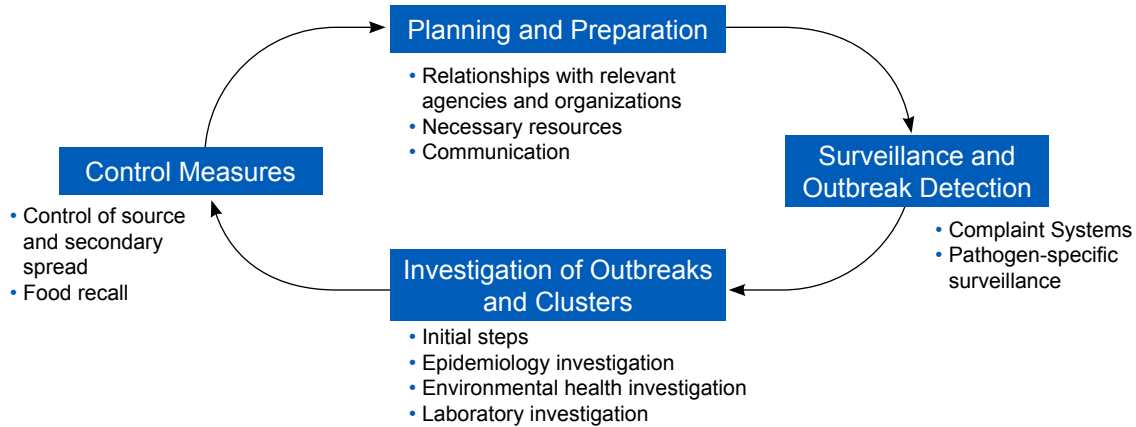


Selecting Focus Areas Worksheet

In developing the CIFOR Toolkit, outbreak-related activities have been divided into four major “Tracks” and 11 “Focus Areas.” The Focus Areas are “bite-sized” pieces of outbreak-related activities that will allow agencies/jurisdictions to systematically examine and improve these activities. A key step in using the CIFOR Toolkit will be to identify the Focus Areas that are most important for your agency/jurisdiction to work on.



INSTRUCTIONS

1. Decide whether to involve the entire team in the prioritization process or to use a smaller group of decision-makers. List the individuals who will be involved in the prioritization of Focus Areas below.
2. Assemble the above people and examine the Focus Area descriptions on the following pages. To better understand what is covered in each Focus Area, review the “keys to success” (i.e., activities, relationships, and resources that are felt to be critical to achieving success in a Focus Area).
3. Determine which keys to success are applicable to your agency/jurisdiction and which haven’t yet been implemented or need improvement. This determination might be somewhat subjective. Metrics, such as measures of time (e.g., rapidly, timely, and quickly), have not been defined. Your workgroup should provide its own definition for these terms as is appropriate for your agency/jurisdiction and use its best judgment in deciding whether a key to success is fully or partially in place. If only a few of the keys to success for a Focus Area are in place in your agency/jurisdiction, it could mean the Focus Area needs work.
4. Consider ongoing work in other capacity development or quality assurance efforts in your agency/jurisdiction (e.g., FDA Retail and Manufactured Food Regulatory Program Standards, local public health accreditation board standards, and local public health performance standards) and the priorities of those efforts. Review past foodborne outbreak response experiences to identify areas in need of improvement. Consider your agency’s/jurisdiction’s ability to participate in a multijurisdictional outbreak response.
5. Based on the above, identify the Focus Areas that are a high priority for your agency/jurisdiction to work on. Put checks in the boxes next to those Focus Areas.



PLANNING AND PREPARATION

FOCUS AREA 1: Relationships with relevant agencies and organizations

Agency/jurisdiction can swiftly launch an outbreak response that is coordinated with all relevant agencies, minimizing confusion and redundant efforts and taking advantage of all available resources.

KEYS TO SUCCESS:

Roles and responsibilities

- Agency/jurisdiction determines in advance the role of the local incident command system in outbreak response.
- Agency/jurisdiction has procedures for working with other agencies and organizations during an outbreak response. Procedures are written and easily accessible by staff.
- Staff understand the likely roles/responsibilities of key agencies and organizations during an outbreak response, the resources they have available, and the contributions they can make to an outbreak response.
- Agency/jurisdiction cross-trains with other key agencies and organizations to better understand their roles and responsibilities during an outbreak response.

Communication

- Staff know how to contact key local, state, and federal agencies likely to be involved in outbreak response.
- Agency/jurisdiction has procedures for communication between members of the outbreak response team and their agencies and with other agencies and organizations involved in foodborne outbreak response.
- Staff undertake routine communication with key agencies and organizations before an outbreak occurs.

Multijurisdictional outbreaks

- Staff readily recognize signs suggestive of a multijurisdictional foodborne disease outbreak.
- Staff rapidly notify agencies that might need to participate in a multijurisdictional outbreak response or may be affected by the event.

Making changes

- Agency/jurisdiction involves investigation and response team members in a debriefing or after-action review following each outbreak to improve future investigation practices and to prevent future outbreaks based on lessons learned.
- Agency/jurisdiction has performance indicators related to relationships with relevant agencies and organizations and routinely evaluates its performance in this Focus Area and tracks progress as part of its continuous process improvement program(s).



PLANNING AND PREPARATION (cont'd)

FOCUS AREA 2: Necessary resources

Agency/jurisdiction has ready access to personnel, supplies, equipment, documents, and references necessary to initiate a rapid and effective outbreak response.

KEYS TO SUCCESS:

Outbreak response team

- Agency/jurisdiction has access to staff with knowledge and experience in epidemiology, environmental health, laboratory science, health education, and communications to help in the response to an outbreak.
- Agency/jurisdiction has a designated outbreak response team with expertise in epidemiology, environmental health, and laboratory science.
- Outbreak response team members have been trained in the agency's/jurisdiction's outbreak response protocols and their individual and combined roles.
- Staff have access to and familiarity with standard documents used in an outbreak response, including reporting forms, questionnaires, and disease-specific information sheets.

Surge capacity

- Available resources allow agency/jurisdiction to continue other necessary (core) functions during an outbreak response.
- Agency/jurisdiction anticipates gaps in resources and identifies sources to fill those gaps before an outbreak occurs (e.g., obtaining epidemiologic support from the state public health agency, identification of outside laboratories to provide support in large outbreaks).

Making changes

- Agency/jurisdiction involves investigation and response team members in a debriefing or after-action review following each outbreak response to improve future investigation practices and to prevent future outbreaks based on lessons learned.
- Agency/jurisdiction has performance indicators related to the necessary resources and routinely evaluates its performance in this Focus Area and tracks progress as part of its continuous process improvement program(s).



PLANNING AND PREPARATION (cont'd)

FOCUS AREA 3: Communication

Agency/jurisdiction lays groundwork for good communication with key individuals, both internal and external to the agency, before an outbreak occurs.

KEYS TO SUCCESS:

Contact lists

- Agency/jurisdiction identifies key individuals and organizations related to outbreak response before an outbreak occurs, including members of the outbreak response team, officials inside the agency, contacts at external agencies (i.e., other local, state, and federal agencies), and the media.
- Agency/jurisdiction establishes and frequently updates contact lists for key individuals and organizations.

Communication practices

- Agency/jurisdiction has procedures for communicating with key individuals and organizations. Procedures are written and easily accessible by staff.
- Agency/jurisdiction has staff trained in communicating with the media and risk communication.
- Agency/jurisdiction identifies a person(s) responsible for external communication on behalf of the agency/jurisdiction during each outbreak response (i.e., public information officer).

Making changes

- Agency/jurisdiction involves investigation and response team members in a debriefing or after-action review following each outbreak response to improve future investigation practices and to prevent future outbreaks based on lessons learned.
- Agency/jurisdiction has performance indicators related to communication and routinely evaluates its performance in this Focus Area and tracks progress as part of its continuous process improvement program(s).



SURVEILLANCE AND OUTBREAK DETECTION

FOCUS AREA 4: Complaint systems

Agency/jurisdiction receives and processes individual reports of possible foodborne illness(es) from the public in a way that allows timely follow-up of possible food safety problems and the detection of clusters.

KEYS TO SUCCESS:

Soliciting and receiving reports

- Agency/jurisdiction has an established process for receiving reports about possible foodborne illness(es) from the public.
- Public knows how to report possible foodborne illnesses to the agency/jurisdiction.
- 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 works with the local media to solicit reports of possible foodborne illness from the public.

Detection of clusters/outbreaks

- Staff collect specified pieces of information about each foodborne illness report and record the information in an electronic data system.
- Staff regularly review reports of foodborne illness to identify cases with common characteristics or suspicious exposures that might represent a common-source outbreak.

Responding to complaints

- Staff triage and respond to complaints in a manner consistent with the likely resulting public health intervention (e.g., investigate reports of groups of illnesses more aggressively than isolated illnesses).

Making changes

- Agency/jurisdiction involves investigation and response team members in a debriefing or after-action review following each outbreak response to improve future investigation practices and to prevent future outbreaks based on lessons learned.
- Agency/jurisdiction has performance indicators related to complaint systems and routinely evaluates its performance in this Focus Area and tracks progress as part of their continuous process improvement program(s).



SURVEILLANCE AND OUTBREAK DETECTION (cont'd)

FOCUS AREA 5: Pathogen-specific surveillance

Agency/jurisdiction receives reports from health care providers and laboratories on all cases of disease when certain foodborne pathogens are identified and obtains case information in a way that allows timely follow-up of patients and quick detection and investigation of possible outbreaks.

KEYS TO SUCCESS:

Reporting/submission of isolates

- State has mandatory reporting of diseases that are likely to have been foodborne, as well as mandatory submission of pathogen isolates or clinical specimens associated with these disease cases.
- Staff actively solicit case reports and submission of specimens/isolates to improve completeness of reporting.
- Agency/jurisdiction has a system to rapidly transport specimens/isolates from clinical laboratories to the public health laboratory.

Testing of specimens

- Public health laboratory has the capacity to quickly process and test specimens/isolates submitted by clinical laboratories, including pathogen confirmation and subtyping.

Collection of exposure information

- Staff collect sufficient demographic and exposure information from patients to recognize possible patterns and associations between cases in a timely fashion.

Detection of clusters/outbreaks

- Staff analyze case information (e.g., demographics, exposure information, subtyping results) to rapidly identify possible clusters or outbreaks.

Communication

- Public health laboratory shares test results with epidemiology staff in a timely fashion.
- Public health laboratory reports test results to national databases in a timely fashion.

Making changes

- Agency/jurisdiction involves investigation and response team members in a debriefing or after-action review following outbreak responses to improve future investigation practices and to prevent future outbreaks based on lessons learned.
- Agency/jurisdiction has performance indicators related to pathogen-specific surveillance, routinely evaluates its performance in this Focus Area, and tracks progress as part of continuous process improvement.



INVESTIGATION OF CLUSTERS AND OUTBREAKS

FOCUS AREA 6: Initial steps of an investigation

Agency determines the likely occurrence of a foodborne outbreak based on case reports and characterizes the nature of the outbreak so that necessary resources can be mobilized and appropriate actions can be initiated.

KEYS TO SUCCESS:

Initial steps of an investigation

- Agency/jurisdiction has processes for the response to a possible outbreak, including who is to be notified and/or involved in the investigation and specific actions. Processes are written and easily accessible by staff.
- Agency/jurisdiction has established criteria for determining the scale of the response to a possible foodborne outbreak based on the likely pathogen, number of cases, distribution of cases, hypothesized source, and agencies likely to be involved.
- Staff can prioritize the response to a possible outbreak based on agency/jurisdiction criteria and know what outbreak circumstances require an immediate response, a more moderate response, or no response at all.
- Staff have access to historical trends or other data to determine whether case counts exceed the expected number for a particular period and population.
- Staff develop hypotheses about the source of an outbreak early in the investigation to guide investigation steps.

Reporting and requests for assistance

- Local agencies notify state agencies as soon as an outbreak is suspected.
- Agency/jurisdiction asks for help as soon as the need is recognized.

Making changes

- Agency/jurisdiction involves investigation and response team members in a debriefing or after-action review following each outbreak response to improve future investigation practices or to prevent future outbreaks based on lessons learned.
- Agency/jurisdiction has performance indicators related to the initial steps of an investigation and routinely evaluates its performance in this Focus Area and tracks progress as part of its continuous process improvement program(s).



INVESTIGATION OF CLUSTERS AND OUTBREAKS (cont'd)

FOCUS AREA 7: Epidemiology investigation

During an outbreak investigation, agency/jurisdiction staff collect, analyze, and interpret exposure (and other) information from cases (and comparison groups, where appropriate) to determine the etiologic agent, persons at risk, modes of transmission, and vehicle of the outbreak.

KEYS TO SUCCESS:

Staff skills and expertise

- Staff have good interviewing skills and can collect complete and accurate exposure information from cases and controls, where appropriate, or have access to staff in other agencies with this expertise.
- Staff have expertise in epidemiologic study design or have access to staff in other agencies with this expertise.

Outbreak investigation

- Agency/jurisdiction has a written protocol outlining the steps in the epidemiologic investigation of a foodborne disease outbreak. Staff have easy access to the protocol and have been trained in its implementation.
- Staff interview cases about exposures as soon as possible after the case is reported.
- Staff have access to standard epidemiologic questionnaires used by other investigators in similar outbreaks.

Communication

- Staff communicate in a timely fashion and coordinate activities with environmental health and laboratory staff during the investigation.

Making changes

- Agency/jurisdiction involves investigation and response team members in a debriefing or after-action review following outbreak responses to improve future investigation practices and to prevent future outbreaks based on lessons learned.
- Agency/jurisdiction has performance indicators related to the epidemiologic investigation and routinely evaluates its performance in this Focus Area and tracks progress as part of its continuous process improvement program(s).



INVESTIGATION OF CLUSTERS AND OUTBREAKS (cont'd)

FOCUS AREA 8: Environmental health investigation

Agency/jurisdiction staff collect, analyze, and interpret information from the implicated facility or production site to determine the etiologic agent, mode of transmission and vehicle, source of contamination, contributing factors, environmental antecedents, and food supply chain.

KEYS TO SUCCESS:

Staff skills and expertise

- Staff have expertise in food production processes, Hazard Analysis Critical Control Points (HACCP) Active Managerial Controls (AMCs), environmental health assessments, and root cause analyses.
- Staff have expertise in traceback and traceforward investigations (or have access to staff in other agencies with this expertise).
- Staff have good interviewing skills to solicit information from facility managers and food workers.

Outbreak investigation

- Agency/jurisdiction has a written protocol outlining the steps in the environmental health investigation of a foodborne disease outbreak. Staff have easy access to the protocol and are trained in its implementation.
- Staff undertake environmental health assessments at facilities or production sites implicated during a foodborne outbreak (not routine food establishment licensing inspections) and identify appropriate contributing factors and environmental antecedents/root causes.
- Staff undertake traceback and traceforward investigations (or have access to staff in other agencies that undertake these investigations).

Communication

- Staff quickly communicate and coordinate activities with epidemiology and laboratory staff.

Making changes

- Agency/jurisdiction involves investigation and response team members in a debriefing or after-action review following each outbreak response to improve future investigation practices and to prevent future outbreaks based on lessons learned.
- Agency/jurisdiction has performance indicators related to the environmental health investigation and routinely evaluates its performance in this Focus Area and tracks progress as part of its continuous process improvement program(s).



INVESTIGATION OF CLUSTERS AND OUTBREAKS (cont'd)

FOCUS AREA 9: Laboratory investigation

Agency/jurisdiction staff test patient specimens and suspect vehicles to identify the etiologic agent, mode of transmission, and vehicle in an outbreak and explore the ability of the agent to survive and grow in the implicated vehicle and how the vehicle might have become contaminated.

KEYS TO SUCCESS:

Staff skills and expertise

- Staff have expertise in appropriate laboratory testing methodologies and access to necessary equipment, reagents, and supplies to perform testing.

Specimen collection and testing

- In collaboration with laboratory, epidemiology, and environmental health staff, collect appropriate clinical specimens and food and environmental samples, then store and transport them properly (e.g., chain of custody).
- Staff properly receive and record receipt of specimens and food/environmental samples.
- Staff link patient and clinical specimen information in an appropriate database.
- Staff isolate etiologic agent (if necessary) and characterize isolates (e.g., subtyping) in a timely fashion.
- Staff use approved methods to analyze specimens/samples and subtype isolates.

Communication

- Staff communicate in a timely fashion and coordinate activities with epidemiology and environmental health staff.
- Staff report results of laboratory tests to epidemiologic and environmental health investigators, regulatory personnel (if applicable), and appropriate national databases in a timely fashion.

Making changes

- Agency/jurisdiction involves investigation and response team members in a debriefing or after-action review following each outbreak response to improve future investigation practices or to prevent future outbreaks based on lessons learned.
- Agency/jurisdiction has performance indicators related to the laboratory investigation and routinely evaluates its performance in this Focus Area and tracks progress as part of its continuous process improvement program(s).



CONTROL MEASURES

FOCUS AREA 10: Control of source and secondary spread

Agency/jurisdiction works with the facility or production site implicated in an outbreak to ensure that actions are taken to quickly stop exposure to contaminated food and prevent similar food safety problems in the future. Agency/jurisdiction also works with health care providers, the public, and managers in settings where transmission of disease easily could occur (e.g., food establishments, health care institutions, and child care settings) to prevent secondary spread of disease from persons infected from the original source of the outbreak.

KEYS TO SUCCESS:

Control measures

- Agency/jurisdiction has legal authority to require the desired control measures (e.g., to recall products, close restaurants, issue cease and desist orders).
- Agency/jurisdiction works with the facility or production site, appropriate regulatory agencies, and industry representatives to stop foodborne illness outbreaks by controlling contaminated foods, both at their source and after foods have left their source (example through recalls), and by preventing secondary spread of infection.
- Staff work with the implicated facility to implement control measures as soon as information and data are available to do so.
- Staff consider a variety of immediate control measures to address the food safety problem (e.g., removing the vehicle from consumption, cleaning and disinfecting the environment, educating food workers, modifying food preparation, excluding ill staff).
- Staff consider a variety of longer-term control measures to address the root causes of the outbreak (e.g., follow-up to assure hazards do not recur, increased surveillance and inspections, sampling if needed, training of staff, need for additional research, and need for policy changes).
- Agency/jurisdiction works with settings to prevent secondary spread of pathogens highly transmissible by the person-to-person route (e.g., norovirus, Shiga toxin-producing *E. coli* (STEC)).

Communication

- Outbreak response team members share and assess outbreak response information (e.g., epidemiologic, laboratory, and environmental health evidence) in a timely fashion.
- Staff effectively communicate necessary control measures to the facility manager, facility workers, and others involved in the implementation of control measures and provide education.
- Agency/jurisdiction has staff trained in communicating with the media and risk communication.
- Agency/jurisdiction has means to alert health care providers about the outbreak and provide specific information about reporting cases, treatment, and infection control.
- Agency/jurisdiction has ongoing communication with the public.
- Agency/jurisdiction has preexisting relationships with the media to ensure rapid and accurate communication of information to the public.



CONTROL MEASURES (cont'd)

FOCUS AREA 10: Control of source and secondary spread (cont'd)

Agency/jurisdiction works with the facility or production site implicated in an outbreak to ensure that actions are taken to quickly stop exposure to contaminated food and prevent similar food safety problems in the future. Agency/jurisdiction also works with health care providers, the public, and managers in settings where transmission of disease easily could occur (e.g., food establishments, health care institutions, and child care settings) to prevent secondary spread of disease from persons infected from the original source of the outbreak.

Monitoring

- Staff monitor the implementation of control measures at the implicated facility and the effectiveness of those control measures.
- Staff monitor the population at risk to ensure that the outbreak has ended, the source has been eliminated, and the outbreak does not recur.

Making changes

- Agency/jurisdiction conducts investigation and involves response team members in a debriefing or after-action review among investigators following outbreak response and refines outbreak response protocols and prevention measures based on lessons learned.
- Agency/jurisdiction submits and shares foodborne outbreak investigation reports that document actions taken and changes that are needed to improve future investigation practices or to prevent future outbreaks.
- Agency/jurisdiction has performance indicators related to control of the source at the implicated facility and routinely evaluates its performance in this Focus Area. Agency tracks progress as part of its continuous process improvement program(s).



CONTROL MEASURES (cont'd)

FOCUS AREA 11: Food recall

Agency/jurisdiction ensures that the food implicated in an outbreak is removed from the market, retail establishments, and homes of consumers as quickly as possible.

KEYS TO SUCCESS:

Food recall

- Agency/jurisdiction collaborates with state and federal agencies as well as the implicated facility or production site in the recall.
- Agency/jurisdiction proactively embargoes or seizes the implicated food product while awaiting official recall.
- Agency/jurisdiction has means to quickly notify retail establishments and other sites (e.g., food banks) under its jurisdiction about the recall.
- Agency/jurisdiction has means to quickly notify the public about a recall.
- Agency/jurisdiction monitors the effectiveness of the recall at all appropriate establishments.

Making changes

- Agency/jurisdiction involves investigation and response team members in a debriefing or after-action review following outbreak responses to improve future investigation practices and to prevent future outbreaks based on lessons learned.
- Agency/jurisdiction has performance indicators related to food recall and routinely evaluates its performance in this Focus Area and tracks progress as part of its continuous process improvement program(s).

DATE WORKSHEET COMPLETED: _____

After you complete this worksheet, you will assess each high-priority Focus Area individually using the Focus Area-specific worksheets provided. For ideas on the completion of the Focus Area worksheets, see the document entitled "Sample Focus Area Worksheet".