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Emergency and Disaster Definitions

- **Disaster** overwhelms the affected community and requires outside assistance
- **Emergency** is not a disaster in itself, but an event requiring immediate response
- The role of an EHP in responding to a disaster or an emergency is essentially the same
Storytelling
Purpose: To create models for implementing information technology and training in support of bioterrorism preparedness and emergency response.

Technical Topics in Module I

1. Outbreak investigation
2. Water safety
3. Food safety
4. Sanitation (sewage)
5. Mass care
6. Solid waste mgt
7. Vector control
8. Hazardous Materials
9. Household Hazardous Waste
10. Hazardous Waste
11. Medical/Infectious Waste
12. Chemical Incidents
13. Radiological Incidents
Story Based

14 EH Core Competencies

- 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

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

Organizational Knowledge & Behavior
What does it Mean?

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?

To strengthen the EH team’s performance during a disaster

Organizational Knowledge & Behavior
What is the EHP Role?

- 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?

- 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!

- Take mental health breaks
- Always use a buddy system
- Limit the number of response hours worked
Collaboration
What does it Mean?

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?

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

- 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?

*The capacity to develop insight into and appropriate solutions to environmental health problems.*
Problem Solving
Why is it Important?

- 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?

- ID current & potential problems

- Propose solutions and actions

- Prioritize actions

- Prevent future problems
Information Gathering
What does it Mean?

_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?

- 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?

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

Communication
What does it Mean?

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?

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

Communication
What is the EHP Role?

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

- It isn’t going to happen.
- If it happens, it will not be 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.
EH Professional Activities

- Performs inspections
- Provides tools and education to implement and maintain standards
- Conducts special studies
- Samples air, water, soil and food
- Reviews plans
EH Professional Activities (Cont.)

- Acts as an educator
- Plans programs
- Acts as a consultant to civic groups, business, industry and individuals
- Enforces environmental and public health laws
Types of Disasters

- Hurricanes
- Earthquakes
- Tornadoes
- Floods
- Drought
- Volcanoes
- Landslides
- Wind Storms
- Wild Fires
- Extreme Temperatures

Environmental Health

The science and art of:
- identifying agents of disease or injury,
- designing and implementing programs to prevent transmission of the agent in the environment, and
- protecting people from exposure to the agent.

Minnesota Department of Health
Environmental Protection

The science and art of:
- identifying threats to environmental quality,
- designing and implementing programs to prevent degradation of the environment, and
- preventing environmental contamination or degradation.

Minneapolis Department of Health

A range of action to protect public health

- Food safety
- Lodging safety
- Recreational water quality
- Public pool safety
- Lead hazard control
- Water quality
- Wastewater management
- Outdoor air quality
- Indoor air quality
- Sustainable design
- Public health nuisance control
- Solid waste management
- Hazardous waste management
- Housing regulation
- More
Protecting Public Health

- **Surveillance**: look for disease/condition
- **Identify** the source
- **Act** to disrupt transmission of disease/condition

This works for biological, chemical, and physical causes of illness and injury

Chain of Disease Transmission

“R.E.T.E.R.”

- Reservoir
- Exit Route
- Mode of Transmission
- Entry Route
- Receptive Host
### Top 10 Natural Disasters - Number Killed:

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<thead>
<tr>
<th>Disaster type</th>
<th>Date</th>
<th>No Killed</th>
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<tbody>
<tr>
<td>Wind Storm</td>
<td>8-Sep-1900</td>
<td>6,000</td>
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<td>Earthquake</td>
<td>18-Apr-1906</td>
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<td>Wind Storm</td>
<td>Sep-1928</td>
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<td>Wind Storm</td>
<td>29-Aug-2005</td>
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<td>Extreme Temperature</td>
<td>Jul-1936</td>
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<td>Wild Fires</td>
<td>15-Oct-1918</td>
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<td>17-Mar-1925</td>
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<td>Flood</td>
<td>Mar-1913</td>
<td>732</td>
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<tr>
<td>Extreme Temperature</td>
<td>14-Jul-1995</td>
<td>670</td>
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<tr>
<td>Wind Storm</td>
<td>Sep-1938</td>
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### Top 10 Natural Disasters - Number Affected:

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<td>Wind Storm</td>
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<td>Epidemic</td>
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<td>Wind Storm</td>
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<td>Wind Storm</td>
<td>23-Sep-2005</td>
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<td>Wind Storm</td>
<td>24-Aug-1992</td>
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<td>Wind Storm</td>
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<tr>
<td>Flood</td>
<td>15-Jan-1996</td>
<td>200,000</td>
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By Doing a Great Job, 
The reputation of EH will not end up Here