

WHO Conference on Health Aspects of Tsunami Disaster in Asia

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Maldives with a population of 290,000 dispersed over 200 islands across 800 kilometres from north to south is an archipelago of coral islands in the Indian Ocean. There are other 90 resort islands. Tourism and fishing are the two main incomes for the country.

Even under normal circumstances health service delivery to the island communities was a challenge. Transport costs are high and unit cost of health care delivery to small islands is extremely high.

The tsunami of 26th December 2004 was the worst natural disaster in the recorded history of the country. The health care delivery in the disaster was the greatest health challenge we faced.

The existing disaster plan was not sufficient to handle a disaster of this magnitude. Also the lack of awareness of the plan among different counter sectors and among the stakeholders was obvious. The need for an extensive revision and regular drills of the disaster management at all levels is a lesson learned.

Within hours after the tsunami hitting Maldives, a National Disaster Management Centre (NDMC) came into operation. Though chaotic on the first few days, it evolved into a well functioning and reasonably well coordinated disaster management centre. It was headed by a chief coordinator and a ministerial committee, who spent a large part of the day and night at the centre. There were different units like Planning, Health Relief Housing, Foreign Relation, Aid Coordination, Logistics and Media. A key to the successful management of the disaster was this NDMC

In the immediate phase rescue was organised at the regional level. Many children and women were evacuated to fishing “dhonis” in the protected lagoon, and to high rise platforms or buildings that were in the islands.

When the islands are not more than 1.5 meters above sea level and sea all around, there are no really “safe” places to run in a tsunami. However, being a sea friendly country, swimming skills of many children saved them from drowning when the water level rose to more than 1.5 meters in many islands. Some islands were totally damaged and required all inhabitants to be moved to nearby islands that were less affected.

The health service delivery is through 6 Regional Hospitals, 10 Atoll Hospitals and another 65 Health Centres. There remain still about 112 small islands where there are no curative services and people had to take a boat ride to a nearby island where there is a medical facility.

Tsunami destroyed many health facilities and people were moved from these islands to islands without curative care facilities or in some cases the existing facility could not cope with acute increase in casualties. Medical teams with emergency drugs were mobilised to the affected region from the capital and the severely injured were brought to Male’ the capital. Indhira Gandhi Memorial Hospital which is the main tertiary referral

hospital in the capital was reasonably well prepared from previous experiments and drills, specially the Airport Disaster Management drills. Similar protocols and drills are needed in the regional and atoll level.

The next immediate problem was food, water and shelter to the displaced people. They were initially housed in community buildings or schools, and later moved to temporary shelters and tents. The people largely depended on ground water for bathing/washing and cleaning the islands. All the well water in many islands developed high salinity and could not be used.

Harvested rain water was used for drinking. But many rain water storage tanks were damaged. One of the biggest logistic problems was sending large quantities of water by sea to these affected people.

External support with tanks for water storage and desalination plants was a great help. There were tremendous logistic difficulties of transporting these tanks and desalination plants, and managing and maintaining the plants.

The increased salinity of the ground water damaged the agriculture and also many fruit trees like banana, mangoes, guavas and bread fruit trees were severely affected. This combined with the damaged fishing vessels and harbours lead to consequent reduction in fish catch which is a nutritional threat in the short-term.

Needs Assessment

National teams from the NDMC and many visiting UN agencies and many Inter-governmental agencies visited for assessments. Some of the difficulties were too many trips to the same area with very high transport cost often with chartered sea planes and speed launches. It was also a strain to the officials at the NDMC and at the affected community level. The positive side of this was very quickly there was a large number of aid materialising and evolving new problems were identified early.

One of the newly identified challenges was the need for psychosocial support. Volunteers and NGOs with the support of international agencies trained a number of volunteers in a short period and mobilised personnel attended to the psychosocial needs in the affected areas.

Daily meetings in the first month at the NDMC and meetings with UN agencies and other international agencies were held. This was very useful and key to the success.

Surveillance for disease outbreak was strengthened and daily reports were received to the NDMC. Unlike the predictions made we like other affected countries were saved from major disease outbreak.

Large supplies of drugs and other materials arrived, some of them without precise notice. It was a huge strain in the logistics and safe storage was a problem. Some pre-packed

packages were in small unit sizes and were convenient to distribute to different islands. Others were large quantities in big packages and needed to be sorted and re-packed before distribution. There was pressure from each agency to send what they supplied to the affected area. Often there were other priority items to be transported. This led to a kind of a competition, where some agencies hired boats for very high rent.

In the final few days many private vessels going to the affected area was used to send supply of drugs, food and water. However, it was soon learnt that they did not reach the intended destinations. The NDMC decided that National Security Service (NSS) will take over all logistics of storage and distributions. This improved the supply chain greatly. However, due to limited boats the process was slow and market rate of boat hire was going up steadily.

Many of the external “experts” lacked the necessary training or experience. It was very obvious when teams from countries with good disaster plan and regular drills arrived. Some of the UN agencies and WHO staff lacked that skill. It is important that all relevant personnel in agencies and governments that are mobilised to a disaster affected country are well trained and competent so that they are efficient and useful and not a burden.

The role played by international military was very helpful. However, military from different countries had different working protocols and there were incidences of largely independent and parallel health related work by them, which could have been better done with good coordination.

Donated aid in tsunami has been on of the best response in a natural disaster. Thanks to all the people behind these aids. There was pressure to come up with quick figure for donation. But the country lacked that capacity. The expertise of UN agencies and Red Cross from similar disaster situations could have been used and could assist the local government for previous models.

The strict procuring mechanisms laid by the donors and the NDMC caused significant delays in procuring equipments for the damaged health facilities.

Media played a very useful role in informing public of the developments and elevating fears and disseminating health information. Incorporating media unit in the NDMC was very beneficial

Lessons Learned:

- Improve disaster plan and make it available to all sectors
- Regular drills of different components of disaster relief
- Training of staff even in WHO and other UN agencies and minimise the number of foreign personnel arriving at the disaster scene
- Too many demands by different donors taxing the already stretched human resources in country. Various missions that come in should be more self-sufficient
- Donors have global formulas, which are sometimes not relevant

- Capacity constraints within the health departments leading to delays in handling requests made by donors and in meeting their deadlines
- Strengthen capacity to handle and manage dead bodies
- Managing psychosocial aspects of disaster needed special attention
- Role of media for further early warning need to be studied and enhanced.