



**Disaster Response**

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**Part 1**  
**Types of Disasters**

Rick Bissell, PhD  
University of Maryland  
Baltimore County

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**Introduction**

This session is designed to provide the response team member with an understanding of disasters and disaster response.



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**Introduction**

- **Part 1**
  - Define disaster
  - Review the types of disasters
- **Part 2**
  - Describe the life cycle of a common disaster
  - Identify the response activities associated with each phase of a disaster life cycle

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## Objectives

By the conclusion of this session, you should be able to:

- Recognize what constitutes a disaster.
- Identify the types of disasters in relation to natural, technological or human-made events.
- Identify the life cycle phases of a common disaster and the related response activities.



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## Disasters by Definition

“Disaster is an event, concentrated in time and space, in which a society, or a relatively self-sufficient subdivision of a society, undergoes severe danger and incurs such losses to its members and physical appurtenances that the social structure is disrupted and the fulfillment of all or some of the essential functions of the society is prevented.” (Fritz, 1961,p.655)



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## Disasters by Definition

A disaster is an event that overwhelms the local jurisdictions ability to respond effectively to protect the health and well being of the public.



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## Types of Disasters

- Natural disasters
- Technological or Human made
- Intentional
- Population





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## Types of Disasters



**Natural**

- Geological
  - Earthquake
  - Landslide
  - Tsunamis
  - Volcano

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## Types of Disasters



**Natural**

- Weather
  - Tornadoes
  - Hurricanes/cyclones
  - Floods
  - Cold environments
  - Heat waves
  - Droughts

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## Types of Disasters

**Technological or Human-made**

- **Intentional**
- **Unintentional**
  - Hazardous materials
  - Transportation
  - Fire
  - Famine




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## Types of Disasters

**Technological or Human-made**

- **Intentional**
  - Terrorism
    - Biological
    - Chemical
    - Other WMD
  - War

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## Types of Disasters

**Population**

- Refugees
- Internally Displaced Populations (IDPs)

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## Types of Disasters

**Population**

- **Mass gatherings**
  - Introduce special problems
  - Can constitute a disaster
    - If planners have not pre-planned and mitigated for certain circumstances



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## Vulnerability to Disaster

**Environmental Geographical Considerations**

- Coastal areas are prone to hurricanes.
- West coast has shakes with seismic activity.
- Tornado alley is plagued by a barrage of twisters.



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## Vulnerability to Disaster

**Technology/Human-made considerations**

- **Unintentional**
  - Populations near hazardous material industries
  - Populations close to transportation lines
- **Intentional**
  - All populations at risk
  - Not dependent on location

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## Predictability of Disasters

Type of Disaster	Predictability
Natural	↑ HIGHER
Geographical	
Human-made	
Unintentional	↓ LOWER
Human-made	
Intentional	



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## Disasters and the Population

Disaster in an area of **high population density**, increases the chance where the number of injured exceeds the local resources.



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## Disasters and the Population

Areas with **less resources** prior to a disaster are dramatically affected. They quickly exceed available resources.



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## Disasters and the Population

When local resources are no longer sufficient to meet disaster response needs, State or Federal resources are deployed.



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## Classifications of Disasters

- Local disaster
- Regional disaster
- Federal disaster



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## Local Disasters



- Limited geographic area effected.
- Local medical resources may be overwhelmed.
- Infrastructure left intact.
  - Government
  - Public services
- Little or no community disruption.



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## Regional Disasters

- **Community's infrastructure is damaged to a varying extent.**
  - Community resources are overwhelmed.
  - Governmental infrastructure is still functional but not at the previous level.
- **Greater geographic area effected than in a local disaster.**



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## Federal Disasters

- **Government and public services infrastructure is completely or significantly damaged and becomes non-functional.**
  - State requests Federal resources.
  - President and Federal government agree to provide resources.
- **Federal institution or installation is the target of a disaster event.**



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## Disaster Dynamics

- **The physical impact of a disaster is not always evenly distributed.**
- **The economic effect of a disaster can have a differential effect.**
- **The distribution of disasters is changing worldwide.**
  - Increasing settlement in vulnerable areas
  - Increasing population density
  - Changing global climate



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## Disaster Vulnerability

- In developing countries, people live in more exposed areas and high risk zones.
  - Beaches
  - Hillside areas



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## Disasters and the Media



### Media coverage

- Provides real time news
- Distributes information to more people
- Increases awareness of occurrences
  - Extreme events
  - Impact on living conditions
- Affects the amount of relief and resources channeled to community

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## Disasters and the Future

Technological and human-made disasters are increasing in frequency.



### Terrorist Threats

- Weapons of mass destruction
- Emerging diseases

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**Summary**

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**Types of Disasters**

- Natural
- Technological
- Intentional
- Population Emergencies



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**Summary**

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**Predisposition to Disasters**

- Coastal-hurricane
- West coast-earthquake
- Midwest-tornadoes
- Areas with low level of resources



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**Summary**

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- **Local Disaster** - little or no disruption
- **Regional Disaster** - infrastructure damaged to varying degree
- **Federal Disaster** - government and public services infrastructure completely or significantly damaged and becomes nonfunctional



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