

I_{nternational} **S**_{ociety of} **C**_{hemotherapy} **W**_{orking} **G**_{roup} **of**
Infectious Diseases after
Natural Disasters,
Catastrophes and Conflicts

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Munich, Germany, 31 March 2007

Aim of the Group

- investigate ID (surveillance), antibiotic practises and resistance development in areas of natural disasters, catastrophes and conflicts
- summarize results of data on ID, etiology and ATB resistance from affected areas, respond with control measures
- educate doctors, nurses, MPH`s to prepare on epidemics in areas of disasters





Areas of Natural Disasters, Catastrophes and Conflicts

- Civil war - *Sudan, Iraq, Somalia*
- Genocide - *Rwanda, Darfur, Burundi, Cambodia*
- Earthquake - *Turkey, Pakistan*
- Tsunami - *Indonesia, Sri Lanka*
- Floods - *US, Philippines, Bangladesh*
- Accidents, terrorist attacks - *US, Iraq*

Introduction

- **Displacement** – primary concern (long term conflicts)
- natural disasters that do not result in displacement are rarely associated with outbreaks
- conflict-affected populations: 2/3 of deaths may be from ID!!!
- deaths associated with natural disasters (rapid-onset) are mainly due to trauma, crush-related injuries or drowning, ID are less common (flooding)
- Dead bodies – only cholera, hemorrhagic fevers

Risk Factors for ID

- background endemic and epidemic diseases
- living conditions, crowding
- safe water, sanitation facilities
- nutrition status, immunization coverage
- access to healthcare

Water related ID

- Cholera
- ETEC
- Typhoid, paratyphoid fever
- Noroviruses
- Hepatitis A,E
- Leptospirosis

ID related with crowding

- Measles
- Neisseria meningitis
- ARI (major cause of illness and death in children less 5 years)

Vector borne ID

- Malaria
- Dengue

Other ID

- Tetanus
- *Coccidioides immitis*

Floods

- Bangladesh 2004 (cholera, ETEC)
- Mozambique 2000 (diarrhea, salmonella)
- Indonesia 1992-1993 (paratyphoid fever)
- India 2000, Argentina 1998, Russia 1997, Brazil 1996 (leptospirosis)
- Peru (malaria)

Tsunami

- Indonesia 2004 (diarrhea, hepatitis A,E, measles, neisseria meningitis, ARI, tetanus, dengue)

Earthquake

- Pakistan 2005 (diarrhea, hepatitis A,E, measles, neisseria meningitis, ARI, tetanus)
- Costa Rica 1991 (malaria)
- California 1994 (*Coccidioides immitis*)

Volcanic eruptions

- Philippines 1991 (measles)

Hurricane, typhoon

- US 2005 (diarrhea – norovirus, Salmonella, cholera)
- Taiwan, China 2001 (leptospirosis)