Challenges of post-tsunami reconstruction in Sri Lanka: health care aid and the Health Alliance

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ABSTRACT

- The Indian Ocean tsunami of 26 December 2004 has drawn attention to the need for a process to ensure that health aid is provided in an efficient, coordinated and appropriate manner.
- In response to this, and with support from various medical colleges and the Australian Government, we have established the Australian Health Alliance to Assist with Post-tsunami Reconstruction.
- In Sri Lanka, some of the current challenges include shortages of medical staff, damaged infrastructure and changing demands due to population shifts. Psychological services are particularly scarce. The psychological and cultural implications of disaster require specific attention when designing aid programs.
- The goals of the Health Alliance include providing a forum for discussion, identifying specific local needs, coordinating health services and helping local organisations to develop action plans.

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The Indian Ocean tsunami of 26 December 2004 precipitated a crisis in health care throughout the southern Asian region on an unprecedented scale. Many Australian health care personnel have contributed generously and effectively to the relief and reconstruction efforts. Nonetheless, the disaster has drawn attention to the need for a process to ensure that health aid is provided in an efficient, coordinated and appropriate manner. In response to this need, and with support from various medical colleges and the Australian Government, we have been involved in establishing the Australian Health Alliance to Assist with Post-tsunami Reconstruction. We discuss here the issues the Health Alliance seeks to address and the main principles by which it proposes to operate. Much of the evidence presented is derived from our personal experiences.

The health needs generated by the tsunami have included both the acute provision of emergency relief and the longer-term process of reconstruction and development. The problems to be addressed are deep and varied.[1] Many health care personnel in the region were killed or injured, and hospitals and clinics were damaged or destroyed. The sheer number of casualties placed a great burden on remaining local health services and on those brought in from outside.[2] There is evidence that the impact of the disaster was particularly great on women and the very poor.[3,4] The risk of communicable diseases such as gastroenteritis greatly increased, and environmental disturbances led to vector proliferation and an increase in mosquito-borne diseases, including malaria.[5,6] Contamination of water storage reservoirs with salt or poisonous waste; cramped living conditions; inadequate nutrition; and damage to crops, farmland and fishing fleets compounded the risks. In many cases, the problems were magnified by the fact that pre-existing public utilities were limited.

Emergency aid versus development aid

In spite of the scale of the problems and logistic difficulties, it is widely agreed that the immediate relief effort after the tsunami was largely successful.[4] Emergency food, water and shelter were provided, and the steps taken to avoid the outbreak of epidemics were mostly effective. Satisfaction of the longer-term health care needs, however, is both more complex and less tractable. It requires careful assessment of the needs of local populations, which may vary greatly in their degree of exposure to the disaster, and of geographical, social, cultural and conflict-related factors. The infrastructure to provide ongoing medical and nursing care, public health programs, clean water supply and sewage disposal needs to be reconstructed, or in some cases, constructed de novo. Programs need to be established to provide psychological support; nutritional education and supplementation; vaccination; and obstetric, maternal and infant welfare care. Attention needs to be given to minimising the effects of future disasters and planning responses to them. All this has to be achieved in the setting of short-term foreign aid commitments and limited social investment in health. Some of these problems may be illustrated by experiences recounted along the eastern coast of Sri Lanka, which was particularly hard hit by the tsunami.

Post-tsunami needs: the Sri Lankan experience

At the district hospital in Mullaittivu (see map), where more than 4000 people died in the tsunami, there is a sole medical practitioner, Dr Dharmendra, for 120 000 people. He has been on call 24 hours a day for 10 years. Ward facilities are very basic. Infectious diseases are endemic and malnutrition is common, and both of these problems have been greatly exacerbated by the tsunami. The nearest alternative health facility is 18 km or 45 minutes away. Dr Dharmendra delivers babies and performs minor surgery with very rudimentary equipment. The only medical aid received by this region since the tsunami has been a donation of six electrocardiograph machines.

Batticaloa, a city on the east coast of Sri Lanka, is in the centre of an area badly affected by the tsunami. The district hospital has

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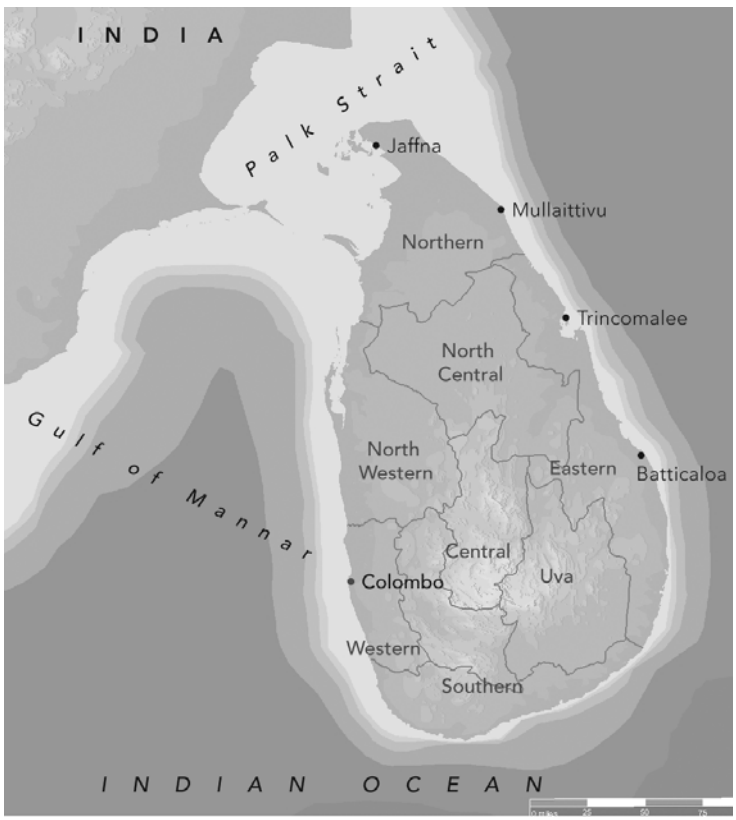
experienced a greatly increased caseload since the tsunami as a result of damaged infrastructure elsewhere, population shifts, and the absence of a community-based triage process, such as a general practice system. The hospital, which covers a population of about one million people, has 700 beds. The seven doctors in the Outpatients Department see about 1300 outpatients a day — an increase of nearly 20% since the tsunami. Wards are crowded, facilities are old or inadequate, and elementary items such as wheelchairs and trolleys are often lacking. However, the main problem is one of manpower — many specialists are in short supply, and there are no radiologists or pathologists, even though malaria and other infectious diseases are endemic.



Shortages of specialist medical staff are common throughout southern and South-East Asia. These include almost every area of specialty, but the deficiencies are particularly severe in the area of psychiatry and psychological medicine. This is in spite of the fact that psychological and psychiatric needs present one of the largest problems in the post-disaster reconstruction and development.[7,8] In the eastern region of Sri Lanka, for example, it is literally the case that one psychiatrist is responsible for the care of 1.2 million people. Dr Ganesan works long hours and travels extensively to cover a vast area ravaged by years of war and, now, the tsunami.

The need for psychological services

The case of psychological medicine illustrates well the complexity of relief and development aid in the field of health care.[9] Despite long-held beliefs, there is little evidence to support the effectiveness of immediate post-disaster critical incident stress debriefing — rather, recent data suggest that it may in fact have deleterious effects.[8] Ironically, therefore, a significant task of a disaster health care response has become the prevention of adverse iatrogenic interventions initiated by either local or international agencies. This is not to say that acute psychiatric and psychological needs do not arise after a disaster. On the contrary, grief and acute stress reactions, brief psychotic disorders, and relapse of pre-existing psychiatric disorders (including major depression and schizophrenia) are common, and delirium in medical and surgical patients may be confused with other psychiatric disorders. Adults, children and adolescents may all be affected.[9,10] Although treatment is warranted for serious chronic disorders and symptom relief is beneficial in some other cases, the vast majority of affected people will improve with skilled facilitation of culturally and religiously appropriate grieving and health practices.[11,12]

A "second wave" of psychiatric morbidity may follow acute reactions to a disaster, often occurring after the withdrawal of medical teams and international aid.[13,14] Psychiatric conditions may include complicated grief reactions, major depression, substance use disorders, post-traumatic stress disorder, behavioural disturbances, and phobic and anxiety disorders. Although all of these may require medical or psychological intervention, they commonly go unrecognised by both communities and health workers and are mislabelled as "normal responses", misattributed to sociocultural factors or concealed by fear of stigma. This emphasises the need for a case identification process in conjunction with broad management strategies.[15]

Case identification may use a multi-tiered approach encompassing community awareness programs, education of key community workers (eg, teachers, religious leaders, traditional health practitioners), and training of primary health workers in basic diagnostic and management skills. Treatment can then be initiated and monitored through primary care medical health staff overseeing primary health workers. Reliance on specialist psychiatric services needs to be avoided. Specialists would be more usefully employed in teaching, training and research activities, acting only as a final port of call in providing treatment. Limiting the extent of "second wave" morbidity involves broader management approaches that include addressing other public health needs, nutrition, education, employment and social reconstruction, as well as directed primary prevention of both physical and mental disorders such as diarrhoeal and respiratory illnesses, alcohol misuse and domestic violence. The psychological implications of disaster require specific attention when designing aid programs, including, in particular, the use and facilitation of local, community-based capacity.

Cultural variation of needs

The example of the psychological needs generated by a disaster illustrates some important principles with respect to health care aid in general. The first is that needs vary greatly according to cultural, economic and geographical conditions. These may include climate, the kinds of crops produced, the cultural background, recent and longer-term experiences of conflict and civil strife, the degree of cultural cohesion and communal support, the role of traditional medicines and belief systems, and relationships to other communities and urban centres. Within a particular community, the most effective way to determine needs and how best to satisfy them is through consultation with the community

The Australian Health Alliance to Assist with Post-tsunami Reconstruction

- The Australian Health Alliance to Assist with Post-tsunami Reconstruction seeks to facilitate an effective, coordinated response by the Australian health care community to the health needs arising out of the December 2004 Indian Ocean tsunami.
- The Alliance is a loose coalition of Australian health professionals with the following aims:
  - ➢ To provide a forum for dialogue within Australia about needs and opportunities;
  - ➢ To develop an inventory of services and resources that can be made available to groups seeking assistance from the Australian health care community;
  - ➢ To provide a point of contact for potential donors seeking access to expertise, knowledge and other resources; and
  - ➢ Where appropriate, to actively assist with the development of action plans in partnership with local organisations.
- The group emphasises the importance of identifying specific needs that exist in each setting by dialogue with local communities and government.
- It believes that the major focus of any contributions from Australian health care professionals should be on the development of sustainable capacity of local health professional and community personnel. ◆

members themselves. Despite the apparent obviousness of this last statement, the fact that such consultation is a rarity is one of the regrettable features of the contemporary regime of foreign aid.

The importance of assessing local community needs is exemplified by the case of Palayadi Vaddai, a remote village containing a few hundred people in Mahiyangana District, about 70 km south-west of Batticaloa. Here, the poverty and dislocation caused by war and ethnic strife have generated major health needs. The village has no running water or electricity, the few motor cycles are the only motorised vehicles in the village, large areas of arable land have been rendered unusable by landmines, and the single annual rice crop is the main source of food. Malaria and dengue fever are endemic, and the most common emergency is snake bite (snakes often enter houses and bite children). A clinic has been built in the village, but it contains no equipment and there are no resident health personnel. In emergencies, therefore, it is necessary to transport patients by cart or bicycle to the nearest hospital, 40 km away.

Similarly, in the Manapathadi District, about 50 km south-west of Batticaloa, there is a new hospital serving 25 000 people that is staffed by a single full-time medical officer (Dr Ginanaratnam) and three assistants, who do not yet have access to any equipment. Here, too, the major underlying problems are poverty and lack of food. Infectious diseases (malaria, respiratory tract infections, diarrhoeal diseases, parasites) and malnutrition are widespread. In this setting, alcoholism (mainly related to consumption of arrack and toddy) is a major issue, possibly reflecting underlying psychological issues related to economic depression and the protracted conflict.

These two regions exemplify a hidden reality of tsunami-related aid. Neither area suffered from the direct effects of the tsunami, but both lie adjacent to regions that did. The people there see aid being directed to their neighbours for reconstruction and development, while they themselves receive none, despite their great need. It might seem appropriate and fair for the flow of aid to be governed solely by need, but, as this example illustrates, that is not always the case. Instead, the distribution of development and reconstruction aid may be dictated by an independent set of social and political variables.

The Australian Health Alliance to Assist with Post-tsunami Reconstruction

If aid programs are to contribute to the long-term improvement of health care, they need both to address locally specific needs and to enhance community health care capacity. This requires effective mechanisms for community consultation and an ability to draw on a diverse range of resources and competencies. The Australian Health Alliance to Assist with Post-tsunami Reconstruction has been established to facilitate such an approach (Box).

The Health Alliance was formed in early 2005 by a group of medical and non-medical health professionals in Australia who wanted to assist with the health care response to the tsunami and to ensure that a focus on developing community capacity and satisfying local needs was maintained. It is an open coalition led by the Royal Australasian College of Physicians and includes participants from the Royal Australasian College of Surgeons, the Royal Australian and New Zealand College of Psychiatrists, the Royal Australian College of General Practitioners, the National Nursing Organisation and other professional associations, universities and research institutes. The group encompasses a wide range of competencies in medicine, nursing, public health and health service delivery and reflects the scope of the knowledge, educational resources and skills within the Australian health care community. Many of the participants have first-hand experience in the developing world, and all are keen to offer their skills to communities that could benefit from them. The Health Alliance has received assistance from the participant organisations and the Australian Government to consult with national and international groups with a view to fostering contacts, refining its goals and modes of operation, and developing a formal program and operational plan. As part of this process it sent a mission to Sri Lanka and India in May 2005.

The broad aim of the Health Alliance is to provide a framework for an efficient, coordinated response from the Australian health care community to the health needs of the region in the wake of the tsunami. It acts as an umbrella group to identify and coordinate the delivery of services from the Australian health care community to developing countries. It is seeking to achieve its aim by:

- providing a forum in which Australian health professionals can share experiences, knowledge and ideas about the health needs created by the tsunami and cooperate in developing collaborative projects;
- developing an inventory of services and resources that can be made available to governments, non-government organisations and other groups seeking assistance from the Australian health care community;
- providing a point of contact for potential donors seeking access to particular forms of expertise, knowledge and other resources; and
- where appropriate, developing action plans in partnership with local organisations by conducting needs assessments and engaging in community dialogues.

The Health Alliance envisages that the Australian health care community will contribute to the development of long-term,

sustainable health care capacity by helping to train community-based health workers; develop programs in public health, nutrition and disease prevention; and provide materials and skill-based resources in special areas such as women's and children's health. It will draw on the extensive local experience of community-based educational campaigns in relation to HIV/AIDS, mental health and substance-related disorders and the vast resources available in the fields of health management and administration, quality assessment and control and health information systems.

There are some key areas in which particular contributions may be possible. Developing primary care facilities and a community infrastructure to assist in delivery of psychological health are two areas that should be emphasised. Several programs in these areas are already under way. For example, the Australian Medical Aid Foundation has supported the establishment of a primary care facility in Trincomalee, and a number of groups are helping to establish an integrated mental health program in the north-east, east and south of Sri Lanka. Elsewhere in the region, including Indonesia and the South Pacific, surgeons, physicians, nurses, optometrists and others (some of whom are contributors to the Health Alliance) have actively participated in training and health care delivery programs.[16] Some of these contributions are simple and cheap — for example, provision of educational materials on diabetes that could be adapted to local conditions. Others are likely to require extensive consultation and substantial resources. The Health Alliance's ability to identify local contributors and maintain liaisons with government and non-government bodies in Australia and overseas should facilitate projects at all such levels.

Conclusion

The effects of the December 2004 Indian Ocean tsunami are likely to be profound and longlasting. The damage to lives and livelihoods is incalculable. At the same time, new possibilities have arisen for cooperation and mutual assistance within the region. The extent of the suffering and the attention it has drawn to the disparities between societies have the capacity to foster understanding and dialogue between communities that have hitherto had little contact with each other. They have also emphasised that assistance strategies must be focused on long-term development and led by people who have themselves been most affected.

The shared pain can be turned into a source of strength and opportunity. It is imperative that we learn the lessons and make the most of the chances it has presented to us.

Competing interests

None identified.

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