FOODBORNE DISEASE OUTBREAKS

See also **GASTROENTERITIS, VIRAL (Outbreaks)** and **GASTROENTERITIS, VIRAL (Outbreaks Long-Term Healthcare Settings)**

1. **Agent**: "Foodborne disease" is a generic term applied to illness of acute onset, usually gastrointestinal in nature, and acquired through consumption of contaminated food. A variety of agents can cause foodborne disease, including bacteria, viruses, and parasites. The term also applies to intoxications caused by chemical contaminants; toxins produced by bacterial growth (e.g., botulinal, or staphylococcal toxins) and a variety of organic substances that may be present in foods such as certain mushrooms, oysters, mussels and other seafood.

2. **Identification:**

   a. **Symptoms**: Symptoms vary by etiologic agent. They may include nausea, vomiting, diarrhea, cramps, fever, and headache. Precise clinical history is important in the identification of suspect etiologies.

   b. **Differential Diagnosis**: Other known routes of transmission for particular etiologic agents. See Appendix B, Guidelines for Confirmation of Foodborne-Disease Outbreaks.

   c. **Diagnosis**: Based on the clinical history of patients and laboratory results from patient and/or suspected food items.

   d. Many etiologic agents of disease can potentially be transmitted by food. For disease-specific information, refer to the individual disease sections.

REPORTING PROCEDURES

1. Reportable, *California Code of Regulations,* Section 2500.

2. Immediate telephone report of case or suspect case is required to:

   a. Morbidity Unit during working hours; or

   b. Chiefs, Wholesale Food and Safety Inspector and ACDC (or their representatives). After working hours contact via the County Operator.

3. CMR 14 assigns an episode number.

4. **Report Form**: Depends on route of transmission as determined by investigation

   INVESTIGATION OF A FOODBORNE OUTBREAK (CDC 52.13)

   WATERBORNE DISEASES OUTBREAK REPORT (CDC 52.12)

   OUTBREAK / UNUSUAL DISEASE REPORT (DHS 8554)

   If the etiologic agent of infection is reportable as an individual case, **separate epidemiologic forms must be filed for each case**, in addition to the outbreak summary report.

5. **Epidemiologic Data:**

   a. History of food items eaten during the suspect incubation period; location where food was consumed.

   b. Listing of **all individuals** with opportunity to consume suspect food items. Obtain individual food and illness histories.

   c. **For ill individuals**: symptoms, onset date and hour, duration, medical treatment, and laboratory tests performed.

   d. **For suspected food(s)**: source, date, and hour of purchase, time consumed, method of preparation, holding temperature, potential for cross contamination and availability of sample(s).

   e. **Secondary Transmission**: obtain information regarding illness in the non-food consuming contacts to ill individuals. Account for leftovers taken from the principle outbreak location.

CONTROL OF CASE, CONTACTS & CARRIERS

Botulism investigation must be initiated immediately upon notification (see **BOTULISM**). When no specific agent is known or suspected to be involved, investigate within one day of report or within 3 days if episode is reported late.

Follow-up, isolation, restriction, and release of case, contacts, and/or carriers as for specific disease known or suspected to be involved in foodborne disease episode (amebiasis, hepatitis A, salmonellosis, shigellosis, trichinosis, typhoid, etc.)

1. **Chief, Wholesale Food and Safety Program**

   a. Investigates and clarifies the original account of episode.

   b. Determines the course of field investigation to be made, including source of food, methods of food handling, preparation, and storage.

   c. Collects relevant food specimens. The Chief, Wholesale Food and Safety, determines the relevance of food specimens under the direction of Chief, ACDC.

   d. Maintains written reports of Wholesale Food and Safety Registered Environmental Health Specialists investigations.

2. **Chief, Acute Communicable Disease Control**

   a. Coordinates investigation and control of large outbreaks, multi-area episodes and episodes occurring outside working hours.

   b. Notifies involved district and Chief, Food and Milk Program, of pertinent epidemiologic findings.

3. **Area Health Officer (AHO)** has ultimate authority and responsibility to investigate and control individual cases of foodborne illness or a known hazardous condition in involved district.

PREVENTION-EDUCATION

1. Obtain food from safe sources.

2. Handle, prepare, and store foods properly. Store foods at an appropriate temperature (below 41°F or above 140°F).

3. Avoid cross contamination.

4. Use good personal hygiene. Wash hands after using the bathroom, changing diapers, and before preparing food.

5. Can foods according to recommendations of the State Department of Agriculture.

DIAGNOSTIC PROCEDURES

Submit clinical specimens as requested by AHO or Chief, ACDC.

Food Samples: Unless emergency exists, only a Wholesale Food and Safety Inspector accepts or collects food specimens. If a food specimen is brought to district, obtain information necessary for completion of **SUSPECTED FOOD-BORNE ILLNESS REPORT (web reporting)** and instruct complainant to refrigerate sample (in such a way that it will not be consumed by others) and await evaluation by a Wholesale Food and Safety Inspector. When it is necessary to take the specimen away from complainant, an **ENVIRONMENTAL HEALTH CHAIN OF CUSTODY** form must be completed.

Container: Original or clean, covered container.

Laboratory Form: **PUBLIC HEALTH LABORATORY TEST REQUISITION FORM (H3021)**. Identify with foodborne poisoning episode number or outbreak number. Provide laboratory with a brief summary of pertinent facts about the episode. For food specimen testing, check the 'other' box. When testing for Norovirus in an outbreak situation, complete a **NOROVIRUS OUTBREAK SPECIMEN SUBMITTAL FORM**.

Material: Suspected food (state type of food).

Examination Requested: Indicate suspected organisms.

Storage: Keep specimen at temperature appropriate for suspect organism. Contact ACDC or the Public Health Laboratory for information on storage temperature.