Foodborne Illness Participant Guide

April 2006

Acknowledgments

This curriculum has been developed by the Midwest Consortium for Hazardous Waste Worker Training under grant number cooperative agreement U45 ES 06184 from the National Institute of Environmental Health Sciences. As a group of trainers dedicated to providing you with useful information to safeguard your health and safety, we encourage you to comment on these materials. Please give your suggestions to those teaching the program in which you are now enrolled, forward them to the Midwest Consortium for Hazardous Waste Worker Training, University of Cincinnati, P.O. Box 670056, Cincinnati, OH 45267-0056, or email your comments to alerdilr@uc.edu.

Warning

The material was prepared for use by experienced instructors in the training of persons who are or who anticipate being employed at a health care facility. Authors of this material have prepared it for the training of this category of workers as of the date specified on the title page. Users are cautioned that the subject is constantly evolving. Therefore, the material may require additions, deletions, or modifications to incorporate the effects of that evolution occurring after the date of this material preparation.

Disclaimer

The Environmental Protection Agency (EPA) oversees the evaluation and remediation of sites contaminated with toxic wastes. The Occupational Safety and Health Administration (OSHA) enforces rules to help assure worker health and safety during these activities

This tabletop exercise 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.

Midwest Consortium for Hazardous Waste Worker Training Programs

CEA

1550 Howard
Detroit, MI 48216
Phone 519-973-1116

Greater Cincinnati Occupational Health Center

7030 Reading Rd., Ste. 540
Cincinnati, OH 45237
Phone 513-531-7101

DWEJ

4875 Lakeview
Detroit, MI 48215
Phone 313-821-1064

Fisk University

Dept. of Chemistry
Environmental Justice Education & Research
1000 17th Ave., N.
Nashville, TN 37208-3051
Phone 615-329-8626

Indiana University

Environmental Management Institute
5610 Crawfordsville Rd., Ste. 15
Indianapolis, IN 46224
Phone 800-488-8842

Lakeshore Technical College

Hazardous Materials Training Program
1290 North Ave.
Cleveland, WI 53015-1414
Phone 888-468-6582

Michigan State University

Global Community Security Institute
202A S. Kedzie
East Lansing, MI 48824
Phone 517-432-3981

Ohio Environmental Council

1207 Grandview Ave., Ste. 201
Columbus, OH 43212
Phone 614-487-7506

SEMCOSH

7752 W. Vernor, Ste. 103
Detroit, MI 48216
Phone 313-849-3345

The Three Affiliated Tribes

Emergency Management
Hc3 Box Z
204 W. Main St.
Environmental Division
Tribal Administration Building
New Town, ND 58763
Phone 701-627-4569

University of Illinois

Labor Education Program
ILIR
504 E. Armory
Champaign, IL 61820
Phone 217-244-4099

University of Kentucky

425 Patterson Office Tower
Lexington, KY 40506
Phone 859-257-5741

University of Louisville

Hazardous Materials Training Center
University of Louisville—UCCPE/Shelby Campus
101 Founders Union
Louisville, KY 40292
Phone 502-852-0364

University of Minnesota

Midwest Center for Occupational Health and Safety
2221 University Ave., SE, Ste. 350
Minneapolis, MN 55414
Phone 612-625-2946

University of Tennessee

Center for Industrial Services
226 Capitol Boulevard Building, Ste. 606
Nashville, TN 37219-1804
Phone 615-532-4912

Other Training Programs Funded by the National Institute of Environmental Health Sciences (NIEHS)

AFSCME Training and Education Institute

1625 L St., NW
Washington, DC 20036
Phone 615-532-4912
.....202-429-1233
Fax 202-223-3255

George Meany Center for Labor Studies

Railway Workers Hazardous Materials Program
10000 New Hampshire Avenue
Silver Spring, MD 20903
Phone 615-532-4912
.....301-431-6400
Fax 301-434-0371

International Association of Firefighters

1750 New York Ave., NW
Washington, DC 20006
Phone 615-532-4912
.....202-737-8484
Fax 202-637-0839

International Chemical Workers Union

1655 W. Market St.
Akron, OH 44313
Phone 615-532-4912
.....330-867-2444
Fax 330-867-0544

International Union of Operating Engineers

Research and Education
1125 Seventeenth Street, NW
Washington, D.C. 20036
Phone 615-532-4912
.....202-778-2643
Fax 202-778-2691

Kirkwood Community College

HMTRI
HazMat Training Research Institute
Health Occupations
6301 Kirkwood Blvd., SW
P.O. Box 2068
Cedar Rapids, IA 52406-2068
Phone 615-532-4912
.....319-398-5893
Fax 319-398-5894

Laborers—AGC Education and Training Fund

Route 97 and Murdock Road
P.O. Box 37
Pomfret Center, CT 06259
Phone 615-532-4912
.....703-960-3145
Fax 703-960-3146

National Puerto Rican Forum

180 N. Wabash, 4th Fl.
Chicago, IL 60601
Phone 615-532-4912
.....312-926-5563
Fax 312-362-6021

Paper, Allied Industrial, Chemical & Energy Workers International Union (PACE)

3340 Perimeter Dr.
Nashville, TN 37211
Phone 615-532-4912
.....615-831-6781
Fax 615-833-9332

Service Employees Internat'l Union, AFL-CIO

Occupational Safety and Health
1313 L Street, NW
Washington, D.C. 20005
Phone 615-532-4912
.....202-898-3385
Fax 202-898-3403

The Center to Protect Workers' Rights

111 Massachusetts Ave., NW
Washington, DC 20001
Phone 615-532-4912
.....202-962-8999
Fax 202-354-8015

United Auto Workers

Health and Safety Department
8000 E. Jefferson Ave.
Detroit, MI 48214
Phone 615-532-4912
.....313-926-5563
Fax 313-824-4473

Other Training Funded by the National Institute of Environmental Health Sciences (NIEHS), *cont.*

University of Alabama—Birmingham

Center for Labor Education and Research
1043 Building 102
1530 3rd Ave., S.
Birmingham, AL 35294-4490
Phone 615-532-4912
.....205-934-8752
Fax 205-975-5087

University of California

UCLA-LOSH Program
SPPSR/IIR
6350B Public Policy Building
P.O. Box 951478
Los Angeles, CA 90095-1478
Phone 615-532-4912
.....310-794-5964
Fax 310-794-6410

University of Massachusetts—Lowell

Dept. of Health and Clinical Sciences
College of Health Professions
New England Consortium
Weed Hall, Rm. 305
Lowell, MA 01854
Phone 615-532-4912
.....978-934-4389
Fax 978-452-5711

University of Medicine & Dentistry of New Jersey

School of Public Health
335 George St.
Liberty Plaza, Ste. 2200
P.O. Box 2688
New Brunswick, NJ 08903
Phone 615-532-4912
.....732-235-9452
Fax 732-235-9460

Xavier University of Louisiana

Deep South Center for Environmental Justice
P.O. Box 37
Campus Box 45B
New Orleans, LA 70125-1098
Phone 615-532-4912
.....504-304-3327
Fax 504-304-3329

Table of Contents

Response Strategy

In this section you will do the following:

- Identify the 4 phases of response for a Foodborne Illness Outbreak.
- Identify the difference between routine and non-routine foodborne illness investigations.
- Identify when a Unified Command should be established.
- Identify how a Unified Command is activated.

Foodborne Illness Tabletop Exercise: Assessing What You Know Now

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 and 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. 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.

   C. Both B and C.

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**

- 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

*** Review Available Information**

*** Take Precautionary Control Actions**

- Prevent Additional Cases
- Monitor to Determine Effectiveness of Actions

*** Notification**

- DCH - Department of Community Health
- LHD - Local Health Department
- DA - Department of Agriculture
- FDA - Food and Drug Administration
- Law Enforcement
- USDA - United States Department of Agriculture
- Public
- Health Care
- Poison Control

Phase II: Plan Implementation (Sustained Actions)

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

Phase III: Planning

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

Phase IV: Concluding Actions (Termination)

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

Summary:

- Initial Actions
- Plan Implementation
- Planning
- Termination

FOUR-PHASE RESPONSE: Law Enforcement

Initial Actions

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

Plan Implementation (Sustained Actions)

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

Planning

- Strategic Goals
- Tactical Objectives
- Resource Management

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. 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 may be used whenever 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

In this module you discussed the 4 phases that are part of a foodborne illness investigation, from a public health and law enforcement perspective. You also reviewed the definitions for routine and non-routine foodborne illness investigations. Finally, you learned how the use of Unified Command might assist individual agencies in working together to protect public health.

With this knowledge, you will be able to manage any investigation effectively and safely.

Tabletop Exercise

With an increase in the potential for terrorism, public health officials and law enforcement agencies will need to work cooperatively in order to protect people, property and the environment. By practicing the response effort prior to an incident, the agencies involved will understand their roles and responsibilities. When everyone understands each other's roles and responsibilities and has a plan for working together, they will be more likely to reach a consensus on strategies and tactics.

By going through a tabletop exercise, you will be able to practice the skills you will need when a real incident occurs. 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 do the following:

- 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 the public.
- Implement a Unified Command for responding to a foodborne illness outbreak involving multiple jurisdictions.

Directions

Read through the information for each scene that follows. There are a total of three scenes. You will be completing one scene at a time.

Your group 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.

Use the people from the different agencies present as resources.

Use the 4-phase response chart to guide your discussion.

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: 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: 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 whom 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?

DO NOT CONTINUE UNTIL YOU ARE TOLD TO DO SO.

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?

DO NOT CONTINUE UNTIL YOU ARE TOLD TO DO SO.

SUMMARY:
Discussion Points

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?

LIST OF ACRONYMS

The following are acronyms you may have seen 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

Foodborne Illness Tabletop Exercise: Assessing What You Know After 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 and 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. 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.

   C. Both B and C.

FOR EXERCISE ONLY
RECALL NOTICE
Press Release

Midwest Cheese Co.
250 Rue Morgue
Anytown, USA
FOR IMMEDIATE RELEASE **March 9, 2005**

Claude E. Monet
President
Phone Number: 555-555-9595

RECALL OF EDAM CHEESE

Midwest Cheese Co., 250 Rue Morgue, Anytown, USA, is recalling EDAM CHEESE because of suspected chemical contamination. Edam cheese may have been contaminated with a toxic chemical. Ingestion of any food contaminated with this chemical could cause serious illness. Typical symptoms of this illness include pain and swelling of the mouth and throat, nausea, vomiting, abdominal pain and diarrhea.

Midwest Cheese Co. Edam Cheese was distributed in the Anytown, USA area. Midwest Cheese is sold at Mom & Pop Convenience Stores, Groceries R Us, and JR's Discount Foods.

Midwest Cheese Co. Edam Cheese, product code 81-03, is being recalled.

Several illnesses have been reported to date in connection with this problem.

The contamination was noted after testing by the Department of Agriculture revealed the presence of a toxic chemical in Edam Cheese, coded 81-03.

Production of the product has been suspended while officials continue their investigation as to the source of the contamination.

Consumers who have purchased Midwest Cheese Co. Edam Cheese – product code 81-03 are urged to return this product to the place of purchase for a full refund. Consumers with questions may contact Midwest Cheese Co. at 555-555-9595.

FACT SHEET

Facts About Paraquat

What paraquat is

- Paraquat is a toxic chemical that is widely used as an herbicide (plant killer), primarily for weed and grass control.
- In the United States, paraquat is available primarily as a liquid in various strengths. It is classified as "restricted use," which means that it can be used only by people who are licensed applicators.
- Because paraquat is highly poisonous, the form of it that is marketed in the United States has a blue dye to keep it from being confused with beverages such as coffee, a sharp odor to serve as a warning, and an added agent to cause vomiting if someone drinks it. Paraquat from outside the United States may not have these safeguards added.

Where paraquat is found and how it is used

- Paraquat was first produced for commercial purposes in 1961.
- Worldwide, paraquat is still one of the most commonly used herbicides.
- In the United States, due to its toxicity, paraquat is available for use only by commercially licensed users.

How you could be exposed to paraquat

- Paraquat is not known to have been used in any terrorist attacks or wars.
- The most likely route of exposure to paraquat that would lead to poisoning is ingestion (swallowing).
- Paraquat can be easily mixed with food, water, or other beverages. If the form of paraquat that is used is the form that does not contain the safeguard additives (dye, odor, and vomiting agent), people might not know that the food, water, or other beverages are contaminated. Eating or drinking paraquat-contaminated food or beverages could poison people.
- Paraquat poisoning is also possible after skin exposure. Poisoning is more likely to occur if the skin exposure lasts for a long time, involves a concentrated version of paraquat, or occurs through skin that is not intact (skin that has sores, cuts, or a severe rash).
- If it is inhaled, paraquat could cause poisoning leading to lung damage. In the past, some marijuana in the United States has been found to contain paraquat.
- Licensed applicators of paraquat are the people most at risk for exposure.

How paraquat works

- The extent of poisoning caused by paraquat depends on the amount, route, and duration of exposure and the person's condition of health at the time of the exposure.
- Paraquat causes direct damage when it comes into contact with the lining of the mouth, stomach, or intestines.
- After paraquat enters the body, it is distributed to all areas of the body. Toxic chemical reactions occur throughout many parts of the body, primarily the lungs, liver, and kidneys.
- The actual mechanism by which paraquat damages the lungs is not known.

DEPARTMENT OF HEALTH AND HUMAN SERVICES
CENTERS FOR DISEASE CONTROL AND PREVENTION
SAFER • HEALTHIER • PEOPLE™

Facts About Paraquat
(continued from previous page)

Immediate signs and symptoms of paraquat exposure

- After a person ingests a large amount of paraquat, he or she is likely to immediately have pain and swelling of the mouth and throat. The next signs of illness following ingestion are gastrointestinal (digestive tract) symptoms, such as nausea, vomiting, abdominal pain, and diarrhea (which may become bloody).
- Severe gastrointestinal symptoms may result in dehydration (not enough fluids in the body), electrolyte abnormalities (not enough sodium and potassium in the body), and low blood pressure.
- Ingestion of small to medium amounts of paraquat may lead to development of the following adverse health effects within several days to several weeks:
    - Liver failure
    - Kidney failure
    - Heart failure
    - Lung scarring (may evolve over several weeks)
- In general, ingestion of large amounts of paraquat leads to the following signs/symptoms within a few hours to a few days:
    - Pulmonary edema (fluid in the lungs)
    - Lung scarring (evolves more quickly than when small to medium amounts have been ingested)
    - Liver failure
    - Kidney failure
    - Confusion
    - Coma
    - Seizures
    - Injury to the heart
    - Fast heart rate
    - Muscle weakness
    - Respiratory (breathing) failure, possibly leading to death
- Showing these signs and symptoms does not necessarily mean that a person has been exposed to paraquat.

What the long-term health effects are

- If a person survives the toxic effects of paraquat poisoning, long-term lung damage (scarring) is highly likely. Other long-term effects may also occur, including kidney failure, heart failure, and esophageal strictures (scarring of the swallowing tube that makes it hard for a person to swallow).
- People with high-dose exposure to paraquat are not likely to survive.

How you can protect yourself, and what you should do if you are exposed to paraquat

- Since ingestion is likely to be the primary route of exposure, if poisoning is suspected, avoid any further ingestion and call 911 immediately.
- Inducing vomiting (giving ipecac) is unlikely to be of any benefit unless done within a few minutes of ingestion. Activated charcoal should be ingested if it is available. Ingestion of food (or even plain dirt) may be of some benefit if charcoal is not readily available.
- If you think you may have been exposed to liquid paraquat on your clothes or body, remove your clothing, rapidly wash your entire body with soap and water, and get medical care as quickly as possible.

Facts About Paraquat
(continued from previous page)

- **Removing your clothing:**
  - Quickly take off clothing that has liquid paraquat on it. Any clothing that has to be pulled over the head should be cut off the body instead of pulled over the head.
  - If you are helping other people remove their clothing, try to avoid touching any contaminated areas, and remove the clothing as quickly as possible.
- **Washing yourself:**
  - As quickly as possible, wash any liquid paraquat from your skin with large amounts of soap and water. Washing with soap and water will help protect people from any chemicals on their bodies.
  - If your eyes are burning or your vision is blurred, rinse your eyes with plain water for 10 to 15 minutes. If you wear contacts, remove them and put them with the contaminated clothing. Do not put the contacts back in your eyes (even if they are not disposable contacts). If you wear eyeglasses, wash them with soap and water. You can put your eyeglasses back on after you wash them.
- **Disposing of your clothes:**
  - After you have washed yourself, place your clothing inside a plastic bag. Avoid touching contaminated areas of the clothing. If you can't avoid touching contaminated areas, or you aren't sure where the contaminated areas are, wear rubber gloves or put the clothing in the bag using tongs, tool handles, sticks, or similar objects. Anything that touches the contaminated clothing should also be placed in the bag. If you wear contacts, put them in the plastic bag, too.
  - Seal the bag, and then seal that bag inside another plastic bag. Disposing of your clothing in this way will help protect you and other people from any chemicals that might be on your clothes.
  - When the local or state health department or emergency personnel arrive, tell them what you did with your clothes. The health department or emergency personnel will arrange for further disposal. Do not handle the plastic bags yourself.
  - For more information about cleaning your body and disposing of your clothes after a chemical release, see "Chemical Agents: Facts About Personal Cleaning and Disposal of Contaminated Clothing" (http://www.bt.cdc.gov/planning/personalcleaningfacts.asp).
- Seek medical attention right away. Dial 911 and explain what has happened.

How paraquat exposure is treated

Treatment consists of removing the paraquat from the body (decontamination) and providing supportive medical care in a hospital setting. Supportive care includes intravenous fluids (fluids given through a needle inserted directly into a vein), medications to help with breathing and to raise low blood pressure, a ventilator to support breathing, and possibly dialysis for kidney failure (artificial kidneys). No proven antidote or cure exists for paraquat poisoning.

How you can get more information about paraquat

You can contact one of the following:

- Regional poison control center (1-800-222-1222)
- Centers for Disease Control and Prevention
  - Public Response Hotline (CDC)
    - English (888) 246-2675
    - Español (888) 246-2857
    - TTY (866) 874-2646
  - Emergency Preparedness and Response Web site (http://www.bt.cdc.gov/)

Facts About Paraquat
(continued from previous page)

  - E-mail inquiries: cdcresponse@ashastd.org
  - Mail inquiries:
    Public Inquiry c/o BPRP
    Bioterrorism Preparedness and Response Planning
    Centers for Disease Control and Prevention
    Mailstop C-18
    1600 Clifton Road
    Atlanta, GA 30333
- Agency for Toxic Substances and Disease Registry (ATSDR) (1-888-422-8737)
  - E-mail inquiries: atsdric@cdc.gov
  - Mail inquiries:
    Agency for Toxic Substances and Disease Registry
    Division of Toxicology
    1600 Clifton Road NE, Mailstop E-29
    Atlanta, GA 30333
- Centers for Disease Control and Prevention (CDC), National Institute for Occupational Safety and Health (NIOSH), Pocket Guide to Chemical Hazards (http://www.cdc.gov/niosh/npg/npgd0478.html).

This fact sheet is based on CDC's best current information. It may be updated as new information becomes available.

Last reviewed on 05/08/03.

The Centers for Disease Control and Prevention (CDC) protects people's health and safety by preventing and controlling diseases and injuries; enhances health decisions by providing credible information on critical health issues; and promotes healthy living through strong partnerships with local, national, and international organizations.

For more information, visit www.bt.cdc.gov or call the CDC public response hotline at (888) 246-2675 (English), (888) 246-2857 (Español), or (866) 874-2646 (TTY)

Foodborne Illness Instructor Guide

April 2006

Acknowledgments

The Midwest Consortium adapted this program from work by Michigan State University for public health agencies under cooperative agreement number U45 ES 06184 from the National Institute of Environmental Health Sciences. Funding for this project was provided by the CDC.

We encourage you to comment on these materials. Please give your suggestions to those teaching the program in which you are now enrolled, or forward them to the Midwest Consortium for Hazardous Waste Worker Training, University of Cincinnati, P.O. Box 670056, Cincinnati, OH 45267-0056.

Warning

The material was prepared for use by instructors experienced in the training of persons who are or may be in charge of public health in their community. Authors of this material have prepared it for the training of community members as of the date specified on the title page. Users are cautioned that the subject is constantly evolving. Therefore, the material may require additions, deletions, or modifications to incorporate the effects of that evolution occurring after the date of this material preparation.

Disclaimer

The Environmental Protection Agency (EPA) oversees the evaluation and remediation of sites contaminated with toxic wastes. The Occupational Safety and Health Administration (OSHA) enforces rules to help assure worker health and safety during these activities.

This tabletop exercise 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.

Agenda

- 1 Hour - Foodborne Illness Response Strategy and Unified Command
- 3 Hours - Tabletop Scenario

Preface

FOODBORNE ILLNESS TABLETOP EXERCISE

Preface and Description

This tabletop exercise was developed by Michigan State University, Emergency Response Solutions, 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 this project through the Office of Public Health Preparedness. After developing the training materials associated with this program, MSU conducted two pilot exercises in Kalamazoo and Mt. Pleasant. Based on comments received, the program was revised and is now being made available to Emergency Preparedness Coordinators in local health departments across the state of Michigan. The exercise is intended to be presented using a minimum of two facilitators.

The exercise is based on an actual food poisoning case that occurred in Michigan in 2003. (A description of the case is located in Section 4 with other Instructor Reference Materials.) The exercise is divided into two major components. The first part of the exercise is an educational session designed 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 of the exercise will provide participants with an opportunity to respond to a simulated foodborne illness outbreak that arises from a criminal act. In their response, 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.

Table of Contents

Terminal and Enabling Objectives

The American National Standards Institute (ANSI) recommends using Terminal and Enabling Objectives to ensure participants acquire the necessary knowledge and skills as a result of training. For the educational portion of this exercise, the Terminal Objective is as follows:

- When confronted with a foodborne illness outbreak, the participant will appreciate the need for using a cooperative effort in attempting to protect public health (Unified Command).

In order to accomplish the Terminal Objective, course designers created the following Enabling Objectives:

- The participants will identify the 4 phases of response for a foodborne illness outbreak.
- The participants will identify the difference between routine and non-routine foodborne illness investigations.
- The participants will identify when a Unified Command should be established.
- The participants will identify how a Unified Command is activated.
- The participants will identify how decisions are made within a Unified Command.

For the exercise portion of the program, the Terminal Objective is as follows:

- Given a non-routine foodborne illness scenario, the participant will demonstrate his or her role during a non-routine investigation.

The Enabling Objectives include:

- The participants will implement the 4 phases of a foodborne illness outbreak investigation.
- The participants will identify the stakeholders that should be involved in different phases of the investigation.
- The participants will identify communications they will provide to appropriate agencies and the public.
- The participants will implement a Unified Command for responding to a foodborne illness outbreak involving multiple jurisdictions.

By accomplishing these objectives, public health professionals and law enforcement personnel can work cooperatively and effectively when responding to foodborne illness outbreaks.

Who Should Participate?

This tabletop exercise 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)

Instructions for Facilitating

Prior to the Exercise

- Select and reserve a room with tables and chairs that will comfortably hold 45 participants. You will need the room for 4 hours.

- Select the facilitators for the program.

- Send out invitations or call agencies that will be sending participants.

- If appropriate, arrange for coffee, beverages, and snacks.

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

  Sign-in Sheet
  Registration Form and Pre-Test
  Sample DA Recall
  CDC Fact Sheet on Paraquat
  Post-Test
  Participant Evaluation Form

- Read through the Facilitator Reference Materials in Section 4, including:

  Answer Sheet for the Exercise
  MMWR Article on Nicotine Poisoning Case
  NRT Technical Document on Unified Command
  Handbook on Criminal and Epidemiological Investigations

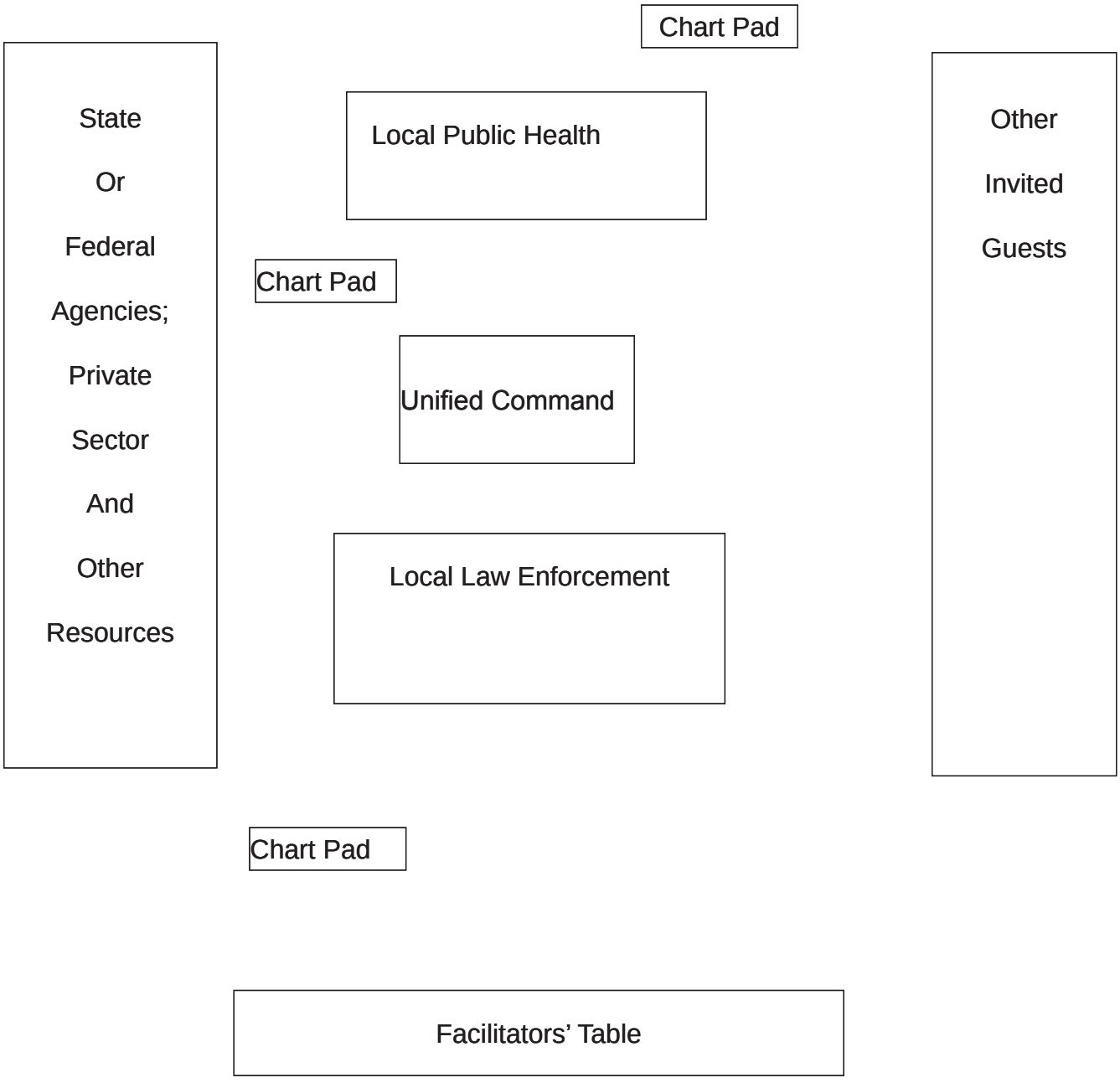
- Obtain paper and pencils, felt tip markers, and chart pads for groups to record their answers to the exercise. Also include nametags for each participant.

- Obtain a laptop computer and projector for the Power Point slides.

- 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. (See diagram below.) 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.

- 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.



Introduction

The following text 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. Additional notes and references to handouts are provided next to the appropriate slide.

Introduction

Refer to Participant Guide, pages 1-3.

- Welcome participants to the program.
- Introduce facilitators and provide background on each.
- Refer to **page 2** of Participant Guide and acknowledge CDC and NIEHS funding.
- Explain the rationale for the program.

  Concern about contamination of the food supply.

  CDC grant through Office of Public Health Preparedness.

  Need for public health and law enforcement to work together cooperatively.
- Thank those who assisted in setting up the program.
- Ask participants to introduce themselves, providing name and agency.
- Explain the schedule for the program.

  1-hour educational session on Foodborne Illness Response Strategy and Unified Command.

  3-hour tabletop scenario and debriefing

  Indicate that breaks will occur after first hour and at midway point of exercise.

Introduction (Continued)

- Ask participants to complete necessary paperwork for the program.

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

  Hand out copies of pre-test. Indicate that participants must only answer those questions they know. **They must not guess.**

- Refer participants to **page 3** of Participant Guide.

- Explain the increase in the potential for terrorism and the need for public health and law enforcement agencies to practice working cooperatively before an incident occurs.

- Discuss the need for building consensus on response strategy. Ask if agencies represented have worked together in the past.

- Explain the Terminal Objective for this part of the program.

- Explain the Enabling Objectives for the first module.

Response Strategy

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

This section corresponds to the Participant Guide, pages 13-19.

Foodborne Illness Response Strategy (FIRST)

- Refer participants to **page 13** of Participant Guide.

- Explain that public health officials should be using a Standard Operating Guide (SOG) for responding to Foodborne Illnesses. The SOG is referred to as the Foodborne Illness Response Strategy or F.I.R.S.T. Ask how many have completed FIRST training.

- Explain that foodborne illness cases should be handled using a 4-phase approach that is described on page 4.

- Explain that FIRST is similar to the 4-phase approach for responding to emergencies as recommended by the National Response Team.

- Law enforcement personnel should pay close attention in order to understand goals of public health agencies.

- Explain the steps listed under Initial Actions and ask participants to provide examples for each.

    Outbreak Determination

    Notification

    Review Information

    Control Actions

FIRST (Continued)

- Explain the steps 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

- Explain the steps listed under Plan Implementation and ask participants to provide 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

FIRST (Continued)

- Explain the steps listed under Concluding Actions and ask participants to provide examples for each.

  Review with Stakeholders

  Inform Public

  Write Final Report

  Use Data for Prevention

  Conduct Post Incident Analysis

- Refer participants to **page 16** of Participant Guide.

- Explain 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 would 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.

Definitions

- Refer participants to **page 17** of Participant Guide.

- Explain definition of Routine Investigation, according to FIRST. Ask for example for each.

  Family Complaint

  Foodborne Illness Alert

  Foodborne Illness Outbreak

- Explain definition of Non-Routine Investigation that was created for this exercise.

  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

- Discuss why law enforcement and public health may need to work together in non-routine cases.

Unified Command

- Refer participants to **page 17** of Participant Guide. Ask how many have had Incident Command training. If there are participants who have not had this training, inform them that the Midwest Consortioum also offers the 16-Hour Incident Command System class and the 4-hour ICS Awareness class.

- Explain 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

  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

Unified Command (Continued)

- Explain 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

- Refer to **page 18** of Participant Guide.

- Explain the activation of Unified Command.

  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.

- Refer to **page 19** of Participant Guide.

- Emphasize importance of each agency understanding abilities and goals of other agencies involved.

- Explain that participants of Unified Command should designate EOC Manager to coordinate group decision-making.

- Explain that EOC Manager is responsible for thorough examination of all issues and for taking concerns of all agencies into account.

Unified Command (Continued)

- Explain importance for each agency to understand all the underlying issues.
- Explain that if UC cannot reach consensus, the UC member from the agency with primary jurisdiction would be deferred to for a final decision.
- Emphasize the importance of planning and exercising in order 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

- Refer to **page 19** of Participant Guide.
- Review the material that was covered in this part of the program.
- Ask for questions or comments about the material presented.

Note: At the end of the Response Strategy section, take a 10-minute break.

Tabletop Exercise

This section corresponds to the Participant Guide, pages 20-29.

Introduction

- Refer to **page 20** of the Participant Guide. Review the goals.

- Explain that this scenario is based on an actual incident that occurred in Michigan.

- Explain that by practicing the response effort prior to another incident, agencies involved can work together more effectively.

- By conducting this exercise, participants will be able to identify potential problems, find workable solutions, and get to know those who may be involved in responding to a real incident.

- Explain the Enabling Objectives that will lead to the Terminal Objective.

  Implement 4-Phases

  Identify Stakeholders

  Identify Communications

  Implement a Unified Command

- Refer to **page 21** of Participant Guide.

Introduction (Continued)

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. 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 use 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 consult the 4-phase response chart on pages 13-15 of 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 Scene 1, they must stop. They should not go to Scene 2 until after both groups have presented for Scene 1. More specific instructions follow.
- Model answers are provided following page 22 of this guide.

Scene 1

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

- Public health personnel should begin on **page 22**, while law enforcement should begin on **page 23**.

- Ask both groups to begin Scene 1. After 15 to 20 minutes, ask groups to reconvene.

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 located in two 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.

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

- Presenter for Public Health should then provide answers to the questions on **page 22.**

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

NOTE: ***Facilitators should review answer sheet before conducting the exercise to ensure that public health answers all the questions completely.***

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

- Presenter for Law Enforcement should then provide answers to the questions on page 23.

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

Scene 1 (Continued)

NOTE: Facilitators should review answer sheet before conducting the exercise to ensure that law enforcement answers all the questions completely.

- After Law Enforcement has presented, 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?

- Discuss which agencies should be represented in Unified Command.
- Ask all participants to select 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.

Scene 2

- Ask Public Health to read through facts of Scene 2 on **page 24;** Law Enforcement should read facts on **page 25**; Unified Command group should read facts on both pages.

- 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.***

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 on **page 24**.

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

NOTE: Facilitators should review answer sheet before conducting the exercise to ensure that public health answers all the questions completely.

- Presenter for Law Enforcement should provide answers to the questions on **page 25.**

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

NOTE: Facilitators should review answer sheet before conducting the exercise to ensure that law enforcement answers all the questions completely.

Scene 2 (Continued)

- Ask the presenter for Unified Command to provide answers to questions on **page 26.**

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

NOTE 1: ***Inform Unified Command group that they have authority to get information from law enforcement and public health groups.***

NOTE 2: ***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.***

NOTE 3: ***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.***

NOTE 4: ***At the end of Scene 2, the facilitators may want to schedule a second 10-minute break.***

Scene 3

- Ask Public Health to read through facts of Scene 3 on **page 27;** Law Enforcement should read facts on **page 28**; Unified Command should read facts on both pages.

- 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 on **page 27**. Last bullet point refers to changes based on injected information.

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

NOTE: Facilitators should review answer sheet before conducting the exercise to ensure that public health answers all the questions completely.

Scene 3 (Continued)

- Presenter for Law Enforcement should provide answers to the questions on **page 28**.

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

NOTE: Facilitators should review answer sheet before conducting the exercise to ensure that law enforcement answers all the questions completely.

- Ask the presenter for Unified Command to provide answers to questions on **page 29**.

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

NOTE: ***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.***

NOTE: For purposes of closure, the facilitator should explain that law enforcement personnel arrested a boyfriend of the estranged wife. The boyfriend hoped to implicate the husband.

- Refer to page 30 of Participant Guide. Use group facilitation method to discuss summary points. This may include a small group discussion or brainstorming. Expected answers are shown on pages 51-52 of 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.

Scene 3 (Continued)

- 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

Evaluation

- Thank participants for their involvement in the exercise.
- Hand out Post-Test and ask participants to complete. Since the information should be fresh in everyone's mind, guessing is permitted. Pre-Tests and Post-Tests must be collected for evaluation purposes. Post-Test must be corrected prior to issuing a certificate of successful completion.
- Ask participants to complete program evaluation form.
- Explain the process if Continuing Education Units will be provided for attending this program.

FOODBORNE ILLNESS SCENARIO: ANSWERS

Scene 1: 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 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.

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 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: 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.

A. Increase number of interviewers

Activate surveillance systems to determine true extent of outbreak
Interview complainants to determine if they meet case definition
Assess if ongoing exposure is occurring
Revise case definition, as needed

B. Identify individuals with expertise to investigate this non-routine incident in the following areas:

Contact toxicologists with DCH Division of Environmental and Occupational Epidemiology
Contact Poison Control Centers
Coordinate activities of Public Information Officers with LHD, DCH, DA, and law enforcement agencies
Contact dairy plant officials and cheese processing experts to help determine how paraquat was introduced.

3. Describe the goals of your investigation and your action plan.

The overall goals include:

- *Identification of cases, including characterizing signs and symptoms*
- *Prevention of additional cases*
- *Obtaining and preserving evidence for the criminal investigation, ensuring legal chain of custody procedures for collected samples*
- *Gathering information about the impact of the contamination on human health, including scope of the outbreak*
- *Determine whether or not to activate the Emergency Operations Center, based on local emergency response plan*
- *Collect samples of multiple production lots to determine extent of contamination*
- *Set priorities for sample testing*
- *Review disaster plan and ensure you are prepared*

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.

4. 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.

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 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.

2. 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.

3. 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.

4. 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.

5. 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.

Scene 2: 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: 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 pubic 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.*

Scene 3: 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 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 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.

Scene 3: Questions for 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.

2. 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.*

3. 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.*

4. 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

5. 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.

6. 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.

SUMMARY

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 exercise?

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.