

Module 2 - Public Health Preparedness

Objectives

- Define a public health emergency
- List examples of types of public health events and emergencies

Overview

Protecting the public from health threats involves *public health preparedness* as well as *medical preparedness*. Both are essential for national health security and, hence, to the overall preparedness of the nation.

- **Public health preparedness** is the ability of the *public health system, community, and individuals* to prevent, protect against, quickly respond to, and recover from health emergencies, particularly those in which scale, timing, or unpredictability threatens to overwhelm routine capabilities.
- **Medical preparedness** is the ability of the *health care system* to prevent, protect against, quickly respond to, and recover from health emergencies, particularly those whose scale, timing, or unpredictability threatens to overwhelm routine capabilities.

Public health threats can take many forms. They can result from a natural phenomenon such as a hurricane or tsunami, or they can be caused by human acts such as a large accident or terrorist event. Regardless of their origin, all public health emergencies have certain similar basic medical and public health consequences. However, the degree to which the emergency may impact the medical and public health infrastructure of a community or region may vary. Additionally, you may be called to serve during other public health events such as a flu pandemic, disease outbreak, or other community health related events.

The core of Massachusetts' public health emergency response is comprised of an indispensable group of volunteers willing to offer their time and experience during times of crisis. Everyone who is involved in planning and responding to a emergency, from the medical personnel on the front lines to the non-health professional volunteers, plays an important role and can have a major impact on helping victims and their families.



Definition of a Public Health Emergency

A Public Health Emergency is defined as an actual or imminent threat of injury, illness or health condition that is detrimental to public health and whose actual or reasonably suspected causes may include but are not limited to natural disaster; fire; bioterrorism; terrorism; outbreak of an infectious disease; chemical attack or accidental release; nuclear attack or accident; or any other circumstance that poses a serious danger to public health or to a substantial number of people.



Types of Emergencies

Emergencies can be categorized as follows:

- Natural
- Human-made or technological
 - Unintentional
 - Intentional

Natural Disasters

A natural disaster is a destructive change in the environment caused by natural phenomena. Some natural disasters are easily predicted, others happen without warning.

Natural disasters can include the following:

Geological

- Earthquakes
- Landslides
- Tsunamis
- Volcanoes

Weather

- Tornadoes
- Hurricane/cyclones
- Floods
- Blizzards and Ice Storms
- Heat waves
- Droughts

Public Health Emergencies

- Infectious disease outbreaks
- Food-borne illnesses
- Water-borne illnesses or contamination



Preparing for Natural Disasters

Planning what to do in advance is an important part of being prepared. It's important to find out which natural disasters are most common in your area. You may be aware of some of your community's risks; others may surprise you. People who understand disasters and know what to do before and after a disaster hits, can help to significantly reduce disaster related deaths and property damage.

Accidental Events

Accidental events are unplanned events that imperil life and property such as:

- Airplane or train crashes
- Hazardous material spills
- Building fire or collapses
- Nuclear power plant incidents



Intentional - Human-made or Technological Events

Intentional events include war, acts of terrorism and other threats to national security including the use of CBRNE agents. CBRNE stands for:

Chemical
Biological
Radiation
Nuclear
Explosives

CBRNE may also be referred to as weapons of mass destruction (WMD). These types of emergencies increasingly threaten the health and safety of people worldwide.

References and Resources

Emergency Preparedness and Response
CDC

<https://emergency.cdc.gov/>

Are You Ready?

www.fema.gov

Be Informed

<https://www.ready.gov/be-informed>

Ready America, U.S. Department of Homeland Security

Summary

- Protecting the public from health threats involves *public health preparedness* as well as *medical preparedness*.
- Emergencies can be categorized as
 - Natural
 - Human-made or technological
 - Unintentional
 - Intentional

Test Your Knowledge

2.1	<p>All public health emergencies result in similar basic medical and public health consequences regardless of their origin.</p> <ul style="list-style-type: none"><input type="checkbox"/> 1. True<input type="checkbox"/> 2. False
2.2	<p>What are examples of <i>natural</i> disasters? Choose one reply.</p> <ul style="list-style-type: none"><input type="checkbox"/> 1. Tsunamis, dirty bombs, and landslides<input type="checkbox"/> 2. Droughts, tornadoes, and hazardous material spills<input type="checkbox"/> 3. Volcanoes, sarin nerve gas attacks, and rockslides<input type="checkbox"/> 4. Bacterial meningitis outbreaks, floods, and volcanoes<input type="checkbox"/> 5. Electrical outages, seasonal flu, and chemical attacks
2.3	<p>Match the definition with the correct term.</p> <p>DEFINITIONS</p> <ul style="list-style-type: none"><input type="checkbox"/> 1. A destructive change in the environment by natural phenomena<input type="checkbox"/> 2. An accidental event that imperils life and property<input type="checkbox"/> 3. Weapons of mass destruction threatening the world's population<input type="checkbox"/> 4. An event that can include war, terrorism, and threats to national security <p>TERMS</p> <ul style="list-style-type: none">A. Unintentional DisasterB. Intentional DisasterC. Natural DisasterD. CBRNE

Correct Answers

2.1: 1

2.2: 4

2.3: 1-C, 2-A, 3-D, 4-B