

# OUTBREAK RESPONSE PROTOCOL: APPENDICES

PROCEDURES FOR RESPONDING TO DISEASE OUTBREAKS IN  
MINNESOTA

OCTOBER 2017

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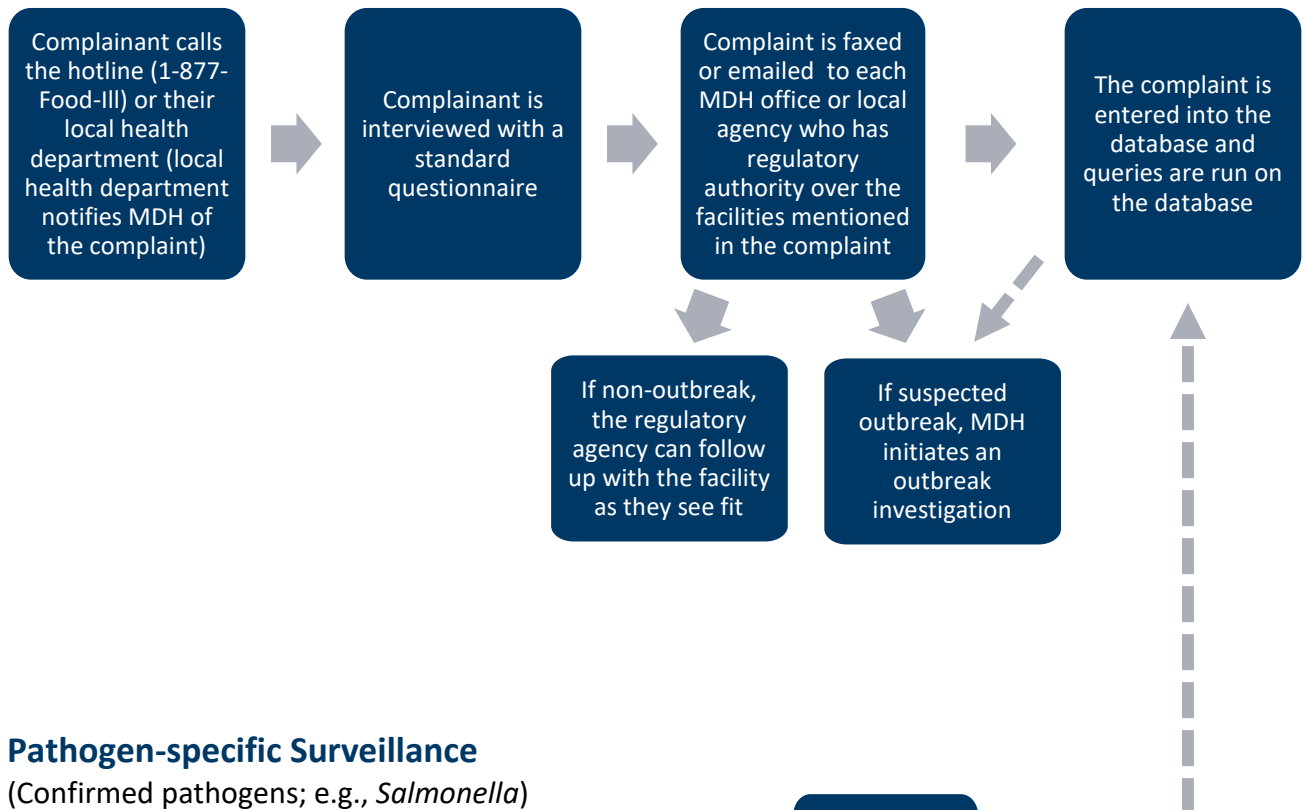
## Appendix 1a: Outbreak Detection

# Outbreak Detection

Outbreaks are identified through two main mechanisms

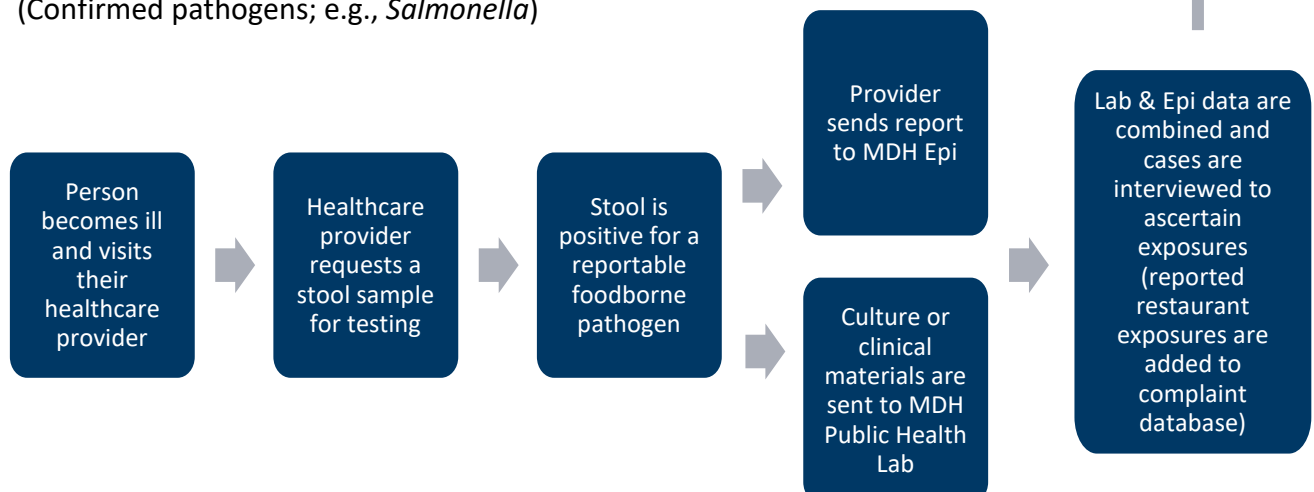
## Foodborne & Waterborne Illness Hotline

(Primarily suspect pathogens; e.g., norovirus)



## Pathogen-specific Surveillance

(Confirmed pathogens; e.g., *Salmonella*)



## Details about Chart

### Foodborne & Waterborne Illness Hotline

1. Complainant calls the hotline (1-877-Food-III) or their local health department (local health department notifies MDH of the complaint)
2. Complainant is interviewed with a standard questionnaire
3. Complaint is faxed or emailed to each MDH office or local agency who has regulatory authority over the facilities mentioned in the complaint
  - a. If non-outbreak, the regulatory agency can follow up with the facility as they see fit **or**
  - b. If suspected outbreak, MDH initiates an outbreak investigation
4. The complaint is entered into the database and queries are run on the database
  - a. If suspected outbreak, MDH initiates an outbreak investigation

### Pathogen-specific Surveillance

1. Person becomes ill and visits their healthcare provider
2. Healthcare provider requests a stool sample for testing
3. Stool is positive for a reportable foodborne pathogen
  - a. Provider sends report to MDH Epi **and**
  - b. Culture or clinical materials are sent to MDH Public Health Lab
4. Lab & Epi data are combined and cases are interviewed to ascertain exposures (reported restaurant exposures are added to complaint database)

Appendix 1b: Selected Diseases  
Reportable to the Minnesota  
Department of Health

# Selected Diseases Reportable to the Minnesota Department of Health

Reportable Diseases A-Z: Reportable Infectious Diseases  
([www.health.state.mn.us/divs/idepc/dtopics/reportable/disease.html](http://www.health.state.mn.us/divs/idepc/dtopics/reportable/disease.html))

Under Minnesota state law, health care practitioners, institutions, child care facilities, and camps are required to report some diseases to the Minnesota Department of Health. See [Minnesota Rules, Chapter 4605 \(https://www.revisor.mn.gov/rules/?id=4605\)](https://www.revisor.mn.gov/rules/?id=4605) for more information.

Amebiasis (*Entamoeba histolytica/dispar*)

Botulism (*Clostridium botulinum*)

Campylobacteriosis (*Campylobacter* spp.)\*

Cholera (*Vibrio cholera*)\*

Cryptosporidiosis (*Cryptosporidium* spp.)\*

Cyclosporiasis (*Cyclospora* spp.)\*

Enteric *Escherichia coli* infection\*

(*E. coli* O157:H7, other Shiga toxin-producing *E. coli*, enterohemorrhagic *E. coli*, enteropathogenic *E. coli*, enteroinvasive *E. coli*, enteroaggregative *E. coli*, enterotoxigenic *E. coli*, or other pathogenic *E. coli*)

Free-living amebic infection\*

(Including *Acanthamoeba* spp., *Naegleria fowleri*, *Balamuthia* spp., *Sappinia* spp.)

Giardiasis (*Giardia intestinalis*)

Hemolytic uremic syndrome (HUS)\*

Listeriosis (*Listeria monocytogenes*)\*

Salmonellosis, including typhoid (*Salmonella* spp.)\*

Shigellosis (*Shigella* spp.)\*

Typhoid (*Salmonella Typhi*)\*

Unusual or increased case incidence of any suspect infectious illness

*Vibrio* spp.\*

Yersiniosis, enteric (*Yersinia* spp.)\*

\* Submission of clinical materials required.

**NOTE:** This is not a complete list of diseases reportable to MDH.

## Appendix 2: Complaint Intake Form



# Appendix 2: Complaint Intake Form

## OUTBREAK RESPONSE PROTOCOL

To obtain this document, please contact [health.foodill@state.mn.us](mailto:health.foodill@state.mn.us) or 651-201-5655.

<b>Foodborne Illness Report</b> <b>Minnesota Department of Health</b> <b>Phone: (651) 201-5414 Fax: (651) 201-5082</b>			Revised: 11/24/2014
Complaint date: ____/____/____    Hotline call: <input type="checkbox"/> How you got # _____    Tennessee: <input type="checkbox"/> Agency: Minnesota Department of Health    Reporter: _____			
First Name: _____ Last Name: _____ Age: ____ <input type="checkbox"/> Female <input type="checkbox"/> Male Address: _____ Zip: _____ Home phone: (____) _____ Work phone: (____) _____ Cell: (____) _____			
<b>Establishment that the complainant suspects:</b> _____ Number of persons exposed: ____ Number ill: ____ <u>How</u> many households with illness: ____ Did complainant call the establishment? : <input type="checkbox"/> Y <input type="checkbox"/> N If yes, who did they speak with: _____ <i>*If a retail food product is suspected, please fill out page 4 (Retail Food Product Complaint) in addition to the 4-day food history</i>			
<b>ILLNESS HISTORY</b> Illness Onset: ____/____/____    Time: ____    Recovery: ____/____/____    Time: ____ Vomiting <input type="checkbox"/> Y <input type="checkbox"/> N Onset: ____/____/____    Time: ____    Recovery: ____/____/____    Time: ____ Diarrhea <input type="checkbox"/> Y <input type="checkbox"/> N Onset: ____/____/____    Time: ____    Recovery: ____/____/____    Time: ____ # of stools per 24-hr. period (max): ____ Cramps <input type="checkbox"/> Y <input type="checkbox"/> N Fever <input type="checkbox"/> Y <input type="checkbox"/> N (temp: ____ ) Bloody stools <input type="checkbox"/> Y <input type="checkbox"/> N Other symptoms: _____ Visited health care provider <input type="checkbox"/> Y <input type="checkbox"/> N If yes, name and location: _____ Date of visit: ____/____/____ Provider requested stool sample <input type="checkbox"/> Y <input type="checkbox"/> N If yes, date stool submitted: ____/____/____ Hospitalized <input type="checkbox"/> Y <input type="checkbox"/> N			
<b>FOOD HISTORY</b> <i>If only one person is ill or if all ill persons live in same household, complete the entire four-day food history.                      If more than one person is ill and they live in different households, record only the common meals.</i>			
Meal Time	Date: ____/____/____ (work backward starting with onset date)	Hours to Illness Onset	
Brk: ____	location: _____	_____	
	food/drinks: _____		
Lun: ____	location: _____	_____	
	food/drinks: _____		
Sup: ____	location: _____	_____	
	food/drinks: _____		
Other: ____	location: _____	_____	
	food/drinks: _____		

<b>Meal Time</b>	<b>Date:</b> ____/____/____	<b>Hours to Illness Onset</b>
<b>Brk:</b> ____ location: _____		
<u>food/drinks:</u> _____		
<b>Lun:</b> ____ location: _____		
<u>food/drinks:</u> _____		
<b>Sup:</b> ____ location: _____		
<u>food/drinks:</u> _____		
<b>Other:</b> ____ location: _____	<u>food/drinks:</u> _____	
<b>Meal Time</b>	<b>Date:</b> ____/____/____	<b>Hours to Illness Onset</b>
<b>Brk:</b> ____ location: _____		
<u>food/drinks:</u> _____		
<b>Lun:</b> ____ location: _____		
<u>food/drinks:</u> _____		
<b>Sup:</b> ____ location: _____		
<u>food/drinks:</u> _____		
<b>Other:</b> ____ location: _____	<u>food/drinks:</u> _____	
<b>Meal Time</b>	<b>Date:</b> ____/____/____	<b>Hours to Illness Onset</b>
<b>Brk:</b> ____ location: _____		
<u>food/drinks:</u> _____		
<b>Lun:</b> ____ location: _____		
<u>food/drinks:</u> _____		
<b>Sup:</b> ____ location: _____		
<u>food/drinks:</u> _____		
<b>Other:</b> ____ location: _____	<u>food/drinks:</u> _____	
Complainant occupation: _____		Daycare exposure: Y N
Have you been swimming in the past 2 weeks: Y N If yes, where _____		<u>Date:</u> ____/____/____
Did you drink any well water in the past 2 weeks: Y N If yes, where _____		
Any ill household members in the last week: Y N If yes, who _____		<u>Date:</u> ____/____/____
<b>AGENCIES NOTIFIED</b> <input type="checkbox"/> MDH-EHS <input type="checkbox"/> MDH-District Office <input type="checkbox"/> MN Dept of Ag <input type="checkbox"/> <u>FDA</u> <input type="checkbox"/> USDA <input type="checkbox"/> Local Agencies: _____		
<b>Comments</b> _____		

**HISTORY OF OTHERS ILL**

Original Complainant's Name: \_\_\_\_\_

First name: \_\_\_\_\_ Last name: \_\_\_\_\_ Age: \_\_\_\_\_

Address: \_\_\_\_\_ Phone: \_\_\_\_\_

Illness Onset: \_\_\_\_/\_\_\_\_/\_\_\_\_ Time: \_\_\_\_\_ Recovery: \_\_\_\_/\_\_\_\_/\_\_\_\_ Time: \_\_\_\_\_

Vomiting ☐Y ☐N Onset: \_\_\_\_/\_\_\_\_/\_\_\_\_ Time: \_\_\_\_\_ Recovery: \_\_\_\_/\_\_\_\_/\_\_\_\_ Time: \_\_\_\_\_Diarrhea ☐Y ☐N Onset: \_\_\_\_/\_\_\_\_/\_\_\_\_ Time: \_\_\_\_\_ Recovery: \_\_\_\_/\_\_\_\_/\_\_\_\_ Time: \_\_\_\_\_# of stools per 24-hr. period (max): \_\_\_\_\_ Cramps ☐Y ☐N Fever ☐Y ☐N (temp: \_\_\_\_\_) Bloody stools ☐Y ☐N

Other symptoms: \_\_\_\_\_

**Meals in common:****Incubation**

Meal 1: location: \_\_\_\_\_ food/drinks: \_\_\_\_\_

Meal 2: location: \_\_\_\_\_ food/drinks: \_\_\_\_\_

Meal 3: location: \_\_\_\_\_ food/drinks: \_\_\_\_\_

First name: \_\_\_\_\_ Last name: \_\_\_\_\_ Age: \_\_\_\_\_

Address: \_\_\_\_\_ Phone: \_\_\_\_\_

Illness Onset: \_\_\_\_/\_\_\_\_/\_\_\_\_ Time: \_\_\_\_\_ Recovery: \_\_\_\_/\_\_\_\_/\_\_\_\_ Time: \_\_\_\_\_

Vomiting ☐Y ☐N Onset: \_\_\_\_/\_\_\_\_/\_\_\_\_ Time: \_\_\_\_\_ Recovery: \_\_\_\_/\_\_\_\_/\_\_\_\_ Time: \_\_\_\_\_Diarrhea ☐Y ☐N Onset: \_\_\_\_/\_\_\_\_/\_\_\_\_ Time: \_\_\_\_\_ Recovery: \_\_\_\_/\_\_\_\_/\_\_\_\_ Time: \_\_\_\_\_# of stools per 24-hr. period (max): \_\_\_\_\_ Cramps ☐Y ☐N Fever ☐Y ☐N (temp: \_\_\_\_\_) Bloody stools ☐Y ☐N

Other symptoms: \_\_\_\_\_

**Meals in common:****Incubation**

Meal 1: location: \_\_\_\_\_ food/drinks: \_\_\_\_\_

Meal 2: location: \_\_\_\_\_ food/drinks: \_\_\_\_\_

Meal 3: location: \_\_\_\_\_ food/drinks: \_\_\_\_\_

Original Complainant's Name: \_\_\_\_\_

**RETAIL FOOD PRODUCT COMPLAINT** *(please fill in as much information as you can)*

Name of product (please be specific): \_\_\_\_\_

Brand of product: \_\_\_\_\_

Manufacturer and/or distributor information (name and address): \_\_\_\_\_

Container type, size and weight (18 oz. plastic bottle, 1 lb. paper carton, etc.): \_\_\_\_\_

USDA establishment number (if a packaged meat product): \_\_\_\_\_

UPC code (12-digit bar code): \_\_\_\_\_

Product/Lot/Best if Used By Date (BIUB) code: \_\_\_\_\_

Purchase location (name of store): \_\_\_\_\_

Address of purchase location: \_\_\_\_\_

Purchase date: \_\_\_\_\_

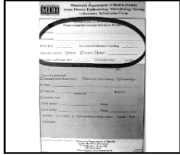
Does consumer still have the product or other containers of the same product? : \_\_\_\_\_

Other information: \_\_\_\_\_

## Appendix 3a: Submitting a Stool Sample to MDH (English)

## SUBMITTING A STOOL SAMPLE TO MDH

YOU CAN ALSO WATCH 'HOW TO SUBMIT A STOOL SAMPLE FOR TESTING' ON YOUTUBE AT [HTTP://BIT.LY/1MRME2Y](http://bit.ly/1MRME2Y) (5 MINUTES LONG)



1. Please write name, collection date, and date of birth on the top part of lab slip (these are required by the laboratory for testing).



2. Write first name, last name, and date of birth on the vial.



3. Place collection container on toilet seat as shown. Deposit stool in tissue part.



4. Unscrew vial cap. Use scoop attached under cap to fill vial with stool until fluid reaches the red line. Put cap back on the vial.



5. Remove tissue part of collection device from cardboard part. Flush tissue and throw cardboard in trash.



6. Place vial into clear plastic biohazard bag along with the absorbent cloth. Seal clear plastic biohazard bag. Wash hands thoroughly with soap and water.



7. Place sealed clear plastic biohazard bag into the white biohazard envelope. Also place the completed lab slip in the white biohazard envelope. Seal the envelope.

8. Place white biohazard envelope in the box. Close the box (instructions on box). Place the box in a mailbox.

***Please call 651-201-5655 if you have any questions. Thank you.***

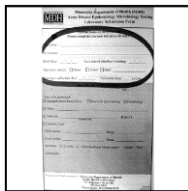
## Appendix 3b: Submitting a Stool Sample to MDH (Spanish)

# SUBMITTING A STOOL SAMPLE TO MDH

## ***Instrucciones Para Enviar Una Muestra fecal (Excremento) al Departamento de Salud de Minnesota***

You can also watch 'How to Submit a Stool Sample for Testing' on YouTube at <http://bit.ly/1mrMe2y> (5 minutes long)

*También puede ver el video "How to Submit a Stool Sample for Testing" en YouTube @ <http://bit.ly/1mrMe2y> (5 minutos)*



1. Please write name, collection date, and date of birth on the top part of lab slip (these are required by the laboratory for testing).

***Por favor, complete la porción blanca del formulario. Escriba su nombre, fecha de recolección de la muestra, y fecha de nacimiento (el laboratorio requiere estos datos para hacer los exámenes de las muestras fecales).***



2. Write first name, last name, and date of birth on the vial.

***Escriba su nombre, apellido, y fecha de nacimiento en el frasco.***



3. Place collection container on toilet seat as shown. Deposit stool in tissue part.

***Coloque el recolector de muestra fecal en el inodoro/lavabo. Deposite las heces (excremento) en la parte de papel.***



4. Unscrew vial cap. Use scoop attached under cap to fill vial with stool until fluid reaches the red line. Put cap back on the vial.

***Abra la tapa. Dentro del frasco hay una cucharita, úsela para traspasar el excremento al frasco. Llene el frasco hasta que el líquido llegue a la raya roja. Tape de nuevo el frasco asegurándose que la tapa está bien segura.***



5. Remove tissue part of collection device from cardboard part. Flush tissue and throw cardboard in trash.

***Remueva la parte de papel del recolector de muestra fecal y descártela en el inodoro/lavabo. Tire la parte de cartón en la basura.***





6. Place vial into clear plastic biohazard bag along with the absorbent cloth. Seal clear plastic biohazard bag. Wash hands thoroughly with soap and water.

***Coloque el frasco dentro de la bolsa plástica que dice "biohazard". Cierre la bolsa. Lávese las manos con agua y jabón.***



7. Place sealed clear plastic biohazard bag into the white biohazard envelope. Also place the completed lab slip in the white biohazard envelope. Seal the envelope.

***Coloque la bolsa de plástico dentro del sobre blanco. También coloque el formulario dentro del sobre. Cierre el sobre.***

8. Place white biohazard envelope in the box. Close the box (instructions on box). Place the box in a mailbox.

***Coloque el sobre dentro de la caja. Cierre la caja. Coloque la caja en el correo (no tiene que ponerle estampillas o pagar por el envío).***

Please call 651-201-5655 with questions. Thank you.

***Por favor llame al 651-201-5655 si tiene preguntas. Muchas Gracias.***

## Appendix 4: Patron Tennessen Warning

# Patron Tennesen Warning

Outbreak name:

Principal investigator:

[Month/Year]

We are investigating some reports of possible foodborne illness and are interviewing people who ate at:

For your protection, before beginning an interview, we are required to give you the following information regarding your participation in this investigation and your right to privacy.

We are collecting this information to determine what the cause of this reported illness may be. All information we collect about your health is private; the only persons who will have access to this information will be public health staff from the Minnesota Department of Health and staff from local public health agencies who work on this investigation. Under no conditions will your name be released to anyone else without your permission. You are under no obligation to participate in this investigation. There is no penalty if you choose not to participate in this investigation. However your participation may help us identify an outbreak of foodborne illness, identify its cause, and prevent further illness.

## Appendix 5: Patron Interview Form

[illegible]

Did anyone in your household experience gastrointestinal illness in the week prior to this meal?

☐ Y ☐ N

Name and relationship

Age

Onset date

\_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_  
\_\_\_\_\_

Were there other people in your party at the restaurant? If so, are you willing to provide contact information for them?

Name \_\_\_\_\_ Phone number \_\_\_\_\_

Name \_\_\_\_\_ Phone number \_\_\_\_\_

Name \_\_\_\_\_ Phone number \_\_\_\_\_

Name \_\_\_\_\_ Phone number \_\_\_\_\_

## Appendix 6: Guidance for Writing Food and Waterborne Outbreak Reports

# Guidance for Writing Food and Waterborne Outbreak Reports

## Title

- Pathogen
- Establishment Name or Event
- County
- Year

## Background

- Date and source of initial complaint (e.g., hotline, restaurant) or date the investigating agency was notified of the outbreak
- Place of exposure (e.g., event, restaurant) and date
- Reported illness onset date
- Date investigation initiated
- Agencies notified

## Methods

- Environmental health measures and dates implemented, including measures such as:
  - Visiting the facility and conducting an environmental assessment
  - Evaluation of food preparation and handling procedures
  - Gathering specific information if the incident was an event
  - Checking illness logs
  - Asking about patron complaints
- Interviews of food workers, and agency or agencies that conducted the interviews
- Acquisition of contact list of patrons, such as credit card receipts from restaurant, reservation lists, or attendee list from host
- Patron interviews to obtain information on food/beverage consumption and illness history, and agency that conducted the interviews
- Case definition (e.g., vomiting and/or diarrhea ( $\geq 3$  stools in a 24-hour period))
- Analytical studies conducted, including source of non-ill and proportion of controls if applicable (e.g., case-control with 3 random-dialed community controls per case, or cohort study)
- Information regarding stool samples submitted to the MDH Public Health Laboratory for testing, and pathogens for which the specimens were tested (i.e., bacterial, viral, parasitic, bacterial toxins, or other testing)



- Food testing conducted, pathogens for which the specimens were tested, and agency that collected the food specimens and conducted the testing
- Food recalls, press releases, and/or public notices and agencies involved in those actions

## Results

- Total number of interviews conducted
  - Number and percent that met the case definition
  - Number of attendees that reported illness that did not meet the case definition and were excluded from analyses
- Number and percent of cases reporting each specific symptom (e.g., diarrhea, vomiting, abdominal cramps, fever, bloody stools, and/or rash (in descending order of frequency))
- Median incubation and range in hours
- Median duration and range of illness in hours
- Number of cases that sought health care, number of cases that were hospitalized, and/or number of cases that died
- Number of stool specimens that were submitted to MDH and test results
- Food consumed/event menu
  - Who prepared the food
  - How the food was served (e.g., plated, buffet, self-serve)
- Results of analytical study, and type of analysis conducted (e.g., univariate analysis, multivariate analysis)
  - Food item, event, or exposure that was significantly associated with illness
  - Proportion of case and proportion of controls that reported the exposure of interest; odds ratio; 95% confidence interval, and p-value
- Employee illness reported previous to, on or after the implicated meal date
  - Total number of employees and number interviewed
  - Number of ill employees
  - Onset date of illness, food preparation duties, and if they worked while ill
  - Test results for food workers if tested
- Results of environmental health assessment/inspection
  - Any violations found pertinent to the outbreak
  - Interventions put into place (e.g., if ready-to-eat foods prepared during certain time frame were discarded, and any educational measures)

## Conclusions

- State if this was a foodborne or waterborne outbreak, or other route of transmission
- Etiology of the outbreak (what pathogen was confirmed or suspected to have caused the illnesses)
- Source of the outbreak or factors contributing to the outbreak, such as ill employees, cross-contamination, inappropriate food temperatures
- Implicated food vehicle or exposure if identified

- Defense of conclusion, if needed (e.g., how do the symptoms, incubation period, and duration suggest a particular pathogen?)

**\*\*\* If you would like to reference an actual outbreak report, feel free to contact the MDH FWVZD Section to request one. \*\*\***

## Appendix 7: Outbreak Classifications

# Outbreak Classifications

Outbreaks are classified based on the outbreak's 1) etiologic agent and 2) transmission route.

## Etiologic Agent Classifications

**Laboratory-Confirmed Agent:** Outbreaks in which laboratory evidence of a specific etiologic agent is obtained

**Epidemiologically Defined Agent:** Outbreaks in which the clinical and epidemiologic evidence defines a likely agent, but laboratory confirmation is not obtained

**Outbreak of Undetermined Etiology:** Outbreaks in which laboratory confirmation is not obtained and clinical and epidemiologic evidence cannot define a likely agent

## Transmission Route Classifications

**Confirmed Foodborne Outbreak:** A confirmed foodborne disease outbreak is defined as an incident in which two or more persons experience a similar illness after ingestion of a common food or meal; and epidemiologic evaluation implicates the meal or food as the source of illness. Confirmed outbreaks may or may not be laboratory-confirmed.

**Probable Foodborne Outbreaks:** A probable foodborne disease outbreak is defined as an incident in which two or more persons experience a similar illness after ingestion of a common food or meal, and a specific food or meal is suspected, but person-to-person transmission or other exposures cannot be ruled out.

**Confirmed and Probable Waterborne Outbreaks:** These are similar to foodborne outbreaks, except that epidemiologic analysis implicates water as the source of illness. Waterborne outbreaks may be associated with drinking water or with recreational water.

**Animal Contact Outbreaks:** Outbreaks are considered to be due to animal contact if two or more persons experience a similar illness after exposure to live animals or animal environments.

**Environmental Outbreaks:** These are outbreaks where epidemiologic analysis implicated exposure to a contaminated environment as the route of infection. Other outbreaks with environmental sources (e.g., blastomycosis, histoplasmosis) are also included in this category.

**Gastroenteritis Outbreaks due to Person-to-Person Transmission:** These outbreaks are defined as two or more cases of gastrointestinal illness related by time and place in which an epidemiologic evaluation suggests person-to-person transmission occurred and was the primary mode.

**Outbreaks with Other or Unknown Routes of Transmission:** This category also includes gastroenteritis outbreaks for which the route of transmission could not be determined.

Note: An outbreak with ice as the implicated vehicle is considered foodborne (not waterborne). An outbreak associated with raw animal products or dead animals intended for consumption is considered foodborne (not animal contact).

Appendix 8: MOU between the  
Minnesota Department of Health and  
the Minnesota Department of  
Agriculture Concerning the Investigation  
of Foodborne Illnesses

# Appendix 8: MDH/MDA MOU

## OUTBREAK RESPONSE PROTOCOL

DocuSign Envelope ID: 9E2C9CDA-DFC8-44C9-A74B-EFEE72ACBC1A

### Memorandum of Understanding (MOU) between the Minnesota Department of Health and the Minnesota Department of Agriculture Concerning the Investigation of Foodborne Illnesses

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#### I. GENERAL

The purpose of this MOU is to clarify the respective responsibilities of the Minnesota Department of Agriculture ("Agriculture") and the Minnesota Department of Health ("Health") in the surveillance for and investigation of foodborne illnesses, and in furtherance of such purpose, to broaden cooperative efforts between the two agencies.

#### Responsible Agencies

Under Minnesota Statutes Chapters 25 through 34A, Agriculture has the authority to license, inspect, and regulate dairy, meat, food- and feed-processing facilities. Under Minnesota Statutes, sections 157.15, 157.16 and 144.99, Health has the authority to license, inspect, and regulate restaurants, bars, mobile food vehicles, and other types of food service facilities. Health is also responsible for surveillance and investigation of foodborne illnesses.

#### Jurisdiction

This MOU applies to investigations of foodborne illnesses conducted by Agriculture, including delegated local health units, and Health that are associated with food in commerce in Minnesota.

#### Effective Date

This agreement will be effective upon signature of both parties to the agreement.

#### Legal Authority

Minnesota Statutes Section 17.03, Subd.11.(3) and Minnesota Statutes, Section 144.05 Subd. 2 provide authority for Agriculture and Health to enter into this MOU.

#### Non-Binding Agreement

It is the intent of the parties to this MOU that it set forth the roles of each party in investigation of foodborne illnesses conducted by Agriculture and Health and associated with food in commerce in Minnesota. The parties do not intend this MOU to be a binding document enforceable by a court.

## **II. RESPONSIBILITIES AND IMPLEMENTATION**

### **Determination of Responsibility**

When a food-related illness is associated with a food product or facility regulated by Agriculture, Health will be responsible for conducting the epidemiologic investigation. Health will provide relevant illness, exposure, and epidemiologic hypothesis information to Agriculture.

Agriculture will be responsible for conducting an investigation at the food-processing facility, food warehouse, or retail food establishment under the authority of MDA. Agriculture will send a copy of these reports to Health. Agriculture will also coordinate any resulting actions to remove the contaminated food from distribution. When documents are required from a food manufacturer, food warehouse, or retail food establishment located or headquartered outside of Minnesota, Agriculture will coordinate the obtainment of these documents directly from the firm or through the state or federal agency with regulatory jurisdiction. Agriculture will send a copy of these documents to Health as permitted by law.

Laboratory support for investigations will be coordinated by each agency under separate existing agreements.

### **Implementation**

Agriculture will define areas of responsibility and inform its field representatives and delegated local health units of these responsibilities. Health will define areas of responsibility and inform its field representatives and delegated local health units. Responsibilities of other State and Federal agencies also will be identified and communicated.

Health, Agriculture, and local health units will provide or sponsor joint training sessions in the interpretation and application of principles, regulations, standards, and techniques of common concern or interest.

## **III. MECHANISM FOR INFORMATION EXCHANGE**

Health, Agriculture, and each local health unit will maintain rosters of staff responsible for foodborne illness investigations and make such rosters available to each other.

If Agriculture becomes aware of actual or suspected cases of foodborne illness, it will instruct the person(s) to immediately contact Health through its statewide Foodborne Illness Hotline.

If Health becomes aware of illnesses believed to be caused by food in commerce in Minnesota, it will immediately report such cases in person, by telephone, or by e-mail to Agriculture.

Health and Agriculture will jointly investigate and complete final reports involving illnesses that occur at, or due to, establishments regulated by Agriculture. These reports will be forwarded to Agriculture and to Health.

If, during the course of the investigation, a definitive food vehicle is known or suspected to be still be in commerce or available for consumption, Agriculture and Health will discuss the need to notify the public either jointly or independently. Consumer advisories and press releases will be drafted in accordance to agency policies and shared with each agency prior to release.

Whenever one agency learns of an FDA Class I or similar recall of food or food products distributed in Minnesota that are known to have caused human illness, it will immediately notify the other agency of such recall. Throughout the recall process, both agencies at all levels will make a maximum effort to keep the other agency informed and cooperate in every way possible to expedite the removal of hazardous food in the marketplace.

#### **IV. MECHANISM FOR EMBARGO/SEIZURE OF FOOD SOURCES IMPLICATED IN EPIDEMIOLOGIC INVESTIGATIONS**

##### **Epidemiologic Investigation**

Health will investigate foodborne disease outbreaks. Health will notify Agriculture of all ongoing investigations where a contaminated food source under the jurisdiction of Agriculture is the suspected cause of a disease outbreak. Agriculture will provide assistance in the investigation and will play the lead role in tracing contaminated foods back to their source by visiting regulated retailers, wholesalers, and manufacturers to review and obtain records that document the chain of distribution for the products. Agriculture will coordinate with Health on any product tracing investigations conducted at Health-regulated establishments. Agriculture will summarize source investigations and provide those summaries to Health. Health will analyze the findings of the epidemiologic and source investigations and make a determination as to the likelihood of a causal association between the illness outbreak and a specific food exposure.

##### **Embargo, Seizure, Recall, and Public Notification**

Based on the information from Health and determination by Agriculture that a violation of law has occurred, and based on the authority in Minnesota State Statutes Sections 31.09, 31A.22, 31A.23, and 32.21, 34A.11, Agriculture will authorize condemnation, seizure, detain, or embargo proceedings of such food. Health will assist in cases involving such seizures, quarantines, destructions and embargos by taking reasonable efforts to assure the removal of any remaining contaminated food from food service establishments. Where circumstances allow, Health and Agriculture will work cooperatively during situations when it is in the best interests of both agencies and the general public to do so.



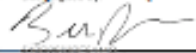
## V. REVIEW OF AGREEMENT

This agreement between the two departments will be reviewed biennially by both Agriculture and Health and make any necessary changes to this agreement.

## VI. TERMINATION OF AGREEMENT

This agreement between the two departments will be reviewed biennially by both Agriculture and Health and changes made as necessary with respect to this agreement.

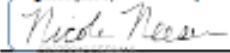
For the Department of Agriculture Food  
and Feed Safety Division (FFSD)

Signature 

Title Division Director - Food and Feed Safety

Date 12/6/2016

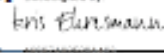
For the Department of Agriculture Dairy  
and Meat Inspection Division (DMID)

Signature 

Title Division Director - Dairy and Meat Inspection

Date 12/7/2016

For the Department of Health

Signature 

Title Division Director-Infectious Disease Epidemiology Prevention and Control


Date 12/7/2016

## Appendix 9a: Employee Interview Norovirus (English)

# Appendix 9a: Employee Interview Norovirus

## OUTBREAK RESPONSE PROTOCOL

To obtain this document, please contact [health.foodill@state.mn.us](mailto:health.foodill@state.mn.us) or 651-201-5655.

	<p>Date of Interview: ____/____/____ Interviewer: _____</p>																														
<p><b>FACILITY NAME</b> <b>FACILITY LOCATION</b> <b>Employee Interview Form</b></p>																															
<p>The Minnesota Department of Health (MDH) and [LOCAL PUBLIC HEALTH] are working on a foodborne illness outbreak investigation that may be associated with the facility where you work. The purpose of the investigation is to learn the source of the outbreak and stop transmission. We want to ask you questions about your work duties in food service and any recent illness you have had.</p>																															
<p><b>PRIVACY:</b> Any information you give to us about yourself (including test results) is considered private data. Only public health officials involved in this outbreak investigation will have access to the private data. Do we have your permission to also share this information with management staff at the facility where you work? <input type="checkbox"/> YES <input type="checkbox"/> NO</p>																															
<p><b>VOLUNTARY:</b> You are not required to answer questions. However, your answers will help us understand how this outbreak happened and prevent further transmission. If you don't answer questions, you will be excluded from work because we won't know if you could spread illness to others. Will you answer some brief questions? <input type="checkbox"/> YES <input type="checkbox"/> NO (exclusions apply – contact epi)</p>																															
<p><b>STOOL SAMPLE:</b> We may ask you to provide a stool specimen. Stools will be tested for bacterial and viral pathogens at MDH. Stool kits and testing are free of charge. You will be given results when they are available.</p>																															
<p>Name (last, first): _____ Age: _____ Male Female Other Signature: _____ or Phone Interview (verbal consent): <input type="checkbox"/> Address: _____ City: _____ Zip: _____ Phone: _____ Job Title/Description: _____</p>																															
<p>• Have you had any of the following symptoms since <b>December 24?</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">Nausea</td> <td style="width: 10%;"><input type="checkbox"/> Y <input type="checkbox"/> N</td> <td style="width: 70%;"></td> </tr> <tr> <td>Vomiting</td> <td><input type="checkbox"/> Y <input type="checkbox"/> N</td> <td>Onset date/time: ____/____/____ Recovery: ____/____/____</td> </tr> <tr> <td>Cramps</td> <td><input type="checkbox"/> Y <input type="checkbox"/> N</td> <td></td> </tr> <tr> <td>Diarrhea</td> <td><input type="checkbox"/> Y <input type="checkbox"/> N</td> <td>Onset date/time: ____/____/____ Recovery: ____/____/____</td> </tr> <tr> <td># stools/24 hrs</td> <td>_____</td> <td>Duration of diarrhea: _____ days/hours (if unsure of dates/times)</td> </tr> <tr> <td>Bloody stools</td> <td><input type="checkbox"/> Y <input type="checkbox"/> N</td> <td></td> </tr> <tr> <td>Fever</td> <td><input type="checkbox"/> Y <input type="checkbox"/> N</td> <td>Temperature: _____ ° F</td> </tr> <tr> <td>First symptom:</td> <td></td> <td>Onset date/time: ____/____/____</td> </tr> <tr> <td colspan="3">Other symptoms: _____</td> </tr> <tr> <td colspan="3">When did you feel completely recovered? ____/____/____ or <input type="checkbox"/> still feeling sick</td> </tr> </table>		Nausea	<input type="checkbox"/> Y <input type="checkbox"/> N		Vomiting	<input type="checkbox"/> Y <input type="checkbox"/> N	Onset date/time: ____/____/____ Recovery: ____/____/____	Cramps	<input type="checkbox"/> Y <input type="checkbox"/> N		Diarrhea	<input type="checkbox"/> Y <input type="checkbox"/> N	Onset date/time: ____/____/____ Recovery: ____/____/____	# stools/24 hrs	_____	Duration of diarrhea: _____ days/hours (if unsure of dates/times)	Bloody stools	<input type="checkbox"/> Y <input type="checkbox"/> N		Fever	<input type="checkbox"/> Y <input type="checkbox"/> N	Temperature: _____ ° F	First symptom:		Onset date/time: ____/____/____	Other symptoms: _____			When did you feel completely recovered? ____/____/____ or <input type="checkbox"/> still feeling sick		
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When did you feel completely recovered? ____/____/____ or <input type="checkbox"/> still feeling sick																															
<p><b>ILL EMPLOYEES</b></p> <p>• Are you willing to provide a stool sample for testing? <input type="checkbox"/> YES (contact epi) <input type="checkbox"/> NO</p> <p>• Did you visit a health care provider for the illness? <input type="checkbox"/> YES <input type="checkbox"/> NO Hospitalized overnight? <input type="checkbox"/> YES <input type="checkbox"/> NO If yes, when? ____/____/____ Where? _____ Submit a stool sample? <input type="checkbox"/> YES <input type="checkbox"/> NO</p> <p>• Did you work while having diarrhea and/or vomiting? <input type="checkbox"/> YES <input type="checkbox"/> NO If yes, when? _____ If no, when did you return to work? _____</p>																															

**ALL EMPLOYEES**

- Do you work at any other food service facilities? ☐ YES ☐ NO  
If yes, where? \_\_\_\_\_ How often? \_\_\_\_\_
- Have any members of your household been ill with diarrhea and/or vomiting since **December 24**? ☐ YES ☐ NO  
Vomiting (onset: \_\_\_\_ / \_\_\_\_ ) ☐ Y ☐ N Cramps ☐ Y ☐ N Fever ☐ Y ☐ N Blood in stool ☐ Y ☐ N  
Diarrhea (onset: \_\_\_\_ / \_\_\_\_ ) ☐ Y ☐ N (# stools/24 hrs: \_\_\_\_)
- Do you remember any vomiting incidents at the facility? ☐ YES ☐ NO  
Describe (who, where, when): \_\_\_\_\_  
If yes, did you help clean up the incident? ☐ YES ☐ NO
- Have any of your co-workers been ill with vomiting and/or diarrhea? ☐ YES ☐ NO  
Describe (who, when): \_\_\_\_\_

**During January 6 -- January 10:**

- Which of these dates did you work?

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N
<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N

**During January 6 -- January 10:**

- Did you do any food prep? ☐ YES ☐ NO  
Describe: \_\_\_\_\_
- Did you make or serve any drinks, including adding garnish or ice? ☐ YES ☐ NO  
Describe: \_\_\_\_\_
- Did you prepare any ready-to-eat foods, like salads, breads, or chips (including garnishing plates and packaging to-go food)? ☐ YES ☐ NO  
Describe: \_\_\_\_\_
- What were your other job duties?  
Describe: \_\_\_\_\_


**If you are ill with vomiting or diarrhea, it is important that you not return to work in food service for at least 72 hours after your recovery.**

## Appendix 9b: Employee Interview Norovirus (Spanish)

# Appendix 9b: Employee Interview Norovirus Spanish

## OUTBREAK RESPONSE PROTOCOL

To obtain this document, please contact [health.foodill@state.mn.us](mailto:health.foodill@state.mn.us) or 651-201-5655.

	Date of Interview: ____/____/____ Interviewer: _____
---	---

**FACILITY NAME**  
**FACILITY LOCATION**

**Employee Interview Form**

The Minnesota Department of Health (MDH) and [LOCAL PUBLIC HEALTH] are working on a foodborne illness outbreak investigation that may be associated with the facility where you work. The purpose of the investigation is to learn the source of the outbreak and stop transmission. We want to ask you questions about your work duties in food service and any recent illness you have had.

*El Departamento de Salud de Minnesota está investigando unas quejas de enfermedades que están asociadas con el restaurante donde Ud. trabaja. El propósito de esta investigación es entender la causa de las enfermedades y parar la transmisión. Queremos hacerle unas preguntas sobre su trabajo y acerca de enfermedades que podría haber tenido recientemente.*

**PRIVACY:** Any information you give to us about yourself (including test results) is considered private data. Only public health officials involved in this outbreak investigation will have access to the private data. Do we have your permission to also share this information with management staff at the facility where you work? ☐ YES ☐ NO

*Responder a la entrevista es totalmente voluntario y toda la información que Ud. nos daría sería confidencial. Las únicas personas que podrían tener acceso a esta información son los funcionarios del Departamento de Salud. Podemos compartir esta información con su jefe?*

**VOLUNTARY:** You are not required to answer questions. However, your answers will help us understand how this outbreak happened and prevent further transmission. If you don't answer questions, you will be excluded from work because we won't know if you could spread illness to others.

Will you answer some brief questions? ☐ YES ☐ NO (exclusions apply – contact epi)

*Si hay preguntas que no desea contestar, puede no hacerlo. Sin embargo, sus respuestas son importantes para descubrir la causa del brote y prevenir más enfermedades. Si no responde a las preguntas, Ud. va a ser excluido del trabajo porque no podemos evaluar si Ud. puede transmitir la enfermedad a otras personas.*

**STOOL SAMPLE:** We may ask you to provide a stool specimen. Stools will be tested for bacterial and viral pathogens at MDH. Stool kits and testing are free of charge. You will be given results when they are available.

*El departamento de salud va a hacer exámenes de muestras de heces. Analizamos el heces por patógenos bacterianos y virales. Los exámenes de estas muestras son gratis. Se le dará los resultados cuando estén disponibles.*

Name (last, first): _____ Nombre (apellido, nombre)	Age: _____ Edad	Male Female Other Hombre Mujer Otra
Signature: _____ Firma	or	Phone Interview (verbal consent): <input type="checkbox"/> Entrevista por el telefono
Address: _____ Dirección	City: _____ Ciudad	
Zip: _____ Código postal	Phone: _____ número de teléfono	
Job Title/Description: _____ Nombre del puesto/Descripción de trabajo		

- Have you had any of the following symptoms since \_\_\_\_\_?  
*¿Desde el \_\_\_\_\_, ha estado enfermo con los siguientes síntomas?*

Nausea <i>Nausea</i>	<input type="checkbox"/> Y <input type="checkbox"/> N	
Vomiting <i>Vómito</i>	<input type="checkbox"/> Y <input type="checkbox"/> N	Onset date/time: ____/____/____ Recovery: ____/____/____ <i>Fecha/hora comienzo Fecha/hora que se recuperó</i>
Cramps <i>Calicos</i>	<input type="checkbox"/> Y <input type="checkbox"/> N	
Diarrhea <i>Diarrea</i>	<input type="checkbox"/> Y <input type="checkbox"/> N	Onset date/time: ____/____/____ Recovery: ____/____/____ <i>Fecha/hora comienzo Fecha/hora que se recuperó</i>
# stools/24 hrs <i>Cuántas veces en 24 horas?</i>	_____	Duration of diarrhea: _____ days/hours (if unsure of dates/times) <i>Duración de diarrea horas/días</i>
Bloody stools <i>Notó sangre en las heces?</i>	<input type="checkbox"/> Y <input type="checkbox"/> N	
Fever <i>Calentura/fiebre</i>	<input type="checkbox"/> Y <input type="checkbox"/> N	Temperature: _____ ° F <i>Temperatura</i>
First symptom: <i>Primer síntoma</i>	_____	Onset date/time: ____/____/____ <i>Fecha/hora de comienzo</i>
Other symptoms: _____ <i>Otros síntomas</i>		
When did you feel completely recovered? ____/____/____ or <input type="checkbox"/> still feeling sick <i>Fecha que se recuperó Todavía tiene síntomas</i>		

**ILL EMPLOYEES**

- Are you willing to provide a stool sample for testing? ☐ YES (contact epi) ☐ NO  
*¿Está disponible a dar una muestra de heces para analizar?*
- Did you visit a health care provider for the illness? ☐ YES ☐ NO  
*¿Visitó a algún médico para esta enfermedad?*  
If yes, when? \_\_\_\_/\_\_\_\_/\_\_\_\_ Where? \_\_\_\_\_  
*¿Cuándo? ¿Dónde?*
- Hospitalized overnight? ☐ YES ☐ NO  
*¿Fue hospitalizado (pasa la noche en el hospital)?*
- Submit a stool sample? ☐ YES ☐ NO  
*¿Le dio a su médico una muestra de heces?*
- Did you work while having diarrhea and/or vomiting? ☐ YES ☐ NO  
*¿Fue a trabajar cuando tenía la diarrea/vómitos?*  
If yes, when? \_\_\_\_\_ If no, when did you return to work? \_\_\_\_\_  
*¿Cuándo? ¿Cuándo regresó al trabajo?*

**ALL EMPLOYEES**

- Do you work at any other food service facilities? ☐ YES ☐ NO

¿Trabaja en otros restaurantes o servicios de comida?

If yes, where? \_\_\_\_\_ How often? \_\_\_\_\_

¿Dónde?

¿Cuán seguido?

- Have any members of your household been ill with diarrhea and/or vomiting since \_\_\_\_\_? ☐ YES ☐ NO

¿Desde el \_\_\_\_\_, ha habido alguien que vive en su casa con diarrea o vómitos?

Vomiting (onset: \_\_\_\_/\_\_\_\_) ☐ Y ☐ N  
En qué fecha comenzó a vomitar

Cramps ☐ Y ☐ N  
Cólicos

Fever ☐ Y ☐ N  
Calentura/fiebre

Blood in stool ☐ Y ☐ N  
Notó sangre en las heces?

Diarrhea (onset: \_\_\_\_/\_\_\_\_) ☐ Y ☐ N (# stools/24 hrs: \_\_\_\_)  
En qué fecha comenzó la diarrea (# en 24 horas.)

- Do you remember any vomiting incidents at the facility? ☐ YES ☐ NO

¿Usted recuerda ver a alguien vomitar en su trabajo?

Describe (who, where, when): \_\_\_\_\_  
Describe (quien, donde, cuando)

If yes, did you help clean up the incident? ☐ YES ☐ NO  
¿Ayudó a limpiarlo?

- Have any of your co-workers been ill with vomiting and/or diarrhea? ☐ YES ☐ NO

¿Ud. sabe si alguno de sus compañeros de trabajo ha estado enfermo con diarrea o vómito?

Describe (who, when): \_\_\_\_\_  
Describe (quien, cuando)

During \_\_\_\_\_ to \_\_\_\_\_:

- Which of these dates did you work?  
¿Del domingo \_\_\_\_\_ al \_\_\_\_\_, en cuáles fechas trabajó?

SUNDAY Domingo	MONDAY Lunes	TUESDAY Martes	WEDNESDAY Miércoles	THURSDAY Jueves	FRIDAY Viernes	SATURDAY Sábado
<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N
<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N

During \_\_\_\_\_ to \_\_\_\_\_:

Del domingo \_\_\_\_\_ al \_\_\_\_\_:

- Did you do any food prep? ☐ YES ☐ NO

¿Preparó (cortó, manipuló) los alimentos?



Describe: \_\_\_\_\_  
*Describe*

- Did you make or serve any drinks, including adding garnish or ice? ☐ YES ☐ NO  
*¿Preparó o sirvió bebidas, incluyendo el hielo o adorno/decoración*

Describe: \_\_\_\_\_  
*Describe*

- Did you prepare any ready-to-eat foods, like salads, breads, or chips (including garnishing plates and packaging to-go food)? ☐ YES ☐ NO  
*¿Preparó (cortó, manipuló) alimentos que están listo para comer/pre-hechos, como ensaladas, panes, o las papitas "chips" (incluyendo el adorno o empaquetado los alimentos pre-hechos)*

Describe: \_\_\_\_\_  
*Describe*

- What were your other job duties?  
*¿Cuáles fueron sus otras funciones del trabajo?*

Describe: \_\_\_\_\_  
*Describe*

**If you are ill with vomiting or diarrhea, it is important that you not return to work in food service for at least 72 hours after your recovery.**

*Si tiene diarrea o vómitos, es importante que no regrese al trabajar en servicios de comida por 72 horas después de recuperarse.*


## Appendix 10a: Employee Interview *Salmonella* (English)



# Appendix 10a: Employee Interview *Salmonella*

## OUTBREAK RESPONSE PROTOCOL

To obtain this document, please contact [health.foodill@state.mn.us](mailto:health.foodill@state.mn.us) or 651-201-5655.

	Date of Interview: ____/____/____ Interviewer: _____																														
<b>FACILITY • LOCATION</b> <b>Employee Interview Form</b>																															
<p>The Minnesota Department of Health (MDH) and [LOCAL PUBLIC HEALTH] are working on a foodborne illness outbreak investigation that may be associated with the facility where you work. The purpose of the investigation is to learn the source of the outbreak and stop transmission. We want to ask you questions about your work duties in food service and any recent illness you may have had.</p> <p><b>PRIVACY:</b> Any information you give to us about yourself (including test results) is considered private data. Only public health officials involved in this outbreak investigation will have access to the private data. Do we have your permission to also share this information with management staff at the facility where you work?    <input type="checkbox"/> YES    <input type="checkbox"/> NO</p> <p><b>VOLUNTARY:</b> You are not required to answer questions. However, your answers help us understand how this outbreak happened and prevent further transmission. If you don't answer questions, you will be excluded from work because we won't know if you could spread illness to others.</p> <p>Will you answer some brief questions?    <input type="checkbox"/> YES    <input type="checkbox"/> NO (exclusions apply – contact epi)</p> <p><b>STOOL SAMPLE:</b> We will be testing stool samples to see if employees have <i>Salmonella</i> (a germ that can be spread by food). You must submit two stool samples, collected at least 24 hours apart. If you have been ill, or test positive for <i>Salmonella</i>, you will be excluded from work until two stool samples in a row test negative for <i>Salmonella</i>. If you don't submit stool specimens, you will be excluded from work because we won't know if you could spread illness to others. Stool kits and testing are free of charge. You will be given results when they are available.</p> <p>Will you submit stool samples?    <input type="checkbox"/> YES    <input type="checkbox"/> NO (exclusions apply – contact epi)</p>																															
Name (last, first): _____ DOB: ____/____/____    Male Female Other																															
Signature: _____ or    Phone Interview (verbal consent): <input type="checkbox"/>																															
Address: _____ City: _____																															
Zip: _____ Phone: _____																															
Job Title/Description: _____																															
<p>• Have you had any of the following symptoms since <b>August 1st</b>?</p> <table border="1" style="width: 100%; border-collapse: collapse;"><tr><td style="width: 20%;">Nausea</td><td style="width: 10%;"><input type="checkbox"/> Y <input type="checkbox"/> N</td><td style="width: 70%;"></td></tr><tr><td>Vomiting</td><td><input type="checkbox"/> Y <input type="checkbox"/> N</td><td>Onset date/time: ____/____/____    Recovery: ____/____/____</td></tr><tr><td>Cramps</td><td><input type="checkbox"/> Y <input type="checkbox"/> N</td><td></td></tr><tr><td>Diarrhea</td><td><input type="checkbox"/> Y <input type="checkbox"/> N</td><td>Onset date/time: ____/____/____    Recovery: ____/____/____</td></tr><tr><td># stools/24 hrs</td><td></td><td>Duration of diarrhea: ____ days/hours (if unsure of dates/times)</td></tr><tr><td>Bloody stools</td><td><input type="checkbox"/> Y <input type="checkbox"/> N</td><td></td></tr><tr><td>Fever</td><td><input type="checkbox"/> Y <input type="checkbox"/> N</td><td>Temperature: _____ ° F</td></tr><tr><td>First symptom:</td><td></td><td>Onset date/time: ____/____/____</td></tr><tr><td colspan="3">Other symptoms: _____</td></tr><tr><td colspan="3">When did you feel completely recovered? ____/____/____    or    <input type="checkbox"/> still feeling sick</td></tr></table>		Nausea	<input type="checkbox"/> Y <input type="checkbox"/> N		Vomiting	<input type="checkbox"/> Y <input type="checkbox"/> N	Onset date/time: ____/____/____    Recovery: ____/____/____	Cramps	<input type="checkbox"/> Y <input type="checkbox"/> N		Diarrhea	<input type="checkbox"/> Y <input type="checkbox"/> N	Onset date/time: ____/____/____    Recovery: ____/____/____	# stools/24 hrs		Duration of diarrhea: ____ days/hours (if unsure of dates/times)	Bloody stools	<input type="checkbox"/> Y <input type="checkbox"/> N		Fever	<input type="checkbox"/> Y <input type="checkbox"/> N	Temperature: _____ ° F	First symptom:		Onset date/time: ____/____/____	Other symptoms: _____			When did you feel completely recovered? ____/____/____    or <input type="checkbox"/> still feeling sick		
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Vomiting	<input type="checkbox"/> Y <input type="checkbox"/> N	Onset date/time: ____/____/____    Recovery: ____/____/____																													
Cramps	<input type="checkbox"/> Y <input type="checkbox"/> N																														
Diarrhea	<input type="checkbox"/> Y <input type="checkbox"/> N	Onset date/time: ____/____/____    Recovery: ____/____/____																													
# stools/24 hrs		Duration of diarrhea: ____ days/hours (if unsure of dates/times)																													
Bloody stools	<input type="checkbox"/> Y <input type="checkbox"/> N																														
Fever	<input type="checkbox"/> Y <input type="checkbox"/> N	Temperature: _____ ° F																													
First symptom:		Onset date/time: ____/____/____																													
Other symptoms: _____																															
When did you feel completely recovered? ____/____/____    or <input type="checkbox"/> still feeling sick																															
<p><b>ILL EMPLOYEES</b></p> <p>• Did you visit a health care provider for the illness?    <input type="checkbox"/> YES    <input type="checkbox"/> NO    Hospitalized overnight?    <input type="checkbox"/> YES    <input type="checkbox"/> NO If yes, when? ____/____/____    Where? _____    Submit a stool sample?    <input type="checkbox"/> YES    <input type="checkbox"/> NO</p> <p>• Did you work while having diarrhea and/or vomiting?    <input type="checkbox"/> YES    <input type="checkbox"/> NO If yes, when? _____    If no, when did you return to work? _____</p>																															

Employee Name: \_\_\_\_\_

**ALL EMPLOYEES**

- Do you work at any other food service facilities? ☐ YES ☐ NO  
If yes, where? \_\_\_\_\_ How often? \_\_\_\_\_
- Have any members of your household been ill with the following symptoms since August 1st? ☐ YES ☐ NO  
Vomiting (onset: \_\_\_\_/\_\_\_\_) ☐ Y ☐ N Cramps ☐ Y ☐ N Fever ☐ Y ☐ N Blood in stool ☐ Y ☐ N  
Diarrhea (onset: \_\_\_\_/\_\_\_\_) ☐ Y ☐ N (# stools/24 hrs: \_\_\_\_)
- Have any of your co-workers been ill with vomiting and/or diarrhea? ☐ YES ☐ NO  
Describe (who, when): \_\_\_\_\_

**During August 14 - 19:**

- Which of these dates did you work?

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
<input type="checkbox"/> 14	<input type="checkbox"/> 15	<input type="checkbox"/> 16	<input type="checkbox"/> 17	<input type="checkbox"/> 18	<input type="checkbox"/> 19	<input type="checkbox"/>
<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N

**During August 14 - 19:**

- Did you do any food prep? ☐ YES ☐ NO  
Describe: \_\_\_\_\_
- Did you make or serve any drinks, including adding garnish or ice? ☐ YES ☐ NO  
Describe: \_\_\_\_\_
- Did you prepare any ready-to-eat foods, like salads, breads, or chips (including garnishing plates and packaging to-go food)? ☐ YES ☐ NO  
Describe: \_\_\_\_\_
- What were your other job duties?  
Describe: \_\_\_\_\_

Appendix 10b: Employee Interview  
*Salmonella* (Spanish)

# Appendix 10b: Employee Interview *Salmonella* Spanish

## OUTBREAK RESPONSE PROTOCOL

To obtain this document, please contact [health.foodill@state.mn.us](mailto:health.foodill@state.mn.us) or 651-201-5655.



Date of Interview: \_\_\_\_/\_\_\_\_/\_\_\_\_  
Interviewer: \_\_\_\_\_

### **FACILITY • LOCATION**

#### **Employee Interview Form**

The Minnesota Department of Health (MDH) and Ramsey County Public Health working on a foodborne illness outbreak investigation that may be associated with the facility where you work. The purpose of the investigation is to learn the source of the outbreak and stop transmission. We want to ask you questions about your work duties in food service and any recent illness you may have had.

*El Departamento de Salud de Minnesota está investigando unas quejas de enfermedades que están asociadas con el restaurante donde Ud. trabaja. El propósito de esta investigación es entender la causa de las enfermedades y parar la transmisión. Queremos hacerle unas preguntas sobre su trabajo y acerca de enfermedades que podría haber tenido recientemente.*

**PRIVACY:** Any information you give to us about yourself (including test results) is considered private data. Only public health officials involved in this outbreak investigation will have access to the private data. Do we have your permission to also share this information with management staff at the facility where you work? ☐ YES ☐ NO

*Responder a la entrevista es totalmente voluntario y toda la información que Ud. nos daría sería confidencial. Las únicas personas que podrían tener acceso a esta información son los funcionarios del Departamento de Salud. Podemos compartir esta información con su jefe?*

**VOLUNTARY:** You are not required to answer questions. However, your answers help us understand how this outbreak happened and prevent further transmission. If you don't answer questions, you will be excluded from work because we won't know if you could spread illness to others.

Will you answer some brief questions? ☐ YES ☐ NO (exclusions apply – contact epi)

*Si hay preguntas que no desea contestar, puede no hacerlo. Sin embargo, sus respuestas son importantes para descubrir la causa del brote y prevenir más enfermedades. Si no responde a las preguntas, Ud. va a ser excluido del trabajo porque no podemos evaluar si Ud. puede transmitir la enfermedad a otras personas.*

**STOOL SAMPLE:** We will be testing stool samples to see if employees have *Salmonella* (a germ that can be spread by food). You must submit two stool samples, collected at least 24 hours apart. If you have been ill, or test positive for *Salmonella*, you will be excluded from work until two stool samples in a row test negative for *Salmonella*. If you don't submit stool specimens, you will be excluded from work because we won't know if you could spread illness to others. Stool kits and testing are free of charge. You will be given results when they are available.

*El departamento de salud va a hacer exámenes de heces para determinar si los empleados tienen Salmonella (una bacteria transmitida por la comida). Tiene que enviar dos muestras de heces, tomadas 24 horas aparte. Si Ud. estuvo enfermo, o el resultado de su muestra es positivo por Salmonella, Ud. será excluido del trabajo hasta que Ud. tenga dos muestras negativas de Salmonella. Si no envía sus muestras de heces, será excluido del trabajo porque no sabemos si Ud. podría propagar la enfermedad. Los exámenes de estas muestras son gratis. Ud. se le dará los resultados cuando estén disponibles.*

Will you submit stool samples? ☐ YES ☐ NO (exclusions apply – contact epi)

*¿Está dispuesto a enviar una muestra de heces para analizar?*

Employee Name: \_\_\_\_\_

Name (last, first): \_\_\_\_\_ Age: \_\_\_\_\_ Male Female Other  
 Nombre (apellido, nombre) Edad Hombre Mujer Otro

Signature: \_\_\_\_\_ or Phone Interview (verbal consent): ☐  
 Firma Entrevista por el teléfono

Address: \_\_\_\_\_ City: \_\_\_\_\_  
 Dirección Ciudad

Zip: \_\_\_\_\_ Phone: \_\_\_\_\_  
 Código postal número de teléfono

Job Title/Description: \_\_\_\_\_  
 Nombre del puesto/Descripción de trabajo

- Have you had any of the following symptoms since **August 1st**?  
 ¿Desde el 1 de agosto, ha estado enfermo con los siguientes síntomas?

Nausea Nausea	<input type="checkbox"/> Y <input type="checkbox"/> N	
Vomiting Vómito	<input type="checkbox"/> Y <input type="checkbox"/> N	Onset date/time: ____/____/____ Recovery: ____/____/____ Fecha/hora comienzo Fecha/hora que se recuperó
Cramps Colicos	<input type="checkbox"/> Y <input type="checkbox"/> N	
Diarrhea Diarrea	<input type="checkbox"/> Y <input type="checkbox"/> N	Onset date/time: ____/____/____ Recovery: ____/____/____ Fecha/hora de comienzo Fecha/hora que se recuperó
# stools/24 hrs cuantas veces en 24 horas.	_____	Duration of diarrhea: ____ days/hours Duración de diarrea horas/días
Bloody stools Sangre en heces	<input type="checkbox"/> Y <input type="checkbox"/> N	
Fever Calentura/fiebre	<input type="checkbox"/> Y <input type="checkbox"/> N	Temperature: _____ ° F Temperatura
First symptom: Primer síntoma	_____	Onset date/time: ____/____/____ Fecha/ hora de primer síntoma
Other symptoms: _____ Otros síntomas		
When did you feel completely recovered? ____/____/____ or <input type="checkbox"/> still feeling sick Cuando se recupero? Todavía se siente enfermo?		

#### ILL EMPLOYEES

- Did you visit a health care provider for the illness? ☐ Y ☐ N Did you submit a stool sample? ☐ Y ☐ N  
 Visitó algún médico para esta enfermedad Le dio a su médico una muestra de heces?  
 If yes, when? \_\_\_\_/\_\_\_\_/\_\_\_\_ where? \_\_\_\_\_ Hospitalized overnight? ☐ Y ☐ N  
 ¿Cuándo? ¿Dónde? ¿Fue hospitalizado (paso la  
 noche en el hospital)?
- Did you work while having diarrhea and/or vomiting? ☐ YES ☐ NO  
 Fue a trabajar cuando tenía la diarrea/vómitos  
 If yes, when? \_\_\_\_\_ If no, when did you return to work? \_\_\_\_\_  
 Si sí, ¿cuándo? Si no, ¿cuando regresó al trabajo?

Employee Name: \_\_\_\_\_

**ALL EMPLOYEES**

- Do you work at any other food service facilities? ☐ YES ☐ NO  
*¿Trabaja en otros restaurantes o servicios de comida?*  
 If yes, where? \_\_\_\_\_ How often? \_\_\_\_\_  
*Si sí, dónde cuántas veces*
- Have any members of your household been ill with diarrhea and/or vomiting since **August 1st**? ☐ YES ☐ NO  
*Hasta el primer de Agosto, ha habido alguien que vive en su casa con diarrea o vómitos*  
 Vomiting (onset: \_\_\_\_/\_\_\_\_) ☐ Y ☐ N Cramps ☐ Y ☐ N Fever ☐ Y ☐ N Blood in stool ☐ Y ☐ N  
*En qué fecha comenzó el vómito Cólicos Calentura/fiebre Notó sangre en las heces*  
 Diarrhea (onset: \_\_\_\_/\_\_\_\_) ☐ Y ☐ N (# stools/24 hrs: \_\_\_\_)  
*En qué fecha comenzó la diarrea (# en 24 horas.)*
- Have any of your co-workers been ill with vomiting and/or diarrhea? ☐ YES ☐ NO  
*¿Ud. sabe si alguno de sus compañeros de trabajo ha estado enfermo con diarrea o vómito?*  
 Describe (who, when): \_\_\_\_\_  
*Quién, cuándo*

**During August 14 - 19:**

- Which of these dates did you work?  
*¿Del domingo catorce de Agosto al Viernes diecinueve de Agosto, en cuáles fechas trabajó?*

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
<div>14</div>	<div>15</div>	<div>16</div>	<div>17</div>	<div>18</div>	<div>19</div>	
<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N
<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N

**During August 14 - 19:**

*Durante la semana del domingo catorce de Agosto al viernes el diecinueve de Agosto*

- Did you do any food prep? ☐ YES ☐ NO  
*¿Preparó (cortó, manipuló) los alimentos*  
 Describe: \_\_\_\_\_
- Did you make or serve any drinks, including adding garnish or ice? ☐ YES ☐ NO  
*¿Preparó o sirvió bebidas, incluyendo el hielo o adorno/decoración*  
 Describe: \_\_\_\_\_
- Did you prepare any ready-to-eat foods, like salads, breads, or chips (including garnishing plates and packaging to-go food)? ☐ YES ☐ NO  
*¿Preparó (cortó, manipuló) alimentos que están listo para comer/pre-hechos, como ensaladas, panes, o las papitas "chips" (incluyendo el adorno o empaquetado los alimentos pre-hechos)*  
 Describe: \_\_\_\_\_
- What were your other job duties?  
*¿Cuáles fueron sus otras funciones del trabajo?*  
 Describe: \_\_\_\_\_

SALM




## Appendix 10c: Employee Interview Waterborne

# Appendix 10c: Employee Interview Waterborne

## OUTBREAK RESPONSE PROTOCOL

To obtain this document, please contact [health.foodill@state.mn.us](mailto:health.foodill@state.mn.us) or 651-201-5655.



Date of Interview: \_\_\_\_/\_\_\_\_/\_\_\_\_  
Interviewer: \_\_\_\_\_

**Facility Name**  
**Employee Interview**

The Minnesota Department of Health (MDH) is working on a waterborne illness outbreak investigation that may be associated with the facility where you work. The purpose of the investigation is to learn the source of the outbreak and stop transmission. We want to ask you questions about your work duties and any recent illness you may have had.

**PRIVACY:** Any information you give to us about yourself (including test results) is considered private data. Only public health officials involved in this outbreak investigation will have access to the private data. Do we have your permission to also share this information with management staff at the facility where you work? ☐ YES ☐ NO

**VOLUNTARY:** You are not required to answer questions. However, your answers help us understand how this outbreak happened and prevent further transmission. If you don't answer questions, you may be excluded from work (or your duties restricted) because we won't know if you could spread illness to others.  
Will you answer some brief questions? ☐ YES ☐ NO (exclusions apply – contact epi)

**STOOL SAMPLE:** If you have been ill, we may ask you to provide a stool specimen for testing. Stools will be tested for pathogens at the MDH lab. Stool kits and testing are free of charge. You will be given results when they are available.

---

Name (last, first): \_\_\_\_\_ Age: \_\_\_\_\_ Male Female Other  
Signature: \_\_\_\_\_ or Phone Interview (verbal consent): ☐  
Address: \_\_\_\_\_ City: \_\_\_\_\_  
Zip: \_\_\_\_\_ Phone: \_\_\_\_\_  
Job Title/Description: \_\_\_\_\_

---

• Have you been ill with diarrhea and/or vomiting since **xxx**? ☐ YES ☐ NO

Vomiting	<input type="checkbox"/> Y <input type="checkbox"/> N	Onset date/time: ____/____/____	Recovery: ____/____/____
Cramps	<input type="checkbox"/> Y <input type="checkbox"/> N		
Diarrhea	<input type="checkbox"/> Y <input type="checkbox"/> N	Onset date/time: ____/____/____	Recovery: ____/____/____
# stools/24 hrs	_____	Duration of diarrhea: _____ days/hours (if unsure of dates/times)	
Bloody stools	<input type="checkbox"/> Y <input type="checkbox"/> N		
Fever	<input type="checkbox"/> Y <input type="checkbox"/> N	Temperature: _____ ° F	
First symptom:		Onset date/time: ____/____/____	
Other symptoms: _____			
When did you feel completely recovered? ____/____/____ or <input type="checkbox"/> still feeling sick			

---

**ILL EMPLOYEES**

- Are you willing to provide a stool sample for testing? ☐ YES (contact epi) ☐ NO
- Did you visit a health care provider for the illness? ☐ YES ☐ NO      Hospitalized overnight? ☐ YES ☐ NO  
     If yes, when? \_\_\_\_/\_\_\_\_/\_\_\_\_ Where? \_\_\_\_\_      Submit a stool sample? ☐ YES ☐ NO
- Did you work while having diarrhea and/or vomiting? ☐ YES ☐ NO  
     If yes, when? \_\_\_\_\_ If no, when did you return to work? \_\_\_\_\_
- Have you gone swimming anywhere else since your illness started? ☐ YES ☐ NO  
     ---if yes, where? \_\_\_\_\_ When? \_\_\_\_\_

SUSPWATER

**ALL EMPLOYEES**

- Do you work at any other aquatic facilities? ☐ YES ☐ NO  
---If yes, where? \_\_\_\_\_ How often? \_\_\_\_\_
- Do you remember any vomiting or fecal incidents at the facility? ☐ YES ☐ NO  
Describe (who, where, when): \_\_\_\_\_  
If yes, did you help clean up the incident? ☐ YES ☐ NO

**If you have been ill with diarrhea, it is important that you not go swimming for at least 2 weeks following the end of your symptoms.**

## Appendix 11a: Employee Illness Screening Form for Norovirus

[illegible]



Appendix 11b: Employee Illness  
Screening Form for *Salmonella*

[illegible]





## Appendix 12a: Environmental Health Checklist When Responding to a Norovirus Outbreak

## Environmental health checklist when responding to a norovirus outbreak

1. Contact the establishment and have them begin gathering a contact list for all employees and credit card receipts, reservation lists, or takeout orders for the meal date in question. In addition, ask the following questions:
  - a. Has the business received any complaints? If they have and the complaints were not reported, inform them that this is a violation of the food code.
  - b. How many food service workers does the business employ?
2. Gather employee screening forms and copy enough interview forms. A unique form is developed by epi for each outbreak. The Tennessee warning is included on the form and must be read to each employee before the interview. Head out to restaurant as soon as possible.
3. Ask management what their illness policy is. Ask to see their illness log and assess recent employee illness.
4. Interview all employees, including management. If employees have been ill, they must be excluded for at least 72 hours after their last symptom of vomiting and diarrhea.
5. Ask ill employees if they would be willing to submit a stool sample. If so, obtain their name, address, and telephone number and coordinate with epi on getting stool kits out to employee.
6. Obtain credit card receipts, reservation lists, and/or takeout/carry out orders for meal date in question. Provide these to epi as soon as possible. These are used to interview additional patrons and determine if there is a particular food item that is contaminated.
7. Obtain restaurant menu (if different from online menu) and ask if the establishment had any specials on the date in question. Provide menu to epi as soon as possible. This is needed to interview additional patrons.
8. Put illness screening form in place so management can screen all employees before they begin their shift to ensure that they have not been recently ill.
9. Provide norovirus factsheets and educational materials to management.
10. While on site, conduct an environmental assessment. Review employee handwashing and bare-hand contact policies (e.g., minimizing bare-hands with ready-to-eat foods).
11. Wash, rinse, and sanitize all food contact surfaces, equipment, and utensils in the kitchen area. The establishment should contact their chemical supplier to obtain a product that has a "norovirus claim" to clean all surfaces, if they don't have a chemical supplier, they can use 1,000 ppm bleach (1/3 cup per 1 gallon). Most quats are ineffective against norovirus. It is also a good idea to clean and sanitize the inside of the ice bin, door handles, faucet handles, tabletops, etc. (any areas where people touch). If obtaining a product with a norovirus claim, management must make sure it is appropriate for food contact surfaces and read the label for proper application instructions (some products require a longer contact time).

12. If there have been employees who worked while ill or weren't excluded for an appropriate length of time and then handled/prepared food, consider discarding ready-to-eat food items that may have been contaminated. This includes ice from the ice machine.
13. If there is vomit in the establishment, the best way to prevent transmission is to physically remove it as soon as possible by scrubbing it off of the carpet/floor. Worker should wear gloves, discard all cloths/material used to clean up vomit and thoroughly wash hands after. Do not use a vacuum to clean vomit on carpeted areas. Vacuuming will aerosolize particles. You can use a steamer. Here is a factsheet on clean-up: [Help Prevent the Spread of Norovirus \("Stomach Bug"\) \(http://www.disinfect-for-health.org/wp-content/themes/disinfect/pdfs/NorovirusPrevent\\_8.5x11\\_English\\_Color.pdf\)](http://www.disinfect-for-health.org/wp-content/themes/disinfect/pdfs/NorovirusPrevent_8.5x11_English_Color.pdf)

Appendix 12b: Environmental Health  
Checklist When Responding to a  
*Cryptosporidium* Outbreak

# Environmental health checklist when responding to a *Cryptosporidium* outbreak

1. Pool should be closed immediately and hyperchlorinated per CDC guidelines:
  - a. If stabilizer is NOT used in the pool, hyperchlorinate to 20 parts per million (ppm) for 12.75 hours (13 hours).
    - i. See [Hyperchlorination to Kill Cryptosporidium When Chlorine Stabilizer is NOT in Water \(www.cdc.gov/healthywater/swimming/pdf/hyperchlorination-to-kill-crypto-when-chlorine-stabilizer-is-not-in-the-water.pdf\)](http://www.cdc.gov/healthywater/swimming/pdf/hyperchlorination-to-kill-crypto-when-chlorine-stabilizer-is-not-in-the-water.pdf) for more information.
  - b. If stabilizer is used in the pool, and the cyanuric acid concentration is 1–15:
    - i. Raise the free chlorine to 20 ppm and maintain for 28 hours, or
    - ii. Raise the free chlorine to 30 ppm and maintain for 18 hours, or
    - iii. Raise the free chlorine to 40 ppm and maintain for 8.5 hours
      1. See [Hyperchlorination to Kill Cryptosporidium When Chlorine Stabilizer is in Water \(www.cdc.gov/healthywater/swimming/pdf/hyperchlorination-to-kill-crypto-when-chlorine-stabilizer-is-in-the-water.pdf\)](http://www.cdc.gov/healthywater/swimming/pdf/hyperchlorination-to-kill-crypto-when-chlorine-stabilizer-is-in-the-water.pdf) for more information.
  - c. If the cyanuric acid concentration is more than 15 ppm, lower the concentration to 1–15 ppm by draining partially and adding fresh water without chlorine stabilizer before attempting to hyperchlorinate.
  - d. Pools must be held at the appropriate concentration for the entire length of time (e.g., 20 ppm for a full 12.75 hours) and someone should monitor the pool to ensure this level is maintained.
  - e. All pools effected should be held at this level (e.g., kiddie pool, slides, lazy river). Keep slides running, and leave toys and floaties in the pool to sanitize as well.
  - f. A 2-3-day shut-down time during hyperchlorination should be expected. Normal chlorination kills crypto naturally in 10.6 days.
  - g. Discourage the use of dechlor to bring down chlorine levels after the appropriate length of time has been reached. Dechlor doesn't work immediately, so often times more and more is dumped in until there is no chlorine left. Either let the chemical levels come down naturally or add more water to the pool before reopening.
2. Provide factsheet to operator on crypto and ask that they post signs around pool. A few examples are provided below:
  - a. [Cryptosporidiosis \(Cryptosporidium\) \(www.health.state.mn.us/divs/idepc/diseases/cryptosporidiosis/crypto.pdf\)](http://www.health.state.mn.us/divs/idepc/diseases/cryptosporidiosis/crypto.pdf)

- b. [Important Notice to All Swimmers  
\(www.health.state.mn.us/divs/idepc/dtopics/waterborne/healthyswim.pdf\)](http://www.health.state.mn.us/divs/idepc/dtopics/waterborne/healthyswim.pdf)
  - c. Hyperchlorinating is only effective until the next ill swimmer enters the water. It is important to provide education.
- 3. Ask about fecal accidents in the pool and request copies of the pool logs dating back to a few weeks before the incident date (exact date can be discussed with lead Epi).
  - 4. Epi may request reservation lists to contact additional guests or ask Environmental Health to conduct interviews of all aquatic staff (this will be determined by lead epi).
    - a. Staff with crypto-like symptoms (diarrhea) should be excluded for 2 weeks after their last symptom of diarrhea.

\*During a crypto investigation, MDH usually does not test the water for crypto (results take too long and if negative, it doesn't tell us that the parasite is not in the pool).

## Appendix 13: Traceback Information Gathering Worksheet



# Traceback Information Gathering Worksheet

Use interviews, observations, and records to collect information about the product of interest during the time period of interest.

**Goal:** Determine, with what level of certainty (definitely not, possibly, probably, definitely) specific incoming shipments received by the firm were included in outgoing shipments (or sales) during the timeframe of interest.

Product of Interest:

Timeframe of Interest:

## Investigational Traceback

Traceback Task	Notes
1. Establishment name and address.	
2. Epi data (to share with industry as needed).	
3. Identify the shelf life and average daily use of the product.	
4. Determine the regular suppliers or distributed for the product of interest during the time frame of interest (include manufacturer name and production facility address).	
5. Collect product identifiers (brand, food type, size, container type, lot codes, UPC, SKY, PLU, production dates, pull dates) for the product of interest.	
6. Collect lot codes, sell-by dates, and/or use-by dates for these products.	
7. Obtain clear digital photos of product or label, if possible.	<i>Send photos via email</i>

Traceback Task	Notes
8. Document how the product is received (box description, fresh/frozen).	
9. Obtain invoices and inventory for the product for the time period of interest.	<i>Send invoices via email</i>
10. Determine how and when the product is ordered and how often the firm receives the product (frequency, specific days of the week, etc.).	
11. Determine or estimate transportation time from supplier to point-of-service.	
12. Determine the quantity in shipment in the facility (typically and for the timeframe of interest) and if inventory is taken regularly (specific day of the week, daily, etc.).	
13. Determine how much (if any) of the previous shipments is left over when new shipments are received and if first-in first-out (FIFO) rotation policy is standard and how closely it's adhered to.	
14. Determine if the firm received any non-routine shipments of the product of interest.	
15. Identify any on-site handling/preparation/repacking that created opportunities for cross contamination or mishandling at the facility.	
16. Identify if anything affected normal handling or ordering of the implicated product.	
17. If records are not available on-site, determine location where they may be stored and request needed information (by phone, fax, email, etc.).	

## Appendix 14: Foodborne Illness Investigation Procedure



*Protecting, Maintaining and Improving the Health of All Minnesotans*

## **Foodborne Illness Investigation Procedure**

**<<Date>>**

To Whom It May Concern:

The Minnesota Department of Health (MDH) has undertaken an investigation into a potential outbreak of foodborne illness among individuals who ate at the **<< Restaurant>>** in **<<City>>**, Minnesota on **<<Date>>**. Based on the past experience and expertise of MDH staff, this outbreak may represent an ongoing health threat that requires intervention. Accordingly, MDH would like to contact as soon as possible a sample of individuals who ate at this establishment. Information requested includes names and phone numbers of those who were at the restaurant. Data collected will be maintained as private, in accordance with the Minnesota Government Data Privacy Act. MDH has authority to undertake this investigation and collect private data under Minn. Stat. 144.05, subd. 1, 144.053, and Minn. Rules part 4605.7500.

For purposes of this investigation, the Commissioner of Health has authorized staff in the Infectious Disease Epidemiology, Prevention, and Control Division (IDEPC) of MDH to receive and utilize this data. In accordance with departmental practices policy, the private data collected will only be disseminated within MDH and local public health agencies on a need-to-know basis. In the event of subsequent legal actions, the private data will be protected from discovery under Minn. Stat. Section 144.658.

Thank you for your cooperation in this matter. As soon as you have this information ready, please fax it to **<<Epidemiologist>>** at 651-201-5082. If you have any further questions please give us a call at 651-201-5414.

Sincerely,

**<<Name>>**

Epidemiologist  
Minnesota Department of Health  
625 Robert St. N  
St. Paul, MN 55155  
[www.health.state.mn.us](http://www.health.state.mn.us)

## Resources

### Minnesota Department of Health ([www.health.state.mn.us](http://www.health.state.mn.us))

- [Foodborne Illness \(\[www.health.state.mn.us/divs/idepc/dtopics/foodborne/\]\(http://www.health.state.mn.us/divs/idepc/dtopics/foodborne/\)\)](http://www.health.state.mn.us/divs/idepc/dtopics/foodborne/)
- [Waterborne Illness \(\[www.health.state.mn.us/divs/idepc/dtopics/waterborne/\]\(http://www.health.state.mn.us/divs/idepc/dtopics/waterborne/\)\)](http://www.health.state.mn.us/divs/idepc/dtopics/waterborne/)
- [Zoonotic Diseases: Disease Transmitted from Animals to Humans \(\[www.health.state.mn.us/divs/idepc/dtopics/zoo/\]\(http://www.health.state.mn.us/divs/idepc/dtopics/zoo/\)\)](http://www.health.state.mn.us/divs/idepc/dtopics/zoo/)
- [Licensing: Food, Pools, and Lodging Services \(\[www.health.state.mn.us/divs/eh/food/license/\]\(http://www.health.state.mn.us/divs/eh/food/license/\)\)](http://www.health.state.mn.us/divs/eh/food/license/)

### Centers for Disease Control and Prevention ([www.cdc.gov/ncezid/dfwed/](http://www.cdc.gov/ncezid/dfwed/))

### State and Local Environmental Health Delegated Agencies

- [Licensing Jurisdiction: Food, Pools, and Lodging Services \(\[www.health.state.mn.us/divs/eh/food/license/delegation.html\]\(http://www.health.state.mn.us/divs/eh/food/license/delegation.html\)\)](http://www.health.state.mn.us/divs/eh/food/license/delegation.html)
- [Minnesota State and Local Food, Pools and Lodging Contacts \(\[www.health.state.mn.us/divs/eh/food/license/locals.pdf\]\(http://www.health.state.mn.us/divs/eh/food/license/locals.pdf\)\)](http://www.health.state.mn.us/divs/eh/food/license/locals.pdf)

### Map of Field Services Epidemiologists in Greater Minnesota ([www.health.state.mn.us/divs/idepc/epis.html](http://www.health.state.mn.us/divs/idepc/epis.html))

### Foodborne & Waterborne Illness Hotline

- [Reporting Suspected Foodborne and Waterborne Illness \(\[www.health.state.mn.us/divs/idepc/dtopics/foodborne/reporting.html\]\(http://www.health.state.mn.us/divs/idepc/dtopics/foodborne/reporting.html\)\)](http://www.health.state.mn.us/divs/idepc/dtopics/foodborne/reporting.html)
- Call to report foodborne illness
  - 651-201-5655
- Toll-free statewide
  - 1-877-366-3455
  - 1-877-FOOD ILL
- Email
  - [health.foodill@state.mn.us](mailto:health.foodill@state.mn.us)