



Humanitarian Health Action

TROPICAL CYCLONES - Technical Hazard Sheet - Natural Disaster Profiles

The Hazard

Tropical cyclones are among the most destructive natural phenomena. The impact from cyclones extends over a wide area, with strong winds and heavy rains. However, the greatest damage to life and property is not from the wind, but from secondary events such as storm surges, flooding, landslides and tornadoes.



Factors of Vulnerability

Man made factors:

- Settlement located in low lying coastal areas (direct impact);
- Poor building design, or construction;
- Insufficient lead time for warning and evacuation;
- Non compliance with evacuation procedures;
- Inadequate shelter.

Main causes of Morbidity and Mortality

Direct Impact

Injuries, trauma, and asphyxiation due to entrapment are observed and result from building collapse and wind-strewn debris. Electrocuting or drowning happen while securing property such as television antennas or boats.

Short and long term mental health effects are observed.

Indirect Impact

The impact of tropical cyclones on the transmission of communicable diseases is limited. Outbreaks of communicable diseases are rarely observed. Nonetheless, the risk for water borne disease and vector transmitted disease can be exacerbated: human exposure to disease vectors can be increased due to changes in the physical environment.

The impact on the health infrastructures and all lifeline systems is massive and can result in food shortages and interruption of basic public health services (water, etc).

In case of floods and sea surges, risks of drowning and water borne and vector borne disease increase.

Mental health guidelines

[Brief mental health guidelines for assisting those affected by hurricane Katrina](#)
pdf, 53kb

[Coping in the aftermath of hurricane Katrina](#)
pdf, 105kb

These guidance notes on stress, grief and loss have been compiled by IMC's Mental Health Advisor, Dr. Lynne Jones, for organizations working with Hurricane Katrina-affected populations. They represent lessons learned regarding mental health activities from IMC's international experiences in disaster response, including the recent tsunami, as well as summarize best-practices identified by international agency consensus.

Foreseeable needs

Pending an assessment, needs can be anticipated as: search and rescue, triage, managing population displacement in the short-term, raising awareness on the risk associated with cleanup activities. Maintaining food security conditions over the long term can be needed (destruction of crops and livestock).

Don't Forget

Unless tropical cyclones are associated with floods or sea surges, they cause relatively few deaths and injuries.

Mitigation measures can build upon a "window of opportunity" before a cyclone makes landfall: during this time, occupants of areas under warning may evacuate in a timely manner.

Other mitigation measures include appropriate building design, continuing public education, adequate warning system.

Inappropriate Response

Medical or paramedical personnel or teams: Do not send them!

They would arrive too late. Local and neighbouring health services are best placed to handle emergency medical care to disaster victims.

Household medicines or prescriptions: Do not send them! These items are sometimes medically and legally inappropriate. Consult first WHO's guidelines on essential drugs, and the local authority of the beneficiary country.

Temporary shelter such as tents: Do not send them! As temporary resettlements in relative houses or in public edifices are by far more appropriate than creating population displacement camps.

Used clothing, shoes: Do not send them! In most cases, the local community donates more than enough of these items to meet the demand. It is more economical, convenient and sanitary to purchase

items locally than to ship used items.

Unilateral decision on resource allocation: Do not take it without evidence of needs.

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For further reading:

An Overview of Disaster Management, 2nd ed. Geneva, United Nations Development Programme, Disaster Management Training Programme, 1992.

Assessing the Needs in the Health Sector after Floods and Hurricanes. Washington, Pan American Health Organization Technical Publication 11, 1987.

Coping with Natural Disasters: The Role of Local Health Personnel and the Community. Geneva, World Health Organization, 1989.

Do's and Don'ts After Natural Disasters. Washington, Pan American Health Organization Press Release, 1998.

Emergency Health Management after Natural Disaster. Washington, Pan American Health Organization Scientific Publication 407, 1981.

Hurricane: A Prevention Guide to Promote Your Personal Health and Safety. Atlanta, Center for Disease Control and Prevention, 1994.

Natural Disasters: Protecting the Public's Health. Washington, Pan American Health Organization Scientific Publication 575, 2000.

Noji E. *Public Health Consequences of Disasters.* New York, Oxford University Press, 1997. Noji E. *Public Health Consequences of Disasters.* New York, Oxford University Press, 1997.

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