



Cambridge
Public Health
Department

**Preparing for Water, Sanitation, and Hygiene
(WASH) Related Emergencies Among
People Experiencing Homelessness**

Tabletop Exercise Situation Manual

April 6, 2023

This Situation Manual (SitMan) provides exercise participants with all the necessary tools for their roles in the Tabletop Exercise. All participants may view the SitMan.

AGENDA

Time	Event
9:30 PM	Welcome and Introductions
9:45 PM	Tabletop Exercise Module 1
10:30 AM	Break
11:45 PM	Tabletop Exercise Module 2
12:20 PM	Closing and Next Steps

EXERCISE OVERVIEW

Exercise Name	Cambridge Public Health Department (CPHD) Water Sanitation and Hygiene (WASH) Tabletop Exercise (TTX)
Exercise Date	Thursday, April 6, 2023, 9:30am-12:30pm ProEMS 31 Smith Pl, Cambridge, MA 02138
Scope	This Tabletop Exercise is a discussion-based exercise conducted in a low stress, no-fault environment. An exercise Facilitator will manage the flow of the exercise by presenting a scenario narrative in multiple modules. Players will have an opportunity to both respond to defined questions and discuss topics freely within an established time frame. Exercise play is limited to the presentations and discussions held by exercise participants.
Mission Area(s)	Response
Core Capabilities	Environmental Response/Health and Safety On-Scene Security, Protection, and Law Enforcement Operational Communications Operational Coordination Public Information and Warning
Objectives	<ul style="list-style-type: none"> • Discuss roles, responsibilities, and procedures to respond to a WASH-related emergency event. • Identify protocols and systems to notify internal departments, external response partners, and the community. • Assess plans, training, and resources for City of Cambridge to maintain a safe operating environment for staff and the community. • Review current plans and procedures to issue public information, alerts, warnings, and notifications and to coordinate with the media as appropriate.
Threat or Hazard	WASH-related emergency event
Scenario	Infectious disease outbreak. <i>Additional scenario information is provided in each of the modules.</i>

Sponsor	Cambridge Public Health Department
Participating Organizations	Final exercise participants will be captured on sign-in sheets and included in the After-Action Report.
Point of Contact	Nancy Porter, MBBS Director of Equity, Resilience and Preparedness Cambridge Public Health Department 119 Windsor Street, Cambridge, MA 02139 Phone: 617-665-3816 Fax: 617-665-3888 nrihanporter@cambridgepublichealth.org

GENERAL INFORMATION

Exercise Objectives and related Capabilities and Standards

The following exercise objectives in Table 1 describe the expected outcomes for the exercise. The objectives are linked to FEMA Core Capabilities, which are distinct critical elements necessary to achieve the specific mission area(s). Each core capability is also linked to the relevant CDC Public Health Preparedness (PHEP) Capability. The objectives and aligned capabilities and standards were selected by the Exercise Planning Team.

Exercise Objective	FEMA Core Capability	PHEP Capability
Discuss roles, responsibilities, and procedures to respond to a WASH-related emergency event.	<ul style="list-style-type: none"> Operational Coordination Public Health, Healthcare, and Emergency Medical Services 	<ul style="list-style-type: none"> Emergency Operations Coordination
Identify protocols and systems to notify internal departments, external response partners, and the community.	<ul style="list-style-type: none"> Operational Communication 	<ul style="list-style-type: none"> Information Sharing
Assess plans, training, and resources for City of Cambridge to maintain a safe operating environment for staff and the community.	<ul style="list-style-type: none"> Environmental Response/Health and Safety 	<ul style="list-style-type: none"> Responder Safety and Health
Review current plans, policies, and procedures to issue public information, alerts, warnings, and notifications and to coordinate with the media as appropriate.	<ul style="list-style-type: none"> Public Information and Warning 	<ul style="list-style-type: none"> Emergency Public Information and Warning

Table 1. Exercise Objectives and Associated FEMA Core Capabilities and CDC PHEP Capabilities

Participant Roles and Responsibilities

The term *participant* encompasses many groups of people, not just those playing in the exercise. Groups of participants involved in the exercise, and their respective roles and responsibilities, are as follows:

- Players.** Players are personnel who have an active role in discussing or performing their regular roles and responsibilities during the exercise. Players discuss or initiate actions in response to the simulated emergency.
- Facilitators.** Facilitators provide situation updates and moderate discussions. They also provide additional information or resolve questions as required. Key Exercise Planning Team members also may assist with facilitation as subject matter experts (SMEs) during the exercise.

- **Evaluators.** Evaluators are assigned to observe and document certain objectives during the exercise. Their primary role is to document player discussions, including how and if those discussions conform to plans, policies, and procedures.

Exercise Structure

This exercise will be a discussion-based, facilitated tabletop exercise. Interactive player discussions will take place over two modules:

- Module 1: Initial Incident Response
- Module 2: Ongoing Response Coordination

Each module begins with an update that summarizes key events occurring within that time period and any other information to enable participant discussions. After the updates, participants review the situation and engage in group discussions of appropriate issues. For this exercise, the discussions will take place as one large plenary group.

Exercise Guidelines

- This exercise will be held in an open, low-stress, no-fault environment. Varying viewpoints, even disagreements, are expected.
- Respond to the scenario using your knowledge of current plans and capabilities (i.e., you may use only existing assets) and insights derived from your training.
- Decisions are not precedent setting and may not reflect your organization's final position on a given issue. This exercise is an opportunity to discuss and present multiple options and viable solutions.
- Issue identification is not as valuable as suggestions and recommended actions that could improve response and recovery efforts. Problem-solving efforts should be the focus.

Exercise Assumptions and Artificialities

In any exercise, assumptions and artificialities may be necessary to complete play in the time allotted and/or account for logistical limitations. Exercise participants should accept that assumptions and artificialities are inherent in any exercise and should not allow these considerations to negatively impact their participation. During this exercise, the following apply:

- The exercise is conducted in a no-fault learning environment wherein capabilities, plans, systems, and processes will be discussed and evaluated.
- The scenario is plausible, and events occur as they are presented.
- All players receive information at the same time.

Exercise Evaluation

Evaluation of the Tabletop exercise is based on the discussions that take place regarding identified objectives and aligned capabilities, and the subsequent evaluations using Exercise Evaluation Guides (EEGs). Additionally, players will be asked to complete participant feedback forms. These documents, coupled with facilitator observations and notes, will be used to evaluate the exercise, and compile the After-Action Report (AAR) and Improvement Plan.

MODULE 1: INITIAL INCIDENT RESPONSE

Scenario

Monday, April 3th, 2023.

- Over the last weekend, a physician riding along with one of the outreach teams observed multiple individuals at an encampment site outside of Alewife Station with soiled clothing from diarrhea and vomit. While a few were not interested in speaking with the physician, one individual was extremely weak, dehydrated and with a high fever. The physician was able to encourage him to go to the Emergency Department.
- On Sunday 4/2/23, the Emergency Department at Cambridge Hospital saw five individuals presenting with similar symptoms including persistent diarrhea, stomach cramps, vomiting and fever.
- Based on these symptoms, the Emergency Department ordered multiple laboratory tests to further identify the cause.
- While waiting for test results, the hospital Infection Control nurse decides to call the Cambridge Public Health Department Public Health Nurse as a heads up based on the multiple cases.

Discussion Questions

Please address the following discussion questions, considering existing planning, training, and resources from your department or organization. Identify any critical issues, decisions, requirements, or questions that should be addressed at this time.

1. Based on the scenario, would Public Health expect to be notified at this point in time? Do outreach teams have plan(s) to notify the health system and/or CPHD about suspected outbreaks?
2. Once notified, what are the initial actions Public Health should take?
3. What other departments or partner organizations need to be notified? Through what system or mechanism?
4. What are the expected response actions needed? Who is responsible?
5. What resources would be needed at this time?
6. What targeted outreach and education could take place?
7. What public information might be needed at this time?

MODULE 2: ONGOING RESPONSE COORDINATION

Scenario

Thursday, April 6, 2023.

- Laboratory testing returned positive results for Shigella bacteria infections.
- To date there have been 20 positive confirmed cases.
- Case investigations by CPHD reveal the individuals reported living in the encampment site near Alewife Station.

Discussion Questions

Please address the following discussion questions, taking into account existing planning, training, and resources for your department or organization. Identify any critical issues, decisions, requirements, or questions that should be addressed at this time.

1. Based on the evolving scenario, what actions is Public Health taking? Do staff have appropriate training, systems, and resources?
2. What additional internal (Cambridge) and external incident communications are needed?
3. What other departments or partner organizations are playing a role in the outbreak response?
4. What resources would be needed at this time? Does City of Cambridge own these? If not, what is the process to request or procure? What relevant contracts or agreements are currently in place?
5. What targeted outreach and education could take place? Who plays a role? What special considerations are needed working with unsheltered or unhoused populations?
6. How can shelter providers and outreach teams support this response and/or reduce transmission?
7. What additional concerns do City Departments have for public health and safety? For responder health and safety?
8. What public information might be needed at this time?
9. One Case Investigation determines a positive case that has no ties to the encampment but works in an office in Cambridge and uses the Alewife train station. Does this change or expand response objectives?

RESOURCES FROM THE CDC¹

Shigella bacteria cause an infection called shigellosis. *Shigella* can spread easily from one person to another—and it only takes a small amount of *Shigella* to cause illness.

Symptoms

People with *Shigella* infection (shigellosis) usually start experiencing symptoms 1 to 2 days after contact with the germ. These symptoms include:

- Diarrhea that can be bloody or prolonged (lasting more than 3 days)
- Fever
- Stomach pain
- Feeling the need to pass stool (poop) even when the bowels are empty

Some people will not have any symptoms. Symptoms usually last 5 to 7 days, but some people may experience symptoms anywhere from a few days to 4 or more weeks. In some cases, it may take several months before bowel habits (for example, how often someone passes stool and the consistency of their stool) are entirely normal.

Diagnosis

Infection is diagnosed when a laboratory identifies *Shigella* bacteria in the stool (poop) of an ill person. The test could be a culture that isolates the bacteria or a rapid diagnostic test that detects the genetic material of the bacteria.

Treatment

Contact your healthcare provider if you or one of your family members has bloody or prolonged diarrhea (diarrhea lasting more than 3 days) or severe stomach cramping or tenderness, especially if you also have a fever or feel very sick. Tell your healthcare provider if you have other medical conditions or a weakened immune system—for example, because of an HIV infection or chemotherapy treatment. If you have a weakened immune system, you may be more likely to become severely ill.

- People with *Shigella* infection should drink plenty of fluids to prevent dehydration.
- People with bloody diarrhea should not use anti-diarrheal medicines, such as loperamide (Imodium) or diphenoxylate with atropine (Lomotil). These medicines may make symptoms worse.
- Antibiotics can shorten the time you have fever and diarrhea by about 2 days.
- Ciprofloxacin and azithromycin are two recommended oral antibiotics.

How do *Shigella* bacteria spread?

Shigella spread easily; it takes just a small number of bacteria to make someone ill. People with a *Shigella* infection can spread the infection to others for several weeks after their diarrhea ends.

¹ <https://www.cdc.gov/shigella>

You can get infected by swallowing *Shigella*. Some ways *Shigella* can get into your mouth are:

- Getting *Shigella* on your hands and touching your mouth. *Shigella* can get on your hands by:
 - Touching surfaces, such as toys, bathroom fixtures, changing tables, and diaper pails, contaminated with *Shigella* bacteria from someone with an infection.
 - Changing the diaper of a child with a *Shigella* infection.
 - Taking care of a person with an infection, including cleaning up after the person uses the toilet.
- Eating food prepared by someone with a *Shigella* infection.
- Swallowing water you swim or play in, such as lake water or improperly treated swimming pool water.
- Swallowing contaminated drinking water, such as water from a well that's been contaminated with sewage or flood water.
- Exposure to poop during sexual contact with someone with a *Shigella* infection or who has recently recovered from a *Shigella* infection.

Who is most likely to get *Shigella* infection?

- Children younger than 5 years old are the most likely to get shigellosis, but people of all ages can get the disease.
- Many outbreaks occur in early care and education settings and schools. Infection commonly spreads from young children to their family members and other people in their communities because these bacteria spread easily.
- Travelers to places where water and food may be unsafe and sanitation is poor are more likely to get a *Shigella* infection. They are also more likely to become sick with types of *Shigella* that are more difficult to treat. Travelers may be exposed to the bacteria through contaminated food, water (both drinking and recreational water), surfaces, and even other people. Travelers can protect themselves by choosing safe food and drink options and washing hands with soap often.
- Gay, bisexual, and other men who have sex with men² are among groups at high risk for *Shigella* infection. *Shigella* can pass from stool or soiled fingers of one person to the mouth of another person, including during sexual activity.
- People who are experiencing homelessness are at high risk for *Shigella* infection when there is shigellosis spread in the community. They may face challenges in their living situations that increase the risk for disease transmission, which can result in outbreaks.
- People who have weakened immune systems because of illnesses or conditions (such as HIV) or medical treatment (such as chemotherapy) can get a more serious illness. A severe *Shigella* infection can spread into the blood, which can be life-threatening.

² The term “men who have sex with men” is used in CDC surveillance systems to indicate men who engage in sexual behavior that may spread *Shigella*; it does not indicate how people identify their sexuality.

Shigellosis Among People Experiencing Homelessness

Shigella bacteria can spread easily, especially in environments where there is crowding or access to clean water and toilets is limited. Because of this, people experiencing homelessness are at high risk for *Shigella* infection when shigellosis is spreading in the community. This includes people who are unsheltered (sleeping outside or in places not meant for people to live) or sheltered and living in group settings.

People experiencing homelessness are more likely to get a *Shigella* infection for various reasons. They may have pre-existing conditions that can weaken their immune system, such as HIV, hepatitis, or tuberculosis, which can put them at higher risk of severe shigellosis. They also may face challenges in their living situations that increase the risk for disease transmission, which can result in outbreaks. These may include:

- Exposure to contaminated food and water
- Overcrowding in shelters
- Limited or no access to hygiene and sanitation services

Investigating Shigellosis Outbreaks Among People Experiencing Homelessness

Investigating these outbreaks requires tailored strategies to collect information and implement prevention measures. Specific considerations to keep in mind during an investigation include:

- People experiencing homelessness may move between encampment areas and shelters. Check with outreach workers if you aren't sure where to find someone.
- Some people experiencing homelessness may not want to be interviewed. Make sure to approach people with an understanding of their situation and with respect to the other priorities they might have.
- People experiencing homelessness may have difficulty getting medical care. Work with healthcare services to help them connect for follow-up care as needed.

Prevention Strategies

Health departments can work with local governments, health care providers, and homeless services to adopt strategies to prevent shigellosis outbreaks:

- Increase availability of handwashing sinks in homeless shelters and encampments or other locations where people experiencing homelessness spend time
- Increase accessibility of public restrooms in communities with large numbers of people experiencing homelessness
- Ensure that public restrooms and portable sanitation services are clean and well-maintained
- Distribute educational resources about personal and sexual hygiene in homeless sites or shelters
- Provide communication and preparedness resources promoting handwashing behavior change, food safety, and safe water practices
- Share information about *Shigella* infections by providing fact sheets and other communication materials.

PARTICIPANT FEEDBACK

We would greatly appreciate your feedback on today’s Tabletop Exercise. Please take a few moments to answer the questions below.

Name: _____

Organization/Department Affiliation: _____

Based on the discussions today, what were the top strengths identified?

Based on the discussions today, what were the top challenges or areas for improvement identified?

Based on the discussions today, please identify any equipment, training, policies, plans, and procedures that should be reviewed, revised, or developed.

Please provide any additional feedback on this exercise or on other training or exercise needs for Cambridge Public Health Department.

This Page Intentionally Left Blank.