

# The public health response to the tsunami

by Manuel Carballo and Bryan Heal

*At a meeting in the Maldives convened in April by the International Centre for Migration and Health, public health specialists from tsunami-affected states assessed lessons learned from the humanitarian response.*

**T**he tsunami was a tragic reminder that some people are always more vulnerable than others. The vast majority who lost their lives were people living in poverty, forced to live in inadequate housing along the shoreline. In the Maldives – which had only been removed from the UN's least developed country category six days before the disaster – it was the poor, who do not have bank accounts and so keep money at home, who lost the most. Damage to the island republic has been estimated at 62% of GDP and is expected to reduce the country's economic growth rate from the pre-tsunami forecast of 7.5% pa to only 1%.

In all affected states initial responses to the tsunami were shaped by fears that the accumulation of dead bodies would represent a major threat to public health. Human bodies are indeed a source of emotional stress and their collection is important from a psychosocial perspective. However, efforts to explain to people that corpses do not represent an immediate health threat were half-hearted. In the general rush to dispose of bodies many traditional ritual practices were set aside, leading to a lingering sense of guilt that will need to be addressed through counselling.

There was insufficient recognition that in the case of many tsunami-affected populations poverty was already linked to poor access to food. There have been reports of nutritional anaemia from the Maldives, parts of Sri Lanka and India. Food aid has often been insensitively provided. Donating wheat flour to rice-eating communities in Indonesia and Thailand, reports of elderly people being unable to chew nutritional biscuits given as part of emergency food aid packages and reports from Thailand that an influx of milk powder has led

to a decrease in breastfeeding show how quickly lessons from previous disasters can be forgotten.

Health systems were hard hit. Thirty per cent of midwives in the affected areas of Aceh died and one of every six health clinics in the province was destroyed. Throughout the region equipment and drug supplies were lost and health care staff – who, it is often forgotten, are just as subject to fear and stress as ordinary people – had to clean and repair severely damaged facilities and dig out and handle large numbers of corpses.

In communities in North Aceh and Sri Lanka female mortality was four times higher than that of males and in India female mortality was three times greater. This disproportional impact should be a wake-up call to ensure that emergency preparedness plans recognise the social and health vulnerability of women. The response to the tsunami was also testimony to the low priority traditionally given to reproductive health and the needs of pregnant women in disaster situations. Despite the fact that pregnant women have special requirements and that these are often exacerbated in times of crisis, many relief operations failed to take these into consideration. Provision of contraception in the aftermath of natural or man-made disasters remains a low priority for many agencies, in part because of the understandable reluctance of people to request them.

The importance of easy-to-use reproductive health and other emergency health kits was apparent everywhere. Without them it would not have been possible to respond in a timely fashion to many of the emergency health needs. More widespread pre-positioning of these kits is essential and should be accompanied by systematic training of national teams

in their use. Providing ready-made mother-child kits to people in need also proved immensely useful in the wake of the tsunami. These were often made up using locally procured materials and provided women with the essentials required to lead a dignified life.

In many cases people's immediate needs for water have been addressed by interventions which are not sustainable. Some desalination plants introduced by NGOs are already breaking down. The high level of salinity in ground wells is a major long-term problem which must be addressed. In Sri Lanka alone some 12,000 wells are affected by high salinity and in some areas the shallow aquifers that wells use as a source of water may have been permanently damaged by the intrusion of salt water. The fresh water to sea water balance will take time to re-equilibrate and it may take several rainy seasons to work through the problem. Highly sophisticated reverse-osmosis systems introduced by external agencies may be impractical if cost recovery is not possible and communities are unable to take responsibility for their maintenance.

The complexity of legal issues has not been sufficiently understood. The legal distinction in tsunami-affected states between those confirmed dead and those reported missing can have considerable implications for widows of missing husbands. In many countries the degree of destruction was so intense that not only are the foundations of houses unidentifiable but any documentation confirming their existence has been lost. In the Maldives the loss of educational certificates has been a major source of stress for young people.

## Don't forget the hosts

Relief and reconstruction efforts following the tsunami gave priority, and rightly so, to the health and social needs of displaced people. There was insufficient recognition, however, of the needs of the tens of thousands of families who have been



*Fatia, 15, is vaccinated against measles at an IDP camp, Banda Aceh.*

providing shelter and support to IDPs. Particularly in the Maldives, Sri Lanka and Aceh, people whose houses were intact have taken great pride in offering shelter and hospitality to the displaced. Had this help not been forthcoming the plight of IDPs would have been considerably worse. The toll on host families continues to be considerable and it is hardly surprising that in many cases patience is wearing thin. They are sharing scarce household space, food and other resources, have lost privacy and seen their personal lives profoundly interrupted. Where resettlement of displaced people is likely to be delayed and where host families will have to continue supporting displaced people, more care must be taken to address the needs of hosts for they are vital to recovery.

Overcrowding in the houses of host families and in temporary shelters could lead to a number of health and social problems. To date many of these seem to have been averted but the longer these conditions last the more likely it is that problems will emerge. Resolving overcrowding by more rapid and massive construction of temporary housing is thus urgently called for, as is more attention to water and sanitation needs.

A key feature of natural disasters is their psychosocial impact on well-being in ways that are far-reaching and not immediately apparent. Understanding and responding to the short- and long-term psychosocial needs of people directly and indirectly affected by the tsunami are essential and will help determine their capacity to participate in social reconstruction. Given the low level of attention traditionally given to this aspect of public health and the small number of people previously trained in this area, a major push will have to be made to prepare primary health care workers and others to recognise and respond to post-disaster psychosocial issues.

Religious faith has been an integral part of the resilience shown by tsunami survivors. Religious leaders have provided not only solace but also practical information and a focus for community cooperation. Their role needs to be more widely recognised and supported by aid providers. On the other hand, there are reports of external relief agencies promoting their own religious agendas. This has created considerable confusion and anxiety in several countries and calls into question the role which proselytising religious

groups should be allowed to play in humanitarian work.

### Recommendations

Key disaster planning issues highlighted by the symposium participants include:

- Foreign agencies must do more to strengthen, and not negate, local capacities and resilience.
- Government authorities and local communities must become more aware of the factors that place women at particular risk.
- Donors should do more to ensure that teams of emergency experts sent to the field have relevant skills - for this was not always the case - and are prepared to take instructions from national authorities.
- In disaster-affected regions previously characterised by conflict the capacity of military forces to be trusted by all would-be beneficiaries is limited: their dominant role can create dependency and prevent communities from working towards their own solutions.
- UN Flash Appeal funding should not have to be allocated and spent only on immediate projects: innovative procedures should be

found to enable it to be spent on long-term development projects to restore public services.

- Donors must ensure that medical supplies are relevant to identified needs, do more to track where they are going and provide detailed lists to beneficiary states.
- Donors seemed to be caught unprepared and were unaware of some of the multinational systems through which assistance could have been more efficiently delivered.
- Donors need to explain the intricacies of funding to beneficiary states: many governments wrongly thought that just because funds had been pledged they would arrive without delay.
- Planting of trees and dense vegetation and preservation of mangroves should be promoted to provide barriers against future waves.
- There is a need to recognise that although SPHERE standards are important their introduction into very poor communities can arouse unrealistic expectations beyond local or national capacities.

- More attention should be given to protecting and improving maternal care, breastfeeding, family planning, information on adolescent sexual health and strategic pre-positioning of reproductive health kits.
- Multi-purpose public buildings should be designated as safe areas and equipped.

The tsunami was a reminder not only of how the international community can forget lessons from previous disasters but also of how little attention is given by countries to preparing communities to deal with disasters. Even when plans are developed they are often not shared with all the people who would be in a position to make use of them when disasters strike. In the future much more attention will have to be given to structuring disaster preparedness and prevention initiatives in ways that make them an integral part of local health and social systems and understood by everyone who could be responsible for initiating such systems.

Before the tsunami is forgotten it is important to evaluate lessons learned in areas such as communicable disease control, reproductive health, psychosocial support, logistics and monitoring. Public health and disaster mitigation plans are only as useful as the number of people who know about them and have been involved in their preparation. From central governments to local communities, all stakeholders should be involved in regularly reviewing plans and rehearsing responses.

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YAKKUM  
Emergency Unit's  
Dr Sari Mutia  
Timur with  
patients, Indonesia.

