

Focus Area 5 Worksheet: Pathogen-Specific Surveillance

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

GOALS FOR 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 for timely follow-up of patients and quick detection and investigation of possible outbreaks.

KEYS TO SUCCESS FOR PATHOGEN-SPECIFIC SURVEILLANCE:

“Keys to success” are activities, relationships, and resources that are believed to be 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.

Reporting/submission of isolates

- 0 State has mandatory reporting of diseases and submission of patient isolates that were likely to have been foodborne.
- 0 Staff actively solicit case reports and submission of specimens/isolates to improve completeness of reporting.
- 0 Agency/jurisdiction has system to rapidly transport specimens and isolates from clinical laboratories to the public health laboratory.

Testing of specimens

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

Collection of exposure information

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

Detection of clusters/outbreaks

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

Communication

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

Making changes

- O Agency/jurisdiction has performance indicators related to pathogen-specific surveillance and routinely evaluates its performance in this Focus Area.

List the persons participating in the discussion of this Focus Area and list their affiliations

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1. DESCRIBE YOUR CURRENT ACTIVITIES AND PROCEDURES IN THIS FOCUS AREA.

Considering the keys to success on the previous page, describe your agency's/jurisdiction's current activities and procedures in this Focus Area. Refer to written protocols, if available, and materials related to ongoing efforts in capacity development or quality improvement (e.g., Epidemiology and Laboratory Capacity Grants). As you list current activities and procedures related to this Focus Area, indicate those that might need work to improve your agency's/jurisdiction's response to foodborne disease outbreaks.

Activity/Procedure	Needs Improvement? ✓
	☐
	☐
	☐
	☐
	☐
	☐
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	☐
	☐
	☐
	☐

2. PRIORITIZE CIFOR RECOMMENDATIONS TO ADDRESS NEEDED IMPROVEMENTS.

Having identified activities and procedures in need of improvement, review the CIFOR 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 hyperlinked section number following each recommendation to view the recommendation as it appears in the CIFOR Guidelines.**

	Already in place	Priority for Implementation or Improvement					
		LOW			HIGH		
<u>Reporting/submission of isolates</u>							
Encourage health-care providers to test patient specimens as part of the routine diagnostic process for possible foodborne diseases. (4.2.10.1) (2.2.3.1).	☐	1	2	3	4	5	N/A
Increase reporting of cases and submission of isolates by health-care providers and clinical laboratories through regulatory action. (4.2.10.1)	☐	1	2	3	4	5	N/A
Increase reporting of cases and submission of isolates by health-care providers and clinical laboratories by simplifying the process. (4.2.10.1)	☐	1	2	3	4	5	N/A
Increase reporting of cases and submission of isolates by health-care providers and clinical laboratories through education and regular feedback to reporters. (4.2.10.1)	☐	1	2	3	4	5	N/A
Increase reporting of cases and submission of isolates by clinical laboratories through laboratory audits. (4.2.10.1)	☐	1	2	3	4	5	N/A
Reconcile case reports submitted to the epidemiology unit and laboratory samples submitted to the public health laboratory to identify unreported cases. (4.2.5)	☐	1	2	3	4	5	N/A

Additional ideas:

Testing of specimens

Confer with the public health laboratory to determine subtyping methods available for the pathogen under study. (4.2.10.2)	☐	1	2	3	4	5	N/A
Streamline the process from submission of specimens to testing by the public health laboratory to decrease the time between onset of illness in the patient and confirmation of the case as part of an outbreak. (4.2.6)	☐	1	2	3	4	5	N/A
Undertake subtyping as the specimens are submitted. Do not wait for a specific number of specimens to accumulate before testing them. (4.2.10.2)	☐	1	2	3	4	5	N/A

	Already in place	Priority for Implementation or Improvement					
		LOW			HIGH		
Testing of specimens (cont'd)							
Perform tests such as PFGE and serotyping concurrently. (4.2.10.2)	☐	1	2	3	4	5	N/A
Except for individual cases of botulism and occasionally other infections, do not test food or other environmental specimens for cases reported through pathogen-specific surveillance without strong epidemiologic or environmental evidence implicating a food item. (4.2.5)	☐	1	2	3	4	5	N/A
Additional ideas:							
Collection of exposure information							
Interview patients as soon as possible after cases are reported or isolates are received, when patient recall and cooperating with investigators is the greatest. (4.2.10.3)	☐	1	2	3	4	5	N/A
Investigate cases of serious diseases or diseases that are likely to result in a public health intervention (e.g., <i>E. coli</i> O157:H7 infections) more aggressively than an intervention with other diseases. (4.2.10)	☐	1	2	3	4	5	N/A
Obtain a detailed exposure history from the patient that is consistent with the incubation period of the pathogen identified. (4.2.10.3)	☐	1	2	3	4	5	N/A
Collect detailed exposure histories at the time of initial report. (4.2.10.3)	☐	1	2	3	4	5	N/A
Where insufficient resources exist to collect detailed exposure histories at initial report, use a two-step interview process: 1) interview all cases about a limited number of high-risk exposures specific to the pathogen when reported and 2) if a cluster is recognized, re-interview cases in the cluster by using a detailed exposure history questionnaire. (4.2.10.3)	☐	1	2	3	4	5	N/A
In collecting a detailed exposure history, use a mix of question types including the following:							
• Close-ended questions related to exposures previously linked to outbreaks or that could plausibly be associated with the pathogen; • Broad open-ended questions to capture exposures that might not have been considered; and • Questions that elicit more specific information about high-frequency exposures such as brand and place of purchase. (4.2.10.3)	☐	1	2	3	4	5	N/A
When collecting exposure histories, routinely ask patients about group exposures, such as banquets and other events. (4.2.9.3)	☐	1	2	3	4	5	N/A
Use standardized forms with standardized “core” questions and data elements to enhance data sharing and comparisons across jurisdictions. (4.2.10.3) (See the CIFOR Clearinghouse for sample questionnaires.)	☐	1	2	3	4	5	N/A

	Already in place	Priority for Implementation or Improvement					
		LOW			HIGH		
Collection of exposure information (cont'd)							
Train staff in the use of standardized forms to ensure proper completion. (3.5.2.1)	☐	1	2	3	4	5	N/A
If investigations are infrequent, centralize the interview process to use more experienced interviewers. (4.2.10.3)	☐	1	2	3	4	5	N/A
Determine how confidential information will be stored and whether and how it can be shared. (3.6.2)	☐	1	2	3	4	5	N/A
Be familiar with and follow state and federal laws and practices that protect confidential information from disclosure. (5.1.2.6)	☐	1	2	3	4	5	N/A
Additional ideas:							

Detection of clusters/outbreaks

Use daily, automated laboratory reporting and analysis systems to compare the frequency of disease agents to historical frequencies and national trends. (4.2.10.4)	☐	1	2	3	4	5	N/A
To identify clusters, compare disease agent frequencies at multiple levels of specificity (e.g., species, subtype, more stringent subtype) and in subgroups of the population (defined by selected demographic characteristics). (4.2.10.4)	☐	1	2	3	4	5	N/A
Determine a “cluster” on the basis of the novelty of a subtype pattern. Determine increased occurrence of relatively common subtypes based on the geographic spread, temporal distribution, or demographic pattern of cases. (4.2.10.4)	☐	1	2	3	4	5	N/A
Obtain tools to analyze surveillance data (e.g., Epi Info, SAS). (3.5.2.2)	☐	1	2	3	4	5	N/A
Ensure that staff are trained to use these tools. (3.5.2.2)	☐	1	2	3	4	5	N/A
Compare exposure information from pathogen-specific surveillance reports with data obtained through the notification/complaint system to identify potential connections among cases and increase the likelihood of detecting outbreaks. (4.3.9.6)	☐	1	2	3	4	5	N/A
Additional ideas:							

	Already in place	Priority for Implementation or Improvement					
		LOW			HIGH		
Communication (cont'd)							
Identify persons with clinical training to communicate with patients, and describe actions patients should take to protect their health and that of their family. (3.6.2.6)	☐	1	2	3	4	5	N/A
Establish and use routine procedures for communicating among epidemiology, laboratory, and environmental health units within an agency and between local and state agencies. (4.2.10.5)	☐	1	2	3	4	5	N/A
Immediately report clusters of cases identified by the public health laboratory to the epidemiology unit. (4.2.5)	☐	1	2	3	4	5	N/A
Rapidly post subtyping results to PulseNet. (4.2.10.5)	☐	1	2	3	4	5	N/A
Rapidly report the detection of clusters to PulseNet and Foodborne Disease Outbreak listserves, (4.2.10.5)	☐	1	2	3	4	5	N/A
Additional ideas:							

3. MAKE PLANS TO IMPLEMENT SELECTED CIFOR RECOMMENDATIONS.

For each CIFOR recommendation selected in the previous step (or idea formulated by the Workgroup), identify who might take the lead in implementing the recommendation and the timeframe 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 timeframe. In addition, consider factors that might 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 step	Lead person	Timeframe for implementation	Notes (e.g., necessary antecedents, factors that might influence implementation, ways to incorporate the recommendation into standard operating procedures)

Date worksheet completed: _____