Report on World Health Organization support for response efforts during and after the 2004 floods in The Philippines

KEY PUBLIC HEALTH ACTIVITIES IN AN EMERGENCY

1. Assessment of public health problems and needs

2. Surveillance: managing health by managing information

3. Emergency health and rehabilitation services

4. Disease control

5. Environmental health measures

6. Delivery, receipt and management of medical supplies

7. Coordination of health assistance
Two typhoons, Winnie and Yoyong, struck the northern provinces of the Philippines in quick succession, resulting in massive floods and landslides. Trees harvested by the loggers rolled off their moorings causing “logslides” that further destroyed lives and property.

The municipalities of General Nakar, Infanta, and Real in Quezon Province, with a combined population of 120,000, were hardest hit. Over 10,000 houses were destroyed. More than 600 deaths were recorded, with 200 more people missing. In Nakar, the local government set up 87 evacuation centres when the typhoon alerts were sounded. But, only five functioned during the flooding. The rest were gravely damaged and submerged in mud and flood waters.
An evaluation of disaster preparedness measures revealed a lack of formal guidelines and programmes. There were no existing emergency plans and no defined quick response teams. Many of those in public service were not trained in emergency and disaster management. In areas where health emergency preparedness procedures were defined, implementation was hampered by the lack of training for health personnel. Health facilities to meet the needs of emergency cases had not been upgraded in years. There also was very little information dissemination to the community. The disaster occurred soon after local elections, so new local government officials were still in the process of organizing committees and appointing community leaders.

Although it was typhoon season, the community and government were caught off guard by the magnitude of the storms. They had survived typhoons in the past and did not think 2004 would be any different.
Monitoring of diseases was a vital activity since health personnel were aware of the threat of outbreaks. Of particular concern was the increasing incidence of diarrhoea and malaria.

Surveillance was a challenge since many health personnel were not able to report to work, baseline records kept in health centres were lost and it was difficult to access areas due to floods and landslides.

The leading causes of morbidity post-disaster were acute respiratory infections, traumatic injuries and diarrhoea. These presented a burden to health care services. In one area, the number of patients treated for the month of December 2004 almost equaled the case load for the whole of 2003.

Common illnesses after the disaster included respiratory infections, wounds, diarrhoea, skin disease and asthma. These were associated with substandard living conditions and overcrowding in evacuation centers with no clean water and poor sanitation. Poverty and malnutrition, pervasive even before the disaster, meant that many residents already had weak immune systems. In addition, health services had to contend with chronic diseases such as tuberculosis and hypertension.

Many health centres were washed away by floods and rendered non-functional, resulting in disruption of services and loss of supplies, including such basic equipment for checking blood pressure, penlights and thermometers. Support from external health agencies, both government and non-government, was needed to revive health services.

**KEY PUBLIC HEALTH ACTIVITIES IN AN EMERGENCY**

1. **Assessment of public health problems and needs**

   - Assess health status of community in terms of causes or morbidity and mortality related to the disaster
   - Assess health services in the affected areas to determine needs for reconstruction and ensure continuity of vital health services

2. **Surveillance: managing health by managing information**

   - Provide regular information to identify evolving public health priorities
   - Set up an early warning and control system for possible epidemics such as malaria, diarrhoea, measles and dengue fever
   - Monitor implementation and outcomes of health interventions

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Emergency health and rehabilitation services

- Assist in search and rescue operations
- Assist in efforts to recover, identify and bury casualties in ways sensitive to the community’s practices and beliefs
- For displaced populations, provide shelter and basic facilities
- Provide food/water supplies and rehabilitation
- Provide psychosocial and mental health services

Residents rebuild destroyed homes.

4 Disease control

- Institute disease prevention measures such as immunization and promotion of personal hygiene
- Facilitate access to reliable laboratory services to establish causes of disease
- Ensure rapid investigation of any suspected disease outbreak

Children wash toys salvaged from the muds and floods.

Health programmes already in place in the province before the disaster were largely curtailed. Logistical problems and the lack of equipment and human resources made health service delivery difficult. Basic health needs such as immunization and chemoprophylaxis for malaria were largely not available.

Recovered bodies were brought to town plazas for identification by relatives and local officials. But for the most part, bodies were buried close to where they were found since mud-clogged roads made transport difficult.
Environmental health measures

- Ensure availability of safe water and food
- Provide facilities for proper waste disposal
- Reinforce vector-control measures

Food and clean water formed a large bulk of relief goods sent to the area. Health promotion activities were conducted to convince residents to chlorinate or boil water. Water safety testing and construction of toilet facilities were important activities in evacuation centres. With garbage collection services disrupted, new dumpsites for non-biodegradable waste had to be opened.

Delivery, receipt and management of medical supplies

- Rapidly identify and establish priorities for procurement and distribution of urgently needed supplies
- Inform and advise donors regarding priority needs and arrangements for delivery
- Establish a system for storage and inventory management of health supplies
- Ensure efficient transport and distribution to users
- Ensure transparency and accountability through production of regular reports and communication with national authorities and donors

Although there was disruption in health service, steps were taken to provide needed medicine. Still, the disaster aggravated existing problems in health service delivery. Supplies remained tight because of lack of funding as well as difficulties in transport.
were activated, and residents were instructed to go to evacuation centres should floodwaters reach critical levels. Community members responded spontaneously and generously to aid those in greater need.

Rescue operations were conducted by both the military and nongovernmental organizations. This entailed clearing of roads, transport of the injured and evacuation of families.

Many health service providers were not able to respond immediately to the emergency because they and their families also were gravely affected. Human resources to ensure health and safety had to be augmented by external agencies, both from government and the private sector. Local government units coordinated efforts of different agencies.

Very early, communities recognized the long-term impact of the disaster. They expected a decline in the economy because of loss of livelihood and natural resources. Disruption of health service delivery increased the incidence of infectious disease and malnutrition. They issued a call for greater support from local as well as national agencies.

The communities continue to be assisted in their ongoing recovery and rehabilitation, but are regaining self-sufficiency. The focus of interventions is shifting away from coping with the effects of the disaster, and is now being directed towards community development.

### Coordination of health assistance

Community councils were immediately mobilized to provide assistance. Evacuation plans

- Establish and maintain good relationships with all concerned partners through an understanding of their mandates, interests and capacities
- Ensure sharing of information about the health situation and health-related activities
- Help to generate consensus on priorities, objectives and strategies, and on responsibilities for follow-up action and provision of services in different areas
- Assist in strengthening health emergency management capacity

Residents work with local officials and national agencies in the task of rebuilding.
In response to emergencies and disasters, WHO collaborates with Member States to strengthen national and community capacity for emergency preparedness, mitigation, response, recovery and rehabilitation. WHO also provides health emergency support to Member States whose communities are seriously affected by emergencies and disasters. WHO aims to strengthen health emergency management capacity of disaster-prone countries and areas in the Region. Responses to emergencies and disasters can only be effective if they involve the whole international community. WHO has played a pivotal role in collaborating with national and international partner agencies to maximize the appropriate use of limited resources and encourage collective efforts in emergency management.

Emergency projects undertaken by WHO were funded through internal sources and external contributions from the United States Agency for International Development (USAID), and the Department for International Development (DFID) of the United Kingdom of Great Britain and Northern Ireland (UK).

Projects included the following:
- Provision of emergency medicines, supplies and equipment for immediate response
- Provision of medicines, supplies and equipment for managing a malaria outbreak
- Support for capacity building of local health staff in the following areas: health emergency management, disease surveillance, and malaria control
- Support for assessment and development of a comprehensive rehabilitation plan

These projects were implemented with the Department of Health, Philippines, in particular, its Centers for Health Development in two Regions affected by the typhoons, the National Epidemiology Center, and the Health Emergency Management Staff. Also involved were nongovernmental organizations such as the Field Epidemiology Training Program Foundation, Inc. and ACT Malaria.

Different agencies and community groups coordinate efforts toward more efficient and timely disaster response.