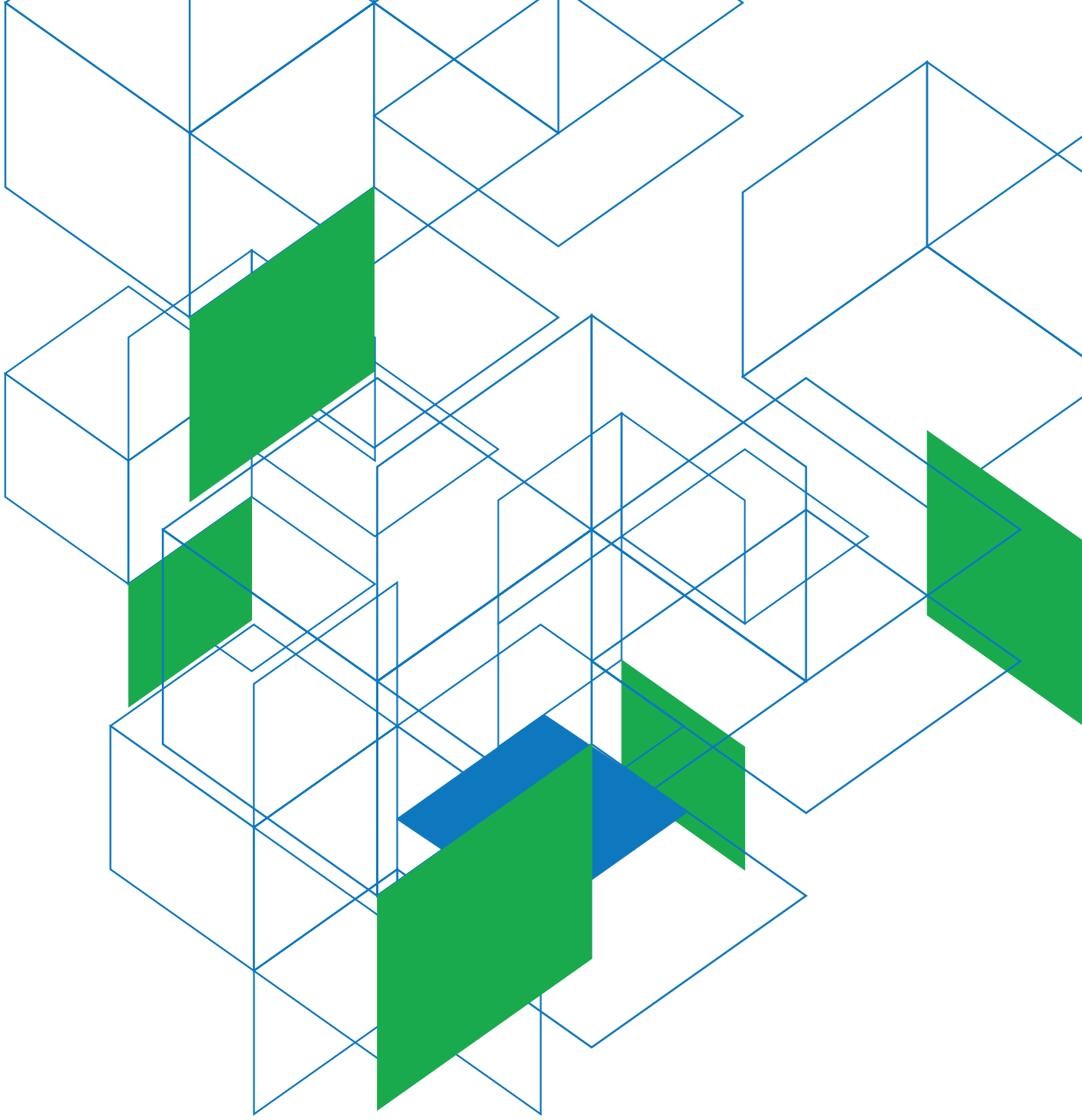

ABRIDGED VERSION

CIFOR GUIDELINES FOR FOODBORNE ILLNESS COMPLAINT SYSTEMS

CIFOR
Council to Improve Foodborne Outbreak Response

Detect • Investigate • Control • Prevent

CIFOR Guidelines for Foodborne Illness Complaint Systems

Consumer complaint systems are an effective surveillance tool for detection of a variety of food-related incidents; in particular foodborne illnesses caused by various agents, including reportable pathogens. The purpose of foodborne illness complaint systems is to "receive, triage, and respond to reports from the community about possible foodborne disease events to conduct prevention and control activities."(1) The usefulness of consumer complaint systems to identify outbreaks is based either on 1) the ability of groups with a common exposure to self-identify illness and link it to the exposure, or 2) the ability of the complaint system to independently link multiple independent complaints to a common source.

All complaints require some level of follow-up. If a call is received by telephone, the complainant should be given some expectation for what follow-up is likely. If the complaint is received by text, email, or on-line reporting system, the complainant should receive notification that the complaint was received.

Complaints received by telephone should be documented with a standard intake form to record complainant information. For example, a model foodborne illness complaint form was developed by the EHSNET program (2). Complaints received through other formats warrant follow-up to fully document the complaint. Questions should cover identifying information for the caller, detailed illness information (including exact time of symptom onset and recovery), suspected food product or establishment, names and contact information for the complainant and other members of the dining party (if applicable), and all potentially relevant non-foodborne exposures.

When illness is limited to a single person or members of a single household, a 3-day food history should be obtained, focused on meals eaten outside of the home. Only 1 in 5 complaints with a known etiology is caused by an agent with an incubation period <24 hours, and people often identify an incorrect exposure as the cause of their illness (e.g., last thing they ate) (3). When illness is reported among members of multiple households, information should be taken only for meals in common to members of the different households. Staff should attempt to contact and interview ill meal companions reported by the original caller about symptoms and food consumption. All information collected should be entered into the complaint database.

Most foodborne illness complaint systems are managed by the Environmental Health staff at LHDs that also license and inspect restaurants and other food service establishments. This has the immediate benefit of linking the complaint to the official most likely to be aware of conditions at the establishment that may require additional assessment or intervention. If the complaint is taken by the environmental health staff responsible for inspecting the food establishments that the caller mentions, they should evaluate the complaint considering the likelihood of a foodborne illness or outbreak, review the inspection history of the establishment, contact the establishment's manager, and determine the value of conducting an environmental assessment. If the complaint is received by communicable disease surveillance staff, the complaint information should be immediately (via fax or electronically) shared with the responsible environmental health staff.

Complaints involving multiple households, instances of multiple independent complaints about the same food establishment, reports of clusters of illness, and complaints involving multiple people in the same household that suggest an exposure outside the home, should be reported to and evaluated by supervisory staff as the complaints are received. The supervisor, or outbreak response team should evaluate the need to initiate an outbreak investigation based on the number of reported ill persons, reported symptoms and incubations from exposures of interest, whether or not illness was reported in multiple households, the presence/absence of other shared exposures, and whether other independent complaints were received.

To complement the review of individual complaints and patterns of complaints detected through the foodborne illness complaint system, communicable disease surveillance staff should conduct standard interviews for foodborne illness cases detected through pathogen-specific surveillance (e.g., *Salmonella* and Shiga toxin–producing E. coli). All food establishments that affected persons reported eating at within the 7 days prior to illness onset should be entered into the complaint database. As new information is added, the complaint system supervisor should examine a list of restaurants or other food establishments from both foodborne illness complaint and pathogen-specific surveillance streams to search for common establishments.

Linkage between complaint data and results of pathogen-specific surveillance are much easier to accomplish if complaint systems are centralized at the same jurisdictional level as pathogen-specific disease surveillance. This may occur at the level of the LHD, or between individual City-based Environmental Health staff and County-based communicable disease program, or at the state level. Such a shared/centralized system should enhance the ability of agencies to detect and respond to possible foodborne outbreaks, but should not prevent any participating jurisdiction from fulfilling whatever role is required by law or is determined to be necessary to protect health in the jurisdiction's area.

When multiple LHDs serve a larger metropolitan area, they should aggregate data to allow complaints to be cross-referenced across agencies to identify a common food establishment, food source or event. City- or county-specific complaint systems are more likely to fail to recognize independent complaints that name the same food source, if the complaints are made to different city/county health departments.

All jurisdictions should have a process to ensure that complaints not under their jurisdiction are forwarded to the proper authority. This includes forwarding complaints between LHDs, from LHDs to state Departments of Agriculture or Health, and from LHDs and state agencies to FSIS for meat, poultry and egg product-related complaints or to FDA for complaints related to other food items in interstate commerce.

REFERENCES:

1. Council to Improve Foodborne Outbreak Response (CIFOR). Guidelines for Foodborne Disease Outbreak Response. 2nd edition. Atlanta: Council of State and Territorial Epidemiologists; 2014.
2. Environmental Health Specialists Network (EHS-NET). Consumer Foodborne Illness Complaint Form. Accessed at: https://www.cdc.gov/nceh/ehs/ehsnet/docs/ehs-net_foodborne_illness_complaint_form.pdf
3. Li J, Shah GS, Hedberg C. Complaint-based surveillance for foodborne illness in the United States: a survey of local health departments. J Food Protection 2011; 74:432-437.

CIFOR Guidelines for Foodborne Illness Complaint Systems: Table of Activities and Operational Guidelines

ACTIVITY	OPERATIONAL GUIDELINES
Soliciting and receiving reports	

• Agency/jurisdiction has an established process for receiving reports about possible foodborne illness(es) from the public.	• Identify how the complaint system links with other surveillance programs (i.e., pathogen-based, poison control, school-based, syndromic surveillance).
	• Develop written policies to clearly describe how the system will work:
	  • Complaints received by telephone should be documented with a standard intake form to record complainant information (https://www.cdc.gov/nceh/ehs/ehsnet/docs/ehs-net_foodborne_illness_complaint_form.pdf). Complaints received through other formats warrant follow-up to fully document the complaint.
	  • All information collected should be entered into the complaint database.
	  • If a call is received by telephone, the complainant should be given some expectation for what follow-up is likely. If the complaint is received by text, email, or on-line reporting system, the complainant should receive notification that the complaint was received.
	  • The agency should refer complaints to other jurisdictions (local, state, or federal) as needed.

• Public knows how to report possible foodborne illnesses to the agency/jurisdiction.	• Use one 24/7 toll-free telephone number and one website address that can be easily remembered or found in the telephone directory or by using an internet search engine. • Advertise toll-free number on agency website, through social media outlets and through distribution of brochures at a variety of venues, including community events, health fairs, and health care provider conferences. Mail larger poster versions to emergency rooms and family practice and pediatric clinics within jurisdiction.

ACTIVITY	OPERATIONAL GUIDELINES
Soliciting and receiving reports	
• Agency/jurisdiction solicits reports of possible foodborne illness from other agencies and organizations likely to receive these reports (e.g., poison control center, industry) inside and outside the jurisdiction.	• Agency/jurisdiction Food Safety programs should enroll in FDA Retail Program Standards and achieve Standard 5. • Define roles for state and local health departments, and epidemiology and environmental health components of each. Ensure that complaint information is made available to all participating agencies. • Identify agencies, organizations, businesses and health care facilities that receive possible foodborne illness complaints, ensure that they have current contact information for reporting complaints, and that the program has contact information of relevant staff at these partner agencies. • Communicate with agencies as needed to respond to foodborne illness complaints and at least distribute annual complaint summaries to them. • Train food managers and workers about the importance of reporting illnesses among workers or customers and food code requirements for disease reporting.
• Agency/jurisdiction works with the local media to solicit reports of possible foodborne illness from the public.	• Routinely distribute press releases about food safety that include the telephone number or website address for reporting to encourage reporting by the public. • Respond to inquiries from news media regarding foodborne illness events and provide reminders about the importance of foodborne illness reporting.

ACTIVITY	OPERATIONAL GUIDELINES
Detection of clusters/outbreaks	
• Staff collects specific information about each possible foodborne illness report and records the information in an electronic data system.	• Use a standard process to collect information from individuals reporting a possible foodborne illness, including use of a standard interview form that solicits information on both food and nonfood exposures (https://www.cdc.gov/nceh/ehs/ehsnet/docs/ehs-net_foodborne_illness_complaint_form.pdf). • Collect as much information as possible during the initial report. Get details about symptoms, onset date and time, and recovery date and time. These are needed to determine the likely etiology and determine which food establishment (if any) was the most likely source of illness. Food histories and other exposures are critical to detecting clusters. • Enter complaint information into an electronic database to facilitate examination of reports for exposure clustering, trends, or commonalities. A database with templates for rapid data entry and analysis will streamline the data management process and improve cluster and outbreak identification. • Develop a system for sharing complaint information so all participating agencies can review and evaluate complaints. Experience gained by staff that review and evaluate complaints on a routine basis facilitates efficient, effective outbreak detection and investigation.
• Staff regularly review reports of foodborne illness to identify cases with common characteristics or suspicious exposures that might represent a common source outbreak.	• Set up the reporting process so all reports go through one person or one person routinely reviews all reports to increase the likelihood that patterns among individual complaints will be detected. • As new complaints are received, review previous complaints to recognize multiple persons with a similar illness or a common exposure. • Compare exposure information collected through the complaint system with data from pathogen-specific surveillance, as feasible, to reveal potential connections between cases and increase the likelihood of detecting an outbreak. • When possible, centralize the complaint system at the same level as pathogen-specific disease surveillance to allow all complaints to be reviewed by the same staff to determine the need for further investigation and facilitate a consistent response for the same types of complaints. Cross-reference complaints to identify multiple independent complaints about a food establishment or event. Stand-alone city- or county-specific complaint systems are less likely to recognize independent complaints that name the same food establishment, if the complaints are made to different city/county health departments.

ACTIVITY	OPERATIONAL GUIDELINES
Responding to complaints	
• Staff review, evaluate and respond to complaints based on the likelihood of an outbreak and the risk posed to public health.	If only one person was ill or all ill persons live in the same household: • Collect 3-day food history. Outbreaks are frequently associated with food consumed 2 or 3 days back in the food history, and not at the source that the complainant suspects. If clinical or laboratory evidence is available to suggest a specific agent with a longer incubation period, collect food history for incubation period corresponding to the agent. (https://www.cdc.gov/foodsafety/outbreaks/investigating-outbreaks/confirming_diagnosis.html)
	If a complaint reports ill persons from multiple households: • Collect info only on common meals or environmental exposures (i.e., water). • Collect names and contact information for other ill people reported by the complainant; if they are reluctant to provide this information, ask them to give your telephone # to the ill people to call (and stress the importance of them doing so). Illness information from other ill people is critical in determining if an outbreak actually occurred, the likely etiology, and on which food source an investigation should be focused.

ACTIVITY	OPERATIONAL GUIDELINES
Responding to complaints	

• Staff review, evaluate and respond to complaints based on the likelihood of an outbreak and the risk posed to public health.	Complaint assessment and follow-up:
	• Evaluate the clinical profile of reported illnesses (incubation periods, symptoms, and durations). If symptoms and likely incubation period are consistent with known foodborne illness, and a suspect food source is identified, an environmental assessment should be conducted by a trained environmental health specialist.
	• If the complaint provides evidence of multiple illnesses that warrant the initiation of an outbreak investigation, the appropriate epidemiology and environmental health jurisdictions should be notified, and a conversation between appropriate agencies should take place to plan and initiate the investigation.
	• If an etiology has been confirmed, that information should guide the EH assessment. If the etiology is not confirmed, use the clinical profile of reported illnesses (distribution of incubation periods, symptoms, and durations) to guide the EH assessment.
	  • E.g., short incubation, little or no fever - suggestive of foodborne intoxication, focus on time-temperature abuse.
	  • E.g., norovirus profile, focus on food worker illness, handwashing, and bare-hand contact with ready-to-eat foods.
	• In an outbreak investigation, obtain and test clinical specimens from several members of the ill group. This may identify links to other outbreaks or sporadic cases.
	• If the presumed exposure involves food, collect and store—but do not test—food from the implicated event. Test only after epidemiologic or environmental investigations implicate the food.
	• Store food specimens as appropriate to the sample. Refrigerate perishable food samples but keep foods that are frozen when collected frozen until examined. In general, if perishable food samples cannot be analyzed within 48 hours after receipt, freeze them (–40 to –80o C).

Making changes	
• Agency/jurisdiction has performance indicators related to complaint systems and routinely evaluates its performance in this Focus Area.	• Write an outbreak investigation report summarizing key investigation steps, timeline, and findings for every investigation conducted, and share with all collaborators and relevant stakeholders. • Compile information to measure performance against CIFOR target ranges and enter metric data into C-MET.

CIFOR Guidelines for Foodborne Illness Complaint Systems: Key Elements of Complaint System Operational Guidelines

Key Elements of Complaint System Operational Guidelines

Soliciting and receiving reports

- Complaints received by telephone should be documented with a standard intake form to record complainant information. Complaints received through other formats warrant follow-up to fully document the complaint.
- All information collected should be entered into the complaint database.
- Refer complaints to other jurisdictions (local, state, or federal), as needed.

Detection of clusters/outbreaks

- Collect as much information as possible during the initial report. Get details about symptoms, onset date and time, and recovery date and time. These are needed to determine the likely etiology and determine which establishment (if any) was the most likely source of illness. Food histories and other exposures are critical to detecting clusters.
- Set up the reporting process so all reports go through one person or one person routinely reviews all reports to increase the likelihood that patterns among individual complaints will be detected.
- As new complaints are received, review previous complaints to recognize multiple persons with a similar illness or a common exposure.
- Compare exposure information collected through the complaint system with data from pathogen-specific surveillance to reveal potential connections between cases and increase the likelihood of detecting an outbreak.
- Cross-reference complaints to identify multiple independent complaints about a food establishment or event.

Responding to complaints

If only one person was ill or all ill persons live in the same household:

- Collect 3-day food history. Outbreaks are frequently associated with food consumed 2 or 3 days back in the food history, and not at the source that the complainant suspects. If clinical or laboratory evidence is available to suggest a specific agent with a longer incubation period, collect food history for incubation period corresponding to the agent*.

If a complaint reports ill persons from multiple households:

- Collect info only on common meals or environmental exposures (i.e., water).
- Collect names and contact information for other ill people reported by the complainant; if they are reluctant to provide this information, ask them to give your telephone # to the ill people to call (and stress the importance of them doing so). Illness information from other ill people is critical in determining if an outbreak actually occurred, the likely etiology, and on which food source an investigation should be focused.

Key Elements of Complaint System Operational Guidelines

Complaint assessment and follow-up

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- If the complaint provides evidence of multiple illnesses that warrant the initiation of an outbreak investigation, the appropriate epidemiology and environmental health jurisdictions should be notified, and a conversation between appropriate agencies should take place to plan and initiate the investigation.
- If an etiology has been confirmed, that information should guide the EH assessment. If the etiology is not confirmed, use the clinical profile of reported illnesses (distribution of incubation periods, symptoms, and durations) to guide the EH assessment.
  - E.g., short incubation, little or no fever - suggestive of foodborne intoxication, focus on time-temperature abuse.
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