

**FOCUS AREA 6**  
**WORKSHEET:**  
**Initial Steps of an**  
**Investigation**

Complete this worksheet if “initial steps” is a high-priority Focus Area for efforts to improve foodborne disease outbreak-related activities in your agency or jurisdiction. (NOTE: The term “agency/jurisdiction” refers to the entity for which your workgroup is making decisions. See your completed “Preliminaries” worksheet for a definition.)

List the individuals participating in the discussion of this Focus Area (and their affiliations).

To help you understand what is included in this Focus Area, review the following goals and keys to success.

**GOALS FOR INITIAL STEPS OF AN INVESTIGATION:**

The agency/jurisdiction 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.

**1. PRIORITIZE THE KEYS TO SUCCESS INITIAL STEPS OF AN INVESTIGATION**

“Keys to success” are activities, relationships, and resources that are critical to achieving success in a Focus Area. Determining whether an agency/jurisdiction has a particular key to success in place is somewhat subjective. Metrics, such as measures of time (e.g., rapidly, timely, and quickly), have not been defined. Your workgroup should provide its own definitions for these terms, as is appropriate for your agency/jurisdiction, and use its best judgment in deciding whether a particular key to success is fully or partially in place. Rate the priority for implementing each key to success based on its likely impact on foodborne outbreak response at your agency/jurisdiction and available resources. Use a scale of 1 to 5 to rate each key to success (1=low priority for implementation, and 5=high priority for implementation). If a key to success is already in place in your agency/jurisdiction, check the appropriate box. If a key to success is not relevant to your agency/jurisdiction, select N/A.

Already in Place	Priority for Implementation or Improvement in Your Agency/Jurisdiction LOW ----- HIGH
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**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.

Notes (activities, procedures, or comments):

1    2    3    4    5    N/A

Already in Place	Priority for Implementation or Improvement in Your Agency/Jurisdiction LOW ----- HIGH					
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- 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.

*Notes (activities, procedures, or comments):*

	1	2	3	4	5	N/A
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- 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.

*Notes (activities, procedures, or comments):*

	1	2	3	4	5	N/A
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- Staff have access to historical trends or other data to determine whether case counts exceed the expected number for a particular period and population.

*Notes (activities, procedures, or comments):*

	1	2	3	4	5	N/A
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- Staff develop hypotheses about the source of an outbreak early in the investigation to guide investigation steps.

*Notes (activities, procedures, or comments):*

	1	2	3	4	5	N/A
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**Reporting and requests for assistance**

- Local agencies notify state agencies as soon as an outbreak is suspected.

*Notes (activities, procedures, or comments):*

	1	2	3	4	5	N/A
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**TRACK: INVESTIGATION OF CLUSTERS AND OUTBREAKS**

*Focus Area 6: Initial Steps of an Investigation*

	Already in Place	Priority for Implementation or Improvement in Your Agency/Jurisdiction LOW ----- HIGH				
<ul style="list-style-type: none"> <li>Agency/jurisdiction asks for help as soon as the need is recognized.</li> </ul> <p><i>Notes (activities, procedures, or comments):</i></p>		1	2	3	4	5 N/A
<p><b><u>Making changes</u></b></p> <ul style="list-style-type: none"> <li>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.</li> </ul> <p><i>Notes (activities, procedures, or comments):</i></p>		1	2	3	4	5 N/A
<ul style="list-style-type: none"> <li>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).</li> </ul> <p><i>Notes (activities, procedures, or comments):</i></p>		1	2	3	4	5 N/A

## 2. PRIORITIZE CIFOR GUIDELINES RECOMMENDATIONS TO ADDRESS NEEDED IMPROVEMENTS

Having identified activities and procedures in need of improvement, review the CIFOR Guidelines recommendations related to this Focus Area (listed below). Rate the priority for implementing each recommendation based on its likely impact on foodborne outbreak response at your agency/ jurisdiction and available resources. Use a scale of 1 to 5 to rate each recommendation (1=low priority for implementation, and 5=high priority for implementation). If a recommendation is already in place in your agency/jurisdiction, check the appropriate box. If a recommendation is not relevant to your agency/jurisdiction, select N/A. **Refer to the blue underlined section number following each recommendation to view the recommendation as it appears in the CIFOR Guidelines.**

Already in Place	Priority for Implementation or Improvement in Your Agency/Jurisdiction LOW ----- HIGH						
<b><u>Initial steps of an investigation</u></b>							
<ul style="list-style-type: none"> <li>Determine whether reported illnesses or cases are suggestive of an outbreak. Indicators include:                             <ul style="list-style-type: none"> <li>Multiple cases with a shared exposure and incubation period and symptoms consistent with illness resulting from the exposure (<a href="#">4.1.6</a>) (<a href="#">5.2.1</a>)</li> <li>Confirmed cases clearly in excess of the expected number</li> <li>Demographic features or known exposures among cases suggestive of a common source (<a href="#">4.1.6</a>) (<a href="#">5.2.1</a>)</li> </ul> </li> </ul>	1	2	3	4	5	N/A	
	<ul style="list-style-type: none"> <li>Examine subsets of cases using specific agent classifications (e.g., subtyping results) or certain time, place, or person characteristics to identify outbreaks among more common pathogens. (<a href="#">5.1.1</a>) (<a href="#">5.2.1</a>)</li> </ul>	1	2	3	4	5	N/A
		<ul style="list-style-type: none"> <li>Alert the outbreak response team leader as soon as a potential outbreak is suspected. (<a href="#">5.1.1</a>)</li> </ul>	1	2	3	4	5
<ul style="list-style-type: none"> <li>To help assess the priority of investigating an outbreak and likely resources needed, review the descriptive features of the outbreak and relevant background information about the etiologic agent, establishment, or event. (<a href="#">5.1.2</a>)</li> </ul>	1	2	3	4	5	N/A	
<ul style="list-style-type: none"> <li>Prioritize investigations, giving highest priority to outbreaks that:                             <ul style="list-style-type: none"> <li>Are caused by a severe or life-threatening illness</li> <li>Affect populations at high risk for complications of the illness</li> <li>Affect a large number of persons</li> <li>May be associated with a food-service establishment in which ill food workers are a continuing source of infection</li> <li>May be associated with an adulterated food product in commercial distribution that is still being consumed (<a href="#">5.1.2</a>)</li> </ul> </li> </ul>	1	2	3	4	5	N/A	
	<ul style="list-style-type: none"> <li>When an investigation is deemed appropriate, assemble and brief the outbreak response team on the outbreak, including their individual roles in the investigation. (<a href="#">5.1.3</a>)</li> </ul>	1	2	3	4	5	N/A
<ul style="list-style-type: none"> <li>Assess the availability of appropriate staff to conduct the investigation. (<a href="#">5.1.3</a>)</li> </ul>	1	2	3	4	5	N/A	
<ul style="list-style-type: none"> <li>If staff with the needed skills are not available, request external assistance. (<a href="#">5.1.3</a>) (See below.)</li> </ul>	1	2	3	4	5	N/A	
<ul style="list-style-type: none"> <li>Consider indicators suggestive of a multijurisdictional outbreak and respond accordingly. (<a href="#">7.4</a>) (<a href="#">Table 7.2</a>)</li> </ul>	1	2	3	4	5	N/A	

**TRACK: INVESTIGATION OF CLUSTERS AND OUTBREAKS**  
**Focus Area 6: Initial Steps of an Investigation**

Already in Place	Priority for Implementation or Improvement in Your Agency/Jurisdiction LOW ----- HIGH					
<ul style="list-style-type: none"> <li>If an agency/jurisdiction has decided to apply the incident command system (ICS) to its foodborne disease outbreak response, activate the ICS as early as possible in the response to an outbreak. <a href="#">(3.3.2)</a> <a href="#">(7.2.3)</a></li> </ul>	1	2	3	4	5	N/A
<ul style="list-style-type: none"> <li>If a person who claims to have tampered with food contacts an agency, or in any outbreak in which intentional contamination is suspected, notify law enforcement officials and assess the credibility of the threat. <a href="#">(2.6.2)</a></li> </ul>	1	2	3	4	5	N/A
<ul style="list-style-type: none"> <li>Establish the goals and objectives for the investigation early in the investigation. <a href="#">(5.1.6)</a></li> </ul>	1	2	3	4	5	N/A
<ul style="list-style-type: none"> <li>Generate hypotheses about the potential source of an outbreak during the earliest stages of the investigation and refine hypotheses as more information becomes available. Key steps include:               <ul style="list-style-type: none"> <li>Reviewing identified risk factors and exposures for the disease</li> <li>Examining the descriptive epidemiology of cases to identify person, place, or time characteristics that might suggest an exposure</li> <li>Interview in detail affected persons to identify unusual exposures or commonalities among cases <a href="#">(5.3)</a></li> </ul> </li> </ul>	1	2	3	4	5	N/A
<ul style="list-style-type: none"> <li>Interview patients associated with the outbreak as soon as possible because recall will be better and cases will be more motivated to share information closer to the time of their illness. <a href="#">(4.1.5)</a> <a href="#">(5.3.3)</a></li> </ul>	1	2	3	4	5	N/A
<ul style="list-style-type: none"> <li>For group illnesses associated with an event or establishment, obtain clinical specimens from ill members for laboratory testing as soon as possible. <a href="#">(Table 5.1)</a></li> </ul>	1	2	3	4	5	N/A
<ul style="list-style-type: none"> <li>While awaiting confirmation of the etiologic agent, use signs/symptoms, incubation period, illness duration, and suspect food to provide clues about the agent and better focus investigation activities. <a href="#">(Table 5.1)</a></li> </ul>	1	2	3	4	5	N/A
<ul style="list-style-type: none"> <li>For group illnesses associated with an event or establishment, collect food samples and store, but do not test them until implicated through epidemiologic or environmental investigations. <a href="#">(4.2.5)</a> <a href="#">(Table 5.1)</a></li> </ul>	1	2	3	4	5	N/A

*Additional ideas:*

Already in Place	Priority for Implementation or Improvement in Your Agency/Jurisdiction LOW ----- HIGH					
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### **Requests for assistance**

<ul style="list-style-type: none"> <li>Request assistance for the response to an outbreak as soon as the need is recognized. (3.2.2) (5.1.2) Request external assistance if:               <ul style="list-style-type: none"> <li>Scale or complexity of outbreak will overwhelm agency resources</li> <li>Outbreak is likely to affect multiple counties, states, or countries</li> <li>Investigation points to a commercially distributed product</li> <li>Nature of the response is beyond experience of agency staff</li> <li>Specific technical support (e.g., laboratory testing) is needed (3.3.1)</li> </ul> </li> </ul>	1	2	3	4	5	N/A
<ul style="list-style-type: none"> <li>At the local level, call the state epidemiologist (or his/her surrogate) to request external assistance. (3.1.3) (Table 3.1)</li> </ul>	1	2	3	4	5	N/A
<ul style="list-style-type: none"> <li>At the state level, call the most appropriate office at CDC or the CDC emergency response number to request external assistance. (3.1.3) (Table 3.1)</li> </ul>	1	2	3	4	5	N/A
<ul style="list-style-type: none"> <li>If the suspected food falls under the jurisdiction of a food-regulatory agency, call that agency to request external assistance. (3.1.3) (Table 3.1)</li> </ul>	1	2	3	4	5	N/A

*Additional ideas:*

### **Communication**

<ul style="list-style-type: none"> <li>Contact people internal and external to the agency who should be notified in the event of an outbreak following agency/jurisdiction protocols. (3.5.1)</li> </ul>	1	2	3	4	5	N/A
<ul style="list-style-type: none"> <li>Identify persons who will be responsible for communication on behalf of their organizational unit and for the outbreak response team. (3.5.2)</li> </ul>	1	2	3	4	5	N/A
<ul style="list-style-type: none"> <li>Coordinate activities and set up good lines of communication between individuals and agencies involved in the investigation. (3.5.2) (5.1.5)</li> </ul>	1	2	3	4	5	N/A
<ul style="list-style-type: none"> <li>If the outbreak is suspected to be multijurisdictional, notify agencies that might need to participate in the investigation or be affected by the outbreak immediately including surrounding jurisdictions, the state health department, and the appropriate food-regulatory agency. (7.2.2)</li> </ul>	1	2	3	4	5	N/A
<ul style="list-style-type: none"> <li>If particular food/food products are suspected, communicate with industry as early as possible to prevent misconceptions in data analysis and interpretation. (5.1.4) (7.4.2)</li> </ul>	1	2	3	4	5	N/A
<ul style="list-style-type: none"> <li>Inform the public and provide information needed for the public to protect itself as soon as possible. Update recommendations rapidly as new information becomes available. (5.4.5) (3.5.2) (6.2.2) (Box 6.3)</li> </ul>	1	2	3	4	5	N/A

*Additional ideas:*

**3. MAKE PLANS TO IMPLEMENT SELECTED CIFOR GUIDELINES RECOMMENDATIONS**

For each CIFOR Guidelines recommendation selected in the previous steps (or idea formulated by the workgroup), identify who will take the lead in implementing the recommendation and the time frame for implementation (e.g., a specific completion date or whether the change is likely to require short-, mid-, or long-term efforts). If certain actions must precede others, make a note of this and adjust the time frame. In addition, consider factors that could positively or negatively influence implementation of the recommendation and ways to incorporate the recommendation into your agency’s/jurisdiction’s standard operating procedures.

CIFOR recommendations or other ideas from previous steps	Lead person	Time frame for implementation	Notes (e.g., necessary antecedents, factors that might influence implementation, ways to incorporate the recommendation into standard operating procedures)

*One person should be given responsibility for monitoring progress in implementing the above CIFOR Guidelines recommendations. Follow-up should occur at specified checkpoints (e.g., 3, 6, 9, and 12 months after the start of the Toolkit process), and results should be shared with the entire workgroup.*

DATE WORKSHEET COMPLETED: \_\_\_\_\_

NEXT DATE FOR FOLLOW-UP ON PROGRESS: \_\_\_\_\_