# FOCUS AREA 10 WORKSHEET: Control of Source and Secondary Spread



Complete this worksheet if "control of source and secondary spread" 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).

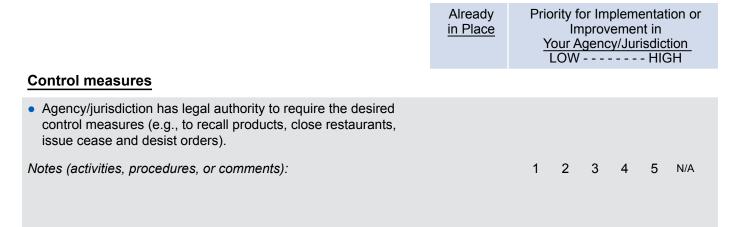
To help you understand what is included in this Focus Area, review the following goals and keys to success.

## GOALS FOR CONTROL OF SOURCE AND SECONDARY SPREAD:

The agency/jurisdiction works with the facility or production site implicated in an outbreak to ensure that immediate actions are taken to quickly stop exposure to contaminated food and longer-term control measures are implemented to address the root causes of the outbreak and prevent similar food safety problems in the future. The 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, food manufacturers, food distributors, health care institutions, and child care settings) to prevent secondary spread of disease from persons infected from the original source of the outbreak.

#### 1. PRIORITIZE THE KEYS TO SUCCESS FOR THE ENVIRONMENTAL HEALTH 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	Priorit <u>You</u> LC		vemer icy/Jur	nt in risdic	tion
<ul> <li>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.</li> <li>Notes (activities, procedures, or comments):</li> </ul>		1 :	2 3	4	5	N/A
<ul> <li>Staff work with the implicated facility to implement control</li> </ul>						
measures as soon as information and data are available to do so.						
Notes (activities, procedures, or comments):		1 :	23	4	5	N/A
<ul> <li>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).</li> <li>Notes (activities, procedures, or comments):</li> </ul>		1 :	2 3	4	5	N/A
• Staff consider a variety of longer-term control measures to address the root causes of the outbreak (follow-up to assure hazards do not recur, increased surveillance and inspections, sampling if needed, training of staff, need for additional research, need for policy changes).		1 :	2 3	4	5	N/A
Notes (activities, procedures, or comments):						
• Agency/jurisdiction works with settings to prevent secondary spread of pathogens highly transmissible by the person-to-person route (e.g., norovirus, STEC).						
Notes (activities, procedures, or comments):		1 :	23	4	5	N/A

	Already in Place	Your	for Im mprov Agenc V	emen y/Juri	t in sdict	ion
Communication						
<ul> <li>Outbreak response team members share and assess outbreak response information (epidemiologic, laboratory, and environmental health evidence) in a timely fashion.</li> <li>Notes (activities, procedures, or comments):</li> </ul>		1 2	3	4	5	N/A
<ul> <li>Staff effectively communicate necessary control measures to the facility manager, facility workers, and others involved in the implementation of control measures and provide education.</li> <li>Notes (activities, procedures, or comments):</li> </ul>		1 2	3	4	5	N/A
<ul> <li>Agency/jurisdiction has staff trained in communicating with the media and risk communication.</li> <li>Notes (activities, procedures, or comments):</li> </ul>		1 2	3	4	5	N/A
<ul> <li>Agency/jurisdiction has means to alert health care providers about the outbreak and provide specific information about reporting cases, treatment, and infection control.</li> <li>Notes (activities, procedures, or comments):</li> </ul>		1 2	3	4	5	N/A
• Agency/jurisdiction has ongoing communication with the public. <i>Notes (activities, procedures, or comments):</i>		1 2	3	4	5	N/A
<ul> <li>Agency/jurisdiction has preexisting relationships with the media to ensure rapid and accurate communication of information to the public.</li> <li>Notes (activities, procedures, or comments):</li> </ul>		1 2	3	4	5	N/A

	Already in Place	Yo	Im Jur A	prove genc	oleme emen y/Juri	t in sdict	on or i <u>on</u> iH
Monitoring							
<ul> <li>Staff monitor the implementation of control measures at the implicated facility and the effectiveness of those control measures.</li> <li>Notes (activities, procedures, or comments):</li> </ul>		1	2	3	4	5	N/A
<ul> <li>Staff monitor the population at risk to ensure that the outbreak has ended, the source has been eliminated, and the outbreak does not recur.</li> <li>Notes (activities, procedures, or comments):</li> </ul>		1	2	3	4	5	N/A
Making changes							
<ul> <li>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.</li> <li>Notes (activities, procedures, or comments):</li> </ul>		1	2	3	4	5	N/A
<ul> <li>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.</li> <li>Notes (activities, procedures, or comments):</li> </ul>		1	2	3	4	5	N/A
<ul> <li>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).</li> <li>Notes (activities, procedures, or comments):</li> </ul>		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	Yo	Îm our Ag	or Imp prove gency	emen y/Juri	it in sdict	on or i <u>on</u> H
Control of source							
• Determine whether the outbreak is local—limited to a single, local food-service or retail food establishment—or whether it is associated with a commercially distributed food involving multiple food establishments, and identify the authorities and expertise that will be needed to investigate and control the outbreak. (6.0.1) (6.1.3) (Box 6.1)		1	2	3	4	5	N/A
<ul> <li>Gather food or environmental samples while they are still available, ensuring the chain of custody for admissibility in any potential legal proceedings. (<u>6.4.3</u>) (<u>2.6.2</u>)</li> </ul>		1	2	3	4	5	N/A
<ul> <li>Before a specific food is implicated, implement general control measures, as needed, based on good public health practice, information about the likely pathogen, and the history of the establishment. (6.3)</li> </ul>		1	2	3	4	5	N/A
• Embargo, hold, or stop the sale of food suspected to be the source of an outbreak. (6.4.4)		1	2	3	4	5	N/A
<ul> <li>Issue a written hold or embargo order to establish a clear expectation and regulatory requirement for holding the food to prevent the owner from serving or destroying the food before the investigation is complete. (6.4.4)</li> </ul>		1	2	3	4	5	N/A
• Fully document the information that led to the decision (whether to remove or not remove food) and the process used to make the decision. (6.4.4)		1	2	3	4	5	N/A
• Ensure that the facility and all equipment are thoroughly cleaned and sanitized, followed by microbial verification of the effectiveness of the cleaning and sanitizing processes. This is particularly important if <i>Salmonella, Listeria monocytogenes,</i> or norovirus are suspected. Consult industry guidance documents and the FDA's Food Code in Annex 4 for cleaning, sanitizing, and microbial verification protocols. ( <u>6.4.4</u> )		1	2	3	4	5	N/A
<ul> <li>Ensure that staff at the implicated facility are trained/retrained on proper cleaning and maintenance procedures for all equipment. (<u>6.4.4</u>)</li> </ul>		1	2	3	4	5	N/A

## TRACK: CONTROL MEASURES Focus Area 10: Control of Source and Secondary Spread

	Already in Place	Yo	Im Jur Ag	prove gency	oleme emen y/Juri	t in sdict	on or i <u>on</u> H
• Require that staff at the implicated facility be trained/retrained on general practices of safe food preparation including thorough handwashing, not working when ill, no barehand contact with ready-to-eat foods, proper use of gloves and utensils, proper holding temperatures, proper procedures for rapid cooling, and thorough cooking and reheating of foods. (6.4.1) (6.4.4)		1	2	3	4	5	N/A
• If the pathogen is known, educate staff at the implicated facility about the disease (e.g., symptoms, mode of transmission, and prevention) and practices specific to control of that pathogen. (6.4.1)	1	1	2	3	4	5	N/A
<ul> <li>Customize training at the facility to support the desired behavioral changes among staff (e.g., Illustrated handouts, language of preference). (6.6.3)</li> </ul>		1	2	3	4	5	N/A
• Require the facility manager to document training of both current and newly hired staff. (6.4.4)		1	2	3	4	5	N/A
<ul> <li>Work with the facility to modify food-production or food-preparation processes, if needed, to reduce risk, such as changing a recipe, changing a process, reorganizing preparation processes, changing storage temperatures, or modifying instructions to consumers. Base decisions on the scientific evidence of the effectiveness of the changes to control the pathogen linked to the outbreak. (6.4.4)</li> </ul>		1	2	3	4	5	N/A
• Implement longer-term control measures by working with the food establishment's person-in-charge (PIC) to implement active managerial controls and create a risk-control plan or consent agreement so the PIC knows exactly what steps need to be taken and has committed to control the situation and prevent additional outbreaks. (6.4.4)		1	2	3	4	5	N/A
<ul> <li>Eliminate implicated foods from the menu until control measures are in place. (6.4.4)</li> </ul>		1	2	3	4	5	N/A
• Ensure that infected food workers are excluded from the workplace or restricted in accordance with the FDA Food Code or other regulatory requirements. Consult local ordinances and state statutes to understand the agency's legal authority. If the outbreak response team believes a public health threat exists, the team should strongly recommend exclusion of infected food workers regardless of the legal authorities. (6.4.4)		1	2	3	4	5	N/A
• If the facility owner is unable or unwilling to take immediate corrective action to eliminate food-safety hazards, consider closing the facility, following local regulations. (6.4.4)		1	2	3	4	5	N/A
• If the facility owner will not act voluntarily to close the facility, employ other control measures, such as cease-and-desist orders, permit action, and hearing in front of a judge. (2.4.2)		1	2	3	4	5	N/A
• If the implicated facility provides food for an institution in which residents have no alternative food sources, work with institution staff to identify options for bringing in food, or leave the facility open but eliminate high-risk items from the menu. (6.4.4)		1	2	3	4	5	N/A
• Establish a clear plan with criteria that need to be met, including actions that must be taken or results that must be achieved, for the facility to reopen. (2.4.2)		1	2	3	4	5	N/A

	Already in Place	Yc	Im our Ag	or Imp prove gency	emen //Juri	t in sdict	on or i <u>on</u> H
<ul> <li>Remove restrictions at the facility when risk factors have been eliminated and testing indicates that the problem has been eliminated. (6.6.2)</li> </ul>		1	2	3	4	5	N/A
Additional ideas:							
Communication with the implicated facility							
<ul> <li>Understand the agency's legal framework so you know how to interact with personnel from the facility implicated during an outbreak. (2.4.1)</li> </ul>		1	2	3	4	5	N/A
• Determine when and how to share outbreak information with the owner or manager of the implicated facility. Make contact as soon as possible and share as much accurate, actionable, and relevant information as possible. (6.3.3)		1	2	3	4	5	N/A
• Notify owners or managers of the implicated facility that they must share any new reports of illness or other new information that could affect the investigation or food recall efforts. (6.4.4) (6.5.1)		1	2	3	4	5	N/A
<ul> <li>Maintain communication with owners or managers of the implicated facility throughout and after the investigation and notify them when additional relevant information becomes available. Communicate possible outbreak control measures to the facility manager and workers and provide education as needed. (Table 3.1)</li> </ul>		1	2	3	4	5	N/A
• Guide agency staff on how to respond to and communicate with upset customers and public. (3.5.2)		1	2	3	4	5	N/A
Additional ideas: Control of secondary spread							
• Exclude or restrict ill (or recently ill) individuals working in settings where disease transmission can occur (e.g., food preparation, health care, child care) from the workplace in accordance with the FDA Food Code or other regulatory requirements. Consult local ordinances and state statutes to understand the agency's legal authority. If the outbreak response team believes a public health threat exists, the team should strongly recommend exclusion of ill or recently ill food workers regardless of their legal authority. (6.3.3)		1	2	3	4	5	N/A

- Recommend the use of infection-control precautions with hospitalized and institutionalized persons with infectious diarrhea (particularly with easily transmissible infections such as STEC, *Shigella*, or norovirus), including isolation of patients; barrier nursing precautions; strict control of contaminated clothing, surfaces, and bedding; and strict observation of personal hygiene measures. (<u>6.4.4</u>)
- During a norovirus outbreak, recommend the use of chlorine solutions or other EPA approved effective sanitizers or methods rather than standard cleaning chemicals. (Box 3.1) (6.4.4)

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## TRACK: CONTROL MEASURES Focus Area 10: Control of Source and Secondary Spread

	Already in Place	Yc	Im our Ag	or Imp prove gency	emen //Juri:	t in sdict	
<ul> <li>Notify health care providers about the outbreak and encourage them to report cases of the illness under investigation and collect appropriate patient specimens. (6.2.2) (6.3.2)</li> </ul>		1	2	3	4	5	N/A
• Provide health care providers with information about the disease associated with the outbreak, including specific treatments and follow-up of cases, infection control guidance for patients, and infection-control precautions for hospitalized and institutionalized patients. (6.2.2) (6.3.2)		1	2	3	4	5	N/A
• Establish early two-way communication with affected food establishments, commodity groups, and food industries to share relevant outbreak information and gather food-industry information that can guide investigation and control efforts. (6.3.3)		1	2	3	4	5	N/A
Additional ideas:							
Communication with the public							
<ul> <li>If the outbreak involves only one facility, determine whether public notification is necessary. Factors that support public notification include:</li> <li>Medical treatment is needed by persons exposed to the etiologic agent</li> <li>Public reporting of suspected illness is important to the investigation</li> <li>The risk of exposure still exists (e.g., contaminated product may remain in people's homes) (6.2.1) (Box 6.2)</li> </ul>		1	2	3	4	5	N/A
• If the outbreak involves a distributed product, notify the public. Provide information about how to handle the suspected product (e.g., discard, special preparation instructions, or return to place of purchase). ( <u>6.2.2</u> )		1	2	3	4	5	N/A
<ul> <li>Identify an agency lead on interactions with the public, ideally someone trained in communication. (<u>3.5.2</u>)</li> </ul>		1	2	3	4	5	N/A
• Establish procedures for coordinating communication with the public between agencies involved in an investigation to provide consistent messaging and accurate information flow. (3.5.2) (6.2.1)		1	2	3	4	5	N/A
<ul> <li>Prepare standard public communication messages and template, before an outbreak occurs, that follow good risk-communication practices and agency communication protocols. Have templates reviewed by appropriate staff (public information officer or legal advisor). (3.5.2) (6.2.1)</li> </ul>		1	2	3	4	5	N/A
<ul> <li>Provide only objective information. Do not give preliminary, unconfirmed information. Provide clear actions the public should take to protect itself from infection. (6.2.1) (3.5.2) (6.2.1)</li> </ul>		1	2	3	4	5	N/A
• Use standard formats for reporting complex procedural, technical, or risk information to the public and specifying actions the public should take during an outbreak (e.g., how to decrease the risk of illness, how to handle the suspected product, actions to take if illness occurs). (6.2.1) (6.2.2) (Box 6.3)		1	2	3	4	5	N/A
• Test messages with representatives of the target population, if possible. (3.5.2)		1	2	3	4	5	N/A

#### TRACK: CONTROL MEASURES Focus Area 10: Control of Source and Secondary Spread

	Already in Place	Yo	Im our Ag	or Imp prove gency	emen //Juri	t in sdict	on or i <u>on</u> H
• When communicating with the public about an outbreak, take advantage of a teachable moment to reinforce basic food-safety and public health messages (e.g., thorough handwashing, proper food preparation, and advice on personal hygiene) and inform people how to contact appropriate authorities to report suspected foodborne illness. (6.2.2) (Box 6.3)		1	2	3	4	5	N/A
• Use established channels of communication with the public. Means of notification depend on the public health risk and the target population and include press releases, radio, television, fax, telephone, email, web posting, social media, or letters. (6.2.2)		1	2	3	4	5	N/A
<ul> <li>Attempt to reach all members of the population at risk, including non-English-speaking and low-literacy populations. (6.2.2)</li> </ul>		1	2	3	4	5	N/A
• Consider whether special communications are needed for groups at higher risk than others for severe illness and poor outcomes from foodborne diseases (e.g., infants, pregnant people, and immunocompromised persons) as well as non–English-speaking and low-literacy populations. (3.5.2) (6.2.2)		1	2	3	4	5	N/A
• If the outbreak is large or the etiologic agent is highly virulent, consider setting up an emergency hotline so the public can call with questions. Persons answering the phones should be trained to give consistent responses. (6.2.3)		1	2	3	4	5	N/A
• Guide agency staff on how to respond to and communicate with upset members of the public. (3.5.2)		1	2	3	4	5	N/A
Additional ideas: Communications with the media							
• Obtain media training for persons who might serve as agency spokespersons during foodborne outbreak responses. (3.5.2)		1	2	3	4	5	N/A
• For each outbreak, identify an agency lead on media interactions, ideally someone trained as a public information officer. (3.5.2)		1	2	3	4	5	N/A
• Establish procedures for coordinating communication with the media to provide consistent messaging and accurate information flow. (3.5.2)		1	2	3	4	5	N/A
• Establish channels for communication with the media (e.g., website, telephone number), including primary contact persons for major local media outlets. Know routine deadlines and time frames for reporting news through major local media outlets (e.g., the deadline for having news from a press release appear in the evening newspaper). (3.5.2) (6.2.1)		1	2	3	4	5	N/A

Additional ideas:

	Already in Place	Yc	Im our Ag	or Imp prove gency	emen //Juri	t in sdict	on or <u>ion</u> iH
Monitoring							
<ul> <li>Follow established agency/jurisdiction protocols for monitoring the implicated facility or food source. (<u>6.6.2</u>) (<u>7.4.2</u>)</li> </ul>		1	2	3	4	5	N/A
<ul> <li>Monitor implicated foods or facilities to make sure no further contamination is occurring, that modified processes have been implemented and are effective, and that long-term behavioral changes have occurred. (6.6.2) (6.6.3)</li> </ul>		1	2	3	4	5	N/A
<ul> <li>Increase the number of inspections at the implicated facility to ensure that they comply with all required procedures. (6.6.3)</li> </ul>		1	2	3	4	5	N/A
• Consider conducting active surveillance, working with health care providers to increase their vigilance for cases, and collecting stool samples from the population at risk to ensure that the outbreak has ended and the source has been eliminated. (6.6.1) (6.6.3)		1	2	3	4	5	N/A
Additional ideas: Making changes							
<ul> <li>Arrange a debriefing or after-action meeting with all investigators following outbreak investigations to assess the effectiveness of (1) the outbreak investigation and response and (2) immediate and longer-term outbreak-control measures. (3.5) (6.6.4)</li> </ul>		1	2	3	4	5	N/A
• Prepare summary reports that document important activities and findings for all outbreaks consistent with the size and complexity of the response. (3.6) (6.6.4)		1	2	3	4	5	N/A
• Identify issues that need follow-up research (e.g., the need for new measures to control certain pathogens in certain foods). (3.6) (6.6.4)		1	2	3	4	5	N/A
• Identify the need for broad education of the public, the food-service and food-processing industries, or health care providers to prevent similar outbreaks in the future. (6.6.8)		1	2	3	4	5	N/A
<ul> <li>Identify the need for new public health or regulatory policy at the local, state, or federal level. (<u>6.6.9</u>)</li> </ul>		1	2	3	4	5	N/A
<ul> <li>Submit a final outbreak report to CDC's National Outbreak Reporting System, National Environmental Assessment Reporting System, and other appropriate databases. (<u>6.6.5</u>)</li> </ul>		1	2	3	4	5	N/A
• Share investigation and response findings more broadly if the outbreak involved an unusual exposure, pathogen, or root cause. (6.6.7)		1	2	3	4	5	N/A
• Track relevant corrective action items as part of agency/jurisdiction continuous quality-improvement program(s). (6.6.5) (7.5)		1	2	3	4	5	N/A
• Consult with other public health, environmental health, and food regulatory agencies on the need for new policies before presenting to the appropriate jurisdictional authority for consideration. (6.6.9)		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: \_\_\_\_\_