



Public Health Tabletop Exercise

Participant Guide

Instructions

This exercise has been designed for agencies that will respond to a public health threat. The goal of this exercise is to practice how health departments and other response partners will coordinate during a water contamination event. You will be divided into teams. Your team will need to identify a scribe, a timekeeper, and a reporter. The scribe should take *legible* notes during the discussions. These notes will form the basis of a summary report to be distributed by MDCH to the participants several weeks after the meeting. The scribe should note problem or “parking lot” areas that will need more investigation by the participants. These roles within your group may remain the same or may be changed for each scenario.

The exercise is divided into three scenarios. You will be completing one scenario at a time. Read through the scenario when directed to do so. The Expert Panel will answer questions related to the event. A set of team questions follows the Expert Panel response. Answer the questions as a group. You will have 15 minutes to formulate your response. You may use members of the Expert Panel as resources. Teams will be randomly selected to report their responses by the facilitator. Do not turn to the next scenario until directed to do so.

Purpose, Objectives, Background Information

Purpose of the exercise: The purpose this tabletop exercise is to identify the public health response to a chemical event that has the potential to adversely impact human health and to improve operational procedures by involving various segments of public health staff and other responders.

Objectives:

Objective 1: Demonstrate the environmental health professional's roles in a chemical emergency involving water contamination.

Objective 2: Demonstrate the ability to organize an appropriate response team in a timely manner.

Objective 3: Identify the top five priority issues that environmental health professionals will need to address during response and recovery from a chemical emergency event.

Objective 4: Identify the agencies responsible for responding to a chemical event involving water contamination.

Background Information: Zenith City is located in the center of Michigan in Pontiac County. The area is primarily rural. Mid-Michigan University, MMU, lies about 10 miles outside of Zenith City and has an annual student enrollment of around 1,400 students. The city's population is about 10,000 with the county population reaching nearly 42,000. These numbers do not including the student population. Zenith City is relatively quiet as the majority of college students have left for the summer. Summer attendance is about 200 students. Two of the classroom buildings and the gymnasium, located in what is known as "The Village", are being used for the summer session. The county has one hospital, Zenith General Hospital. There are several smaller hospitals located in neighboring counties.

Scene 1:

On Friday July 17th by 1:30pm, Ten people have come to Zenith General Hospital's emergency department, all exhibiting the following symptoms: dizziness, headache, difficulty breathing, cardiac arrhythmias, and reddening of the skin. ED staff note that all patients are from The Village, MMU. Zenith General reports a possible illness outbreak to the Pontiac County Department of Public Health. The report indicates that patients all either work or attend classes in the "The Village" on the campus of MMU. By **3:30pm**, over 20 patients have arrived at the hospital emergency room complaining of similar symptoms, all from the "Village". The ED physician calls the health department and says the presumptive diagnosis is cyanide poisoning.

Team questions

1. What initial actions will be taken by the health department and by the hospital?
2. What initial actions will be taken by environmental health staff?
3. How long will it take the health department to form a response team? Who will be on the team?
4. What other agencies should be notified? How will they be notified and by whom?
5. Does this incident necessitate activation of the health department's Emergency Command Center? Why or why not? If so, who is staffing the ECC?

Stop! Do not turn the page until instructed to do so.

Scene 2:

Friday July 17, 10:00 PM. The ED has notified the health department that cyanide poisoning has been confirmed in patients, one of whom died, that 35 additional individuals have presented at the ED, all from the Village, and that the ED has notified the police. The health department has conducted preliminary epi interviews with 20 patients: there does not appear to be any association with food, but drinking water on campus is common to most cases. The environmental health staff on-call for the weekend has been dispatched to campus to look around. Health department staff on site at the hospital and on campus call to confer on how to deal with the local police, who are also at both sites.

Team questions

1. What samples should be collected by the health department and by the hospital? Where would they be sent?
2. What additional information needs to be collected from the patients? From others potentially exposed?
3. What are the potential sources of conflict with law enforcement?
4. How would the public health and the media be involved in a public notification process?
5. What community containment measures should be taken?

6. How will the hospital manage the influx of patients?

Stop! Do not turn the page until instructed to do so.

Scene 3:

July 18 at Noon: Testing has confirmed that cyanide has been found in the MMU's water supply. The FBI has been called in. The FBI informs the health department that a letter has been delivered to the Zenith City Police Department stating “there’s a reason people are getting sick” at Mid Michigan University. Furthermore, the FBI informs the health department that on July 17th, one of the university’s water utility employees noted that two men from MMU’s usual chemical supplier, dressed in work clothes and wearing identification badges, drove a white delivery van through the delivery gate. He did not suspect any unusual activity. However, tire tracks were later noted leading to and away from the wellhead. The suspects have not been apprehended. The FBI has taken soil samples around the wellhead for testing.

The environmental health staff reported that, due to a broken pipe, a large area of water damage has been found in one of the main buildings in the Village.

Team questions

1. What type of public notification would the water supply issue now?
2. What is the role of public health at this point?
3. Does the fact the poisoning was intentional change the investigative activities of the health department or information provided to the public by the health department?
4. How can public confidence in the water supply be restored?
5. Who ensures that contaminated water is no longer in water services or plumbing?

6. What measures need to be taken to clean up the contaminated building where there was water damage from the broken pipe and how do those measures involve public health?

End of exercise