

Bioterrorist Attack on Food: A Tabletop Exercise

Adapted from the
Northwest Center for Public Health
Practice
University of Washington, Seattle



Acknowledgements

- ◆ Adapted from the Northwest Center for Public Health Practice, University of Washington, Seattle
- ◆ This curriculum is a collaborative effort among the four departments in the College of Health and Human Services namely, Health Science, Health Care Administration, Nursing, and Professional Studies at California State University, Long Beach
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Purpose

This tabletop learning activity is an opportunity for you to gain skills in preparing for and responding to emerging disease outbreaks or bioterrorism events through the recognition of related policy needs and issues.

What is a Tabletop Exercise?

- ◆ Informal group discussion stimulated by a scripted disaster scenario
- ◆ No time pressures, low stress, designed to promote free and open exchange of ideas
- ◆ Identifies issues (e.g., policies, resources, communication, data, coordination)
- ◆ Familiarizes players with roles, functions, plans, and procedures

Objectives of the Exercise

- ◆ Identify and discuss the policy issues that would arise during an outbreak
- ◆ Identify and understand measures that can be performed at the local level
- ◆ Recognize the roles of various public officials
- ◆ Illustrate the need for intense teamwork and communication
- ◆ Identify gaps in local preparedness policies
- ◆ Build relationships with participants from other key agencies
- ◆ Identify additional training needs

Background

- ◆ Schedule:
 - Introduction: 15 minutes
 - Exercise: 2-3 hours
 - Debriefing: 30 minutes
- ◆ Roles:
 - Facilitator
 - Note taker
 - Observer
 - Participants

Setting the Scene

- ◆ Participation
 - Play own role in agency, if possible
 - Not all will participate equally
 - Take notes for debriefing
- ◆ Policy Issues
 - Focus on who, what, and when vs. how
 - Identify gaps and strengths of the system rather than individual knowledge
 - Respond in real time, if possible

Description of Exercise

- ◆ Presentation depicting a fictional account of a public health emergency created by terrorists
- ◆ Three storyboards
 - Background information to put the scenario into context. Facts (information) known to all.
 1. **The Setting**
 2. **The Investigation**
 3. **The Terrorist Act**

Description of Exercise

- ◆ 22 separate narratives, called incidents or updates
- ◆ Debriefing to discuss
 - The events of the exercise
 - Identification of policy gaps
 - Identification of useful information (effective responses)
 - Next steps

Storyboard 1 – The Setting

◆ City of Long Beach

- Population: 461,564 (Fifth largest in California)
- **Location:** Overlooking San Pedro Bay on the south coast of Los Angeles County
- Port of **Long Beach** - Busiest port on the West coast; recently named #1 container port in the U.S.
- **Total Visitors:** Approximately 5 million
- **1 Airport in [Long Beach](#)**

Storyboard 1 – The Setting

◆ City of Lakewood

- The City of Lakewood is located in southern Los Angeles County, 23 miles southeast of Los Angeles. The area of the city is 9.5 square miles.
- Total population: 79,345
- multiple parks (15)



Storyboard 1 – The Setting

◆ City of Seal Beach

- Seal Beach sits on the coast as the gateway to Orange County between the cities of Long Beach and Huntington Beach.
- Population is 24,098
- Seal Beach celebrated its 90th anniversary in October 2005.
- Seal Beach is the home of Leisure World, a gated senior citizen community of approximately 7-10,000 persons.
- The Seal Beach Naval Weapons Station comprises 2/3 of the land within the City.



Storyboard 1 – The Setting

- ◆ City of San Pedro
 - Population is 71,000
 - San Pedro is one of the largest and busiest deep-water ports in the nation. Along with Wilmington and Terminal Island, it forms Port of Los Angeles, serving not only the economies of the world with its import/export facilities, but also the tourism industry with around one million people leaving harbor each year on cruise ships.
 - It is also home to some of the largest fishing fleets anywhere.



Questions?

Day 1 – Friday PM

- Gastrointestinal illness strikes:
- ◆ Presenting via nurse hotlines, private providers, and hospital ER's
 - ◆ Presenting patients tend to be middle-aged adults, with about 10% over age 65
 - ◆ Thirty (30) people seen in hospital ERs by late Friday

Day 1 – Friday PM (cont'd)

- ◆ High rate of people with common symptoms
- ◆ Stool samples taken on six of the cases
- ◆ Three people hospitalized for dehydration or other GI complications
- ◆ Severe diarrhea
- ◆ Fever
- ◆ Chills
- ◆ Headache
- ◆ Vomiting
- ◆ Abdominal pain
- ◆ Bloody stools
- ◆ Nausea

Day 2 – Saturday AM

- ◆ Patients still being seen in the ER's and urgent care centers
- ◆ At 10 AM the number of patients exhibiting symptoms is up to 45
- ◆ Decision made to notify the Long Beach Health Department
- ◆ Concerns regarding capacity of the hospitals to handle the numbers of patients needing treatment

Day 2 – Saturday Noon

- ◆ The known patient count is up to 60
- ◆ City of Long Beach Health Officer decides to convene a meeting around next steps
- ◆ Local pharmacist calls the hospital, asking what is happening. Her store is almost out of antidiarrheal medicine due to heavy demand

Day 2 – Saturday PM

- ◆ The Long Beach Health Department decides to begin interviewing cases

Day 2 – Saturday PM

- ◆ Lakewood and Seal Beach providers report many patients complaining of severe gastrointestinal (GI) problems
- ◆ At 5 PM, the total patient count from all three cities 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

- ◆ At 5 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 seen a doctor
- ◆ All group members ate at local restaurants in the area during the past week
- ◆ These tourists are non-English-speaking visitors from Southeast Asia.

Day 3 – Sunday AM

- ◆ Health Department personnel are interviewing cases
- ◆ 12 restaurants are being repeatedly named in City of Long Beach and 1 in Lakewood.
- ◆ 3 of the Long Beach restaurants have had a history of major food service violations
- ◆ Some of the ill have NOT eaten at any of the 13 named restaurants
- ◆ Lab results on patients will be available late Sunday evening (day 3)

Storyboard 2 - Investigation

- ◆ Source of outbreak appears to be related to food establishments
 - 13 restaurants identified
 - ◆ 12 in Long Beach
 - ◆ 1 in Lakewood
 - 3 Specialty grocery stores identified
 - ◆ 2 in Long Beach
 - ◆ 1 in Lakewood
 - All establishments on public water

Storyboard 2 - Investigation

- ◆ The restaurants and grocery stores:
 - Range from national chains to high-scale food or grocery establishments
 - Many are popular with business executives and public officials
 - Some are popular with tourists
 - 3 in City of Long Beach have a history of major food handling violations
 - 4 serve ethnic foods (Mexican, Asian)

Day 3 – Sunday AM

- ◆ Many ill patients have not eaten at a restaurant in the past week. However, recently eaten food items commonly named include:
 - ◆ Salsa
 - ◆ Pesto dishes
 - ◆ Pizza
 - ◆ Asian soups
 - ◆ Gourmet salads

Day 3 – Sunday AM

- ◆ Hospital ER's and clinics are getting overwhelmed
- ◆ Medical facilities are short staffed because of personnel home ill with "stomach upsets"
- ◆ Medical care staff are concerned about potential spread of the illness within the hospital and urgent care clinics

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 (about 10% are over age 65)
- ◆ Age range of cases is 5 to 82 years

Day 3 – Sunday PM

- ◆ Early results of stool sample tests indicate that *Shigella sonnei* is the common causative agent in the majority of the cases

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).
- ◆ Fewer 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.

Day 3 – Sunday PM

- ◆ Extremist group sends message to the Mayor in City of Long Beach where the economic conference will be held
- ◆ Extremists take credit for “contaminating the food supply with a bacterial agent”
- ◆ The group threatens to continue unless the upcoming conference is canceled
- ◆ The Mayor shares the message with the Health Dept Director and Chief of Police

Day 3 – Sunday PM

- ◆ Someone claiming to be from the extremist group calls the local newspaper and says she will continue to “make people sick with food contaminated with botulism”

Day 3 – Sunday PM

- ◆ The Health Officer declares a health emergency

Day 4 – Monday AM

- ◆ Health Department phone lines are jammed with concerned callers

Day 4 – Monday AM

- ◆ Reported patient count is over 400
- ◆ 80% of cases are from City of Long Beach
- ◆ 20% of cases come from the two adjacent cities
- ◆ 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

- ◆ State University microbiology laboratory (California State University, Long Beach) reports to campus security that several vials of *Shigella sonnei* are missing
- ◆ Vials were last seen 7 days ago
- ◆ A few vials from the original batch were saved for back up
- ◆ Campus security contacts Sheriff at city of Long Beach
- ◆ Long Beach City Sheriff contacts Long Beach Health Department

Storyboard 3 –The Terrorist Action

- ◆ A terrorist group stole bacterial vials from the State University in Long Beach
- ◆ Infectious broth was sprayed onto produce at a food distribution warehouse in Long Beach over 2 days
- ◆ Infected produce was used in restaurants and purchased in grocery stores
- ◆ Long Beach Health Department has notified State Health and Health Dept about the stolen vials

Day 4 – Monday PM

- ◆ Business at area food establishments is dropping significantly

Day 4 – Monday PM

- ◆ News media from other states are calling various county officials for interviews or information

Day 4 – Monday PM

- ◆ The Health Department is re-interviewing cases and working closely with restaurants to identify common ingredients
- ◆ Cilantro and basil are the most likely contaminated food products in this incident

Day 4 – Monday PM

- ◆ An elderly woman (86 years old) dies from complications of illness. Her family threatens a lawsuit against the "responsible agency."

Day 14 – Friday

- ◆ 15 apparent secondary cases
- ◆ No other new cases attributed to the identified food source in the past 7 days
- ◆ Nothing more heard from the extremists
- ◆ Public alarm has decreased significantly
- ◆ People still calling about food safety
- ◆ The trade conference is scheduled to be held one week from today

Debriefing Discussion

- ◆ Strategies to prevent/control outbreaks or BT threats
- ◆ Interactions between affected agencies
- ◆ Evaluation of incident response (lessons learned)
 - Methods of evaluation
 - Strengths and challenges
 - Gaps in policy or training
 - Gaps in communication planning
 - Gaps in information management systems
