

Public Health and Disasters

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Public Health Defined

- APHA: Public health promotes and protects the health of people and the communities where they live, learn, work and play.
- CDC: Public health is the science of protecting and improving the health of families and communities through promotion of healthy lifestyles, research for disease and injury prevention and detection and control of infectious diseases.
- Public health systems are commonly defined as “**all public, private, and voluntary entities** that contribute to the delivery of essential public health services within a jurisdiction.” (CDC)

Public Health Roles in a Disaster

- Identifying **community resources** applicable to the **physical, social, and psychosocial effects** of a disaster
- Identifying **vulnerable populations** most at risk (i.e., children, older adults, homeless, chronically ill, homebound, physically or mentally disabled)
- Providing **disaster education** in advance of and after event
- Using such resources as **assessment, epidemiology, and data analysis** to make and implement recommendations for limiting morbidity and mortality following disaster
- Cooperating and collaborating with other partners to ensure that **primary health, public health, and mental health issues are adequately addressed**

Public Health Roles in a Disaster

- Preventing disease by providing **health advisories** on injury prevention, food and water safety, and vector control
- Assuring that **health services continue post impact**, including acute, continuity of care, primary care and emergency care
- **Communicating with government officials** about potential public health effects of disasters
- Developing and advocating **public policies** designed to reduce the public health impact of potential disasters
- Rigorously **evaluate** intervention outcome

Core mission areas under the Public Health and Medical Services (ESF #8)

- Assessment of public health/medical needs
- Health surveillance
- Medical care personnel
- Health/medical/veterinary equipment and supplies
- Patient evacuation
- Patient care
- Safety and security of drugs, biologics, and medical devices
- Blood and blood products
- Food safety and security
- Agriculture safety and security
- All-hazard public health and medical consultation, technical assistance, and support
- Behavioral health care
- Public health and medical information
- Vector control
- Potable water/wastewater and solid waste disposal
- Mass fatality management, victim identification, and decontaminating remains
- Veterinary medical support

Inequities

- Disproportionate effects on low-income, physically or mentally disabled, homeless, elderly, children, non-English speakers, uninsured or underinsured, displaced, and racial/ethnic minority populations
- Vulnerable subgroups often lack access to health care and thus have chronic health needs that are exacerbated (or even created) by the disaster
- Depending upon available resources, disasters can be deadly for the poor, e.g., effects of heat wave on low-SES communities

Overlooked issues. . .

- Disaster-related health needs may not be evident immediately
- Damage to infrastructure and health care facilities may have long-standing repercussions on communities
- Un- or under-diagnosed symptoms of mental health issues: stress, depression, anxiety, PTSD, as evidenced by self-medication, alcohol and drug use, family violence
- Some communities marginalized, without resources before or after disaster

Natural vs. Manmade Disasters

- Caused by natural forces
- Examples: earthquakes, tsunamis, floods, landslides, hurricanes, wildfires, droughts, volcanic eruptions
- Steps can be taken to minimize effects
- Ex. Flood: injury, deaths, property damage, shortage of food and drinking water, destruction of forests and animals, spread of diseases, soil erosion
- Caused by activities of men
- Examples: hazardous material spills, explosions, chemical or biological attacks, nuclear blasts, traffic collisions such as train accidents, plane crashes, etc.
- Most in the form of accidents (except attacks)
- Little or no opportunity to minimize effects
- Deaths, injuries, and loss of property

Therapeutic vs. Corrosive Community

- Natural Disaster:
 - Individuals and communities may have ability to preplan for the disaster and its aftermath
 - Outreach from others is immediate to help with the various stages
 - Resources offered to community and individual
- Therapeutic Community:
 - Community and individuals pull together, bond for the good of all—social connectedness
 - Activities are coordinated and focused on fostering a return to pre-disaster conditions

Therapeutic vs. Corrosive Community

- Technological Disaster:
 - No or minimal pre-planning
 - Outreach may be slow if waiting for responsible party to take action
 - Community resources may be inadequate
- Corrosive Community:
 - Response not as focused on community and individual recovery; lack of social connectedness
 - Outsiders may be leading recovery efforts
 - High levels of stress, anxiety, and conflict
 - Individuals require help, may be involved in litigation, some may be eligible for recompense while others may not, creating community conflicts

Unresolved Issues. . . .

- Disasters require mobilization of resources and experts across agencies and across jurisdictions
- Potential for confusion and lack of integration across agencies and entities is likely
- Need to increase capacity of communities for resiliency prior to a disaster
- Few health professionals (in Gulf Region) trained in recognizing and treating EH related conditions
- Need to develop better surveillance systems for disaster situations especially for EH
- Improve capacity to provide real and lasting linkages to care for identified conditions

Concerns regarding PH Response

- What if the community lacks sufficient resources to address needs?
- How do we ensure that primary health, public health, and mental health issues are adequately and equitably addressed in the long-term?
- How can we better utilize data to drive policy?
- How can we minimize hazards BEFORE a disaster?
- How can we work toward meeting needs of vulnerable populations to better prepare for a disaster?
- How can we ensure that response is therapeutic rather than corrosive?