or pay at counter)</i>	<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 <i>(food prepared and served on-site)</i>	<input type="checkbox"/> Prison, jail	<input type="checkbox"/> Banquet Facility <i>(food prepared and served on-site)</i>	<input type="checkbox"/> Prison, jail
<input type="checkbox"/> Carterer <i>(food prepared off-site from where served)</i>	<input type="checkbox"/> Church, temple, religious location	<input type="checkbox"/> Carterer <i>(food prepared off-site from where served)</i>	<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 <i>(describe in Prepared/Remarks)</i>	<input type="checkbox"/> Workplace, not cafeteria	<input type="checkbox"/> Other <i>(describe in Eaten/Remarks)</i>
<input type="checkbox"/> Workplace cafeteria	<input type="checkbox"/> Unknown	<input type="checkbox"/> Workplace cafeteria	<input type="checkbox"/> Unknown
Remarks:		Remarks:	

Food	
Contributing Factors <i>(Check all that contributed to this outbreak)</i>	
<input type="checkbox"/> Contributing factors unknown	
Contamination Factor	
<input type="checkbox"/> C1 <input type="checkbox"/> C2 <input type="checkbox"/> C3 <input type="checkbox"/> C4 <input type="checkbox"/> C5 <input type="checkbox"/> C6 <input type="checkbox"/> C7 <input type="checkbox"/> C8 <input type="checkbox"/> C9 <input type="checkbox"/> C10 <input type="checkbox"/> C11 <input type="checkbox"/> C12 <input type="checkbox"/> C13 <input type="checkbox"/> C14 <input type="checkbox"/> C15 <input type="checkbox"/> C-N/A	
Proliferation/Amplification Factor <i>(bacterial outbreaks only)</i>	
<input type="checkbox"/> P1 <input type="checkbox"/> P2 <input type="checkbox"/> P3 <input type="checkbox"/> P4 <input type="checkbox"/> P5 <input type="checkbox"/> P6 <input type="checkbox"/> P7 <input type="checkbox"/> P8 <input type="checkbox"/> P9 <input type="checkbox"/> P10 <input type="checkbox"/> P11 <input type="checkbox"/> P12 <input type="checkbox"/> P-N/A	
Survival Factor	
<input type="checkbox"/> S1 <input type="checkbox"/> S2 <input type="checkbox"/> S3 <input type="checkbox"/> S4 <input type="checkbox"/> S5 <input type="checkbox"/> S-N/A	
The confirmed or suspected point of contamination <i>(Check one)</i>	
<input type="checkbox"/> Before preparation <input type="checkbox"/> Preparation	
If 'before preparation': <input type="checkbox"/> Pre-Harvest <input type="checkbox"/> Processing <input type="checkbox"/> Unknown	
Reason suspected <i>(Check all that apply)</i>	
<input type="checkbox"/> Environmental evidence	<input type="checkbox"/> Laboratory evidence
<input type="checkbox"/> Epidemiologic evidence	<input type="checkbox"/> Prior experience makes this a likely source
Was food-worker implicated as the source of contamination? <input type="checkbox"/> Yes <input type="checkbox"/> No	
If yes, please check only one of the following	
<input type="checkbox"/> Laboratory and epidemiologic evidence	
<input type="checkbox"/> Epidemiologic evidence	
<input type="checkbox"/> Laboratory evidence	
<input type="checkbox"/> Prior experience makes this a likely source	
School Questions <i>(Complete this section only if school is checked in either sections "Location where food was prepared" or "Location of exposure (where food eaten)"</i>)	
1. Did the outbreak involve a single or multiple schools?	
<input type="checkbox"/> Single	
<input type="checkbox"/> Multiple (If yes, number of schools _____)	
2. School characteristics <i>(for all involved students in all involved schools)</i>	
a. Total approximate enrollment _____ (number of students)	
<input type="checkbox"/> Unknown or undetermined	
b. Grade level(s)	
<input type="checkbox"/> Preschool	
<input type="checkbox"/> Grade school <i>(grades K-12)</i>	
Please check all grades affected: <input type="checkbox"/> K <input type="checkbox"/> 1st <input type="checkbox"/> 2nd <input type="checkbox"/> 3rd <input type="checkbox"/> 4th <input type="checkbox"/> 5th <input type="checkbox"/> 6th <input type="checkbox"/> 7th <input type="checkbox"/> 8th <input type="checkbox"/> 9th <input type="checkbox"/> 10th <input type="checkbox"/> 11th <input type="checkbox"/> 12th	
<input type="checkbox"/> College/university/technical school	
<input type="checkbox"/> Unknown or Undetermined	
c. Primary funding of involved schools	
<input type="checkbox"/> Public	
<input type="checkbox"/> Private	
<input type="checkbox"/> Unknown	
3. Describe the preparation of the implicated item: <i>(check all that apply)</i> <input type="checkbox"/> Heat and serve <i>(item mostly prepared or cooked off site, reheated on-site)</i> <input type="checkbox"/> Served a-la-carte <input type="checkbox"/> Serve only <i>(preheated or served cold)</i> <input type="checkbox"/> Cooked on-site using primary ingredients <input type="checkbox"/> Provided by a food service management company <input type="checkbox"/> Provided by a fast-food vendor <input type="checkbox"/> Provided by a pre-plate company <input type="checkbox"/> Part of a club or fundraising event <input type="checkbox"/> Made in the classroom <input type="checkbox"/> Brought by a student/teacher/parent <input type="checkbox"/> Other <i>(describe in General/Remarks)</i> <input type="checkbox"/> 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?* <input type="checkbox"/> Once <input type="checkbox"/> Twice <input type="checkbox"/> More than two times <input type="checkbox"/> Not inspected <input type="checkbox"/> Unknown or Undetermined 5. Does the school have a HACCP plan in place for the school feeding program?* <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown or Undetermined <small>*If multiple schools are involved, please answer according to the most affected school</small>

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Food

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*): _____

Public reporting burden of this collection of information is estimated to average 20 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. An agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to CDC, Project Clearance Officer, 1600 Clifton Road, MS D-24, Atlanta, GA, 30333, ATTN: PPA (0920-0004) ← DO NOT MAIL CASE REPORTS TO THIS ADDRESS.

2) Waterborne Outbreak Form (CDC 52.12)

General																	
																	
<h3 style="margin: 0;">National Outbreak Reporting System</h3> <h4 style="margin: 0;">Waterborne Disease Transmission</h4> <p style="font-size: small; margin: 0;">This form is used to report waterborne disease outbreak investigations. This form has 6 parts, indicated by tabs at the top of each page. Part 1 asks for the minimum or basic information about the outbreak investigation. Part 2 asks for epidemiological data and clinical specimen test results. Parts 3, 4, 5 and 6 collect information about types of water exposure (treated recreational water, untreated recreational water, drinking water, and water not intended for drinking/unknown intent). Only 1 of these 4 water exposure parts should be completed for an outbreak investigation report.</p> <p style="font-size: x-small; margin: 0;">CDC USE ONLY</p>																	
<div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">CDC Report ID</div>	<div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">State Report ID</div>																
Form Approved OMB No. 0920-0004																	
General Section																	
Primary Mode of Transmission (check one)																	
<input type="checkbox"/> Food (Complete CDC 52.13)	<input type="checkbox"/> Person-to-person (Complete CDC 52.13)																
<input type="checkbox"/> Water (Complete tabs for General, Water-General and type of water exposure)	<input type="checkbox"/> Environmental contamination other than food/water (Complete CDC 52.13)																
<input type="checkbox"/> Animal contact (Complete CDC 52.13)	<input type="checkbox"/> Indeterminate/Other/Unknown (Complete CDC 52.13)																
Investigation Methods (check all that apply)																	
<input type="checkbox"/> Interviews only of ill persons <input type="checkbox"/> Case-control study <input type="checkbox"/> Cohort study <input type="checkbox"/> Food preparation review <input type="checkbox"/> Water system assessment: Drinking water <input type="checkbox"/> Water system assessment: Nonpotable water	<input type="checkbox"/> Treated or untreated recreational water venue assessment <input type="checkbox"/> Investigation at factory/production/treatment plant <input type="checkbox"/> Investigation at original source (e.g., farm, water source, etc.) <input type="checkbox"/> Food product or bottled water traceback <input type="checkbox"/> Environment/food/water sample testing <input type="checkbox"/> Other																
Comments _____ _____																	
Dates (mm/dd/yyyy)																	
Date first case became ill (required) _____	Date last case became ill _____																
Date of initial exposure _____	Date of last exposure _____																
Date of report to CDC (other than this form) _____																	
Date of notification to State/Territory or Local/Tribal Health Authorities _____																	
Geographic Location																	
Reporting state: _____ <input type="checkbox"/> Exposure occurred in multiple states <input type="checkbox"/> Exposure occurred in a single state but cases resided in multiple states Other states: _____																	
Reporting county: _____ <input type="checkbox"/> Exposure occurred in multiple counties in reporting state <input type="checkbox"/> Exposure occurred in a single county but cases resided in multiple counties in reporting state Other counties: _____																	
City/Town/Place of exposure: _____ <i>Do not include proprietary or private facility names</i>																	
Primary Cases																	
Number of Primary Cases	Sex (estimated percent of the primary cases)																
# Lab-confirmed cases	Male _____ %																
# Probable cases	Female _____ %																
# Estimated total primary cases																	
# Cases	Total # of cases for whom info is available																
Approximate percent of primary cases in each age group																	
# Died	<table border="0" style="width: 100%; font-size: small;"> <tr> <td style="width: 25%;"><1 year</td> <td style="width: 10%;">%</td> <td style="width: 25%;">20-49 years</td> <td style="width: 10%;">%</td> </tr> <tr> <td>1-4 years</td> <td>%</td> <td>50-74 years</td> <td>%</td> </tr> <tr> <td>5-9 years</td> <td>%</td> <td>≥ 75 years</td> <td>%</td> </tr> <tr> <td>10-19 years</td> <td>%</td> <td>Unknown</td> <td>%</td> </tr> </table>	<1 year	%	20-49 years	%	1-4 years	%	50-74 years	%	5-9 years	%	≥ 75 years	%	10-19 years	%	Unknown	%
<1 year	%	20-49 years	%														
1-4 years	%	50-74 years	%														
5-9 years	%	≥ 75 years	%														
10-19 years	%	Unknown	%														
# Hospitalized																	
# Visited Emergency Room																	
# Visited health care provider (excluding ER visits)																	
CDC 52.12 Rev 03/2008	National Outbreak Reporting System																
	CS110283																

APPENDIX I

General					
Incubation Period, Duration of Illness, Signs or Symptoms for Primary Cases only					
Incubation Period <i>(select appropriate units)</i>			Duration of Illness <i>(among recovered cases-select appropriate units)</i>		
Shortest		Min, Hours, Days	Shortest		Min, Hours, Days
Median		Min, Hours, Days	Median		Min, Hours, Days
Longest		Min, Hours, Days	Longest		Min, Hours, Days
Total # of cases for whom info is available			Total # of cases for whom info is available		
<input type="checkbox"/> Unknown incubation period			<input type="checkbox"/> Unknown duration of illness		
Signs or Symptoms					
Feature	# Cases with signs or symptoms		Total # cases for whom info available		
Vomiting					
Diarrhea					
Bloody stools					
Fever					
Abdominal cramps					
HUS					
Asymptomatic					
Secondary Cases					
Mode of Secondary Transmission <i>(check one)</i>			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 type="checkbox"/> Indeterminate/Other/Unknown			# Lab-confirmed secondary cases		
			# Probable secondary cases		
			Estimated total secondary ill		
			Total # of cases (Primary + Secondary)		
Environmental Health Specialists Network <i>(if applicable)</i>					
EHS-Net Evaluation ID: 1.) _____ 2.) _____ 3.) _____					
Traceback <i>(for food and bottled water only, not public water)</i>					
<input type="checkbox"/> Please check if traceback conducted					
Source name <i>(if publicly available)</i>	Source type <i>(e.g. poultry farm, tomato processing plant, bottled water factory)</i>	Location of source		Comments	
		State	Country		
Recall					
<input type="checkbox"/> Please check if any food or bottled water product was recalled					
Type of item recalled:					
Comments:					
Reporting Agency					
Agency name: _____			E-mail: _____		
Contact name: _____			Contact title: _____		
Phone no.: _____			Fax no.: _____		
Remarks <i>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)</i>					

APPENDIX I

Water-General					
Clinical Specimens - Laboratory Results (refer to the laboratory findings from the outbreak investigation)					
<p>1. Were clinical diagnostic specimens taken from persons? <input type="checkbox"/> Yes <input type="checkbox"/> No (go to next tab) <input type="checkbox"/> Unknown (go to next tab)</p> <p>If Yes, from how many persons were specimens taken? _____</p>					
Specimen Type*	Specimen Subtype**	Tested for § (list all that apply)			
<small>* Specimen Type: 1-Autopsy Specimen (specify subtype), 2-Biopsy (specify), 3-Blood, 4-Bronchial Alveolar Lavage (BAL), 5-Cerebrospinal Fluid (CSF), 6-Conjunctiva/Eye Swab, 7-Ear Swab, 8-Endotracheal Aspirate, 9-Saliva, 10-Serum, 11-Skin Swab, 12-Sputum, 13-Stool, 14-Urine, 15-Vomit, 16-Wound Swab, 17-Unknown</small>					
<small>** Specimen Subtype: 1-Bladder, 2-Brain, 3-Dura, 4-Hair, 5-Intestine, 6-Kidney, 7-Liver, 8-Lung, 9-Nails, 10-Skin, 11-Stomach, 12-Wound, 13-Other, 14-Unknown</small>					
<small>§ Tested for: 1-Bacteria, 2-Chemicals/Toxins, 3-Fungi, 4-Parasites, 5-Viruses</small>					
Report the confirmed and/or suspected etiological agent(s) in the table below.					
Clinical Specimen Row Number	Genus/ Chemical/ Toxin	Species	Serotype/ Serogroup/ Serovar	Genotype/ Subtype	
1					
2					
3					
4					
Clinical Specimen Row Number	Confirmed as Etiology ?	Concentration (numerical value)	Unit	Specimen Type *	Specimen Subtype **
1	<input type="checkbox"/> Yes				
2	<input type="checkbox"/> Yes				
3	<input type="checkbox"/> Yes				
4	<input type="checkbox"/> Yes				
Clinical Specimen Row Number	Test Type §	Total # People Tested	Total # People Positive		
1					
2					
3					
4					
<small>* Specimen Type: 1-Autopsy Specimen (specify subtype), 2-Biopsy (specify), 3-Blood, 4-Bronchial Alveolar Lavage (BAL), 5-Cerebrospinal Fluid (CSF), 6-Conjunctiva/Eye Swab, 7-Ear Swab, 8-Endotracheal Aspirate, 9-Saliva, 10-Serum, 11-Skin Swab, 12-Sputum, 13-Stool, 14-Urine, 15-Vomit, 16-Wound Swab, 17-Unknown</small>					
<small>** Specimen Subtype: 1-Bladder, 2-Brain, 3-Dura, 4-Hair, 5-Intestine, 6-Kidney, 7-Liver, 8-Lung, 9-Nails, 10-Skin, 11-Stomach, 12-Wound, 13-Other, 14-Unknown</small>					
<small>§ Test Type: 1-Culture, 2-DNA or RNA Amplification/Detection (e.g., PCR, RT-PCR), 3-Microscopy (e.g., fluorescent, EM), 4-Serological/Immunological Test (e.g., EIA, ELISA), 5-Phage Typing, 6-Chemical Testing, 7-Tissue Culture Infectivity Assay</small>					
Isolates					
State Lab Isolate ID	Specimen Profile 1 (e.g., the PFGE, MLVA, or genotype sequence)		Specimen Profile 2 (e.g., the PFGE, MLVA, or genotyping method used)		

Rec Water-Treated					
Recreational Water – Treated Venue					
Recreational Water Vehicle Description					
Water Vehicle Number	Water Type <i>(e.g., spa/whirlpool/hot tub; pool- swimming pool; pool- waterpark)</i>	Water Subtype <i>(select indoor, outdoor, or unknown)</i>	Setting of Exposure <i>(e.g., club, requiring membership; hotel/motel/lodge/inn; waterpark)</i>		
1					
2					
3					
Water Vehicle Number <i>(reference the appropriate Water Vehicle Number)</i>	USUAL Water Treatment Provided at Venue <i>(e.g., no treatment; coagulation; disinfection; flocculation; filtration (pool); unknown)</i>	Venue Treatment Subtype <i>(disinfection or pool filtration: e.g., UV; chlorine dioxide; bag filter; cartridge filter; unknown)</i>	Chlorination Subtype <i>(chlorine disinfection only- e.g., gaseous; sodium hypochlorite; cyanurates /stabilized chlorine)</i>		
Water Vehicle Number <i>(reference the appropriate Water Vehicle Number)</i>	Fill Water Type <i>(e.g., public water supply; sea water; untreated ground or surface water; unknown)</i>	IF PUBLIC WATER WAS USED TO FILL, USUAL Water Treatment Provided for Fill Water Before Coming to the Venue <i>(e.g., no treatment; disinfection; filtration (treatment plant); unknown)</i>	IF PUBLIC WATER WAS USED TO FILL, Fill Water Treatment Subtype <i>(disinfection or filtration: e.g., UV; chlorine dioxide; bag filter; cartridge filter; unknown)</i>		
Recreational Water Quality					
Did the venue meet state or local recreational water quality regulations? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Not applicable					
If No, explain: _____					
Was there a pool operator on the payroll with state-approved training or certification? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown					
Laboratory Section - Recreational Water Samples from Treated Venues					
Was water from treated recreational water venues tested? <input type="checkbox"/> Yes <i>(specify in table below)</i> <input type="checkbox"/> No <input type="checkbox"/> Unknown					
Results	1	2	3	4	5
Sample					
Source of Sample <i>(e.g., swimming pool, hot tub)</i>					
Additional Description <i>(e.g., time of day, backwash sample, etc.)</i>					
Date <i>(mm/dd/yyyy)</i>					
Volume Tested	Number				
	Unit				
Temperature	Number				
	Unit				
Residual/Free Disinfectant Level <i>(if total and combined disinfectant levels given, total - combined = free)</i>	Number				
	Unit				
Combined Disinfectant Level <i>(if total and free disinfectant levels given, total - free = combined)</i>	Number				
	Unit				
pH					

APPENDIX I

Rec Water-Treated						
Microbiology or Chemical/Toxin Analysis (refer to the laboratory findings from the outbreak investigation)						
Sample Number	Genus/ Chemical/ Toxin	Species	Serotype/ Serogroup/ Serovar	Genotype/ Subtype	PFGE Pattern	
Sample Number	Test Results Positive?	Concentration (numerical value)	Unit	Test Type*	Test Method (reference: National Environmental Methods Index: http://www.nemi.gov)	
	<input type="checkbox"/> Yes					
	<input type="checkbox"/> Yes					
	<input type="checkbox"/> Yes					
* Test Type: 1-Culture, 2-DNA or RNA Amplification/Detection (e.g., PCR, RT-PCR), 3-Microscopy (e.g., fluorescent, EM), 4-Serological/Immunological Test (e.g., EIA, ELISA), 5-Phage Typing, 6-Chemical Testing, 7-Tissue Culture Infectivity Assay						
Factors Contributing to Recreational Water Contamination and/or Increased Exposure In Treated Venues						
Factors (check all that apply)**				Documented/ Observed***	Suspected***	
PEOPLE	Exceeded maximum bather load				<input type="checkbox"/>	<input type="checkbox"/>
	Primary intended use of water is by diaper/toddler-aged children (e.g., kiddie pool)				<input type="checkbox"/>	<input type="checkbox"/>
	Heavy use by child care center groups				<input type="checkbox"/>	<input type="checkbox"/>
	Facal/vomitus accident				<input type="checkbox"/>	<input type="checkbox"/>
FACILITY DESIGN	Patrons continued to swim when ill with diarrhea				<input type="checkbox"/>	<input type="checkbox"/>
	Operator error				<input type="checkbox"/>	<input type="checkbox"/>
	Intentional contamination (explain in remarks)				<input type="checkbox"/>	<input type="checkbox"/>
	Combined pool filtration/recirculation systems led to cross-contamination				<input type="checkbox"/>	<input type="checkbox"/>
	Hygiene facilities (e.g., toilets, diaper changing facilities) inadequate or distant				<input type="checkbox"/>	<input type="checkbox"/>
	Some spray feature water bypasses filtration/treatment system and returns to feature unfiltered/untreated				<input type="checkbox"/>	<input type="checkbox"/>
	No supplemental disinfection installed that would have inactivated pathogen (e.g., <i>Cryptosporidium</i>)				<input type="checkbox"/>	<input type="checkbox"/>
	Water temperature $\geq 30^{\circ}\text{C}$ ($\geq 86^{\circ}\text{F}$)				<input type="checkbox"/>	<input type="checkbox"/>
	Cross-connection with wastewater or non-potable water				<input type="checkbox"/>	<input type="checkbox"/>
	Disinfectant control system malfunctioning, inadequate, or lacking (e.g., hand feed chemicals)				<input type="checkbox"/>	<input type="checkbox"/>
MAINTENANCE	Incorrect settings on disinfectant control system				<input type="checkbox"/>	<input type="checkbox"/>
	pH control system malfunctioning, inadequate, or lacking (e.g., hand feed chemicals)				<input type="checkbox"/>	<input type="checkbox"/>
	Incorrect settings on pH control system				<input type="checkbox"/>	<input type="checkbox"/>
	Filtration system malfunctioning or inadequate (e.g., low flow rate)				<input type="checkbox"/>	<input type="checkbox"/>
	Supplemental disinfection system malfunctioning or inadequate (e.g., ultraviolet light, ozone)				<input type="checkbox"/>	<input type="checkbox"/>
	Insufficient system checks so breakdown detection delayed				<input type="checkbox"/>	<input type="checkbox"/>
	No preventive equipment maintenance programs to reduce breakdowns				<input type="checkbox"/>	<input type="checkbox"/>
	Ventilation insufficient for indoor aquatic facilities				<input type="checkbox"/>	<input type="checkbox"/>
	Chemical handling error (e.g., chemical hookup, improper mixing or application)				<input type="checkbox"/>	<input type="checkbox"/>
	Maintenance chemicals not flushed from system before opening to swimmers				<input type="checkbox"/>	<input type="checkbox"/>
	Recirculation pump off or restarted with swimmers in water				<input type="checkbox"/>	<input type="checkbox"/>
	Low or zero water flow combined with continuous feed of chemicals resulted in excess chemicals in water				<input type="checkbox"/>	<input type="checkbox"/>
	Extensive slime/biofilm formation				<input type="checkbox"/>	<input type="checkbox"/>
	Recent construction				<input type="checkbox"/>	<input type="checkbox"/>
	Cyanurate level excessive				<input type="checkbox"/>	<input type="checkbox"/>
	POLICY AND MANAGEMENT	Lack of draining/cleaning				<input type="checkbox"/>
Stagnant water in spa piping was aerosolized				<input type="checkbox"/>	<input type="checkbox"/>	
No aquatic operators on payroll who have completed state/local training				<input type="checkbox"/>	<input type="checkbox"/>	
Untrained/inadequately trained staff on duty				<input type="checkbox"/>	<input type="checkbox"/>	
Remote monitoring system replaces on-site water quality testing				<input type="checkbox"/>	<input type="checkbox"/>	
Unclear communication chain for reporting problems				<input type="checkbox"/>	<input type="checkbox"/>	
Inadequate water quality monitoring (e.g., inadequate test kit, inadequate testing frequency)				<input type="checkbox"/>	<input type="checkbox"/>	
Employee illness policies absent or not enforced				<input type="checkbox"/>	<input type="checkbox"/>	
No or inadequate policies on good chemical handling and storage practices				<input type="checkbox"/>	<input type="checkbox"/>	
No operator on duty at the time of incident				<input type="checkbox"/>	<input type="checkbox"/>	
Facility falls outside aquatic health code				<input type="checkbox"/>	<input type="checkbox"/>	
No shock/hyperchlorination policy				<input type="checkbox"/>	<input type="checkbox"/>	
Other, specify:				<input type="checkbox"/>	<input type="checkbox"/>	
Unknown				<input type="checkbox"/>	<input type="checkbox"/>	
** Only check off what was found during investigation.						
***The release of sewage does not have to occur at the property/venue/setting where the people were exposed. The sewage may have occurred at a distant site but still affected the property/venue/setting in question.						
Remarks						

Rec Water-Untreated					
Recreational Water – Untreated Venue					
Recreational Water Vehicle Description					
Water Type <i>(e.g., canal; lake; river/stream; ocean)</i>	IF SPRING OR HOT SPRING, Water Subtype <i>(select indoor, outdoor or unknown)</i>	Setting of Exposure <i>(e.g., beach-public; camp/cabin/recreational area)</i>			
Recreational Water Quality					
Did the venue meet state or local recreational water quality regulations? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Not applicable If No, explain: _____					
Did the venue meet Environmental Protection Agency (EPA) recreational water quality standards? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Not applicable					
If No, explain: _____					
Laboratory Section - Recreational Water Samples from Untreated Venues					
Was water from untreated recreational water venues tested? <input type="checkbox"/> Yes <i>(specify in table below)</i> <input type="checkbox"/> No <input type="checkbox"/> Unknown					
Results					
Sample	1	2	3	4	5
Source of Sample <i>(e.g., lake or stream)</i>					
Additional Description <i>(e.g., specific location, time of day, etc)</i>					
Date <i>(mm/dd/yyyy)</i>					
Volume Tested	Number				
	Unit				
Temperature	Number				
	Unit				
Water Quality Indicator					
Sample Number	Type <i>(e.g., fecal coliforms)</i>	Concentration <i>(numerical value)</i>			Unit
Microbiology or Chemical/Toxin Analysis <i>(refer to the laboratory findings from the outbreak investigation)</i>					
Sample Number	Genus/ Chemical/ Toxin	Species	Serotype/ Serogroup/ Serovar	Genotype/ Subtype	PFGE Pattern
Sample Number	Test Results Positive?	Concentration <i>(numerical value)</i>	Unit	Test Type*	Test Method <i>(reference: National Environmental Methods Index: http://www.nemi.gov)</i>
	<input type="checkbox"/> Yes				
	<input type="checkbox"/> Yes				
	<input type="checkbox"/> Yes				
	<input type="checkbox"/> Yes				
* Test Type: 1-Culture, 2-DNA or RNA Amplification/Detection (e.g., PCR, RT-PCR), 3-Microscopy (e.g., fluorescent, EM), 4-Serological/immunological Test (e.g., EIA, ELISA), 5-Phage Typing, 6-Chemical Testing, 7-Tissue Culture Infectivity Assay					

APPENDIX I

Rec Water-Untreated			
Factors Contributing to Recreational Water Contamination and/or Increased Exposure in Untreated Venues			
Factors (check all that apply)*	Documented/ Observed**	Suspected**	
PEOPLE	Exceeded maximum bather load	<input type="checkbox"/>	<input type="checkbox"/>
	Primary intended use of water is by diaper/toddler aged children (e.g., kiddie pool)	<input type="checkbox"/>	<input type="checkbox"/>
	Heavy use by child care center groups	<input type="checkbox"/>	<input type="checkbox"/>
	Fecal/vomitus accident	<input type="checkbox"/>	<input type="checkbox"/>
	Patrons continued to swim when ill with diarrhea	<input type="checkbox"/>	<input type="checkbox"/>
	Staff error	<input type="checkbox"/>	<input type="checkbox"/>
SWIM AREA DESIGN	Intentional contamination (explain in remarks)	<input type="checkbox"/>	<input type="checkbox"/>
	Hygiene facilities (e.g., toilets, diaper changing facilities) inadequate or distant	<input type="checkbox"/>	<input type="checkbox"/>
	Malfunctioning or inadequate on-site wastewater treatment system *** ≠	<input type="checkbox"/>	<input type="checkbox"/>
	Poor siting/design of on-site wastewater treatment system *** ≠	<input type="checkbox"/>	<input type="checkbox"/>
	Stagnant or poorly circulating water in swim area	<input type="checkbox"/>	<input type="checkbox"/>
	Heavy rainfall and runoff	<input type="checkbox"/>	<input type="checkbox"/>
	Sanitary sewer overflow (SSO) impact ***	<input type="checkbox"/>	<input type="checkbox"/>
	Combined sewer overflow (CSO) impact ***	<input type="checkbox"/>	<input type="checkbox"/>
	Domestic animal contamination (e.g., livestock, pets)	<input type="checkbox"/>	<input type="checkbox"/>
	Wildlife contamination - Birds	<input type="checkbox"/>	<input type="checkbox"/>
WATER QUALITY	Wildlife contamination - Mammals	<input type="checkbox"/>	<input type="checkbox"/>
	Wildlife contamination - Fish kill	<input type="checkbox"/>	<input type="checkbox"/>
	Wastewater treatment plant effluent flows past swim area	<input type="checkbox"/>	<input type="checkbox"/>
	Wastewater treatment plant malfunction ***	<input type="checkbox"/>	<input type="checkbox"/>
	Sewer line break ***	<input type="checkbox"/>	<input type="checkbox"/>
	Nearby biosolid/land application site (e.g., human or animal waste application)	<input type="checkbox"/>	<input type="checkbox"/>
	Contamination from agricultural chemical application (e.g., fertilizer, pesticides)	<input type="checkbox"/>	<input type="checkbox"/>
	Contamination from chemical pollution not related to agricultural application	<input type="checkbox"/>	<input type="checkbox"/>
	Water temperature ≥30°C (≥86°F)	<input type="checkbox"/>	<input type="checkbox"/>
	Seasonal variation in water quality (e.g., lake/reservoir turnover events)	<input type="checkbox"/>	<input type="checkbox"/>
POLICY AND MANAGEMENT	Inappropriate dumping of sewage into water body (e.g., from boat, RV)	<input type="checkbox"/>	<input type="checkbox"/>
	Algal bloom	<input type="checkbox"/>	<input type="checkbox"/>
	Dumping of ballast water	<input type="checkbox"/>	<input type="checkbox"/>
	Tidal wash (i.e., tide exchange or influence by inland water)	<input type="checkbox"/>	<input type="checkbox"/>
	No or inadequate monitoring of water quality	<input type="checkbox"/>	<input type="checkbox"/>
	No managers have completed state/local required training	<input type="checkbox"/>	<input type="checkbox"/>
	Untrained/inadequately trained staff on duty	<input type="checkbox"/>	<input type="checkbox"/>
	Unclear communication chain for reporting problems	<input type="checkbox"/>	<input type="checkbox"/>
	Employee illness policies absent or not enforced	<input type="checkbox"/>	<input type="checkbox"/>
	Other, specify:	<input type="checkbox"/>	<input type="checkbox"/>
Unknown	<input type="checkbox"/>	<input type="checkbox"/>	

* Only check off what was found during investigation.

** "Documented/Observed" refers to information gathered through document reviews, direct observations, and/or interviews. "Suspected" refers to factors that probably occurred but for which no documentation (as defined previously) is available.

*** The release of sewage does not have to occur at the property/venue/setting where the people were exposed. The sewage may have occurred at a distant site but still affected the property/venue/setting in question.

≠ "On-site wastewater treatment system" refers to a system designed to treat and dispose of wastewater at the point of generation, generally on the property where the wastewater is generated (e.g., septic systems or other advanced on-site systems). However, contamination that originates from these systems can still occur off the property where treatment and disposal takes place due to migration of contaminants from malfunctioning systems or poor siting and design.

Remarks

Drinking Water						
Drinking Water Vehicle Description						
Drinking Water Vehicle Description						
Water Type* <small>(e.g., commercially-bottled water, community water system, individual water system)</small>	Public Water System EPA ID Number**	Water Source <small>(select ground water, surface water or unknown)</small>	Water Source Description <small>(e.g., spring; well; lake)</small>	Setting of Exposure <small>(e.g., airport, mobile home park)</small>	USUAL Water Treatment Provided <small>(e.g., no treatment, disinfection, home filtration)</small>	Water Treatment Subtype <small>(disinfection or filtration: e.g., boiling; chlorine; rapid sand filter; reverse osmosis)</small>

*Water system definitions: Community and noncommunity water systems are public water systems that have ≥ 15 service connections or serve an average of ≥ 25 residents for ≥ 60 days/year. A community water system serves year-round residents of a community, subdivision, or mobile home park. A noncommunity water system serves an institution, industry, camp, park, hotel, or business and can be nontransient or transient. Nontransient systems serve ≥ 25 of the same persons for > 6 months of the year but not year-round (e.g., factories and schools), whereas transient systems provide water to places in which persons do not remain for long periods (e.g., restaurants, highway rest stations, and parks). Individual water systems are small systems not owned or operated by a water utility that have < 15 connections or serve < 25 persons.

** Number used for EPA reporting that uniquely identifies the water system within a specific state. The water system ID number can be found at <http://www.epa.gov/safewater/dwinfo/index.html> by first selecting a state and then selecting a county.

Drinking Water Quality
<p>Did the drinking water system have any monitoring violations in the 1 month prior to the outbreak?</p> <p style="text-align: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Not applicable</p> <p>If Yes, explain: _____</p>
<p>Did the drinking water system have any maximum contaminant level (MCL) violations in the 1 month prior to the outbreak?</p> <p style="text-align: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Not applicable</p> <p>If Yes, explain: _____</p>
<p>Did the drinking water system have any violations in the 12 months prior to the outbreak?***</p> <p style="text-align: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Not applicable</p> <p>If Yes, explain: _____</p> <p style="font-size: x-small; margin-top: 2px;">***Sources of information about past violations can be obtained from utility records, consumer confidence reports (water quality reports), or violation records from state or local health departments</p>

Laboratory Section - Drinking Water					
Was drinking water tested?	<input type="checkbox"/> Yes (specify in table below) <input type="checkbox"/> No <input type="checkbox"/> Unknown				
Results					
Sample	1 2 3 4 5				
Source of Sample					
Additional Description <small>(e.g., kitchen faucet, well, reservoir)</small>					
Date <small>(mm/dd/yyyy)</small>					
Volume Tested	<table border="1" style="width:100%; border-collapse: collapse; font-size: x-small;"> <tr> <th style="width: 10%; background-color: #003366; color: white;">Number</th> <td> </td> </tr> <tr> <th style="background-color: #003366; color: white;">Unit</th> <td> </td> </tr> </table>	Number		Unit	
Number					
Unit					
Temperature	<table border="1" style="width:100%; border-collapse: collapse; font-size: x-small;"> <tr> <th style="width: 10%; background-color: #003366; color: white;">Number</th> <td> </td> </tr> <tr> <th style="background-color: #003366; color: white;">Unit</th> <td> </td> </tr> </table>	Number		Unit	
Number					
Unit					
Residual/Free Disinfectant Level <small>(if total and combined disinfectant levels given, total - combined = free)</small>	<table border="1" style="width:100%; border-collapse: collapse; font-size: x-small;"> <tr> <th style="width: 10%; background-color: #003366; color: white;">Number</th> <td> </td> </tr> <tr> <th style="background-color: #003366; color: white;">Unit</th> <td> </td> </tr> </table>	Number		Unit	
Number					
Unit					
pH					
Turbidity (NTU)					

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Drinking Water					
Water Quality Indicator					
Sample Number	Type (e.g., fecal coliforms)	Concentration (numerical value)		Unit	
Microbiology or Chemical/Toxin Analysis (refer to the laboratory findings from the outbreak investigation)					
Sample Number	Genus/ Chemical/ Toxin	Species	Serotype/ Serogroup/ Serovar	Genotype/ Subtype	PFGE Pattern
Sample Number	Test Results Positive?	Concentration (numerical value)	Unit	Test Type*	Test Method (reference: National Environmental Methods Index: http://www.nemi.gov)
	<input type="checkbox"/> Yes				
	<input type="checkbox"/> Yes				
	<input type="checkbox"/> Yes				
<small>* Test Type: 1-Culture, 2-DNA or RNA Amplification/Detection (e.g., PCR, RT-PCR), 3-Microscopy (e.g., fluorescent, EM), 4-Serological/Immunological Test (e.g., EIA, ELISA), 5-Phage Typing, 6-Chemical Testing, 7-Tissue Culture Infectivity Assay</small>					
Factors Contributing to Drinking Water Contamination and/or Increased Exposure to Contaminated Drinking Water					
Did a problem with the source water (i.e., ground water or surface water) contribute to the disease or outbreak? <input type="checkbox"/> Yes (specify in table below) <input type="checkbox"/> No <input type="checkbox"/> Unknown					
Source Water Factors (check all that apply)**			Documented/ Observed***	Suspected***	
Sanitary sewer overflow (SSO) ****			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Combined sewer overflow (CSO) ****			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Malfunctioning on-site wastewater treatment system **** ≠			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sewage treatment plant malfunction ***			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sewer line break ***			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Poor siting/design of on-site wastewater treatment system **** ≠			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nearby biosolid/land application site (e.g., human or animal waste application)			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Contamination from agricultural chemical application (e.g., fertilizer, pesticides)			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Contamination from chemical pollution not related to agricultural application			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Contamination by a chemical that the current treatment methods were not designed to remove			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Domestic animal contamination (e.g., livestock, concentrated feeding operations, pets)			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wildlife contamination - Birds			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wildlife contamination - Mammals			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wildlife contamination - Fish kill			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Flooding/heavy rains			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Algal bloom			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Seasonal variation in water quality (e.g., lake/reservoir turnover events, resort community with seasonal loading)			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Low water table (e.g., drought, over-pumping)			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ground water under direct influence of surface water (e.g., shallow well)≠ ≠			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Contamination through limestone or fissured rock (e.g., karst)			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Contaminated recharge water			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Use of an alternate source of water by a water utility			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mixing of raw water from different sources			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Improper construction or location of a well or spring			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Water system intake failure (e.g., cracked well casing, cracked intake pipe)			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Intentional contamination (explain in remarks)			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other, specify:			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Unknown			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<small>** Only check off what was found during investigation.</small> <small>*** "Documented/Observed" refers to information gathered through document reviews, direct observations, and/or interviews. "Suspected" refers to factors that probably occurred but for which no documentation (as defined previously) is available.</small> <small>**** The release of sewage does not have to occur on the property in which persons have become ill. The sewage release may have occurred at a distant site but still affected the property in question.</small> <small>≠ "On-site wastewater treatment system" refers to a system designed to treat and dispose of wastewater at the point of generation, generally on the property where the wastewater is generated (e.g., septic systems or other advanced on-site systems). However, contamination that originates from these systems can still occur off the property where treatment and disposal takes place due to migration of contaminants from malfunctioning systems or poor siting and design.</small> <small>≠ ≠ Any water beneath the surface of the ground with substantial occurrence of insects or other macroorganisms, algae, or large-diameter pathogens (e.g., <i>Giardia intestinalis</i> or <i>Cryptosporidium</i>), or substantial and relatively rapid shifts in water characteristics (e.g., turbidity, temperature, conductivity, or pH) that closely correlate with climatologic or surface water conditions. Direct influence must be determined for individual sources in accordance with criteria established by the state.</small>					

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Drinking Water		
Factors Contributing to Drinking Water Contamination and/or Increased Exposure to Contaminated Drinking Water		
Did a problem with the water treatment prior to entry into a house or building contribute to the disease or outbreak? <input type="checkbox"/> Yes (specify in table below) <input type="checkbox"/> No <input type="checkbox"/> Unknown		
Treatment Factors (check all that apply)*	Documented/ Observed**	Suspected**
Change in treatment process (explain in remarks)	<input type="checkbox"/>	<input type="checkbox"/>
No disinfection	<input type="checkbox"/>	<input type="checkbox"/>
Temporary interruption of disinfection	<input type="checkbox"/>	<input type="checkbox"/>
Chronically inadequate disinfection	<input type="checkbox"/>	<input type="checkbox"/>
No filtration	<input type="checkbox"/>	<input type="checkbox"/>
Inadequate filtration	<input type="checkbox"/>	<input type="checkbox"/>
Deficiencies in other treatment processes	<input type="checkbox"/>	<input type="checkbox"/>
Corrosion in or leaching from pipes or storage tanks	<input type="checkbox"/>	<input type="checkbox"/>
Pipe/component failure or break (e.g., pipes, tanks, valves)	<input type="checkbox"/>	<input type="checkbox"/>
Contamination during construction or repair of pipes/components	<input type="checkbox"/>	<input type="checkbox"/>
Construction or repair of pipes/components without evidence of contamination	<input type="checkbox"/>	<input type="checkbox"/>
Operator error	<input type="checkbox"/>	<input type="checkbox"/>
Other, specify:	<input type="checkbox"/>	<input type="checkbox"/>
Unknown	<input type="checkbox"/>	<input type="checkbox"/>
Did a problem with the distribution system contribute to the disease or outbreak? <input type="checkbox"/> Yes (specify in table below) <input type="checkbox"/> No <input type="checkbox"/> Unknown <small>(NOTE: For a community water system, the distribution system refers to the pipes and storage infrastructure under the jurisdiction of the water utility prior to the water meter (or property line if the system is not metered). For noncommunity and nonpublic water systems, the distribution system refers to the pipes and storage infrastructure prior to entry into a building or house)</small>		
Distribution and Storage Factors (check all that apply)*	Documented/ Observed**	Suspected**
Cross-connection of potable and nonpotable water pipes resulting in backflow	<input type="checkbox"/>	<input type="checkbox"/>
Low pressure or change in water pressure in the distribution system	<input type="checkbox"/>	<input type="checkbox"/>
Change in water flow direction in the distribution system	<input type="checkbox"/>	<input type="checkbox"/>
Mixing of treated water from different sources	<input type="checkbox"/>	<input type="checkbox"/>
Pipe/component failure or break (e.g., pipes, tanks, valves)	<input type="checkbox"/>	<input type="checkbox"/>
Corrosion in or leaching from pipes or storage tanks	<input type="checkbox"/>	<input type="checkbox"/>
Contamination of mains during construction or repair	<input type="checkbox"/>	<input type="checkbox"/>
Construction or repair of mains without evidence of contamination	<input type="checkbox"/>	<input type="checkbox"/>
Scheduled flushing of the distribution system	<input type="checkbox"/>	<input type="checkbox"/>
Contamination of storage facility	<input type="checkbox"/>	<input type="checkbox"/>
Aging water distribution components (e.g., pipes, tanks, valves)	<input type="checkbox"/>	<input type="checkbox"/>
Water temperature $\geq 30^{\circ}\text{C}$ ($\geq 86^{\circ}\text{F}$)	<input type="checkbox"/>	<input type="checkbox"/>
Intentional contamination (explain in remarks)	<input type="checkbox"/>	<input type="checkbox"/>
Other, specify:	<input type="checkbox"/>	<input type="checkbox"/>
Unknown	<input type="checkbox"/>	<input type="checkbox"/>
Did a problem occur after the water meter or outside the jurisdiction of a water utility that contributed to the disease or outbreak? <small>(e.g., in a service line leading to a house/building, in the plumbing inside a house/building, during shipping/hauling, during storage other than in the distribution system, at the point of use, involving commercially-bottled water)</small> <input type="checkbox"/> Yes (specify in table below) <input type="checkbox"/> No <input type="checkbox"/> Unknown		
Factors Not Under the Jurisdiction of a Water Utility or Factors at the Point of Use (check all that apply)*	Documented/ Observed**	Suspected**
<i>Legionella</i> species in water system	<input type="checkbox"/>	<input type="checkbox"/>
Cross-connection of potable and nonpotable water pipes resulting in backflow	<input type="checkbox"/>	<input type="checkbox"/>
Lack of backflow prevention in plumbing	<input type="checkbox"/>	<input type="checkbox"/>
Low pressure or change in water pressure in the plumbing	<input type="checkbox"/>	<input type="checkbox"/>
Change in water flow direction in the plumbing	<input type="checkbox"/>	<input type="checkbox"/>
Corrosion in or leaching from pipes or storage tanks	<input type="checkbox"/>	<input type="checkbox"/>
Pipe/component failure or break (e.g., pipes, tanks, valves)	<input type="checkbox"/>	<input type="checkbox"/>
Aging plumbing components (e.g., pipes, tanks, valves)	<input type="checkbox"/>	<input type="checkbox"/>
Contamination of plumbing during construction or repair	<input type="checkbox"/>	<input type="checkbox"/>
Construction or repair of plumbing without evidence of contamination	<input type="checkbox"/>	<input type="checkbox"/>
Deficiency in building/home-specific water treatment after the water meter or property line	<input type="checkbox"/>	<input type="checkbox"/>
Deficiency or contamination of equipment/devices using or distributing water	<input type="checkbox"/>	<input type="checkbox"/>
Contamination during commercial bottling	<input type="checkbox"/>	<input type="checkbox"/>
Contamination during shipping, hauling, or storage	<input type="checkbox"/>	<input type="checkbox"/>
Contamination at point of use – Tap	<input type="checkbox"/>	<input type="checkbox"/>
Contamination at point of use – Hose	<input type="checkbox"/>	<input type="checkbox"/>
Contamination at point of use – Commercially-bottled water	<input type="checkbox"/>	<input type="checkbox"/>
Contamination at point of use – Container, bottle, or pitcher	<input type="checkbox"/>	<input type="checkbox"/>
Contamination at point of use – Unknown	<input type="checkbox"/>	<input type="checkbox"/>
Water temperature $\geq 30^{\circ}\text{C}$ ($\geq 86^{\circ}\text{F}$)	<input type="checkbox"/>	<input type="checkbox"/>
Intentional contamination (explain in remarks)	<input type="checkbox"/>	<input type="checkbox"/>
Other, specify:	<input type="checkbox"/>	<input type="checkbox"/>
Unknown	<input type="checkbox"/>	<input type="checkbox"/>
* Only check off what was found during investigation. ** "Documented/Observed" refers to information gathered through document reviews, direct observations, and/or interviews. "Suspected" refers to factors that probably occurred but for which no documentation (as defined previously) is available.		

APPENDIX I

Drinking Water
Remarks

WNID/WUI					
Water Not Intended for Drinking or Water of Unknown Intent (WNID/WUI)					
Intent for Use					
What was the intended use for the implicated water? <i>(check all that apply)</i> <input type="checkbox"/> Cooling/Air Conditioning (e.g., cooling tower, swamp cooler) <input type="checkbox"/> Mister (e.g., produce in grocery store, public cooling system) <input type="checkbox"/> Ornamental (e.g., a decorative non-interactive fountain intended for public display and not designed for swimming or recreational use) <input type="checkbox"/> Industrial/Occupational (e.g., steam cleaner) <input type="checkbox"/> Agricultural Irrigation <input type="checkbox"/> Waste water <input type="checkbox"/> Other (specify): _____ <input type="checkbox"/> Unknown					
Water Description					
Water Type <i>(e.g., cooling tower; drainage ditch; fountain- ornamental)</i>	Setting of Exposure <i>(e.g., airport; hospital/ health care facility; nursing home; park- state park)</i>	USUAL Water Treatment Provided <i>(e.g., no treatment; disinfection; settling/sedimentation)</i>	Water Treatment Subtype <i>(disinfection or filtration: e.g., boiling; chlorine; rapid sand filter; reverse osmosis)</i>		
Laboratory Section - Water Not Intended for Drinking of Water of Unknown Intent					
Was the implicated water tested? <input type="checkbox"/> Yes <i>(specify in table below)</i> <input type="checkbox"/> No <input type="checkbox"/> Unknown					
Results					
Sample	1	2	3	4	5
Source of Sample					
Additional Description <i>(e.g., time of day, specific location, etc.)</i>					
Date <i>(mm/dd/yyyy)</i>					
Volume Tested	Number				
	Unit				
Temperature	Number				
	Unit				
Residual/Free Disinfectant Level <i>(if total and combined disinfectant levels given, total - combined = free)</i>	Number				
	Unit				
Turbidity (NTU)					
pH					
Water Quality Indicator					
Sample Number	Type <i>(e.g., fecal coliforms)</i>	Concentration <i>(numerical value)</i>		Unit	

APPENDIX I

WNID/WUI					
Microbiology or Chemical/Toxin Analysis (refer to the laboratory findings from the outbreak investigation)					
Sample Number	Genus/ Chemical/ Toxin	Species	Serotype/ Serogroup/ Serovar	Genotype/ Subtype	PFGE Pattern
Sample Number	Test Results Positive?	Concentration (numerical value)	Unit	Test Type*	Test Method (reference: National Environmental Methods Index: http://www.nemi.gov)
	<input type="checkbox"/> Yes				
	<input type="checkbox"/> Yes				
	<input type="checkbox"/> Yes				
	<input type="checkbox"/> Yes				
* Test Type: 1-Culture, 2-DNA or RNA Amplification/Detection (e.g., PCR, RT-PCR), 3-Microscopy (e.g., fluorescent, EM), 4-Serological/Immunological Test (e.g., EIA, ELISA), 5-Phage Typing, 6-Chemical Testing, 7-Tissue Culture Infectivity Assay					
Factors Contributing to Contamination and/or Increased Exposure to Contaminated Water					
Factors (check all that apply)*			Documented/ Observed**	Suspected**	
Cooling tower/evaporative condenser – shutdown for >3 days without draining to waste			<input type="checkbox"/>	<input type="checkbox"/>	
Cooling tower/evaporative condenser – lack of a maintenance program			<input type="checkbox"/>	<input type="checkbox"/>	
Cooling tower/evaporative condenser – lack of a qualified water quality specialist			<input type="checkbox"/>	<input type="checkbox"/>	
Cooling tower/evaporative condenser – presence of scale or corrosion			<input type="checkbox"/>	<input type="checkbox"/>	
Cooling tower/evaporative condenser – presence of dirt, organic matter, or other debris in the cold water basin			<input type="checkbox"/>	<input type="checkbox"/>	
Cooling tower/evaporative condenser – absence of drift eliminators			<input type="checkbox"/>	<input type="checkbox"/>	
Cooling tower/evaporative condenser – presence of damaged drift eliminators			<input type="checkbox"/>	<input type="checkbox"/>	
Cooling tower/evaporative condenser – history of recent repairs to the device			<input type="checkbox"/>	<input type="checkbox"/>	
Cooling tower/evaporative condenser – siting of device near building air intakes			<input type="checkbox"/>	<input type="checkbox"/>	
Cooling tower/evaporative condenser – siting of device near windows that can be opened			<input type="checkbox"/>	<input type="checkbox"/>	
Cooling tower/evaporative condenser – siting of device in immediate area of kitchen exhaust fans, live plants, truck bays, or other sources of organic matter			<input type="checkbox"/>	<input type="checkbox"/>	
Cooling tower/evaporative condenser – construction on the premises of the device within 6 months before the index case			<input type="checkbox"/>	<input type="checkbox"/>	
Cooling tower/evaporative condenser – construction within 100 meters of the premises of the device within 6 months before the index case			<input type="checkbox"/>	<input type="checkbox"/>	
Ornamental fountain – presence of submerged lighting			<input type="checkbox"/>	<input type="checkbox"/>	
Ornamental fountain – lack of a written cleaning and maintenance program			<input type="checkbox"/>	<input type="checkbox"/>	
Ornamental fountain – presence of dirt, organic matter, or other debris in the water basin			<input type="checkbox"/>	<input type="checkbox"/>	
Broken/damaged sewer pipe			<input type="checkbox"/>	<input type="checkbox"/>	
Recycling of water			<input type="checkbox"/>	<input type="checkbox"/>	
Water temperature $\geq 30^{\circ}\text{C}$ ($\geq 86^{\circ}\text{F}$)			<input type="checkbox"/>	<input type="checkbox"/>	
Other, specify:			<input type="checkbox"/>	<input type="checkbox"/>	
Unknown			<input type="checkbox"/>	<input type="checkbox"/>	
* Only check off what was found during investigation.					
** “Documented/Observed” refers to information gathered through document reviews, direct observations, and/or interviews. “Suspected” refers to factors that probably occurred but for which no documentation (as defined previously) is available.					
Remarks					
Epidemic and laboratory assistance for the investigation of a waterborne disease outbreak is available upon request by the State Health Department to the Centers for Disease Control and Prevention. Please enter this report into the National Outbreak Reporting System (NORS). State/Local investigation reports and questionnaires can also be attached to the report in the electronic system. Communications and requests for epidemic and laboratory assistance may be directed to: Waterborne Disease and Outbreak Surveillance Coordinator, Division of Parasitic Diseases, National Center for Zoonotic, Vector-Borne, and Enteric Diseases, Coordinating Center for Infectious Diseases, CDC 4770 Buford Highway, NE, MS F-22, Atlanta, GA, 30341-3724 or (770) 488-7775					
Public reporting burden of this collection of information is estimated to average 20 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. An agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to CDC, Project Clearance Officer, 1600 Clifton Road, MS D-24, Atlanta, GA, 30333, ATTN: PRA (5020-0004) <-DO NOT MAIL CASE REPORTS TO THIS ADDRESS.					