

National Outbreak Reporting System

OMB No. XXXX-XXXX

This form is used to report investigations of foodborne and waterborne disease outbreaks; enteric disease outbreaks transmitted by contact with persons, animals, or environmental sources; or by an unknown mode; and certain fungal disease outbreaks. This form has 16 sections, indicated by the dark purple headers. **Please complete as much as possible of all applicable sections.**

Public reporting burden of this collection of information is estimated to average 20 minutes per response, including 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 (XXXX-XXXX) <---D0 NOT MAIL CASE REPORTS TO THIS ADDRESS

Guidance document: https://www.cdc.gov/nors/forms.html

CDC ID CDC use only	State	: ID						
Primary Mode of Trans	smission <i>se</i>	elect one						
Animal contactEnvironmental contaminationFood	O Environmental contamination other than food/water O Water							
Dates mm/dd/yyyy								
Date first case became ill (requi	ired):	Dat	e last ca	ase became	e ill:	Date of initial ex	rposure:	
Date of last exposure:		Dat	e of not	ification to	State/Territory or Lo	ocal/Tribal Health Authorit	ies:	_
Date outbreak investigation beq	gan:							
Geographic Location								
Exposure state: Exposures occurred in multiple of the counties: Exposures occurred in a single of the counties: Exposures occurred in a single of the counties: Exposures occurred on any of the counties: Exposures occurred on any of the counties: City/Town/Place of exposure (e.	(For multistate tiple counties in ngle county, but the following:	exposure or m n exposure si t some or all ries)	ultistate tate case(s)	residency of	a different county o National park Other federal land	(e.g., national forest, milita		3low)
Primary Cases Primary Case Counts	_	_		_	_	_	_	
Primary Case Counts		Numbe	r		Sex Number or perc	cent of the primary cases	Number	Percent
Lab-confirmed primary cases			#		Male	,	#	%
Probable primary cases			#		Female		#	%
Estimated total primary cases (re	equired)		#		Unknown sex		#	%
For food and animal conta	ot outbrooks	if outbroa	k ooo	ırrod duri	ng >1 oalondar v	yoar # oasos nor yoar	/by illness on	cot)
		-	K UCCI		ily >1 Galeriuai y			3GL)
Case Type	Yea	ar:		Year: _		Year:	Year:	
Lab-confirmed primary cases								
Probable primary cases Estimated total primary cases								
Estimated total primary cases								

	or percent of p	orimary											
Age	Number		Percent	_	Age		Number	Percent	Age		Number		Percent
<1 year		#		%	10-17 years		#	%	65-74 ye	_	#	+	%
1-4 years		#		%	18-49 years		#	%	≥75 years	3	#		%
5-9 years		#		%	50-64 years		#	%	Unknown		#		%
Signs or S	ymptoms Ar	nong p	rimary cas	es									
Commonly re or symptoms	ported signs		# cases	•	# cases with info available		Other signs o	r symptoms apply from list in Ap	anondiy E		# cases		ases with
Vomiting				#	#	1 -	ever	αρριγ ποιπ πει πε Αμ	pendix L		#	11110	#
Diarrhea		+		#	#	┨┝):			#		#
Bloody stools		+		#	#	1 [:			#		#
Abdominal cra	amps	+		#	#			:			#		#
Incubation	Period Amon	a nrim	ary caeaer	coloct :	appropriate units	,		tion of Illness A		nd nrii	mary cases: solo	rt ann	ronriato unite
	n incubation p		ary vases, i	361661 6	арргорналь инго			Inknown duration	-	u piii	nary cases, serec	ι αρμ	ropriate urito
Incubation Pe	eriod	Nun	nber		Increment		Illness	Duration	Number		Incre	emen	t
Shortest			#	ОMi	ns O Hours O I	Days	Shorte	st		#	OMins OHo	urs	O Days
Median			#		ns O Hours O I	_		n		#			O Days
Longest			#	_	ns O Hours O I		─	st		#	OMins OHo	urs	O Days
# of cases w	# of cases with info available: # of cases with info available:												
Healthcare	e-Seeking B	ehavi	iors Amor	ng prim	nary cases								
Healthcare-Seeking Behaviors Among primary cases Behavior						# cases		# cas	es with info av	ailab	le		
Visited health	care provider	•							#				#
Visited emerg	ency departm	ent							#				#
Visited Indian	Health Servic	e or tr	ribal facilit	y					#				#
Case Outco	omes Among	primar	ry cases										
Outcome			-					# cases		# cas	es with info av	ailab	le
Died									#				#
Hospitalized									#				#
Hemolytic ure	mic syndrom	e (HUS	S)						#				#
Disseminated (e.g., pathogen		ood, cei	ntral nervol	us syst	em, bone/joint)				#				#
Pregnancy los		with in	nfo available	e, ente	r number of known				#				#
Case Chara	acteristics /	Among	primary ca	ases			<u> </u>						
Characteristic													
During the expo unknown etiolo					efore illness began i -patients:	for		# cases		# cas	ses with info av	ailab	le
Attended or w	orked in a ch	ild day	ycare						#				#
Were experier	ncing homeles	ssness	3						#				#
Were exposed	I in the workp	lace							#				#
Were immuno (e.g., HIV/AIDS,			ell transpla	ant, can	ncer)				#				#
	for person-to-p	erson a	and indeter	rminate	ther man (MSM) e/unknown outbreak n men	(S.			#				#

Travel During the exposure period of	Travel During the exposure period of interest (or 7 days before illness began for unknown etiologies)						
1. For environmental contamina least one night away from the			r, and indeterminate	/unknown outbreaks,	did any primary	case-patient travel for at	
Domestically?*	es ONo (OUnknown	○ N/A				
Internationally?† OY		OUnknown	○ N/A				
2. For food outbreaks, was the COY		ated with the OUnknown	source case-patient	t (e.g., food worker) tr	aveling internation	onally†?	
*This includes travel to a different city †Case-patients with implicated expos reported through NORS.				se counts for this report. O	nly outbreaks with	domestic exposures should be	
Case characteristics remarks							
Cocondony Cocoo							
Secondary Cases							
Mode of Secondary Transmiss	Sion Select all tha	at apply		y Case Counts			
☐ Food ☐ Water			Secondary			Number	
☐ Animal contact				ned secondary cases		#	
☐ Person-to-Person	athor than food	huotor	Probable s	econdary cases		#	
Environmental contaminationIndeterminate/unknown	otner than 1000	water	Estimated	total secondary cases		#	
			Estimated	total cases (Primary +	- Secondary)	#	
0	2 11661						
Secondary Case Outcomes	complete for food	ano animai coi	ntact outbreaks only				
Outcome	Somplete for food	ano animai coi	# secondary	cases	# secondary	cases with info available	
	<i>Эотріете тог тоод</i>	ano animai coi		cases #	# secondary	y cases with info available	
Outcome	сотрієте тог тоод і	ano animai coi			# secondary		
Outcome Died	complete for food i	ano animai coi		#	# secondary	#	
Outcome Died Hospitalized Hemolytic uremic syndrome (HUS)				#	# secondary	#	
Outcome Died Hospitalized	mental Inve	stigation	# secondary	#	# secondary	#	
Outcome Died Hospitalized Hemolytic uremic syndrome (HUS) Laboratory and Environi Sample Collection and Testin	mental Inve	stigation mples, only inc	# secondary	#	# secondary	#	
Outcome Died Hospitalized Hemolytic uremic syndrome (HUS) Laboratory and Environi Sample Collection and Testin 1. Were any samples tested?	mental Inve ng <i>For human sai</i> • Yes	stigation mples, only inc	# secondary	#	# secondary	#	
Outcome Died Hospitalized Hemolytic uremic syndrome (HUS) Laboratory and Environi Sample Collection and Testin 1. Were any samples tested? 2. What types of samples were	mental Inve ng For human san O Yes tested?	stigation mples, only inc	# secondary clude primary cases O Unknown	# # #		# #	
Died Hospitalized Hemolytic uremic syndrome (HUS) Laboratory and Environt Sample Collection and Testin 1. Were any samples tested? 2. What types of samples were a. Human	mental Inve	stigation mples, only inc No	# secondary	# # #		#	
Outcome Died Hospitalized Hemolytic uremic syndrome (HUS) Laboratory and Environt Sample Collection and Testin 1. Were any samples tested? 2. What types of samples were a. Human i. Food worker	mental Inves ng For human san O Yes tested? O Yes O Yes	stigation mples, only inc No No	# secondary clude primary cases Unknown Unknown Unknown	# # #		# #	
Outcome Died Hospitalized Hemolytic uremic syndrome (HUS) Laboratory and Environt Sample Collection and Testin 1. Were any samples tested? 2. What types of samples were a. Human i. Food worker b. Animal	mental Investigation O Yes tested? O Yes O Yes O Yes O Yes	stigation mples, only inc O No O No O No O No	# secondary clude primary cases Unknown Unknown Unknown Unknown	# # #		# #	
Died Hospitalized Hemolytic uremic syndrome (HUS) Laboratory and Environt Sample Collection and Testin 1. Were any samples tested? 2. What types of samples were a. Human i. Food worker b. Animal c. Food	mental Inversion of the second	stigation mples, only inc No No No No	# secondary clude primary cases Unknown Unknown Unknown	# # #		# #	
Outcome Died Hospitalized Hemolytic uremic syndrome (HUS) Laboratory and Environt Sample Collection and Testin 1. Were any samples tested? 2. What types of samples were a. Human i. Food worker b. Animal	mental Investigation O Yes tested? O Yes O Yes O Yes O Yes	stigation mples, only inc O No O No O No O No	# secondary clude primary cases Unknown Unknown Unknown Unknown Unknown	# # # # #	ersons (including	# #	
Died Hospitalized Hemolytic uremic syndrome (HUS) Laboratory and Environt Sample Collection and Testin 1. Were any samples tested? 2. What types of samples were a. Human i. Food worker b. Animal c. Food d. Water e. Other environmental	mental Inves ng For human san O Yes tested? O Yes O Yes O Yes O Yes O Yes O Yes	stigation mples, only inc No No No No No No No	# secondary Slude primary cases Unknown Unknown Unknown Unknown Unknown Unknown	# # # # #	ersons (including	# # # g food workers)?	
Died Hospitalized Hemolytic uremic syndrome (HUS) Laboratory and Environt Sample Collection and Testin 1. Were any samples tested? 2. What types of samples were a. Human i. Food worker b. Animal c. Food d. Water e. Other environmental 3. What were they tested for? (A)	mental Inves ng For human san O Yes tested? O Yes O Yes O Yes O Yes O Yes O Yes	stigation mples, only inc No No No No No No No	# secondary clude primary cases Unknown Unknown Unknown Unknown Unknown Unknown Unknown Unknown	######################################	ersons (includinç ype(s):	# # # g food workers)?	
Died Hospitalized Hemolytic uremic syndrome (HUS) Laboratory and Environt Sample Collection and Testin 1. Were any samples tested? 2. What types of samples were a. Human i. Food worker b. Animal c. Food d. Water e. Other environmental	mental Investigation of the state of the sta	stigation mples, only inc No	# secondary clude primary cases Unknown Unknown Unknown Unknown Unknown Unknown Unknown Unknown	######################################	ersons (includinç ype(s):	# # # g food workers)?	
Died Hospitalized Hemolytic uremic syndrome (HUS) Laboratory and Environt Sample Collection and Testin 1. Were any samples tested? 2. What types of samples were a. Human i. Food worker b. Animal c. Food d. Water e. Other environmental 3. What were they tested for? (Human samples) Bacterium/bacteria or bacteria (Human samples) Virus(es)	mental Investigation of the state of the sta	stigation mples, only inc No No No No No No No No No N	# secondary clude primary cases Unknown Unknown Unknown Unknown Unknown Unknown Unknown Unknown	######################################	ersons (includinç ype(s):	# # # g food workers)?	
Died Hospitalized Hemolytic uremic syndrome (HUS) Laboratory and Environt Sample Collection and Testin 1. Were any samples tested? 2. What types of samples were a. Human i. Food worker b. Animal c. Food d. Water e. Other environmental 3. What were they tested for? (Human samples) Bacterium/bacteria or bacteria (Human samples) Parasite(s)	mental Investigation yes tested? yes yes yes yes yes yes yes tested?	stigation mples, only inc No No No No No No No No Virus(Paras	# secondary clude primary cases Unknown Unknown Unknown Unknown Unknown Unknown Unknown Unknown	######################################	ersons (includinç ype(s):	# # # g food workers)?	
Died Hospitalized Hemolytic uremic syndrome (HUS) Laboratory and Environt Sample Collection and Testin 1. Were any samples tested? 2. What types of samples were a. Human i. Food worker b. Animal c. Food d. Water e. Other environmental 3. What were they tested for? (Human samples) Bacterium/bacteria or bacterium(es) Parasite(s) Chemical(s) or non-bacteria Fungus/fungi	mental Investigation yes tested? yes yes yes yes yes yes yes tested?	stigation mples, only inc No No No No No No No No Virus(Paras Chem Fungu	# secondary clude primary cases Unknown Unknown Unknown Unknown Unknown Unknown Unknown Unknown ite(s) ite(s) ical(s) or non-bacte	######################################	ersons (includinç ype(s):	# # # g food workers)?	
Died Hospitalized Hemolytic uremic syndrome (HUS) Laboratory and Environt Sample Collection and Testin 1. Were any samples tested? 2. What types of samples were a. Human i. Food worker b. Animal c. Food d. Water e. Other environmental 3. What were they tested for? (Human samples) Bacterium/bacteria or bacteria or bacteria (S) Chemical(S) or non-bacteria	mental Investigation yes tested? yes yes yes yes yes yes yes tested?	stigation mples, only inc No No No No No No No No Virus(Paras Chem	# secondary clude primary cases Unknown Unknown Unknown Unknown Unknown Unknown Unknown Unknown ite(s) ite(s) ical(s) or non-bacte us/fungi	######################################	ersons (includinç ype(s):	# # # g food workers)?	

4.	What test types were used? (Select all that apply)							
5.	What test types were used? (Select all that apply) Human samples Test for chemical Culture DNA or RNA amplification/detection (e.g., PCR, RT-PCR, multiplex PCR panels) Mass spectroscopy (e.g., MALDI-TOF) Metagenomics (e.g., DNAse SISPA, amplicon sequencing, shotgun metagenomics) Microscopy (e.g., Fluorescent, electron microscope) Serological or immunological test (e.g., EIA, ELISA, UAT) Antigen Antibody Tissue culture infectivity assay Other (specify): Unknown Did CDC NARMS perform antimicrobial susceptibility testing terborne Disease Outbreak Environmental Investing terms and the sample of the susceptibility testing terborne Disease Outbreak Environmental Investing terms and the sample of the susceptibility testing terms and the sample of the susceptibility testing terms and the susceptibility testing terms are susceptibility testing terms and the susceptibility testing terms are susceptibility testing terms and the susceptibility testing terms are susceptible to the susceptibility testing terms are susceptible to the susceptibility testing terms are susceptible terms are susceptible to the susceptibility testing terms are susceptibility test	- ing? 〇	□ Test □ Cult □ DNA □ Mas □ Met shot □ Mic □ Serc □ A □ Tiss □ Othe □ Unk Yes	a or RNA amplification/detection (e.g., PCR, RT-PCR, iplex PCR panels) s spectroscopy (e.g., MALDI-TOF) agenomics (e.g., DNAse SISPA, amplicon sequencing, gun metagenomics) oscopy (e.g., Fluorescent, electron microscope) ological or immunological test (e.g., EIA, ELISA, UAT) antigen antibody ue culture infectivity assay er (specify):				
1.	Which of the following sampling locations were tested? S	elect all that	apply from li	st in Appendix E.				
2.	 2. Did environmental sampling results implicate water as the primary mode of transmission? Yes No (skip to b) Unknown (skip to b) a. Did the results implicate the vehicle(s) of transmission? (e.g., pool, community water system, cooling tower) Yes No Unknown Please summarize the environmental sampling results that implicated water in support of the epidemiologic findings. (Select all that apply)							
	Environmental sampling results	Are there s environ sampling	mental	Please describe relevant environmental sampling results (e.g., fecal indicators identified in well water on [insert date].)				
	Fecal indicators	○ Yes	O No					
	pH	○Yes	O No					
	Temperature	○Yes	O No					
	Turbidity	○ Yes	O No					
	Residual/free disinfectant	○ Yes	○No					
	Combined disinfectant	○ Yes	O No					
	Etiologic agent(s)	○Yes	○No					
	Other (specify):	○Yes	○No					
	b. Did historical or other environmental health evidence i ○ Yes ○ No ○ Unknown	mplicate wa	iter as the p	orimary mode of transmission?				
	If yes, please describe:							
3.	Would you like to attach environmental sampling results t	to this repor	t?	○Yes ○No				

Genus	Species		d other character Subtype (e.g., seroty) genotype)	pe,	Othe character	r		# positive primary o	cases	Detected in*	Outbreak etiology confirmed or suspected
							# cult	#: ure-confirmed: T-positive only:			
							# cult	#: ure-confirmed: T-positive only:			
·			·					vorker specimen; 5 – wa			l specimen
CDC system (PulseNet, CaliciNet, CryptoNet, Other, Unknown, None)	State lab: sample ID	CD sar (e.g key	Complete only the Complete onl	CDC outbr (e.g., outbr Calici		PFGE pattern		Sequencing information (e.g., allele code, sequenced region)	Subty	rpe nation serotype,	Source/ sample type (e.g., environmental sample; refer to list in Appendix E)
						Enzyme Enzyme					
						Enzyme	1:				
						Enzyme	2:				
Settings											
Enter all setting could describe a	s of exposure using a single outbreak s	g list in etting, d	Appendix E. Sel	lect a s	single setting t best applies	unless ex	xposure ride det	erson-to-Person, es occurred in multi tails in the remarks l captured in the next	ple set oox be	tings. If mul	tiple options
Setting 1/Major			tting 2	ung(3)	Setting	<u> </u>	1700 13	Setting 4	. 300110	1	her (specify):
*Major setting for ne	erson-to-person, enviro	nnmental	and indeterminat	e/unkno	own outhreaks s	hould he e	ntered in	Setting 1			
major solding for po	order to person, enviro	Jimionai	, and motorminat	o, amaic	own outbroaks o	nould bo o	ntorou n	r cottaing r			

									Settings
Setting(s) of Prepa	aration: Food Compl	lete only	for food outbre	aks					
Enter all settings where for	Enter all settings where food was prepared using the list in Appendix E. Select a single setting unless preparation occurred in multiple settings.								
Setting 1	Sett	ting 2		Setti	ng 3		Setting	J 4	Other (specify):
Setting of preparati	Setting of preparation remarks:								
Setting(s) of Expo	sure and Implicate	ed Vehi	cle Descript	tion: Wat	er Complete	e only for water	outbrea	ks	
• • • • • • • • • • • • • • • • • • • •	water exposure Select all					•			
	nal water <i>(e.g., in man</i>								s)
	tional water <i>(e.g., natu</i> public or individual v								sk), regardless of the
	y (i.e., not limited to ing		ronmental evr	neurae to	water (e.g.	cooling/industr	ial wate	or rouse irrigation o	ccupational, decorative/
display; includes w	rater consumed from so	urces su	ch as back-cou	ntry stream	s)	-			•
Undetermined ex	posures to water (i.e.,	the inter	nded purpose o	r use of the	water is un	known or the wa	ater exp	osure category could	not be determined)
Implicated water —	recreational water	venue (description						
						TED WATER REAKS ONLY)		TREATED WATER UTBREAKS ONLY)	(TREATED WATER OUTBREAKS ONLY)
Water venue	Water venue su	btvne	Setting of e	xposure		the water in		nent description	What were chlorine
(e.g., spa/whirlpool/	(Refer to list	in	(e.g., hotel/m	otel; refer	the ven	ue treated?	(6	e.g., chlorine)	stabilizer levels at the
hot tub; refer to list i Appendix E)	n Appendix E	'	to list in App	endix E)		lisinfection, tration)		all that apply from tin Appendix E	time of the outbreak?
						,			
	•							•	
Implicated water —	- drinking water sys	tem des	scription						
Water system*	Public water		ter source		source	How was		Treatment	Setting
(e.g., community water system; refer	system EPA ID number [†]		ground water, e water; refer		ription ring, well,	water in t system trea		description (e.g., chlorine)	of exposure (e.g., hotel/motel;
to list in Appendix E)		to list i	in Appendix E)		er to list in	(e.g., disinfe	ction,	Select all that app	ly refer to list in
					ndiv Ll	filtration			Appendix E)

^{*} Water system definitions: Community and non-community 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 non-community water system serves an institution, industry, camp, park, hotel, or business and can be non-transient or transient. Non-transient 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 waterto 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

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 public water system within a specific state. The water system ID number can be found by searching the Safe Drinking Water Information System (SDWIS) online at https://ofmpub.epa.gov/apex/sfdw/f?p=108:200.

Settings

Implicated water — other and undetermined exposure to water description								
System or source of the water (e.g., cooling tower; refer to list in Appendix E)	Setting of exposure (e.g., hotel/motel; refer to list in Appendix E)	(OTHER AND ENVIRONMENTAL EXPOSURES TO WATER OUTBREAKS ONLY) Was the water system/source treated to reduce or prevent the risk of disease transmission?	(OTHER AND ENVIRONMENTAL EXPOSURES TO WATER OUTBREAKS ONLY) If yes, how was the water in the system/source treated?					
Water setting of exposure remarks								
Associated Events Refer to list in A	ppendix E							
	,	O Yes (specify):						
Long-term Care Outbreaks Com or "Assisted Living/rehab" is selected as		re/nursing home/assisted living facility," "L	ong term care facility,"					
Types of care affected (Select all that ☐ Nursing home/skilled nursing	at apply)							
□ Assisted living □ Independent living (in continuous care community) □ Intermediate care □ Memory care □ Other (specify):								
School Outbreaks Complete this se	ection only if "School/College/University"	" is selected as a setting above						
1. Did the outbreak involve one or One OMore than one		O Unknown						
2. Grades affected (Select all that ap ☐ K ☐ 1 ☐ 2 ☐ College/university/technical scho ☐ Unknown or undetermined grade	□3 □4 □5 pol	□ 6 □ 7 □ 8 □ 9	10 11 12					
		as involved, write "1" next to the funding t	ype):					
	Unknown or undeterm							
		only if "Correctional/Detention Facility" is						
	•	· •						
2. Is the facility run by the governm OGovernment OPrivate		siness?						
O State prison	O Federal prison O Juvenile detention center O Other (specify): O State prison O Immigration detention center							
Complete for foodborne disease o	utbreaks only:							
4. Who is involved in food preparat	ion at this facility?							
Inmate food workers O Yes Other food workers O Yes								
	rker was a contributing factor (also a implicated? <i>(cite C9, C10, or C11 with</i>)	answer yes in the Food Contributing F in the food contributing factors section)	actors section), were any of the					
Inmate food workers O Yes Other food workers O Yes								

Attack Rates Complete for person-to	o-person, environmental contamination, an	d indeterminate/unknown outbreaks that o	ccurred in a single setting only					
Group	Estimated # exposed*	Estimated # ill	Crude attack rate [(estimated # ill / estimated # exposed) x 100]					
Residents, guests, attendees, patients	, etc.	#	# %					
Staff, crew, etc.		#	# %					
*e.g., number of persons who attended, or we	ere residents in nursing home, or were on affe	cted ward						
Animal Contact Section Complete for animal contact outbreaks								
Animal vehicle undetermined?	○Yes ○No							
If animal vehicle undetermined, reason(s) supporting animal contact as the mode of transmission (Select all that apply) □ Epidemiologic evidence □ Environmental evidence □ Traceback investigation □ Traceback investigation								
Question	Animal Vehicle 1	Animal Vehicle 2	Animal Vehicle 3					
Animal type								
Vehicle confirmed or suspected								
Reason(s) confirmed or suspected Enter all from list in Appendix E								
Animal(s) experienced diarrhea or illness that could be related to outbreak illnesses?	○ Yes ○ No ○ Unknown	⊃Yes ⊃No ⊃Unknown	○ Yes ○ No ○ Unknown					
Animal(s) imported to US?	Yes, country:Yes, country unknownNoUnknown	Yes, country:Yes, country unknownNoUnknown	Yes, country:Yes, country unknownNoUnknown					
Did the animal(s) implicated in the outbreak meet any of the following criteria? (Select all that apply)	□ Backyard/residential livestock or poultry □ Commercial livestock or poultry □ Pet/companion animal □ Interactive exhibit animal □ Wild animal/wild game □ Other (specify): □ Unknown	□ Backyard/residential livestock or poultry □ Commercial livestock or poultry □ Pet/companion animal □ Interactive exhibit animal □ Wild animal/wild game □ Other (specify):	□ Backyard/residential livestock or poultry □ Commercial livestock or poultry □ Pet/companion animal □ Interactive exhibit animal □ Wild animal/wild game □ Other (specify): □ Unknown					
•	d in the outbreak?# or [
·	ng the outbreak period of interest?							
b. How many animal deaths we	re presumed to be the result of outbre	ak-associated illness?# or	⊔Unknown					
2. Was the animal's living environm	nent implicated as a source of the outb	reak? OYes ONo OUn	known					
2. Was the animal's living environment implicated as a source of the outbreak?								

Animal Contact Fungal

5. Was the "Compendium of Measures to Pr • Yes • No • Unknown	event Disease Associated with Animals in Public Setting	s" used during th	e investigation?
Animal Contact Remarks			
Fungal Disease Outhreaks Comple	te for blastomycosis, coccidioidomycosis, histoplasi	macic and enar	ntrichaeie authroake
Treatments	เธ เบเ มเลรเบทพุธบราร, ธนะอเนเบเนบทพุธบราร, การเบมเสรเ	niusis, anu spure	ululeaks
Treatment		# Cases	# Cases with info available
Treated with systemic antibacterial medication	n before fungal infection was diagnosed (e.g., oral, IV)	#	#
Treated with systemic antifungal medication	(e.g., oral, IV)	#	#
Environmental Sampling Environmental samples collected? Yes Results:	S O No O Unknown		
Contributing Factors Select all that apply			
 Demolition, construction, or renovation Disruption of bat droppings Disruption of bird droppings Disruption of plant matter 	 Natural disaster or phenomenon (e.g., earthquake, dust storm) (specify): Bats (specify): Birds (specify): Other (specify): 		
☐ Disruption of soil	☐ Unknown		
Occupational Exposures			
Specify major industry/industries* (employee.g., hospital, elementary school, clothing manufac			work, e.g., registered nurse,
*Resources for industry and occupation coding are ava	uilable at: https://www.cdc.gov/niosh/topics/coding/collecting.html		
Personal Protective Equipment (PPE)			
PPE use		# Cases	# Cases with info available
Wore PPE at any time during the suspected e	xposure	#	#
Specify type(s) of PPE:			

Food Section Complete for foo	nd outhreaks		
Food vehicle undetermined? If food vehicle undetermined, reas Description:	○Yes ○No	node of transmission (Select all that ap	oply)
Question	Food Vehicle 1	Food Vehicle 2	Food Vehicle 3
Name of food			
Vehicle confirmed or suspected			
Reason(s) confirmed or suspected Enter all from list in Appendix E			
Ingredient(s) Enter all			
Contaminated ingredient(s) Enter all			
Method of processing Enter all from list in Appendix E			
Level of preparation Select one from list in Appendix E			
Method of preparation & service Enter all from list in Appendix E			
Type of packaging Enter all from list in Appendix E			
Contaminated food imported to US?	Yes, country:Yes, country unknownNoUnknown	Yes, country:Yes, country unknownNoUnknown	O Yes, country: O Yes, country unknown O No O Unknown
Was product produced under U.S. domestic regulatory oversight?	Yes, federalYes, state onlyNoUnknown	○ Yes, federal○ Yes, state only○ No○ Unknown	Yes, federalYes, state onlyNoUnknown
Was product sold under U.S. domestic regulatory oversight?	Yes, federalYes, state onlyNoUnknown	Yes, federalYes, state onlyNoUnknown	Yes, federalYes, state onlyNoUnknown
	ave a certified food protection mana	•	Yes ONo OUnknown Yes ONO OUnknown

Food

	Was an infectious food worker implicated as the source of contamination? Yes ONO OUNKnown If yes, select C9, C10, or C11 below								
Food C	Food Contributing Factors Select all that contributed to this outbreak								
☐ Sele	ct if Contributing factors unknown								
Point of	final preparation/sale (POS): restaurant, grocery store, private ho	me/residence.							
Before	point of final preparation/sale:								
Post	Harvest: farm or dairy, harvest area, growing field -Harvest: processing or pasteurization plant, distribution or storage f nown if pre or post-harvest: occurred before point of final prep/sale,	37							
Contam	ination Factors:								
	ntamination factor available to enter, please select reason:								
O N/A	(does not apply to etiologic agent) OUnknown ONone	dentified							
Factor code	Factor		Source(s)						
C1	☐ Toxin or chemical agent naturally part of tissue in food (e.g., ciguatera, scombroid, mushroom poisoning)	□ Point of Final Prep/Sale □ Before POS Post-Harvest □ Unknown location	□Before POS □Before POS	Pre-Harvest Unknown Pre or Post Harvest					
C2	☐ Poisonous substance or infectious agent intentionally added to food to cause illness (does not include injury)	□ Point of Final Prep/Sale □ Before POS Post-Harvest □ Unknown location	□Before POS □Before POS	Pre-Harvest Unknown Pre or Post Harvest					
С3	☐ Poisonous substance accidentally/inadvertently added to food (e.g., cleaning compound or metallic ingredients accidentally added to food)	□ Point of Final Prep/Sale □ Before POS Post-Harvest □ Unknown location	□ Before POS □ Before POS	Pre-Harvest Unknown Pre or Post Harvest					
C4	☐ Ingredients toxic in large amounts accidentally added to food (e.g., niacin poisoning in bread, nitrites in cured meat)	□ Point of Final Prep/Sale □ Before POS Post-Harvest □ Unknown location	□ Before POS □ Before POS	Pre-Harvest Unknown Pre or Post Harvest					
C5	☐ Container or equipment used to hold or convey food was made with toxic substances (e.g., galvanized container used to store acidic food/beverage, flour stored in container that previously held toxic materials)	□ Point of Final Prep/Sale □ Before POS Post-Harvest □ Unknown location	□ Before POS □ Before POS	Pre-Harvest Unknown Pre or Post Harvest					
C6	☐ Food contaminated by animal or environmental source at point of final preparation/sale (restaurant, private home, grocery store, etc.) (e.g., mouse feces in pantry, leaking roof in restaurant)	□Point of Final Prep/Sale							
C7	☐ Food contaminated by animal or environmental source before arriving at point of final preparation (pre or post-harvest) (e.g., shellfish from polluted waters, crops contaminated by irrigation water, Salmonella in eggs, peanut butter in processing plant)	☐ Before POS Pre-Harvest☐ Before POS Post-Harvest☐	□Before POS	Unknown Pre or Post Harvest					
C8	☐ Cross-contamination of foods, excluding infectious food workers/ handlers (e.g., contamination of vehicle via contaminated surface, food, or fomites including, but not limited to, worker's hand, cutting board, preparation table, utensils, processing line)	□ Point of Final Prep/Sale □ Before POS Post-Harvest □ Unknown location	□Before POS □Before POS	Pre-Harvest Unknown Pre or Post Harvest					
C9	☐ Contamination from infectious food worker/handler through bare-hand contact with food	□ Point of Final Prep/Sale □ Before POS Post-Harvest □ Unknown location	□Before POS □Before POS	Pre-Harvest Unknown Pre or Post Harvest					
C10	☐ Contamination from infectious food worker/handler through gloved-hand contact with food	□ Point of Final Prep/Sale □ Before POS Post-Harvest □ Unknown location	□ Before POS □ Before POS	Pre-Harvest Unknown Pre or Post Harvest					
C11	☐ Contamination from infectious food worker/handler through unknown type of hand contact with food or indirect contact with food (e.g., contact with utensils in food)	□ Point of Final Prep/Sale □ Before POS Post-Harvest □ Unknown location	□ Before POS □ Before POS	Pre-Harvest Unknown Pre or Post Harvest					
C12	☐ Contamination from infectious non-food worker/handler through direct or indirect contact with food (e.g., contact with utensils in food)	☐ Point of Final Prep/Sale☐ Before POS Post-Harvest☐ Unknown location	□ Before POS □ Before POS	Pre-Harvest Unknown Pre or Post Harvest					
C13	☐ Other source of contamination (<i>specify</i>):	☐ Point of Final Prep/Sale ☐ Before POS Post-Harvest ☐ Unknown location	□Before POS □Before POS	Pre-Harvest Unknown Pre or Post Harvest					

If no pro	Proliferation Factors: Bacterial and fungal outbreaks only If no proliferation factor available to enter, select reason: O N/A (does not apply to etiologic agent) O Unknown O None identified							
Factor code	Factor		Source(s)					
P1	☐ Allowing foods to remain out of temperature control for a prolonged period of time during preparation (e.g., lengthy preparation time, allowing frozen foods to thaw at room temperature)	□ Point of Final Prep/Sale □ Before POS Post-Harvest □ Unknown location	☐ Before POS Pre-Harvest ☐ Before POS Unknown Pre or Post Harvest					
P2	☐ Allowing foods to remain out of temperature control for a prolonged period of time during food service or display (e.g., during buffet line)	□ Point of Final Prep/Sale □ Before POS Post-Harvest □ Unknown location	☐ Before POS Pre-Harvest ☐ Before POS Unknown Pre or Post Harvest					
Р3	☐ Inadequate cold holding temperature due to malfunctioning refrigeration equipment	□Point of Final Prep/Sale □Before POS Post-Harvest □Unknown location	☐ Before POS Pre-Harvest☐ Before POS Unknown Pre or Post Harvest☐					
P4	☐ Inadequate cold holding temperature due to an improper practice (e.g., overloaded refrigerator/cooler, storing food above fill line)	□Point of Final Prep/Sale □Before POS Post-Harvest □Unknown location	☐ Before POS Pre-Harvest☐ Before POS Unknown Pre or Post Harvest☐					
P5	☐ Inadequate hot holding temperature due to malfunctioning equipment	□Point of Final Prep/Sale □Before POS Post-Harvest □Unknown location	☐ Before POS Pre-Harvest☐ Before POS Unknown Pre or Post Harvest☐					
P6	☐ Inadequate hot holding temperature due to an improper practice (e.g., steam table not turned on, overloaded hot holder/crockpot used to heat or reheat food)	□Point of Final Prep/Sale □Before POS Post-Harvest □Unknown location	☐ Before POS Pre-Harvest ☐ Before POS Unknown Pre or Post Harvest					
P7	☐ Improper cooling of food (e.g., food refrigerated in large quantities during cooling process)	□ Point of Final Prep/Sale □ Before POS Post-Harvest □ Unknown location	☐ Before POS Pre-Harvest ☐ Before POS Unknown Pre or Post Harvest					
Р8	☐ Extended refrigeration of food for an unsafe amount of time, relative to the food product and pathogen (e.g., Listeria growth after refrigeration of deli meat for more than 7 days)	□ Point of Final Prep/Sale □ Before POS Post-Harvest □ Unknown location	☐ Before POS Pre-Harvest ☐ Before POS Unknown Pre or Post Harvest					
P9	☐ Inadequate Reduced Oxygen Packaging (ROP) of food (e.g., vacuum-packed fish, salad in gas-flushed bag, garlic packaged in oil)	□ Point of Final Prep/Sale □ Before POS Post-Harvest □ Unknown location	☐ Before POS Pre-Harvest ☐ Before POS Unknown Pre or Post Harvest					
P10	☐ Inadequate non-temperature dependent processes (e.g., acidification, water activity, fermentation) applied to a food to prevent pathogens from multiplying	□ Point of Final Prep/Sale □ Before POS Post-Harvest □ Unknown location	☐ Before POS Pre-Harvest ☐ Before POS Unknown Pre or Post Harvest					
P11	☐ Other situations that promoted or allowed microbial growth or toxic production (specify):	□ Point of Final Prep/Sale □ Before POS Post-Harvest □ Unknown location	☐ Before POS Pre-Harvest☐ Before POS Unknown Pre or Post Harvest☐					
If no sur	I Factors: Bacterial, viral, parasitic, and fungal outbreaks only vival factor available to enter, select reason: loes not apply to etiologic agent) Unknown None	identified						
Factor code	Factor		Source(s)					
S1	☐ Inadequate time and temperature control during initial cooking/ thermal processing of food (e.g., inadequate pasteurization of milk, inadequate cooking of meats/poultry prior to service)	□Point of Final Prep/Sale □Before POS Post-Harvest □Unknown location	☐ Before POS Pre-Harvest☐ Before POS Unknown Pre or Post Harvest☐					
S2	☐ Inadequate time and temperature control during reheating of food <i>(e.g., insufficient reheating of sauces)</i>	□Point of Final Prep/Sale □Before POS Post-Harvest □Unknown location	☐ Before POS Pre-Harvest☐ Before POS Unknown Pre or Post Harvest☐					
S 3	☐ Inadequate time and temperature control during freezing of food designed for pathogen destruction	□Point of Final Prep/Sale □Before POS Post-Harvest □Unknown location	☐ Before POS Pre-Harvest ☐ Before POS Unknown Pre or Post Harvest					
S4	☐ Inadequate non-temperature dependent processes (e.g., acidification, water activity, fermentation) applied to food to prevent pathogen from surviving	□Point of Final Prep/Sale □Before POS Post-Harvest □Unknown location	☐ Before POS Pre-Harvest ☐ Before POS Unknown Pre or Post Harvest					

Food	Water

Factor code		Factor		Source(s)			
S 5	□ No attempt was cooking/thermal	made to inactivate the opposessing, freezing, or	ntaminant through initial chemical processes				
S6	Other process failures that permit pathogen survival (<i>specify</i>): Before POS Pre-Harvest Before POS Unknown Pre or Post Harvest Unknown location						
Food C	ontributing Factors	Remarks:					
-						_	
Trace	back & Recall	Complete only for fo	ood and animal contact ou	ıtbreaks			
Traceb the conta	ack Investigation aminant, and any detai	Include all traceback ils regarding the implica	points that played a role in the ted point of service/sale	contamination of the implic	cated vehicle or helped a	mplify or spread	
Traceba	ick point(s)		1	2		3	
Compa	ny name						
(e.g., res	ny type Description o staurant, retailer, farm, or, manufacturer, proce						
Country	/						
State							
	ack findings Il that apply from list in	n Appendix E					
What fe	•	involved in the trace A/APHIS □ USDA/F	back investigation? (Select a	all that apply)		\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	
Recall							
☐ F00	d product was recall	ed					
Exa	ct item(s) recalled:						
Linl	k to official recall ar	nnouncement(s):					
Comme							
001111110	into:						
	<u> </u>	ete for water outbre	aks				
Suppor	rting evidence						
1. Esti	mated total number	of persons with prima	ary water exposure:	_ #			
	at evidence implicate pidemiologic data	ed the water exposure Clinical labo	e(s)? <i>(Select all that apply)</i> ratory data □ Enviror	nmental health data	☐ Prior experience ma	akes this a likely source	
3. Wer	e data collected to e	estimate association (re.g., odds ratio)?	S ONo OUnki	nown		
a. l	f no or unknown, w	as water the commo	n source shared by persons	s who were ill? • Yes	ONo OUnk	nown	
b. l	f yes , please provide	e the epidemiologic d	ata that implicates the wate	er exposure:			
Ex	posure description	Attack rate	Effect measure	Type of effect	p-Value	95% confidence	
		(number ill/number exposed as n/N)	(numeric)	measure (e.g., odds ratio, relative risk)	·	interval	
				Totalivo Holy			
		<u> </u>					

Legionella Rec Water

Water Remarks	
water nemarks	
Legionella and Other Biofilm-Associated Pathogens	
Additional questions for biofilm-associated pathogens	
1. Did the outbreak occur in a facility with any of the following characte	ristics? (Select all that apply)
 □ "Green" components (e.g., low-flow engineering) □ Construction in building within the last six months □ Ot 	pplemental building disinfection system ntralized hot water system ner <i>(specify in facility characteristic remarks)</i> known ne
Facility characteristic remarks:	
2. Did the facility have a water management program in place at the tin	ne of the outbreak? O Yes O No O Unknown
 a. If yes, which of these elements did the plan include: (Select all that Multi-disciplinary water management program team Diagram of the building's water system Identification of control points/locations (e.g., areas of potential Legionella growth and spread) Established control limits Regular water parameter testing (e.g., disinfectant, temperature, p Plan for implementing corrective action (tasks taken when monito values are outside of control limits) 	 Method of plan verification (e.g., pathogen testing, clinical surveillance) Documentation of water management program performance and activities Unknown H) None
b. If yes, who designed the water management program: (Select all the	at apply)
☐ Facility ☐ Other (specify): ☐ Outside contractor ☐ Unknown ☐ Public health department	
3. After the outbreak, were recommendations provided to the facility to pathogen exposure? Yes No Unknow	
a. If yes, please select all that apply:	
☐ Flushing potable water system ☐ Superheat potable water system ☐ Implement secondary potable water disinfection system ☐ Implement point of use filter(s) ☐ Hyperchlorination of potable water system ☐ Hyperchlorination of recreational water system ☐ Low level chlorination of potable water system	 □ Water restrictions (e.g., discontinuing use of showers, faucets, or other water uses) □ Closure of an associated device (e.g., shutdown of a fountain, hot tub) □ Other (specify):
4. Were samples tested for <i>Legionella</i> at a laboratory participating in a na Yes ONo OUnknown ONot applicable	tional proficiency program (e.g., ELITE, ELAP, AIHA)?
Biofilm-associated pathogen remarks	
Recreational Water — Treated Venue	
Water quality management — treated recreational water	
	Yes ○No ○Unknown ○Not applicable
., .	n inspection report(s)]

Treated recreational	l water remarks			
	ng to recreational water contamination or increased exposure in treate			
Factor	Recreational water (treated venue) contributing factors Select all that apply*	Documented/observed	or Suspected	
Unknown	☐ Contributing factors are unknown	N/A		
People	☐ Maximum bather load exceeded	O Documented/observed	OSuspected	
	☐ Water venue(s) primarily used by children ages <5 years	O Documented/observed	OSuspected	
	☐ Fecal/vomit incident in water	O Documented/observed	OSuspected	
	□ Patrons or staff entered the water when ill with diarrhea	O Documented/observed	OSuspected	
Facility Design	☐ Hygiene facilities (e.g., toilets, diaper-changing stations) inadequate or distant from water venue(s)	O Documented/observed	Suspected	
	☐ Cross connection with other water venue(s) or with wastewater/ non-potable water	O Documented/observed	OSuspected	
	☐ Ventilation insufficient in indoor aquatic facility	O Documented/observed	OSuspected	
	☐ New construction or alteration of water venue or indoor facility	O Documented/observed	OSuspected	
Maintenance	☐ Chemical feed continues when no or low water in recirculation system	O Documented/observed	OSuspected	
	☐ Disinfection (e.g., chlorine, bromine) inadequate or absent	O Documented/observed	Suspected	
	☐ Disinfection (e.g., chlorine, bromine) excessive	O Documented/observed	Suspected	
	☐ Chloramine concentration >0.4 ppm	O Documented/observed	OSuspected	
	☐ Filtration system malfunctioning or inadequate	O Documented/observed	Suspected	
	☐ Recirculation pump off or restarted with swimmers in water	O Documented/observed	OSuspected	
	☐ No regular scrubbing to remove slime/biofilm	O Documented/observed	Suspected	
	☐ No regular hot tub/spa draining	O Documented/observed	OSuspected	
	☐ Stagnant water in hot tub/spa piping	O Documented/observed	OSuspected	
Policy and .	☐ No qualified operator [§] on payroll or under contract	O Documented/observed	OSuspected	
management	☐ No qualified operator [§] or responsible supervisor [¶] on duty during outbreak	O Documented/observed	Suspected	
	☐ Water quality monitoring (e.g., test kit, testing frequency) inadequate or absent	O Documented/observed	O Suspected	
	☐ Record keeping (e.g., water quality testing results, fecal incident response) inadequate or absent	O Documented/observed	Suspected	
	□ Employee illness policies not enforced or absent	O Documented/observed	O Suspected	
	☐ Water venue(s) not regulated as recreational water venue(s) (e.g., does not meet state/local definition)	O Documented/observed	Suspected	
*Only select 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. §A qualified operator is defined as someone who has completed training approved by appropriate state/local officials. ¶A responsible supervisor is defined as someone who conducts and records results of water quality testing, properly maintains water quality, performs general maintenance procedures, and identifies when to close venues to protect public health without a full-time onsite qualified operator.				
Other contributing fa	actors			

Poorcetional Water	Untrooted Venue				
Recreational Water — Untreated Venue					
 Water quality management — untreated recreational water 1. Did the venue meet recreational water quality standards (e.g., applicable local, state, or Environmental Protection Agency [EPA] criteria) at the time of the outbreak? Yes ONo OUnknown ONot Applicable 2. Do you have microbiological water quality testing results collected in the 3 months before the outbreak? Yes ONo OUnknown 					
	[NOTE: If yes, please attach results]				
Untreated recreationa	I water remarks				
Factors contributing	to recreational water contamination and/or increased exposure in u	ntreated venues			
Factor	Recreational water (untreated venue) contributing factors Select all that apply*	Documented/observed o	or Suspected [†]		
Unknown	☐ Contributing factors are unknown	N/A			
People	☐ Maximum bather load exceeded	O Documented/observed	OSuspected		
	☐ Water venue(s) primarily used by children ages <5 years	O Documented/observed	Suspected		
	☐ Fecal/vomit incident in water	O Documented/observed	Suspected		
	□ Patrons or staff entered the water when ill with diarrhea	O Documented/observed	Suspected		
	☐ Stagnant or poorly circulating shallow water in swim area	O Documented/observed	Suspected		
Environment	☐ Heavy rainfall and runoff	O Documented/observed	Suspected		
	□Algal bloom	O Documented/observed	Suspected		
	☐ Seasonal variation in water quality	O Documented/observed	OSuspected		
	☐Animal contamination: Domestic: pet (e.g., dog)	O Documented/observed	Suspected		
	☐Animal contamination: Domestic: livestock (e.g., cow, pig)	O Documented/observed	OSuspected		
	☐Animal contamination: Wildlife: birds (e.g., goose)	O Documented/observed	Suspected		
	☐ Animal contamination: Wildlife: Other (specify): (e.g., deer)	O Documented/observed	OSuspected		
	☐ Animal contamination: Other (specify):	O Documented/observed	Suspected		
	☐ Sewage contamination: Wastewater treatment plant, sewer system	O Documented/observed	OSuspected		
	☐ Sewage contamination: Septic tanks	O Documented/observed	OSuspected		
	☐ Improper dumping of sewage (e.g., from boat, RV)	O Documented/observed	OSuspected		
	□Application or release of chemical	O Documented/observed	OSuspected		
Policy and	☐ No trained beach manager [§] on payroll or under contract	O Documented/observed	OSuspected		
management	☐ No trained beach manager [§] on duty when initial outbreak exposure	O Documented/observed	OSuspected		
	☐ Monitoring of microbiological water quality (e.g., frequency, site of water sample collection) inadequate or absent	O Documented/observed	Suspected		
	☐ Inadequate communication (e.g., signage, website posting) to patrons of poor recreational water quality or closures	O Documented/observed	OSuspected		
	☐ Hygiene facilities (e.g., toilets, diaper-changing stations) inadequate or distant from water venue(s)	O Documented/observed	OSuspected		
	☐ Water venue(s) not designated and managed by state/local jurisdiction(s) as recreational water venue(s)	O Documented/observed	OSuspected		

^{*}Only select 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.

[§]A trained beach manager is defined as someone who has successfully completed training approved by appropriate state/local officials.

Other contributing factors	
Drinking Water Systems	
Drinking Water Systems	
<u>Water quality management — drinking water system(s)</u>	
 Did the drinking water system(s) have any monitoring violations in the 1 month before the outbreak? ○ Yes ○ No ○ Unknown ○ Not Applicable 	
a. If yes, explain:	
	•
2. Did the drinking water system(s) have any maximum contaminant level (MCL) violations in the 1 month before the outbreak? O Yes O No O Unknown O Not Applicable	
The state of the s	
a. If yes, explain:	-
	-
3. Did the drinking water system(s) have any violations in the 12 months before the outbreak?§	
O Yes O No O Unknown O Not Applicable	
a. If yes, explain:	-
	-
	-
§ 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	
Drinking water remarks	
	_
	_
Factors contributing to drinking water contamination or increased exposure to contaminated drinking water	
Location in system contributing to drinking water contamination Location in system contributing to drinking water contamination	
Was there a problem with the quality of the source water?	
○ Yes (See contributing factor section 1 below) ○ No ○ Unknown	
2. Was water quality affected by a problem occurring with the water treatment or within the distribution system before entry into a building	
or house?	
○ Yes (See contributing factor section 2 below) ○ No ○ Unknown	
(NOTE: For a community water system, distribution refers to the system of 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 non-community and non-public water systems, distribution refers to the system of pipes and storage infrastructure prior to entry into a building or house)	
3. Was water quality affected by a problem occurring after the water meter or outside the jurisdiction of a water utility? (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)	
○ Yes (See contributing factor section 3 below) ○ No ○ Unknown	

Drinking Water Contributing Factors				
Factor	Drinking water contributing factors Select all that apply*	Documented/observed	or Suspected [†]	
Unknown	☐ Contributing factors are unknown	N/A		
Source water	☐ Groundwater under direct influence of surface water (e.g., shallow well)	O Documented/observed	OSuspected	
	☐ Contamination through limestone or fissured rock (e.g., karst)	O Documented/observed	OSuspected	
	☐ Use of alternative source of water by a water utility	O Documented/observed	OSuspected	
	□ Algal bloom	O Documented/observed	OSuspected	
	☐ Domestic animal contamination (e.g., livestock, concentrated feeding operation, pets)	O Documented/observed	Suspected	
	☐ Wildlife contamination	O Documented/observed	OSuspected	
	☐ Improper construction, location, or maintenance of a well or spring	O Documented/observed	Suspected	
	□ Extreme weather in area (e.g., flooding/heavy rains, drought)	O Documented/observed	Suspected	
	☐ Contamination from agricultural chemical application (e.g., fertilizer, pesticides)	O Documented/observed	Suspected	
	☐ Contamination from chemical pollution not related to agricultural application	O Documented/observed	OSuspected	
	☐ Wastewater contamination of drinking water source (e.g., septic system contaminating groundwater, community sewer system malfunction or overflow)	O Documented/observed	OSuspected	
Water treatment/	☐ Filtration inadequate or absent in drinking water system	O Documented/observed	OSuspected	
distribution system	☐ Disinfection (e.g., chlorine, monochloramine) inadequate or absent in drinking water system	O Documented/observed	Suspected	
	☐ Aging or corroded water distribution components (e.g., pipes, tanks, valves)	O Documented/observed	OSuspected	
	□Low water pressure event [§] in the distribution system	O Documented/observed	OSuspected	
	☐ Wastewater contamination after water treatment (e.g., cross connection or malfunctioning back-flow preventer in distribution system)	O Documented/observed	Suspected	
Outside water	☐ Temperatures in optimal range for opportunistic plumbing pathogen growth	O Documented/observed	Suspected	
utility jurisdiction or at point of use	☐ Disinfectant (e.g., chlorine, monochloramine) inadequate or absent in building water system	O Documented/observed	Suspected	
	☐ Stagnation of water in building water system (e.g., sporadic occupancy, poorly designed water system, interruption in water supply)	O Documented/observed	Suspected	
	☐ Construction in or around building	O Documented/observed	OSuspected	
	☐ Water system components (e.g., pipe, tanks, disinfectant system, thermostat, valves) not functioning as designed	O Documented/observed	Suspected	
	☐ Equipment/device (e.g., soda machine) contamination or failure (e.g., leaching from device's water line, manufacturer maintenance recommendations not followed, design flaw)	O Documented/observed	Suspected	
	☐ Missing or poor adherence to industry compliant water management programs	O Documented/observed	Suspected	
	☐ Contamination of commercially-bottled water at point of use	O Documented/observed	OSuspected	
*Only select 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. §Low water pressure is relative to what is normally observed in the distribution system. Sources of low pressure could include events such as main breaks, maintenance activities, issues with back-flow or cross-connections, pump station activity, service interruptions (e.g., due to power outages), hydrant flushing, and heightened water demand.				
Other contributing fa				

Other Exposures to Water, Including Other Environmental Exposures to Water			
1. How did the exposu	water exposure description Ire(s) to the water system/source occur? Refer to list in Appendix E		
Other exposures to v	vater remarks		
Factors contributing	to contamination and/or increased exposure to contaminated water		
Factor	Contributing factors Select all that apply*	Documented/observed	or Suspected [†]
Unknown	□ Contributing factors are unknown	N/A	
Cross cutting	☐ Missing or poor adherence to industry compliant water management programs	O Documented/observed	Suspected
	☐ Presence of dirt, organic matter, or other debris in the basin or fill	O Documented/observed	OSuspected
	☐ Construction in or around the building	O Documented/observed	O Suspected
	☐ Missing or inadequate disinfectant	O Documented/observed	O Suspected
	□ Lack of a written cleaning and maintenance plan/program	O Documented/observed	Suspected
	☐ Temperatures in optimal range for opportunistic plumbing pathogen growth	O Documented/observed	O Suspected
	□ Broken/damaged sewer pipe	O Documented/observed	O Suspected
	□ Recycling of water	O Documented/observed	O Suspected
Other	☐ Improper start-up or shutdown procedures	O Documented/observed	Suspected
	☐ Presence of scale or corrosion	O Documented/observed	O Suspected
	☐ Damaged or missing drift eliminators	O Documented/observed	O Suspected
	☐ Missing or inadequate scale and corrosion inhibitors	O Documented/observed	O Suspected
	☐ History of recent repairs to the device	O Documented/observed	O Suspected
	□ Location of device near high risk area (e.g., building air intake, windows that can be opened)	O Documented/observed	Suspected
	☐ Intended as an ornamental fountain but utilized as an interactive fountain	O Documented/observed	O Suspected
	☐ Inadequate disinfection for recreational use	O Documented/observed	O Suspected
	☐ Inadequate filtration for recreational use	O Documented/observed	O Suspected
	□ Presence of submerged lighting	O Documented/observed	O Suspected
*Only select what was foun- t "Documented/Observed" but for which no documen Other contributing fa	refers to information gathered through document reviews, direct observations, and/or interviews. "S tation (as defined previously) is available.	Suspected" refers to factors that p	probably occurred
Juici Collabutily 18	iotoi 3		

Undetermined Exposures to Water					
Implicated water — water description 1. Which water exposure(s) were suspected in the Treated recreational water Untreated recreational water Drinking water in public or individual water service of the exposures to water including environmous Specific water exposure(s) could not be identification.	systems nental exposure to water)			
Undetermined exposure to water remarks					
Factors contributing to contamination and/or increased exposure to contaminated water 1. Were any contributing factors documented or suspected† in this outbreak investigation? Yes No Unknown † "Documented" 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. If yes, please describe the contributing factors below.					
Contributing factors					
Outbreak Detection & Investigation	n Methods				
Outbreak Detection — How was the outb	reak initially detected? Sele	ect all that apply			
□ Public complaint to health department □ Routine public health surveillance interview □ Notification from other CDC group □ Notification from other public health lab □ Notification from facility □ Website or social media (e.g., Twitter, Yelp, Facebook) □ Media report from news outlet □ Healthcare provider report □ Notification from CDC lab system (e.g., PulseNet)					
Investigation Methods Select all that apply					
Epidemiologic Binomial probability assessment Case-control study Case-case study Cohort study Interviews only of ill persons Other (specify):	Environmental Group Food preparation review Water system assessment: drinking water Water system assessment: non-potable water Treated or untreated recreat water venue assessment Environmental, food, water, or sample testing Other (specify):	itional	Traceback ☐ Food, animal, or water investigation ☐ Consumer purchase records (e.g., shopper card) ☐ Investigation at distributor, supplier, or production facilities (e.g., factory, treatment plant) ☐ Investigation at original source (e.g., farm, water source) ☐ Other (specify):		
Investigation methods comments					
Other Linked CDC Systems					
NEARS NEARS Evaluation ID 1 OHHABS OHHABS ID 1	2	3	4		

Interventions			
1. Were any interventions recommended or implemented to help stop the outbreak?	⊃Yes	ONo	OUnknown
a. If no, explain why none were recommended or implemented.			
			_
b. If yes, what type(s) of interventions were recommended or implemented to help using list in Appendix E.	stop the o	outbreak? <i>S</i>	Select all that apply in the table below

Directions:

Intervention Type

Any intervention type can be selected for any mode of transmission regardless of the header listed for each table below.

Any Point of Intervention OR Point of Exposure

Complete for all modes of transmission. For animal contact, foodborne, and indeterminate/unknown outbreaks, enter interventions at the point of exposure in the "Any Point of Intervention OR Point of Exposure" column.

Recommended or implemented at other points of intervention

Complete only for animal contact, foodborne, and indeterminate/unknown outbreaks for columns:

- Point of distribution
- Point of processing
- Source

Facility/site/venue and equipment - Recommended and Implemented Interventions

Intervention type	Any Point of Intervention OR Point of Exposure (Complete for all modes of transmission. For animal contact, foodborne, and indeterminate/unknown outbreaks, enter interventions at the point of exposure)	Point of distribution* (e.g., shipping facility, transportation equipment)	Point of processing* (e.g., pasteurization plant)	Source* (e.g., farm)
Facility/site/venue closed (for at least 1 day)				
Facility/site/venue closed <1 day or partially closed				
Cleaning protocol modified				
Facility/site/venue deep cleaned				
Equipment deep cleaned				
Equipment acquired, adjusted, repaired, replaced, or discarded				
Facility/site/venue physically or structurally modified				
Health promotion signage posted				
Personal protective equipment provided by facility				

^{*}Complete for animal contact, foodborne, and indeterminate/unknown outbreaks

People – Recommended and Implemented Interventions

Intervention type	Any Point of Intervention OR Point of Exposure (Complete for all modes of transmission. For animal contact, foodborne, and indeterminate/unknown outbreaks, enter interventions at the point of exposure)	Point of distribution* (e.g., shipping facility, transportation equipment)	Point of processing* (e.g., pasteurization plant)	Source* (e.g., farm)
III workers excluded				
III workers restricted				
III children or persons excluded				
Ward(s) closed to new admissions				
Visitors excluded				
Asymptomatic persons' stools screened (e.g., for exclusion)				
III persons' stools screened (e.g., for exclusion)				
Vaccination or prophylaxis				
Isolation/quarantine/cohorting				
Education/training (e.g., hand washing, certification)				

 $^{{\}bf ^{*}Complete}\ for\ animal\ contact,\ foodborne,\ and\ indeterminate/unknown\ outbreaks$

Animals– Recommended and Implemented Interventions

Intervention type	Any Point of Intervention OR Point of Exposure (Complete for all modes of transmission. For animal contact, foodborne, and indeterminate/unknown outbreaks, enter interventions at the point of exposure)	Point of distribution* (e.g., shipping facility, transportation equipment)	Point of processing* (e.g., pasteurization plant)	Source* (e.g., farm)
Animal(s) quarantined or movement stopped				
Animal(s) relocated				
Herd culled				
Vaccination or prophylaxis				

^{*}Complete for animal contact, foodborne, and indeterminate/unknown outbreaks

Food – *Recommended and Implemented Interventions*

Intervention type	Any Point of Intervention OR Point of Exposure (Complete for all modes of transmission. For animal contact, foodborne, and indeterminate/unknown outbreaks, enter interventions at the point of exposure)	Point of distribution* (e.g., shipping facility, transportation equipment)	Point of processing* (e.g., pasteurization plant)	Source* (e.g., farm)
Menu modified				
Food preparation processes modified				
Self-service discontinued				
Food withdrawn (before recall)				
Food discarded				
Food embargoed				
Food source modified (e.g., vendor)				

^{*}Complete for animal contact, foodborne, and indeterminate/unknown outbreaks

Water - Recommended and Implemented Interventions

Intervention type	Any Point of Intervention OR Point of Exposure (Complete for all modes of transmission. For animal contact, foodborne, and indeterminate/unknown outbreaks, enter interventions at the point of exposure)	Point of distribution* (e.g., shipping facility, transportation equipment)	Point of processing* (e.g., pasteurization plant)	Source* (e.g., farm)
Water restrictions issued				
Water advisory issued (e.g., drinking, swimming)				
Water chemically treated (e.g., hyperchlorination, secondary disinfection)				
Water filtered				
Water system superheated				
Water system flushed				

^{*}Complete for animal contact, foodborne, and indeterminate/unknown outbreaks

Other — Recommended and Implemented Interventions					
Intervention type	Any Point of Intervention OR Point of Exposure (Complete for all modes of transmission. For animal contact, foodborne, and indeterminate/unknown outbreaks, enter interventions at the point of exposure)	Point of distribution* (e.g., shipping facility, transportation equipment)	Point of processing* (e.g., pasteurization plant)	Source* (e.g., farm)	
Other (specify):					
Other (specify):					
Other (specify):					
2. Were any public communications released for this outbreak? (e.g., press release or outbreak notice) Yes No Unknown					
Remarks					
General Remarks Briefly describe any important aspects of the outbreak not covered above, including links to communications or publications.					

Please attach summaries or add links to relevant publications.

Thank you for completing this form. These data will help us prevent illnesses.