### Chapter Fourteen

### Natural Disasters and Complex Humanitarian Emergencies



### The Importance of Natural Disasters and Complex Emergencies to Global Health

- Lead to increased death, illness, and disability
- Large economic impacts
- Measures taken to reduce costs of disaster and conflict would be most effective if those involved worked together on the most important priorities



- Disaster "any occurrence that causes damage, ecological destruction, loss of human lives, or deterioration of health and health services on a scale sufficient to warrant an extroardinary response from out the affected community area"
- Natural and man-made
- Rapid- and slow-onset



 Complex emergency - "complex, multi-party, intra-state conflict resulting in a humanitarian disaster which might constitute multidimensional risks or threats to regional and international security. Frequently within such conflicts, state institutions collapse, law and order break down, and banditry and chaos prevail, and portions of the civilian population migrate"



- Refugee a person who is outside his or her country of nationality or habitual residence; has a well-founded fear of persecution ecause of his or her race, religion, nationality, membership in a particular social group or political opinion; and is unable or unwilling to avail him- or herself of the protection of that country, or return there for fear of persecution"
- Refugees are accorded certain rights by international law



- Internationally displaced people people who are forced to flee or migrate and leave their homes during a disaster or complex humanitarian emergency but stay in the country in which they were living
- Legal status is not as well-defined as that for refugees

- Crude mortality rate the proportion of people who die from a population at risk over a specified period of time
- Attack rate proportion of an exposed population at risk who become infected or develop clinical illness during a defined period of time
- Case fatality rate number of deaths from a specific disease in a given period, per 100 episodes of the disease in that same period



## The Characteristics of Natural Disasters

- Include droughts, hurricanes, typhoons, cyclones, heavy rains, tsunamis, earthquakes, and volcanoes
- Number of natural disasters are increasing, affecting larger numbers of people, causing more economic losses, but causing proportionally fewer deaths
- Biggest relative impact is on the poor in low- and middle-income countries
- Cause damage to health systems and other infrastructure



# The Characteristics of Complex Emergencies

- Often go on for long periods of time
- Sometimes groups that are fighting will not allow humanitarian assistance to be provided
- Combatants often target civilians
- Systematic abuse of human rights
- Food shortages
- Breakdown of publicly supported health system
- Unhealthy living circumstances in refugee camps



### The Health Burden of Natural Disasters

- Direct and indirect effects depend on type of disaster
- Some effects are short-term such as death,
   others are long-lasting like mental problems
- Very old, very young and very sick are most vulnerable



# The Health Effects of Complex Humanitarian Emergencies

- Large and underestimated
- Between 320,000 and 420,000 killed each year as a direct result of CHEs
- Malnutrition, lack of safe water, food shortages, and breakdown of health services can lead to illness, disability and death

# The Health Effects of Complex Humanitarian Emergencies

#### **Causes of Death in CHEs**

- In the early stages, most deaths occur from diarrheal diseases, respiratory infections, measles, or malaria
- Populations affected are generally poor and may suffer from protein-energy malnutrition in a camp



# The Health Effects of Complex Humanitarian Emergencies

#### **Mental Health**

- Social and psychological shocks due to changes in way of living, loss of livelihoods, damaged social networks, and physical and mental harm
- Children and adults suffer from high rates of depression and PTSD
- Important to help people rebuild their lives and social networks as quickly as possible



# Addressing the Health Effects of Complex Humanitarian Emergencies

#### **Assessment and Surveillance**

- Carry out assessment of displaced population
- System for disease surveillance for diseases that cause epidemics among displaced persons
- Daily crude mortality rate is used as an indicator of the health of the affected group and will signify a public health emergency



### Addressing the Health Effects of Natural Disasters

- Health situation assessed immediately
- Care for trauma cases
- Other injured people who are in need of early treatment
- Establishment of continuous disease surveillance
- Provision of food, water and shelter



## Addressing the Health Effects of Natural Disasters

### To be most helpful, external assistance will have to:

- Include all external partners
- Be based on a cooperative relationship
- Have partners working in complementary ways
- Be evidence-based and transparent
- Involve affected communities

Disaster preparedness plans are also helpful for reducing impact



# Addressing the Health Effects of Complex Humanitarian Emergencies

### A Safe and Healthy Environment

- Maintenance of environmental and personal hygiene
- Adequate clean water for drinking, cooking and bathing
- Adequate number of toilets segregated by sex
- Effective and culturally appropriate shelter



# Addressing the Health Effects of Complex Humanitarian Emergencies

#### **Food**

- At least 2100 kilocalories of energy per day for adults
- Care taken to make sure that female-headed households and children get their rations
- Vitamin A given to all children
- Urgent nutrition supplementation to children who need it



# Addressing Health Effects of Complex Humanitarian Emergencies

#### **Disease Control**

- Vaccinate all children from 6-15 years for measles
- Ensure children up to 5 years get vitamin A
- Proper management of diarrhea
- Appropriate diagnosis and treatment for malaria
- Health education and hygiene promotion



# Future Challenges in Meeting the Health Needs of Complex Humanitarian Emergencies and Natural Disasters

- Reducing negative health impact
- Developing and using standard approaches among all actors
- Responding with the most cost-effective approaches

