Define preparedness and understand its relationship to emergency management.
Identify preparedness activities that can be undertaken at the individual, household, organizational and community levels.
Describe levels of disaster preparedness among individuals and households, organizations and communities and identify factors that influence it.
Identify groups that are at risk due to lack of preparedness and how to enhance their readiness.
Chapter Objectives (Cont.)

- Provide examples of preparedness initiatives at the state, national and international levels.
- Outline steps in conducting a hazard identification and risk analysis as the first critical step in preparedness and planning efforts.
- Identify potential places to work and volunteer in the field of preparedness.
Key Points in Chapter

- Overall preparedness levels are alarmingly low
  - Competing priorities
  - Financial constraints
  - Disasters are low-probability events; but high-consequence
  - Fatalistic cultural beliefs and lack of collective efficacy
- Some households, organizations and communities are more prepared than others
- Preparedness is both a personal and shared responsibility
What is Preparedness?

- **Preparedness**
  - Activities undertaken prior to the onset of a disaster to enhance the response capabilities of individuals and households, organizations, communities, states and nations.

- **Enhanced response capacity**
  - Ability of social units to accurately assess a hazard, realistically anticipate likely problems in the event of an actual disaster, and appropriately take precautionary measures to reduce impacts and ensure an efficient and effective response.
Preparedness is viewed and measured at different levels of analysis.

There are varying degrees of preparedness.

There is no standard measure of disaster preparedness at the local, state, national and international levels (of analysis).

Disaster preparedness must consider cultural context.

Preparedness is best approached from the all-hazards approach to emergency management.
Important Considerations

- Preparedness can be viewed and measured at different **levels of analysis**
  - Individuals
  - Nations
- There are varying **degrees of preparedness**
  - Not an “either or” proposition
  - It is a matter of degree
  - Varies over time and location
Important Considerations (Cont.)

- There is a lack of a standardized measure of disaster preparedness at the community, state, national and international levels of analysis.
- Checklists can be used at the individual, organizational and business levels.
- More difficult at the community, state and nation levels. Must consider such things as:
  - Strength and legitimacy of political institutions
  - Intergovernmental relationships
  - Locations/priorities of emergency management functions
  - Social and financial capital
Important Considerations (Cont.)

- Disaster preparedness must be considered in a cultural context
  - Central feature of every society
  - Exerts a powerful influence over individual behavior
- Material culture
  - Clothes
  - Houses and buildings
- Non-material culture
  - Shared values
  - Moral beliefs
  - Norms and rules
Important Considerations (Cont.)

- **Culture** shapes thinking about preparation and mitigation
  - Apathy
  - Fatalism
  - Risks are underestimated or ignored
- **Cultural beliefs** can be very difficult to change
  - Often resistant to outside influence
- Preparedness is best approached from the all-hazards approach to emergency management
  - Preparedness activities typically apply to all kinds of disasters
Preparedness Activities for Individuals and Households

- Obtain disaster-related information
- Attend meetings about disaster preparedness
- Store a flashlight, radio, batteries and a first aid kit
- Develop and practice a family emergency plan
- Brace furniture (earthquake-prone areas)
- Install shutters (hurricane-prone areas) or a safe room or storm cellar (tornado-prone areas)
- Purchase hazard-specific insurance
- Purchase food and water
- Learn first aid
FEMA Recommendations for Disaster Supply Kits

- Water; one gallon/person/day for at least three days
- Food; at least a three-day supply of non-perishable food
- Battery-powered or hand crank radio and a NOAA Weather Radio with tone alert and extra batteries for both
- Dust mask to help filter contaminated air and plastic sheeting and duct tape to shelter-in-place
- Moist towelettes, garbage bags and plastic ties for personal sanitation
- Flashlight and extra batteries
- Whistle to signal for help
- First aid kit
FEMA Recommendations for Disaster Supply Kits (Cont.)

- Wrench or pliers to turn off utilities
- Can opener for food (if kit contains canned food) Manual?
- Prescription medications and glasses
- Pet food and extra water for your pet
- Important family papers in a portable waterproof container
- Cash or traveler's checks and change
- Emergency reference material such as a first aid book or information from www.ready.gov
- Cell phone with chargers
- Infant formula and diapers
- Local maps
FEMA Recommendations for Disaster Supply Kits (Cont.)

- Sleeping bag, blanket and additional in a cold-weather climate
- Change of clothing and additional in a cold-weather climate
- Household chlorine bleach and medicine dropper
- Feminine supplies and personal hygiene items
- Mess kits, paper cups, plates, plastic utensils and paper towels
- Books, games, puzzles or other activities for children
- Matches in a waterproof container
- Paper and pencil
- Fire extinguisher
Preparedness Activities for Organizations

- Talk to employees about disaster preparedness
- Conduct drills and exercises
- Receive specialized training
- Develop relocation plans
- Obtain an emergency generator
- Purchase business interruption insurance
Preparedness Activities for Communities

- Test sirens, the Emergency Alert System and other warning systems
- Conduct educational programs and distribute disaster-related information
- Conduct multi-organizational drills and exercises
- Establish mutual aid agreements with surrounding communities
- Maintaining an Emergency Operations Center
- Conduct a hazard identification and risk analysis
Characteristics of Effective Disaster Drills and Exercises

- Realistic scenarios and accurate assumptions about:
  - Disaster-induced demands
  - Resource shortages
  - Communication issues
  - Accurate expectations regarding individual and organization response to disasters, rather than myths of disaster
- Meaningful involvement, rather than symbolic or mandated participation
Characteristics of Effective Disaster Drills and Exercises (Cont.)

- Recognize that things will not always go as planned, which requires creative thinking and **improvisation** to solve problems.
- Integration of multiple organizations and levels of government with citizens, and encourage coordination.
Dimensions of Preparedness

- Primary objective
  - Life safety
  - Protecting property
  - Continuity of operations
  - Information sharing

- Degree of coordination
  - Most households and organizations prepare in isolation

- Financial cost
  - Inexpensive measures (i.e. first-aid kits) are more common than more costly activities (i.e. building a tornado shelter)
Preparedness and the Emergency Management Life Cycle

- Effective preparedness leads to effective response
- Recovery is also facilitated when plans are developed and challenges are anticipated during preparedness
- Key difference between preparedness and mitigation:
  - Preparedness assumes disasters will happen
  - Mitigation attempts to prevent them from happening
  - Both lessen the need for response
Levels of Preparedness-Household

- **Surveys** using checklists of activities reveal alarmingly low rates of preparedness
- Preparedness levels are low even in disaster prone areas
- Study of households in Florida in 2008 found:
  - Only 8% of respondents reported having a disaster supply kit stocked with enough basic provisions to shelter in place for a FEMA recommended 3 days
Levels of Preparedness—Organizational

- Public sector tends to be better prepared than the private sector
  - Preparation levels vary between and within sectors
- Emergency management agencies in the U.S. have improved their levels of preparedness over the past several years. **Examples?**
- Police, fire and EMS tend to prepare internally in isolation from other community organizations
- Private sector has done very little to prepare for disasters
It is important for households and organizations to prepare themselves
  - However, they must also work together

It is difficult to compare communities in terms of their levels of preparedness
  - Lack a standardized measure

Simpson in 2008* proposed a comprehensive community disaster preparedness index

*David Simpson is a researcher at the University of Louisville
Elements of a Comprehensive Community Disaster Preparedness Index*

- Fire protection
- Emergency medical services
- Public safety/police
- Planning and zoning  Why?
- Emergency management office
- Other emergency functions (i.e. local emergency planning agencies)
- Additional community measures (i.e. voluntary organizations)
- Hazard exposure
- Evacuation plans and warning systems
- Resiliency and recovery potential (i.e. financial resources)

*David Simpson a researcher at the University of Louisville
Factors Affecting Levels of Preparedness

- **Individual and Household Characteristics**
  - Higher income, higher levels of education and presence of children are associated with higher levels of preparedness

- **Previous Disaster Experience**
  - Disaster subcultures form in hazard-prone areas where people know what to do (i.e. Tornado Alley and Gulf Coast).
  - Past experiences can lead to complacency (i.e. hurricane parties)

- **Risk Perception**
  - Those who perceive a threat as more likely in the short term are most likely to prepare
  - Effective risk communication (i.e. public education) can shape people’s risk perception and improve preparedness
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Factors Affecting Household Preparedness

- Household Characteristics (e.g., presence of children)
- Hazard Awareness and Risk Perception
- Previous Disaster Experience

Source: Figure 6.2 in Text: Factors affecting household level preparedness
Populations at Risk

- Racial and ethnic minorities
  - May not have the resources to evacuate
  - More likely to live near hazardous materials sites
  - May lack the resources to prepare adequately
  - More likely to live in multi-generational situations
  - May not evacuate until family members gathered/accounted for
  - May live in more vulnerable structures

- Senior citizens
  - Chronic medical problems may make evacuation difficult
  - Often live at low income levels
  - Lack finances to adequately prepare
  - May be isolated; especially men
Populations at Risk (Cont.)

- People with disabilities
  - Tend to have lower incomes
  - Transportation and mobility issues
  - Need to take into account functional needs
  - Language and speaking ability
  - Comprehension and supervisory (dementia)
  - Medical

- Children
  - Day-care centers and recreational facilities not adequately prepared
  - Schools often have drills
  - Very receptive to training
  - Psychological trauma
Populations at Risk (Cont.)

- **Gender**
  - Women have been historically excluded from emergency management
  - Gender and income often connected
  - Female-owned businesses tend to be less prepared
  - May have unique needs
  - Pregnancy
  - Privacy

- **Language**
  - Important in preparedness and planning efforts
  - Common language
  - Hard of hearing/deaf
  - Literacy
  - Comprehension levels
Populations at Risk (Cont.)

- Pre-disaster homeless
  - There are several categories of homelessness
  - People who go back and forth between the two groups
  - Outreach groups exist to prepare the homeless
  - Homeless every day
  - Marginally housed

- Pets
  - Preparations include: rescue alert stickers; animal training classes; safe haven arrangements with others or a shelter; and pet preparedness kit
  - Often considered important members of a family
  - Pets are considerations for evacuations and shelters

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NATIONAL COALITION for HOMELESS VETERANS

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For Pet Emergency Use

www.ama.org/disaster
Examples of State, National, & International Preparedness Initiatives

- State: Oklahoma’s Red Dirt Ready campaign
  http://www.ok.gov/reddirtready
- California’s Great California Shakeout
  http://www.shakeout.org/
- National: FEMA’s Ready.gov campaign
  www.ready.gov
- International: United Nation’s International Strategy for Disaster Reduction
  http://unisdr.org
Hazard Identification and Risk Analysis

**Hazard Identification**
- Natural, Technological Terrorist Threats
- Past History
- New and Emerging Hazards

**Risk Analysis**
- Location of Utilities, Infrastructure, Health Care facilities and other areas critical to community
- Areas of weakened structures that increase risk (dams, levees)
- People, Concentrated Populations, Vulnerable populations
- Economic analysis and ability to absorb hazard and rebound
- Environmental analysis of areas subject to negative impact in the ecosystem

Develop preparedness campaigns to inform the public of risks and recommend risk reduction strategies. Train people on how to respond to area risks, initiate planning and conduct exercises and drills. Identify mitigation opportunities.

Source: Figure 6.7 in Text: Community Vulnerability Analysis
Working and Volunteering in Preparedness

- **Volunteering**
  - U.S. Citizen Corps ([www.citizencorps.gov](http://www.citizencorps.gov))
  - Community Emergency Response Team (CERT)
  - Volunteers in Police Service
  - Fire Corps
  - Medical Reserve Corps
  - Neighborhood Watch

- **Working**
  - Preparedness coordinators for local emergency management agencies, hospitals, schools and in private sector firms
Questions?

In an EMERGENCY seconds count! Do you know what to do?