DISEASE CONTROL AND ENVIRONMENTAL HEALTH

Food-borne Illness Investigation

Multnomah County Health Department
Communicable Disease Office
426 SW Stark St.* Portland, OR 97204
Phone 503.988.3406 • Fax 503.988.3407

*Environmental Health Office
3653 SE 34th Ave., Portland, Oregon 97202
Phone 503.988.3400 • Fax 503.988.5844
Table of Contents

Policy Statement 2

CHAPTER 1 3

Intake
1. Using the Database

2. Roles and Responsibilities
   o Environmental Health Specialist
   o Communicable Disease Nurse
   o Multnomah County Epidemiologist
   o Oregon Health Services Epidemiologist
   o Department of Agriculture
   o Multnomah County Laboratory
   o Oregon State Public Health Laboratory
   o FDA District Laboratory

CHAPTER 2 8

Investigative Procedures
1. Identifying an Unusual Occurrence
2. Bioterrorism
3. Roles & Responsibilities for FBI Outbreak
4. Investigative Procedures
   o EHS Procedures
   o CD Procedures
5. Waterborne Outbreak

CHAPTER 3 14

Results Reporting
1. Template for Outbreak Report
2. Environmental Health
3. Communicable Disease
4. Media Management

CHAPTER 4 17

Trace Back and Recalls
1. Desired Information for Trace-Back
2. Recalls

CHAPTER 5 20

Planning and Analysis
1. Debrief & Evaluation of FBI Investigation
2. Descriptive Analysis

INDEX

Appendix A: FDA Investigative Guidelines
Appendix B: OHS Investigative Guidelines
Appendix C: FBI Compendium
Appendix D: FBI Rating Form
Appendix E: CD/EH Responsibility Checklist
Appendix F: Food Illness Complaint Flow Chart (Multnomah County)
Appendix G: Communication with ODA Flow Chart
Appendix H: Consumer Complaint Record Form
Appendix I: Outbreak Laboratory Resources
Appendix J: Shellfish Trace-back Algorithm Guidelines
Appendix K: OSPHL Lab Request Forms:
   Virology/Immunology lab request form
   Bacteriology/Parasitology request form
   Microbacteriology lab request form
Appendix L: Instruction for Collecting Stool Specimens for Viral Testing
Appendix M: CDC Vibrio Illness Surveillance Report
Appendix N: OHS Food-borne Illness Outbreak Summary Report
Appendix O: Agency Contact Phone List
Appendix P: Initial Field Investigation Form
Appendix Q: Laboratory Chain of Custody

September 15, 2006
Policy Statement

Multnomah County Health Department will respond in a timely manner (within 24 hours) to a food borne outbreak with origins in Multnomah County by utilizing the existing relationships between Communicable Disease and Environmental Health departments, and with the Oregon Department of Agriculture as appropriate. The food-borne illness complaint may originate from the public, medical community, governmental agencies, or other entities. The County response uses protocols outlined by Oregon Health Services Investigative Guidelines-Food-borne Disease Outbreaks and the environmental assessments of the involved food facilities. Roles and responsibilities are defined to avoid duplication and loss of efficiencies. Support services (laboratory, other agencies) are available to assist in the investigation. Oregon Health Services may assist in the epidemiological analysis of data. A Multnomah County final report is created that attempts to identify the cause (or probable cause) of the outbreak. An internal review of the investigational process by the participating investigators will be used to improve future outbreak responses.

Please refer to Appendix A for Standard No. 5, or go online at http://www.cfsan.fda.gov/~dms/ret-std5.html
Intake

Database utility and Roles and Responsibilities of agencies involved in a Food-borne Illness (FBI) investigation.

Food borne illness complaints reported to Multnomah County will be routed to the Environmental Health Specialist (EHS) of the day for initial assessment. The EHS will assess the complaint and collaborate with other agencies if an investigation into the complaint is needed. This section discusses using the database for intake analysis of complaints. Roles and responsibilities of various agencies involved in an investigation will be identified to clarify and enlist appropriate personnel resources. Refer to Appendix O or phone numbers of various agency contacts.

A food borne illness Microsoft Access database, developed in 2002, is used and shared by Multnomah County Communicable Disease (CD) and Environmental Health (EH) teams to enhance food-borne illness (FBI) investigations. Team members and investigators are expected to learn and use the database. The Environmental Health Specialist (EHS) of the day will document and score FBI complaints using the database. Communicable Disease investigators will use the database for decision-making during the investigative process.

Multnomah County Environmental Health Specialist of the Day

Multnomah County Environmental Health Office (EH) has a team to conduct FBI investigations. This FBI team is lead by an EHS/CD Specialist. The EHS’ role is to triage FBI complaints and refer them to appropriate agencies, including district EHS, CD, Oregon Department of Agriculture (ODA), Oregon Health Services, and other agencies.
Multnomah County Communicable Disease Nurse of the Day

If CD nurses receive the initial reports of FBI, they will refer the caller to the EHS of the day for initial assessment. All CD nurses share responsibility for leading and conducting FBI investigations. The nurses’ role is to follow-up on FBI complaints referred by the EHS. If an outbreak is identified, CD nurse will contact ODA, if indicated, and OHS. The CD nurse coordinates the investigation with all agency partners.

Multnomah County Epidemiologist

The Multnomah County Epidemiologist (MCE) supports the CD/EH teamwork to identify and ameliorate illness sequelae. Supports can be, but are not limited to, consultation, statistical analysis, guidance, and strategic planning in complicated outbreaks. The MCE may function as primary liaison to County Health Officer and State Epidemiologists to allow efficient work flow.

Oregon Health Services (OHS) Epidemiologist of the Day:

Each day one of the epidemiologists is assigned as the Epidemiologist of the Day. Typically he or she will be on call at most once in a week, although there may be informal swaps and short-term coverage by another epidemiologist. The state Acute and Communicable Disease (ACD) receptionist will know who is on call. Duties of the OHS Epidemiologist of the Day include:

- Take all general communicable disease calls, including food borne outbreaks.

- Epidemiologist (Epi) may refer the call to another team member for more difficult situations or if their schedule suggests a conflict. This may be accomplished by the Epi conferencing with another and getting back to the caller or by having the caller talk to the other OHS member directly.

- For outbreaks or situations that cannot be resolved in one day, by default, the Epi who initially receives the call will remain the contact person until the outbreak or situation is resolved. If there is change in the OHS Epi point of contact, OHS will notify County investigators of the change. The original OHS Epi will share outbreak information and progress with the new Epi.
- Epi of the Day has the option to hand off outbreak to “Urgent Epi Response Team” (UERT) member, who would handle the outbreak for the duration. UERT person is available Monday through Friday.

- Unusual situations or situations of concern will be shared/reviewed at OHS Wrap Up, which is a daily get-together of epidemiology staff starting at 4PM and lasting 5-30 minutes.

- If the Epi point of contact for the outbreak is unavailable, the OHS receptionist will request someone else to respond immediately.

- OHS will contact and/or inform other counties or states as appropriate.

**Oregon Department of Agriculture (ODA)**

The ODA’s role is to provide an analysis of the safety of their licensed facilities and to assist in trace-back, testing, and other food-related investigation activities. ODA will investigate implicated food products and personnel in ODA facilities, including grocery stores, meat markets, warehouses, bakeries, food processors, dairies, and street-side venues (fish, seafood, produce stands). ODA will report meat, poultry and egg products to the United States Department of Agriculture—Food Safety and Inspection Service (USDA-FSIS) for investigation. ODA can provide shellfish testing if a food illness is suspected due to shellfish consumption.

**Complaints without suspect illness:**
Complaints involving ODA-licensed facilities should be sent electronically to ODA Central office in Salem within one business day, or the complainant can be directed to ODA Central Office. Send the ODA Consumer Complaint Form as outlined in Chapter 2: Investigative Procedures. ODA management will determine how the complaint is handled. This does not preclude the involvement of CD or EHS; however, ODA will determine which agencies will be involved.

**Illness Complaints:**

Please see Chapter 2: Investigative Procedures for response guidelines to an FBI outbreak. Complaints of illness received by ODA will be referred to the local health department for investigation. ODA will phone or fax the following information within one business day:

- Name and phone number of the complainant (if known)

- Synopsis of illness complaint, including: Signs and symptoms, date of onset, duration

- Names of others reported to be ill
ODA field services staff will conduct on-site evaluation of the facility and will provide feedback to Multnomah County CD/EH on the results of their evaluation. Multnomah County remains the lead investigator of FBI outbreaks. (ODA is not expected to perform epidemiological investigation of potential food borne illness involving an ODA-licensed facility).

**Multnomah County Laboratory**

Multnomah County lab can assist the FBI investigation by performing bacteria and parasite testing. Viral testing will be done by OSPHL. The County lab point of contact is the lab manager. If this person is not available, ask for bacteriology.

The lab appreciates a “heads up,” even a “might” warning of incoming specimens, in order to prepare media, order lab kits, and allocate staff. They can generally handle 10 to 20 outbreak samples with supplies on hand.

If many specimens need testing (more than 8-10) consider setting up log sheets instead of separate lab slips. The County Lab will help do this.

If lab staffs need to go out to a site because of a large volume of samples, this can be arranged, even on weekends, as long as there is ample time to prepare.

Lab slips and specimen kits are available in the McCoy Building 10th floor lab. CD or EHS staff can pick them up as needed. Food sampling kits are also kept in the County lab and the EH office.

**Oregon State Public Health Laboratory**

The OSPHL can assist in an FBI investigation by testing human and food specimens. All outbreak sample/specimen testing must have the approval of the OHS Epidemiologist. The purpose is to ensure appropriate samples are collected and the lab is given as much notice as possible of incoming specimens.

The Quick Reference Guide, at [http://www.dhs.state.or.us/publichealth/phl/quikref.pdf](http://www.dhs.state.or.us/publichealth/phl/quikref.pdf), arranged alphabetically by organism, provides information about the types of tests available at the OSPHL, specimen requirements, request forms, fees, and turn-around times.

OSPHL lab request forms (Virology/Immunology, Bacteriology/Parasitology, & Microbacteriology Examination) are in Appendix K.

- Virology/Immunology lab request form
- Bacteriology/Parasitology request form
- Microbacteriology lab request form
Food Testing. The Oregon State Public Health Laboratory (OSPHL) intends to expand its limited capacity in this area, but at present food testing is difficult, expensive, and can be unproductive. Always consult with OHS staff about the need for and availability of food testing. They may need to apply for outside resources (e.g., FDA, Washington State) if circumstances warrant. *Oregon Department of Agriculture will provide shellfish testing if a food illness is suspected due to shellfish consumption.*

Chain of Custody: Chain of Custody procedures are found in *Appendix Q.*

Food and Drug Administration (FDA) District Laboratory

The FDA Seattle District Lab is available for testing of products that fall under FDA jurisdiction (i.e. any food in interstate commerce that is not meat or poultry). This lab is not able to assist with strictly retail-related outbreaks.
Identification and investigating unusual occurrences (outbreaks) of food-borne illnesses; Multnomah County Environmental Health and Communicable Disease investigative procedures

O determine whether a complaint of illness relates to foods eaten and warrants a public health response, the State’s FBI compendium of acute food-borne diseases is used to score the magnitude of the situation (Appendix C, or online at http://egov.oregon.gov/DHS/ph/acd/reporting/guideln/compend.pdf).

In general, a rating score of 6 or more involving 2 or more ill persons in separate households defines an unusual FBI occurrence requiring Communicable Disease response. The FBI Database expedites the identification of an outbreak by allowing immediate access to the compendium and rating of FBI complaints automatically. (See Appendix D for the FBI rating form).

**Note**

**Bioterrorism.** If the illness is determined to be an intentional and not naturally occurring event, such as bioterrorism or tampering, the County public health response may not follow the procedures for a naturally occurring event. The public health investigation will proceed in conjunction with the criminal investigation, and the Incident Command System may be activated. The first action in these intentional situations is to NOTIFY EH/CD MANAGERS AND THE COUNTY HEALTH OFFICER (or THE INCIDENT COMMANDER). Follow the Incident Command and refer to the County bioterrorism and emergency response plans for appropriate actions.

When an identified food-borne outbreak involves a Multnomah County food service facility or event, Multnomah County EHS will work in collaboration with
CD nurses. Food service facilities in Multnomah County may include those that are inspected or not-inspected and/or licensed by EH. These may include restaurants, schools, jails, nursing homes, residential care facilities, assisted living facilities, adult foster homes, child-care facilities, and other food events that require a public health response.

Environmental Health does not investigate ODA-licensed facilities such as grocery stores, meat markets, warehouses, bakeries, food processors, dairies, and street-side venues (fish, seafood, produce stands) if an ODA food product /employee is implicated. CD and ODA will coordinate the investigation. EH will provide assistance as requested.

For each cluster/outbreak, CD and EH staff will clarify expectations, responsibilities, and assignments of each team to improve communication flow and work process. See Appendix E for responsibility check list for CD and EH staff. Note communication flow diagrams for FBI involving Multnomah County facilities and ODA facilities in Appendix F and Appendix G, respectively. The next two sections detail investigative operating procedures for the EHS and CD nurse. Investigation support from other agencies such as OHS and ODA is also discussed in the guidelines.

In addition to specific EH and CD procedures, investigators shall refer to the Oregon Health Services Investigative Guidelines-Food-borne Disease Outbreaks (Appendix B) for further State guidelines. The latest State guidelines can be retrieved from OHS website at http://egov.oregon.gov/DHS/ph/acid/reporting/guideln/guideln.shtml

Investigative Procedures: EHS

If the consumer complaint involves an Oregon Department of Agriculture facility (relating to product, facility sanitation, and/or employee issues) without involving a suspect illness:

- Complete the Consumer Complaint Record form (Appendix H). Create an EH file number for the specific complaint
- Send the file electronically to ODA.
- Print a copy of the complaint for EH office file
OUTBREAK:

If the consumer complaint involves a suspect illness: Record the complaint in the FBI Database and follow the EHS food illness complaint diagram (Appendix F).

If the FBI complaint involves a Multnomah County facility and scores six or greater:

**Communicating with CD**

Recommended responses by EH staff include but are not limited to the following:

- Immediately contact the CD nurse of the day after initial assessment of the call or referral based upon the existing scoring criteria. Generally, group associated events or other clusters involving the facility within an identified time frame.

- Inform the EHS supervisor or (program manager if not available). Inform EHS-CD Lead.

- Develop a strategy with CD involving the roles and responsibilities of each team that will assist in the initial stages of the investigation. (CD nurse will provide case management of the investigation). Laboratory support, sample collection strategies, point of contact for information gathering and other tools to assist in the investigation will be defined.

- Onsite investigation visit (s) *(not inspection)* is made of the facility. This process includes, but is not limited to meeting with the facility person in charge and others who will have knowledge of the event, the food production flow, the complete menu of food items served, the numbers of event meals served, other contacts of the group if available or other non event groups with similar menus, any other information received indicating illnesses of patrons or staff members involved in the event. See Initial Field Investigation Form *Appendix P.*

- Always take food samples, if possible. If available, collect and send to the county laboratory (or other designated laboratory as developed by initial strategy). Appropriate storage is critical. Advise the facility not to serve any remaining portions until advised by the health department as to the disposition of the portions.

- Establish a point of contact with the facility and coordinate information sharing with CD. This will minimize duplication of investigative information sharing.

- The EH point of contact will coordinate and update information sharing with the CD point of contact.
• Human sample collections (if needed) will be coordinated through EH and CD lead investigators (points of contact).

If the FBI complaint involves an ODA/USDA facility and scores six or greater, the EHS of the day will contact CD.

**Communicating with ODA (CD role)**

• Alert ODA as soon as possible

• A response plan similar to EH’s will be developed between CD and ODA

**Investigative Procedures: CD Nurse**

If an FBI complaint is called into the CD office, transfer the call to the EHS of the day immediately for evaluation of the complaint. Once EH refers an FBI outbreak to CD, the back-up nurse of the day will either lead the investigation or, if unable, refer to another nurse.

Recommended responses by CD lead nurse investigator include but are not limited to the following:

• Develop a strategy with EH to determine role and responsibilities to assist in the investigation, such as who will and when to collect and pick up sample specimens. Use the CD/EH Responsibility Checklist as a guide (*Appendix E*).

• Review EH’s initial report in the shared FBI Database.

• Investigate according to OHS guidelines

• Alert the Health Officer, County Epidemiologist, and Oregon Health Services Epidemiologist of the day.

• If the facility is ODA’s, such as grocery stores, meat markets, warehouses, bakeries, food processors, dairies, and street-side venues (fish, seafood, produce stands), contact the appointed ODA personnel (*see communication flowchart in Appendix G*). This notification should be called and faxed to ODA and should include:
  
  o The implicated facility and food item(s) including any descriptive information on the food item such as packaging, size, codes, expiration dates, use-by-dates, etc.

  o A plausible association between the facility and associated illness
• Dates of consumption, preparation, and/or expiration of the implicated food item(s)

• Signs, symptoms, incubation period, and pathogen suspected

• EH will obtain complete menu of foods served if a non-ODA facility is implicated. ODA will obtain a complete menu of foods for their facilities. CD nurse team will develop a questionnaire using the CD FBI Database and in consultation with the County Epidemiologist:

• Food Testing:

  - The EHS will obtain food samples as indicated.

  - **Food testing to be sent to OSPHL must be approved by OHS.** The OSPHL may request testing approval from the OHS Epidemiologist. Approval may be obtained when Multnomah County CD epidemiologist calls to alert the OHS Epi of the possibility of an outbreak.

  - As of July 2002: **Very limited routine food sample testing** capacity exists in Oregon. Exceptions to this may be *C. perfringens* and *C. botulinum*.

  - Although test capacity is low, it is often a good idea to collect appropriate food samples at the outset, as they may prove to be very useful, and it is too late to get them after they are discarded. Specimens should be collected and held, but recognize that the decision about whether and how to test them may not be made for some time—and that the answer will often be to not test.

  - Accordingly, DO NOT promise testing: Tell the parties involved that decisions to test will be made after more information from the investigation is available and only after consultation with OHS. Once agreement on testing is finalized between Multnomah County CD and OHS, changes in testing or strategies will not occur without a discussion involving both parties.

• Using the developed questionnaire, nurses (some or all) will immediately contact the complainant(s) to confirm illness. Determine the case definitions, symptoms, time of onset, duration, and severity of illness by doing an EPI investigation. (Call a significant sampling of the ill to decide how to set up the interview questionnaire). Complete all case interviews of both the ill and well.

• Decide on a probable cause.
• Select needed laboratory tests.
  
  o Instructions for collection of stool specimens for viral isolation and PCR can be found online at http://egov.oregon.gov/DHS/ph/gm/entbac.shtml or in Appendix L.
  
  o Obtain enough stool samples to yield 4-6 positive tests depending on the size of the outbreak. Don’t forget that testing is often useful even if people have recovered from their symptoms. Norwalk virus, for example, can often be identified even 4–5 days or more after resolution of symptoms.
  
  o OSPHL lab request forms (Virology/Immunology, Bacteriology/Parasitology, & Microbacteriology Examination) are in Appendix K:

    Virology/Immunology lab request form
    Bacteriology/Parasitology request form
    Microbacteriology lab request form

• Have a state outbreak number assigned (given by the OHS Epi). Set up an agreement with the ill to get appropriate samples (stool or vomit).

• Use the CD Database for data entry and analysis by staff or OHS.

• Share data results with all partners of the outbreak team and finalize a determination of cause of outbreak.

---

**Note**

**Waterborne Outbreak.** Multnomah County CD and EH will respond to waterborne outbreaks or suspected outbreaks in an investigative process similar to the existing food-borne outbreak model (notification of EH/CD Lead, CD, OHS). If a call is received by EH, a referral is made directly to CD to initiate a planned response. Similarly, if CD receives a call, EH may be asked to assist in the investigation. Roles are identified to provide an efficient process in the investigation. CD/Epidemiologist will create a case definition. Assessments by EH and CD will be compiled in a final report. A debrief of the event will conclude the formal investigation.

Results Reporting: Writing and Sharing Final Report

Identifying roles and responsibilities; writing and sharing final report; media management

Information sharing with the facility or event will be discreet until a hypothesis or confirmation of the likely cause is determined. EH will write a summary of the environmental investigation based upon information gathered during the investigation including CD’s data. Summary will be sent to CD. A final summation may be sent to the facility. The lead CD nurse will create a final report using the template report. The report will be sent to EH, OHS, and ODA if that agency participated in the investigation. The state epidemiologist (OHS) is responsible for forwarding the final report to the CDC.

Environmental Health Specialist

During the course of the investigation, several records of observations may be created (Food illness complaint form, onsite visit assessments, communication with CD and the facility, etc). When the investigation phase is nearing completion, a written narrative is completed to assist in the final debrief of the event with CD. CD may include the EH narrative in their final report of the investigation. The following guidance in narrative writing is offered to include the event’s historical perspective and the possible causal identification of the outbreak. Writer’s creativity in the narrative is encouraged following the guidance template. Using the standard questions of who, what, when, and where is a start in the narrative process.

- What/When was the initial inquiry that led to an outbreak investigation? (Describe intake call; date/time of call and by whom- the name of individual (s) is omitted. Include the referral date/time to CD.)
• Describe the planning (brief description, “EH and CD met or communicated to decide roles and responsibilities. EH was to perform an onsite assessment and obtain a menu of items served, etc.”).

• Describe onsite assessment of facility, identifying contacts and possibly creating a production flow diagram. A subsequent visit(s) may need to be made to provide additional information as the investigation progresses. Document time and record observations of the assessment and contacts (“management, staff position, etc”). Remember, an assessment is not to be construed as a formal inspection but rather a fact-finding process in the investigation. Prudent communication tools may be effective in interacting with the facility management. A final report may be released to the facility.

• Include any subsequent laboratory findings of both human and environmental samples in the narrative. If a possible causative factor is hypothesized, include those comments with supportive findings (writer’s creativity). Complete the narrative and send to CD for their review and report.

You will have “working notes” that you will use to create your narrative. These notes are part of the formal investigation and will be included in the confidentiality (names of individuals, medical diagnoses, etc) portions of the investigation. These are not public record documents, but can be subpoenaed. The narrative may be public record.

Communicable


In addition to completing the OHS Outbreak Summary reporting form (Appendix N, or online at http://egov.oregon.gov/DHS/ph/acd/outbreak/obstdrd.pdf, the CD nurse epidemiologist is recommended to use the following template in writing the final CD report:

Background: brief description of the establishment/event/etc

Original Complaint: what brought it to our attention.

Environmental Health Assessment: See attached EH report.

Disease Control Office Actions

Findings: Brief statement of Sanitarian’s findings; interview results; lab results (if any)
Conclusions

The Health Officer will handle Press Releases in coordination with the County Public Affairs Office, Oregon Department of Human Resources, Health Services, or Agriculture as appropriate.

The Disease Control Office Manager or Multnomah County Epidemiologist will handle individual media requests.

In their absence, the nursing team will work with the Health Officer to determine who will handle media contacts/requests.

The Health Officer, Epidemiologist, and/or the Disease Control Manager will work with the County Public Information Officer. Every attempt will be made to assure consistent information is being released.
Chapter 4

Trace back and Recalls

Identify source of food contamination to eliminate further consumption

The purpose of a trace-back investigation is to identify the source(s) of food(s) implicated in a food-borne outbreak and take steps to halt its further distribution. Multnomah County’s (MC) policy is to be knowledgeable of and communicate risk to appropriate agencies for performance of trace-back procedures. In general, MC will obtain desired information for a trace-back and communicate findings to the Oregon Department of Agriculture and Oregon Health Services. The MC Food Program Lead or designee is responsible for coordinating any investigative support and providing requested reports necessary to complete a recall in accordance with the agency coordinating the recall, including effectiveness checks. Refer to Appendix O for phone/email/address of contact agencies. ODA, not MC, will coordinate further investigation with regional and national Food and Drug Administration and Department of Agriculture partners as applicable. The primary agency coordinating trace-back and/or recall is responsible for distributing final report to involved agencies and for forwarding the final report to CDC.


- **Epidemiology evidence**: Suspect etiologic agent, incubation period, onset date of illness, signs and symptoms, other relevant data. Laboratory confirmation of etiologic agent or probable case information. Total number ill, sex, age groups, city, and state.

- **Hazard analysis** to indicate that the product was the likely source of contamination and other causes didn’t contribute to the outbreak.

- **Product Information**: Location of store where product was purchased or restaurants where food was eaten. Origin of restaurant products, such as a warehouse, or a licensed & inspected facility. Name and type of product
(preferably a product label), lot number, shellfish tags, and any other pertinent information. The label will contain all necessary information to do a traceback/traceforward.

- If product was purchased from a supermarket:
  - Obtain purchase information such as like receipts, check book entries. If the consumer belongs to a store savings club, we may try to contact for their product purchase history.
  - Example: Ground Beef. Was it purchased at the supermarket? Need purchase information, receipts, check book entries, store savings club. Was it ground at the supermarket? Need “grind logs.”

### Fish

The FDA is the primary regulatory agency for fishery products, and will be contacted by ODA.

#### Note

**Shellfish Recall.** Contact the ODA Food Safety Division. Refer to *Appendix J for the Shellfish Trace-back Algorithm*. The CDC Vibrio Illness Surveillance Report must also be completed and sent to OHS (*Appendix M*, or online at [http://www.cdc.gov/ncidod/dbmd/outbreak/cholera_vibrio/cholera_vibrio_report.pdf](http://www.cdc.gov/ncidod/dbmd/outbreak/cholera_vibrio/cholera_vibrio_report.pdf)). The following information is necessary to collect in the investigation of a molluscan shellfish related food-borne illness investigation:

Determine how the shellfish was ordered, i.e. shooters, on the half shell, or cooked, and if ordered from a specific bay or harvest area.

Determine how the shellfish was distributed to the restaurant – in the shell, shucked, or unknown.

Determine the source. Determine which shellfish tags go with the suspect product(s) and make copies of them. If tags are not available, copy the invoice.

Investigate and document shellfish handling. What was the temperature of the shellfish during shipping, receiving and storage?
Determine how many meals were consumed with the suspect product including staff of the facility.

Obtain samples if available (leftover same or similar product and transport in insulated chilled containers (ice, freeze gel packs, etc.)

Meat, Poultry, and Eggs

**USDA-FSIS** (US Department of Agriculture—Food Safety and Inspection Services) is responsible for the investigation of meat, poultry and egg products. ODA will contact USDA.
Planning and Analysis

Evaluation of outbreak; trend analysis

The purpose of evaluating an outbreak is to improve future responses. Trend analysis serves the public health function of disease surveillance. The goal is to continually improve strategies in ameliorating, containing, and/or eliminating specific food-borne diseases.

Scheduling Debrief

The CD lead investigator will call the meeting when the investigation is completed or nearly completed.

Attendees: Health Officer, CD RN - investigation lead, other CD RNs as available, EH Specialist - investigation lead, other EH as appropriate, CD Manager, MC Epidemiologist, EH Manager as appropriate.

If facility licensed by Oregon Dept of Ag: An ODA Sanitarian will replace EH Specialists as appropriate.

Desired Outcomes:

- Discussion of all relevant data
- Discussion/agreement as to what caused the outbreak
- Discussion/agreement re: any more information, data or analysis needed?
- Discuss/ agreement re: Conclusions of investigation
- Discussion/ agreement re: completing the report
• Completion of OHS FBI report and written summary
• Evaluate investigation process

**Agenda**

**Review of all data from investigation:**

- **Background:**
  - Brief description of the establishment/event/etc

- **Original Complaint:**
  - What brought it to our attention?

- **Disease Control Office Actions:**

- **Findings:**
  - Environmental Health Specialist’s (or ODA) findings
  - Interview results
  - Lab results (if any)

- **Discussion**

- **Conclusions:**

**Evaluation**

**Review process of investigation:**

- What worked well?

- Areas for improvement?

- Assessment of investigation “tools”

- Recommendations to CD/EH FBI Committee (if any)
An annual review of the data in the log or data base and the illness or injury investigations is conducted to identify the trends and possible contributing factors that are most likely to cause illness or injury. The review focuses on, but is not limited to:

- Multiple complaints on the same establishment;
- Multiple complaints on the same establishment type;
- Multiple complaints implicating the same food;
- Multiple complaints involving food preparation processes;
- Number of laboratory-confirmed, food-related outbreaks;
- Number of non-laboratory-confirmed food-related outbreaks;
- Contributing factors most often identified.