

HAITI

JUST IN TIME TRAINING

DMAT NY4

Objectives

- Provide a timely report on the situation in Haiti
- Discuss medical & mental health considerations
- Discuss public health interventions to minimize indirect morbidity and mortality
- Discuss deployment considerations to protect health and safety of responders

EARTHQUAKE IMPACT

Significant infrastructure destruction:

- Hospitals/clinics
- Public health
- Homes
- Roads/transportation
- Businesses
- Continuity of governance
- Loss of essential services (power, water, etc.)

Haiti: Background

- Poorest nation in Western Hemisphere
- Port-au-Prince population approx. two million
- Democratically elected president but history of political instability
- Large UN peacekeeping force present
- Endemic diseases: amebic and bacillary dysentery, dengue, filariasis, HIV/AIDS, leishmaniasis, malaria, tuberculosis, tularemia, viral hepatitis (also consider rabies and tetanus)

Haiti: National Statistics

- Ethnic groups: Black 95%, Biracial and White 5%
- Religions: Roman Catholic 80%, Protestant 16%
- Languages: French (official), Haitian Creole (official)
- Literacy: 64% of total population
 - –Male: 64%
 - –Female: 58%

Haiti: Situation Report

- On January 12, 2010, 7.0 earthquake at 4:53 pm, epicenter 10 miles west of Port-au-Prince at depth of only 5 miles
 - Most affected areas: Port-au-Prince, Carrefour, and Jacmel
 - National health infrastructure significantly damaged
 - International authorities reporting in excess of 200,000 dead; millions affected
 - Security issues are imminent

Earthquake: Morbidity & Mortality

Direct Injuries and Deaths

- **Direct Immediate (0-2 days)**
 - Crush/trauma/asphyxia
- **Drowning or burns**
 - **Direct Acute (2-14 days)/**
 - Dehydration
 - Environmental Exposure
 - Rhabdomyolysis(crush syndrome)
 - Renal failure secondary (crush syndrome)
 - Wound infections/cellulitis

The Initial Response

Earthquake: Morbidity & Mortality

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Common Procedures in the Field

- Remember ABC's
- Hematomablocks
- Incision and drainage
- Wound irrigation, wound dressing, delayed primary closure
- Splinting fractures
- IV/IM med administration
- Procedural sedation
- Tourniquet use

What to Expect Medically

- Crush Injuries / Compartment Syndrome
- Entrapped Patients
- Field Amputations
- Use of Field Anesthetics (i.e., Ketamine)
- Fracture Reductions / Hematoma Block
- Splinting
- Emergency Wound Management (antimicrobials),
Incision & drainage of abscesses

THE PUBLIC HEALTH RESPONSE

Secondary Morbidity and Mortality

Conditions may supersede need for surgical services:

- Overcrowding
- poor sanitation
- Limited access to clean water
- Environmental exposure
- Widespread disruption of health care services
- Water-and food-borne illness
- Inhalation injuries and pulmonary problems
- Maternal-fetal/birth complications
- Disruption of health care services

Earthquake Morbidity and Mortality – Indirect Deaths

- **Sub-Acute: One week -Ongoing**
 - Tetanus (vaccine and antitoxin)
 - Communicable disease:
 - Waterborne Illness (typhoid, E. coli, shigella)
 - Vector-borne Illness (malaria, dengue)
 - Person-to-person illness (TB, MMR, Hepatitis A, B, and E, HIV, seasonal or H1N1 influenza)
 - Past traumatic complications
 - Chronic disease exacerbations:
 - Hypertension, diabetes, asthma

UN Cluster Work Group Approach

Ten main clusters established

1. Health
2. Emergency shelter
3. Water&sanitation4
4. Logistics
5. Camp management
6. Protection
7. Food and nutrition
8. IT & communications
9. Education
- 10.Reconstruction

SPHERE

Minimum standards set up by experts in international emergency response –security

- –Camps: 45 m²space per person
- –Water: 15 L per person daily*
- –Latrines: 20 people per toilet*
- –Health services: less than 50 patients per 8 hours
- www.sphereproject.org
- *Water is critical issue in Haiti

Camps

Spontaneous—

Needs management

Planned

SPHERE standards

Vaccinations

Water/latrines—Syndromic surveillance

Communication

Deployment Readiness
Equipment, Supplies & Safety
John Czap

Safety Awareness

Cuts from rescue efforts

Dust/Respiratory

Burns or equivalent

Safe food procurement

Hepatitis A/other endemic diseases

- Debris-based wounds
- Falls
- Risk of structural collapse
- Security (threats of violence)

Preparation and Supplies

- Sleeping bag/pad
- Toiletries
- Water & purification system
- Weather specific clothing
- Antibiotics/Sun Block/DEET based spray/Vicks
- Mosquito net/bandana/dust mask
- Vaccinations
- Lidocaine/sterile needles/gauze
- Psychological preparations

Deployment Challenges

Are you healthy & Fit?

Immunizations up to date?

- Austere environment - extreme
- Personal security
- Psychological Impact
- Resources will be very scarce

Fatality Management Considerations

- Remains handling
- Identification
- Preservation/key personal items
- Cultural, religious and ethical challenges

Cultural & Psychological Considerations

Michael Kirshner

Cultural Concerns

- Culture and religion are strong life elements in Haiti
- Behaviors are learned ways of navigating world safely, but in disasters many of these behaviors are no longer appropriate or possible
- Approaches first **MUST** be aimed at making these behaviors appropriate and possible once again
- For example: reconnecting families, reconnecting communities, re-establishing security, reintroducing social structures

Liaising

- Different responder groups & countries
 - Different roles & objectives
 - Varying community and professional cultures
 - All there for the same reason

Psychological First Aid

- Rapid pain relief
- Provide for basic needs
- Protect from further harm
- Reduce agitation and arousal
- Support those in most distress
- Keep families together and provide social support
- Provide information, foster communication and education
- Use effective risk communication techniques
- Orient to available services

Psychological Concerns

- Distress response: changes in how people think and feel
- Behavioral changes: changes in how people go about their life and do things
- Psychiatric illness: lie at most extreme end of response and include post-traumatic stress disorder or major depression
- Pain: correlation between unrelieved physical pain and both early mortality and later distress

Summary

Goals:

- Prevent /minimize mortality& morbidity
Re-establish medical infrastructure & access to Care
- Re-establish public health infrastructure and system (i.e., surveillance)
- Immunize (tetanus, MMR), particularly in displaced camps
- Minimize impact to responders