Chapter Objectives

- Know the response phase in the context of comprehensive emergency management and "command post" misunderstanding of emergency managers
- Define the response phase and identify the major activities typically undertaken
- Describe the process of issuing disaster warnings and identify the characteristics of effective disaster warnings that lead people to take appropriate protective actions
- Discuss the myths about how individuals, organizations and communities respond to disasters and source(s) of the myths
Contrast myths with research-based findings on how individuals, organizations and communities respond to disasters and identify sources of and limitations to resilience.

Situate the response phase in an international context and identify relevant issues to consider in applying research findings to developing countries.

Identify the most common problems that arise during the response phase and discuss effective principles of emergency management to overcome those challenges.
Myths about how people behave in disaster, all assume:
- Chaos
- Social breakdown
- Irrationality
- Helplessness

Reality of how people respond to disasters is different
- Individuals are resourceful
- Organizations are adaptive
- Communities are resilient

Effective disaster response emphasizes:
- Coordination
- Communication
- Flexibility
The Command Post View of Emergency Management

- People envision an Emergency Manager as:
  - Working in an ultra-modern, high-tech EOC
  - Monitoring several information sources simultaneously
  - Fielding non-stop telephone calls from the field
  - Making split-second, life-saving decisions
- The opinion:
  - Ignores the other phases of disaster
  - Assumes need for command and control
  - Envisions chaos
The Command Post View of Emergency Management (Cont.)

- Ignores the other phases of disaster
  - Emergency Managers spend time across all four phases
    - Actual disaster events are rare
    - Emergency Managers have numerous job responsibilities
  - However, Emergency Managers spend considerable time thinking about response activities
    - Efforts spent in other phases will pay dividends when it comes to responding to actual disasters
The Command Post View of Emergency Management (Cont.)

- Envisions chaos
  - Disaster myth assumes the need for a strong leader to make the right decisions to keep everyone in line
  - History indicates there will be “order in disorder” or “organized-disorganization”
    - Individuals, communities and organizations are incredibly resilient
The Command Post View of Emergency Management (Cont.)

- Assumes need for command and control
  - Assumption based on the notion that disasters create chaos and that society is fragile
  - Envisions post-disaster environment as a war-time scenario
    - Thus, drives a military model view of control
  - Reality is that Emergency Managers are more effective when coordinating and communicating vice commanding and controlling
    - Decentralized, flexible, problem-solving approach better than rigid, hierarchical and centralized approach
Getting Started: Defining Response

- **Response phase** is defined as activities "...designed to provide emergency assistance for casualties...seek to reduce the probability of secondary damage...and to speed recovery operations" (National Governor’s Report 1979)
- **Disaster response activities** are defined as "...actions taken at the time a disaster strikes that are intended to reduce threats to: life safety, care for victims and contain secondary hazards and community losses.“ (Tierney, Lindell and Perry, 2001)
There are two sets of demands that Emergency Managers must address during the response phase:

- **Disaster-induced demands**
  - Involve the need to care for victims and deal with physical damage and social disruption caused

- **Response-induced demands**
  - Include the need to coordinate activities of the multitude of individuals and organizations involved in the response
Drabek (1986) separates response activities into two sub-phases:

- **Pre-impact mobilization:**
  - Warning the public
  - Initiating evacuation
  - Establishing shelters
  - Mobilizing personnel, resources, etc.

- **Post-impact emergency actions:**
  - Search and rescue
  - Providing medical care to the injured, etc.
Tierney et al. (20015) categorizes four related activities:

- **Emergency Assessment**
  - Monitoring hazards
  - Damage assessment

- **Expedient Hazard Mitigation**
  - Sandbagging
  - Boarding windows

- **Protective Response**
  - Search and rescue
  - Emergency medical services
  - Sheltering

- **Incident Management**
  - Activating EOC
  - Inter-agency and inter-governmental coordination
Disaster Warnings

- Critical **first step** in the response phase
- Disasters vary in length of forewarning (**examples?**)
  - Public must be educated about the hazards in their communities
- Warnings can be considered both a preparedness and response activity
- Goal is to lessen the burden on emergency management and first responders
- Disaster warnings have been studied for years
  - Public officials continue to develop ineffective warning systems
The Warning Process

- Hurricane Katrina
  - Many people did not evacuate
  - **Assumptions**:
    - Everyone in impacted area received warning messages
    - That the messages were clear and interpreted the same way by everyone who received them
    - The residents had a level playing field in terms of ability to evacuate
The Warning Process (Cont.)

Hurricane Katrina (Cont.)

- **Reality:**
  - People do not always receive and interpret warning messages in the same manner
  - Messages are not always effectively worded and delivered
  - Social factors impact the ability of people to heed warnings and take protective actions
    - Socioeconomic status
    - Disability
The Warning Process (Cont.)

- Warning is a social process involving several steps
  - Receiving the warning
  - Understanding the warning
  - Believing the warning is credible
  - Confirming the threat
  - Personalizing the threat
  - Determining if protective action is needed and feasible
  - Taking protective action

Sources: Mileti 1999; Sorensen & Vogt Sorensen 2006, ; National Research Council 2010,
Taking Protective Action

- The nature of the hazard determines what protective actions are appropriate
- The primary protective actions are:
  - Temporary public sheltering
  - Evacuating
Evacuation and Temporary Sheltering

- Sheltering and housing activities span all phases of disasters
- **Sheltering in place**
  - Common in tornadoes and hazardous materials releases
  - Warning message provides specific instructions (i.e. shelter in a basement or safe room, keeping windows closed, etc.)
- Temporary public sheltering
  - Urges people to evacuate their homes and go to designated locations for safety
    - Churches
    - School gyms
    - Large arenas and stadiums
    - Convention centers
Evacuation and Temporary Sheltering (Cont.)

- Major research into public sheltering shows:
  - Few people show up at shelters during and immediately after disasters
  - Most people just stay put
  - Usage rates tend to be relatively low because of people’s reliance on friends and family
  - Many Emergency Managers over-estimate the amount of shelter use
  - New shelters should be opened “as-needed” as existing ones begin to fill up
Factors Affecting Evacuation and Public Shelter Usage

- Protective actions are more likely to be taken when there are higher levels of overall community preparedness.
- Those more likely to take protective action include:
  - Women
  - Non-minorities
  - Households with:
    - Children present
    - Higher levels of education and socioeconomic status
    - Knowledge about and heightened perception of risk
    - Higher levels of community involvement
Factors Affecting Evacuation and Public Shelter Usage (Cont.)

- Impediments to evacuating and using public shelters include:
  - Fear of looting
  - Pet/service animal ownership
  - Physical disabilities
  - Ineffective warnings
    - Too vague
    - Contradictory
    - Weather or other alerts with no consideration for the hearing impaired
Characteristics of Effective Disaster Warnings

- Effective warning messages persuade those who receive them to take protective actions
  - Established warning systems
    o Outdoor sirens
    o Emergency alert system (TV, radio, etc.)
  - Newer warning technologies – Why could these be a problem?
    o Cell phones
    o SMS/text alerts
    o Social media (Facebook, Twitter)
- Very little is known about how and to what extent people use new technologies during disasters
Characteristics of Effective Disaster Warnings (Cont.)

- Studies suggest disaster warnings are most effective when:
  - Broadcast frequently across multiple media
  - Constant in content and tone over time and media outlets
  - Crafted to reach diverse audiences
  - Specific and accurate about where the hazard is taking place and to whom the message applies
  - Clear (no technical jargon) with specific instructions on what actions to take, when and why
  - Truthful, authoritative and delivered by an identifiable and credible source

Sources: Mileti 1999; Aguirre 1988; National Science & Technology Council 2000; National Research Council 2010
Other research suggests that community evacuation can be enhanced when Emergency Managers:

- Encourage family planning for evacuation
- Promote media consistency (and not create panic)
- Utilize forceful but not mandatory evacuation policies
- Allay public fears of looting
- Facilitate transportation
- Establish family message centers

Sources: Drabek, 2-10
Disaster Response: Myths and Realities

- **Myth-based view:**
  - Assumes that society is fragile and disasters cause a breakdown in social order, which leads to lawlessness, conflict and chaos

- **Research-based view:**
  - Recognizes that society is resilient and during the response phase disasters typically result in:
    - Increased helping behavior
    - Consensus
    - Enhanced social solidarity
The Myth-Based View of Disaster Response

- **Individual**-level myths
  - Panic
  - Shock and dependency (i.e. PTSD)

- **Organizational**-level myths
  - Assumes that organizations will suffer personnel shortages and be largely ineffective
    - Only emergency-related organizations will respond
    - Role abandonment will occur

- **Community**-level myths
  - Social disorganization and conflict
  - Increased crime and looting
Sources of Disaster Myths

- Mass media (misinformation and create panic)
- Institutional interests (i.e. security contractors and technology firms)
- Society at large; images of chaos reaffirm
- Need for social order (Quarantelli 2002)
The Research-Based View of Disaster Response

- Individuals, organizations and communities exhibit resilience during disasters

- **Resilience:**
  - The ability of individuals and social units to absorb and rebound from the impacts of a disaster

- While some societies and segments of society are more resilient than others, the overall concept of resilience has been confirmed by research
The Research-Based View of Disaster Response (Cont.)

- **Individual-level realities**
  - Self-efficacy (i.e. disaster victims as “first responders”)
  - Convergence behavior
    - Influx of people, supplies, donations and information
  - Lack of panic
    - Maintenance of social norms and relationships

- **Organizational-level realities**
  - Involvement of numerous and diverse organizations
  - Role embracement rather than role abandonment

- **Community-level realities**
  - Crime rates drop and social solidarity increases
  - “Therapeutic communities”
The Research-Based View of Disaster Response (Cont.)

- Fritz (1961) argued, "contrary to the traditional pictures of man and society in the process of disintegration, disaster studies show that human societies have enormous resilience and recuperative power..."
Sources and Limitations of Community Resilience

Sources

- Relatively low impacts of U.S. disasters (why?)
- Disasters are shared experiences having a unifying effect
- “Emergency consensus” on community priorities
- Social capital ensures community survival and provides guidance and resources for responding
  - Cultural values and traditions
  - Social norms and obligations
  - Social relationships
Sources and Limitations of Community Resilience (Cont.)

- **Limitations**
  - Catastrophic events may severely limit the ability of the community/society to effectively rebound
  - Vulnerable populations are more severely impacted than others
  - Technological disasters sometimes produce conflict and “corrosive communities”
Disaster Response and the Principles of Effective Emergency Management

- Two most common problems identified about disaster response
  - Lack of coordination among responding organizations
  - Breakdown of communications

- Problems of coordination and communication can be alleviated through:
  - Comprehensive emergency management (CEM)
    - CEM recognizes commonalities among different types of disasters (i.e. all-hazards)
      - Emphasizes all four phases of disasters
Disaster Response and the Principles of Effective Emergency Management (Cont.)

- Problems of coordination and communication can be alleviated through:
  - **Integrated Emergency Management (IEM)**
    - IEM recognizes that many and diverse organizations are involved in responding to disasters
    - Coordination facilitated through:
      - Enhanced EOC design; comms hub rather than a CP
      - Appropriate incident management frameworks (NIMS)
      - Proper use of new technologies (GIS/GPS/WebEOC)
Disaster Response and the Principles of Effective Emergency Management (Cont.)

- Flexibility in emergency management
  - Individual-level improvisation
    - Using doors to evacuate the wounded
  - Organizational-level adaptation
    - Relocation of NYC’s EOC on 9/11 (to Pier 92 after collapse of #7 WTC)
Factors that can limit flexibility

- Internal organizational characteristics
  - Strict adherence to written rules
  - Task specialization
  - Diffusion of responsibility
  - Overreliance on technology

- External constraints
  - Bureaucracies and centralization
  - Legal liability
Working and Volunteering in Response

- Emergency managers work in such places as local, county, state and federal emergency management agencies and offices of homeland security.
- First-responders work for police and fire departments and in emergency medical services.
Volunteer opportunities include:
- Red Cross
- Salvation Army
- Citizen Corps
- Community Emergency Response Teams (CERT)
- Medical Reserve Corps
- Map Your Neighborhood programs and others

Additional training can include:
- FEMA EMI ISP Courses on NIMS
- First aid and CPR courses, and others (name one?)
- Voluntary organizations