


Chapter 4
The Lessons
Learnt



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A new building replaces an old one destroyed by the tsunami.



Recovery Plus

More than eight months after the tsunami, as the relief and rehabilitation efforts have moved away from the emergency phase, health sector workers can allow themselves a small sigh of relief. While over the months, there had been sporadic cases of diseases like measles, diarrhoea, hepatitis A and others, there were no major outbreaks, and deaths due to communicable diseases after the tsunami were not higher than normal. This would appear to indicate that the timely preventive measures taken — chlorinating water, setting up early warning systems for disease, using anti-vector sprays, to name just a few — were successful.

In public health, the level of sickness and death among surviving populations following a disaster is an indicator of how much basic relief is reaching people in need. There are, however, challenges to be met. Hundreds of people are still in camps, particularly in Sri Lanka and Aceh. They continue to need assistance and have yet to re-establish secure livelihoods.

As governments and people now look towards building a new life, the UN agencies are focusing on, in Secretary-General Kofi Annan's words, 'Recovery Plus'. The concept is that recovery from the tsunami offers an opportunity to look beyond, not merely rebuilding what previously existed, but to improve upon earlier systems. It is a concept that WHO complies with. As Dr Samlee Plianbangchang said, "Every disaster presents opportunities to both countries and international agencies to strengthen capabilities."

Already, systems that were developed to cope with the aftermath of the disaster are being integrated into daily routines and strengthened further. In Aceh, for example, the surveillance system has responded to over 350 cumulative cases through alert and response mechanisms. In order to strengthen the surveillance system, with support from WHO, training workshops have been conducted for all district surveillance officers from 21 districts in Lhokseumawe. Six training sessions have been planned for district and provincial surveillance officers over the next three months on a regional basis across the province. The Provincial Communicable Disease Control office has been equipped with IT capacity for effective management of disease surveillance data. Plans are in place to extend the IT capacity to all the 21 districts. Motorcycles are being provided to all the districts in order to improve mobility for effective surveillance and routine immunization outreach. This strengthening of systems is not limited to IT capacity and training. The Meulaboh District Laboratory as well as the Provincial Food and Drug Laboratory have been further equipped by WHO to ensure accurate testing even in normal times. As a Banda Aceh-based epidemiologist put it, "We are now trying to build a system which could match the best available standards to serve the people of Aceh."

This is a sentiment echoed across all tsunami-affected countries, in every sphere. In India, a well established Integrated Disease Surveillance system is going to be strengthened further, with the focus

Looking to the future: children affected by the tsunami ▶





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on capacity building. Sri Lanka too is in the process of upgrading and streamlining its surveillance systems. Functional public health laboratories are being established in different provinces, and there are plans for an organized laboratory network to improve the quality and efficiency of diagnostic services.

The mental health of the affected population has always been a key concern. In every affected country, WHO, along with the concerned governments, has provided training for psychosocial support. This emphasis on mental health in the tsunami-affected communities has set in motion some far-reaching changes. Realising the benefits of community mental health systems compared to delivery of mental



Hospitals have been rebuilt and many are fully functional again.

health care in tertiary care psychiatric hospitals, the government of Sri Lanka also decided to review its mental health policy and mental health legislation to make it more community service oriented. This review was long overdue and the tsunami worked as a 'wake-up call'.

In Indonesia too, an offshoot of the tsunami is that Aceh will become the first province in the country to have community mental health services. A WHO-funded survey conducted by the University of Indonesia showed that there is a need for community mental health

services. The University did a study on children in five districts in Aceh, Nias and Jakarta. The results showed that although most children managed to cope with the disaster, a fourth of them had significant emotional and behavioural problems that needed skilled professional attention.

With technical assistance from WHO, the Ministry of Health has developed a mental health plan for Aceh. Endorsed by the Provincial Health Authority, the idea now is to work with District Health Authorities, NGOs and donor agencies to develop a needs assessment plan for each district. District health authorities will need to put those plans into action.



Four mournful tsunami-affected women. Community support is now part of long-term mental health strategies in the affected areas.

This is also the first time that modern technology for forensic identification of bodies has been used on such a large scale following a natural disaster. In Thailand, the Ministry of Public Health is being assisted by WHO in over 30 projects, including forensic science, the architectural engineering aspects of building hospitals and other public health infrastructure in disaster-prone areas, mental health (particularly in the long-term psychological effects of disasters on children), and capacity building in disease surveillance as well as



development of mobile emergency response units.

Indeed, infrastructure has been a major area of focus in the reconstruction phase. In most disasters, hospitals are places of refuge, where survivors can be sure they will be taken care of. Hospital staff are trained to tend to an influx of serious patients after a disaster. The damage to health facilities added a further burden after the tsunami. In the post-disaster reconstruction scenario, therefore, governments — with support from the World Bank, international donors and the private sector — are rebuilding or improving structures for health care so that they can withstand possible future tsunamis and earthquakes. Sri Lanka, for example, is focusing on the 'build back better' strategy. The issue of infrastructure development has been successfully addressed through coordination initiated by WHO with the Ministry of Health, and with other UN agencies, international NGOs and donors. An MoU has been signed by each of the donors with the Ministry of Health for restoration, reconstruction and/or rehabilitation of almost all the identified damaged or destroyed institutions.

In the Maldives, too, infrastructure has been strengthened, keeping long-term benefits in mind. Three thousand drums have been procured for collecting hazardous waste from tsunami-affected islands, and 13 health professionals have undergone training to develop and implement a national strategy for management of healthcare waste. With a view to long-term, sustainable use of water resources, 'template' water safety plans are being developed, and the needs for water quality surveillance assessed.

In the Maldives the capacity building support provided following the tsunami through training and the updating and development of food safety guidelines, culminated in the preparation of a national food safety strategy. It is based on a risk analysis approach in combination with self regulation by industry, consumer participation and selective enforcement. Twenty five food inspectors have been trained.

◀ Children play in front of a rebuilt house



Two tsunami-affected nurses get on with their jobs. Training human resources for long-term benefit is a key goal.

Sri Lanka Reviews Mental Health Policies

Mental health has been a key concern across all tsunami-affected countries. In Sri Lanka, the plan has now taken on a much wider coverage. WHO is working with the Ministry of Health, the College of Psychiatrists, and numerous other health partners to devise and implement a long-term strategy and plan that will benefit not only the population affected by the tsunami, but also patients of mental illness.

It has been estimated that 384000 Sri Lankans suffer from serious debilitating mental illnesses, such as bipolar illness, major depression and schizophrenia, whilst about 10% of the population is thought to suffer from less acute mental disorders in the form of phobias, obsessional, somatoform, mood and delusional disorders. Following the tsunami, a further 30000 survivors are expected to develop mental illness, most notably depression and medically unexplained symptoms. WHO's criteria is that there should be one psychiatrist for every 100000 people. By this measure, Sri Lanka needs 300 psychiatrists. Currently, it has only 28. Hence, the necessity for far-reaching and effective modification, particularly in a country that has one of the highest suicide rates in the world.



A man being counseled in a camp.

In order to achieve maximum impact and coverage the revision and amendment of the existing mental health legislation in Sri Lanka is therefore crucial. Originated in 1873 and last amended in 1956, the legislation is of an era when people with mental disorders were incarcerated in large institutions which promoted stigmatization, discrimination, isolation and ostracism.

While there are many areas in this sector where immense progress is being shown in Sri Lanka, the need to develop and tailor the legislation to the essential components of today's mental health requirements remains vital. As such, a draft

policy has been created, which has been approved by all relevant parties within the health sector and the Ministry of Health. It is currently receiving public inputs before being presented to Parliament where the objective is to have the amended legislation passed and implemented.

A key component of the strategy will be to develop a planned and comprehensive community-based health service. This translates into the training and development of community health workers in the recognition and support of mental illness and disorders within their community. After a disaster such as the tsunami, for instance, each and every person in the population is psychologically affected to a certain extent. Community level workers, providing key emotional first aid at this point, could help prevent many of these cases from developing to full-blown mental disorders after some months.



The haunted stares of tsunami-affected children.

Also, while discouraging long-stay institutions, smaller, less restricted community-based care systems will be developed.

These are just two of the long-term and nationwide activities that are in process. Meanwhile, psychosocial support of the tsunami-affected population is ongoing with a strong training and recruitment drive in skilled workers to widen the coverage of these primary health care services immediately. ■



Challenges remain. Some people are still in camps. (Photo on pages 128-129)

As part of the 'Recovery Plus' process, messages to promote health awareness are being integrated in school curricula in some tsunami-affected countries.



Lessons Learnt: WHO's Experience

For the Organization, the post-tsunami relief operations highlighted some important issues.

Capacity Building

First and foremost, the clear message that came forth is that to respond effectively to any disaster, preparedness is essential. It was clear that countries that had a better health infrastructure were able to respond better. The massive mobilization of resources and international support required an enormous amount of coordination, communication and logistical support in order to ensure that all worked together in an effective manner. Now the key challenge in many areas is the rehabilitation and re-establishment of the health system at all levels. WHO's strategy focuses on building public

health capacity, establishing surveillance and laboratory back-up, strengthening logistic management and communication, and refining the monitoring and evaluation systems.

Improving Systems and Guidelines

Among the systems to be refined are guidelines. While WHO guidelines were appreciated, general guidelines are too bulky to be useful for field-level quick-reference purposes. Guidelines were therefore quickly summarized into succinct versions following the tsunami. Simpler, thinner guidelines, kept ready now, may serve better in any future emergency.

Attention to needs of vulnerable women and children

There was a recognition that disasters enhance the vulnerability of women, children and adolescent girls, but limited attention is paid to their needs in the early relief and restoration work. Special efforts need to be made to provide adequate supplies for reproductive health, emergency obstetrics care, newborn and child health services.

Working with local communities

The disaster also emphasised the importance of working with the local people, using local expertise to find suitable local solutions. It is the local experts that have an in-depth knowledge and experience of how systems are organized in their region. They also understand the language and culture, and can therefore work effectively with the community. If local experts are trained to international standards, they will form a valuable resource for their region well after the disaster is over, providing long-term support.

Effective Communication

With information pouring in from all quarters, the importance of the effective management of communication was also underscored. The media played a key role. WHO recognized this and staff were available

A mother holds her six-month old baby, who was born only half an hour before the tsunami struck the hospital she had delivered in.



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round the clock to take media interviews from around the world. Indeed, it is through the media that the public are kept abreast, and form their opinion of progress, following a disaster. Investing in public information professionals at the country and Regional levels, continuously building good relations with mediapersons and establishing good communications systems are therefore important.

Finding Suitable Resources

It is also important to find the right people with the right skills for the job immediately after a disaster - the faster the response, the better the outcome. As most international agencies discovered, identifying and mobilizing hundreds of experts in a matter of hours was not easy. It is therefore important to have a ready database of experts who could be mobilized in times of emergency.

Ensuring International Standards of Performance

In an emergency situation, one of WHO's roles is to ensure that the highest possible standards of work are maintained by all involved in the health situation. One way to achieve this would be to identify and



An injured tsunami survivor has now put the past behind him and is back in business.



possibly keep a registry of key health organizations, their skills and strengths, and work with them to provide training and create awareness, in non-emergency periods. In this way, when an emergency occurs, there is likely to be greater preparedness, greater awareness of what is expected, and better coordination among health agencies in the field, leading to a more effective response. Monitoring of performance during an emergency should be incorporated into the system.

Pre-disasters supply arrangements

It is important to have agreements with identified industries, well before the emergency, about supplies. The agreements should be such that material resources can then be ordered immediately following an emergency, without precious time being wasted on negotiations.

IT and Telecommunications

Another important area that was highlighted in this disaster is that timely and adequate IT and Telecommunication resources are critical for disaster mitigation and relief efforts. IT and Telecommunication systems should be a strategic element in the development of comprehensive preparedness plans (including Early Warning systems

Hospitals are being rebuilt according to modern specifications to better withstand disasters like earthquakes and tsunamis.

Fishing once more amidst the waves. Slowly people are rebuilding their lives in spite of their trauma.

and alert mechanisms.) Inventory of essential IT and Telecom equipment as well as human skills and expertise should be maintained. ICT applications, deployment strategies, and operational procedures should be developed as part of preparedness planning. Agreements between relief organizations, governments and private sector should already be in place BEFORE a disaster strikes in order to allow quick deployment and ensure inter-operability and integration with existing networks/services. IT managers in various organizations should be involved from day ONE of the Disaster Response phase to ensure timely mobilization of required ICT resources.

The fundamental lesson from the tsunami is one that has long inspired boy scouts all over the world: be prepared.



Moving Beyond the Tsunami

It was recognized, at various country level meetings and at an international meeting to discuss the health aspects of the tsunami in Phuket, Thailand, that the lessons from the tsunami, and their implementation, could lead to significant changes in emergency response systems in the future. Several key areas were identified for improvement in health sector response to disasters. The first was to have prompt assessment of people's health situation and their needs when a disaster strikes. National governments expressed the desire to strengthen their capacity to address health issues in disaster risk management and vulnerability reduction. Increased funding is also needed to support the health elements of disaster preparedness and vulnerability reduction. Application of standardized methods was another important area. The need for having a single integrated response system, and the importance of coordination, was also emphasized. Updated and evidence-based guidance, and well-functioning professional networks, to help improve responses to specific problems faced by crisis-affected populations, was also considered important.

All the meetings and discussions highlighted the fact that addressing risks appropriately is the basis of disaster management and strengthening capacities for this was essential.

Political and administrative strength is vital for an effective response. In Tamil Nadu, for example, political will to immediately mitigate effects and provide relief found expression in prompt provision of funds and posting of officials on special duty to affected areas, action to ensure continuous flow of information, frequent situation updates and response to new needs as they were identified. Teamwork, and autonomy in the field, were also seen as essential for a quick, comprehensive response at the ground level. The district authorities were granted powers to act autonomously, backed by substantial cash grants. This was particularly useful in the purchase of material (such as bleaching powder during the first two or three days) and in meeting



Health infrastructure and capacity, including information technology for health, is being strengthened and modernised.

Safe Water for All

In the Maldives, where fresh water resources are limited, the reconstruction phase after the tsunami is being used as an opportunity to develop water resources for long-term, sustainable use.

WHO is supporting the development of template water safety plans. These include ways to assess and identify hazards, monitor quality, chart out management procedures and verify the quality of water produced by using desalination, ground-water and rainwater.

An assessment is being carried out to identify training and equipment needs for water quality surveillance. ■

Water storage tanks in the Maldives.



expenses for the housing, feeding and care of displaced persons in temporary camps. There was close planning and coordination between revenue, health and social welfare departments, municipal administrations, and a number of other services like transport, power, police and fire, telephones, Public Works Department and highways. Particularly at district level, this speeded up the process of restoration of services, evacuation of affected populations, transport for the injured, retrieval of bodies and mass burial and clearing of debris. The speedy restoration to functional level of the badly damaged Nagapattinam General Hospital provides an example of how service departments and municipal authorities worked together.

The various discussions and meetings also raised the various needs, gaps and issues in preparedness and response:

- Development or updating comprehensive national disaster management plans
- Developing resilient health systems which include: well trained health staff and professionals; health facilities which are protected to various hazards and risks; mechanisms and arrangements for deployment of staff management of supplies; well-established surveillance and reporting system; and outbreak response mechanisms is the cornerstone of preparedness and efficient and effective response.
- Coordinated work with NGOs and other partners is essential and mechanisms must be set for this
- Awareness and addressing wider issues such as the protection of the environment is key in mitigating the impact of natural hazards.
- Efficient management of supplies and assistance received. A joint inter-country system to manage supplies and logistics may be a feasible solution to this issue.

As the fear of the tsunami slowly recedes, children play once more near the sea. ►



A resolution of the fifty-eighth World Health Assembly highlighted the need to build local capacity to assess risks, provide continuous public education, dispel myths about health consequences of disasters, and reduce the risk of disaster damage in critical health facilities.

Dr David Nabarro (right), Representative of the WHO Director-General for Health Action in Crises, surveys the progress in the rehabilitation process.

WHO's primary role was in supporting, and providing technical guidance and advice to the countries in the Region. It was recommended that WHO should assist in strengthening national emergency health preparedness and response capacities through:

- conducting needs and risk assessments;
- facilitating inter-country collaboration, exchange and mechanisms;
- active collaboration with other agencies in the health sector in emergency preparedness and response initiatives;



- ensuring wide dissemination of accurate technical information and implementation of guidelines, and

The countries, it was felt, would benefit if they institutionalize their Emergency Health Preparedness and Response programmes in ministries of health at the highest possible level with sufficient human and financial resources. It was also suggested that they engage communities and other sectors directly in the implementation of health programmes in emergency preparedness and response.

The fifty-eighth World Health Assembly emphasized these issues too, in a resolution on 20 May 2005. It recalled that more than 30 countries worldwide are currently facing major, often long-standing crises, and as many as 500 million people are at risk of avoidable threats to their survival and well-being. The lessons from the tsunami, if implemented well, could potentially transform the lives of all these people. "Recognizing that improvement of social and economic circumstances of the most disadvantaged countries is a preventive action that reduces the risk of crises and disasters and their consequences", it highlighted the need to build local capacity to assess risks. According to the resolution, preparing for future catastrophes involves providing continuous public education. It also involves dispelling myths about health consequences of disasters, and reducing the risk of disaster damage in critical health facilities. This would be possible only with strong long-term support of all nations to the tsunami-affected countries in all areas of health, and the Assembly called upon the international community to continue their support.

Thousands of people lost their lives in the tsunami. Learning from this terrible tragedy, and integrating those lessons to improve the response to all emergencies in the future is the best way one can pay tributes to all those who died.

The resilient human spirit: tsunami-affected children at play. ▶



A Success Story in Aceh



Children playing at a camp in Aceh

An early warning system for targeted epidemic-prone diseases was established jointly by WHO's Epidemic Alert and Response team and the Provincial Ministry of Health (MOH) in Aceh by the first week of January 2005. WHO established excellent collaboration and coordination with all operational agencies providing healthcare to the affected populations. This resulted in weekly reporting on syndromes and immediate alerting of suspected cases for a rapid response to epidemic-prone diseases, including field case investigations and institution of appropriate interventions. The fact that so far no epidemics have occurred in Aceh, in spite of approximately 400 000 internally displaced persons living in temporary housing, is a testament to this remarkable accomplishment. ■

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