

# The Role of an Environmental Health Professional in a Disaster

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Department of Health and Human Services

Centers for Disease Control and Prevention



Purpose: To create models for implementing information technology and training in support of bioterrorism preparedness and emergency response.

# Disaster Denial Paradigm

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- It isn't going to happen.
- If it happens, it will not be as bad as they said it would be.
- If it happens, and it is as bad as they said, it will not happen to me.
- If it happens and it is as bad as they said, and it happens to me, then someone has planned for it and is coming to help.

# What is a Public Health Emergency?

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The occurrence of an incident that:

- Has a serious public health impact;
- Requires immediate intervention;
- Is unusual or unexpected; and
- Will likely result in the spread of an infectious or hazardous agent

Source: modified from

[www.health.gov.bc.ca/phact/glossary.html](http://www.health.gov.bc.ca/phact/glossary.html)



# Why Are We Concerned

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- Natural & man-made emergencies/ disasters can occur anywhere and frequently do
- Incidents can affect human health, lives and the infrastructure that supports society



# List of Hazards-Natural

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- Hurricane
- Earthquake
- Tsunami
- Avalanche
- Volcanic Eruption
- Landslide
- Fires
- Tornado
- Flood
- Severe Wind Storm
- Severe Winter Storm
- Hail Storm
- Drought
- Extreme heat

# List of Hazards- Man-made or Technological

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- Dam or Bridge Failure
- Power Outage/Failure
- Infectious Disease
- Transportation Accidents
- Terrorist Conventional Bomb
- Chemical Terrorism
- Contaminated Water Supply
- Contaminated Food Supply
- Hazardous Material Incident
- Radiological Incident
- Biological Terrorism
- Nuclear Detonation
- Cyber Terrorism

# Defining Key Terms

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- **Disaster** overwhelms the affected community and requires outside assistance
- **Emergency** is not a disaster in itself, but an event requiring immediate response

# Disaster



# Emergency

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# General Environmental Public Health Emergency Response Actions

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- Primary responsibility for the “health” of a community
- Includes basic services such as food safety, water supply, shelter, sanitation & waste management



# Immediate Environmental Public Health Emergency Response Actions

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- A rapid initial qualitative assessment to collect information needed to begin an appropriate and timely response





# Specific EH Functional or Topic Areas

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- Food/waterborne outbreak investigation
- Water safety & supply
- Food safety
- Sanitation
- Mass care
- Vector control
- Solid waste
- Worker Safety/PPE
- Hazardous waste
- Household hazardous waste
- Medical/infectious waste
- Chemical incident
- Radiological incident
- Flood
- Tornado/wind damage

# 14 EH Core Competencies

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- Information Gathering
- Evaluation
- Economic/Political Issues
- Project Management
- Reporting/Documentation
- Educate
- Conflict Resolution
- Data Analysis
- Problem Solving
- Organizational Knowledge & Behavior
- Computer/Information Technologies
- Collaboration
- Communicate
- Marketing

# Key Core Competencies

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- Organizational Knowledge/Behavior
- Collaboration
- Problem Solving
- Information Gathering
- Communication

# Organizational Knowledge & Behavior

## What does it Mean?

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*The capacity to function effectively within the culture of the organization and to be an effective team player.*

# Organizational Knowledge & Behavior

## Why is it Important?

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To strengthen the  
EH team's  
performance  
during a disaster



# Organizational Knowledge & Behavior

## What is the EHP Role?

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- Understand ICS and how environmental health and your emergency response plan work within ICS
- Read/understand the procedures in your emergency response plan



# Organizational Knowledge & Behavior

## How do you build Organizational Knowledge?

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- Ensure your staff is trained in ICS
- Meet with your jurisdiction's Dir. Of Emergency Mgt. to discuss & review roles for environmental health within ICS
- Know how your jurisdiction's emergency plan works, your roles within it, and how it ties into ICS

# Organizational Knowledge & Behavior

## Keep Your Team Safe!

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- Take mental health breaks
- Always use a buddy system
- Limit the number of response hours worked



# Collaboration

## What does it Mean?

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*The capacity to form partnerships and alliances with other individuals and organizations in order to enhance performance on the job.*

# Collaboration

## Why is it Important?

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A multidisciplinary team of knowledgeable and experienced experts working together is essential for effective and timely response and recovery

# Collaboration

## What is the EHP Role

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- Make relationship building part of your routine
- Work with others involved with emergency preparedness and response efforts
- Be firm in your convictions

# Problem Solving

## What does it Mean?

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*The capacity to develop insight into and appropriate solutions to environmental health problems.*

# Problem Solving

## Why is it Important?

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- Your expertise & experience make you uniquely qualified to ID and solve problems
- Your proactive involvement is critical to keeping the public safe and healthy



# Problem Solving

## What is the EHP Role?

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- ID current & potential problems
- Propose solutions and actions
- Prioritize actions
- Prevent future problems



# Problem Solving

## Decision Making with Incomplete Information

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- In a chaotic situation, you can receive limited or inaccurate information
- Understand your threshold for making decisions with minimal or no data
- When you lack sufficient data, use common sense



# Information Gathering

## What does it Mean?

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*The capacity to identify sources and compile relevant and appropriate information when needed, and the knowledge of where to go to obtain the information.*

# Information Gathering

## Why is it Important?

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- Assessing risk and damage is critical to the health & safety of victims and responders
- The assessment begins with information gathering

# Information Gathering

## What is the EHP Role?

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- Continuous effort due to changing circumstances
- Think outside the box
- Be creative
- Work alone or with partners



# Information Gathering

## Getting Started

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- What information do you need?
- Where will you find the information?
- How will you gather the information?
- What will you do with the information once you find it?

# Information Gathering Techniques



- Conduct initial overview inspections of affected area(s)
- Keep a running list of inspected area(s) & collected information
- Develop a checklist to ensure consistent assessment

# Communication

## What does it Mean?

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*The capacity to effectively communicate risk and exchange information with colleagues, other practitioners, clients, policy-makers, interest groups, media, and the public through public speaking, print and electronic media, and interpersonal relations.*

# Communication

## Why is it important?

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- Frequent communication prevents **chaos** and is essential to successful disaster/emergency response and recovery



# Communication

## What is the EHP Role?

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- Routinely communicate with team members
- Ensure accuracy of messages
- Be prepared to provide emotional support
- Develop good listening skills



# Communication Tips & Techniques

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- Ensure the accuracy of your messages
- Use simple tools for immediate messaging
- Develop good listening skills





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By Doing a Great Job During a Disaster,  
The Reputation of EH will not end up Here

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