



Design and Conduct a Tabletop Program

Facilitator Guide

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Midwest Consortium for Hazardous Waste Worker Training

Acknowledgments

The Midwest Consortium developed this program for facilitators who want to design and conduct a tabletop program. The training is conducted under cooperative agreement number U45 ES 06184 from the National Institute of Environmental Health Sciences.

We encourage you to comment on these materials. Please give any feedback to your Program Director.

Content updated May 30, 2024 and all web links are active as of that date; if you find an error please notify your Program Director.

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Appendix—Foodborne Illness Tabletop Program

- Facilitator Guide, follows blank page
- Participant Guide, follows blank page

Design and Conduct a Tabletop Program– Facilitator Guide

Time Requirement: 2 hours (in-plant tabletop for task or ICS implementation; or
community preparedness)
4 hours (full-scale or multi-agency exercise)

Number of Instructors: 1 or more, consistent with ratio shown in the Minimum Criteria
and program demands. Unified Command tabletops likely
require a minimum of 2 facilitators.

Materials

The following materials will be needed:

- Facilitator Guide
- Participant materials (specific to the exercise, see Foodborne Illness example)
- Ensure Participant materials include the following statement:

The Midwest Consortium developed this program for participants to practice a range of topics as a tabletop exercise. The training is conducted under cooperative agreement number U45 ES 06184 from the National Institute of Environmental Health Sciences.

Objectives

When completed, participants will be better able to:

- Demonstrate competency in completing a task or a role in a tabletop exercise
- Participate in a debriefing to identify areas for improvement
- List approaches to achieving improvements identified

Suggested Preparation

Ideas for Tabletops

1. Has there been an occurrence in the region or industry that raises concern about preparedness?

Community and emergency personnel response to an ammonia spill on the highway?

2. Has there been a near miss or injury?

Bob fell when a damaged ladder rung gave way.

Foodborne illness outbreak at a school.

3. Is there a community need for preparedness practice?

How to maintain social distancing if a neighbor needs help.

Alerting for a tornado warning.

Review Resources

Resources shown at the end of this Guide include:

- National Incident Management System (NIMS) link - resource for structure and forms
- Emergency Action Plan, OSHA standard
- Process Safety Management, OSHA standard
- Emergency Response Plan, OSHA standard
- Summaries from National Incident Management System
<https://www.fema.gov/emergency-managers/nims>
 - Incident Command System
 - Unified Command
 - Emergency Operations Center
 - Area Command
- Public Health Response Structure, summarized from Medical Source Capacity Capability (MSCC) Handbook
- Hospital Incident Command System (HICS), summarized from HICS Guidebook
- MWC Unified Command Exercise (<https://mwc.umn.edu/catalog/product/unified-command/>)

Approach

Identify the focus of the tabletop

- Conduct reconnaissance:

What skills are to be practiced and evaluated?

- In-plant safety or response task
- Response using the Incident Command System
- Response using Unified Command
- Public health response
- Hospital-related response
- Community evacuation procedures
- Community alerting systems and actions for various threats

Collaborate

- Develop objectives, using Bloom's Taxonomy

Bloom's Taxonomy for Writing Learning Objectives

Note: listing below is adapted for a workplace tabletop. All measures are the worksheet/checklist type, no exam.

- Knowledge (recall of specific information)
Key words: define, describe, identify, label, list, match, recognize, name
Example: Name functions with one or more title in Incident Command System
- Comprehension (use information in a predictable way)
Key words: translate, convert, defend, distinguish, estimate, explain, give examples
Example: Defend selection of Unified Command
- Application (use information in an abstract situation)
Key words: change, compute, demonstrate, discover, manipulate, predict, show
Example: Demonstrate functions of the Public Information Officer
- Analysis (organize information or situation into logical elements)
Key words: diagram, discriminate, illustrate, infer, relate, select
Example: Select one or more SOPs needed during the exercise
- Synthesis (putting the parts together)
Key words: categorize, combine, compose, summarize
Example: Summarize lessons learned as part of debriefing

- Evaluation (make judgments)
Key words: appraise, compare, conclude, explain, support, justify
Example: Explain the reason(s) to revise an SOP used in the exercise

Note: listing below is adapted for a community tabletop. All measures are the worksheet/checklist type, no exam.

- Knowledge (recall of specific information)
Key words: define, describe, identify, label, list, match, recognize, name
Example: Name office that provides community-wide alerts
- Comprehension (use information in a predictable way)
Key words: translate, convert, defend, distinguish, estimate, explain, give examples
Example: Explain why some alerts may not be received by your neighbors
- Application (use information in an abstract situation)
Key words: change, compute, demonstrate, discover, manipulate, predict, show
Example: Show how information received through one storm radio might be used in your group of contacts
- Analysis (organize information or situation into logical elements)
Key words: diagram, discriminate, illustrate, infer, relate, select
Example: Select best locations to shelter if you are caught outside during a weather event.
- Synthesis (putting the parts together)
Key words: categorize, combine, compose, summarize
Example: Compose a communication scheme
- Evaluation (make judgments)
Key words: appraise, compare, conclude, explain, support, justify
Example: Explain actions you determine necessary to improve safety

NOTE: SOP is used in this Facilitator Guide as a generic term. Other terms may be more appropriate, depending upon focus (e.g., Incident Action Plan).

- Develop scenario, with prompts as appropriate, including

Who:	Describe relevant facts about those involved
What:	Describe the situation in which those involved are interacting

When:	Describe time of day
Where:	Describe relevant factors of the physical setting
Prompts:	Changing conditions or new information received

NOTE: developing the objectives and scenario may be an iterative process. Complete these two aspects, before going on to developing outcome measures.

- Develop outcome measure(s) for each objective

The elements of the worksheet or checklist of outcome measures to document demonstrated skills mirror the learning objectives, as illustrated below:

Workplace Tabletop

- Knowledge (recall of specific information)
Key words: define, describe, identify, label, list, match, recognize, name
Example: Name functions with one or more title in Incident Command System
Outcome: The functions of the Safety Officer include (checklist)
- Comprehension (use information in a predictable way)
Key words: translate, convert, defend, distinguish, estimate, explain, give examples
Example: Defend need for Unified Command
Outcome: The reason for Unified Command in this exercise was (fill in or select)
- Application (use information in an abstract situation)
Key words: change, compute, demonstrate, discover, manipulate, predict, show
Example: Demonstrate functions of the Public Information Officer
Outcome: I conducted the following functions of the PIO
- Analysis (organize information or situation into logical elements)
Key words: diagram, discriminate, illustrate, infer, relate, select
Example: Select one or more SOPs needed during the exercise
Outcome: An SOP that must be revised is (fill in)
- Synthesis (putting the parts together)
Key words: categorize, combine, compose, summarize
Example: Summarize lessons learned as part of debriefing
Outcome: Three lessons learned are (fill in)
- Evaluation (make judgments)

Key words: appraise, compare, conclude, explain, support, justify

Example: Explain the reason(s) to revise an SOP used in the exercise

Outcome: The SOP revisions should include (fill in)

Community Tabletop

- Knowledge (recall of specific information)

Key words: define, describe, identify, label, list, match, recognize, name

Example: Name office that provides community-wide alerts (fill in)

- Comprehension (use information in a predictable way)

Key words: translate, convert, defend, distinguish, estimate, explain, give examples

Example: Explain why some alerts may not be received by your neighbors (fill in or list)

- Application (use information in an abstract situation)

Key words: change, compute, demonstrate, discover, manipulate, predict, show

Example: Show how information received through one storm radio might be used in your group of contacts (fill in)

- Analysis (organize information or situation into logical elements)

Key words: diagram, discriminate, illustrate, infer, relate, select

Example: Select best locations to shelter if you are caught outside during a weather event (list)

- Synthesis (putting the parts together)

Key words: categorize, combine, compose, summarize

Example: Compose a communication scheme (diagram)

- Evaluation (make judgments)

Key words: appraise, compare, conclude, explain, support, justify

Example: Support actions you determine necessary to improve safety (list with open ended)

Examples of checklists are shown in the

- MWC Design a Drill exercise, shown here: <https://mwc.umn.edu>.
- The structures and forms described by the Federal Emergency Management Administration (FEMA) in the National Incident Management System can be found at: https://www.fema.gov/sites/default/files/2020-07/fema_nims_doctrine-2017.pdf
- The Hospital Incident Command System (HICS) Guide shown here: <https://emsa.ca.gov/disaster-medical-services-division-hospital-incident-command-system/>
- Consult the LEPC for local checklists

Responses to specific questions recorded on worksheets may also be used. For example,

- see the Foodborne Illness Tabletop in this Facilitator Guide
- the tabletops shown in the 40-hour Technician Program found here: <https://mwc.umn.edu>.

Information lists in these OSHA resources could be used to develop checklists:

<https://www.osha.gov/emergency-preparedness>

<https://www.osha.gov/etools/evacuation-plans-procedures>

If there is an existing outcome measure (worksheet to document performance) that could be used or ‘tweaked’, discuss with your Program Director. For example, if water is the focus, some aspects of the Water Contamination Exercise may be useful; if air monitoring is required, then protocols and data forms shown in the Monitoring Exposure program may be useful.

If the tabletop includes an external evaluation of the overall activity, an additional checklist may be needed. Areas of focus should include both a listing of what was implemented smoothly and efficiently, and areas where observations indicate that improvements are needed. If possible, this is an opportunity to work with the group(s) to develop a plan for improved protocols/practices and chart progress.

Determine the time requirement for the tabletop and the number of facilitators consistent with the Minimum Criteria and complexity of the tabletop.

Obtain supporting materials, as examples - dependent upon the tabletop developed:

- SOPs
- New Jersey Factsheet, SDS
- Emergency Response Guidebook

- NIOSH Pocket Guide
- Tablets or other electronic access
- Space for tabletop
- Communication devices, as needed

Develop participant materials that will be provided, as appropriate

Include the following acknowledgement on the written materials: The Midwest Consortium developed this program for facilitators who want to conduct a tabletop. The training is conducted under cooperative agreement number U45 ES 06184 from the National Institute of Environmental Health Sciences.

Develop Facilitator Guide

Template is shown below.

Name of Tabletop

Time requirement:

Number of facilitators:

Overview

Materials

List all the materials needed for the tabletop—introduction, conduct and evaluation

NOTE: this list will be specific to the tabletop you have designed

Objectives

List the objectives developed using Bloom's Taxonomy

Teaching Methods

Show approaches, such as interactive introduction, discussion, group activity

Suggested Facilitator Preparation

- Gather and review employer-specific materials needed for the tabletop
- Review all relevant sections of the program that these participants have completed

- Copy checklists/worksheets for participants; prepare answer sheet for facilitator
- Make class notes to document the content and performance outcomes
- Ensure that you have assembled all the materials listed for the tabletop

Minimum Content Requirements

- Introduction
- Tabletop
- Debrief/termination
- Evaluation

Questions You May Be Asked

Anticipate questions and list them in advance, with key parts of the response.

These will be specific for each tabletop. Retain these in the program file.

Presentation of the Session

This session can be presented as follows:

Introduction

- Welcome participants
- Introduce the program presenters, the training institution, and the Midwest Consortium
- Review the objectives for the tabletop you have designed
- Review other objectives for this program (debriefing, future actions)
- Introduce the MWC and acknowledge NIEHS funding
- Ensure registration forms are completed

Provide tabletop background and needed information. This may be done verbally, with a video, or review of written materials.

Conduct the tabletop

Specific to the focus of the tabletop

Summarize and discuss any follow-up

Ask: are any follow-up activities needed?

Ask: if assistance from others is needed for follow-up, do you know who to contact?

Workplace: Be ready to facilitate a discussion of who to contact at the worksite or with outside groups. If the contacts are co-workers, be ready to identify ways to work as a team; follow-up may be needed with supervisors to develop a health and safety committee or some other mechanism for offering suggestions and approaches to increase health and safety.

Community: Be ready to facilitate a discussion of who to contact in local community organizations and/or government. Discuss alternative strategies if those contacted initially cannot provide the needed information.

Ask: will anyone change work practices based on this tabletop?
List where all can see

Compliance with Successful Completion

As needed, provide remediation according to the Training Center policy. If successful completion cannot be achieved, inform the Program Director and document in the Program file.

Closing and Evaluation

Ask: are there additional questions?

Provide answer or record question and ensure you have contact information to get the answer back to the participant.

Complete evaluation form

Thank participants

Facilitator Follow up

Transfer all materials for the tabletop to the Program file (examples: scenario, triggers, materials list, checklists/worksheets document successful completion)

Share this tabletop with other training centers, if generalizable.

Make this program better:

Forward suggestions to MWC

Organize the list of 'takeaways' and forward to your program director. These are very important for future follow-back with the company and as possible

Resources

The following resources are provided

The National Incident Management System (NIMS) link to full document

Emergency Action Plan Summary

Process Safety Management of Highly Hazardous Chemicals Summary

Emergency Response Plan Summary

National Incident Management System (NIMS) Summaries

- Incident Command System

- Unified Command

- Emergency Operations Center (EOC)

- Area Command

Public Health Response Structure Summary

Hospital Incident Command System (HICS) Summary

The National Incident Management System (NIMS)

The structures and forms described by the Federal Emergency Management Administration (FEMA) in the National Incident Management System can be found at:

https://www.fema.gov/sites/default/files/2020-07/fema_nims_doctrine-2017.pdf

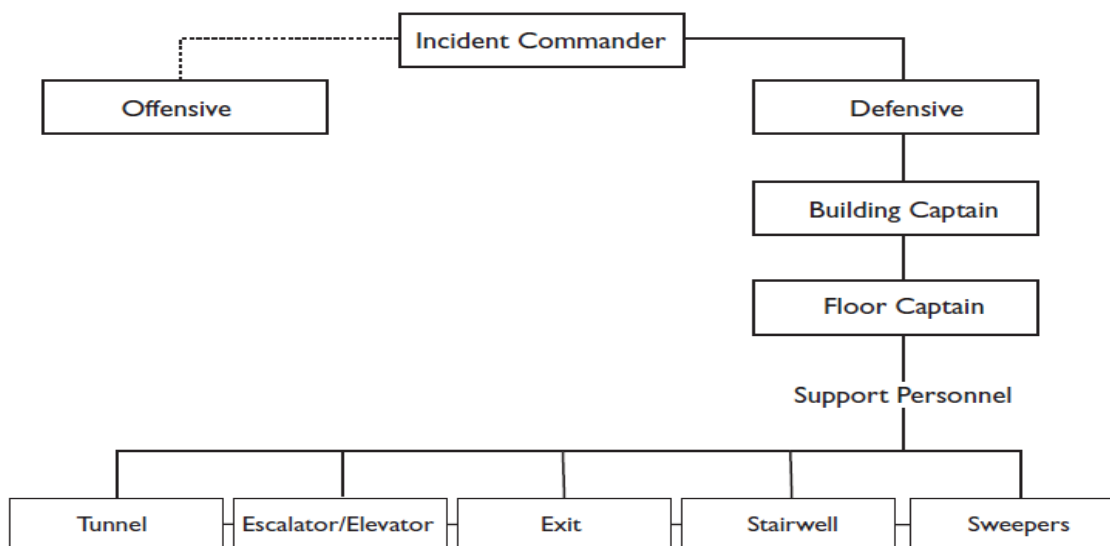
Emergency Action Plan (EAP, 29 CFR 1910.38)

An Emergency Action Plan (EAP) is required at any workplace where management has decided that workers will evacuate when a hazardous materials or other emergency occurs, and the response will be conducted by outside personnel. At some facilities, both an ERP and an EAP may be in place for different parts of the operation. The following must be in the EAP, as shown in 29 CFR 1910.38(a)(2):

- Emergency escape procedures and emergency route assignments
- Procedures to be followed by employees who remain to operate critical plant operations before they evacuate
- A procedure to account for all employees after the emergency evacuation has been completed
- Rescue and medical duties for those employees who are to perform them
- Preferred means of reporting fires or other emergencies
- Names or regular job titles of persons or departments who can be contacted for further information or explanation of duties under the plan

If the decision has been made to evacuate and rely on outside responders, an EAP is required. An example of an Evacuation Team structure in an EAP is shown below:

Evacuation Team Structure



In the above figure, there are offensive and defensive actions, both directed by an Incident Commander who may be shown in the EAP as 'person in charge'.

An IC or (other title of the designated person in charge) oversees all EAP activities.

Person in Charge/Leader/Evacuation Coordinator/Incident Commander

Functions:

- Responsible for determining need to evacuate
- Directs all aspects of the evacuation
- Establishes command post or communication center
- Maintains ongoing communication with team members
- Coordinates with off-site personnel
- Keeps a log of all activities

The offensive actions involve a limited number of personnel who will ensure shut down of key systems.

The evacuation actions are conducted by the defensive group. Examples of functions of some of the Defensive team members may include:

Building Captain

Functions:

- Reports to Incident Commander/Leader/Evacuation Coordinator
- Identifies any disabled person(s) requiring assistance

Floor Captain

Functions:

- Reports to Building Captain
- Performs evacuation head count

Support Personnel

Functions:

- Reports to Floor Captain
- Monitors assigned location--Tunnel, Escalator, Elevator, Exit, Stairwell, other

Sweepers

Functions:

- Reports to Floor Captain
- Ensures all personnel in the area have evacuated

A full listing of functions is in the workplace specific EAP. OSHA guidance in developing an EAP is shown here:

<https://www.osha.gov/SLTC/etools/evacuation/implementation.html>.

The EAP must be in writing at the worksite and available to workers if there are more than 10 employees; for smaller workplaces, the plan can be transmitted verbally. The EAP is reviewed with each worker when hired, newly assigned or there is a change in the plan.

An EAP is an evacuation plan, not a response plan.

Process Safety Management of Highly Hazardous Chemicals

(PSM, 29 CFR 1920.119)

The OSHA Process Safety Management (PSM) standard applies to employers where the quantities of chemicals specified in the standard as highly hazardous exceed designated quantities. Following a detailed Process Hazard Analysis, an Emergency Action Plan (see 29 CFR 1910.38) must be developed for the entire plant and include how to deal with small releases.

Small or not small?

- Small release - not defined.
- Catastrophic release - a major uncontrolled emission, fire, or explosion, involving one or more highly hazardous chemicals, that presents serious danger to employees in the workplace.

The employer must also determine as part of emergency planning if the HAZWOPER standard applies (see 29 CFR 1910.119(n)).

Planning is informed by investigating past events. The PSM standard includes guidance for the required 'thorough investigation of incidents' to identify the chain of events and causes so that corrective measures can be developed and implemented. Accordingly, PSM requires the investigation of each incident that resulted in, or could reasonably have resulted in, a catastrophic release of a highly hazardous chemical in the workplace. (29 CFR 1910.119(m)). An incident investigation must be initiated as promptly as possible, but not later than 48 hours following the incident. The investigation must be by a team consisting of at least one person knowledgeable in the process involved, including a contract employee if the incident involved the work of a contractor, and other persons with appropriate knowledge and experience to investigate and analyze the incident thoroughly.

An investigation report must be prepared including at least:

- Date of incident
- Date investigation began
- Description of the incident
- Factors that contributed to the incident
- Recommendations resulting from the investigation

A system must be established to promptly address and resolve the incident report findings and recommendations. Resolutions and corrective actions must be recorded, and the report reviewed by all affected personnel whose job tasks are relevant to the incident findings (including contract employees when applicable). The employer must keep these incident investigation reports for 5 years.

Emergency Response Plan

(ERP, 29 CFR 1910.120)

An Emergency Response Plan (ERP) is required at all plants where a hazardous materials emergency response will include plant personnel. A hazardous materials emergency is a spill or release that cannot be controlled without outside help. OSHA defines "outside help" to mean anyone other than employees working in the immediate area or maintenance personnel. The ERP must be in writing. It must be developed and practiced before an emergency occurs that requires a response. The ERP should be a living document that is revised at least annually based on experiences during response efforts, as well as new processes that are added, new hazard information that becomes available, or changes in the level of response by site personnel.

The specific topics which must be covered in the ERP (29 CFR 1910.120(l)(2)) are:

- Pre-emergency planning and coordination with outside parties
- Personnel roles, lines of authority, training, and communication
- Emergency recognition and prevention
- Safe distances and places of refuge
- Site security and control
- Evacuation routes and procedures
- Decontamination procedures
- Emergency medical treatment and first aid procedures
- Emergency alerting and response procedures
- Critique of response and follow-up
- Emergency response equipment
- Emergency response

According to 29 CFR 1910.120(q)(2), the local or state emergency plan may be included as part of the ERP to avoid duplication.

Response to an emergency incident requires a structured approach to ensure health and safety of all involved, efficient use of resources and appropriate follow up. The response operation can be small and managed by properly training in-plant personnel or may require outside assistance from the immediate area (e.g., fire service) or a larger area (e.g., State EPA) or federal involvement (e.g., US Coast Guard). The structures described by the Federal Emergency Management Administration (FEMA) in the National Incident Management System https://www.fema.gov/sites/default/files/2020-07/fema_nims_doctrine-2017.pdf are flexible to address these contingencies.

National Incident Management System

The following aspects of NIMS are summarized in the next pages:

- Incident Command System
- Unified Command
- Emergency Operations Center
- Area Command

Communication is the Key

NIMS was established to improve communication among public sector responders and those seeking assistance by using a uniform set of terms

- An ERP should include NIMS terms
- Training must include NIMS terms
- Training coordination with outside responders is detailed in the ERP

Private sector employers are not required to use NIMS, but use may facilitate communication with responders who likely include public sector employees.

NIMS-trained personnel, such as local fire department responders, may assist at work sites covered by an EAP.

- Plan for communication by meeting with responders BEFORE an incident
- Update responders when changes are made to the EAP
- Train with outside personnel included in the EAP

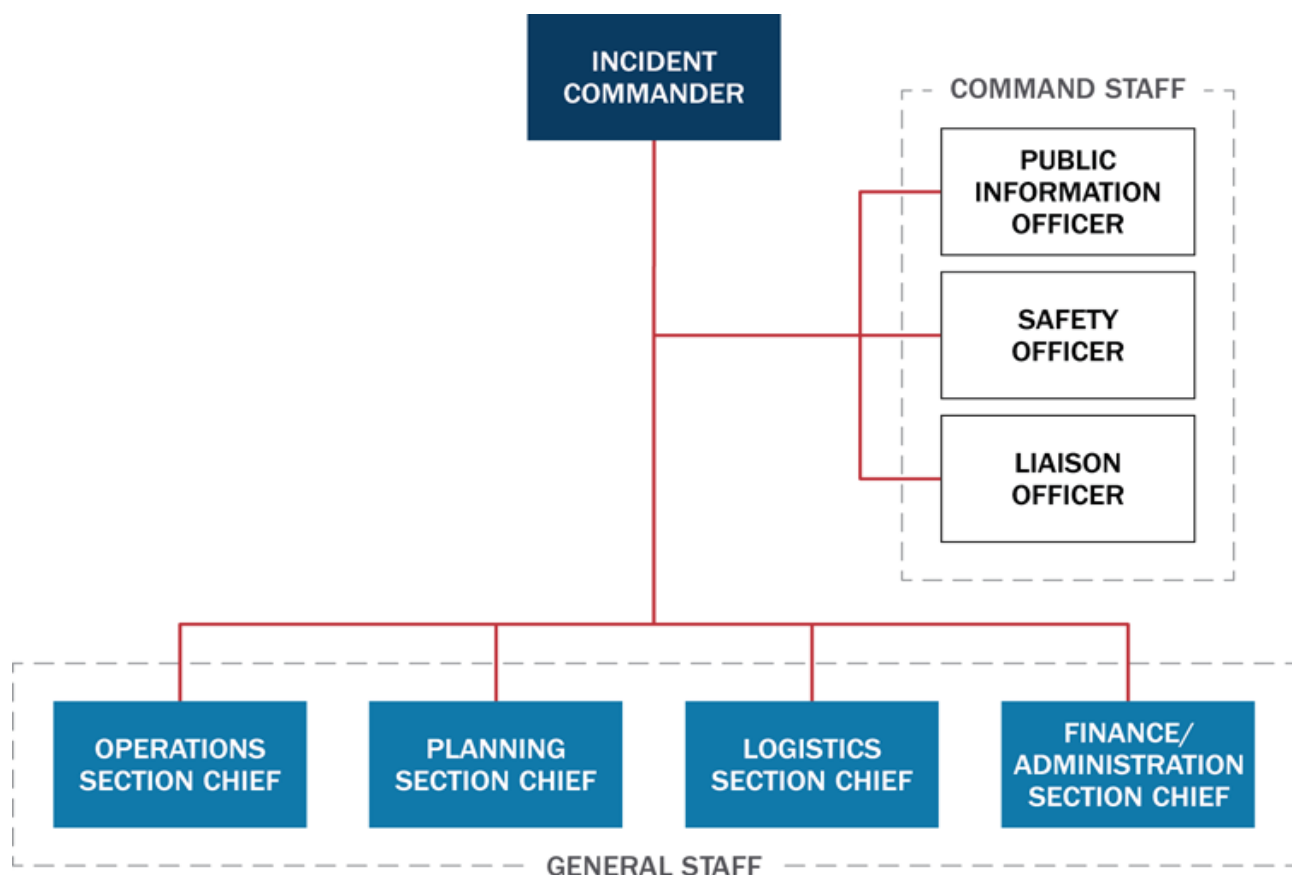
If you have an EAP, **it is critical** that outside personnel who may be called to the workplace be aware of your terminology, and you of theirs.

ERP or EAP—communicate **in advance** with responders who may assist when the plan is activated; if possible do drills or tabletop exercises with responders.

Incident Command System

The Incident Command System (ICS) illustrates an organizational structure for incident management that coordinates the procedures, personnel, equipment, facilities, and communication.

An example of the structure of a response team follows, using the standard terms in the National Incident Management System (NIMS). This system was promoted after the 9/11 attack where the need for uniform terminology was identified as essential to ensure effective communication between parties.



Source: https://www.fema.gov/sites/default/files/2020-07/fema_nims_doctrine-2017.pdf

Key functions of the Incident Commander (person in charge of a response), and response team members in the Command Staff and General Staff are shown below: (reference under figure above).

Incident Commander - (The person in charge who oversees all aspects of the response)

Functions:

- Establishes a single Incident Command Post (ICP) for the incident
- Establishes consolidated incident objectives, priorities, and strategic guidance, and updates them every operational period
- Selects a single section chief for each position on the General Staff needed based on current incident priorities
- Establishes a single system for ordering resources
- Approves a consolidated Incident Action Plan (IAP) for each operational period
- Establishes procedures for joint decision making and documentation
- Captures lessons learned and best practices

Command Staff (see figure above)

Public Information Officer (PIO)

Functions:

- Interface with public, media and/or other agencies with information needs
- Gathers, verifies, coordinates, and disseminates information to both internal and external parties
- Monitors the media and other sources and provides information to relevant components of the responders
- Releases accurate information concerning the incident after it is cleared by the Incident Commander

Safety Officer

Functions:

- Reports directly to the Incident Commander
- Monitors incident operations
- Advises the IC on health and safety matters of incident personnel
- Establishes the systems and procedures to assess, communicate and mitigate hazardous environments
 - Developing and maintaining the Safety Plan
 - Coordinating safety efforts
 - Implementing measures to promote safety
- Stops or prevents unsafe acts

Liaison Officer

Functions:

- IC's point of contact for representatives from agencies such as fire and law enforcement or other jurisdictions
- Receives input from outside groups to Maintains communication between outside agencies and in-house response
- Point of contact to facilitate coordination of assisting or cooperating agencies or jurisdictions

General Staff (see figure above)

Operations Section, led by Section Chief

Functions:

- Section Chief appointed by the IC; assigned personnel may change as the incident evolves
- Directing management of tactical activities to achieve objectives established by the IC
- Developing and implementing strategies and tactics to achieve incident objectives
- Section Chief organizes the group to meet the needs, maintain manageable span of control and optimize use of resources
- Supporting Action Plan development for each part of the response

Planning Section, led by Section Chief

Functions:

- Collect, evaluate, and disseminate incident information to the IC or other personnel
- Prepare status reports, display information, maintain the status of resources
- Facilitate the incident action planning process and prepare the incident Plan sing input from other sections and command staff and IC guidance
- Facilitate incident planning meetings
- Record status of resources and anticipated needs
- Collecting, organizing, displaying, and disseminating status information and analyzing the situation as it changes
- Planning for the orderly, safe, and efficient demobilization of resources
- Collecting, recording, and safeguarding incident documents

Logistic Section, led by Section Chief

Functions:

- Ordering, receiving, storing/housing, and processing incident-related resources
- Providing ground transportation during an incident, maintaining, and supplying vehicles, keeping vehicles usage records, and developing incident traffic plans
- Setting up, maintaining, securing, and demobilizing incident facilities
- Determining food and water needs, including ordering food, providing cooking facilities, maintaining food service areas, and managing food security and safety (in cooperation with the Safety Officer)
- Maintaining an incident Communications Plan and acquiring, setting up, issuing, maintaining, and accounting for communications and IT equipment
- Providing medical services to incident personnel

Finance/Administration Section, led by Section Chief

Functions:

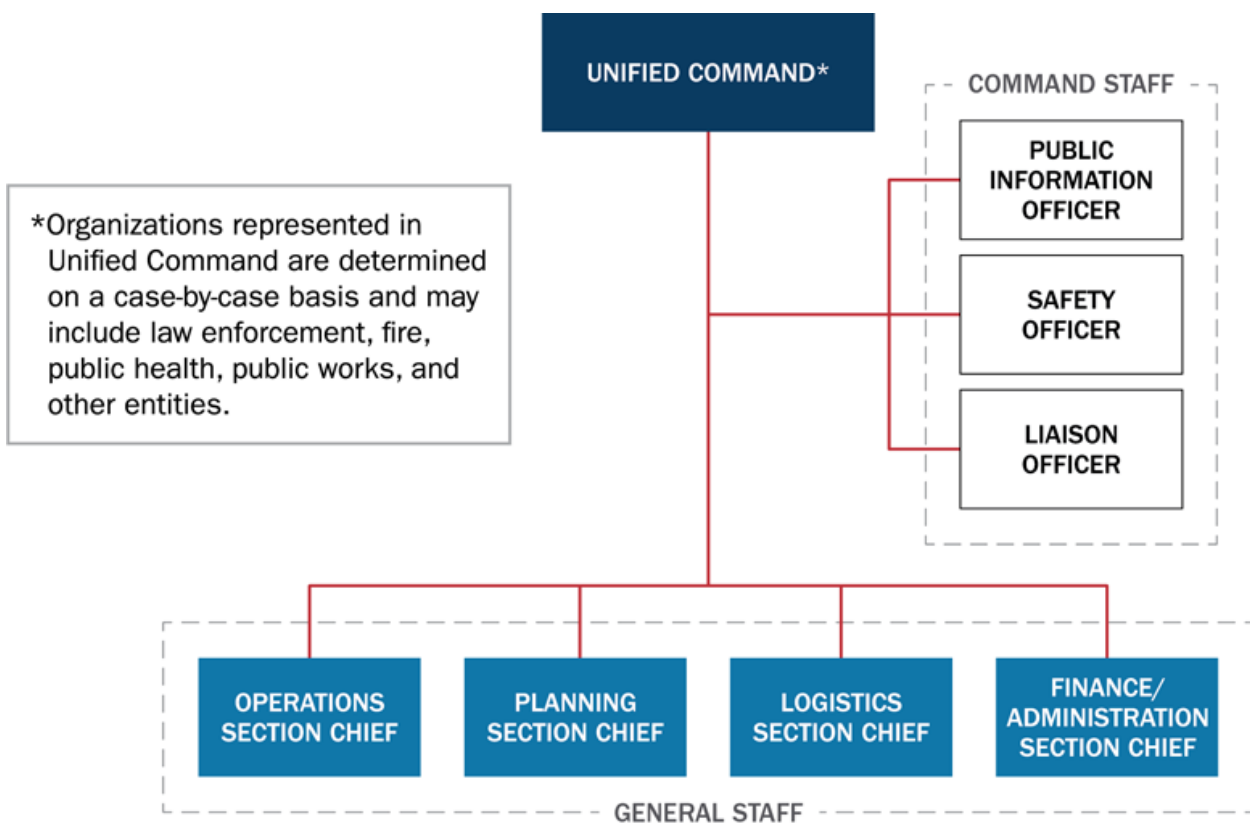
- Tracking costs, analyzing cost data, making estimates, and recommending cost savings measures
- Analyzing, reporting, and recording financial concerns resulting from property damage, responder injuries or fatalities at the incident
- Managing financial matters concerning leases and vendor contracts
- Managing administrative databases and spreadsheets for analysis and decision making
- Recording time for incident personnel and leased equipment

Additional functions may be integrated into the ICS. For example, in a response that could involve criminal activity, an Intelligence/Investigations Section might be activated by the IC. The basic ICS structure is flexible and can be scaled for more complex incidents, including events that involve multiple geographical or governmental jurisdictions or take place in more than one location.

Unified Command

When multiple jurisdictions or agencies are involved in a response, the use of Unified Command enables those in charge of each authority to jointly manage and direct response activities through a common set of incident objectives, strategies, and a single Incident Action Plan (IAP). In Unified Command, there is not a single Incident Commander, rather each participating partner maintains authority, responsibility and accountability for its personnel and other resources. Each member of the Unified Command assumes responsibility to inform other members of the Unified Command of activities.

The Command structure mirrors that for ICS as shown below.



Source: https://www.fema.gov/sites/default/files/2020-07/fema_nims_doctrine-2017.pdf

As shown, the participants in the Unified Command are developed based on the specific situation. Other groups that might be involved include various federal agencies such as the US Coast Guard, Federal Railroad Administration or Environmental Protection Agency. There may be others that have no jurisdictional responsibilities; these groups are referred to as cooperating or assisting agencies.

All groups in the Unified Command or cooperating or assisting agencies are responsible for communicating agency-specific information including:

- Statutory authorities and responsibilities
- Resource availability and capabilities
- Constraints, limitations, concerns
- Areas of agreement and disagreement between officials

For those outside the Unified Command, communications should be made to the Liaison Officer.

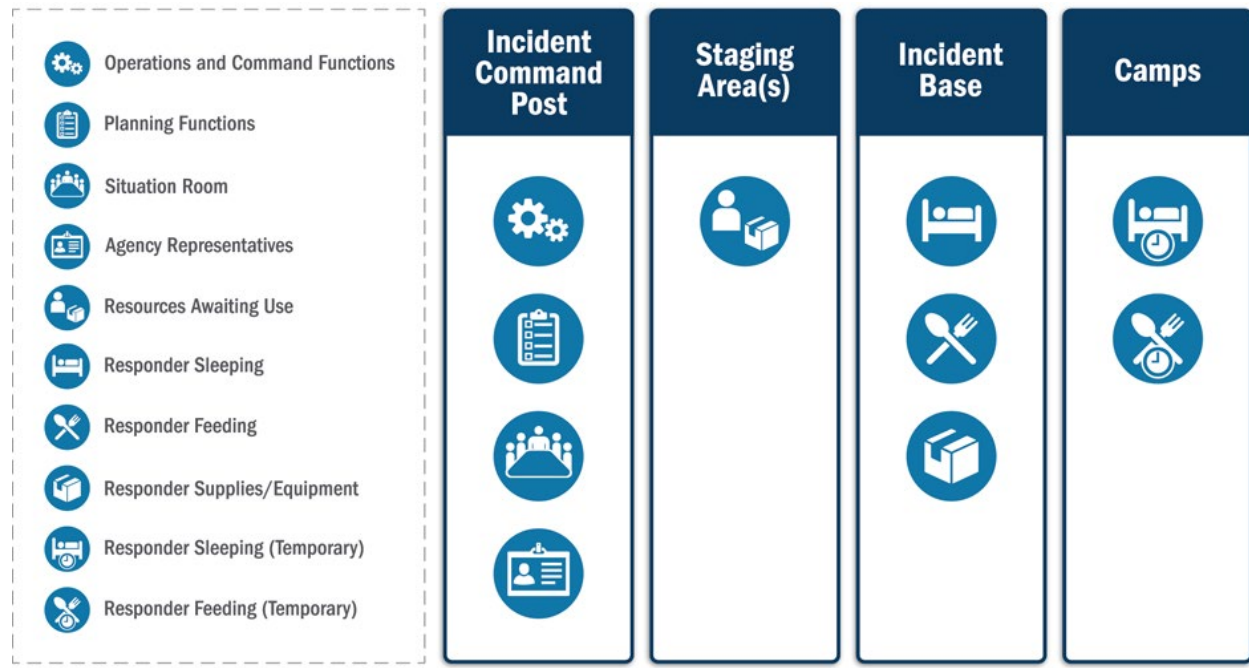
Key functions of the Incident Commander (person in charge of each group represented in the Unified Command), and response team members in the Command Staff and General Staff build on the ICS functions; these additions for Unified Command are underlined in the listing below.

Incident Commander – (The person in charge who oversees all aspects of one group in the Unified Command; all collaborate in the Unified Command)

Functions:

- Establishes a single Incident Command Post (ICP) for the incident
- Establishes consolidated incident objectives, priorities, and strategic guidance, and updating them every operational period
- Selects a single section chief for each position on the General Staff needed based on current incident priorities
- Establishes a single system for ordering resources
- Approves a consolidated Incident Action Plan (IAP) for each operational period
- Establishes procedures for joint decision making and documentation
- Captures lessons learned and best practices
- Collaboratively, appoint one PIO as the lead PIO
- Collaboratively select an Operations Section Chief based on current priorities
- Collaboratively establish an incident communications center at the ICP
- Collaboratively establish an incident base, often co-located with the ICP; temporary satellite camps may be established for personnel

Facilities and activities are shown graphically in the Figure.



Source: https://www.fema.gov/sites/default/files/2020-07/fema_nims_doctrine-2017.pdf

Public Information Officer (PIO)

Functions:

- Interface with public, media and/or other agencies with information needs
- Gathers, verifies, coordinates, and disseminates information to both internal and external parties
- Monitors the media and other sources and provides information to relevant components of the responders
- Releases accurate information concerning the incident after it is cleared by the Incident Commander
- Work in unified manner, speak with one voice, ensure consistent messaging. In very large incidents, the PIO participates in or leads a Joint Information Center.

Safety Officer

Functions:

- Reports directly to the Incident Commander
- Monitors incident operations
- Advises the IC on health and safety matters of incident personnel
- Establishes the systems and procedures to assess, communicate and mitigate hazardous environments
 - Developing and maintaining the Safety Plan
 - Coordinating safety efforts
 - Implementing measures to promote safety
- Stops or prevents unsafe acts

Liaison Officer

Functions:

- IC's point of contact for representatives from agencies such as fire and law enforcement or other jurisdictions
- Receives input from outside groups to Maintains communication between outside agencies and in-house response
- Point of contact to facilitate coordination of assisting or cooperating agencies or jurisdictions

General Staff (see figure above)**Operations Section, led by Section Chief**

Functions:

- Section Chief appointed by the IC; assigned personnel may change as the incident evolves
- Directing management of tactical activities to achieve objectives established by the IC
- Developing and implementing strategies and tactics to achieve incident objectives
- Organizing the group to meet the needs, maintain manageable span of control and optimize use of resources
- Supporting Incident Action Plan development for each part of the response
- Establishing a staging area to position and track resources

Planning Section, led by Section Chief

Functions:

- Collect, evaluate, and disseminate incident information to the IC, UC, or other incident personnel
- Prepare status reports, display information, maintain the status of resources
- Facilitate the incident action planning process and prepare the incident Plan using input from other sections and command staff and IC guidance
- Facilitate incident planning meetings
- Record status of resources and anticipated needs
- Collecting, organizing, displaying, and disseminating status information and analyzing the situation as it changes
- Planning for the orderly, safe, and efficient demobilization of resources
- Collecting, recording, and safeguarding incident documents

Logistic Section, led by Section Chief

Functions:

- Ordering, receiving, storing/housing, and processing incident-related resources
- Providing ground transportation during an incident, maintaining, and supplying vehicles, keeping vehicles usage records, and developing incident traffic plans
- Setting up, maintaining, securing, and demobilizing incident facilities
- Determining food and water needs, including ordering food, providing cooking facilities, maintaining food service areas, and managing food security and safety (in cooperation with the Safety Officer)
- Maintaining an incident Communications Plan and acquiring, setting up, issuing, maintaining, and accounting for communications and IT equipment
- Providing medical services to incident personnel

Finance/Administration Section, led by Section Chief

Functions:

- Tracking costs, analyzing cost data, making estimates, and recommending cost savings measures
- Analyzing, reporting, and recording financial concerns resulting from property damage, responder injuries or fatalities at the incident
- Managing financial matters concerning leases and vendor contracts
- Managing administrative databases and spreadsheets for analysis and decision making
- Recording time for incident personnel and leased equipment
- Monitoring multiple sources of funds; track and report the accrued

costs as incident progresses

Other functions such as an Intelligence/Investigations Section might be activated by the ICs in the Unified Command, if criminal activity is suspected

Emergency Operations Center (EOC)

For responses that involve multiple jurisdictions or organizations, an Emergency Operations Center may support the activity. These may be fixed site, temporary or virtual facilities that serve the multidisciplinary needs of more than one response function in the ICS. An EOC Manager of Director is named.

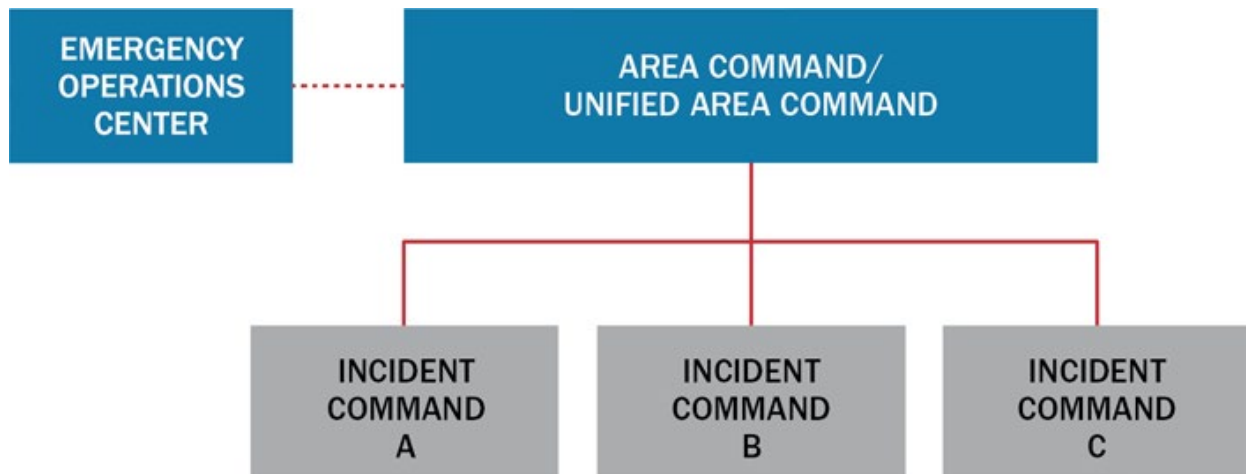
Primary staff functions in an EOC include:

- Collecting, analyzing, and sharing information
- Supporting resource needs and requests, including allocation and tracking
- Coordinating plans and determining current and future needs
- Providing coordination and policy direction as needed

Consideration of the need and composition of an EOC should be part of emergency planning. Detailed consideration of 'worst case' scenarios is very useful in identifying changes in composition, depending on the incident.

Area Command

When multiple, concurrent incidents occur, an ICS may be established at each of the incidents. This organization is referred to as Area Command, as illustrated below.



Source: https://www.fema.gov/sites/default/files/2020-07/fema_nims_doctrine-2017.pdf

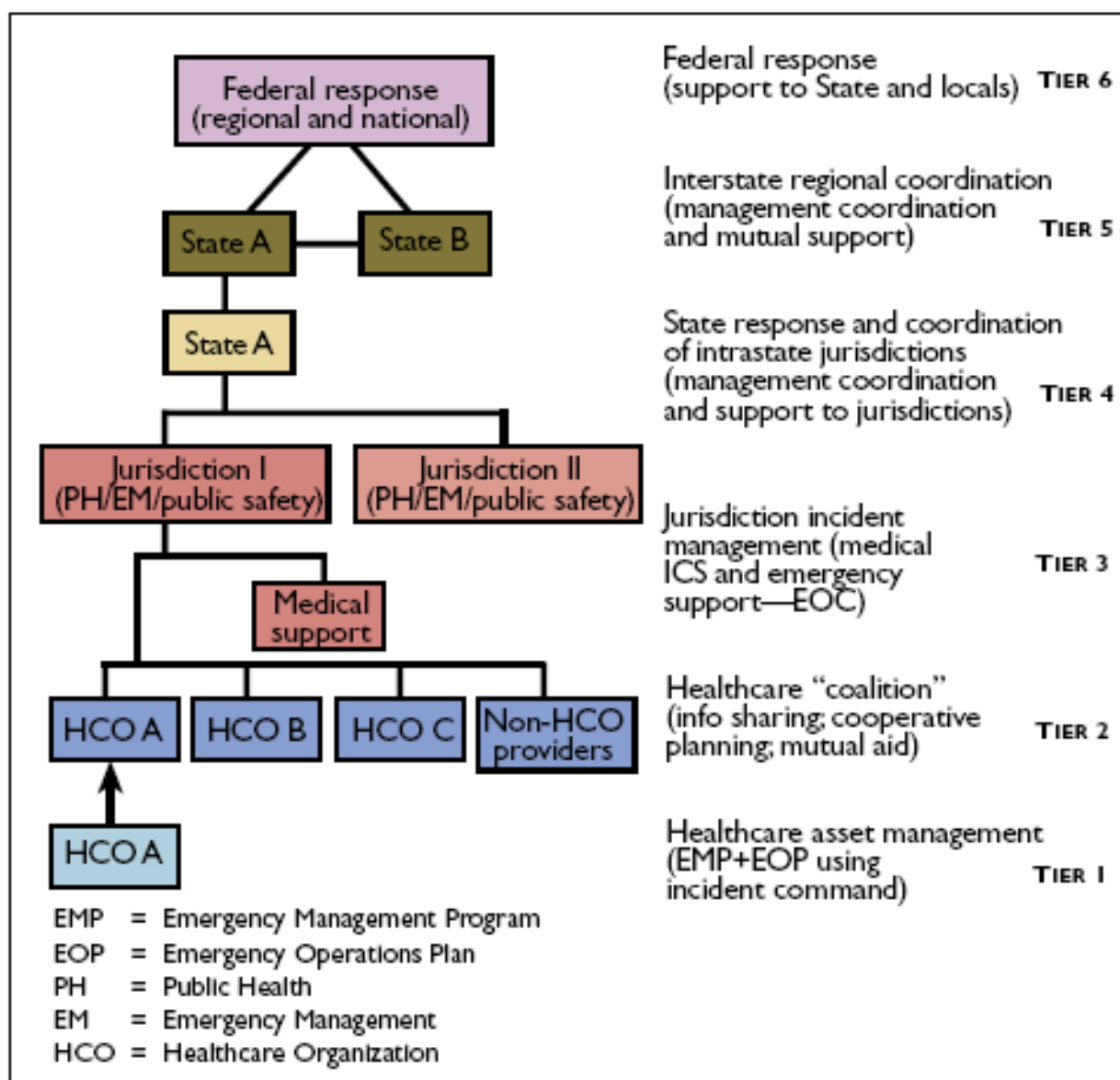
As shown in the figure, the Area Command may be organized as a Unified Command. Staff at an Emergency Operations Center (EOC) coordinate support.

Responsibilities of an Area Command include:

- Developing broad objectives for the affected area
- Coordinating development of incident objectives and strategies for each incident
- Allocating and reallocating resources as priorities change
- Ensuring the Incident Commanders and or Unified Commands properly manage incidents
- Ensuring effective communications and data coordination
- Ensuring that incident objectives are met and do not conflict with each other or with agency policies
- Identifying needs for scarce resources and reporting the needs to Agency Administrators directly or through another group as directed
- As appropriate, ensuring that short-term recovery is coordinated with EOC staff to assist in the transition to long-term recovery

Public Health Response Structure

Public health and medical personnel may refer to response tiers, as shown in the figure below taken from the Medical Surge Capacity and Capability (MSCC) Handbook for public health emergencies. Note that specific 'tiers' are referenced.



Management Organization Strategy

<https://www.phe.gov/preparedness/planning/mscc/handbook/documents/mscc080626.pdf>

Tier 1 - Individual Healthcare Assets

Goal: maximize MSCC within the specific asset while ensuring the safety of personnel and patients and the integrity of usual operations

This tier includes hospitals, integrated health care systems, private medical offices and outpatient clinics, nursing, and skilled nursing facilities and other ‘point of service’ medical providers. Emergency Medical Services (EMS) may be included here if staff provides care in the field. The goal is best achieved by optimizing the Emergency Operations Plan of the entity to effectively manage internal resources and to integrate with external response assets.

Tier 2 - Management of the Healthcare Coalition

Goal: Maximize MSCC through cooperative planning, information sharing and management coordination.

The coalition organizes individual units into a single functional unit. This strengthens MSCC by creating the ability to move medial resources (personnel, facilities, equipment, supplies) to site(s) of greatest need. In addition to hospitals, the coalition may include long-term care and alternative treatment facilities, dialysis and other outpatient treatment centers, other facilities needed during a major medical response. The reach may extend beyond the geographic area of the primary response (Tier 3), especially in rural areas where resources are scattered. The goal is accomplished through the establishment of mutual aid and cooperative agreements between the HCOs. To be effective, a planning process must be established that provides all parties opportunity for input during preparedness planning, as well as the response and recovery. The coalition provides a platform for unified interface with the Tier 3.

Tier 3 - Jurisdiction Incident Management

Goal: Describe how to effectively coordinate and manage diverse assets to support medical system resiliency and surge demands.

This tier brings together HCOs with public safety, emergency management and other response units to maximize jurisdictional MSCC and is the critical to fully integrating all parties in a mass casualty or mass effect event. Health care assets must be recognized

as integral to the responder community as participants in management, operations, and support activities. Medical and public health participate in the unified command system. This is especially important when a medical concern is the focus, such as an infectious disease.

Tier 4 - Management of State Response and Coordination of Intrastate Jurisdictions

Goal: Promote development of State-level actions to support jurisdiction incident management (Tier 3)

State involvement is an important interface for requesting Federal assistance. Initiated during preparedness planning, State agencies may facilitate arrangements between jurisdictions to coordinate assets using mutual aid or other agreements to standardize mutual aid between jurisdictions and promote a cohesive response strategy.

Tier 5 - Interstate Regional Management Coordination

Goal: Maximize interstate coordination to support MSCC

This activity facilitates management of medical and public health assistance and is an examination of how mutual aid. Incident management coordination and information sharing. The Emergency Management Assistance Compact establishes legal authority, financial mechanisms, and operational guidance to establish mechanisms to request and receive emergency assistance from other States or Territories.

Tier 6 - Federal Support to State, tribal and Jurisdictional Management

Goal: Maximize MSCC through optimal integration and management of Federal public health and medical assets.

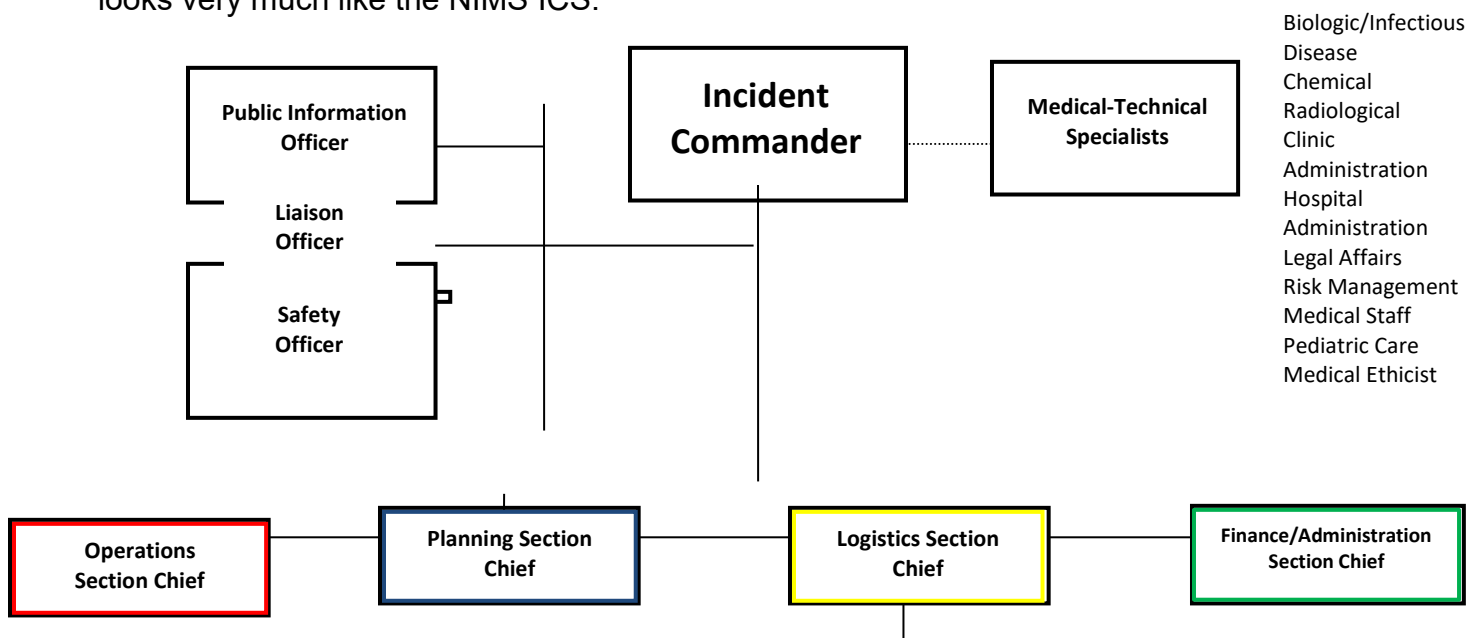
Activation of medical and public health assistance may occur through the Robert T. Stafford Disaster Relief and Emergency Act or through independent authority from the Department of Health and Human Resources declaration of a Federal public health emergency or disaster.

Hospital Incident Command System (HICS)

The Hospital Incident Command System (HICS) adapts the basic structure of ICS in NIMS for the hospital setting. The Guide and resources are shown here:

<https://emsa.ca.gov/disaster-medical-services-division-hospital-incident-command-system/>.

The structure of the HICS Hospital Incident Management Team (HIMT) shown below looks very much like the NIMS ICS.



For communication in the planning and response phases, table 1, pages 46-47 in the Guidebook shows representative hospital job titles for each function in a response structure, Hospital Incident Management Team (HMIT). For example, the Incident Commander position may be held by the Hospital Administrator/Administrator On Call, Nursing Supervisor, Chief Operating Officer, Chief Medical Officer, Chief Nursing Officer, Emergency Program Manager or Chief Executive Officer (CEO).

Command Staff

Incident Commander - (the person in charge; the only position always activated in HICS)

Responsible for:

- Management of the incident within the hospital
- Directs all activities within the Hospital Command Center
- Sets operational periods
- Devises strategies and priorities to address objectives communicated in the Incident Action Plan (IAP)

- Appoints other Command Staff (e.g., Public Information Officer, Liaison Officer, Safety officer, Medical-Technical Specialists)

Public Information Officer (PIO)

Responsible for:

- Coordinates information sharing inside and outside the hospital
- Conduit for information to internal personnel and external stakeholders, including media and other agencies/organizations

Liaison Officer

Responsible for:

- Primary contact for external agencies assigned to support the hospital during response
- Deputy or Assistant may be assigned at the field Incident Command Post or local emergency response center (Liaison Officer remains at Hospital Command Center)

Safety Officer

Responsible for:

- Monitors hospital response operations to identify and correct unsafe practices
- Institutes measure to ensure safety of all assigned personnel

Medical-Technical Specialists

Responsible for:

- Provides HIMT staff with needed expertise such as infectious disease, legal, risk management, medical ethics
- Assigned where needed in the HICS structure

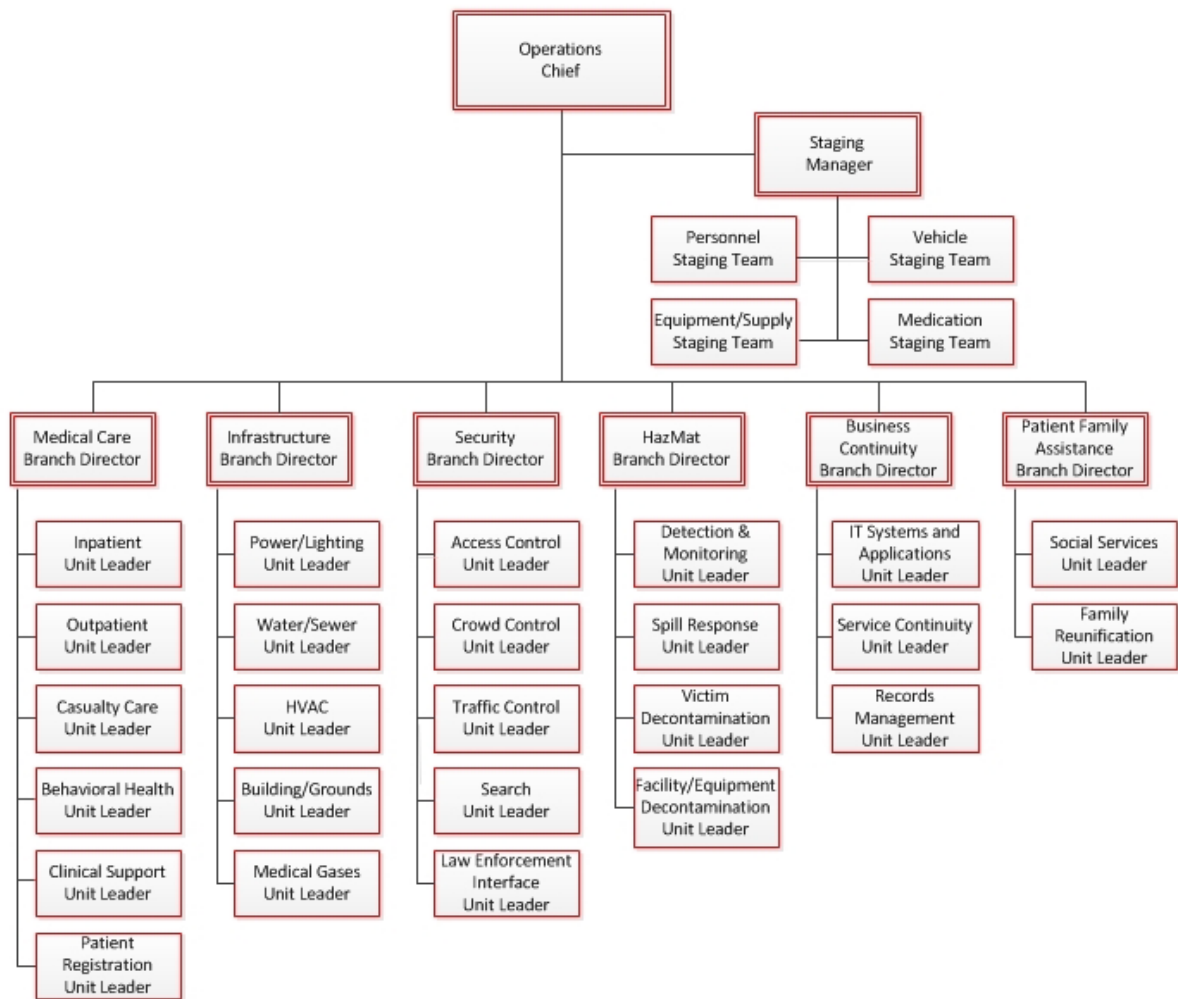
To meet the actions of the Command IAP, General Staff Section Chief positions are be activated to lead needed Sections, including Operations, Planning, Logistics and Finance/Administration.

Operations Section, led by Section Chief

Responsible for:

- Manage all tactical activities
- Implements the IAP
- Implement branches and units as needed to maintain manageable span of control and streamline organizational management
- Determines need to assign resources in support of mission objectives

A representative graphic for the Operations Section follows.



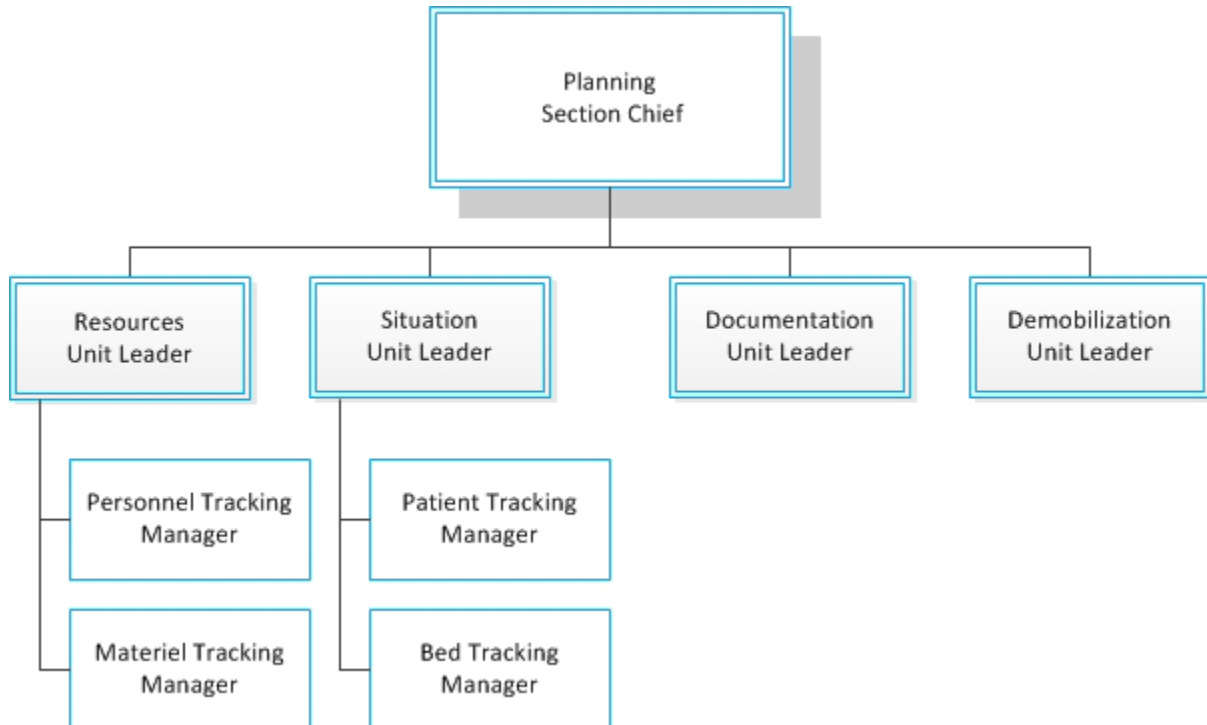
Responsibilities of those units under the Operations Section are detailed in the Guidebook.

Planning Section, led by Section Chief

Responsible for:

- Collecting, evaluating, and disseminating situational information and intelligence regarding operations and assigned resources
- Conduct planning meetings
- Prepare IAP for each operational period

A representative graphic for the Planning Section follows.



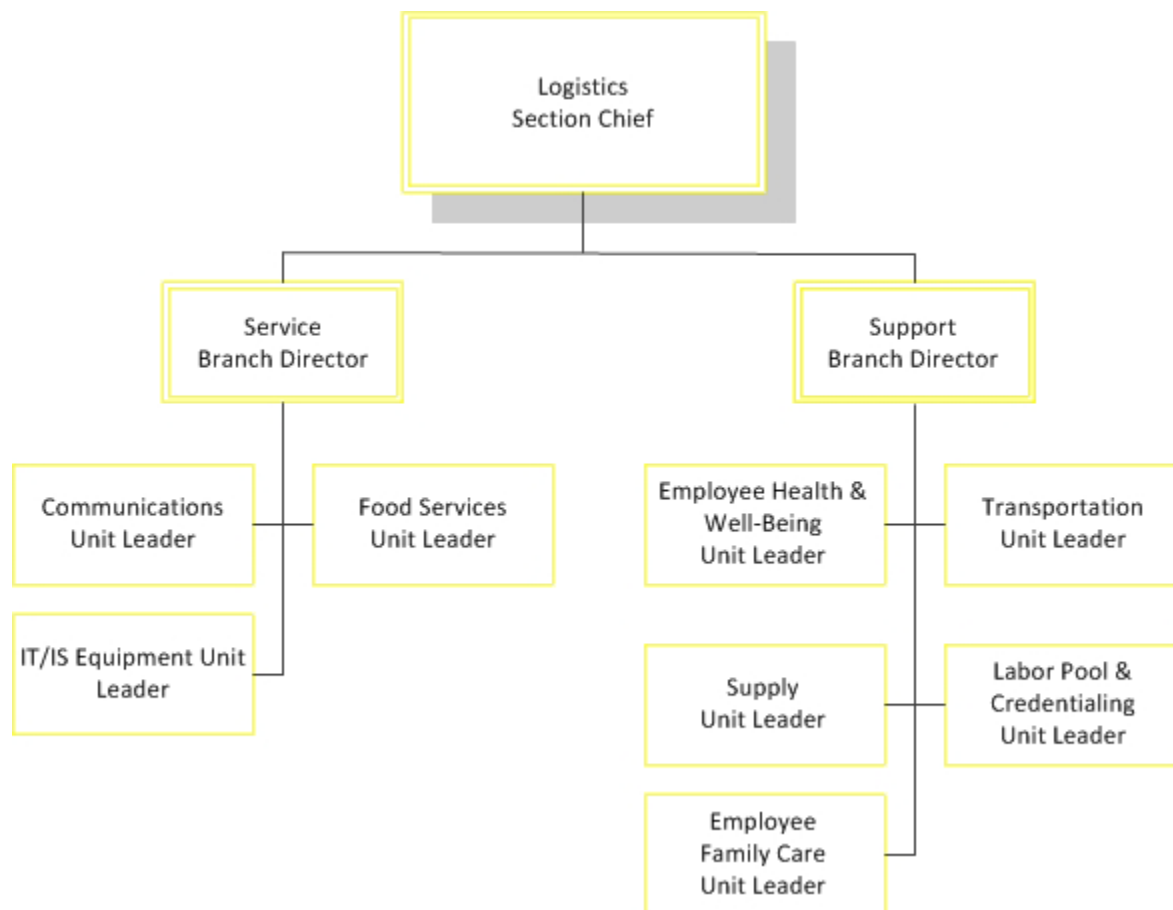
Responsibilities of those units under the Planning Section are detailed in the Guidebook.

Logistics Section, led by Section Chief

Responsible for:

- All the support needs of the incident
 - Acquiring resources form internal and external sources
 - Using corporate partners and local EOCs or Regional Hospital Coordination Center (RHCC0) or equivalent
- Receive notice of all requests for resources, using procedures in the Emergency Operations Plan

A representative graphic for the Logistics Section follows.



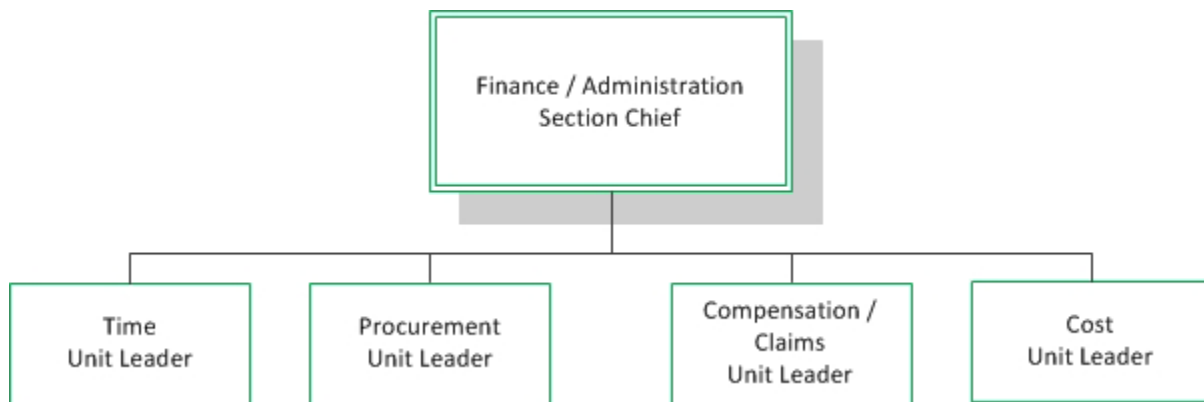
Responsibilities of those units under the Logistics Section are detailed in the Guidebook.

Finance/Administration Section, led by Section Chief

Responsible for:

- Coordinating personnel time
- Orders items and initiate contracts
- Arranges personnel-related and Workers Compensation payments
- Track response and recovery costs, payment of invoices

A representative graphic for the Finance/Administration Section follows.



Responsibilities of those units under the Finance/Administration Section are detailed in the Guidebook.

The Guidebook includes detailed guidance for creating incident planning guides (IPGs) for potential threats. This listing of IPGs may be increased over time; for example, the as part of the annual Hazard Vulnerability Analysis may include a new threat. IPG development includes all phases of emergency management: Mitigation, Preparedness, Response and Recovery. For identified threats, an incident response guide (IRG) is created. The IRG is a description of the mission and incident objective for the threat and the activities expected during time periods (may vary, but represented as Immediate (0-2 hrs.), Intermediate (2-12 hrs.), Extended (>12 hrs.), Demobilization/System Recovery and Documents and Tools. IPG and IRG topics include:

- Active Shooter
- Chemical Incident
- Earthquake
- Evacuation/Shelter-in-place/Hospital Abandonment
- Explosive Incident
- Hostage/Barricade Incident
- Infectious disease
- Information Technology Failure
- Mass Casualty Incident
- Missing Person
- Radiation Incident
- Severe Weather with Warning
- Staff Shortage
- Tornado
- Utility Failure
- Wildfire

Forms tailored to hospitals have been developed as modifications of NIMS. Job Action forms for Command and each Section and HICS forms are shown as appendices to the Guidebook.

Like ICS, HICS can be expanded or contracted based on the situation. As appropriate, the hospital will participate in Unified Command and be supported by the regional Emergency Operations Center.

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Foodborne Illness Investigation Tabletop Program

Facilitator Guide

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Midwest Consortium for Hazardous Waste Worker Training

Acknowledgement

The tabletop program was developed by Michigan State University, Emergency Response Solutions (now ERSI), in cooperation with the Bureau of Epidemiology and the Office of Public Health Preparedness, Michigan Department of Community Health, and the Michigan Department of Agriculture. Representatives from local health departments and law enforcement agencies in Kalamazoo and Mt. Pleasant, Michigan, also contributed to this project. The U.S. Centers for Disease Control and Prevention (CDC) provided funding for initial development of this project through the Office of Public Health Preparedness.

The original program has been reformatted and adapted as an example of a tabletop program. This training is conducted under cooperative agreement number U45 ES 06184 from the National Institute of Environmental Health Sciences.

We encourage you to comment on these materials. Please give any feedback to your Program Director.

Warning

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Disclaimer

The Occupational Safety and Health administration rule to help ensure worker health and safety during emergency responses requires training for a range of personnel. This program was developed to assist in practice in Unified Command that would be activated during a foodborne illness response. It is not intended to replace training required at the agency-level or for professional certification.

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Overview

The following provides instructions the facilitator can use in presenting the foodborne illness response tabletop exercise. This includes instructions for the 1-hour educational component, as well as the 3-hour tabletop scenario.

The exercise is adapted from an actual food poisoning case that occurred in Michigan in 2003 (see nicotine report in Facilitator Resources). The program is divided into two major components. The first part is a review to assist participants in recognizing the need for using a Unified Command when multiple agencies respond to an incident involving a foodborne illness outbreak. This may include criminal cases, or those involving acts of terrorism.

The second part provides an opportunity to investigate foodborne illness outbreak from a criminal act. In the simulated response investigation, representatives from public health and law enforcement will implement a Unified Command structure and will identify actions that will lead to resolution of the incident. By completing the program, public health professionals and law enforcement personnel will demonstrate working cooperatively and effectively when responding to foodborne illness outbreaks.

Program Objectives

After completing the program, participants will be better able to:

- Implement the 4 phases of a foodborne illness outbreak investigation
- Identify the stakeholders that should be involved in different phases of the investigation
- Identify communications they will provide to appropriate agencies and the public
- Implement a unified command for responding to a foodborne illness outbreak involving multiple jurisdictions

Who Should Participate?

This tabletop program will be most effective if many different public health and law enforcement personnel are in attendance. This includes the types of personnel and agencies that may actually respond to an incident involving intentional contamination of the food supply. The exercise takes place within a single county, but the facts of the case can be altered slightly to include multiple county scenarios. Invitees to the countywide exercise should include:

- Local Public Health – Epidemiology, Communicable Diseases, Environmental Health, Laboratory (if applicable), and Emergency Preparedness Coordinator
- County Emergency Management Director
- Department of Community Health
- Department of Agriculture
- City or Township Police Departments (within the jurisdiction)
- County Sheriff's Department
- Coordinator for 911 Dispatch
- Federal Bureau of Investigation

The hosting agency may also wish to invite representatives from the following organizations on a courtesy basis:

- Hospital Emergency Departments
- College or University Security and Health Officials
- County Prosecutor's Office, County Coroner
- State Police (Crime Investigation)

Suggested Facilitator Preparation

Make sufficient copies of the Participant Guide and the following handouts:

- Sign-in Sheet
- Registration Form
- Sample Department of Agriculture (DA) Recall notices
https://www.michigan.gov/mdard/0,4610,7-125-50772_50776---,00.html
- CDC Fact Sheet on Paraquat <https://emergency.cdc.gov/agent/paraquat/basics/facts.asp>
- Participant Evaluation Form

Read through the Facilitator Reference Materials shown below:

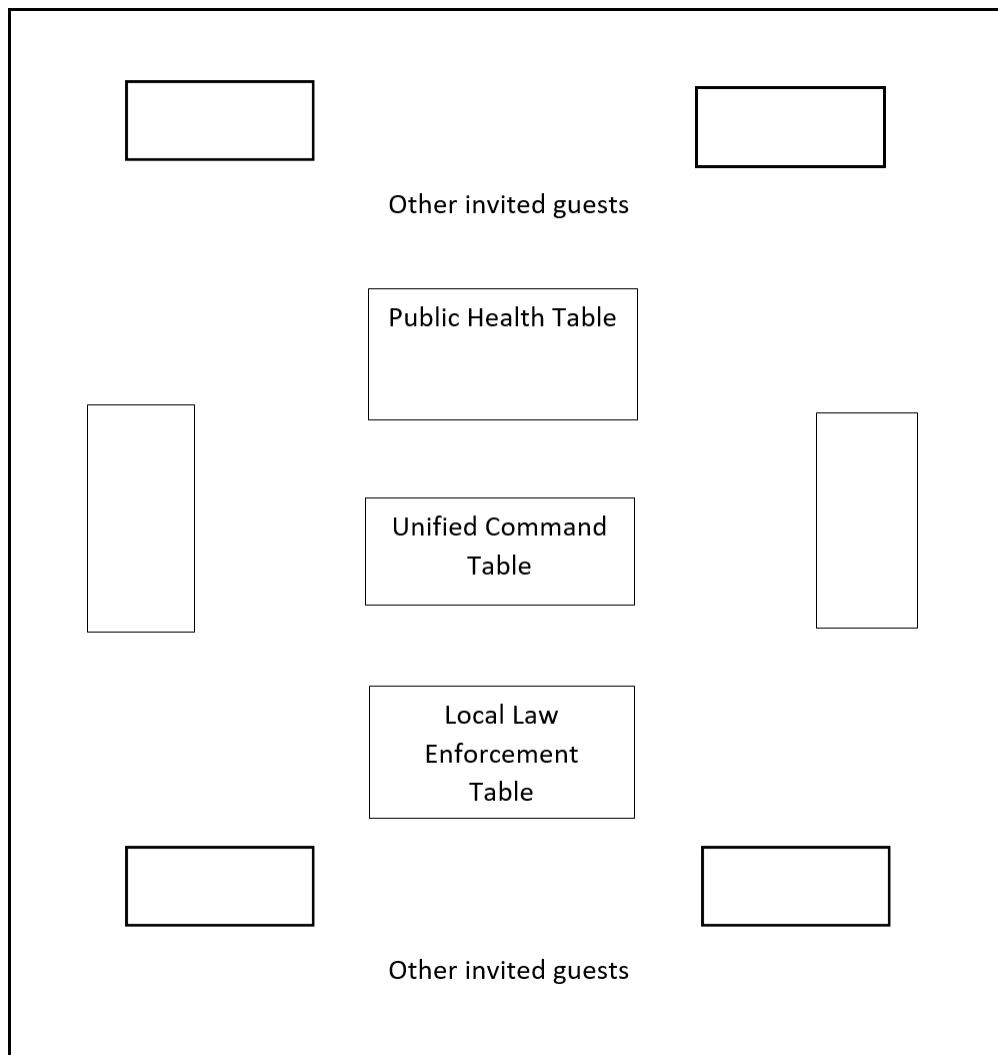
- Answer Sheet for the Pre-training Knowledge Assessment (if used)
- MMWR Article on Nicotine Poisoning Case

<https://www.cdc.gov/mmwr/preview/mmwrhtml/mm5218a3.htm>

- News report on Nicotine Poisoning Case
https://www.upi.com/Top_News/2003/02/13/Michigan-worker-accused-of-poisoning-beef/72531045174821/
- Incident Command and Unified Command summaries in Developer Guide or
https://www.fema.gov/sites/default/files/2020-07/fema_nims_doctrine-2017.pdf
- Joint Criminal and Epidemiological Investigations Handbook
<https://www.cdc.gov/phlp/docs/crimepihandbook2016.pdf>

Foodborne Illness Investigation- Facilitator Guide

Arrange room (approximately 2500 square feet) with one table for local public health participants (12), one table for local law enforcement (6-8), and one table for Unified Command (4-6) that is placed between public health and law enforcement tables. Arrange tables and chairs for state and federal agencies and other invited guests around the outside of the three tables set up in the middle of the room. (See diagram below.)



Room layout

Place tent card with name of group on each table in the middle. Check the room for acoustics and the need for a microphone.

The ideal class size is 30 participants. For larger groups, the facilitators may need to create two tables for public health with an equal mix of representatives from Communicable Diseases, Environmental Health, Epidemiology, Administration and Support Staff.

As a facilitator, your role will be to:

- Provide the purpose and objectives of tabletops in general and this specific example
- Provide instructions and keep the program moving in accordance with the time allotted
- Present the material on Response Strategies (FIRST and Unified Command)
- Present the scenario as an Investigation provided in the Participant Guide
- Distribute the handouts
- Conduct a discussion at the end of each scene described in the exercise
- Conduct a debriefing at the end of the exercise

Suggested Agenda

Introduction	15 minutes
Response Strategy	60 minutes
Tabletop Exercise	150 minutes
Closing/Evaluation	15 minutes

Note: 4-hour time allocation does not include 2 10-minute, non-training time breaks. It is suggested a 10-minute break be taken at the end of the Response Strategy section, and a second be taken during the scenario.

Note: File the agenda, lesson plan and any supporting documents (ex: local example used) in the program file.

Lesson plan forms may be helpful when drafting your presentation outline. Examples of lesson plan forms are shown on the following two pages.

Lesson Plan Form 1

Teaching Methods for This Lesson Plan	Audiovisual Requirements
<ul style="list-style-type: none"> _ Presentation _ Discussion _ Question and answer _ Hands-on simulation _ Team teaching _ Small-group exercises _ Case study _ Other (describe): 	<ul style="list-style-type: none"> _ Training handbook _ Supplemental handbook material _ Websites: _ Whiteboard _ Hands-on simulation _ Other (describe):
Reference Materials	Special Space or Facility Requirements
	(List any room size or special facility regulations here, such as set-up areas, equipment storage concerns, etc.)
Suggested Discussion Questions	Suggested Facilitator Preparation

Lesson Plan Form 2

Subject Area or Element	Detail	Reference Number or Citation
Major subject heading or Roman numeral item from outline format.	Detailed breakdown of subject area or element. This area will necessarily occupy more space than the column to the left.	e.g., page number in training notebook, section number of regulation, or audiovisual material.

Introduction

Time Requirement: 15 minutes

Number of Facilitators: 1 or more, consistent with ratio shown in the Minimum Criteria and program demands.

Materials

- Participant Guide
- Agenda
- Sign-in sheet
- Paper and pencils
- Nametags for each participant
- Pre-training knowledge assessment (optional)

Objectives

After completing this section, participants will better be able to:

- List reasons to practice prior to an event
- Describe types of outcomes from a tabletop

Teaching Methods

- Discussion

Suggested Facilitator Preparation

- Review the agenda and Participant Guide

Minimum Content Requirements

- Welcome everyone and facilitate brief introductions
- Present the rationale for the program
- Discuss outcomes from tabletops
- Review the agenda
- Each participant completes the pretest (optional)

Questions You May Be Asked

1. How realistic can a tabletop be?

Be prepared to facilitate a discussion of what each participant hopes to get from the training - this will illustrate that a tabletop can be realistic for several reasons, including:

- Local personnel participate
- Tailored to supplies and equipment available
- Tailored to local concerns
- Tailored to local circumstances—geography, transportation, regulations

2. An elected official always wants to be in charge. Is this OK?

This is a good opportunity to discuss the ICS. What is the local, county, state requirement for identifying the IC? What is in the plan that the participant is to follow regarding transfer of authority?

Presentation of the Session

Distribute the Participant Guides, paper, and pencils on the tables where participants will be sitting. Provide the same materials for state and federal agency people and other attendees.

Welcome participants to the program.

Introduce facilitators and provide background on each.

Refer to the Participant Guide and acknowledge NIEHS funding. Describe NIEHS model programs and the reliance on evaluation for continuous improvement and definition of successful completion.

Thank those who assisted in setting up the program.

Ask participants to introduce themselves, providing name and agency.

Provide the schedule for the program:

- 1-hour session on Response Strategies
- 2 ½ -hour simulated Investigation including debriefing
- Indicate that 2 10-minute breaks will occur

Ask participants to complete necessary paperwork for the program.

Circulate sign-in sheet. Ask participants to clearly print their name and agency.

Review the objectives

- Reasons to practice prior to an event
- Outcomes from a tabletop

Ask: Can you describe situations where public health and law enforcement must collaborate?

List where all can see. Foodborne illnesses that may have criminal origins is one example.

Provide the rationale for the program:

- Need for public health and law enforcement to work together cooperatively

Ask: Who here has worked together on a response previously?

Ask (of those who have worked together) if a common plan was used.

Follow up, depending on response: Did it work as planned?

Would a plan have been helpful?

Ask: What are some advantages of a common approach?

Discuss the need for building consensus on response strategy.

Refer to Participant Guide, and review tabletop uses and outcomes.

Alert participants to the acronyms that are used in the program; it may be useful to post these in view of all for reference during the program.

If used, introduce the pre-training Knowledge Assessment. Remind participants that it is not a graded test.

Exercise - Assessing What You Know before Training

Please answer each of the following questions. If you do not know the answer, leave the question blank. DO NOT GUESS!

- 1) Match each of the 4 phases of an incident with a description of what occurs during that phase. (Write the letter from the left-hand column next to the correct description in the right-hand column.)

- | | | | |
|----|-------------------|-------|---|
| A. | Initial Actions | _____ | Implement the action plan |
| B. | Planning | _____ | Write a final report |
| C. | Sustained Actions | _____ | Take immediate actions to protect people & property |
| D. | Termination | _____ | Develop the action plan |

- 2) Which of the following meets the definition of a routine foodborne illness outbreak? (Circle the letter of the best answer.)

- A. An incident, where two or more persons from different households have the same disease, similar clinical features, and a time, place, or person association
- B. Incidents of illnesses involving related persons who report symptoms compatible with foodborne illness
- C. A single reported case of alleged foodborne illness
- D. all of the above

- 3) A non-routine investigation is one that results from a family complaint, a foodborne illness alert, or a foodborne illness outbreak, and there is a suspicion of intent to do bodily harm or inflict economic damage. (Circle the letter of the best answer.)

- A. True
- B. False

- 4) During a non-routine foodborne illness outbreak, a Unified Command would: (Circle the letter of the best answer.)
- A. Not be appropriate
 - B. Bring together the major organizations involved in the incident
 - C. Have only one person in charge of the operation
 - D. None of the above
- 5) If members of the Unified Command cannot reach consensus: (Circle the letter of the best answer.)
- A. The entire committee makes the decision
 - B. The State Police make the decision
 - C. The agency with primary jurisdiction makes the decision
 - D. None of the above
- 6) Members of a Unified Command work together to: (Circle the letter of the best answer.)
- A. Develop a common set of objectives and strategies
 - B. Share information
 - C. Maximize the use of available resources
 - D. All of the above
- 7) Establishing a Unified Command would be appropriate when: (Circle the letter of the best answer.)
- A. Only one agency was involved in responding to the incident.
 - B. Multiple geographic boundaries were represented.
 - C. Multiple governmental levels were involved.
 - D. B and C

Summary

Reasons to practice prior to an event

- improve response, should it be necessary
- communication
- plan
- coordination

Types of outcomes from a tabletop

- identify gaps in plan or response capability
- plan to resolve identified gaps/capabilities

Response Strategy

The goal of this section is to describe the 4-phase approach to a Foodborne Illness Outbreak.

Time Requirement: 60 minutes

Number of Instructors: 1 or more, consistent with ratio shown in the Minimum Criteria and program demands

Materials

- Participant Guide
- White Board or equivalent; marker

Objectives

After completing this section, participants will better be able to:

- Describe the 4 phases of a foodborne illness outbreak investigation
- Recognize the characteristics of a routine and non-routine foodborne illness investigation
- Explain how the use of Unified Command might assist individual agencies in working together to protect public health

Teaching Methods

- Discussion
- Presentation

Suggested Facilitator Preparation

- Review the Participant Guide
- Review the Resources in the Facilitator Guide

Minimum Content Requirements

- Discuss Foodborne Illness Response Strategy (FIRST) / 4-phase approach
- Review definitions needed
- Discuss Unified Command

Questions You May Be Asked

1. This isn't the way we do it. Why should we change?

Be prepared to facilitate a discussion regarding the advantages of a structured approach that is prepared in advance. See Michigan document.

If there is general agreement that no plan exists, note that this discussion will be continued at the end of the program.

2. Our Public Health folks have used FIRST for years, but law enforcement does not know about it.

Be prepared to facilitate a discussion about approaches by both groups to a structured investigation. Communication is very important—an important outcome of this program.

Presentation of the Session

Review the objectives

- 4 phases of a foodborne illness outbreak investigation
- Characteristics of a routine and non-routine foodborne illness investigation.
- Unified Command

Foodborne Illness Response Strategy (FIRST)

Introduce the FIRST approach

- Discuss (perhaps ask) the advantages of public health officials using a Standard Operating Procedure (SOP) for responding to Foodborne Illnesses. This approach is referred to as the Foodborne Illness Response Strategy or F.I.R.S.T. Ask how many have completed FIRST training.

- Turn to the participant Guide and illustrate that foodborne illness cases should be handled using a 4-phase approach

Show that FIRST is similar to the 4-phase approach for responding to emergencies as recommended by emergency responders: Initial Actions, Planning, Plan Implementation (Sustained Actions), Concluding Actions (Termination). Different terms may be used, for example: Planning, Response Action, Termination, Follow-up. All approaches follow a structured sequence, with roles and responsibilities clearly defined.

- Ask law enforcement personnel: what are the titles of the 4-phase approach used in your teams?
- Review the listing of Initial Actions and ask participants to provide examples for each.
 - Outbreak Determination
 - Notification
 - Review Information
 - Control Actions
- For each of the actions listed under Planning and ask participants to provide examples for each.
 - Find Additional Cases
 - Collect Specimens
 - Determine Study Design
 - Develop Initial Plan and Timetable
 - Identify Resources
 - Obtain Assistance
 - Inform Lab
 - Coordinate with Stakeholders
- Continue the discussion with review of the actions listed under Plan Implementation. What are examples for each?
 - Assign Tasks
 - Epidemiology Investigation

- Lab Sample Collection
- Environmental Assessment
- Collate Data
- Analyze Data and Test Hypothesis
- Implement Control Strategies
- Assist Stakeholders
- Evaluate Plan
- Finally, look at the Concluding Actions and ask: who will be involved in each of these? Ask: why is each of these activities important?
 - Review with Stakeholders
 - Inform Public
 - Write Final Report
 - Use Data for Prevention
 - Conduct Post Incident Analysis
- Indicate that 4-phase approach can also be used by law enforcement agencies.
- Ask law enforcement personnel to describe what they would do during Initial Actions.
- Ask if steps make sense.
- Ask law enforcement personnel to describe what would occur during planning.
- Ask law enforcement personnel to describe how they implement their plan.
- Ask law enforcement personnel to describe what concluding actions they would take.
- Emphasize that public health personnel should understand and appreciate role of law enforcement. Understanding the language of other groups is key to communication.

Definitions

- Define Routine Investigation, according to FIRST. Ask for example for each.
 - Family Complaint

- Foodborne Illness Alert
- Foodborne Illness Outbreak
- Review the definition of Non-Routine Investigation.
 - Investigation that results from the three sources above: and
 - Suspicion of intent to do bodily harm
 - Intent to inflict economic damage, or
 - Unusual presentation of symptoms
- Ask: what are the key differences?
- Ask for examples of areas where law enforcement and public health may need to work together in non-routine cases, or other community events.

Unified Command (UC)

Ask: How many of you have had Incident Command training?

- Review the concept of Unified Command.
 - For incidents involving more than one agency
 - Brings together Incident Commanders from all organizations
 - UC responsible for overall management of incident while individual agencies carry out their own duties
 - Common strategies and objectives, maximize use of resources
 - One person should be designated to manage the decision-making process
- Ask participants to describe the duties of each agency that may be involved in an incident involving a non-routine foodborne illness outbreak.
 - Local Health Department (LHD) - Determine causes and take actions to protect public health
 - Law Enforcement (LE) - Protect the public by arresting those responsible for intentional contamination
 - Department of Community Health (DCH) - Coordinate incidents involving more than one jurisdiction
 - Department of Agriculture (DA) - Determine sources of contamination of the food supply and regulate activities of producers

- State Police (SP) - Coordinate state law enforcement effort
- FBI - Coordinate cases involving terrorism or multi-state incidents
- Describe when Unified Command should be implemented and provide examples for each. Develop locally relevant examples as part of your preparation.
 - Multiple Geographic Boundaries
 - Multiple Governmental Levels
 - Multiple Functional Responsibilities
 - Multiple Statutory Responsibilities
- Ask: when is Unified Command activated? :
 - Occurs when multiple agencies are involved
 - Goes into operation when incident is complex or requires additional resources
 - Agencies typically assemble at a location referred to as the Emergency Operations Center (SOG)
 - Local emergency response plan should specify conditions under which EOC becomes operational and who is authorized to activate
- Emphasize importance of each agency having knowledge of the abilities and goals of other agencies involved
- Illustrate that participants of Unified Command should designate EOC Manager to coordinate group decision-making
- Review the EOC Manager responsibility for thorough examination of all issues and for taking concerns of all agencies into account
- Emphasize the importance for each agency to be informed of all the underlying issues
- Note that if the Incident Commanders/Leads of each jurisdiction in the UC cannot reach consensus, the UC member from the agency with primary jurisdiction would be deferred to for a final decision. Always know the identification of the primary jurisdiction.
- Emphasize the importance of planning and exercising for Unified Command to work effectively
- Discuss the advantages of using a Unified Command

- Discuss incidents in which local agencies implemented a Unified Command, or should have

Summary

Review:

There are 4 phases in a public health foodborne illness investigation All groups used the same phases, although actions may differ.

1. Initial Actions
2. Planning
3. Plan Implementation
4. Concluding Actions

A foodborne illness investigation may be classified as:

Routine - An investigation that results from a Family Complaint, a Foodborne Illness Alert, or a Foodborne Illness Outbreak.

(or)

Non-routine - An investigation that results from a Family Complaint, a Foodborne Illness Alert, or a Foodborne Illness Outbreak, and there is a suspicion of intent to do bodily harm or inflict economic damage. A non-routine investigation may also include an unusual presentation of a foodborne illness, such as atypical symptoms.

When multiple agencies are involved, Unified Command must be activated for effective management of the response and follow-up.

Ask for questions or comments about the material presented.

The Investigation

Time Requirement: 150 minutes

Number of Facilitators: Consistent with ratio shown in the Minimum Criteria and program demands; perhaps 3 depending on group size (health, law enforcement, unified command)

Materials

- Participant Guide
- White Board or equivalent; marker

Objectives

After completing the investigation phase as a tabletop, participants will be better able to:

- Implement the 4 phases of a foodborne illness outbreak investigation
- Identify the stakeholders that should be involved in different phases of the investigation
- Identify communications they will provide to appropriate agencies and the public
- Implement a unified command for responding to a foodborne illness outbreak involving multiple jurisdictions

Teaching Methods

- Discussion

Suggested Facilitator Preparation

- Review Participant Guide
- Review Answers to each Scene in this Facilitator Guide

Minimum Content Requirements

- Investigation

Questions You May Be Asked

We have never worked together and seems we do not have the same terms. Can they change?

Facilitate a discussion regarding the origin of the terminology for each group. (No one will change.) Ask for suggestions regarding better communication (maybe a listing of terms, by agency; more practice....)

Presentation of the Session

The session can be presented as follows:

- Review the Objectives:
 - Implement 4-Phases
 - Identify Stakeholders
 - Identify Communications
 - Implement a Unified Command
- Note that this scenario is adapted from an actual incident that occurred in Michigan.
- Ask: What are outcomes you expect by practicing the response effort prior to another incident?

Overall instructions

- Explain the directions for the tabletop exercise. Participants will work in groups - Public Health or Law Enforcement.
- Each group should designate a Group Leader, a Time Keeper, a Scribe, and a Presenter. These roles can be assigned to different individuals for each scene. The Scribe should record answers on chart pad.
- Each participant should read through the description of Scene 1 for their group – Public Health or Law Enforcement
- Each group (Public Health and Law Enforcement) should use chart pad to record answers to questions for Scene 1.
- Each group must engage the participants from different agencies as resources. State and Federal agency personnel must participate by asking questions of group they are monitoring.
- If a group is having trouble getting started, they should review the 4-phase response chart in the Participant Guide.
- Each group will have 15-20 minutes to answer the questions for its scene and 10 minutes to present their findings.
- Once the group has answered the questions for a Scene they must stop. Model answers are provided in this guide.
- The facilitators should provide coaching to all three groups to ensure the exercise keeps moving
- At the conclusion of the exercise, conduct a debriefing. To ensure audience participation, use a group facilitation method to answer questions presented during the Summary Discussion. This may include dividing the participants into small groups with each group being responsible for answering the Summary Discussion questions. It could also include the facilitator conducting a brainstorming session, where answers to each question are recorded on a chart pad, followed by an evaluation of each answer provided.

Scene 1

Explain that the scenario begins with two different sets of facts for public health and law enforcement personnel

Ask both groups to read and consider Scene 1.

NOTE: The facilitators should provide the following facts as injects to Public Health and Law Enforcement personnel as they are working on Scene 1.

The two hospital emergency departments are in different cities within the county.

The symptoms reported by those who consumed the cheese occurred within minutes or hours after the cheese was eaten.

DA has taken samples of cheese from the dairy.

The estranged husband claims the wife is trying to implicate him in the poisoning case.

After 15 to 20 minutes, ask groups to reconvene.

Ask the Presenter for Public Health to explain the facts from Scene 1.

Presenter for Public Health should then provide answers to the questions .

NOTE: Facilitators should review answers provided and fill any gaps or identify errors, or inconsistencies. (See answers for Public Health, below)

When public health has finished answering the questions, open the floor up to questions or comments from observers or law enforcement personnel.

Ask the presenter for Law Enforcement to explain their facts from Scene 1.

Presenter for Law Enforcement should then provide answers to the questions

NOTE: Facilitators should review answers provided and fill any gaps or identify errors or inconsistencies. (See answers for Law Enforcement following the answers for Public Health below.)

When finished, open the floor up for questions or comments from observers or public health personnel.

Discuss whether the facts in Scene 1 suggests the need for creating a Unified Command.

Is this a non-routine case?

Multiple geographic areas?

Are multiple agencies involved?

Are multiple statutes involved?

Ask: which agencies should be represented in Unified Command.

Ask all participants to select agency representatives for Unified Command.

Unified Command personnel should be seated at a table in the middle of the room, between the public health and law enforcement groups. UC needs to select an EOC Manager.

NOTE: State or federal agency personnel may be invited to participate as members of the Unified Command.

Foodborne Illness Scenario Scene 1 Answers: Public Health

A grocery store calls the Department of Agriculture on a Friday afternoon and reports that approximately 10 people have returned a specialty cheese that was produced at a local dairy processing plant within the county. The DA reports this information to the local health department. Family members of those returning the cheese have experienced illness within one day after consumption and have reported the following symptoms: abdominal pain, nausea, headaches, thirst, and shortness of breath. The local health department has received calls from two local hospital emergency departments reporting several patients with similar symptoms.

Questions:

1. Who will be on the investigation team and what will their roles be?
 - Human Health Investigation: The Local Health Department (LHD) would lead the overall investigation of human illnesses.
 - Evaluation of Food Establishments: This would be the responsibility of the agency regulating the establishment in coordination with the LHD investigators. For Food Service facilities (restaurants), this would be LHD Environmental Health. For Retail Grocery Stores, Convenience Stores and Food Processors, it would be the Department of Agriculture (DA).
 - Food product trace back and recall coordination: DA would coordinate these activities in cooperation with LHDs and federal agencies.

- Laboratory Investigation: A representative from the State Public Health Lab or one of 4 regional labs would guide and assist with lab testing (clinical, food, environmental specimens).
2. What initial actions will need to be taken?
- Immediately Assemble Investigation Team: Assign team leader and team member roles; determine the initial priority to place on the investigation.
 - Verify the Facts: Confirm reports of illness, hospitalizations, etc.; gather contact information for follow-ups and begin constructing a spreadsheet of exposed and ill persons, including address, phone, date of symptom onset, hospitalization, death, lab data, etc.; look for epidemiologic (person, place, and time) associations between known ill persons.
 - Begin to Develop Investigation Plan: Epidemiologic investigation, environmental assessment, and lab sample collection; identify the mechanism for coordination of DA and LHD activities; consider methods to search for additional cases; develop preliminary case definition.
 - Review Published Literature: Search for possible etiologic agent(s).
3. What information will the team need to collect and from whom?
- Get case histories from known, affected individuals to verify that an epidemiological link with cheese consumption exists.
 - Document initial reports on approved forms and enter into foodborne illness log.
 - Determine if a health care provider has evaluated reported cases; encourage symptomatic individuals to seek medical care
 - Follow-up on the suspect cases reported through the two local hospital Emergency Rooms
 - Check the availability of clinical specimens
 - Obtain leftover food samples and any food packaging from individuals reporting illnesses that would indicate the specific item and lot that made people sick; maintain chain of custody
 - DA will evaluate the grocery store to assess the potential for on-site contamination; DA will also conduct an investigation of the local dairy plant.

4. What notifications will need to be made to which individuals or agencies?
 - The unusual event should be reported to DCH in case similar events are occurring in other jurisdictions; use Disease Surveillance System, if up and running
 - The team should contact neighboring LHD's to see if similar illnesses have been reported elsewhere.
 - The FDA should receive notification in case interstate distribution is involved.
 - Contact local medical community, as appropriate, to search for additional cases
 - Contact local Poison Control Center, as appropriate, to search for additional cases
 - Notify appropriate agency Public Information Officers (PIO)
 - Ensure that cheese recall notice is issued
5. Describe your initial case definition.
 - General strategy: Start broad and make the definition more precise as additional information becomes available
 - Person: All persons who consumed dairy cheese
 - Place: Community wide
 - Time: From earliest identified onset date to present
 - Symptoms: Any of the following within 24 hours after ingestion (burning and swelling in the mouth; abdominal pain, nausea, vomiting, and diarrhea; headaches and fever; thirst and shortness of breath)
6. Is this a typical foodborne illness complaint? Why or why not?

The facts of this case are atypical for several reasons. First, the symptoms are not typical of foodborne illness. Second, ten affected customers indicate that multiple households are involved. Additionally, since the quantity and distribution of the cheese is unknown and could be large, we could be in the early stages of a large outbreak.

Foodborne Illness Scenario Scene 1 Answers: Law Enforcement

A woman has contacted 911 indicating that she is suspicious that her estranged husband has been trying to poison her. She also suspects that he has tampered with food that was consumed at a family picnic. Her suspicion is based on threats he has made and the fact that several people at the picnic got sick. The family members experienced abdominal pain, nausea, and headaches. She believes his actions are an attempt to seek revenge because she has filed divorce papers. Her father owns a local dairy plant, where she and her estranged husband both work.

Questions:

1. Who will be assigned to conduct this investigation?
This will depend on which local agency (city/township, county sheriff, or local State Police Post) she has reported it to and whether or not they have a detective. Small departments in rural areas often have no detectives. Most departments will have a uniformed officer take a preliminary report, and then turn it over to a detective for further investigation. At some State Police posts, the uniformed officer who takes the initial report may handle it and follow through with the investigation. At this point in the investigation, they would probably not turn it over to the FBI because the FBI's jurisdiction (terrorism) may not yet be apparent. It may be perceived as a routine criminal case at this point.
2. What actions will need to be taken?
A patrol or desk officer will have to interview the complainant, prepare a preliminary report, or at least take field notes. That officer and his/her supervisor will have to decide whether to turn it over to a detective and which other officials or agencies to notify.
3. What investigative leads will need to be pursued?
After interviewing the complainant, the investigator should interview the father (dairy plant owner), the other victims, and the suspect (estranged husband). Likely, the officer would also check with the local health department and/or hospital emergency room staff for similar cases. The officer may also check to see if left over samples of food from the picnic can still be obtained as evidence.
4. What agencies will you need to contact and what information will you need to provide?
At some point, the investigator should notify the local health department, the FBI, and possibly the local prosecutor's office. SP posts might also call the Department of Community directly. DCH may be asked for their opinion about what kind of case this represents (i.e., genuine or false report; regular criminal or terrorist-related; scale and seriousness, and information on victims.)

Scene 2

- Ask Public Health and Law Enforcement to read through their respective facts of Scene 2; Unified Command group should read facts on both Public Health and Law Enforcement.
- All three groups have 15 minutes to answer the questions for Scene 2.

NOTE: Unified Command group needs to request information from public health and law enforcement groups.

NOTE: The facilitators should provide the following facts as injects to Public Health, Law Enforcement, and Unified Command personnel as they are working on Scene 2.

NOTE: Alert Unified Command group that they have authority to get information from law enforcement and public health groups.

- One death has occurred as a direct result of consuming the contaminated cheese.
- Provide a copy of the press release that describes the DA recall.
- Provide a copy of fact sheet on paraquat from CDC and NIOSH to all three groups.
- The DA investigation of the dairy indicates the contamination of the cheese is a result of tampering.
- Presenter for Public Health should provide answers to the questions.

NOTE: Facilitators should review answers provided and fill any gaps or identify errors, or inconsistencies. (See answers for Public Health, below)

- When public health has finished answering the questions, open the floor up to questions or comments from observers or law enforcement personnel.
- Presenter for Law Enforcement should provide answers to the questions.

NOTE: Facilitators should review answers provided and fill any gaps or identify errors, or inconsistencies. (See answers for Law Enforcement following Public Health, below)

- When finished, open the floor up for questions or comments from observers or public health personnel.
- Ask the presenter for Unified Command to provide answers to questions.

NOTE: Facilitators should review answers provided and fill any gaps or identify errors, or inconsistencies. (See answers Unified Command following Public Health and Law Enforcement, below)

- When finished, open the floor up for questions or comments from all participants.

The facilitators should ensure that all participants understand the issues related to release of information to the public. This includes the public health, as well as law enforcement perspective. See the answer sheet for a more complete discussion.

If the Unified Command group begins discussing the release of information, the facilitator may want to ask public health and law enforcement groups to interrupt their dialogue and listen.

Suggest take a second 10-minute break here

Foodborne Illness Scenario Scene 2 Answers: Public Health

Two days later, the DA has contacted the dairy that produced the cheese and has conducted an investigation of the manufacturing facility. More than 40 people in the county have now reported illnesses associated with consumption of the suspected cheese with symptoms that are similar to those reported earlier. These reports have come in over the past 7 days. The 40 people all report having consumed the same specialty cheese purchased at 4 other grocery stores in 3 other cities within the county. Immediately after the DA investigation, the dairy has issued a recall of the specialty cheese and has sent a sample of the cheese to a private lab. After 4 more days, lab tests come back as negative for bacteriological contamination, but a follow-up test indicates the contaminant is paraquat, a highly toxic herbicide. The Poison Control Center calls the local health department 3 days after the initial reports came in because of several phone calls from individuals and one emergency department physician about this food related illness.

Questions:

1. What additional agencies, if any, will be notified at this point? By whom?

LHD Notifications

- Local Law Enforcement Agencies
- DCH Foodborne Coordinator
- DCH Office of Public Health Preparedness

- Alert to Hospital Emergency Departments

DCH Notifications

- CDC Foodborne Division and the National Center for Environmental Health
- Both State Poison Control Centers and the National Association of Poison Control Centers
- Alert on HAN
- Provide notification to FBI Coordinator for WMD

DA Notifications

- FDA – responsible for interstate regulation of dairy products
 - Neighboring state food regulatory programs
2. How does this new information change the composition of your investigative team and what will the new roles be?

LHD will need to expand the size and skill set of the investigation team.

Epidemiology Track

Continue to verify the diagnosis of new cases and deaths attributed to consumption of contaminated cheese, refine the case definition, and determine potential for ongoing exposure. Conduct active surveillance with hospitals and physicians. Search for new cases among household members, clients of the grocery stores where illnesses were reported and other stores where the suspect cheese was sold. Continue to look for person, place, and time associations.

Environmental Track

The grocery store investigation should evaluate the potential for on-site contamination. Multiple stores reporting illnesses suggests multiple, separate incidents of contamination at the retail level or contamination prior to reaching the retail level. The dairy plant evaluation should attempt to determine if one or more production lots were contaminated and to identify the distribution pattern.

Laboratory Track

All suspect cheese from the store, the dairy plant, the recall, and ill individuals should be seized and placed in a secure location(s) acceptable to law enforcement and LHD officials, such as coolers or walk-in refrigerators with tamper-resistant locks on doors. Identify the lab that will conduct sample analysis.

The LHD should work with DCH lab to prepare instructions for emergency departments to collect appropriate clinical specimens from suspected patients. The LHD will need to ensure that collection and transport of specimens and samples follows the legal chain of custody procedures. The LHD will work with DCH lab to determine what tests were run, if the lab was qualified to run the tests, if the results have been verified, and if other samples are available for confirmatory testing.

What is your public communication plan? Who will provide the notification, who will you notify, and what information will you provide?

When there is a potential for significant human illness associated with the consumption of a food product, a Class 1 recall with public notification is typically issued.

The food manufacturer normally announces the recall with a news release that identifies exact product description; specific reason for the recall, including causative agent, if known; actions consumers should take to protect themselves; and the distribution of the recalled product.

The Local Health Department will need to judge whether the public interest in disclosure of the contaminant outweighs the public interest in non-disclosure at any given point.

Note: There is no right answer to the issue of public disclosure. The question will be not whether to provide the information, but when to provide it.

The investigative team should share information with the PIO's of the involved agencies. The message released should be coordinated with all agencies, including law enforcement. The communication plan should provide for regular press releases (once daily), as long as needed.

Develop a list of frequently asked questions for health care providers, sick people, and the public.

Foodborne Illness Scenario Scene 2 Answers: Law Enforcement

The estranged wife learns that contaminated cheese is being returned to her father's dairy plant. The dairy plant has issued a recall based on consumer complaints. The officer in charge of the investigation learns that 40 people have now reported symptoms described in Scene 1. The individuals reporting these symptoms ate cheese purchased at 4 grocery stores in 3 different cities within the county. The dairy has provided samples of the contaminated cheese to a private lab. Four days later, the lab has confirmed the presence of potentially lethal doses of paraquat in cheese samples. A member of the agency investigating the case reports that the wife is known to keep company with several males other than her husband.

Questions:

1. What additional agencies will be notified at this point? Who will provide the notification?

If it has not been done already, the local police should definitely call the FBI, the local health department, and the local prosecutor's office. Other state and local law enforcement agencies may be notified by LEIN (Law Enforcement Information Network) to watch for similar cases.

How does this new information change the composition of your investigation team and what will the new roles be?

This depends on whether the local police agency will continue to pursue the investigation as the lead agency or turn it over to the State Police or FBI.

Assuming the agency continues to participate at some level, it would likely be a detective or possibly the sheriff or a senior deputy. Most agencies could only assign one or two investigators. An "investigative team" would likely imply a multi-agency task force or effort.

Public Health and Agriculture will more than likely have a major investigation underway. They will need to coordinate the law enforcement to share information already gathered, clarify roles and responsibilities, and coordinate further investigation and response activities.

2. Describe the goals of your investigation and your action plan?

Goals and/or actions would include: Determining the precise nature of the incident, which may help determine which agency will have jurisdiction; preserving and collecting evidence; identifying and locating victims and witnesses; identifying and protecting any possible crime scene; determining the scope of the crime (number of possible victims); attempting to prevent more contamination; locating and conducting surveillance of the suspect; determining if search warrants are needed; seeking input from public health and DA investigators; and coordinating public information.

3. Should the public and media be informed that the substance in question is paraquat? Why or why not?

This decision should be made on a case-by-case basis, balancing the need to empower individuals to take self-protective actions against the need to protect the integrity of the criminal investigation and apprehend the perpetrator.

4. How will you ensure the integrity of evidence when samples are in the possession of a private lab?

Request SP to select private lab to ensure proper chain of custody. It is important to arrive at one result, so multiple lab testing would not be appropriate. This will require coordination with local health department. Track evidence in and out of lab; investigate lab; and review the procedures put in place for maintaining security and chain of custody. There may be a conflict between law enforcement and public health over this issue. Also, public health officials may obtain clinical specimens from affected individuals that could verify exposure.

Foodborne Illness Scenario Scene 2 Answers: Unified Command

1. Who will be in charge of Unified Command?

The group should select an EOC Manager. It could be the Emergency Management Coordinator for the county, a representative from the FBI, or someone from the local law enforcement agency that is leading the investigation. In any case, it should be someone from an agency that has primary jurisdiction.

2. What additional information will you need?

- Clarify roles and responsibilities of investigation and response team members
- Establish action plan- identify, prioritize, and coordinate activities
- Gather additional information regarding wife that filed complaint
- Determine financial resource allocation
- Determine timeline for case illness
- Conduct surveillance of wife and husband
- Monitor health care utilization

3. What resources will you need at the Emergency Operations Center?

Phones; fax machines; Local Emergency Response Plan; computers

4. What information should be released to the public?

- Health and safety information related to paraquat exposure
- 800 number for additional information
- Request members of public to contact local law enforcement if they have pertinent information
- Determine if release of the agent name to public is warranted (decide on a case-by-case basis, balancing the need to empower individuals to take self-protective actions against the need to protect the integrity of the criminal investigation and the apprehension of the guilty party)

5. What key issues will you act upon?
 - Continue recall of cheese
 - Provide health information to the public
 - Take steps to ensure containment of the problem- evaluate recall effectiveness in commercial food establishments and the public awareness and compliance with the recall
6. What directions would you provide to local public health and law enforcement agencies?

Ask them to coordinate all actions through Unified Command; indicate contact names and numbers of those assigned to the UC; request local agencies not to release name of chemical agent until UC approves.

Scene 3

Ask Public Health and Law Enforcement to read through their respective facts of Scene 3; Unified Command should read facts on both Public Health and Law Enforcement.

All three groups have 15 minutes to answer the questions for Scene 3.

NOTE: The facilitators should provide the following facts as injects to Public Health, Law Enforcement, and Unified Command personnel as they are working on Scene 3.

- Two more deaths have occurred from eating the cheese; one inside the county and one outside the county.
- Three people have appeared at the local health department in a very agitated state. They are complaining about symptoms from eating the cheese and are demanding immediate assistance. The threat of physical violence is real.
- The Governor's Office has called the Emergency Management Director for the county wanting to know what is being done. (Unified Command only)
The CDC has offered to send a team to the scene of the outbreak to provide assistance in handling the outbreak. (Public Health only)
- Someone from a nearby state purchased the contaminated cheese while visiting the area, went home, and became ill. This information is reported to DCH by the Ohio Health Department.
- Presenter for Public Health should provide answers to the questions. Last bullet point refers to changes based on injected information.

NOTE: Facilitators should review answers provided and fill any gaps or identify errors, or inconsistencies. (See answers for Public Health, below)

- When public health has finished answering the questions, open the floor up to questions or comments from observers or law enforcement personnel.

- Presenter for Law Enforcement should provide answers to the questions.

NOTE: Facilitators should review answers provided and fill any gaps or identify errors, or inconsistencies. (See answers for Law Enforcement following Public Health, below)

- When finished, open the floor up for questions or comments from observers or public health personnel.
- Ask the presenter for Unified Command to provide answers to questions.

NOTE: Facilitators should review answers provided and fill any gaps or identify errors, or inconsistencies. (See answers for Unified Command following Public Health and Law Enforcement, below)

Foodborne Illness Scenario Scene 3 Answers: Public Health

One day after receiving notice from the lab, the dairy notifies the DA that the grocery stores have been keeping logs containing the names of individuals making foodborne illness complaints and that the returned product is in safe keeping. The Poison Control Center indicates that the contaminated cheese could be lethal if eaten in sufficient quantities.

The press is calling the local health department and local law enforcement agencies wanting to know if this is an act of terrorism. The dairy plant reports that many of their retailers have stopped ordering products, and their milk suppliers are demanding action to restore consumer confidence. Phone lines to the local health department and local law enforcement agencies are swamped with calls from the public. Many people are reporting that they ate the product and have suffered symptoms.

Questions:

1. What additional investigative actions will your group take and whom will you assign?

Confer with law enforcement agencies to determine if terrorism is possible. The investigative actions of LHD must meet the needs of local law enforcement. Issues that must be addressed include lab-testing results, chain of custody issues, preserving evidence, preventing additional illnesses, and epidemiology surveillance and follow-up.

The law enforcement members of the team will need to be involved with interviews, especially of the suspect and key witnesses who might be involved in the criminal prosecution. Law enforcement should also be concerned with safe and secure storage of evidence, marking, lab analysis, property reports and receipts, and chain of evidence

issues regarding the returned cheese.

Continue to search for active cases in hospitals and in death records.

Unified Command will need to develop a tight plan for releasing information to the public. PIO for Unified Command, in conjunction with the dairy, will need to issue press releases.

Work with DA to conduct speedy investigation to determine if contamination was from a point source, or if it is continuing and more widespread. This will help address the concerns of the milk suppliers.

2. Will the Local Health Department need to maintain liaison with the Unified Command Team?

Local public health will need to maintain liaison because UC is now directing the overall investigation. LHD will need to coordinate their actions with UC.

3. What information do you want the public to know at this point? What information would you include in a phone message to the public?

Local, state, federal agencies, and the dairy plant are conducting a cooperative investigation to identify the cause of the outbreak.

Members of the public should contact local law enforcement if they have any information about the case.

Inform public what to do if they experience symptoms related to contamination or if they believe they have cheese that is part of contaminated lot.

Prepare a phone message for members of the public who call requesting information about paraquat contamination. They would be directed to a live person if they have experienced symptoms. If they have questions about the cheese recall, direct them to a public information line. They should press # to talk to a public health nurse.

4. How would your actions change if reports of similar symptoms started showing up in neighboring states?
 - Refer to Department of Community Health and FBI.

- Local health department would continue its own investigation of local outbreak.
- CDC would coordinate the human health investigation in other states.
- FDA would assess the potential of interstate movement of contaminated food products.

Foodborne Illness Scenario Scene 3 Answers: Law Enforcement

The dairy notifies the local police department that the grocery stores have been keeping logs containing the names of individuals making foodborne illness complaints and that the returned cheese is in safekeeping. The Poison Control Center indicates that the contaminated cheese could be lethal if eaten in sufficient quantities.

Many people are reporting that they ate the product and experienced symptoms. The press is calling the local health department and local law enforcement agencies wanting to know if this is an act of terrorism. After obtaining search warrants, the agency investigating the case discovers trace samples of paraquat in the basement of the wife's home and the estranged husband's apartment. No other reports of illness have been received in-state or in Poison Control Centers outside the state. The wife has disappeared, and when questioned, relatives indicate she is visiting family in Indiana.

Questions:

1. If the FBI were involved, what would be the role of local law enforcement agencies?

Unless this involves an act of terrorism, local law enforcement would still be responsible for investigating this case. The FBI would provide assistance. For cases involving potential terrorist acts, the FBI would take charge and local law enforcement would provide support.

2. Will local law enforcement agencies need to maintain liaison with the Unified Command Team?

Unified Command will now give orders and provide direction to the investigation. Local law enforcement agencies will provide investigative information to UC and wait instructions.

3. What evidence will be needed to prosecute the case?

Prosecutor will need names of suspects and witnesses and physical evidence with proper chain of custody documented. Potential suspects will need to be ruled out, and the suspect's modus operandi will have to be identified.

4. What specific facts about the incident should be provided to the public at this point?

Refer all requests for information to the Public Information Officer for Unified Command. Determine if the release of the agent name to the public is warranted. Decide on a case-by-case basis, balancing the need to empower individuals to take self-protective actions against the need to protect the integrity of the criminal investigation.

5. What additional action will be required if food poisoning cases begin turning up in other states?

Unified Command will need to contact relevant jurisdictions in other states and federal agencies to provide information, gather information, and coordinate investigation. Local investigation will continue.

Foodborne Illness Scenario Scene 3 Answers: Unified Command

1. What additional information will you need?

Obtain logs from grocery stores to help determine outbreak extent and to evaluate the effectiveness of control actions (Is there ongoing exposure?).

Obtain additional information on hospitalizations, Emergency Department visits, physician reports, and deaths. Is there evidence to rule out or in an association with this outbreak?

Coordinate with CDC to obtain information on case from a nearby state.

What key issues will you act upon?

- Maintain citizen confidence in government response efforts.
- Identify the cause of the outbreak and actions needed to prevent additional cases. (Continue to collect and verify information from local public health and law enforcement regarding their investigations.)
- Apprehension of the perpetrators.
- Geographical spread of the outbreak.
- Information to Governor's office.
- Determine whereabouts of wife.
- Coordinate roles of CDC and DCH.

2. What information should be released to the public?

- Provide public with an update on the status of ongoing investigation.
- Information may need to be released to health care providers to aid in recognizing outbreak-associated cases and providing appropriate treatment.
- Time will be of the essence. If information is withheld from the public to protect the criminal investigation, law enforcement officials will need to gather critical information as rapidly as possible.

3. Who will respond to local officials, Governor's Office, and CDC?

The EOC Manager will respond to local officials; SP's Emergency Management Division will respond to the Governor; DCH will contact CDC and coordinate their activities with local public health department.

4. When would publishing a report on the investigation be appropriate?

This should be decided on a case-by-case basis, balancing the need to notify the broader health community of the increased risk posed by this type of attack against the need to protect the integrity of the criminal investigation.

5. Is this an act of terrorism?

The FBI defines terrorism as the unlawful use of force or violence against persons or property to intimidate or coerce a government, the civilian population, or any segment thereof, in furtherance of political or social objectives. Since we do not know the motivation of the perpetrator in this case, it is difficult to confirm whether this would constitute a terrorist act. The FBI wants to be informed of all potential cases of terrorism as soon as possible.

- When finished, open the floor up for questions or comments from all participants.

If the Unified Command group begins discussing the release of the report, the facilitator may want to ask public health and law enforcement groups to interrupt their dialogue and listen.

For purposes of closure, the facilitator should provide final facts: law enforcement personnel arrested a boyfriend of the estranged wife. The boyfriend hoped to implicate the husband.

- Use group facilitation method to discuss summary points. This may include a small group discussion or brainstorming. Expected answers are provided in this guide.
- Discuss circumstances that require involvement of state agencies: Multiple jurisdictions impacted; local authorities have exceeded their resources.
- Discuss circumstances that require federal involvement: Multiple states impacted; acts of terrorism involved; violation of federal law.
- Discuss similar objectives of public health and law enforcement: protect health and safety of public.
- Discuss differences:
 - Public Health: Stop further cases of disease and outbreaks
 - Law Enforcement: Stop further crimes

- Public Health: Build science base for future prevention
 - Law Enforcement: Apprehend and convict criminals
- Discuss points of conflict or misunderstandings. Emphasize importance of using Unified Command to resolve.
 - Release of information
 - Lab analysis
 - Interviewing sick people
- Discuss ways to increase cooperation
 - Conduct more exercises
 - Hold regular meetings
 - Increase communications
- Discuss the lessons learned from this exercise.
 - Importance of practicing
 - Need for improvements in local emergency response plan
 - Need for more interface between public health and law enforcement
 - Need for better understanding of goals of each agency

Summary

Discussion Questions Answers

1. Under what circumstances involving a foodborne illness outbreak do state agencies need to be involved? What about federal agencies?
 - DA and DCH should be routinely notified of all suspected foodborne illness outbreaks.
 - DCH supports the Local Health Department, which is the lead agency for investigation of human illnesses.
 - DA is the lead state agency for investigation of the food supply.
 - State agencies coordinate local jurisdiction activities when the spread of the illness crosses local boundaries or when the resources of local agencies dealing with the problem have been exhausted.
 - Federal agencies would become involved when the incident crosses state boundaries, when acts of terrorism are suspected, or when the resources of local and state agencies are exhausted.
2. In what ways are the objectives of public health and law enforcement investigations similar? Different?
 - The public health and local law enforcement investigations are both aimed at protecting the health and safety of the public.
 - They differ in that public health seeks scientific information that will help to identify and stop the source of the contamination.
 - Law enforcement agencies seek information that can be used in a criminal prosecution to apprehend those responsible.
 - Public Health wants to implement steps that will reduce the potential for future cases. This often involves sharing detailed risk and risk reduction information with the public.
3. Were there any points of conflict or misunderstanding between local public health and local law enforcement? If yes, how did they get resolved?
 - Release of information
 - Selection of the lab to analyze the cheese

- Interview of sick people may create points of conflict or procedural differences.
4. How can public health and law enforcement agencies increase cooperative efforts in these types of cases?
 - During times of non-crisis, develop joint response plans for higher probability scenarios that would involve public health and law enforcement.
 - Conduct additional exercises and develop standard operating procedures for handling these types of cases.
 - Understand the goals and objectives of all agencies involved is essential.
 - Ensure that emergency plans, notification protocols, and other standard operating procedures are in place.
 5. What were the lessons learned from this tabletop?

Law enforcement and public health officials traditionally conduct independent investigations and responses. There are some potentially conflicting objectives that must be addressed to ensure a coordinated approach.

The importance of working out differences and agreeing on procedures before an event like this takes place is critical.

It is important to develop relationships among those agencies and personnel involved in responding to foodborne illness incidents.

Answers to Exercise - Assessing What You Know before Training

- 1) Match each of the 4 phases of an incident with a description of what occurs during that phase. (Write the letter from the left-hand column next to the correct description in the right-hand column.)

A.	Initial Actions	C	Implement the action plan
B.	Planning	D	Write a final report
C.	Sustained Actions	A	Take immediate actions to protect people & property
D.	Termination	B	Develop the action plan

- 2) Which of the following meets the definition of a routine foodborne illness outbreak? (Circle the letter of the best answer.)

- A. An incident, where two or more persons from different households have the same disease, similar clinical features, and a time, place, or person association
- B. Incidents of illnesses involving related persons who report symptoms compatible with foodborne illness
- C. A single reported case of alleged foodborne illness
- D. all of the above

- 3) A non-routine investigation is one that results from a family complaint, a foodborne illness alert, or a foodborne illness outbreak, and there is a suspicion of intent to do bodily harm or inflict economic damage. (Circle the letter of the best answer.)

- A. True
- B. False

- 4) During a non-routine foodborne illness outbreak, a Unified Command would: (Circle the letter of the best answer.)
- E. Not be appropriate
 - F. Bring together the major organizations involved in the incident
 - G. Have only one person in charge of the operation
 - H. None of the above
- 5) If members of the Unified Command cannot reach consensus: (Circle the letter of the best answer.)
- E. The entire committee makes the decision
 - F. The State Police make the decision
 - G. The agency with primary jurisdiction makes the decision
 - H. None of the above
- 6) Members of a Unified Command work together to: (Circle the letter of the best answer.)
- E. Develop a common set of objectives and strategies
 - F. Share information
 - G. Maximize the use of available resources
 - H. All of the above
- 7) Establishing a Unified Command would be appropriate when: (Circle the letter of the best answer.)
- E. Only one agency was involved in responding to the incident
 - F. Multiple geographic boundaries were represented
 - G. Multiple governmental levels were involved
 - H. B and C

Evaluation and Closing

Time requirement: 15 minutes

Number of facilitators: 1 for up to 25 participants; more as needed per Minimum Criteria

Materials

- Whiteboard or equivalent; markers
- Evaluation Forms
- Collection box for evaluation forms
- Certificates

Objectives

- Answer any remaining questions
- Complete evaluation forms
- Thank participants

Teaching Methods

Discussion

Suggested Facilitator Preparation

- Print evaluation forms
- Provide a collection box/location for forms

Minimum Content Requirements

- Summarize program content
- Answer remaining questions
- Collect evaluation feedback in a central location

Questions You May Be Asked

How do I get more training?

Refer the participant to your program director or coordinator for other programs offered.

Presentation of the Session

This session can be presented as follows:

Ask: do you feel better able to do the following?

Participants should be better able to:

- Implement the 4 phases of a foodborne illness outbreak investigation
- Identify the stakeholders that should be involved in different phases of the investigation
- Identify communications they will provide to appropriate agencies and the public
- Implement a unified command for responding to a foodborne illness outbreak involving multiple jurisdictions

Describe how evaluation is used to improve programs.

Distribute evaluation forms and ask participants to put them in a collection box when complete.

Ask if there are any outstanding questions.

Thank participants for their involvement.

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Foodborne Illness Investigation Tabletop Program

Participant Guide

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Midwest Consortium for Hazardous Waste Worker Training

Acknowledgement

The tabletop format was developed by Michigan State University, Emergency Response Solutions (now ERSI), in cooperation with the Bureau of Epidemiology and the Office of Public Health Preparedness, Michigan Department of Community Health, and the Michigan Department of Agriculture. Representatives from local health departments and law enforcement agencies in Kalamazoo and Mt. Pleasant, Michigan, also contributed to this project. The U.S. Centers for Disease Control and Prevention (CDC) provided funding for initial development of this project through the Office of Public Health Preparedness.

The original program has been reformatted and adapted as an example of a Tabletop program. This training is conducted under cooperative agreement number U45 ES 06184 from the National Institute of Environmental Health Sciences.

We encourage you to comment on these materials. Please give your suggestions to those leading the program in which you are now enrolled.

Warning

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Disclaimer

The Occupational Safety and Health administration rule to help ensure worker health and safety during emergency responses requires training for a range of personnel. This program was developed to assist in practice in Unified Command that would be activated during a foodborne illness response. It is not intended to replace training required at the agency-level or for professional certification.

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LIST OF ACRONYMS

The following are acronyms you may see during this tabletop exercise.

ANSI	American National Standards Institute
CDC	Centers for Disease Control and Prevention
EOC	Emergency Operations Center
FBI	Federal Bureau of Investigation
FDA	Food and Drug Administration
FIRST	Foodborne Illness Response Strategy
LHD	Local Health Department
DA	Department of Agriculture
DCH	Department of Community Health
SP	State Police
NIOSH	National Institute for Occupational Safety and Health
NRT	National Response Team
OPHP	Office of Public Health Preparedness
PCC	Poison Control Center
PIA	Post Incident Analysis
PIO	Public Information Officer
UC	Unified Command
USDA	United States Department of Agriculture

Introduction

Tabletop exercises have wide application in training. Using this approach response to very serious potential events can be practiced in the safety of a classroom setting.

Objectives

After completing this section, you will better be able to:

- List reasons to practice prior to an event
- Describe types of outcomes from a tabletop

A tabletop exercise is designed to allow a group to follow a plan to respond to a situation that may occur. This can be done by multiple agencies, within one company or in a neighborhood. Families might use a tabletop to practice disaster preparedness.

A tabletop is like board games or theater mysteries during which the overall situation is introduced by a leader and others play assigned roles. Changing conditions are introduced by the leader verbally or through written instructions; these 'stimulators' often impact decisions made by participants.

Examples of groups and the situations that each might practice using a tabletop exercise include:

- XYZ Company Emergency Response Team - workplace chemical release
- Town of Wherever Government Agencies - evacuation order due to flooding
- Local Emergency Planning Committee - tanker explodes after impact on interstate
- State Government Agencies - foodborne illness reports
- The Jones Family - communication as a hurricane approaches

These exercises are useful to identify where existing plans are not sufficient or in cases where multiple agencies are involved, there may be conflicts between the actions in of various groups. In this latter example, the tabletop may be the first time that the groups have met and worked together in person, bringing the plans to 'life' and identifying areas that work well and those that do not. With the increasing reliance on technology, the tabletop is an opportunity to ensure that both access to information and communication methods work. By using a tabletop approach, valuable resources are not expended and there are no disruptions in operations.

When actions are needed to resolve issues identified during the tabletop, it is important that a plan be developed to ensure timely resolution. A real event could happen soon!

Tabletops are sometimes used as preparation for a full-scale drill.

During this program you will learn about approaches to a response and practice response actions. Successful completion requires active participation throughout session. An optional pre- and post-training knowledge check is available to provide information to you regarding changes in knowledge; this exercise is not graded.

Exercise - Assessing What You Know before Training

Please answer each of the following questions. If you do not know the answer, leave the question blank. DO NOT GUESS!

1. Match each of the 4 phases of an incident with a description of what occurs during that phase. (Write the letter from the left-hand column next to the correct description in the right-hand column.)

- | | | | |
|----|-------------------|-------|---|
| A. | Initial Actions | _____ | Implement the action plan |
| B. | Planning | _____ | Write a final report |
| C. | Sustained Actions | _____ | Take immediate actions to protect people & property |
| D. | Termination | _____ | Develop the action plan |

2. Which of the following meets the definition of a routine foodborne illness outbreak? (Circle the letter of the best answer.)

- A. An incident, where two or more persons from different households have the same disease, similar clinical features, and a time, place, or person association.
- B. Incidents of illnesses involving related persons who report symptoms compatible with foodborne illness.
- C. A single reported case of alleged foodborne illness.
- D. None of the above.

3. A non-routine investigation is one that results from a family complaint, a foodborne illness alert, or a foodborne illness outbreak, and there is a suspicion of intent to do bodily harm or inflict economic damage. (Circle the letter of the best answer.)

- A. True
- B. False

4. During a non-routine foodborne illness outbreak, a Unified Command would:
(Circle the letter of the best answer.)
 - A. Not be appropriate.
 - B. Bring together the major organizations involved in the incident.
 - C. Have only one person in charge of the operation.
 - D. All of the above.
5. If members of the Unified Command cannot reach consensus: (Circle the letter of the best answer.)
 - A. The entire committee makes the decision.
 - B. The State Police make the decision.
 - C. The agency with primary jurisdiction makes the decision.
 - D. None of the above.
6. Members of a Unified Command work together to: (Circle the letter of the best answer.)
 - A. Develop a common set of objectives and strategies.
 - B. Share information.
 - C. Maximize the use of available resources.
 - D. All of the above.
7. Establishing a Unified Command would be appropriate when: (Circle the letter of the best answer.)
 - A. Only one agency was involved in responding to the incident.
 - B. Multiple geographic boundaries were represented.
 - C. Multiple governmental levels were involved.
 - D. Both B and C.

Summary

- Reasons to practice prior to an event
 - improve response, should it be necessary
 - communication
 - plan
 - coordination
- Types of outcomes from a tabletop
 - identify gaps in plan or response capability
 - plan to resolve identified gaps/capabilities

Response Strategy

Introduction

This tabletop program has been designed for public health officials, law enforcement agencies, state regulatory agencies and federal agencies that may respond to incidents involving contamination of the food supply.

Objectives

After completing this section, you will better be able to:

- Describe the 4 phases of a foodborne illness outbreak investigation
- Recognize the definitions for routine and non-routine foodborne illness investigations
- Explain how the use of Unified Command might assist individual agencies in working together to protect public health

The Four Phases of Response

There are four phases to a response. The phases are the same for all participating groups, but the actions may differ. This underscores the need to communicate and practice before there is a need to respond in a crisis.

Four-Phase Response: Public Health

The four phases of a Foodborne Illness Response Strategy (FIRST) response are outlined below.

Phase I: Initial Actions

Outbreak Determination	Notification
<ul style="list-style-type: none">• Prepare Investigation• Assemble Investigation Team• Verify Diagnosis• Search for Additional Cases• Develop Initial Case Definition• Get Case Histories• Collect Food Samples• Obtain Clinical Specimens• Make Epidemiology Associations• Determine Outbreak Occurrence	<ul style="list-style-type: none">• DCH - Department of Community Health• LHD - Local Health Department• State DA - State Department of Agriculture• FDA - Food and Drug Administration• Law Enforcement• USDA - United States Department of Agriculture• Public• Health Care• Poison Control
<hr/>	
Review Available Information Take Precautionary Control Actions	
<ul style="list-style-type: none">• Prevent Additional Cases• Monitor to Determine Effectiveness of Actions	

Phase II: Planning

- Develop Method for Finding Additional Cases
- Identify Procedures to Collect Specimens
- Determine Study Design
- Develop Initial Plan and Timetable
- Identify Available Obtain
- Obtain Assistance
- Inform Lab
- Potential for Sample Submission
- Coordinate with Stakeholders

Phase III: Plan Implementation (Sustained Actions)

- Assign Tasks
- Epidemiology Investigation
Laboratory Sample Collection
- Environmental Assignment
- Collate Data
- Analyze Data and Test Hypotheses
- Implement Control Strategies
- Assist Stakeholders
- Evaluation of Plan

Phase IV: Concluding Actions (Termination)

- Review with Stakeholder Agencies
- Inform Public
- Write Final Report
- Use Data for Prevention
- After Action Report
- Personnel Status

Four-Phase Response: Law Enforcement

Initial Actions

- Notification
- Investigation/Surveillance
- Review Available Information
- Take Precautionary Control Actions

Planning

- Strategic Goals
- Tactical Objectives
- Resource Management

Plan Implementation (Sustained Actions)

- Assign Tasks
- Implement the Action Plan
- Evaluate the Action Plan

Concluding Actions (Termination)

- Review with Stakeholder Agencies
- Write Final Report
- Post Incident Analysis
- Use Data for Prevention

Definitions

Routine Investigation

An investigation that results from a Family Complaint, a Foodborne Illness Alert, or a Foodborne Illness Outbreak.

- Family Complaint – Incidents of illnesses involving related persons (same household) who report symptoms compatible with foodborne illness.
- Foodborne Illness Alert – A single reported case of alleged foodborne illness.
- Foodborne Illness Outbreak – An incident in which two or more persons have the same disease, have similar clinical features, or have the same pathogen, thus meeting the case definition, and there is a time, place, or person association among these persons.

Non-Routine Investigation

An investigation that results from a Family Complaint, a Foodborne Illness Alert, or a Foodborne Illness Outbreak, and there is a suspicion of intent to do bodily harm or inflict economic damage. A non-routine investigation may also include an unusual presentation of a foodborne illness, such as atypical symptoms.

During a non-routine investigation, public health and law enforcement agencies may need to share command in order to avoid confusion and duplication of effort.

Using Unified Command

What is Unified Command?

Although a single Incident Commander is normally responsible for managing an incident, an Incident Command System may expand into a Unified Command (UC). The UC brings together the Incident Commanders of all major organizations involved in the incident in order to coordinate an effective response. At the same time, it allows individual agencies to carry out their own duties.

The UC is responsible for overall management of the incident. Members of the UC work together to develop a common set of incident objectives and strategies, share information, maximize the use of available resources, and increase the efficiency of individual organizations. Unified Command is not decision making by committee. In order to work effectively, participants in Unified Command need to designate one person to be in charge of the decision-making process.

When should a UC be used?

The UC is used when multiple agencies are involved in a response effort. These may include agencies that may represent different:

- Geographic boundaries (two counties, two states)
- Governmental levels (local, state, federal)
- Functional responsibilities (law enforcement, public health)
- Statutory responsibilities (Public Health Code, Homeland Security)

Activation of Unified Command

When multiple agencies are involved in a foodborne illness investigation, officials responsible for responding would assemble to direct and control the jurisdiction's response. The location is referred to as the Emergency Operations Center (EOC).

The EOC goes into operation when the agencies involved determine that the situation is complex enough to require a coordinated and non-routine response. The EOC does not become operational for all non-routine incidents. The local emergency response plan should specify the conditions under which it does become operational and who is authorized to activate it.

One of the first tasks of any emergency is to assess the situation quickly to determine if its size or severity warrants activating the EOC. Staffing the EOC may be as simple as people leaving their offices and walking down the hallway to the operations center. It may also be more elaborate, such as calling in people from various locations.

For a foodborne illness investigation, the EOC may require the presence of several agencies including local public health, local law enforcement, State Police, FBI, local health care facilities, local Emergency Management, the Department of Community Health, and the Department of Agriculture.

Decision-Making in Unified Command

The UC should develop synergy based on the abilities brought by the various agencies. Each agency must recognize these individual abilities, appreciate the goals of the other agencies, and agree upon common objectives. Although Incident Commanders from each agency are present in the EOC, the Unified Command participants should designate an EOC Manager to coordinate group decision-making.

With different perspectives on the UC comes the risk of disagreements, most of which can be resolved through an understanding of the underlying issues. The EOC Manager is responsible for ensuring that participants in the Unified Command examine all the

issues completely and make decisions that take the concerns of all agencies into account.

Difficult issues may arise, but the UC provides a forum and process to resolve problems and find solutions. If situations arise where members of the UC cannot reach consensus, the UC member representing the agency with primary jurisdiction over the issue would normally be deferred to for the final decision. The key to successful implementation of Unified Command is planning and exercising at the regional and local level.

Summary

There are 4 phases in a public health foodborne illness investigation. All groups used the same phases, although actions may differ.

1. Initial Action
2. Planning
3. Plan Implementation
4. Concluding Actions

A foodborne illness investigation may be:

Routine - An investigation that results from a Family Complaint, a Foodborne Illness Alert, or a Foodborne Illness Outbreak.

Non-routine foodborne - An investigation that results from a Family Complaint, a Foodborne Illness Alert, or a Foodborne Illness Outbreak, and there is a suspicion of intent to do bodily harm or inflict economic damage. A non-routine investigation may also include an unusual presentation of a foodborne illness, such as atypical symptoms.

When multiple agencies are involved, Unified Command must be activated for effective management of the response and follow-up.

With this knowledge, you will be able to implement an investigation effectively and safely.

The Investigation

With the increase in transportation and personal mobility, public health officials and law enforcement agencies will need to work cooperatively in order to protect people, property, and the environment. By identifying possible situations that could affect multiple jurisdictions and agencies, response plans that span these groups can be practiced; this will improve communication and ensure that roles and responsibilities of each group is recognized by others. The tabletop allows participants to identify any areas where plans might be more consistent, allowing participants to identify and implement a consensus on strategies and tactics.

By going through a tabletop exercise, you will be able to practice the skills you will need should an incident occur. You will be able to identify potential problems and find workable solutions. Finally, you will have an opportunity to meet face-to-face with others who will be key players during future foodborne illness outbreaks.

In this section, you will:

- Implement the 4 phases of a foodborne illness outbreak investigation
- Identify the stakeholders that should be involved in different phases of the investigation
- Implement and identify communications provided to appropriate agencies and public
- Implement a Unified Command for responding to a foodborne illness outbreak involving multiple jurisdictions

Overall Process

- Read through the information for each scene that follows. There are three scenes. You will be completing one scene at a time.
- Your group (Public Health or Law Enforcement) should designate a Group Leader, a Time Keeper, a Scribe, and a Presenter. These roles can be assigned to different individuals within your group for each scene. The Scribe should use the chart pad to record the group's answers.
- As a group, answer the questions for each scene for the role you have been assigned.
- People from the different agencies present are resources.
- Use the 4-phase response chart to guide your discussion.

Scene 1

- Read Scene 1, next page
 - Separate descriptions for Public Health and Law Enforcement
 - You will have 15 minutes to answer the questions and 10 minutes to present.
 - Once you have finished your assignment for Scene 1, **DO NOT GO TO THE NEXT PAGE.**

Scene 1: Public Health

A grocery store calls the Department of Agriculture (DA) on a Friday afternoon and reports that 10 people have returned a specialty cheese that was produced at a local dairy processing plant within the county. The DA reports this information to the local health department. Family members of those returning the cheese have experienced illness within one day after consumption and have reported the following symptoms: abdominal pain, nausea, headaches, thirst, and shortness of breath. The local health department has received calls from two local hospital emergency departments reporting several patients with similar symptoms.

Questions:

- 1) Who will be on the investigation team and what will their roles be?
- 2) What initial actions will need to be taken?
- 3) What information will the team need to collect and from whom?
- 4) What notifications will need to be made to which agencies or individuals?
- 5) Describe your initial case definition.
- 6) Is this a typical foodborne complaint? Why or why not?

DO NOT CONTINUE UNTIL YOU ARE TOLD TO DO SO.

Scene 1: Law Enforcement

A woman has contacted 911 indicating that she is suspicious that her estranged husband has been trying to poison her. She also suspects that he has tampered with food that was consumed at a family picnic. Her suspicion is based on threats he has made and the fact that several people who attended the picnic got sick. The family members experienced abdominal pain, nausea, and headaches. She believes his actions are an attempt to seek revenge because she has filed divorce papers. Her father owns a local dairy plant, where she and her estranged husband both work.

Questions:

1. Who will be assigned to this investigation?
2. What actions will need to be taken?
3. What investigative leads will be pursued?
4. What agencies will you need to contact and what information will you need to provide?

DO NOT CONTINUE UNTIL YOU ARE TOLD TO DO SO.

Scene 2

- Read Scene 2, beginning below
 - Separate descriptions for Public Health and Law Enforcement; Unified Command reads both Public Health and Law Enforcement
 - You will have 15 minutes to answer the questions and 10 minutes to present.
 - Once you have finished your assignment for Scene 2, **DO NOT GO TO THE NEXT PAGE.**

Scene 2: Public Health

Two days later, the DA has contacted the dairy that produced the cheese and has conducted an investigation of the manufacturing facility. More than 40 people in the county have now reported illnesses associated with consumption of the suspected cheese with symptoms similar to those reported earlier. These reports have come in during the past 7 days. The 40 people all report having consumed the same specialty cheese purchased at 4 other grocery stores in 3 other cities within the county.

Immediately after the DA investigation, the dairy has issued a recall of the specialty cheese and has sent a sample of the cheese to a private lab. After 4 more days, lab tests come back as negative for bacteriological contamination, but a follow-up test indicates the contaminant is paraquat, a highly toxic herbicide. The Poison Control Center calls the local health department 3 days after the initial reports came in because of several phone calls from individuals and one emergency department physician about this foodborne related illness.

Questions:

- 1) What additional agencies, if any, will be notified at this point? By whom?
- 2) How does this new information change the composition of your investigative team and what will the new roles be?
- 3) Describe the goals of your investigation and your action plan.
 - A. Epidemiology Track
 - B. Environmental Track
 - C. Laboratory Track
- 4) Who will you notify of the paraquat finding? What will the notification include and why is it necessary?
 - A. Health Care Providers?
 - B. Sick People?
 - C. Public?

DO NOT CONTINUE UNTIL YOU ARE TOLD TO DO SO.

Scene 2: Law Enforcement

The estranged wife learns that contaminated cheese is being returned to her father's dairy plant. The dairy plant has issued a recall of all the contaminated cheese based on consumer complaints. The officer in charge of the investigation learns that 40 people have now reported symptoms described in Scene 1. The individuals reporting these symptoms ate cheese purchased at 4 grocery stores in 3 different cities within the county. The dairy has provided samples of the contaminated cheese to a private lab. Four days later, the lab has confirmed the presence of potentially lethal doses of paraquat in the cheese samples. A member of the agency investigating the case reports that the wife is known to keep company with several males other than her husband.

Questions:

- 1) What additional agencies, if any, will be notified at this point? Who will provide the notification?
- 2) How does this new information change the composition of your investigative team and what will the new roles be?
- 3) Describe the goals of your investigation and your action plan.
- 4) Should the public and media be informed that the substance in question is paraquat? Why or why not?
- 5) How will you ensure the integrity of evidence when samples are in the possession of a private lab?

DO NOT CONTINUE UNTIL YOU ARE TOLD TO DO SO.

Scene 2: Questions for Unified Command

NOTE: Unified Command group has authority to request information from law enforcement and public health groups.

- 1) Who will be in charge of Unified Command?

- 2) What additional information will you need?

- 3) What resources will you need at the Emergency Operations Center (EOC)?

- 4) What information should be released to the public?

- 5) What key issues will you act on?

- 6) What directions would you provide to local public health and law enforcement agencies?

DO NOT CONTINUE UNTIL YOU ARE TOLD TO DO SO.

Scene 3

- Read Scene 3, beginning below
 - Separate descriptions for Public Health and Law Enforcement, Unified Command reads Public Health and Law Enforcement
 - You will have 15 minutes to answer the questions and 10 minutes to present.
 - Once you have finished your assignment for Scene 3, **DO NOT GO TO THE NEXT PAGE.**

Scene 3: Public Health

One day after receiving notice from the lab, the dairy notifies the DA that the grocery stores have been keeping logs containing the names of individuals making foodborne illness complaints and that the returned product is in safe keeping. The Poison Control Center indicates that the contaminated cheese could be lethal if eaten in sufficient quantities.

The press is calling the local health department and local law enforcement agencies wanting to know if this is an act of terrorism. The dairy plant reports that many of their retailers have stopped ordering products, and their milk suppliers are demanding action to restore consumer confidence. Phone lines to the local health department and local law enforcement agencies are swamped with calls from the public. Many people are reporting that they ate the product and have suffered symptoms.

Questions for Local Health Department:

- 1) What additional actions will your group take and who will you assign?
- 2) Will the Local Health Department need to maintain liaison with the Unified Command team? Why? Why not?
- 3) What information do you want the public to know at this point? What information would you include in a recorded phone message for the public?
- 4) How would your actions change if reports of similar symptoms started showing up in neighboring states?

DO NOT CONTINUE UNTIL YOU ARE TOLD TO DO SO.

Scene 3: Law Enforcement

The dairy notifies the team that the grocery stores have been keeping logs containing the names of individuals making foodborne illness complaints and that the returned product is in safe keeping. The Poison Control Center indicates that the contaminated cheese could be lethal if eaten in sufficient quantities.

Many people are reporting that they ate the product and have experienced symptoms. The press is calling the local health department and local law enforcement agencies wanting to know if this is an act of terrorism. After obtaining search warrants, the agency investigating the case discovers trace samples of paraquat in the basement of the wife's home and the estranged husband's apartment. No other reports of illness have been received in the area or in Poison Control Centers outside the area. The wife has disappeared, and when questioned, relatives indicate she is visiting out-of-state family.

Questions for Local Law Enforcement:

- 1) If the FBI were now involved, what would be the role of local law enforcement agencies?
- 2) Will local law enforcement agencies need to maintain liaison with the Unified Command team? Why or why not?
- 3) What evidence will be needed to prosecute this case?
- 4) What specific facts about the incident should be provided to the public at this point?
- 5) What additional action will be required if food poisoning cases begin turning up in other states?

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Scene 3: Questions for Unified Command:

- 1) What additional information will you need?
- 2) What key issues will you act on?
- 3) What information should be released to the public at this stage?
- 4) Who will respond to local officials, the Governor's Office, and the CDC?
- 5) Public health officials want to publish a report on this investigation to alert health officials in other jurisdictions. When would this be appropriate?
- 6) Should the case described in this scenario be considered an act of terrorism?

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Summary

Discuss the following questions:

- 1) Under what circumstances involving a foodborne illness outbreak do state agencies need to be involved? What about federal agencies?
- 2) In what ways are the objectives of public health and law enforcement investigations similar? Different?
- 3) Were there any points of conflict or misunderstanding? If yes, how did they get resolved?
- 4) How can public health and law enforcement agencies increase cooperative efforts in these types of cases?
- 5) What lessons did you learn from this exercise?

Assessing What You Know After Training

Go back to your responses to the pre-training knowledge assessment. Take a few minutes to change or add to your answers.

Evaluation and Closing

Thank you for participating in this program.

This is an opportunity to ask any questions you may have, or to discuss how the knowledge and skills learned can be used at work. Were all of your initial questions answered?

Please take the next 10 minutes to complete the program evaluation forms. These are important for improving the program. The Midwest Consortium does take your comments seriously and has made changes in content and the skill exercises based on feedback. Your comments are anonymous.

We hope to see you at another Midwest Consortium program in the future