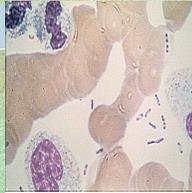


# Hands-On Training for Public Health Emergencies



*Washington State Department of Health  
Northwest Center for Public Health Practice*

## FACILITATOR'S MANUAL

## ACKNOWLEDGEMENTS

Carl Osaki, RS, MSPH, Consultant, Northwest Center for Public Health Practice

Betty Bekemeier, MPH, MSN Program Director, Northwest Center for Public Health Practice

Greg Smith, MPA, Health Alert Network Coordinator, Washington State Department of Health

Julie Wicklund, MS, MPH, Bioterrorism Surveillance Coordinator, Washington State Department of Health

John Kobayashi, MD, MPH, Communicable Disease State Epidemiologist, Washington State Department of Health

### **For more information contact:**

Julie Wicklund by phone at (206) 361-2881 or email [julie.wicklund@doh.wa.gov](mailto:julie.wicklund@doh.wa.gov)

Or

Greg Smith by phone at (360) 236-4099 or email [greg.smith@doh.wa.gov](mailto:greg.smith@doh.wa.gov)

## ***BIOTERRORISM PREPAREDNESS EXERCISE***

### ***Tabletop Learning Activity***

#### **Introduction:**

This learning activity is an opportunity to gain skills in how to prepare for an emerging disease outbreak or bioterrorism event through the recognition of related policy needs & issues. You will learn about preparing for such an emergency and about the related information/communication needs.

### ***INTRODUCTION***

This Tabletop Learning Activity is designed as an opportunity for public health personnel and their local emergency counterparts to gain skills and knowledge in preparing for and responding to a large-scale communicable disease or bioterrorism event. Participants will address a hypothetical bioterrorism incident in the form of an infectious disease outbreak to acquire this learning. The exercise will enable participants to identify the communication, resources, data, coordination, and organizational elements associated with an emergency response.

This educational tool was prepared by the Northwest Center for Public Health Practice and the Washington State Department of Health. It is supported by funding from the Health Alert Network and the Bioterrorism Preparedness and Response Program at the Centers for Disease Control and Prevention, with the understanding that states need to develop an effective public health emergency response infrastructure for bioterrorism events which impact state and local communities.

The exercise is aimed at identifying the policy questions that need to be considered in responding to a bioterrorism event. The depicted exercise scenario will enable participants to understand and experience the shortcomings or gaps in their ability to identify and respond to policy issues (as opposed to operational procedures). Participants will be required to state policy questions such as “Who should be responsible?, or What information is needed? or When is public information given out?”. In essence, participants will be identifying the “WHAT” is required in responding to an incident, and not necessarily the “HOW” an agency will actually respond. (Examples of suggested policy questions are identified after each incident in the scenario document). It is

## *Tabletop Exercise*

important that the exercise identify policies required to effectively respond to the scenario rather than using only those policies that currently exist. Addressing those policies that need clarification or development will be helpful in eventually strengthening the overall response system, and will identify areas in operational policies and procedures that need refinement.

### **Purpose of Exercise**

- Understand policies needed for a large scale Communicable Disease (CD) outbreak or bioterrorism (BT) event
- Promote interagency collaboration regarding emergency preparedness

### **Purpose of Exercise**

- Recognize the roles of various public officials in a large CD outbreak or BT event
- Identify gaps in local preparedness & coordination
- Identify related training/learning needs

### **PURPOSE OF THIS EXERCISE**

The purpose of this exercise is to provide the participants with an opportunity to respond to a bioterrorism event scenario through a tabletop exercise

Exercise Objectives:

- Understand measures that can be performed at the local level to prepare for a large-scale communicable disease or bioterrorism incident.
- Promote interagency collaboration/coordination regarding emergency preparation and responsiveness
- Recognize the roles of a variety of public officials in a large-scale communicable disease or bioterrorism incident
- Recognize need for intense teamwork and communication to prepare for a large scale communicable disease or bioterrorism incident
- Identify gaps in local preparedness and ability to coordinate
- Identify additional related training/learning needs (an “assessment tool”)

## Tabletop Exercise

### **MATERIALS**

The following materials are required for this exercise:

- Materials identified by the participants in responding to a large-scale public health emergency (e.g., EOC structure, Infectious Disease Handbook, contact list, etc.) (Participant)
- Name tags (large) with role being played (Participant)
- Note-taking sheet with Questions identified (Observer)
- Handouts-- Make enough copies of the slides with “notes pages” for each participant so they can take notes on the bottom half of each page.

### **ROLES**

Note taker:

- Identify strengths, weaknesses, and unanticipated responses to the tabletop.
- Evaluate responses to policy questions. *Where possible, items that should be discussed or considered in the response are identified in Italics under the incident.* But also keep in mind that there are no “correct” answers and the quality of the response is more a function of whether the participants can identify a policy rather than a method or procedure to carry out the policy.
- Identify leadership in the group
- Identify the level (amount/type) of participation. Observe and record:
  - Level of participation (balanced, lopsided)
  - Observe body language
  - Amount of delegation
  - Group process skills
  - Ability to stick to the question or task on hand
- Identify communication problems, needed additional resources
- Identify consistency/accomplishments with objectives of exercise
- Identify any missed opportunities for learning

## Tabletop Exercise

### Facilitator:

- Provide purpose, objective of exercise
- Provide exercise timelines and instructions
- Define expectations of participants
- Present scenario (written handouts and PowerPoint)
- Present/distribute the 3 Storyboards at the appropriate times during the exercise
- Distribute the information sheet and fact sheet at the appropriate time during the exercise
- Present each incident, solicit response, provide examples of policy questions
- Clarify questions
- Keep exercise on schedule
- Clarify assumptions

### Observer:

- Watch, listen, evaluate
- Identify involvement of participants
- Determine reality (Did the exercise make sense to you?)
- Determine extent of understanding by participants resulting from this exercise
- Do participants appear to understand their role/responsibilities?

#### Instructions to Remember

- Respond as a group to information as it emerges
- Maintain your community role
- Focus on policy issues over specific procedures
- Use any materials you have available

#### Instructions to Remember

- Meeting notes will be kept by a note-taker
- Individual notes should be kept on the lower half of the pages provided
- Do not look ahead in the exercise
- This activity will be followed by a debriefing

### **INSTRUCTIONS**

1. In preparation for the exercise:
  - Ensure that there is a broad range of participants invited to this exercise, including emergency and health related personnel from the following areas—
    - a. Public Health (e.g. Health Officer, PH Epidemiologist, Communicable Disease Investigator, Environmental Health Director, Public Health Nursing Director, Public Information Officer, etc)
    - b. EMS Director
    - c. Hospital Admin.
    - d. Hospital Infection Control
    - e. Emergency Manager
    - f. EOC Coordinator
    - g. Lab Director
    - h. Fire Dept. Official
    - i. Law Enforce. Official
    - j. School District Official
    - k. Board of Health Member
    - l. State Health Official
    - m. Others
  - Encourage participants to review and bring their EOC plan and other procedures that they have in their office.
2. At the start of the exercise, explain that the exercise presents a terrorism scenario, which will contain 22 separate incidents to which the participants must respond. Note that the first “incident” for the group to respond to is a set of the first THREE incident/blue slides. All other incident slides awaiting group discussion and response are considered individually.
3. Explain that the scenario will be introduced with background information about the hypothetical community in which this event occurs. Updated information will be provided in the form of “storyboards” at appropriate times throughout the exercise. Each storyboard will be presented to the participants in both PowerPoint and written format. Green Power Point slides depict the “storyboards” and other information.

## Tabletop Exercise

Blue slides depict the actual events to which the participants are expected to respond.

4. Explain that each storyboard will require the group to re-evaluate the situation, make decisions based on the new data, and adjust their strategy accordingly. Remind the group to focus on policy issues.
5. Explain to the participants that the last incident in the exercise should flow into a summary discussion which includes:
  - Exercise strengths and weaknesses
  - New learnings from the exercise
  - Ability to discern organizational strengths and weaknesses
  - Additional material or information needed to carry out the exercise
  - Identification of suggested additional participants
6. Tell the participants that they should assume, as closely as possible, their actual agency roles for this exercise.
7. Point out that one participant at a time should comment to avoid confusion for note takers and to ensure that all information is considered
8. Point out that the participants can use any material they have available, including Departmental Emergency Operations Procedures, Standard Operating Procedures (SOPs), policy memos, instructions, and/or any of the workshop materials, to respond to the scenario.
9. Tell the participants that they will have 3 hours to complete the exercise, which will be proceeded by instructions and followed by a 30-minute debriefing.
10. Tell the participants that notes will be taken by a specific NOTE-TAKER throughout the exercise in order to note strengths, issues, and opportunities relative to a communicable disease response, bioterrorism preparedness and informatics. These notes will be discussed at the end of the activity as participants will be likely to have been describing helpful systems they already have in place or other issues within their infrastructure that would need further development.
11. The responses to the incidents will depend on the community's plans, policies, and procedures. Although there are no "correct" responses, some clearly will be better than others. Where possible, *suggested responses or reasonable rationales are included in Italics underneath the incident in this Instructor's Guide and is intended for the instructor's use only.* Use the suggested responses as discussion points during the debriefing. Feel free to add other suggestions, as appropriate, but be sure

## *Tabletop Exercise*

to allow some latitude for differences based on planning, policy, local procedures, or local legal requirements.

12. Introduce the scenario

**Present the scenario and each storyboard (update) as briefings.**

⚠ Stress that **all events have already occurred.**

⚠ Remind the group to **focus on policy issues** as they complete the exercise.

13. During the debriefing, facilitate a wrap-up discussion of lessons learned from the workshop and exercise. Help the group develop a list of pending issues and assign responsibilities and time frames for follow-up.

14. Answer any remaining questions before adjourning the session.

### ***THE EXERCISE (DO NOT READ)***

**NOTE: Do NOT make this Background Information available to participants in advance of the exercise.**

#### **Background:**

In this scenario, a terrorist group is trying to prevent an annual economic trade group conference from being held by contaminating a food product with a bacterial agent.

#### ***Community Profile.***

The contamination occurs in Cedar County (population 150,000) in the month of August. The major city in Cedar County has a population of 40,000. There are 2 area hospitals located in the County. One is a children's hospital. There are also numerous nursing homes and day care centers in the County. International trade, tourism, agricultural products, and lumbering are the major industries. Also affected by this incident are two adjoining counties: Dogwood County, located directly to the north of Cedar County, and Pine County, located directly to the south of Cedar County. Dogwood County, population 35,000, is noted for its numerous water recreational areas. About 10,000 residents in Dogwood County are served by small or individual water supply systems. Pine County, population 15,000, serves as a "bedroom community" for people commuting to work into Cedar County's major city. All residents in Pine County receive public water supplied by the Cedar County Regional Water Utility. All three affected counties have their own local health department. The State Department of Health is located in Maple County, population 1 million, which is 140 miles to the east of Cedar County. The State's Public Health Laboratory and the State's University are also located in Maple County.

#### ***Method of Contamination.***

The terrorist group possesses 2 gallons of a liquid broth containing high concentrations of *Shigella sonnei*. The cultures of *S. sonnei* have been secretly manufactured using stolen vials of *S. sonnei* from the State University's microbiology laboratory. The *S. sonnei* laden broth is surreptitiously sprayed onto produce (cilantro and basil) at a local food distribution warehouse in Cedar County over a two-day period. The produce is distributed to 12 local restaurants and 2 specialty grocery stores in Cedar County. An additional restaurant and specialty grocery store in Dogwood County also receives the contaminated produce. Pine County food establishments are not affected. The produce is used for garnish and seasonings in a variety of different dishes at the restaurants. The contaminated dishes are consumed in all 13 restaurants on Tuesday evening and Wednesday lunch and dinner. The produce is also purchased directly by consumers at the 3 local specialty grocery stores on Tuesday and Wednesday. Residents in all three counties become ill by consuming the contaminated products.

## *Tabletop Exercise*

### *The Affected Establishments.*

The restaurants serve a high volume and variety of customers. The restaurants range from well-known, moderately priced, national chain restaurants to popular, high scale dining establishments. Company executives, business leaders, attorneys, and governmental officials frequent the affected City establishments. All establishments are popular with tourists visiting the County. Four establishments serve ethnic foods. Two are Mexican. The other two are Asian. Three affected restaurants have a history of poor food handling practices, particularly hand washing and temperature violations. None of the establishments have had violations of foods from unapproved sources. The three specialty grocery stores are highly popular and have a high turnover of food inventory. All are owned and operated by the same company. All affected facilities are served by public water supplies. All affected establishments receive the contaminated fresh herbs from the same food distributor.

### *The Disease.*

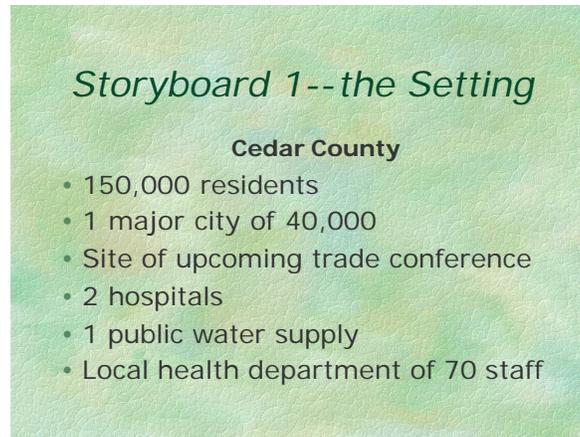
Typical symptoms of **shigellosis** include severe diarrhea often accompanied by fever, chills, headache, nausea, vomiting, abdominal pain, and possibly bloody stools. Incubation period is 1 to 7 days (usually 1 to 3 days). Less than 10% of cases seek medical care and fewer have confirmatory stool cultures performed. Complications such as dehydration may result in hospitalization but deaths are rare.

### *Exercise Assumptions*

1. Decision-making will occur rapidly and in “real time”. Comment: The exercise has 22 separate incidents that may result in about 45 separate policy questions. This means that only about 8 minutes can be spent on each incident for a 3-hour exercise.
2. The lack of active participation does not mean lack of learning. Comment: Not all participants in the exercise are required to respond to each incident, particularly law enforcement and EOC members. However, this scenario will provide opportunities for all parties to view the “big picture” and to understand the roles of all agencies in the incident.
3. Participants can distinguish policy questions from procedural questions. Comment: The main purposes of this exercise are to identify policy gaps, to clarify roles, and to discuss how to begin addressing policy gaps and inconsistencies. Getting hung up on the details and technical terminology will slow down the exercise considerably.

***Storyboard #1***

***This incident affects four Counties: Cedar, Dogwood, Pine, and Maple. The incident begins in Cedar County in the month of August.***



**Cedar County:**

- Total population: 150,000 residents
- The major city, Watertown, has a population of 40,000 residents
- There are 2 area hospitals; one is a children's hospital
- There are numerous nursing homes and day care centers
- International trade, tourism, agricultural products, and lumbering are the major industries
- An economic trade group conference is scheduled to be held in Watertown in 3 weeks. About 100 members will be attending, including foreign economic officials
- Residents are all served by a regional public water supply system
- Cedar County Health Department has a staff of 70 employees. The department has a full time director of public health and a full time health officer (MD). A full range of public health services, including environmental health, community health nursing, laboratory, and clinical public health services are provided.

*Storyboard 1--the Setting*

**Dogwood County**

- Just north of Cedar County
- 35,000 residents
- Water recreation and resort area
- Multiple small water systems
- Local health department of 25 staff

**Dogwood County:**

- Located directly to the north of Cedar County
- Total population: 35,000 residents
- Noted for its numerous water recreational areas
- About 10,000 residents are served by small or individual water supply systems
- Dogwood County Health Department has 25 total staff, including Environmental Health Specialists and Community Health Nurses. Health Officer (MD) is part-time.

*Storyboard 1--the Setting*

**Pine County**

- 15,000 residents
- Many Pine County residents work in Cedar County
- On the Cedar County water supply
- Local health department of 14 staff

**Pine County:**

- Located directly to the south of Cedar County
- Total population: 15,000

## *Tabletop Exercise*

- Serves as a “bedroom community” to Cedar County. Many Pine County residents commute to work in Cedar County’s major city.
- Residents receive public water supplied by Cedar County Regional Water Utility.
- Pine County Health Department has a total of 14 staff (5 are part-time). Two are environmental health specialists and 10 are public health nurses. Remaining staff provide administrative support. Health Officer is a contract physician from the community.

The State Health Department is located in Maple County, 140 miles to the east of Cedar County. The State Health Department’s Public Health Laboratory and the State’s University are also located in Maple County. The population of Maple County is 1 million.

### *Organizational Comparables*

This tabletop exercise is a fictional account of 3 local counties and their respective health departments and local emergency responders. However, for illustrative purposes only, the staffing for Cedar County (population 150,000) would be similar to Benton-Franklin Health District or Whatcom County Health Department. Dogwood County Health Department serving a population of about 35,000 would be similar to Kittitas or Okanogan County Health Departments. Examples of local health departments in Washington State that might resemble Pine County Health Department (serving a population of 10,000) include Adams and Klickitat.

# First set of Incident Slides

NOTE: The initial “incident” information or update is this set of THREE slides

Day 1--Friday	Day 1--Friday	Day 1--Friday
<p>Gastrointestinal illness strikes:</p> <ul style="list-style-type: none"><li>• Presenting via nurse hotlines, private providers, &amp; ER's on Friday PM</li><li>• Presenting patients tend to be middle-aged adults, with about 10% &gt; than age 65</li><li>• 30 people seen in hospital ER's by late Friday</li></ul>	<ul style="list-style-type: none"><li>• Increase in persons presenting with the following symptoms:<ul style="list-style-type: none"><li>• Severe diarrhea</li><li>• Vomiting</li><li>• Fever</li><li>• Abdominal pain</li><li>• Chills</li><li>• Bloody stools</li><li>• Headache</li><li>• Nausea</li></ul></li></ul>	<ul style="list-style-type: none"><li>• Stool samples taken on 6 of cases</li><li>• 3 people hospitalized for dehydration or other gastrointestinal complications</li></ul>

## *Day 1, Friday*

**Persons with gastrointestinal illness are beginning to contact their medical care providers through the nurse hotline and patient consultation lines. Individuals with gastrointestinal problems are calling or visiting area emergency rooms and urgent care centers on Friday afternoon and evening. The hospital's patient consultation line is experiencing an increased number of calls with symptoms including severe diarrhea, fever, chills, headache, nausea, vomiting, abdominal pain, and possibly bloody stools. All cases describe diarrhea as a symptom. Almost all report at least two or more of the additional symptoms. Illnesses have lasted one to two days without improvement. Most patients are middle-aged adults, but about 10% are over the age of 65. A total of 30 people are seen in hospital emergency rooms and urgent care centers by late Friday evening. (Note: This means that a total of 400 individuals may actually be exhibiting similar symptoms, but are not seeking medical care. The 30 cases, or 7.5% of the 400, visit a medical care provider for symptoms). Stool samples are taken on 6 of the affected cases seen by a physician. Three individuals are hospitalized for dehydration or other gastrointestinal complications.**

Day 2--Saturday AM
<ul style="list-style-type: none"><li>• Patients still being seen in the ER's and urgent care centers</li><li>• At 10 AM the number of patients exhibiting symptoms is up to 45</li><li>• Decision made to notify the health department</li><li>• Concerns regarding the capacity of the clinics to handle number of patients needing treatment</li></ul>

## *Tabletop Exercise*

### *Day 2, Saturday AM*

**Patients are still being seen in the emergency room and urgent care centers. By 10 AM the number of patients exhibiting similar symptoms is up to 45. The decision is made to notify the health department. There is some concern about the capacity of the clinics to handle the increasing number of patients coming in for treatment.**

*-How do medical care providers decide when to contact the Health Officials?*

*-How do medical care personnel determine whom to contact?*

*-How is the Health Department person contacted? (After hours/Non-business day)*

[Unusual disease information is collected, shared, and analyzed in the medical care system. Criteria are established on determining when and who to contact for unusual disease occurrences. There is a protocol for notifying the Health Department. The Health Department has emergency numbers for “off hours” calls. Patient confidentiality is respected]

*-What does the Health Department do with this information?*

[Obtain general information about the persons presenting with illness. Review symptoms, profile of patients. Ask ER to obtain stool cultures on a proportion of cases, particularly those with severe illnesses. Recommend antibiotics be withheld in case the illnesses are due to *E coli* 0157:H7]

*-What additional information does the Health Department need?*

[Gastrointestinal illness can be caused by a number of agents including chemicals, viruses, and bacteria. The illnesses differ in typical reservoirs, symptoms, duration of illness, and seasonality. Discuss how this information will be obtained. Contact State Health Department to identify other similar occurrences through regional surveillance data.]

*-How does the medical care facility address its capacity needs?*

[Protocols for backup assistance]

### Day 2--Saturday Noon

- The known patient count is up to 60
- Local health officer decides to convene a meeting around next steps
- Local pharmacist calls the hospital, asking what is happening, since her store is almost out of anti-diarrheal medicine due to heavy demand

### *Day 2, Saturday noon*

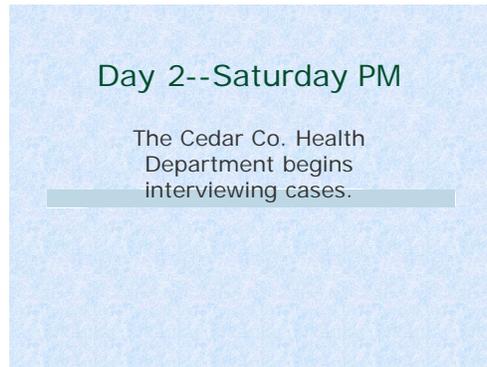
**By noon, the patient count is up to 60. The local health officer decides to convene a meeting to discuss next steps. A local pharmacist calls the local hospital to ask what is happening. The pharmacist reports that the store is almost out of anti-diarrheal medicine because of heavy demand.**

- Who should be involved in the meeting?*
- *Would non-traditional partners such as Emergency Management be brought in at this time?*
- What should be discussed in the meeting?*

[Consider all that might be involved in identifying, preventing, controlling, or managing a possible disease outbreak. Health officer or director takes lead. Roles and responsibilities determined, including parties outside of the local health department. Determine action plan. Discuss information available to date, including surveillance data. Discuss who gets reports, where and how information is collected, and who interprets the reports]

- What is the Health Department doing to collect additional information about cases?*

[Patient interviewing and data analysis issues. Discuss significance of pharmacist statement. Determine if there are other “sentinels” in the community to assist in characterizing the problem]



***Day 2, Saturday PM***

**Health Department decides to begin interviewing cases.**

*-How do you proceed?*

[Determine the agencies that will conduct interviews, the sources of the names of people being interviewed, and tools to ensure consistency of interviewing within the agency and across jurisdictions. Issues of patient confidentiality addressed.]

*-What additional information is needed for further investigation?*

[Exposures 12 to 96 hours prior to onset of illness, including meals, foods eaten, exposures to animals, and unchlorinated drinking or swimming water. Planning for control groups.]

## Tabletop Exercise

### Day 2--Saturday PM

- Dogwood and Pine County providers report many patients complaining of severe gastrointestinal (GI) problems
- At 5:00 PM the total patient count from all 3 counties is 75
- 16 stool specimens have been taken
- 6 people have now been hospitalized

### Day 2--Saturday PM

Hospital personnel have confirmed to the news media that a large number of people are being seen with some type of "intestinal illness," but they refer media calls to the health department.

### *Day 2, Saturday PM*

**Medical care providers from Dogwood and Pine Counties are reporting a high number of patients complaining about severe gastrointestinal problems. By 5:00 PM the total patient count from all three counties is 75. Seventeen stool specimens have been taken. Six people have now been hospitalized.**

*-To whom do the medical care providers from the Dogwood and Pine Counties report their information, particularly if key health department staff can not be contacted?*

*-How is information being shared between the health agencies?*

[Discuss roles of local, state, and federal agencies, including key contacts, and identification of agency decision-makers. Discuss overall responsibility for cross jurisdictional issues. Discuss communication between medical care providers and local health department in smaller communities]

## Tabletop Exercise

### Day 2, Saturday PM

Hospital personnel have confirmed to the news media about a large number of people being seen with some type of “intestinal illness”, but refer callers to the Health Department.

*-How does the Health Department respond to news media inquiries?*

*-Does the Health Department have a designated Public Information Officer?*

[Identification of key spokesperson, including response to medical questions. Discuss communication linkages with hospitals/clinics in the area. Media protocol for non business hours inquiries. Discuss content of message]

#### Day 2--Saturday PM

- 5:00 PM--a tour group operator reports to the health department that 35 out of 50 group members have become ill with severe diarrhea, vomiting, and nausea
- None have sought medical attention

#### Day 2--Saturday PM

- All tour group members ate at local restaurants in the area during the past week
- These tourists are non-English speaking visitors from Southeast Asia

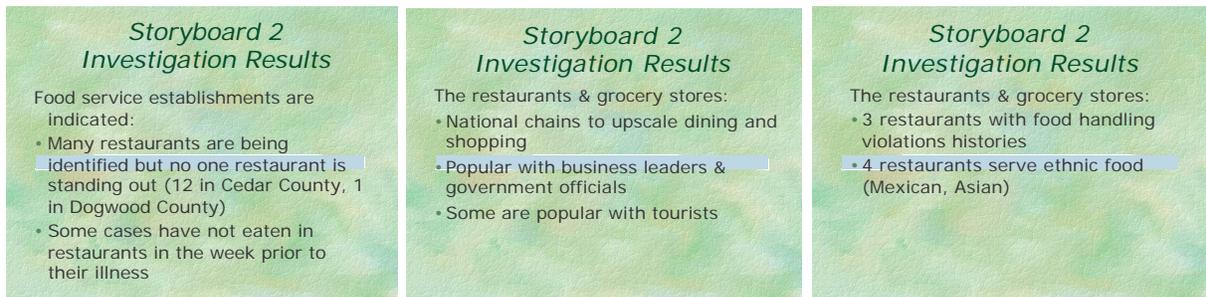
**At 5:00 PM, a member of a tour group visiting the County reports to the health department that 35 out of 50 members have become ill with severe diarrhea, vomiting, and nausea. None have seen a doctor. All ate at local restaurants in the area for the past week. The group is primarily non-English speaking tourists from Southeast Asia.**

*-What actions should occur to respond to this information?*

*-How are the issues of language translation handled?*

[Issues of interviewing, treatment of illness, confidentiality and translation.]

## Tabletop Exercise



### Storyboard #2

Focus of attention is being directed towards food service establishments in the 3 counties as a result of patient interview data. Numerous establishments are being identified as places where interviewed patients have eaten or have purchased foods in the past week. Many are restaurants; however, specialty grocery stores are also being frequently mentioned.

Twelve identified restaurants are in Cedar County. One is in Dogwood County. All restaurants serve a high volume and variety of customers. They range from well-known, moderately priced, national chain restaurants to popular, high scale dining establishments. Company executives, business leaders, attorneys, and governmental officials often eat at the affected City establishments. All are popular with tourists visiting both counties. Four establishments serve ethnic foods. Two are Mexican. The other two are Asian. Three affected restaurants have a history of poor food handling practices, particularly hand washing and temperature violations. None of the establishments have had violations of foods from unapproved sources.

The three specialty grocery stores are highly popular and have a high turnover of food inventory. All are owned and operated by the same company. Two of the specialty stores are in Cedar County. The third is located in Dogwood County. All food service establishments are served by public water, but from different water utilities.

## Tabletop Exercise

### Day 3--Sunday AM

- Health department personnel continues interviewing cases
- Lab results on patients will be available Monday (Day 4)
- Many ill patients have not eaten at a restaurant in the past week

### Day 3--Sunday AM

Interviews find commonly named food items consumed include:

- Fresh salsa
- Pesto
- Pizza
- Asian soups
- Gourmet salads

### Day 3--Sunday AM

- Emergency rooms and clinics are becoming overwhelmed
- Medical care facilities are short staffed because of personnel ill with "gastrointestinal upset"
- Medical staff are concerned about potential spread of the illness within the hospital and urgent care clinics

### *Day 3, Sunday AM.*

**Health department personnel interviewing cases are hearing about 12 restaurants being repeatedly named in Cedar County and one in Dogwood County. Three of the restaurants in Cedar County have had a history of food service violations. A number of people becoming ill, however, have not eaten at any of the 13 named restaurants. Lab results on patients will not be available until the next day.**

*-What is the significance of this information?*

*-What action is taken on the named restaurants, if any?*

[Discuss a possible contaminated commercial product. Discuss role of federal agencies and Environmental Health. Discuss assessment of patient interview information with restaurant inspection information to guide identification of product of concern.]

*-What information is shared with the news media, if any?*

[Newsmedia protocols. Discuss who makes decisions about type and amount of information to be disseminated. Discuss time delay for lab results vs. need to inform the public about prevention measures – discuss use epidemiological information]

## *Tabletop Exercise*

### *Day 3, Sunday AM*

**Many ill patients have not eaten at a restaurant in the past week. However, food items being commonly named include fresh salsa, pesto dishes, pizzas, Asian soups and gourmet salads.**

*-What is the significance of this information?*

[Fresh produce, particularly herbs, are common elements for these food items. Environmental health specialists should focus on the restaurants and food outlets and their sources of fresh herbs]

*-How is this information shared with the public and first responders?*

[News media protocols. Information dissemination protocols.]

### *Day 3, Sunday AM*

NOTE: Remind participants at this time that there is a large economic trade group conference scheduled in Watertown (Cedar County) in 3 weeks, as mentioned in Storyboard #1.

**Hospital emergency rooms and medical clinics in the county are getting overwhelmed with patients. Medical facilities are short staffed because of many medical personnel are home ill with “gastrointestinal upset.” There is concern amongst medical staff about spread of the illness within the hospital and the urgent care clinics.**

*-What is the procedure for added capacity to handle the high volume of patients?*

*-What is the policy of infection control (and communication) within the medical care facilities?*

[Discuss facilities, staffing, infection control, medication, and internal communications issues. Discuss role of outside assistance by other agencies in support of limited capacity]

## Tabletop Exercise

### Day 3--Sunday PM

- Patient count is up to 250 after a news report on the disease outbreak
- Report states that the source is not yet determined, but food is suspected--particularly fresh herbs
- Most cases are middle-aged adults (Age range of cases is 5 to 82 years)

### Day 3--Sunday PM

Early results of diagnostic tests indicate that *Shigella sonnei* is the causative agent.

### *Day 3, Sunday PM*

**Patient count up to 250 after news report on disease outbreak. Source is not yet determined, but food is highly suspected with attention focusing on fresh herbs. Most cases are middle-aged adults. The age range of cases is from 5 to 82 years.**

*-What actions are being performed by the Health Department to determine the cause of the outbreak?*

[Discuss responsibilities of environmental health specialists, epidemiologists, public health laboratory, other local public health staff, and state department of health]

*-What communication systems are in place?*

*-What resources are available to handle influx of public calls? Phone bank?*

[Issues of communication within the department, external to the department including local to local, local to state, and local/state to federal. Use of Internet for information dissemination. Information tracking and recording.]

*-What state and national resources are called in?*

[Discuss agency roles]

*-What is the content of the food safety message to the public?*

*-How and when does this message get out?*

## Tabletop Exercise

[Identification of populations at risk. Methods for communicating information. Discuss timing and frequency of messages]

-Who is dealing with food industry in the three counties?

[Food industry and health department interactions. Identification of affected food industry, i.e., farmers, wholesalers, grocery stores, restaurants, transporters. Discuss consistency of message across jurisdictions. ]

**Early results of stool sample tests indicate that *Shigella sonnei* is the causative agent.**

**\*\*\*ASK someone from the health department to describe the epidemiology of Shigella or it is listed below**

### *Shigellosis Fact Sheet*

*Typical symptoms of Shigellosis include severe diarrhea often accompanied by fever, chills, headache, nausea, vomiting, abdominal pain, and possibly bloody stools. Incubation period is 1 to 7 days (usually 1 to 3 days). Less than 10% of cases seek medical care and fewer have confirmatory stool cultures performed. Complications such as dehydration may result in hospitalization but deaths are rare.*

*Humans are the only reservoir for Shigella. It is easily transmitted from person to person. It can also be transmitted through food or water that has fecal contamination.*

-What actions are needed in response to this result?

[Discuss shigellosis and its control. Discuss role of the public health laboratory, environmental health specialists, epidemiologists, health officer, newsmedia spokesperson, public health and clinic nurses, medical community, state department of health, and others]

#### Day 3--Sunday PM

- Extremist group sends message to mayor of large city in Cedar County
- Message takes credit for "contaminating the food supply with a bacterial agent"

#### Day 3--Sunday PM

- Message also threatens to continue contamination unless the upcoming economic trade conference is canceled
- The Mayor shares the message with the County Commissioners, Health Department Director & Chief of Police

#### Day 3--Sunday PM

Someone from the extremist group calls the local newspaper and says she represents a group who wishes to take credit for "making people sick with food contaminated with botulism."

## Tabletop Exercise

### Day 3--Sunday PM

- Message also threatens to continue contamination unless the upcoming economic trade conference is canceled
- The Mayor shares the message with the County Commissioners, Health Department Director & Chief of Police

### Day 3--Sunday PM

Someone from the extremist group calls the local newspaper and says she represents a group who wishes to take credit for "making people sick with food contaminated with botulism."

### Day 3--Sunday PM

The Health Officer declares a Public Health Emergency.

### *Day 3, Sunday PM*

**City Mayor receives a message from an extremist group taking credit for "contaminating the food supply with an infectious bacterial agent". Group threatens to continue to do so unless the upcoming conference of economic trade group representatives is canceled. Mayor shares message with Health Department Director and the Chief of Police.**

*-How should the Health Department handle this information?*

*-Who should be involved in assessing this message?*

*-Who is in charge?*

[Discuss bioterrorism response. Discuss role of law enforcement officials, including roles, responsibilities, and authority. Discuss sharing and coordination of information. Discuss role of economic trade group in decision-making]

**Anonymous person calls the local newspaper and says she represents a group who wishes to take credit for "making people sick with food contaminated with botulism".**

*-What does the Health Department do with this information?*

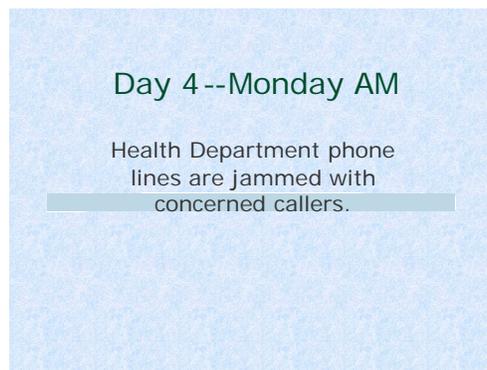
[Discuss media protocols, designated spokesperson, handling rumors and misinformation]

**Health Officer declares a Public Health Emergency.**

*-Has the EOC already been activated?*

*-Where does the Health Department fit into the EOC command structure?*

[Discuss legal authorities of the Health Officer and the role of the local EOC and the Health Department's place in the EOC Command structure. Discuss news media issues, including spokesperson, consistency of message between Health and EOC. Discuss patient confidentiality. Discuss coordination between state and local EOC. Discuss roles of supporting agencies in EOC]



***Day 4, Monday AM***

**Health department phone lines jammed with concerned callers.**

*-What resources have been put into place to handle these calls?*

*-How is information kept clear, complete, and consistent?*

[Discuss consistency of information to general public, and availability of backup communication strategies. Discuss who will give out information and who is responsible for message content and update]

Day 4--Monday AM

- Reported patient count is over 400
- 80% of cases are from Cedar County
- Remainder of cases come from Pine and Dogwood counties

Day 4--Monday AM

- 30 cases are restaurant workers
- Affected cases range from age 4 to 87 years
- 30 cases are hospitalized--5 are in serious condition

***Day 4, Monday AM***

**Reported patient count is now over 400. Eighty percent of cases are from the largest county. The remaining 20% of the cases come from the two adjacent counties. Thirty cases are restaurant workers. Affected cases range in age from 4 to 87 years. Thirty cases are hospitalized. Five are in serious condition.**

*-What actions are taking place to prevent the outbreak from spreading?*

[Shigellosis has a high rate of secondary transmission in the absence of careful hygiene. Getting information out about the importance of handwashing should be discussed. Ill individuals should be excluded from day care attendance and from work if occupations such as food handling or health care until cultures are negative. Issues of high-risk groups and non-English speaking groups. Discussion on the use of news media and other sources of communication, e.g., internet, hotlines]

Day 4--Monday AM

- State University microbiology laboratory (located in Maple Co.) reports to Campus police that several vials of *Shigella sonnei* are missing
- Vials were last seen 7 days ago
- A few vials from the original batch are still available

Day 4--Monday AM

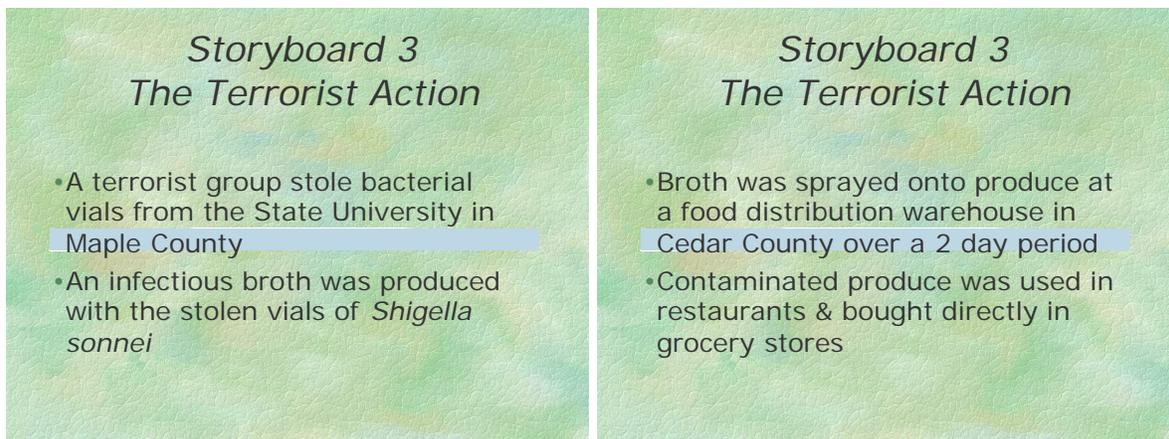
- Campus security contacts Maple County Sheriff
- Maple Co. Sheriff contacts local health department (Maple County Health)

## Tabletop Exercise

The State University microbiology laboratory located in another part of the state reports to the University Campus security that numerous vials of *Shigella sonnei* are missing from the laboratory. The vials were last seen 7 days ago. A few vials from the original batch of the culture are still available. Campus security contacts County Sheriff. County Sheriff contacts it's local health department (Maple County Health Department).

-What does Maple County Health Department do after receipt of this information- how is it shared with Cedar County?

[Discuss cross jurisdiction communication, including the role of local and federal law enforcement officials, coordination between local health and law enforcement officials, and confidentiality of criminal investigation information. Discuss the significance of this theft, issues regarding the stolen *S sonnei*, significance of vials of *S sonnei* still available.]



### Storyboard #3

A terrorist group possesses 2 gallons of a liquid broth containing high concentrations of a disease-causing, bacterial agent. The cultures of the bacterial agent have been secretly manufactured using stolen vials from a University laboratory. The infectious broth was surreptitiously sprayed onto produce at a food distribution warehouse in Cedar County over a 2-day period. The contaminated produce was then distributed to affected food establishments (13 restaurants, 3 specialty grocery stores): 12 local restaurants and 2 specialty grocery stores in Cedar County and one restaurant and a specialty grocery store in Dogwood County. Pine County food establishments were not affected. The produce was used

## Tabletop Exercise

for garnish and seasonings in a variety of different dishes at the restaurants. The contaminated dishes were consumed in all 13 restaurants on Tuesday evening and Wednesday lunch and dinner. The produce was also purchased directly by consumers at the 3 local specialty grocery stores on Tuesday and Wednesday. Residents in all three counties became ill by consuming the contaminated products. Not all sick have visited their medical care provider.



### ***Day 4, Monday PM***

#### **Business at area food establishments is dropping significantly.**

- What is the message to food service operators? Food workers?
- Who communicates food safety information to the public?

[Role of environmental health, epidemiology and media spokesperson. Communication issues]

#### **News media from other states calling for interviews or information.**

- Who responds?
- How is the response script developed?

[News media protocols. Coordination of media channels. Control of internet messages]

## Tabletop Exercise

### Day 4--Monday PM

Cedar County Health Department is re-interviewing cases and working closely with restaurants to identify common ingredients. Indications are cilantro and basil as the most likely contaminated products.

### Day 4--Monday PM

An elderly woman (86 years old) dies from complications resulting from Shigellosis. Her family threatens a lawsuit against the "responsible agency."

### *Day 4, Monday PM*

**Re-interviewing of cases and working closely with restaurants to identify common ingredients indicates cilantro and basil as the most likely contaminated products.**

*-What is done with this information?*

[Notify public and retail users so existing product is pulled off store shelves or removed from public eating menu items and potentially contaminated areas are cleaned. Obtain product for testing – Remember food may be considered evidence- Chain of Custody needs to be maintained. Compare any isolated *S. sonnei* strains from the samples still available at the University Laboratory with the patient samples using techniques such as PFGE. Involvement of federal agencies and law enforcement in recreating the events causing the outbreak. Discuss how to get clear and accurate risk information out to the public]

**Elderly woman (86 years old) dies from complications resulting from Shigellosis. Family threatens lawsuit against responsible agency**

*-How are legal issues handled?*

[Discuss legal issues. Role of prosecutor. Confidentiality issues. Public information. Role of law enforcement, medical care provider, and health department in cause of death.]

**Day 14, Friday--  
Recovery period**

- Nothing more is heard from extremists
- No other new cases attributed to the identified food source in the past 7 days
- Secondary cases continue to occur including 3 daycare outbreaks

**Day 14, Friday--  
Recovery period**

- People still call about food safety and are concerned by cases continuing to occur
- The trade conference is scheduled to be held 1 week from today

***Day 14, Friday – Recovery period***

**Nothing more was ever heard from the extremists. No new infections are attributed to the identified food source; however, secondary cases continue to occur including outbreaks in 3 daycare centers. Public alarm has decreased, but people are still calling about food safety and concerned by the cases that continue to occur – don't understand the meaning of "secondary cases".**

**The trade conference is still scheduled for one week from today.**

*-How does the Health Department assure the public the "outbreak" is over and the new cases are a result of secondary transmission?*

*-What recommendations should be given to the Mayor about the risks of holding the annual conference of trade representatives?*

### Discussion

- Strategies to prevent/control outbreaks or bioterrorism threats (include media contacts to reassure the public)
- Interactions between affected agencies

### Discussion

- Evaluation of incident response system for management of a CD or BT event
  - Methods of evaluation
  - Strengths & challenges of response
  - Gaps in policy or training
  - Gaps in communication planning
  - Gaps in information management systems

### *Exercise Debriefing*

Discuss strategies to prevent or control future bioterrorism threats or outbreaks. Continuing news media contacts to reassure the public about food safety. Discuss on-going interactions between health-law enforcement and medical care. Discuss methods to critique/evaluate response to incident. In general, discuss entire incident – strengths, challenges, gaps in policy or training, missed opportunities, other factors to consider.

## **AGENDA**

### *INTRODUCTION*

- Purpose
- Instructions
- Assumptions

Storyboard #1 (the scene)

The Incident Unfolds

- Discussion
- Policy Implications

### *LUNCH BREAK*

Storyboard #2

The Incident Unfolds Further

- Discussion
- Policy Implications

Storyboard #3

The Incident Revealed

- Discussion
- Policy Implications

Discussion & Debriefing

*Map of 4 Counties*

