FOODBORNE, WATERBORNE, ENTER Form A	RIC ILLNESS CON	MPLAINT R	EPORT	Complaint no.*		
Complaint received from		Address		Phone Home Work		
Person to contact for more information		Address		Phone Home Work e-mail		
Complaint Type of complaint:* Illness Conta Poor quality recreational water Unsa Disaster Other (specify)	minated/spoiled/adul anitary establishmen	terated food t	Poor qua Poor qua Poor qua	lity drinking water media publicity		
Illness: Yes, ^{1,2*} No Number ill* Hour Predominant symptoms:* Vomiting	Number ex	posed	Time first	symptom: Date*		
Physician consulted: Yes No If yes, Name		Address		Phone		
Hospitalized: Yes No Emerge If yes, Hospital name	ency Room visit: [Ad	☐ Yes □ No dress)			
Physician's name Laboratory examination of specimen: Type	specimen Or	one one rganism/Toxir	n detected*			
Suspect food/water* Brand identification †	So Co	ource of food/ ode/Lot no. †	water †			
Suspect meal, event or place:*Address	D	ate Phone	Tim	e		
NAME 1.	STATUS □ ill □ well	ADDRESS		PHONE		
2.	□ ill □ well					
3.	□ ill □ well					
4.	□ ill □ well					
Domestic water source: Community	□ Non-community Untreated □ Other	□ Bottled v (specify)	water			
Places and locations where foods eaten past 72 hours, other than home * ³	Place and locations water ingested past other than home * ³	st where st 2 weeks, water contacted past 2 weeks *3				
History of exposures within past six weeks: International travel (Place) household or ill person visited household (i (indicate name) Ill animal	*	travel (Place) hild care Contact with il	Contact w Il person with	rith ill person outside iin household		
Received by	Date of complaint/a	ilert	Time	Disposition		
Investigator's name	1	Comments				

¹If yes, public health professional staff member should obtain information about patient which should be put on Form C. ²Ask person to collect vomitus and/or stool in a clean jar, wrap, identify, and refrigerate; hold until health official makes further arrangements.

³Ask person to refrigerate all available food eaten during the 72 hours before onset of illness; save or retrieve original containers or packages; sample should be properly identified; hold until health official makes further arrangements. Save any water in refrigerator and trays of ice cubes in freezer; collect was sample from suspect supply in clean jar; put on lid and refrigerate.

^{*}Enter onto complaint log (Form B).

 † Enter onto complaint log (Form B) under comments. USE REVERSE SIDE OR ATTACHED SHEET IF MORE SPACE REQUIRED FOR ANY ENTRY

FOODBORNE, WATERBORNE, ENTERIC ILLNESS & COMPLAINT L Journ B

MOC	PLAINT¹		ILLNES	SES		FOOD		WATER ²			HISTORY OF	COMMENTS
No.	Date	Type	Onset	No. ill	Predominant	Alleged/	Where	Where	Where	Source*	EXPOSURE ³	(Specify
			date		symptom/	Suspected	eaten within	ingested	contacted			place,
					sign		72 hrs*	within 2	within 2			location)
								wks*	wks*			

Legend: ¹Type complaint – I = illness; CF = contaminated/adulterated/spoiledfood; UE = unsanitary food establishment; DW = poor quality drinking water;

RW = poor quality recreational water; MP = complaint related to media publicity; D = disaster.²Water source - C = community; NC = non-community; O = other; W = well; B = bottled; S/L = stream/lake; V = vended; U = untreated;O = other

³History of exposure (specify by name) – DT = domestic travel (out of town but within country); IT = international travel; CC = child care; CI = contact with ill person outside household or visitor to household; C = contact with ill person within household; AN = exposure to ill animal. *Enter each place or source on separate line under the complaint number.

CASE HISTOF Form C1	ty: CLINICAL	DATA	Source or place of outb	reak, if known	Complaint number	Case identification no.	
Name				Address		Phone: Home Work	
Age	Sex	Occupation	Place of work		Ethnic group, special diets pertinent personal or healt	ry habits, immunocompromised c h data	or other
Signs and Symp. INTOXICATIO	toms† (Check NS (Acute and c	appropriate signs and symptoms a hronic)	nd circle those that occurred ENTERIC INFECTIONS	first) GENERALIZED	Other INFECTIONS	NEUROLOGICAL ILLNESSES	
				INFECTIONS			
□ Nausea		□ Pallor □ Pi⊅mentation	*□ Abdominal cramps *□ Diarrhea	□ Cough □ Fdema	□ Ear □ Eve	□ Blurred vision	
□ Anemia		□ Prostration	□ bloody #	□ Headache	□ Itching	□ Delirium	
□ Bloating		□ Scaling of skin	□ greasy	□ Jaundice	□ Mouth	Difficulty in: 🗆 speaking	
□ Burning sen	sation (mouth)	□ Soapy/Salty taste		□ Lack of appetite	□ Rash	□ swallowing □ breathing	
Cyanosis		Uhurst	L watery	□ Malaise	□ Skin lesion	□ Dizziness □ Double vision □ Imitobility	
	livation	□ Weigut 1055 □ White hands on fingernails		Improvement acting Derenization	Describe:	Double vision Discrientation/loss of memory	~
Π Flushing	III VALIOII	□ White balles on hingernaus	Constination	□ retspitation □ Stiff neck ioints	Describe.	Hottcold reversal syndrome	Ŷ
Enot/wrist d	ron	(finade) statio	*□ Fever °C/°F	Swollen lymph node		□ Numbness □ Paralvsis	
□ Insomnia	1		□ Tenesmus	□ Weakness		Pupils 🗆 dilated, 🗖 fixed,	
□ Metallic tast	e			□ Decrease urine outpu	It	or \Box constricted	
				□ Pain in back/kidney		□ Tingling	
Other symptoms		Time of onset Date	Incubation period	Duration of illness	Residual symptoms	Fatel Yes 🗆	
		Hour				N0 L	
Known allergies		Medications taken for illness		Amount	Dates Medi	ations/inoculations prior to illnes	SS
Physician consu	lted	Address	Phone	Hospital attended	Address	Phone	
Contacts with k	nown cases befor	re illness (names)		Address		Phone	
Cases in househ	old occurring su	bsequently (names)		Dates of onset	Child care exposure (place		
Type of specime	obtained	Date collected Spe	cimen number	Laboratory results		Case	
-i (Laboratory Method			ürmed
n ri				Laboratory where analysis performed			umptive ect
†Signs and sym *Ask if these syn #Ask whether th	otoms are listed i nptoms occurred ere was decreas	n columns to suggest classification , even if they were not mentioned sed urine output.	of the disease; their occurre in the interview.	nce is not necessarily lin	nited to the category in whi	ch they appear on this form.	

CASE HISTORY: FOOD/WATER HISTORY AN Form C2	ID COMMON SOURCI	SI			🗆 Well	
Date of illness/outbreak ¹ Date	Day before illn	ess outbreak Breakfast ²	Date	Two days before illness Bre	Date	
Breakfast ²	Place	Ho	ur	Place	Hour	
Place Hour	Item ³			Item ³		
ruur Commission 4	Companions ⁴			Companions ⁴		
Companions Ih2		Iah2			h2	
Place Luncur Place Hour	Place	Luncn ⁻ Ho	ur	Place	uncn ⁻ Hour	
Item ³	Item ³			Item ³		
Companions ⁴	Companions ⁴			Companions ⁴		
Dinner ²		Dinner ²		D	inner ²	
Place Hour Hour	Place	Ho	ur	Place	Hour	
Companions*	Companions [*]			Companions ⁻		
Non-meal snacks/water ingested ²	Non	-meal snacks/water ing	gested ²	Non-meal snac	cks/water ingeste	d²
Place Hour	Place	Ho	ur	Place	Hour	
Item ³	Item ³			Item ³		
Companions ⁴	Companions ⁴			Companions ⁴		
	companyon companyon			Companyons		
History of ingesting suspect food or water or contact water from suspect source	t with Source			Address		
Item Time of eating, drinking or	contact					
Date Hour						
Common events or Date Persons attending gatherings	g4 ill We	ell Addresses				Phone
Nonroutine travel past month (international or dome- locations)	stic/ Water supply ⁵	Sewage dispo	sal	Pet/Animals (kind and nu	mber of each)	
Water contacted during recreation or work in last 2 w	veeks	Unusual water	r supplies ingested	in last 2 weeks		
Investigator		Agency				Date
¹ If ill before all meals eaten, complete column for thr 216 more concerned anneha of closes of more more	tee days before illness and	d so indicate to obtain 7	2-hour history.	a incected ner dav		

ingested per day. 2 WILLI clagco Ś 5 5 Ξ crages Š 5 ⁴It water suspected, number of glasses of water, nu ³Include all foods, ice, water, and other beverages.

⁴Record names of persons eating same meal and whether or not ill. ⁵Specify C for community, SP for semipublic, U for untreated, B for bottled water, NC = Non-community, S/L = Stream/Lake, W = Well, V = Vended and O = Other.

	H		Death															
	nbe	0	bəzilatiqed															
	nu	Date	Physician seen															
	aint		Vuranon (no. days)			_	_									1		
	ldm		(out of out and									╈		+	+			
	ပိ	s																
	ak	ton																
	bre	duu/	Fever															
	out	d sy	Abdominal cramps					_		_			_		_	_		
	s of	s an	Diarrhea		_			_	_	_	_	+			-	-	arks	
	Date	ign	Vomiting		_	 	_	_		_	_	+	-	+	+	\vdash	kem	
	<u> </u>	n N	eəsnen		_					-	-	+	+	+	+	-	Ч	
(Incubation period (differences betwee time of ingesting/- contact and onset)															Median IP	(
mark		of	Hour															mark
fold	reak	nset nitial ympt	Дау		_							1						fold
	outb	D G C	Tuoh		_			 				╉	-	-	+			
	ace of	me of gestin od or ater or ntacti ater	האפת		_			 _	_	_		+	╉	+	+			
	Id	H Q M S M			_			 _				+	+	+	+			
						 								_				
			əgA															
			xəS															
	DATA	Phone															Title	
	IMARY: CLINICAL	Address																
	SE HISTORIES SUN n D1	Name of exposed persons whether or not ill															stigator	
	CA! For	D .or															Inve	

IAFP Procedures

CASE HISTORIES SUMMARY: Form D2	FOOD/LABORATORY	DATA (fold mark)	NOTE: Line up with appropriate Identification nun (see fold notations above and below)	aber of Fo	rm D1
Food ingested at suspect meal or event	Water ingested	Laboratory tests	Specific comments or additional information about any ill, not ill persons. Indicate whether ill person is a food worker (if so, name of establishment). (Record all information where space does not permit in other sections, such as additional symptoms, physician, and hospital names.)	Case	# ID
	Glasses water Per day Water/day water/day ise ner day			Suspect Presumptive	рэшшиол
				_	
					_
				_	
Suspect food		Confirmed etiology	Remarks		
		(fold mark)			

CLINICAL SPECIM Form E	EN C	OLLECT	ION REPOR	RΤ			Complaint no.	Specimen no.
Place of outbreak				Address			Case I.D. no.	Type of specimen
Patient name				Address				Phone
Reason for collecting Victim of outbreak Suspected carrier 	speci	men Person a Animal	ıt risk but no	t ill 🗆 I	Handler of su Other (specify	spect food or v	water	
Physician		Address						Phone
Symptoms: □ Naus	sea	🗆 Vomi	ting □ D	iarrhea	□ Fever	Other (spec	ify)	1
Time of ingesting/ contacting suspect food, meal, or water Day Hour	Time Day	of onset Hour	Incubation period	Duration of illness	Medications	Туре	Amount	Dates
Method of collecting	speci	men		Method of	preservation		Method of sl	nipment
Other Information		1						
Investigator collecting specimen	g	Title			Agency		Date collected/sub	Hour omitted
Test requested	requested Presence/Absence Count/Titer/ Definitiv						Definitive ty	pe
Comments and interp	oretatio	ons						
Laboratory analyst		Lab nam location	е &	Date/Hour received		Date started	Date completed	Etiologic agent as determined by analyst

FOOD SAMPLE COLLECTION REPORT	Г	No. of sample units taken	No. of units in lot	Sample no.	Complaint no.
Place collected		Address	1	Phone	
Person-in-charge	Description of swabbed	f sample or area	Date/Hour c	collected	Code/Lot number
Product name and description	Brand		Type of con	tainer	
Name of manufacturer, buyer, seller, importer (as appropriate)	Address		Container size	Production date	Weight/ Size
Other types of identification	Origin of ship	ment	Date of ship	oment	Arrival date
Bill of lading or contract number		Destination	1		
Reason for collecting sample: Food from a HACCP analysis HACCP verificati manner to that involved in outbreak Po	illeged outbreak on	t ☐ Ingredier ial survey ☐ ☐ Other (specify	nt of outbreak Similar food	food prepared in s	similar
Method of collecting and shipping sample	Collection ute	nsil	Method of s Judgmen Random Random accessibl	ampling t throughout l throughout e units	ot
	Method of ste	inizing container	□ Other		
Point of operation sample taken	Temperature: Food	Temperature: Storage unit	Time betwe	en serving ar	nd sampling
Shipped:	Carrier	<u> </u>	I.D. marks		Cost of sample
Refrigerated Frozen Ambient Investigator/Sampler	Title	Agency			
	The				1
Signature of sampler		Signature of rep	resentative of	party conce	rned
Test requested on basis of epidemiologic data	Presence/ Absence	Count/Concentra	ation	Definitive t	уре
Condition of food when received at the labora	atory	pН	a _w	Temperatur received	e when
Comments and interpretations by the laborato	ory				-
Laboratory analyst	Laboratory na	me & location	Date/Hour: Received	Date Started	Date Completed

FLOW PROCESS OF IMPLICAT Form G	ED FOOD		Complaint No.
Name of Establishment	Person in Charge at Time of Analysis	Title	
Address		Date and time	of Analysis
Product(s) Evaluated (Include bran code, date received)	nd, Physical Appearance	рН	a _w
symbol at exact point in operation	.)		
+ Likelihood O Survival	likely Δ Inital contamination likely.	▲ Contaminat	ion by equipment/
 No growth × Likelihoo of destruct ∨ Vegetative cell S - Bacteria 	d ∇ Worker/person contaminated ction	uclistis	
Investigator	a spore	Title	Date

IAFP Procedures

FOOD PROCESSIN Form H	NG/PREPARATI	ON HISTORY				Complaint no.
Place under investig	gation		Ad	dress		
Owner	PI	ant/Store manager			Phone	
Food being investig	ated	(Operation(s) be	eing investiga	ated	
Date and	time o	f suspect meal Date	and	time	of food preparati	on, as applicable
Food source/brand		Manufacture	er		_ Distributor	
Significant/suspect	ingredients	L ot codo		Addresses	f cource(c)	
Date of delivery	1		1	Addresses		
Food	Upon arrival	Before heating	After	During	Final product	Time of
characteristics:			heating	holding		measurements
Temp F/C						
рН						
a _w Baday						
SOURCES OF COI	NIAMINATION	(cite or select operation/source	ations of conce	Cheerwood	v diagram)	firmed (list
		Operation/source	(code) ^a	ves/no	nathogen: enter	count)
Downers duct/Signif	icont in cardiout		(code)	<i>yes</i> /10	puttogen: enter	count)
Other ingredien	icant ingredient					
Condiments/Spi	ces/Additives					
Cross contamination	n					
(raw to cooked))					
Workers						
Equipment/Uter	nsils					
Workers:						
Diarrhea or other ga	astrointestinal sig	gn/symptom or abse	nce from work	c prior to or o	during outbreak	
Worker's name		Date/time of	Illness lab	Ate suspec	t food	Job
		illness/absence	confirmed			assignment
		/				
		/				
		/				
			1	1		
Touching foods that	are not	Observed	Reported	Name of w	orker(s)	
Disposable gloves n	lieu lot worn					
Skin infections						
Poor personal hygie	ene					
Equipment cleaning	and sanitizing r	nethods for operatio	n of concern:			
Operation			Method	1s		
Operation			Method	ls		
Operation			Method	ds		
Describe other mod	es of contaminat	ion:				

^aPotential codes: 1—Potential but unlikely; 2—Potential and sometimes observed or related; 3—Potential and commonly observed or related; 4—Potential and almost always observed/found/related

FOOD PROCESSING/PREPARATION HISTORY REPORT (continued)

STIDVIVAL	Name, model, location, settings volume, dimensions	Date and time of	Time/Temperature exposure records (chart/log data)	Time/Temperature exposures during investigation (enter
Petorting	(as applicable)	operation	reported	uata)
Responsible person(s)		,		
Equipment used/can size		/	/	1
Equipment used/can size	/		/	/
Host process/Cooking			/	/
Reat process/Cooking		1		
Emission for the second		/	,	
Equipment used			/	/
Food			/	/
Reneating		,		
Responsible person(s)		/		
Equipment used			/	/
Food			/	/
Other (specify)		/	/	/
Responsible person(s)		//		
Equipment used			/	/
Food			/	/
PROLIFERATION				
During refrigerated/frozen transport/delivery/storage				
Responsible person(s)		/		
Equipment used			/	/
Food			/	//
After thawing				
Responsible person(s)		/		
Equipment used			/	/
Food			/	/
While outdoors				
Responsible person(s)		/		
Equipment used			/	/
Food			/	/
While in kitchen				
Responsible person(s)		/		
Equipment used			/	/
Food			/	/
During hot/warm holding				
Responsible person(s)		/		
Equipment used			/	/
Food			/	/

	N 11		TT: (TT:)	m: (m)
	Name, model, location, settings	~	exposure records	exposures during
(continued)	(as applicable)	Date and time of operation	(chart/log data) reported	investigation (enter data)
During chilling				
Responsible person(s)		,		
Equipment used			/	/
Food				
During cold storage				
Responsible person(s)		,		
Equipment used			/	,
Food			/	/
While on cold display			/	/
Responsible person(s)		,		
Equipment used		/		,
Equipment used			/	/
Food exposure			/	/
Other contributory		,		,
situations (specify)		/	/	/
Responsible person(s)		/		
Equipment used			/	/
Food exposure			/	/
Verification of calibration of e	stablishment time-tem	perature measuring de	evices. Test using an i	ce-bath. Record
Item	s vary nom 52 170 C,	Temperature i	n ice bath	
Item		Temperature i	n ice bath	
Item		Temperature i	n ice bath	
Other calibration procedures				1.00
FACTORS CONTRIBUTING	TO OUTBREAK (Ch	eck all appropriate bo	oxes and describe on t	back of form)
CONTAMINATION		PROLIFERATION/	AMPLIFICATION	of inactivation)
□ Toxic substance part of tissu	ie	□ Allowing foods to	remain at room/	Insufficient
Deisonous substance intention	onally added	warm outdoor ten	perature for	time and/
Poisonous or physical subst incidentally added	ance accidentally/	(several) he	ours	or temperature
□ Addition of excess quantitie	s of ingredlents under	□ Inadequate cold-h	olding temperature	cooking/heat
these situations are toxic	5		0 1	processing
□ Toxic container or pipelines		Preparing foods a hefere are services.	half day or more	
nathogens from animal or er	nvironment	□ Insufficient thawi	nours	or temperature
Prolonged cold storage for s	several weeks	followed by insuf	ficient cooking	during reheating
□ Contaminated raw products	eaten	Insufficient time a	ind/or temperature	□ Inadequate
□ Obtaining foods from pollut	ed sources	during hot holding	g time	acidification; pH
animal origin	aw ingreatent of	Insufficient acidif	ication; pH	failure (specify)
□ Bare-hand contact by handle	er/worker/preparer	Insufficiently low	water activity; a _w	
 Handling by intestinal carrie Inadequate cleaning or proc 	er essing/preparation	□ Inadequate thawir	ng of frozen products	
equipment/utensils	vironment	Anaerobic packin	g/modified	
□ Other source of contaminate	on (Specify)	□ Inadequate fermer	ntation	
		□ Other situations th	nat promoted or	
		allowed microbial production (specif	growth or toxin fy)	

FOOD PROCESSING/PREPARATION HISTORY REPORT (continued)





Enlarge area of concern so as to focus attention on operation(s) (e.g., heat processing, reheating, hot holding, and cold storage), temperature range or time span of concern, as appropriate. Fill in time intervals at bottom.

Indicate whether seconds, minutes, hours, days, weeks or other time intervals or time of day.

FOOD TRACEBACK REPORT: PLACES OF SERVICE AND PREPARATION Form J1

PLACE OF SERVICE	INVESTIGA	TION				Complain/Event no.
Food/ingredient under	investigation		Agent			Type/Markers
Place of service ¹			Address			
Owner/Operator			Person inte	erviewed		Phone/Fax
Suspect meal/food proc	luct	Date / /	Time	Preparation Date	;	Time
Other meals at which s ingredient was served (uspect food/ list meals) _ - -			Dates served / / / / / /	Known illness	No. cases
Other dishes/products i food/ingredient was ser (list dishes or product)	n which susp ved/incorpor – –	ect ated		Dates served/ processed / / / / / /		
Operations being invest	tigated (e.g.,	cooking, slicin	lg)	Factors contribut	ting to outbreak	
PLACE OF PREPARA	TION (If diff	erent than plac	ce of serving	;)		
Place prepared/purchas	ed ¹		Address			
Owner/Operator			Person inte	erviewed		Phone/Fax
Label name			Product ch	aracteristics (e.g.,	color, grade, grind si	ze, % fat, size)
Other meals at which s ingredient was served (uspect food/ list meals) _ -			Dates served / / / / / / / /	Known illness	No. cases
Other dishes/products i food/ingredient was ser (list dishes or product)	n which susp ved/incorpor - - -	ect ated		Dates served/ processed / / / / / /		
Operations being invest	tigated (e.g.,	cooking, slicin	lg)	Factors contribut	ting to outbreak at pla	ace of service
PLACE OF PURCHAS	SE OF SUSP	ECT FOOD O	R INGREDI	ENT		
Supplier ¹				Address		Phone/Fax
Date suspect food/ingre received by preparer ²	edient (lot) / /	Quantity rece	ived	Lot number	Other product codes numbers	s/bills of lading
Manufacturer/Brand				Condition when	received (e.g., packag	ged, loose)
Product characteristics	(e.g., packag	e/container, siz	ze/weight/vo	lume, grade)		
Investigator	Title			Agency		Date

¹Show initials or code used in boxes on flow diagram, Form J3

²Attach documentation (e.g., copies of freight bills, air bills, receipts (receiving and sales), signed sworn statements, labels)

FOOD TRACEBAC	CK REPORT: S NT	SUPPLIER TO Form J2	o so	OURCES OF IMI	PLICATED ¹	Complaint/Event no.
SUPPLIER INVES	TIGATION ^{2,3}					Date
Food/ingredient und investigation	ler	Lot code	Ag	gent		Type/Markers
Supplier name		Address		Person interview	ved	Phone/Fax
Other shipments of	lot of suspect	food that coul	d ha	we been present v	when suspect meal was p	prepared:
Brand ²	Quantity	Lot code		Date received	How used/menu item	Characteristics
1				1 1		
2				1 1		
3				11		
4				1 1		
Other consignees to suspect lot was ship	whom the ped	Address			Phone/Fax	No. persons ill
1						
2						
3						
4						
Factors contributing	to contaminat	ion, if any		Factors contribu	ting to propagation, if a	ny
Investigator	Title			Agency		Date
DISTRIBUTOR IN	VESTIGATIO	N ^{2,3} (Other m source an	nidd nd p	lemen, stops, who lace of service: L	blesalers between List in time sequence)	Date
	1					
Distributor/whole- sale/shipper name	Address			Person interview	ved	Phone/Fax
Distributor/whole- sale/shipper name Shipments received products	Address of suspect	Quantity	Da	Person interview	Address	Phone/Fax Phone/Fax
Distributor/whole- sale/shipper name Shipments received products	Address of suspect	Quantity	Da	Person interview	Address	Phone/Fax Phone/Fax
Distributor/whole- sale/shipper name Shipments received products 1 2	Address of suspect	Quantity	Da	Person interview	Address	Phone/Fax Phone/Fax
Distributor/whole- sale/shipper name Shipments received products 1 2 3	Address of suspect	Quantity	Da	Person interview	Address	Phone/Fax Phone/Fax
Distributor/whole- sale/shipper name Shipments received products 1 2 3 4	Address of suspect	Quantity	Da	Person interview	Address	Phone/Fax Phone/Fax
Distributor/whole- sale/shipper name Shipments received products 1 2 3 4 Other consignees to suspect lot was ship	Address of suspect whom the ped	Quantity Address	Da	Person interview Itte / / / / / / / / / / / / / / / / / / /	Address Address Phone/Fax	Phone/Fax Phone/Fax No. persons ill
Distributor/whole- sale/shipper name Shipments received products 1 2 3 4 Other consignees to suspect lot was ship 1	Address of suspect whom the ped	Quantity		Person interview ite / / / / / / / /	Address Address Phone/Fax	Phone/Fax Phone/Fax No. persons ill
Distributor/whole- sale/shipper name Shipments received products 1 2 3 4 Other consignees to suspect lot was ship 1 2	Address of suspect whom the ped	Quantity		Person interview Ite //// /// /// /// /// /// /// /// ///	Address Address Phone/Fax	Phone/Fax Phone/Fax No. persons ill
Distributor/whole- sale/shipper name Shipments received products 1 2 3 4 Other consignees to suspect lot was ship 1 2 3 3	Address of suspect whom the ped	Quantity Address		Person interview ate / / / / / / / / /	Address Address Phone/Fax	Phone/Fax Phone/Fax No. persons ill
Distributor/whole- sale/shipper name Shipments received products 1 2 3 4 Other consignees to suspect lot was ship 1 2 3 4 3 4 4	Address of suspect whom the ped	Quantity		Person interview ate / / / / / / / / /	Address Address Phone/Fax	Phone/Fax Phone/Fax No. persons ill
Distributor/whole- sale/shipper name Shipments received products 1 2 3 4 Other consignees to suspect lot was ship 1 2 3 4 Factors contributing	Address of suspect whom the ped	Quantity Quantity Address Address		Person interview	Address Address Phone/Fax	Phone/Fax Phone/Fax No. persons ill
Distributor/whole- sale/shipper name Shipments received products 1 2 3 4 Other consignees to suspect lot was ship 1 2 3 4 Factors contributing Investigator	Address of suspect whom the ped ; to contaminat	Quantity Address Address		Person interview	Address Address Phone/Fax Interfect of propagation, if an	Phone/Fax Phone/Fax No. persons ill Date
Distributor/whole- sale/shipper name Shipments received products 1 2 3 4 Other consignees to suspect lot was ship 1 2 3 4 Factors contributing Investigator SOURCE INVESTI	Address of suspect whom the ped to contaminat Title	Quantity Address Address		Person interview	Address Address Phone/Fax ting to propagation, if an	Phone/Fax Phone/Fax No. persons ill Date
Distributor/whole- sale/shipper name Shipments received products 1 2 3 4 Other consignees to suspect lot was ship 1 2 3 4 Factors contributing Investigator SOURCE INVESTI Name	Address of suspect whom the ped to contaminat Title GATION ^{2,3} Location	Quantity Quantity Address Address		Person interview	Address Address Phone/Fax ting to propagation, if an Phone	Phone/Fax Phone/Fax No. persons ill Date Date(s) of harvest/ production
Distributor/whole- sale/shipper name Shipments received products 1 2 3 4 Other consignees to suspect lot was ship 1 2 3 4 Factors contributing Factors contributing Factors contributing	Address of suspect whom the ped to contaminat Title GATION ^{2,3} Location	Quantity Quantity Address Address Person int ion, if any	Da	Person interview	Address Address Phone/Fax Phone/Fax ting to propagation, if an Phone ting to propagation, if an	Phone/Fax Phone/Fax No. persons ill Date Date(s) of harvest/ production ny

¹Use additional forms as needed

²Attach documentation/identification of contamination or temperature abuse during forward tracing and record on Form H ³Laboratory results of samples collected (Attach copy of Form M)

FLOW DIAGRAM OF PROD	UCT SOURCE AND	DISTRIBUTION	Complaint/event no.
Form J3			Date
Food Product	Lot(s) no.	Place of Serving	Number of cases

Illustrate distribution of implicated food/ingredient. Start with place of service, traceback the product flow to
its source. Show all suppliers and means of distribution to the source of contamination/survival/propagation or
harvester ¹ . Also show other consignees that received the contaminated lot(s). Indicate the supplier, distributor, and
consignees by a firm code inside a box with arrows showing sequential flow of the food/ingredient. Indicate date
of lot movement along side each entry. If additional cases have been identified with serving the implicated food or
foods in which the implicated ingredients was or were used, enter these either in or aside the appropriate box.

Investigator	Title	Agency	Phone/Fax

¹Record complete data (including names of all suppliers, distributors, consignees and the source of the food product; their addresses and phone numbers; and the initials used on this form) on Form J1 and J2

	Statistical	significance									
Complaint no.	Relative risk										Date
	Difference In	percent									
	did not eat	Attack rate									
ak	sons whc	c+d Total									
of outbre	er of per	d Well									
Place	Numb	с									
	o ate	Attack rate									Title
E TABLE	ersons who	a+b Total									
CK RATI	ber of pe	b Well									
ATTAC	Num	a III									
FOOD-SPECIFIC Form K1	Food/Beverage										Prepared by:

aint no.	Statistical	significance									
Compl	Odds	ratio									Date
	Difference	In percent									
		Percent									
		a+d Total									
break		d Did not eat									
Place of out	Well	b Ate/drank									Title
		Percent									
IABLE		a+c Total									
EXPOSURE		c Did not eat									
SOL VEHICLI	Ш	a Ate/drank									
CASE-CONTF Form K2	Food/	Beverage									Prepared by:

CALCULATION OF CH AND ODDS RATIO Form L1	HI SQUAH	RE TEST	, RELATI	VE RISK		Complano.	aint	Place of outbreak	Vehicle
Outbreak table (Step 1)				Expected t	able (Step 2	2)			
	Ш	Well	Total			ш		Well	Total
Ate/drank	a	b	a+b	Ate/drank		a		b	a +b
Did not eat/drink	с	d	c+d	Did not ea	t/drink	C.		d	c_+d_
Total	a+c	b+d	<nau></nau>	Total		a_+c_		b_+d_	n
Explanation				Calculation	ı				
Step 1				Step 1					
Fill in the outbreak table totals (a+b, c+d, a+c, b+ totals (n) from Form K1 marginal totals are less t 4 and use Fisher's exact	and calcu d) and the or K2. If han 10, sk test (Forn	late the r sum of t any of th ip steps 2 n L2).	marginal hese e 2 through	i)† ii)† iii) iv) v)	a + b $c + d$ $a + c$ $b + d$ n		= = =		_† _†
Step 2				Step 2					
Fill in the marginal total from those in outbreak ta frequencies a_c , b_c , c_c , and expected table. If a_c , b_c , c_c steps 3 and 4 and use Fig.	s in the ex able. Calcu l d _e and fil c _e , or d _e ar sher's exac	pected ta ulate the c l in the c e less tha et test (Fc	ble; copy expected ells of the n 5, skip prm L2).	vi) vii) viii) ix)	$a_c = b_c = c_c = d_c =$	i × iii/v i - vi iii - vi ii - viii	= = =		
Step 3				Step 3					
If vi, vii, viii, and ix are chi-square statistic $X^{2} = \frac{n(a \times d - a)}{(a+b)(c+d)}$	greater that $c \times d -c$ (a+c)(a+c)	$\frac{(2)^2}{(b+d)}$	ulate the	x)* xi)* xii) xiii) xiv) xv) xvi) xvi) xvii) xvii)	$a \times d$ $b \times c$ x - xi n/2 xii - xiii $xiv \times xiv$ $xv \times n$ $i \times ii \times ii$ $X^{2} = xvi / x^{2}$	i × iv xvii			*
Step 4				Step 4					
Compare X ² to probabili for the chi square distrib	ty (<i>p</i> -value ution:	e) critical	values	(xviii) (xix) p	= X ² =				
X^2 - values ^{1,2}		p-values	5						
2.71		0.1		Calculate r †RR =	elative risk $a\sqrt{i} / c\sqrt{i}$	i	RR =		
3.84		0.05		-					
6.64		0.01							
7.88		0.005		-					
10.83		0.001							
15.14		0.0001		Calculate $a^*OR = x$	odds ratio : / <i>xi</i>		OR =		
19.51		0.00001							
23.93		0.00000	1						

 $^{1}X^{2}$ value of 3.84 or greater (p<0.05) indicates that there is evidence to suggest a difference between the outbreak table and the expected table, and thus the exposure food/beverage under investigation is related to the observed illness. $^{2}X^{2}$ value of 7.88 or greater (p<0.005) indicates that there is strong evidence to suggest a difference between the outbreak table and the expected table, and thus the exposure food/beverage under investigation is related to the observed illness.

CALCULAT Form L2	TON OF FI	SHER'S EX	ACT TES	Г	Complaint number Place of outbreak Vehicle
Step 5 (Cons on Form L1)	ider only if	steps 3 and	4 are not p	performed	Formula for calculation $\frac{(a+b)! \ (c+d)! \ (a+c)! \ (b+d)!}{(n!) \ (a!) \ (b!) \ (c!) \ (d!)}$
One-tailed te p1.1 Observe	est ed table				$v_i = p1.1 = ()!()!()!()!()!()!()!()!()!()!()!()!()!($
Exposure	ш	Well	Total	Attack Rate	vii Cancel any possible factorial (!) values
Ate/drank	a	b	a+b(<i>i</i>)		List individual values from factorials
Did not eat/ drink	с	d	c+d(ii)		ix Calculate $p1.1$ from the remaining values
Total	a+c(iii)	b+d(iv)	n(v)		
p1.2 Table	1	_	-1		$v_i = p1.2 = ()!()!()!()!()!()!()!()!()!()!()!()!()!($
Exposure	III	Well	Total	Attack Rate	
Ate/drank	a+1	b-1	a+b(i)		List individual values from factorials
Did not eat/ drink	c-1	d+1	c+d(ii)		<i>viii</i> Cancel any possible remaining values<i>ix</i> Calculate <i>p</i>1.2 from the remaining values
Total	a+c(iii)	b+d(iv)	n(v)		
p1.3 Table					$v_{i} = p_{1.3} = ()!()!()!()!()!()!()!()!()!()!()!()!()!($
Exposure	ш	Well	Total	Attack Rate	vii Cancel any possible factorial (!) values List individual values from factorials
Ate/drank	a+2	b-2	a+b(i)		viii Cancel any possible remaining values
Did not eat/ drink	c-2	d+2	c+d(ii)		<i>ix</i> Calculate <i>p</i> 1.3 from the remaining values
Total	a+c(iii)	b+d(iv)	n(v)		
Etc. continue	e for all oth	er p-values 1	needed		x $p1$ -value = $p1.1 + p1.2 + p1.3 + p1.x$ for one-tailed test
Interpretation under investi relationship.	<u>n</u> : If the <i>p</i> -v gation is re	value is less lated to the	than or equ observed il	al to 0.05, i lness; if it i	then there is evidence to suggest that the food/beverage s 0.005 or less, there is strong evidence for this

CALCULAT Two-tailed te p2.1 Table	ION OF FIS	SHER'S EX	ACT TEST	Γ continued	vi	p2.1 = ()!()!()!()!()!()!()!()!()!()!()!()!()!(
Exposure	ш	Well	Total	Attack Rate	vii	Cancel any possible factorial (!) values
Ate/drank	a	b=a+b	a+b(i)		viii	Cancel any possible remaining values
Did not eat/ drink	c=a+b	d	c+d(ii)		ix	Calculate $p2.1$ from the remaining values
Total	a+c(iii)	b+d(iv)	n(v)			
p2.2 Table						· · · · · · · · · · · ·
Exposure	ш	Well	Total	Attack Rate	vi	p2.2 = ()!()!()!()!()!()!()!()!()!()!()!()!()!(
Ate/drank	a	b=a+b-1	a+b(i)		vii	Cancel any possible factorial (!) values
Did not eat/ drink	c=a+c-1	d	c+d(ii)		viii	List individual values from factorials Cancel any possible remaining values
Total	a+c(iii)	b+d(iv)	n(v)		ix	Calculate $p2.2$ from the remaining values
						+ p2.x for two-tailed test

Interpretation: If the *p*-value is less than or equal to 0.05, then there is evidence to suggest that the food/beverage under investigation is related to the observed illness; if it is 0.005 or less, there is strong evidence for this relationship

		oxin type)							
		colicin type, t							
		hage pattern,		Marker				ation	
of outbreaks		er (serotype, p				ker		e of Contami	
Dates		Mark		Com		Marl		Sourc	Date
Dutbreak		sult		+					
		nism/Test ree		ism/Toxin				sle	
		Orga		Organ		Organ		Vehic	Title
Complaint nc					nd/or E)				
	or E)	simen			orms C, D, a				
ARY	s, C, D, and/	Spec	rm F)	9	Data from Fo	Jen			
TS SUMM	n Forms B		ta from Fo	Samp	reparer. (L	Specin	urks		
RY RESUL	d (Date froi	Case Ni	mment (Dat		r/handler/p		ns and Rem	ent	
LABORATC Form M	Case/Contro	I.D. No.	Food/Envirc	Sample No.	Food worke	LD. No.	Interpretation	Etiologic Ag	Prepared by

CONTROL ACTIONS TAKEN AND PREVENTIVE MEASURES RECOMMENDED Form N

Control actions taken:

Exclusion of infected persons _____ Cases ____ Carriers ____ Contacts of cases _____ (Infected food workers are usually excluded from work when they have signs or symptoms. Occasionally, microbiological tests of specimens are made over a duration of several days or weeks before permission is given to work with foods again. Workers can usually return to work without such testing after they have recovered if there is assurance that they practice good personal hygiene and are effectively supervised.)

Announce the outbreak in the mass media so that the public who purchased the food can be alerted to return it to the place of purchase or other designated location _____; heat or otherwise prepare implicated food safely _____; seek medical consultation/treatment _____; or acquire vaccines; take prophylactic or drugs _____. (The latter two decisions should be made with consultation from supervisors and medical personnel.)

Seizure of food _______ (Detention [embargo] until tested ______; Removal/destruction ______; Reprocassed _____; Converted to feed ____; Denatured _____; Buried _____; Other _____) Reject product ______ Recall of lot ______

(Seizure action may take various forms depending upon the type and degree of contamination and the estimated extent of the contamination and food distributed. Such foods may be held in locked facilities until tested and either released or removed; removed from the premises and reprocessed under supervision, converted to animal feed, denatured, buried, or otherwise destroyed; rejected by processor/preparer or place of use or at port of entry; or recalled (all units of the implicated lots which would be handled as those otherwise removed). The majority of processors/caterers whose foods are under suspicion of being a vehicle voluntarily recall their products despite the associated financial loses and embarrassment.)

Cease preparation of the implicated food until corrections are made _____

(When a vehicle has been identified, the contributing factors should be corrected before that food is prepared again. The process should be modified so as to avoid or minimize contamination, kill pathogens or inactivate toxins, and prevent or significantly slow growth of pathogenic bacteria so that a recurrence is prevented. Control criteria must be established or followed and the process monitored with sufficient frequency to ensure prevention of the events that lead to the outbreak. The implementation of a hazard analysis critical control point system should be considered for that food and associated operations and perhaps all foods prepared/process/stored in the establishment.)

Closure of premises/establishment ____

(When imminent risk to health exists if the operations continue, or when contributing factors that cannot be corrected or are continuing, the establishment may be closed. Reopening is considered when the contributing factors are identified and corrected or the operation is brought up to industry standard. Consultation with supervisors is advisable because of legal ramifications, but the prime consideration must be protection of the public health. The majority of operators whose establishment are implicated usually wish to cooperate and may voluntarily offer to close.)

Premises with intentionally contaminated food _____

For food that has been intentionally contaminated, special conditions may apply for disposal, clean-up and re-opening of facilities affected.

Other control actions taken _____ (describe):

Recommendations for prevention of recurrences:

Comments on effectiveness of control actions and preventive measures taken:

Person interviewed		Title	
Investigator	Title	Date	

ECONOMIC EVALUATION DISEASE OUTBREAK Form O	OF A I	FOODB	ORNE	Complaint no		Diseas	se.
DIRECT COSTS				complaint not		Dista	
	Unit cost	No.	Total cost		Unit cost	No.	Total cost
Medical		Investigation of illness					
1. Physicians' fees				1. Epidemiological team			
2. Nurses' visits				a. salaries ¹			
3. Hospitalization				b. administration			
a. bed and board				c. other			
b. emergency dept.				2. Laboratory team			
c. acute care				a. salaries ¹			
d. surgery				b. material/equipment			
4. Medication				c. shipping			
5. Ambulance				d. other			
6. Other							
SUBTOTAL				SUBTOTAL			
Loss to food supplier				Loss of productivity			•
1. Recall of food				1. Days off work ¹			
2. Storage of food		1		a. ill person			
3. Destruction/reprocessing		1		b. enteric pathogen carrier			
4. Laboratory testing, consultant				c. care of ill person			
5. Purchase of new equipment/modification of premises				d. Other personal care			
6. Legal action				2. Workers' compensation payments			
7. Loss of sales				3. Travel to visit sick persons			
8. Increase in insurance premium/bankruptcy				4. Cost of preventive actions			
8. Promotional campaign				5. Other			
9. Other							
SUBTOTAL				SUBTOTAL			
TOTAL DIRECT COSTS				·			
INDIRECT COSTS							
1. Pain, grief, and suffering ² :	_			4. School/study time ² =			
2. Death ³ =			5. Inability to work at previous occupation ⁵ =				
3. Leisure time ⁴ =				6. Other =			
TOTAL INDIRECT COSTS							
TOTAL COSTS =		NUM	IBER OF	CASES	COSTS	S PER C	ASE

¹Salaries or wages, if not known, can be estimated from the type of occupation reported by ill persons. Daily income can be determined by dividing an annual salary by 365 less days for weekends, holidays and other paid leave; overtime is an extra cost.

²Not usually calculated but may be given as a result of a legal settlement.

³Calculated on the basis of adjusted willingess-to-pay/human capital estimates (page 67).

⁴Assumed to be equivalent to worth of income.

⁵Calculated on the difference of the incomes before and after illness.

FOODBORNE ILLNESS Form P	SUMMARY REPORT	Complaint nos.	Agent and definitive	Disease	
Agency		City	State/Province	<u> </u>	
Date of onset of first case Number ill		Number at risk	Number hospitalized	Fatalities	
Symptoms/signs (percentages) Nausea Vomiting Abdominal Cramps Fever Sore/burning mouth/throat No Flushing/itching Other significant (specificant) No		Diarrhea eurological ecify)	Incubation period Shortest Longest Median	Duration Shortest Longest Median	
Vehicle (Responsible food)			Significant ingredient		
Method of processing/preparation			Case definition		
PLACE FOOD ACQUIRED (Check one) Farm Aquatic source Woods/lands Food processing Bakery Canning Egg processing Frozen food Meat Poultry Seafood Other (specify) Retail outlet Food service Banquet Cafeteria	SITE OF CONTAMINATION (Check all applicable) Farm Aquatic source Woods/lands Food processing Bakery Canning Egg processing Frozen food Meat Poultry Seafood Other (specify) Retail outlet Food service Banquet Cafeteria	SITE OF SURVIVAL (Check all applicable) Farm Aquatic source Woods/lands Food processing Bakery Canning Egg processing Frozen food Meat Poultry Seafood Other (specify) Retail outlet Food service Banquet Cafeteria Camp Dury	SITE OF PROPAGATION (Check all applicable) Farm Aquatic source Woods/lands Food processing Bakery Canning Egg processing Frozen food Meat Poultry Seafood Other (specify) Retail outlet Food service Banquet Cafeteria	METHOD OF PROCESSING/ PREPARATION (Check all applicable) Arrow Harvest Clean/sort/ wash Slaughter/ cut Grind/ blend Refrigerated Frozen Retorted Pasteurized Cooked/ Heated Smoked Dried Salted	
Carren Carren Day Military Overnight Recreation Catering Airline/Transport Banquet Central kitchen Religious/fraternal Party/social event Picnic Street/office Vending machine Delicatessen Fast food Ice cream parlor Industry/office Institution Hospital School Child care Nursing home Jail/prison Mental care Norsing home Samightoriaternat Rooming/tourist home Smorgasbord Ship Street vending Table service Take out Tavern/bar Temporary Train Other (specify) Home Residence Outdoor (picnic/ beach) Potluck gathering Private transport Other (specify)	□ Camp □ Day □ Military □ Overnight □ Recreation □ Catering □ Airline/transport □ Banquet □ Central kitchen □ Religious/fraternal □ Party/Social event □ Picnic □ Street/Office □ Vending machine □ Delicatessen □ Fast food □ Ice cream parlor □ Industry/Office □ Institution □ Hospital □ School □ Child care □ Mobile/Itinerant □ Rooming/tourist home □ Surgasbord □ Ship □ Street vending □ Table service □ Take out □ Tavern/Bar □ Temporary □ Tain □ Other (specify) □ Home □ Residence □ Outdoor (picnic/ □ private transport □ Other (specify)	□ Day □ Military □ Overnight □ Recreation □ Catering □ Airline/transport □ Banquet □ Central kitchen □ Party/social event □ Picnic □ Street/office □ Policatessen □ Fast food □ Ice cream parlor □ Industry/office □ Institution □ Hospital □ School □ Child care □ Mobile/itinerant □ Rooming/tourist home □ Table service □ Take out □ Tavern/bar □ Temporary □ Train □ Other (specify) □ Home □ Residence □ Outdoor (picnic/beach) □ Potuck gathering □ Private transport □ Other (specify)	□ Canterna □ Day □ Military □ Overnight □ Recreation □ Catering □ Airline/transport □ Banquet □ Central kitchen □ Religious/fratemal □ Party/ social event □ Pienic □ Street/office □ Vending machine □ Delicatessen □ Fast food □ Ice cream parlor □ Industry/office □ Institution □ Hospital □ School □ Child care □ Nursing home □ Jail/prison □ Mental care □ Mobile/itinerant □ Rooming/ tourist home □ Street vending □ Table service □ Take out □ Tavern/bar □ Temporary □ Train □ Other (specify) □ Home □ Residence □ Outdoor (picnic/ beach) □ Potluck gathering □ Private transport </td <td> ⇒ Salted ⊂ Cured Acidified Fermented ⊂ Chemically preserved ∨acuum/ anaerobic pack Mixed/blended Food service Assemble serve ⊂ Cook hold (ambient) ⊂ Cook chill serve ⊂ Cook chill serve ⊂ Cook chill reheat ⊂ Acidify serve ○ Other (specify) </td>	 ⇒ Salted ⊂ Cured Acidified Fermented ⊂ Chemically preserved ∨acuum/ anaerobic pack Mixed/blended Food service Assemble serve ⊂ Cook hold (ambient) ⊂ Cook chill serve ⊂ Cook chill serve ⊂ Cook chill reheat ⊂ Acidify serve ○ Other (specify) 	

FACTORS CONTRIBUTING TO OUTBREAK (Check all appropriate)					
CONTAMINATION	SURVIVAL (lack of inactivation)	PROLIFERATION/AMPLIFICATION			
 Toxic substance part of tissue Poisonous substance intentionally added Poisonous or physical substance accidentally/incidentally added Addition of excessive quantities of ingredients that under these situations are toxic Toxic container or pipelines Raw product/ingredient contaminated by pathogens from animal or environment Ingestion of contaminated raw products Obtaining foods from polluted sources Cross contamination from raw ingredient of animal origin Bare-hand contact by handler/worker/ preparer Handling by intestinal carrier Inadequate cleaning of processing/	 ☐ Insufficient time and/or temperature during cooking/ heat processing ☐ Insufficient time and/or temperature during reheating ☐ Inadequate acidification ☐ Insufficient thawing (followed by insufficient cooking) ☐ Other process failures (specify) 	 Allowing foods to remain at room/ warm outdoor temperature for several hours Slow cooling Inadequate cold-holding temperature Preparing foods a half day or more before serving Prolonged cold storage for several weeks Insufficient time and/or temperature during hot holding Insufficient acidification Insufficiently low water activity Inadequate thawing of frozen products Anaerobic packaging/modified atmosphere Inadequate fermentation Other situations that promoted or allowed microbial growth or toxin production (specify) 			
Narrative: (Use additional pages as necessary to give	ve complete story of outbo	reak)			
Attachments with the report: □ Case histories Summary (Form D2) □ Epidemic curve□ Laboratory results (Form M) □ Food specific attack rate table (Form K1) □ Case-control vehicle exposure/dosage (Form K2) □ Flow process of implicated food (Form G) □ Traceback (Form J) □ Food Processing/preparation history and hazard analysis report (Form H) □ Graph of time-temperature measurements (Form I) □ Control Actions, recommended for prevention (Form N) □ Additional narrative□ Other (specify)					
Investigator	Reporting agency	Date			