Gearing up to respond

INITIAL DEVASTATION IN THE REGION

A considerable number of deaths were reported initially in Indonesia (4000), Sri Lanka (3225), Maldives (10), Thailand (257), India (2000) and Myanmar. These figures rose steeply in the coming days. At the end of 2005, in Indonesia the number of deaths recorded was 130 736, Sri Lanka 35 322, India 12 405, the Maldives 82, Thailand 8212 and Myanmar 61. Malaysia (Langkawi and Penang), Bangladesh, Somalia, Tanzania, Seychelles, Bangladesh and Kenya were also affected, but to a much lesser degree.

The tsunami caused large-scale damage to infrastructure, including many health facilities. Besides organizing help for mass management of injuries and casualties in hospitals, WHO foresaw the urgent need for assessing the health needs of the affected population. In the short term, additional threats to human life were anticipated from contaminated water sources, poor sanitation and overcrowding. Critical gaps in health response needed to be promptly identified and filled for reactivating and boosting the capacities of local systems for health-care delivery. Strong coordination was needed to optimize local and national efforts with enhanced international goodwill.

WHO went to work in accordance with its defined strategic functions in crises. These include the following:

- Measuring ill health and promptly assessing health needs, identifying priority causes of ill health and death;
- Supporting Member States in coordinating action for health;
- Ensuring that critical gaps in health response are rapidly identified and filled;
- Revitalizing and building capacity of local and national health systems.

ASSESSMENT AND EMERGENCY RELIEF

WHO PRIMARY FUNCTIONS

In the first days, WHO aimed to maximize the life-saving and life-preserving impact of all humanitarian action through support to countries (and the international community) for the following actions:

1. *Surveillance and response:* Track patterns of life-threatening diseases among those at risk through prompt setting-up of a surveillance and early warning system with daily epidemiological reports.
2. *Access to essential health care:* Work with all partners to ensure equitable access

Predicting disease following the emergency

Days 1–3	Injury/drowning and deaths Injury management	Safe disposal of corpses Needs assessment
Days 3–5	Diarrhoeal diseases Acute respiratory infections	Health promotion –Sanitation, environment –Water purification –Personal hygiene –Immunization (measles) –ORS Emerging disease surveillance (morbidity/mortality)
5–10 days	As above plus: dehydration, pneumonia, conjunctivitis, skin infections	As above plus: Antibiotics for pneumonia Drugs for skin infections and conjunctivitis
>10 days	As above plus: vector-borne diseases (malaria, dengue fever), typhoid fever, measles and malnutrition Psychosocial problems	Ongoing surveillance, health education, measures for vector control, antimalarials, supplementary feeding programme Psychosocial support Rebuilding health infrastructure

to adequate quality of essential health care through key hospitals and health centres.

3. *Public health:* Provide guidance on critical public health issues (response to disease outbreaks, water quality, excreta management, chemical threats, chronic disease management and mental health). The Organization aimed to fill critical gaps till others were able to take on the task.
4. *Medical supplies:* Contribute to ensuring that medical supply chains functioned as efficiently as possible and responded to the needs of those affected.
5. *Joint action:* Coordinate health actors at the local, national and international levels, with agreed strategies and joint action.

Operational platform

Implementing the above required a marked scaling-up of WHO capacity and had considerable staffing/resource implications. A critical step was the establishment of operational platforms at the country level (both at national levels and in the worst-affected areas, especially in Indonesia and Sri Lanka) and in SEARO. SEARO determined country by country staffing requirements based on the functions listed above. The Health Action in Crises (HAC) division in WHO Headquarters in Geneva assisted with special assets in the areas of logistics, communications and security.

On 27 December 2004

- A senior WHO official and the Emergency and Humanitarian Action (EHA) focal point in the Country Office was on the UNDAC evaluation team conducting assessments in the affected areas.
- In Indonesia, WHO joined the MoH in a rapid assessment of the situation in North Sumatra; joint UN Missions were also conducted to search for staff and assess the situation within the week.
- The WR for Thailand assessed affected areas in that country.
- Two staff from WHO office in Nepal were mobilized to assist the regional relief operations.
- Two senior staff from Headquarters travelled to Delhi, and additional experts were mobilized from Headquarters, and Regional Offices for Europe and the Western Pacific. Staff was on standby in the WHO Pan American Health Organization (PAHO) and Western Pacific Regional Office (WPRO).

By 3 January 2005

- By 3 January 2005, WHO was in the process of establishing in New Delhi an operational support team for the Global Outbreak and Alert Response Network (GOARN). This is a mechanism for technical collaboration among existing institutions and networks to pool human and technical resources for the rapid identification, confirmation and response to outbreaks of international importance. The WHO team had the task of coordinating support from GOARN partners. GOARN was activated by 8 January 2005 and 120 epidemiologists were on standby. Twelve expert epidemiologists from GOARN and 10 from WHO were deployed in various affected areas.

THE OPERATIONS ROOM:
WHO SOUTH-EAST ASIA REGIONAL OFFICE

Following the phone call from the Maldives, WHO SEARO moved into action immediately. Dr Samlee Plianbangchang, Regional Director, prepared to launch emergency response measures. He assigned responsibility for all aspects of the operations to Dr Poonam Khetrapal Singh, the Deputy Regional Director. With six Member Countries reeling under the impact of the disaster, WHO SEARO was the nodal point for coordinating WHO's efforts in the rescue and relief operations. WHO Headquarters provided constant support, particularly the HAC Division. Response plans were set in motion on 27 December 2004.

The Operations Room (Ops Room) that was set up in SEARO formed the hub of WHO's response. It functioned 24 hours a day, and was manned entirely by Emergency and Humanitarian Action (EHA) and SEARO staff through the day, and in the evenings by volunteer professional and general staff. The team was constantly in touch with the affected countries.

Organization

The Ops Room was organized as follows:

EHA Task Force Policy Group: The Policy Group was responsible for the policy decisions made by the Working Group. This group comprised senior management; its main functions were to guide the work of the Working Group and make decisions on certain issues that arose as the operations evolved.

EHA Task Force Working Group: This Group was responsible for day-to-day operations. The team comprised the Ops Room coordinator, an information manager, a public health expert who looked at various problems arising from the situation, a logistics and supplies expert, staff dedicated to resource mobilization; a group dedicated to recruitment and travel of staff needed in the countries, and a communications person to deal with the media and various communication needs.

The Task Force focused on the following:

- coordinating the operations with countries;
- identifying public health needs and deciding how best to address them;
- coordinating of technical support to be provided to countries; and
- managing and disseminating information.

The Task Force also helped in the development of proposals for immediate and medium-term restoration of public health services, as well as for procurement of supplies for life-saving interventions.

Scope of work

Human resources: The HR Cell took charge of recruiting doctors, nurses and health professionals from around the world. The best experts were recruited and deployed where they were most needed. Epidemiologists, water and sanitation experts, communicable disease experts, logisticians, information technology and communication experts responded to WHO's call for assistance.

Media: Since the first reports of the tsunami became available, mediapersons from all parts of the world looked to WHO to provide them with expert information about health concerns, outbreak precautions and measures taken to ensure health. Senior staff at WHO Headquarters and SEARO untiringly answered media queries.

Partnerships: WHO's long-established partnerships with national and local authorities in each of the affected countries helped immensely. The immediate task at hand was to protect the health of the survivors and people rendered vulnerable by the disaster. WHO Representatives (WRs) in each of the affected countries were in close contact with the respective ministries of health, and worked together to develop strategies for response, such as providing supplies where needed, monitoring public health to prevent or contain outbreaks, replacing lost health assets and providing technical expertise to fill gaps. Basic health-care systems had to be re-established, safe drinking water provided, and disease surveillance systems set up for a target population of five million people.

A few days after the tsunami struck, WHO officials formed a part of the United Nations Office for the Coordination of Humanitarian Affairs (UN OCHA) team. This team made a preliminary assessment of the extent and impact of the disaster on the ground.

Information and communication technology (ICT): It was essential to put effective communication systems in place. In the affected sites, local telecommunication infrastructure was badly damaged, which impeded relief operations considerably.

A subgroup to coordinate technical matters: The Tsunami Technical Group (TTG) was established under the guidance of the Communicable Diseases Director. This group coordinated mobilization of expertise, and prepared a database of experts who could be contacted when needed. Guidelines and tools were adapted and dispatched to the ravaged countries to help them cope with the disaster. A representative of the TTG was located in the Ops Room for better coordination of all the Group's activities and to anticipate requirements.

Tsunami Technical Group (TTG)

Coordinator

»Facilitate meetings » mobilize technical units » attend SEARO task force meetings and coordinate response activities including resource mobilization

Guidelines and tools	Mobilization of experts*	Surveillance/EWS/ data management	Communication update/ outbreaks update
› Identify/adapt if required › Respond to specific requests › Technical proposals › Webpage posting	› Consult WCO on needs › Database of technical experts › Short-list of experts for deployment › Directories—contact list	› Compiling and analysis of data › Dissemination and use › Epidemic preparedness › Outbreak response	› Feedback › Liaison with OR › Contact with WCO › Contact with field team

(*) GOARN, WHO/HQ, other WHO Regions and countries mobilized
OR Operations Room
WCO WHO Country Office
EWS Early Warning System
GOARN Global Outbreak Alert and Response Network

Activities

The Ops Room was the place where all decisions were made. The television in the background kept everyone updated with the latest news.

From weeks 1 to 4, there was one day shift and two night shifts. At 8:30 in the morning, the Working Group met daily to decide on the tasks of the day. At 11:00 a.m., there were meetings with the Policy Group and teleconferences with the WRs in the countries. At 13:30 p.m., there were teleconferences between Senior Management and HQ Operations. The Technical Coordination Forum met every day during weeks 1–3, and twice a week thereafter. Demands from countries were received and had to be met. Pipelines (people, supplies, resources and information) within SEARO were kept track of in coordination with countries and WHO HQ, and the progress made in the countries was tracked on a weekly basis.

Products and services

- Situation reports from each of the countries were analysed and a regional summary situation report was sent out by evening to key people, including donors. These reports were also posted on the web.
- Daily video and teleconferences were held in the initial two weeks and weekly thereafter.
- Media support: Daily question and answer updates were held for all Ops Room staff so that they would be able to answer queries from the media.
- Assistance and facilitation of country requests were provided, whether technical or administrative.
- Responses were tracked and requests for assistance followed up.
- Information archiving and filing was carried out.

Office set-ups in countries and field/suboffices: WHO's long partnership with the affected countries, and knowledge of prevalent local conditions and customs helped in dealing with the crisis. WHO placed its resources and expertise at the disposal of local governments. In each country, WRs were in close touch with the ministries of health. In the Ops Room, staff heard requests for help—human and material resources—and mobilized access to these. Assistance was provided for staffing and deployment to affected areas, as well as for procurement of medicines and vaccines. More than 80 guidelines were developed, transmitted to the field and posted on the web.

Information and communication technology (ICT): ICT played a crucial role in

assessment of the situation. Several information systems were used to disseminate accurate information effectively through electronic means such as web portals and list servers. The Ops Room and staff received ICT support and equipment, and the bandwidth was expanded. Tsunami country focal points were directly online, and collaborative workspace was developed.

SEARO support to WHO Country Offices

SEARO team in countries

Support to WRs in the affected countries consisted of sending necessary supplies such as oral rehydration salts (ORS), chlorine powder, emergency medicine and surgical kits. Experts in disease surveillance and outbreak response, water and sanitation, logistics and management were sent to the countries, both to ascertain country needs and to ensure proper coordination among all health agencies for the best support to countries.

Technical staff from other Regional Offices were sent where needed and some staff from SEARO were deputed to work full time in the tsunami operations (e.g. HR, Finance).

Administrative support

- Guidelines were issued for fast-track supplies and procurement, finance management and disbursement, human resources, etc.
- Staff support was provided in WHO Country Offices (WCOs), Field Offices and in SEARO.

THE 100-DAY STRATEGY

A 100-day strategy for dealing with the crisis was adopted at the end of December 2004. It was expected to run till the end of March 2005. During this period, WHO focused its operational activities in Indonesia, Sri Lanka and the Maldives. India and Thailand did not request or require financial help. The WHO Office in Yangon supported the international efforts.

Objectives

- Monitoring public health to provide early warning of emerging health threats and enabling timely organization of necessary response;
- Replacing lost assets, infrastructure and supplies that were crucial to meeting additional health threats consequent to the disaster, as well as the reactivation of previously available health services;

- Providing technical expertise to health authorities to enable gap-filling;
- Establishing and sustaining effective regional, national and local health coordination to ensure efficient deployment of assistance;
- Ensuring up-to-date information on the health situation to local, national and international partners;
- Refining health needs assessment and facilitating early recovery and rehabilitation.

Health priorities for WHO

First: Finalize assessments and establish disease surveillance.

Second: Provide medical and surgical care to the injured.

Third: Ensure that survivors had access to clean water in adequate quantity and that those who had lost their homes did not live in conditions that were overcrowded, unhygienic and/or dangerous.

Fourth: Prepare for possible outbreaks of malaria and dengue fever that were endemic in South-East Asia.

Fifth: Assess the environmental risks posed by contamination from toxic chemicals as hazardous industries, pesticide warehouses for agriculture, gasoline tanks, oil pipelines and/or waste disposal sites had been either flooded or destroyed.

Action taken by WHO

- WHO supported national capacities for disease investigation and verification in Sri Lanka, Indonesia, Thailand and India. Epidemic intelligence was extended on the ground through local health authorities, nongovernmental organizations (NGOs) and UN Agencies.
- Assessments were carried out on health infrastructure, and requirements for medical care and supplies in collaboration with local authorities and the wider UN system.
- WHO's 24-hour crisis rooms operated in Geneva and New Delhi. Emergency management units (EMUs) were set up in strategic locations and additional logisticians were moved to the field.
- Teams of health experts were deployed to Indonesia, Sri Lanka and the Maldives.
- WHO mobilized health kits to cover essential medicine needs.
- WHO circulated an Emergency Health Action Programme for South-East Asia, identifying the immediate needs for the next three months. The financial requirements for WHO's action over this period was US$ 40 million.

WHO collaborated with the ministries of health and international partners in the affected countries to help determine the damage, needs and capacities. WHO also drew up strategic plans to provide effective support. A few core concerns were focused on:

- *Making a rapid assessment of the situation:* Small teams were dispatched to all affected countries to make a rapid assessment of the extent of damage to the health infrastructure, the number of people displaced, their living conditions, access to safe water, sanitation and food.
- *Meeting the immediate needs of the survivors:* WHO mobilized 190 emergency health kits. Each of these kits caters to the needs of 10 000 people for more than three months. These kits had enough medical supplies to cover the essential medicine needs of about two million people for three months. The nine kits that were immediately available were distributed in the Region, and 140 other kits to treat diarrhoea and surgical conditions were put in place.
- *Preparing for disease outbreaks and malnutrition:* WHO's priority was to pre-empt outbreaks of communicable diseases. Steps were taken to set up effective surveillance systems that would provide early warning of impending outbreaks. Anticipated health problems were mapped and a predictive chart devised based on previous data and experience.
- *Mobilizing human resources to meet the immediate challenges:* Experts in various fields were identified and deployed as and where needed.

FLASH APPEAL

Worldwide solidarity with the affected populations was swift and generous, but needed to continue well beyond the immediate disaster period. The Flash Appeal reflected the efforts of about forty UN agencies and NGOs to plan and implement a strategic, efficient and coordinated response to the needs of approximately five million people. It focused on supporting people in Indonesia, Maldives, Myanmar,

Seychelles, Somalia and Sri Lanka from January to the end of June 2005, and called for US$ 977 million to fund the critical work of many UN agencies and NGOs.

Programmes focused on keeping people alive and supporting their efforts to recover in the agriculture, education, health, food, shelter, and water and sanitation sectors. Reaching isolated communities was a serious challenge because of the destruction of transport infrastructure and communication systems. This required the establishment of complex logistics and operations platforms. Strong coordination with and between governments, and the international aid community ensured that assistance was efficient and reached the people who needed it most.

Regional programme

The regional scope of the tsunami disaster required a response in part on a regional scale. Logistics, procurement, coordination, information systems, resource allocation and management conducted at a regional level, with full information and economies of scale, would significantly improve the efficiency and effectiveness of the aid response. The projects that operated on a regional level comprised food aid, joint logistics and air services, coordination, regional health, technical support, early warning systems, management, monitoring and evaluation, protection and human rights, capacity-building, and security for humanitarian operations.

The funding requested for regional-level aid amounted to US$ 352 908 700.

Response plans

Coordination and support services

For an optimally effective and efficient aid response that would confront the regional extent of this disaster, coordination would have to operate on a regional level. Agencies therefore sought support to establish or reinforce regional support systems, enhance field-level coordination of relief activities, keep the international community informed of the situation and needs in affected countries, and avert gaps in response to the disaster for a period of six months.

Throughout these activities, agencies aimed at ensuring a smooth transition to the recovery and reconstruction phase, and at monitoring the implementation of projects contained in the Appeal. Agencies also aimed at strengthening response preparedness, including contingency planning and early warning mechanisms to

ensure that humanitarian action in tsunami-affected countries was supported and coordinated for optimal efficiency, effectiveness and speed.

Coordination activities

UN OCHA

- Maintained and strengthened its support to the UN country teams in Indonesia, Maldives and Sri Lanka. To support Aceh, Indonesia, which suffered serious human loss and damage in coastal areas that were difficult to access, OCHA established an area support office in Sumatra and a Humanitarian Information Centre (HIC) in Aceh.
- Established and strengthened its Regional Support Office in Bangkok to support all the disaster-affected countries, thereby promoting regional cooperation. A suboffice was also established near the most affected countries to provide logistic support.
- In Geneva, at headquarters level, OCHA's Special Task Force for the tsunami disaster was strengthened to support field and regional relief activities.

Health

The success of all humanitarian work is measured by human survival and attainment of health. Urgent action was needed to address the critical public health needs of about five million people in the South-East Asia Region. They lacked access to basic needs such as clean water, adequate shelter, food, sanitation and health infrastructure, and this would have a significant impact on their near- and long-term health. Therefore, the global response to this public health crisis would be a critical indicator of the success of the overall relief and recovery effort.

The Regional Appeal supported and complemented the various country-specific

appeals that were part of the Flash Appeal. WHO provided a speedy, credible and appropriate emergency response to countries that were severely affected and also worked with the national authorities of those less badly affected.

The core elements of this programme were developed in order to have an effective impact on urgent life-saving measures, and medium- and longer-term recovery efforts in the affected South-East Asian countries. These included: (i) prompt setting-up of disease surveillance and response efforts through early warning systems and the GOARN; (ii) coordination of health actors at the local, national and international level; (iii) guidance on addressing all major public health issues in the region and filling critical gaps; (iv) assessment of health infrastructure and the quality of services in hospitals and health centres; and (v) monitoring the effective and efficient functioning of medical supply chains.

WHO requested a total of US$ 60.3 million for the successful implementation of tsunami-related emergency programmes. Following more detailed assessments, if a substantial deterioration in the structures was found, then the health needs would escalate.

Effective management at the regional level was essential to ensuring that the delivery of this programme was efficient and met the needs of the affected population so as to save lives and reduce suffering.

The Regional Support Office established in Bangkok ensured connectivity with the Joint Task Force and the core group. Regional-level planning was carried out so that WHO could integrate the emergency plan with the long-term WHO Plan of Work in the countries to ensure the continuum from relief to recovery and

development. WHO also supported the ministries of health in each of the affected countries to conduct in-depth assessments of the recovery and reconstruction needs of the health sector, building on its expertise accumulated in handling crisis situations such as floods and internal conflict in Sri Lanka, earthquake and internal conflict in Indonesia, and epidemics and pandemics such as severe acute respiratory syndrome (SARS) and avian flu in various countries. This ensured that programmes such as disease surveillance and health information systems would persist after the emergency phase.

Looking forward, there was a need to organize lessons learnt exercises to determine how the UN system and the health sector reacted to the unprecedented disaster. Critical evaluation of the response to this disaster by the humanitarian community was conducted in the affected areas.

Activities in the area of health

- Prompt set-up of a disease surveillance system to monitor the public health situation, provide early warning of emerging health threats to enable the timely organization of necessary response;
- Support ministries of health in coordinating health sector activities to help ensure the best use of available resources and avoid duplication of activities;
- Manage the mobilization and coordination of technical staff, health supplies and medical equipment;
- Establish a functioning operations platform at the Regional Office and support the emergency joint task force in assessment and coordination activities;
- Develop a strategy that would integrate the relief work into WHO's long-term plan of work;
- Organize a lessons learnt exercise and conduct critical evaluation of the emergency relief work.

Country-specific appeals

Indonesia

The UN, together with its partners, made a commitment to assist victims and to support Indonesia in the massive effort required to meet immediate humanitarian needs and to plan for and address longer-term recovery and rehabilitation requirements. This Appeal represented the integrated and consolidated requirements of UN agencies and NGOs operating in Indonesia, most of which had considerable experience in providing aid and development assistance in the Aceh region.

At this stage, sectoral priorities for the international community included: health, water and sanitation, food, coordination and support services, shelter and non-food items, protection, education and economic recovery including infrastructure rehabilitation.

The total funds requested for providing support to all sectors in Indonesia amounted to US$ 371 554 203 (plus a further US$ 102 000 000 for food). The total funds required in the health sector were US$ 69 610 000.

Maldives

The magnitude and scale of the disaster relative to the size and population of the Maldives were unprecedented in living memory. The tsunami inundated the entire country.

The Maldives had a positive record in the effective utilization of international assistance. The World Bank ranked the country in the top five in terms of aid effectiveness. The country's response to the tsunami, along with rapid socioeconomic progress in the past two decades, promised effective and efficient use of international aid.

Through this Appeal, UN Agencies sought US$ 66 497 000 to address urgent humanitarian needs and begin the recovery and reconstruction process. A sum of US$ 10 605 000 was requested in the area of health.

Sri Lanka

In Sri Lanka, the Appeal requested funding support to provide food, potable water, health services, sanitation, shelter, and non-food items such as hygiene and cooking kits to the displaced as well as to those most critically affected by the tsunami.

The UN and its partners requested US$ 166 936 146 to provide urgent assistance to the Sri Lankan people for a period of six months. In the area of health, the sum requested was US$ 28 600 000.

Myanmar

Myanmar had been spared a large-scale emergency. The Government of Myanmar responded to the situation by providing support to the affected population and sharing available information on the impact of the tsunami with the relief community.

Relief agencies rapidly organized and coordinated assessments in accessible areas and found needs for safe drinking water, food, medicines, shelter, and non-food items (blankets, clothes, cooking sets, etc.). UN agencies closely coordinated their response with international NGOs and the Red Cross movement.

The situation required agencies to scale up and/or redirect their existing programmes to tsunami-affected areas to provide adequate support for a quick recovery. UN agencies therefore reallocated existing resources from available in-country funds and supplies as well as called for additional resources through their respective regional appeal mechanisms to cover the immediate response. Planning and costing of medium-term recovery and rehabilitation activities were based on the results of needs assessments.

REACHING OUT

With the Operations Room established and fully functional in SEARO, and support extended to Country Offices, WHO moved into swift and targeted action. The entire Organization was geared up to respond to the overwhelming needs of the tsunami-affected countries. With the backing of several UN Agencies, INGOs, NGOs and several other organizations, WHO mounted a coordinated response that would ensure that affected countries would build back better.