

Lesson One



Disaster Basics



Learning Objectives

- Discuss each component of the PRE-DISASTER Paradigm™ as it pertains to all-hazards disaster *preparedness*.
- Discuss each component of the DISASTER Paradigm™ as it pertains to all-hazards disaster *response and recovery*.
- Discuss health-related aspects of all-hazards disaster *preparedness*, including risk analysis, population vulnerability assessment, health system surge planning, and legal and ethical considerations.
- Describe principles for all-hazards disaster *response and recovery* with attention to situational awareness, incident management, health care facility surge management, continuity of operations, and after-action review.

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



What is a disaster?

“An event and its consequences that result in a serious disruption of the functioning of a community and cause widespread human, material, economic, or environmental losses 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

Categories of Disaster



Natural



Human
Systems Failure



War and
Conflict



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



The **PRE-DISASTER** Paradigm™

Planning and Practice

Resilience

Education and Training

PRE-DISASTER Paradigm™

Planning and Practice

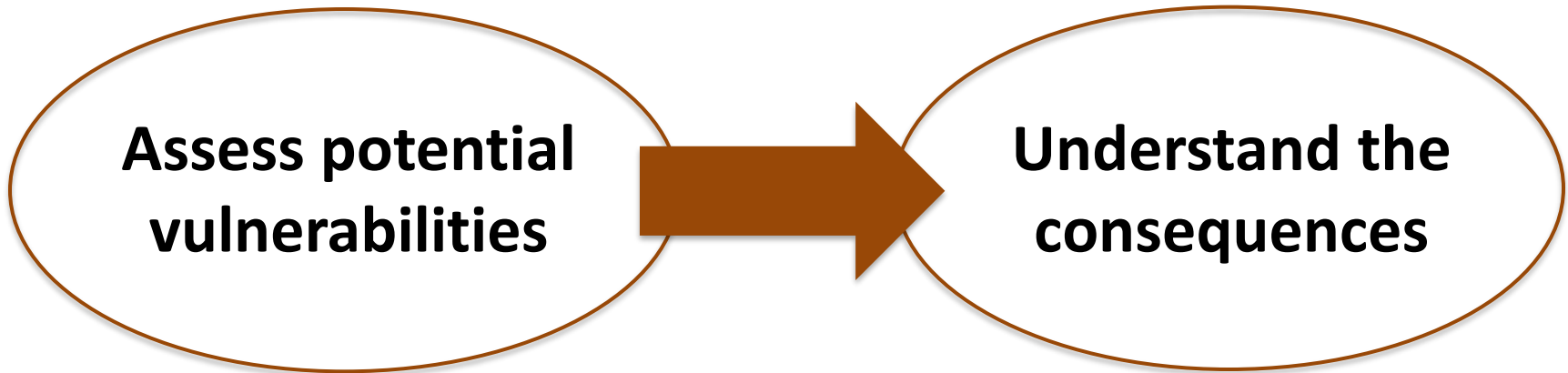
- At-risk populations
- Identify stakeholders
- Develop a valid plan
- Training and education/
exercise and drills
- Plan review and revision



PRE-DISASTER Paradigm™

Planning and Practice

Risk Analysis



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

PRE-DISASTER Paradigm™

Planning and Practice

Thinkstock

Continuity of Operations

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

PRE-DISASTER Paradigm™

Planning and Practice

Health System Surge

- **Surge capacity**

Where do you put the extra patients?

- **Surge capability**

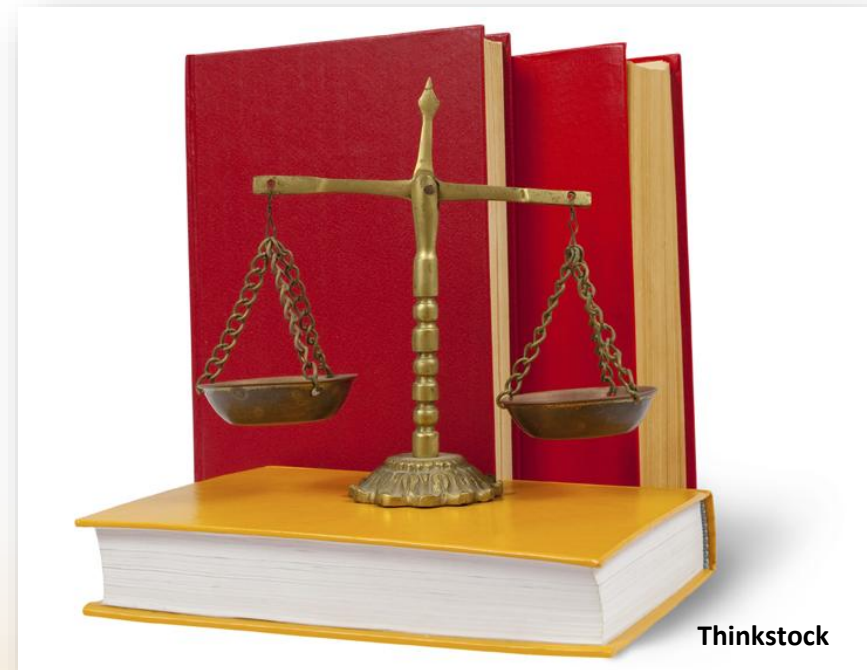
How do you take care of them?



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



PRE-DISASTER Paradigm™

Resilience



Tim Burkitt/FEMA



Ruth Kennedy/FEMA

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

PRE-DISASTER Paradigm™

Education and Training

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



The DISASTER Paradigm™

D etection
I ncident Management
S afety and Security
A ssess Hazards
S upport
Triage and Treatment
E vacuation
R ecovery



Always ask
Are my needs > resources?

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Detection

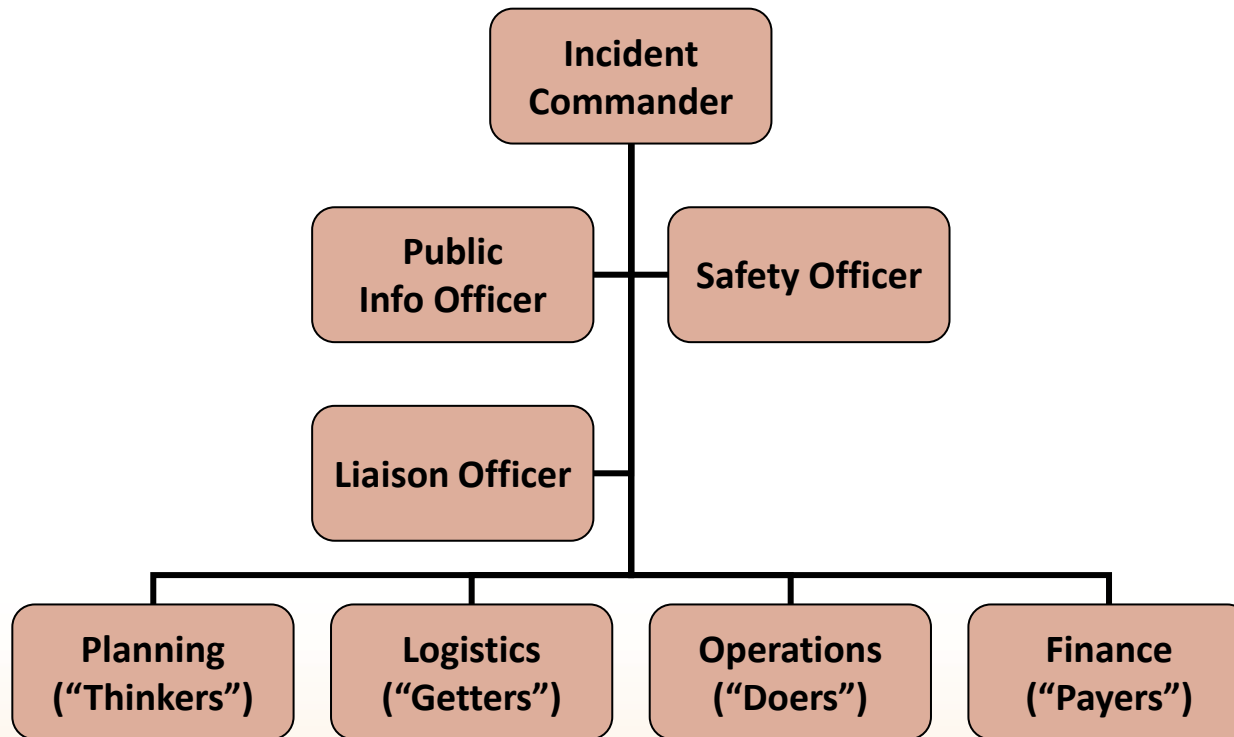
- **Situational awareness:**
 - ❖ Is a disaster present?
 - ❖ What has happened?
 - ❖ What is needed now?
 - ❖ Whom should I call?



Detection is awareness!

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Incident Management



National Incident Management System

The DISASTER Paradigm™

Incident Management



Make effective use of technology

Information Sharing

Effective = Timely + Accurate

Communication is challenging:

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

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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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Safety and Security

Priorities:

1st – Self and team

2nd – Uninjured public

3rd – Casualties

4th – Environment

Action steps: mitigate a dangerous or threatening situation

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Assess Hazards



Recognition of likely causes of safety and security concerns

Risk of causing additional casualties

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Support

Support is logistics:

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



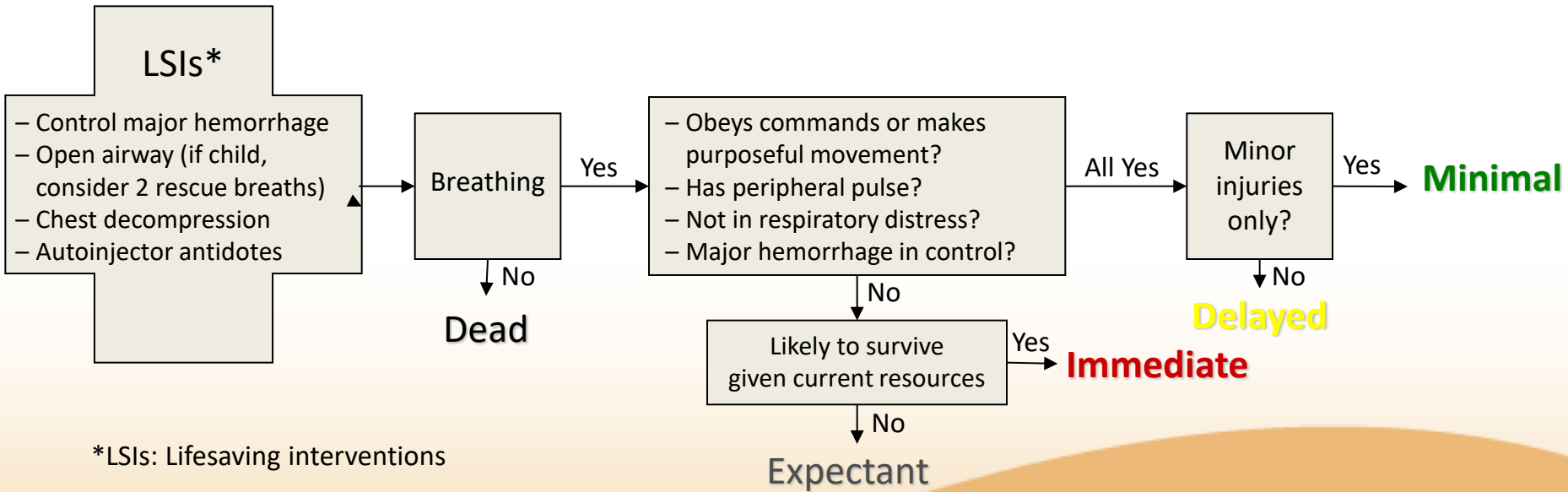
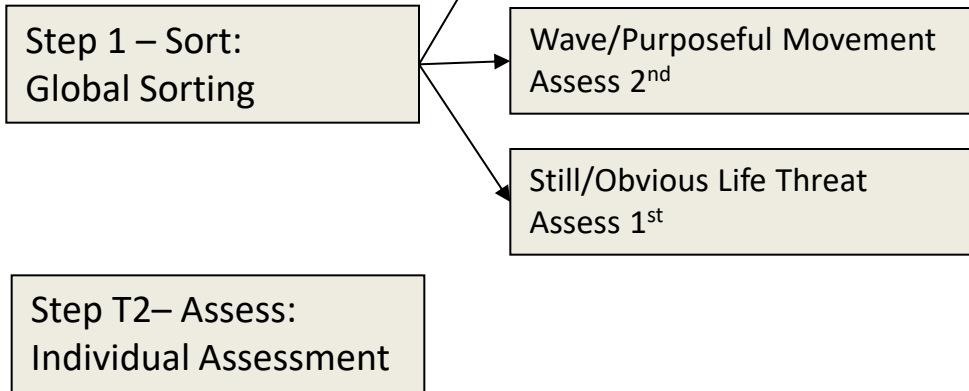
SALT Mass Casualty Triage

Sort

Assess

Lifesaving interventions

Treatment/transport



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Triage and Treatment

Casualties overwhelm available resources



Goal of disaster triage:

Do the greatest good for the greatest number of potential survivors

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Triage and Treatment



Treatment continues until:

- All casualties have been transported from scene
- Available resources have been exhausted

Comfort care is treatment!

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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Evacuation



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

PRE-DISASTER Paradigm™

Recovery

Following disaster, community needs:

1. Relief
2. Rehabilitation
3. Restoration



PRE-DISASTER Paradigm™

Recovery

After-Action Review (AAR)

- Structured analysis of disaster response
- Done as soon as possible
- Identify gaps and weaknesses



**AAR is a duty
not an option!**

Planning and Practice
Resilience
Education and Training
Detection
Incident Management
Safety and Security
Assess Hazards
Support
Triage and Treatment
Evacuation
Recovery



Are my needs > resources?

Question 1

Approximately how many disaster-related deaths occurred in the last century?

- a. 100,000
- b. 200,000
- c. 120,000,000
- d. 200,000,000

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Question 2

Which of the following is NOT a category of disasters?

- a. Human systems failure
- b. Natural
- c. War and conflict
- d. Drowning
- e. All are disaster categories

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Question 3

Which of the following does the “P” in the PRE-DISASTER Paradigm™ represent?

- a. Planning and preparation
- b. Planning and priorities
- c. Planning and practice
- d. Planning and participation

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Lesson Summary

- A standardized, competency-based approach to disaster training and education is important
- Utilizing an all-hazards disaster approach is important to planning and preparation
- The PRE-DISASTER Paradigm™ and DISASTER Paradigm™ are helpful learning and organizational tools



Questions?