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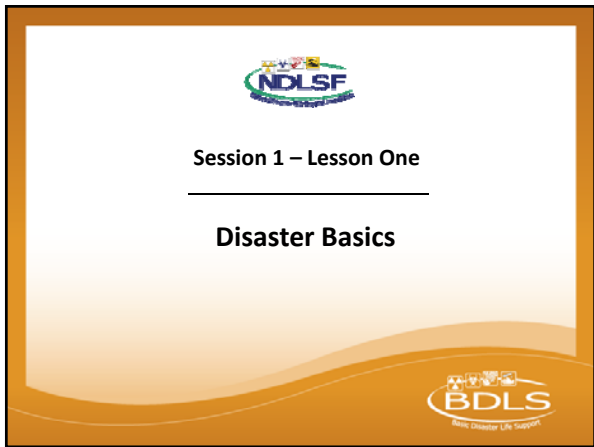
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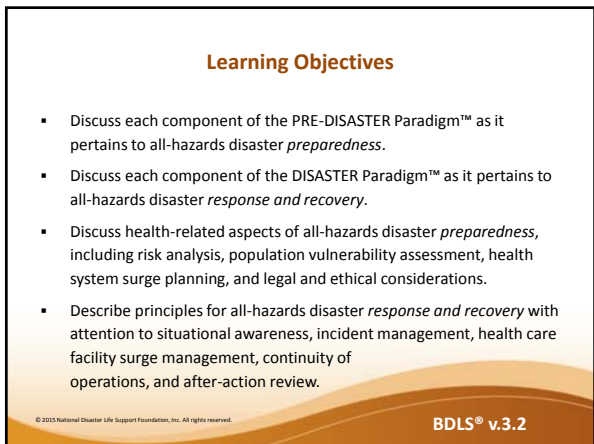
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### Background

- Over **200 million disaster** deaths occurred worldwide in the last century
- Health professionals play a critical role in disasters
- All-hazards principles and practices are important



Michael Rieger/FEMA

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### What is a disaster?

“An event and its consequences that result in a serious disruption of the functioning of a community or a society because widespread human, material, economic or environmental losses and/or damage that exceed the capacity of the affected area to respond without external assistance to save lives, preserve property, and maintain the stability and integrity of the affected area.”

**Operational Definition**  
**Disaster = Needs > Resources**

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### Categories of Disaster



Natural      Human Systems Failure      War and Conflict

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### All-Hazards Preparedness

A uniform approach to prepare and respond to any given hazard or event that may affect the community regardless of cause...

... to do the greatest good for the greatest number of potential survivors



Thinkstock

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### The PRE-DISASTER Paradigm™

**P**lanning and Practice

**R**esilience

**E**ducation and Training

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### PRE-DISASTER Paradigm™ Planning and Practice

- At-risk populations
- Identify stakeholders
- Develop a valid plan
- Training and education/ exercise and drills
- Plan review and revision



Aaron Skolnik/FEMA

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**PRE-DISASTER Paradigm™**  
**Planning and Practice**

**Risk Analysis**

Assess potential vulnerabilities → Understand the consequences

When we understand our vulnerabilities, we can mitigate and plan for them

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**PRE-DISASTER Paradigm™**  
**Planning and Practice**

**Continuity of Operations**

- Each stakeholder must identify mission-critical functions to meet the demands
- Contingency planning must support these mission-critical functions

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**PRE-DISASTER Paradigm™**  
**Planning and Practice**

**Health System Surge**

- **Surge capacity**  
Where do you put the extra patients?
- **Surge capability**  
How do you take care of them?

Space  
↓  
Staffing  
↓  
Supplies  
↓  
Systems

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**PRE-DISASTER Paradigm™**  
**Planning and Practice**

- Plans must follow legal and ethical principles
- Plans are guided by acceptable scientific and medical practice
- Plans must aid decision making



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**PRE-DISASTER Paradigm™**  
**Resilience**



Tim Burkitt/FEMA



Ruth Kennedy/FEMA

*Ability of individuals and communities to adapt and overcome adversity due to disaster*

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**PRE-DISASTER Paradigm™**  
**Education and Training**

- Essential to the workforce and **community**
- Competency based
- Standardized
- Setting performance expectations



Ruth Kennedy/FEMA

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**The DISASTER Paradigm™**

**D**etection

**I**ncident Management

**S**afety and Security

**A**ssess Hazards

**S**upport

**T**riage and Treatment

**E**vacuation

**R**ecovery



Yuisa Rios/FEMA

Always ask

**Are my needs > resources?**

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**The DISASTER Paradigm™**  
**Detection**

- Situational awareness:
  - Is a disaster present?
  - What has happened?
  - What is needed now?
  - Whom should I call?



Casey Deshong/FEMA

**Detection is awareness!**

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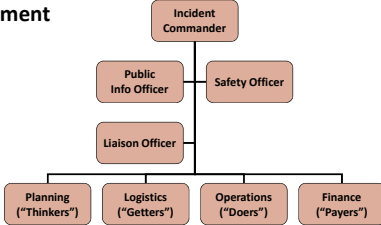
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**The DISASTER Paradigm™**  
**Incident Management**



National Incident Management System

Emergency Management Command and Control

Improves Coordination and Communication and Reduces Redundancy

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**The DISASTER Paradigm™  
Incident Management**



Elissa Jun/FEMA

Make effective use of technology

Communication is challenging:

- Establish plans and protocols
- Establish key relationships
- Understand the equipment
- Drill and exercise

**Information Sharing**  
Effective = Timely + Accurate

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**The DISASTER Paradigm™  
Incident Management**

- Educate and inform the community
- Reduce fear and panic
- Guide and direct
- Controlled message

**Risk communication  
is important and vital**

**One voice ... one message.**

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**The DISASTER Paradigm™  
Safety and Security**

Priorities:

- 1<sup>st</sup> – Self and team
- 2<sup>nd</sup> – Uninjured public
- 3<sup>rd</sup> – Casualties
- 4<sup>th</sup> – Environment

Action steps: mitigate a dangerous or threatening situation

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### The DISASTER Paradigm™ Assess Hazards

**environmental exposure**

contamination  
animals and insects  
motor vehicle crashes  
structural collapses/collapse  
blood / body fluid exposure  
secondary explosive devices  
equipment related injuries  
strike and toxic gases  
fire  
downed power lines  
ruptured gas lines  
communication  
air / water  
flooding

hazardous materials release  
disruption

**Recognition** of likely causes of safety and security concerns

**Risk** of causing additional casualties

Sean Covant, MD/ Preston Fedor, MD  
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### The DISASTER Paradigm™ Support

**Support is logistics:**

- **What** do I have?
- **What** is needed?
- **Where** is it?
- **When** will it arrive?
- **What** if it is unavailable?



Don Jacks/FEMA

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### The DISASTER Paradigm™ Triage and Treatment

**Disaster triage must...**

- Work with a large number of casualties
- Be easily performed
- Prioritize both treatment and transport
- Be standardized

**TRIAGE TAG**

Scene Observations

Chemical  
 Biological  
 Radiological  
 Explosive  
 Other

Treatment

Name \_\_\_\_\_

Unit \_\_\_\_\_

Notes \_\_\_\_\_

DECEASED

EXPECTANT

Minimal

Delayed

Immediate

Tom Lehman, NTC-W

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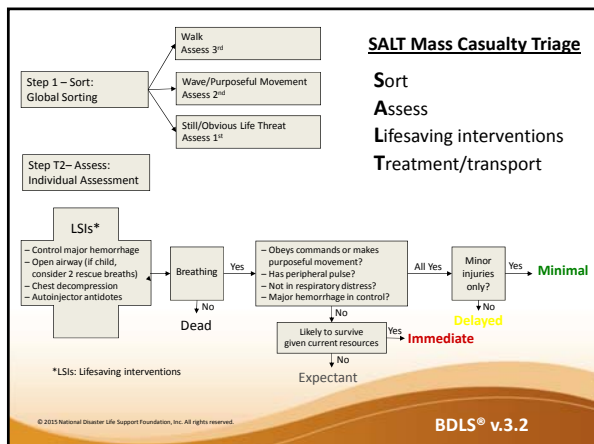
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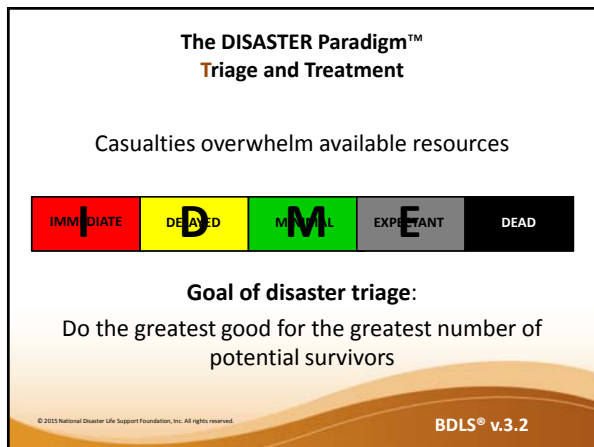
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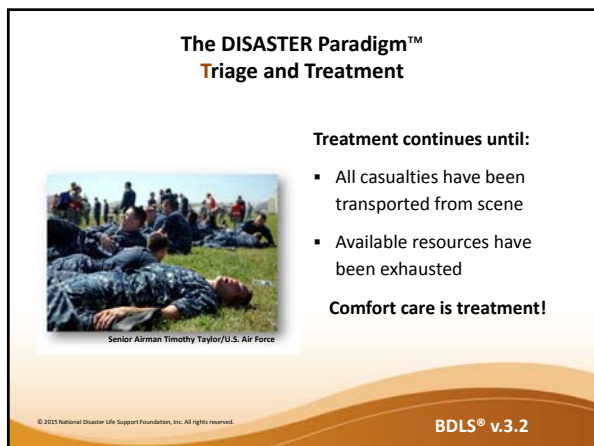
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**Special Considerations**

- Unique or special medical needs populations
  - Age: Including the very young and the very old
  - Functional or access needs secondary to motor, sensory and cognitive limitations
- Unique social situations
  - Cultural, religious, or ethnic communities
  - Language usage
  - Rural or isolated communities

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**The DISASTER Paradigm™  
Evacuation**



Win Henderson/FEMA

- Relocation due to disaster
- Getting affected to safety
- Transportation methods

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**PRE-DISASTER Paradigm™  
Recovery**

**Following disaster, community needs:**

1. Relief
2. Rehabilitation
3. Restoration



Leo Anderson and Steve Sumwalt/FEMA

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