

EHA Newsletter

WHO South-East Asia Region

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Regional Office for South-East Asia
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Indonesia responds promptly to Java earthquake

Tsunami experience helps in effective response to earthquake

Almost a year and a half after the tsunami, another devastating earthquake hit Indonesia, this time in the provinces of Yogyakarta and Central Java, on 27 May 2006. More than 6000 people were killed in the disaster, and 97 000 people injured. With 384 086 houses damaged, 87 147 of them severely, hundreds of thousands of people were rendered homeless. It was estimated that 200 000 to 650 000 people have been displaced following this earthquake.

Immediately after the disaster, the key priority from the health perspective was attending to the injured. Hospitals were overcrowded and working at four to five times their capacity. The Indonesian Ministry of Health, with support from WHO, provided mobile operation units – five vehicles so that remote areas could be reached – along with ambulances, emergency kits and medical aid. The Ministry of Health also established three field hospitals, two in Bantul and one in Yogyakarta, where WHO equipment was utilized. Health experts were needed to tend to the tide of humanity pouring into hospitals. By 1 June, Indonesian health officials had mobilized 1149 health staff to assist in the earthquake response.

Hospitals remained overcrowded, though not everyone there needed medical attention. Many patients refused to leave the hospital even after they had recovered for fear of their houses collapsing. Patients who remained in the hospitals often had several friends and relatives as

attendants camping in the hospital grounds. This in turn created health hazards, as water and sanitation facilities in the hospitals were far from adequate to meet the needs of the swelling population camped there. There were concerns that this could lead to a number of water-borne diseases,

such as those causing diarrhoea.

Water and sanitation was a key issue in all earthquake-affected areas. A joint rapid assessment by an inter-agency United Nations team reported that many water treatment plants were not operational following the earthquake. One-fifth of the shallow wells in the area, the traditional sources of water supply, were also damaged. Contamination of water from ruptured pipes, septic tanks and cross-connections was also feared.

A WHO expert worked closely with the environmental health unit of the Ministry of Health to assist in improving water quality. This included testing the quality of water, training field staff in



The Yogyakarta earthquake caused widespread damage

water and sanitation issues, and in developing and implementing hygiene awareness programmes. WHO also provided chlorine tablets to disinfect water, water-quality field kits and chlorine testing meters (chloroscopes), used to check water quality.



A WHO expert checks water quality in an earthquake-affected area

In order to ensure that any disease outbreak that has a potential to lead to an epidemic is detected, treated and contained early, the Indonesian Ministry of Health and provincial health authorities,

supported by WHO epidemiologists, designed a disease surveillance system that is appropriate for the area.

Vaccination programmes were launched by the second week of June. Approximately 130 000 children under the age of five were targeted for measles vaccination. This was combined with vitamin A distribution for children aged between six months and five years. With several tetanus cases being reported from injuries, tetanus vaccinations were also planned for those among displaced people aged 15 years and older. The traumatized survivors were also provided psychosocial support, for which WHO helped train health workers.

The experiences and lessons learnt from the tsunami proved useful in almost all response efforts. Guidelines developed by WHO following the tsunami on a number of subjects, such as drugs and medicines and mental health, were adapted and utilized in Yogyakarta.

Having learnt from the Aceh tsunami experience, WHO, supporting the Ministry of Health, also led in establishing a health cluster, so that all health NGOs could work in a coordinated fashion, for maximum efficacy.

As the recovery phase moves to the rehabilitation phase, normalcy will gradually set in. The injuries will heal, but for those who lost their loved ones, life will never be the same again.



Indonesia prepares for Mount Merapi's eruption

As Mount Merapi, an active volcano in Indonesia's Central Java province, increases its activity, WHO has been working closely with the Indonesian Ministry of Health to provide technical assistance and resources as needed.

Mt Merapi is one of around 130 active volcanoes that form the Pacific 'Ring of Fire', a series of fault lines stretching from the Western Hemisphere to Japan and South-East Asia. Merapi last erupted in 1994, killing more than 60 people and affecting over 6000 others.

This year, occasional bursts of dust and lava were reported from the volcano on 15 April 2006, and an alert was issued by the Directorate of Volcanology and Geological Hazard Mitigation. By 13 May, as Merapi rumbled and spewed smoke, ashes, and 'heat clouds' (hot clouds that can reach temperatures of 1000 °C, technically referred to as pyroclastic flows), the alert had been raised to level 4, the highest level of danger, and the volcano was expected to erupt at any point. Merapi's volcanic activity increased further after the Yogyakarta earthquake of 27 May.

By 9 June, the volcano had blown its largest heat cloud to date, and WHO joined a government emergency team for a rapid

assessment on-site. The volcano dome has been slowly collapsing, with up to 80 minor collapses per day. More than 12 000 people in Magelang district have been evacuated to 30 camps. Well-practiced



Heat clouds spewing from Mount Merapi darken the sky

drills were conducted and villagers were able to evacuate their homes within 10 minutes. More than 64 000 are at risk if the mountain erupts. The Central Java Governor estimated that 33 000 people would need to be evacuated.

Since the emergency period began, the Ministry of Health and local health authorities have been active. Medical posts and mobile clinics have been functioning round-the-clock. Emergency kits and medical equipment, including tents, portable generators, 30 stretcher beds, medical supplies, masks, and other items, have been provided. Emergency teams from the Central Ministry of Health and the province helped local staff in organizing medical evacuation sites and operating the contingency plan. Referral hospitals were notified, and specialist teams consisting of emergency, communicable disease, medical care and public health experts provided support to local health facilities.

WHO Indonesia has been in close communication with the Ministry of Health throughout the emergency. The Organization

has provided technical support in developing a contingency plan, and supplied emergency and surgical kits.

The Indonesian Ministry of Health, in close cooperation with WHO, has initiated the Health Emergency Operation Units. These are 4-wheel drive vehicles equipped with workstations, including a public announcement system, a computer, printer, radio, telephone, satellite communications, generator, emergency health kits, and lights. These are expected to strengthen coordination, communication and command at the field level. These vehicles ply around affected and evacuated areas, dispensing services as necessary, while also providing the latest information from the ground to the authorities.



Ash from Mount Merapi covers a nearby rooftop

WHO is also leading the UN Technical Working Group on Disaster Risk Reduction in reviewing the situation regarding Mt. Merapi. If the emergency gets worse, the agencies will work in a coordinated manner to support the Indonesian government and the affected people.

Ministry of Health in Timor-Leste provides health facilities in all IDP camps

More than 100 000 people have been displaced in Timor-Leste since the unrest that began in late May 2006. According to the United Nations Office in Timor-Leste (UNOTIL), 65 000 people have been displaced in the capital Dili alone, and are living in around 40 camps for Internally Displaced Persons (IDPs) in the city. Shelter and disease prevention were, therefore, the priorities for the UN humanitarian response.

The Ministry of Health continued to function well, with most hospitals and health centres fully operational. Central medical stores have also been functioning round-the-clock. Its staff have been responsible for providing mobile health services and permanent health posts in IDP camps. WHO is assisting the Ministry of Health of the country in coordinating the health response and filling in essential logistical needs.

WHO in Dili has also assisted in conducting data analysis through its Geographical Information System (GIS), which provides precise information. For example, it is possible to know the exact number of pregnant women (11 356 on 5 June), and lactating women (1153 on 5 June). Such information helps in providing services tailored to the needs of the people.

Health services are functioning in all the IDP camps. In crowded camps, water and sanitation is usually a concern. However, NGOs have been tackling this problem, and there has been a concerted effort on hygiene. Consequently, there have been a few of diarrhoea cases in the camps – a much lower figure than that for the general population.

The major health issue was acute respiratory infection, particularly in children, although adults were also vulnerable. Lack of shelter and the relatively low temperatures at night has led to an increase in such infections in 55% of the camp population. A WHO epidemiologist is coordinating the information and disease surveillance system, to ensure that no outbreaks occur in the camps.

However, funds are needed to ensure that the health system continues to function smoothly. Areas that require funding include integrated control of vector-borne diseases, human resource development in the health sector through proper training, strengthening of public health laboratories, and emergency preparedness and response. UN agencies, including WHO, may appeal for funds for the humanitarian response in this emergency.



Myanmar responds to Cyclone Mala disaster

A strong tropical cyclone, *Cyclone Mala*, hit Myanmar on the morning of 29 April 2006. Thanks to the national early warning system, however, the local communities were alerted in advance and relocated to safer shelters, mainly in Patheingyi.

Assessment missions were conducted after the cyclone in the Irrawaddy and West Bago Divisions, and Southern Rakhine State. Agencies such as the International Federation of the Red Cross (IFRC) through its Red Cross Partner (MRCS), the World Food Programme (WFP), the United Nations Children's Fund (UNICEF) and the Adventist Development and Relief Agency (ADRA) visited the affected areas. Four casualties were identified, and limited

damage to infrastructure was reported, including approximately 2500 houses. Of these, 180 houses were totally destroyed. Also affected were five factories and some houses in the Hlaing Thar Yar industrial zone outside Yangon.

The national authorities immediately provided relief to the affected people. International assistance was not requested, but was welcome.

All relevant agencies, including WHO, have coordinated their response through the Cyclone Mala Coordination Group. WHO provided emergency medical and surgical kits and technical support.



Sri Lanka prepares road map for disaster risk management

Until December 2004, Sri Lanka faced mainly hydro meteorological-based natural disasters such as floods, landslides, cyclones, tidal waves and droughts. The tsunami of 26 December 2004, was the biggest natural disaster the country had ever faced, killing over 31 000 people, destroying over 99 000 homes, and several health facilities, as well as damaging natural ecosystems and coastal infrastructure.

The tsunami, as well as the two-decade long conflict in the North East of Sri Lanka, has pushed the health sector, particularly of that region, to the brink of collapse. Availability, accessibility and quality of health care have all been severely affected, leading to increased mortality and morbidity and rising infant and maternal mortality. The incidence of communicable diseases such as TB, respiratory tract infections, diarrhoeal diseases, vector-borne diseases, and water-borne diseases have all registered an upward trend.

Therefore, the Government of Sri Lanka has established a Disaster Management Centre (DMC) under a Ministry of Disaster

Management and Human Rights. Its main function is to facilitate coordination among different stakeholders involved with disaster preparedness, response, prevention and mitigation activities. Under this legal framework, the country's Ministry of Health Care and Nutrition has been assigned the responsibility of formulating national health sector policy, planning and supporting the Disaster Management Centre to carry out activities relating to health sector emergency preparedness and response.

WHO collaborates with the Government of Sri Lanka both through the Disaster Management Centre as well as the Ministry of Health Care and Nutrition of the Government of Sri Lanka.

The Ministry of Health, has already drafted a "National Health Sector Emergency Contingency Plan" with WHO's technical support. The plan is under discussion and will be

implemented once approved. An emergency communication/control room has been established in the Ministry of Health to coordinate and monitor the health sector emergency situations in the country.



A hospital being rebuilt. Many health facilities in Sri Lanka were destroyed by the tsunami

Vision document on road map for disaster risk management

The Disaster Management Centre has prepared a road map for disaster risk management in Sri Lanka with support from WHO and other agencies. It is in two volumes. The first volume serves as a vision document and incorporates prioritized activities that need to be implemented over the short, medium and long-term period. It includes the following themes:

- Hazard, Vulnerability and Risk Assessment.
- Multi-Hazard Early Warning System.
- Preparedness and Response Plans and Programmes.
- Disaster Risk Management & Mitigation programmes for long-term risk reduction and Integration of Disaster Risk Reduction into Development.
- Public Awareness, Training and Education.
- Community-Based Disaster Risk Management.
- Policy, Institutional Mandates, and Institutional Development.

The second volume outlines 100 detailed proposals on health-related issues such as epidemic preparedness, accidents, etc.

Institutionalization of emergency preparedness and response activities in the health sector in Sri Lanka

To ensure that the experiences of past disasters are utilized for future benefits, and to develop skills and human resources in this area, the comprehensive course on Public Health and Emergency Management in Asia & Pacific (PHEMAP) was introduced in one of Sri Lanka's best-known universities, located at Kandy. The first course was held on 11-17 December 2005 for officials involved with the health sector emergency planning and management. The inaugural ceremony was attended by the Chief Minister of the western province, the Secretary to the Prime Minister, the Mayor



Sri Lankan health officials with tsunami-affected people. Health administrators are being trained in Public Health Emergency Management

of Kandy and other local dignitaries like the Vice Chancellor of the university.

The aim of the course was to impart knowledge, based on the national perspective, to key health administrators to enable the states to develop effective policies, plans, guidelines and standard operating procedures for health sector disaster management. The course consisted of 10 training modules covering different aspects of health sector emergency management.

The course provided an opportunity for local government offices, departmental decision makers and academics to jointly explore local issues and to propose local solutions. Since then, three short courses on pre-hospital and hospital emergency care have also been held.

Following the successful debut, the next course, with some modification/improvements, was conducted in March 2006. The services of the trained participants may be utilized for managing future emergencies. The university is taking necessary steps to initiate a Masters Degree course in Emergency Management.



Prompt health response to Northern Thailand floods

In late May, northern Thailand faced heavy rains which led to its worst floods in 60 years. At least 79 people died in these floods and subsequent mudslides, according to the Thai News Agency. The three worst-hit provinces were Uttaradit, Sukhothai and Lampang. The United Nations Office for the Coordination of Humanitarian Affairs (OCHA) reported that by 24 May, 103 355 persons (or 34 100 families) had been affected. Eighty roads and

28 bridges had been damaged, along with countless houses. Rescue and search efforts were made worse by the remoteness of some of the affected areas and the difficult conditions.

The Thai government, however, responded promptly. Uttaradit Hospital, for example, which was crowded with people bearing injuries, had requested five ambulances and a helicopter to transport patients

from remote areas as well as to refer serious patients to nearby hospitals. Thailand's Ministry of Public Health immediately sent 30 mobile medical teams to the affected areas. The Health Inspector of the Ministry of Public Health had commanded all adjacent provinces to assist the affected provinces in setting up mobile teams.

On the morning of 24 May, the Department of Communicable Disease Control sent a team to the flood-affected areas to set up epidemiological surveillance and control any communicable disease outbreak. The Department of Mental Health organized human resources to provide mental health and psychosocial support to the affected people. A 10-member dead body identification team was organized by the Ministry of Justice.

The Ministry of Public Health also sent 10000 sets of common pharmaceuticals to hospitals in the area and reserved another 500 000 sets for possible future needs. Chemical solutions and medical

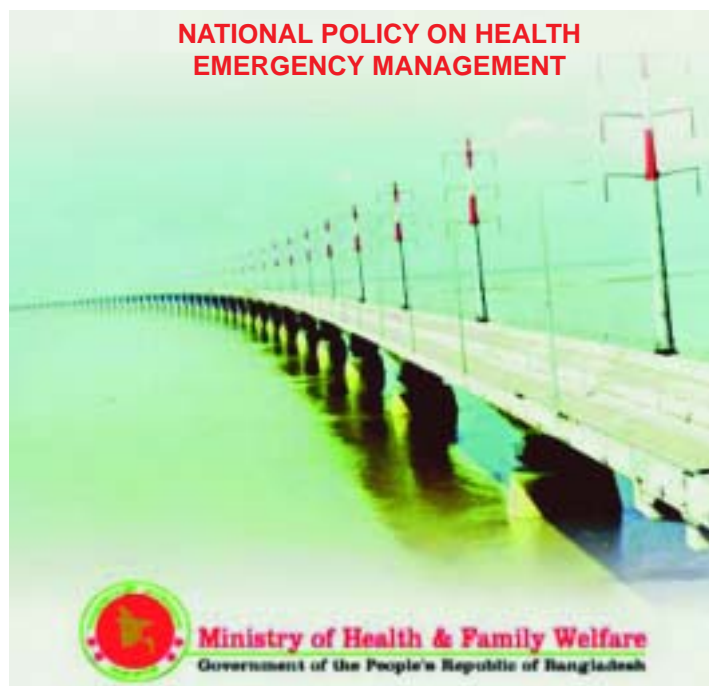
equipment for handling dead bodies were also provided by the ministry, according to the OCHA report.

WHO Thailand was in close contact with the Ministry of Public Health, ready to provide assistance as needed. A WHO staff member accompanied the team led by Deputy Permanent Secretary for Public Health, Dr. Narongsak Angkasuwapla, when they visited Uttaradit province in response to the disaster. The team visited hospitals and healthcare facilities, evacuation centres, and spoke to patients. They observed that the hospitals and health centers were coping well, with hospitals setting up mobile teams to provide health services to those most seriously affected. Two villages in Tha Pla district, for example, were seriously damaged and still not reachable. The evacuation centres visited were providing mental health counselling as well as injury care services to their residents. However, a good information and communication system from the provincial to the district and village levels was recommended.



Bangladesh prepares National Policy on Health Emergency Management

Bangladesh is vulnerable to various disasters every year, such as floods and cyclones, due to its geographical location and topography. Such natural hazards adversely affect the socio-economic condition of the people. Hazards, therefore, need to be minimized to ensure sustainable development in the country. Realizing this, the Ministry of Health & Family Welfare, in collaboration with the WHO Country Office, has prepared a **"National Policy on Health Emergency Management"** and **"Standard Operating Procedures (SOP)"** for health emergency management. Both are significant achievements.



The purpose of the policy is to define what is necessary to cope with the adverse public health consequences of natural disasters and emergencies in Bangladesh. The policy is implemented at the operational level through the Standard Operating Procedures (SOP) that have been developed.



Training to create public awareness of the importance of oral rehydration salts (ORS) for diarrhoea patients in an emergency

The National Policy on Health Emergency Management covers the key issues under the following components:

- **Administrative and coordination:** Avoid duplication of work and maximizes benefits through utilization of available resource;
- **Information management:** Set up a one-stop information clearing house for management of emergencies;
- **Public health surveillance:** Set up an early-warning system for epidemic-prone diseases and strengthen the epidemic response capacity by systemic gathering of medical intelligence through round-the-year surveillance;
- **Management of drugs, equipment and emergency medical supplies:** Strengthen the methods of inventory,

and management of drugs, equipment and emergency medical supplies for use during emergencies;

- **Hospital level service:** Develop a protocol-based procedure for mass casualty management in the event of large-scale emergencies and accidents;
- **Human resource development:** Develop professional competencies and expertise that are required for the effective coordination of health relief and recovery programmes, support the successful implementation of the policy and promote a knowledge-based approach to reduction of disaster risk and vulnerabilities in the communities;
- **Research and development:** Promote informed decision-making and evidence base for reduction of public health risks and vulnerability to all types of emergencies and disasters, natural and man-made;
- **Public awareness and community involvement:** Strengthen the coping mechanisms of the local community in mitigation and reduction of adverse health effects of emergencies and disasters;
- **Technical cooperation with other countries and international agencies:** Ensure that all relevant forms of technical cooperation are investigated and promoted to



Health workers in Bangladesh being trained on emergency procedures

maximize the effective use of available resources in the country;

- **Monitoring and evaluation:** Support the successful implementation of the National Policy through establishing mechanisms for monitoring and evaluation of performance and impact that will identify possible problems and effective strategies.

The **Standard Operating Procedures (SOP)** for management of health in emergencies deals with emergency health response and its aim is to standardize emergency health relief operations in line with best humanitarian practice.

A total of nine technical chapters in this SOP cover essential topics for management of health in emergencies. These include:

- Incident management;
- Assessment and survey;
- Food and nutrition;
- Communicable disease control;
- Water and sanitation services;
- Reproductive health services;
- Planning and management of temporary camps and emergency settlements;
- Management of health logistics;
- Media relations.



WHO assists in the Jammu & Kashmir earthquake

When a major earthquake hit the Indian state of Jammu & Kashmir in October 2005, WHO India applied the experience gained and lessons learnt during the tsunami of December 2004 to assist in the relief and recovery operations.

The earthquake, measuring 7.4 on the Richter scale, occurred at 08:50 on 8 October 2005, with the epicentre in Pakistan's Muzaffarabad region. Although Pakistan bore the brunt of the earthquake, several districts of Jammu & Kashmir in India – notably Baramulla, Poonch, Kupwara and Srinagar – were also very badly affected. According to official figures, 1308 people died and 6622 were injured.

WHO had already provided material support for the disaster relief operations. Four emergency surgical kits for 400 surgeries, blankets, mattresses, 20 chloroscopes (for monitoring water quality) and 40 000 chlorine tablets, were part of the material provided by WHO.

WHO's mandate, however, has traditionally been to provide technical assistance. Therefore, a mission from the WHO India country office visited the Kashmir Valley to carry out a rapid health assessment of the affected districts. The members of the mission met senior army and administrative officials to discuss areas where WHO could provide necessary technical support. (As the earthquake occurred in a militarily sensitive area, many in the army



WHO staff speak to earthquake survivors

were affected. The army was deeply involved in the relief and recovery operations). The team also visited hospitals in the affected areas.

Considering the number of injuries that followed the earthquake, the Injury Survey Format that WHO officials presented proved very useful, and was appreciated by health officials in the state administration as well as the army. This format was developed by the WHO India office.

The Director of Health Services, Jammu & Kashmir, was provided with the Framework for Psychosocial Counseling and the Training Manual for Psychosocial Support in emergencies. Both were prepared for the tsunami, but proved useful for training medical officers and health workers in Kashmir too. Similarly, other documents developed during the tsunami, such as the module for training of nurses in providing outreach services during emergencies, and Integrated Management of Neonatal and Childhood Illnesses in Disasters, were also shared with the Director of Health Services.

The WHO team also recommended adopting the Integrated Disease Surveillance Project (IDSP) format for syndromic reporting as part of disease surveillance, as it covered a wider range of diseases. Immunization of all children between the ages of six months to 10 years was also recommended.

Among other recommendations of the Mission was the need to strengthen disease surveillance and water quality monitoring, disaster preparedness planning, and human capacity development through training in courses provided by WHO collaborating centres.

WHO's range of expertise and experience in dealing with health aspects of emergencies was placed at the service of the people of Jammu & Kashmir in the aftermath of the earthquake.



The Maldives focuses on capacity building for emergencies

The Republic of Maldives did not have an Emergency Preparedness and Response (EPR) plan till the end of 2004.

The only plan in place at that time was the Emergency Airport Accident Contingency Plan, which, among others, includes protocols for the Indira Gandhi Memorial Hospital (IGMH). Today, however, health workers are being trained, with WHO assistance, in emergency preparedness.

The country was at the initial stages of preparing a Disaster Management Plan when the tsunami struck on 26 December 2004. After the disaster, the Ministry of Health began developing a comprehensive Emergency Preparedness and Response plan for the health sector with support from WHO.

A Disaster Health Working Group was set up to develop the plan. A workshop was conducted in September 2005, with the assistance of a short-term professional seconded to WHO from the International Federation of Red Cross and Red Crescent Societies (IFRC), to analyze the lessons learnt from the tsunami in the health sector, so that these lessons could be incorporated in the EPR plan.

Great emphasis has since been placed on disaster preparedness. The health sector EPR is a component of the Health Master Plan for the country as well as of the National Disaster Management plan. EPR has been included in the WHO Planning Budget (PB)

2006-07, and is also part of the National Development Plan 2006-2015.

A hospital emergency consultant from WHO also assisted the main referral hospital in the country, the Indira Gandhi Memorial Hospital, in upgrading the emergency department as well as in implementing a Hospital Preparedness Plan for mass casualties.



A laboratory worker at a Maldives hospital. The country is focusing on human resources capacity building

Through the tsunami project (utilizing funds received from the Flash Appeal) the emphasis has been on capacity building for emergencies, particularly human resources. Health workers in the Maldives were provided training ranging from pre-hospital care, accident and emergency care, to public health emergency management, in collaboration with organizations like Christian Medical College, Vellore, India, and the Asian Disaster Preparedness Centre, Bangkok, Thailand (see box).

**Capacity building in the area of EPR:
No. of health workers trained**

Pre-hospital care training	9	CMC, Vellore, India
Accident and emergency care	8	CMC, Vellore, India
Trauma care	7	CMC, Vellore India
Life support care	4	CMC, Vellore, India
Hospital emergency preparedness	1	ADPC, Bangkok, Thailand
Public Health Emergency Management (PHEMAP)	1	ADPC, Bangkok, Thailand
Disaster Management*	12	ADPC, Bangkok, Thailand

* Including WCO NPO (focal point for EHA)

An expert from WHO headquarters introduced the concept of 'Integrated Management for Emergency and Surgical Care at resource-limited healthcare facilities' on 23 November 2005.



Nurses at a Maldives hospital. Health workers have been provided training on hospital emergency preparedness

The first training of trainers in this field was conducted in May 2006 at IGMH.

A five-day Service Availability Mapping (SAM) training workshop was held in Male' from 11-15 June 2006, with the participation of about 25 health workers from island, atoll, regional and central levels. This training is a follow-up of a regional training workshop conducted in Bangkok with the assistance of WHO SEARO and headquarters. The training sensitized the participants on the use of SAM, increased their capacity to monitor and map the health services and resources available at island/atoll levels, and provided them with the knowledge and skills needed to empower health providers in the management of SAM, especially during emergencies.



Tsunami Recovery Impact Assessment and Monitoring System (TRIAMS) to be established

The World Health Organization, along with partner agencies such as the IFRC, held a meeting in Bangkok, Thailand, on 3-5 May 2006 to discuss the establishment of a Tsunami Recovery Impact Assessment and Monitoring System (TRIAMS).

The need for such a system has long been felt, and will have many benefits. The magnitude of the tsunami of 2004 was unmatched in the recent history of natural disasters but the humanitarian response to the disaster was also extraordinary. Such an outpouring of generosity had rarely been seen in the past—official and private pledges for relief and reconstruction assistance in the tsunami's aftermath reached US\$ 13.6 billion.

Governments of affected countries, and international organizations have utilized this large volume of funds in implementing many projects for relief and recovery. However, little is known about the magnitude and nature of the tsunami's impact on livelihoods, economic activity, and individual well-being,

particularly for the poorest and most vulnerable sections of the affected communities. The extent to which recovery efforts have addressed the human and socio-economic losses of the affected communities is also not clear.

It was therefore agreed that a common system of tracking the impact of the humanitarian efforts would enable donors, governments, NGOs, involved agencies and civil society to clearly observe the progress and impact of the post-tsunami recovery work being conducted. The data generated would be useful for all implementing agencies, governments and recipients of aid.



TRIAMS will help track the impact of humanitarian efforts on the livelihoods and individual well-being of the most vulnerable people in the tsunami-affected areas

TRIAMS is expected to answer the following key questions:

- (a) To what extent are base-line data available for the five main areas in which tsunami recovery efforts can be grouped (vital needs, access to basic social services, livelihood, infrastructures, and quality of life)?
- (b) To what extent have the losses and disruption in those areas been restored?
- (c) Have the living conditions and livelihoods of the tsunami-affected populations returned to the levels and standards existing before the disaster?
- (d) Are the recovery interventions targeting the poorest populations/communities?

- (e) Are the recovery interventions effectively addressing some of the pre-existing inequalities?
- (f) Have the recovery interventions generated new inequalities within the countries and within the affected districts?

At the meeting, a draft Action Plan was developed on how to set up TRIAMS in the affected countries. There was an agreement on core indicators, which need to be further refined. Country-specific indicators and/or proxy indicators to support these core indicators were also developed.



A tsunami survivor with his belongings

Benchmarks established for emergency preparedness in the Region

A tsunami, floods, earthquakes, civil conflicts: few countries in the South-East Asia Region have been spared the brunt of disasters in the past few years. Yet, it has been recognized that disaster reduction is integral to the development of a nation. In order to help countries of the Region achieve high standards of disaster preparedness in terms of health, 12 benchmarks were agreed upon at the Regional Meeting on Health Aspects of Emergency Preparedness and Response held in Bangkok, Thailand on 21-23 November 2005.

The tsunami, which affected more than 2 million people in six countries of the Region, sharply highlighted the importance of disaster preparedness. The effectiveness of the countries' response to a disaster of this magnitude depended heavily on their level of preparedness for health emergencies.

The meeting was therefore held to identify the gaps, analyze the specific needs and learn from the experiences of every country, to ensure that the entire Region is better equipped for any future disaster. Representatives of the government health sector of all Member States attended, along with NGOs and other stakeholders.

The panel sessions looked into preparedness and response issues based on hazards and risks the countries had faced: water related hazards, seismic risks including tsunamis, and other emergencies like conflicts and industrial accidents. Key themes were:

- Community preparedness
- Multisectoral coordination
- Country capacity strengthening

All participants were divided into six groups and discussed issues within the scope of these three themes. Based on the outcome of these discussions, 12 benchmarks were identified – key issues which each country should strive to meet in order to be well prepared for any emergency. Each country then analyzed their own status vis-a-vis these benchmarks, identified the priority areas of action, and the best way forward for them.

The Twelve Benchmarks

- (1) **Legal framework** and a functioning **coordination mechanism** and organizational structure in place for health EPR at **all levels** involving **all stakeholders**.
- (2) Have and regularly update disaster preparedness and emergency management **plan** for health sector and **SOPs** (Emergency Directory, National coordination focal point).
- (3) Emergency **financial** (including national budget), physical and regular human resource allocation and **accountability** procedures established.
- (4) **Rules of engagement** (including conduct) for external humanitarian agencies developed, based on needs.
- (5) **Community plan** for **mitigation, preparedness and response developed**, based on risk identification and participatory vulnerability assessment and backed by higher level or nearby capacity.
- (6) **Community-based response and preparedness capacity developed**, supported with training and regular simulation/mock drills.

- (7) Local capacity for emergency provision of **essential services** and supplies developed (shelters, safe drinking water, food, communication).
- (8) **Advocacy** and **awareness** developed through **education, information management** and **communication** (pre-, during and post-event).
- (9) Capacity to identify **risks** and assess **vulnerability** at all levels established.
- (10) **Human resources** capabilities continuously refreshed and maintained.
- (11) Health facilities built/modified to **withstand expected** risks.
- (12) **Early warning** and surveillance systems for identifying health concerns.

WHO and UN partners assess mass casualty management in Nepal's hospitals

Located amidst the steep, seismologically active Himalayan mountains, Nepal's unique geographic position and history has ensured that disasters are as much a part of the nation's landscape as the breathtaking natural beauty it is renowned for. The country has frequently suffered floods, avalanches, devastating earthquakes, and more recently, civil conflict. Preparedness for emergencies is therefore critical for Nepal, and WHO Nepal has been active in this area for many years.

In order to analyze how prepared the country's health system is in case of an unexpected emergency, WHO, along with UNICEF and UNFPA, has begun a countrywide assessment of the capacity of hospitals in mass casualty management.

The first of these assessments was conducted in seven hospitals in Kathmandu and Lalitpur on 24-25 April 2006, when the country was facing civil unrest. These hospitals were: Bir Hospital, B&B hospital, Medicare Health Centre, Model Hospital, Om Hospital and Research Centre, Patan Hospital, and TU Teaching Hospital.

The report concluded that the assessed hospitals could cope well with emergencies of the scale witnessed during the crisis at that time. Disaster plans did exist. Triage was applied. None of the hospitals had run out of medicines and essential supplies.

The report however, noted that 'the curfew made it difficult to purchase goods and transport staff, supplies and patients as the

number of curfew passes was insufficient. Hospitals also reported a shortage of food, gas and fuel.' This issue of free movement of patients, health workers and medical supplies needed to be addressed. Another gap identified was the lack of a central hospital coordination system. Mass casualty management coordination was, however, established on an ad hoc basis.

A key recommendation of the assessment team was the pre-positioning of essential supplies in order to enhance the health system as well as the UN's disaster response capacity. The importance of coordination among the agencies was emphasized.

A similar inter-agency assessment of key health facilities throughout the country took place a week after the assessment in the capital by mobilizing field staff from all involved agencies. The findings are currently being evaluated and a final hospital assessment report is being prepared.

Other Activities

WHO Nepal has launched a new Consolidated Appeal Process Programme funded by the Swedish International Development Cooperation Agency (SIDA). The programme aims to reduce excess mortality and morbidity due to any crisis by strengthening coordination and rapid response teams in the field.

WHO Nepal, along with the Red Cross, has also begun pilot training for female Community Health Volunteers on community-based first aid. This was a six-day programme held on 20-26 May 2006.



Patients awaiting treatment at a hospital in Kathmandu



EHA Events

Regional consultation on emergency preparedness & response: from Lessons to Action

Bali, Indonesia, 27-29 June 2006

On 30 June 2006, the recovery phase of the tsunami will draw to a close, with future emphasis on rehabilitation and development efforts. It is an appropriate time, therefore, for this meeting organized by WHO in collaboration with the Indonesian Ministry of Health, to review to what extent post-tsunami activities have contributed to the development of the Region, and to set out a coherent and collaborative path of action for the future.

In doing so, the meeting will address how the lessons from the tsunami can be used to address future emergencies, such as the avian influenza pandemic, earthquakes, volcanic eruptions and others. It will frame the strategic action points for rehabilitation activities and strengthening country capacities in emergency preparedness and response, which will ensure an effective response in future health emergencies.

The objectives of the meeting include:

- reviewing the work done post-tsunami and lessons learnt from the experience

- reviewing the progress in countries in achieving the Regional EPR benchmarks
- documenting the progress since November made relative to the benchmarks defined in the Bangkok meeting (November 2005).
- identifying strategic actions for the rehabilitation and development of the tsunami-affected areas and for those impacted by the more recent emergencies
- consolidating action points into a framework for intensifying country/community capacities for emergency preparedness and response
- creating a cohesive plan by integrating the output from other meetings held on this topic since November 2005.

Representatives from all tsunami-affected countries will attend the meeting. International agencies involved in disaster management will also participate.

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