

Introduction

Thinking about disasters

Disasters make news and we are seldom unaware of an impending disaster, an actual event or the on-going recovery from a disaster anywhere in the world. Not only does the ever-expanding media coverage make us aware more quickly of disasters, but the numbers of disasters and those affected by disasters are also on the increase.

Economic growth is strongest in costal areas, encouraging migration from rural areas and urbanization. Many of the new migrants live in substandard housing, often in hazard-prone areas. Governments bent on economic growth have ignored environmental concerns resulting in deforestation, unregulated housing construction and the construction of roads without considering the consequences.¹

In some regions, the engine of much economic growth is cheap labour working in weakly regulated manufacturing industries. Not only does this pose human rights and public health concerns for the workforce, but many potential hazardous processes with toxic substances are now interspersed within residential areas. The nature and the risks of these industrial hazards are seldom appreciated or mapped by local authorities.

This economic development also brings greatly increased mobility. Transportation safety does not receive adequate attention, both in the rapidly expanding air transport sector, as well for travel by road.

Looking ahead, the prospect is also for more violent conflicts. Conflict is the ultimate disaster which can befall a population. Not only is it a disaster because of the death and destruction of livelihoods that it brings, but also for the serious economic impact that it has on neighbouring countries. Whereas in the Cold War era these conflicts were about ideology, now conflicts are about the control of resources, oil and water in particular. With increasingly destructive weapons available, the human cost of conflicts will most certainly rise. Protecting civilians caught up in conflict is already becoming a dangerous task. While halting violence requires political will and experienced negotiators, humanitarian agencies can play important roles in helping to manage the conflicts that give rise to violence through a rights-based approach to meeting the needs of those excluded or at the margins of society. Further, humanitarian organizations have a major post-conflict role to play in the restoration of services in the social sector and in rebuilding the fabric of society.

Disaster management

In the popular view, managing disasters is about the response to disaster. However, this is but a corner of the picture. Low income countries have many fragilities which increase the risks surrounding various hazards. A disaster plan or a disaster response that does not consider the development needs of a population is inadequate. Such short-term thinking does little to reduce the vulnerability of a population. Organizations which respond both to emergency needs as well as disaster needs have a potential advantage as they can take a long focus in helping to mitigate disaster affects and prepare populations to better cope with future events.

The management of disasters must include all the disaster phases. Without good preparation, even a disaster response with unlimited resources may have only short-term effects. Vulnerabilities must be identified, plans and policies developed, measures established to mitigate disaster consequences and to identify, train and keep teams in good form. Of even greater importance, the communities at risk must themselves be

prepared to cope with emergencies. This is a long-term undertaking which requires the dedication and coordination of many individuals and organizations.

Disaster planning

In low-income countries, planning for disasters has not kept pace with population growth and expansion of economies. Central governments are responsible for the safety and health of their populations. Creating disaster legislation, a body responsible for disaster management and a unit to coordinate disaster response are basic steps. Beyond the organizational structure, disaster management units must have connections through the various line ministries which play a role in response to any national disaster. Other bodies such as non-governmental organizations (NGOs) and the national Red Cross or Red Crescent society should participate in planning activities.

At regional, provincial or state levels, a structure which mirrors the national level structure needs to be in place. Again, this needs to be closely connected to governmental functions as well as linked to NGO and voluntary society groups. In an emergency, this level may have the primary responsibility in coordinating an emergency response. A major role is the supervision and support of disaster management capacity at the municipal and community level.

Saving lives in a disaster usually comes through efforts of the people in affected communities. It is at this level that voluntary associations and NGOs are the strongest. Communities that have learned the correct responses to earthquakes, floods and other emergencies are clearly at an advantage. Often national disaster response activities fail to include communities in their planning, crippling the initial response when disasters do happen.

At all levels, a constant reviewing of plans, practices and simulations is needed to be sure that those with the responsibility for disaster management are always fully prepared. This is probably the hardest part of any national disaster program to manage on a consistent basis. Sometimes, when a disaster does occur, the plan that some team did at a point in the past is somewhere, but responders do not know the content and are even less able to implement the activities.

Handbook for emergencies content overview

The second edition of this popular text sets out in 10 chapters key public health principles for managing disasters in developing countries. This is a thorough revision of the first edition published in 2001. For this updated edition, the focus has shifted more toward planning for relief activities in the broader context of long-term development activities in middle- and low-income countries, with less emphasis specifically on refugee circumstances.

In the first chapter, the **definitions of disasters** are reviewed. Establishing definitions helps us to understand the underlying reasons why the same type of disaster may affect two populations very differently. With this information, vulnerability assessments and mitigation plans can be put into place to improve protection of populations at risk. In this chapter, the basic structure of disaster planning is set out with an emphasis on the ‘all hazard’s’ approach. As extending disaster planning to communities is a common failing of many national plans, this topic is covered in some detail here.

In the second chapter, *Bill Weiss* and *Shaun Morris* examine how **health systems and infrastructure** are strengthened to meet the demands from emergency relief operations following the Sphere standards. This chapter, like the following chapters, emphasizes the importance of assessments as the basis for health interventions. Existing health services may be inadequate to meet needs in an emergency. Relief organizations should support local health services and seek to integrate methods and personnel where at all possible. Parallel health services for the unaffected population and for those affected by disasters

can create major difficulties with timely response and overlap must be avoided wherever possible. Creating separate standards of service, even if very reasonable standards, which are different between two populations will cause tension and conflict over time. Following a rights-based approach means that basic minimal standards of both clinical services and access to these services are provided for all.

Alex Vu and Anjali Pant in the third chapter examine how health systems are affected in disasters which impair the response to emergencies. This includes the strategies required, the roles of different personnel in the health system and the establishment of **emergency health services**. The basic management of a mass casualty event is outlined. Perhaps one of the most important developments in emergency management has been that of the Incident Command System. This is particularly important in low-income countries which typically have a heavily centralized command structure where implementation of command from the site of the incident can greatly improve responsiveness.

In chapter four, *Elizabeth Rowley* sets out important issues of **reproductive health care** in an emergency setting. The recognition that basic reproductive health needs were not being met in displaced populations led to creation of the Minimal Initial Service Package (MISP). As circumstances develop, this initial activity is replaced by the establishment of more comprehensive reproductive health services. Other key reproductive health activities in emergencies include antenatal services, delivery and newborn care as well as the prevention and treatment of sexually transmitted diseases. An increasing area of concern is sexual and gender-based violence. Awareness of how big this problem is and of developing suitable measurement and interventions have now made addressing these issues of violence a priority from the beginning of an emergency.

Dr Fredrick Burkle, Pritika Chatterjee, Judith Bass and Paul Bolton discuss in chapter five common **emergency mental health and psychosocial support**, psychosocial and emotional needs of persons affected by disasters. Psychosocial and mental health consequences of emergencies are common, yet are often widely ignored in the immediate response. Although their extent is now being appreciated, the lack of common assessment methods hampers development of effective assistance. The approaches now used in low-income country disasters are based on principles established in high-income countries. These have not all been fully proven to work across cultures. Understanding risk factors for emotional trauma will help target populations for early assessment and psychological 'first aid.' In every affected population there are likely to be persons with pre-existing mental illness which may have been worsened by the disaster experience and which will need continuing treatment and support.

Epidemiological measurement and surveillance methods, covered in chapter six, are fundamental public health tools for providing assistance in emergencies. Determining denominators, counting events and creating rates and ratios are important for establishing priorities in health services. They are also important in comparing the changes in health status with time. As *Saade Abdallah and Raj Panjabi* points out, these are key tools for investigating disease outbreaks and monitoring their control. In almost all disasters, surveys will be required to determine needs and measure changes as programs are being introduced. Understanding how to design and implement surveys with adequate sample size is a basic skill health workers should have.

Chapter seven covers the management of communicable diseases problems which are likely to occur among populations affected by disasters. Here *Saade Abdallah and Raj Panjabi* discuss the approach to identification and control. These start with the identification of the risks involved and characterization of vulnerable populations. Prevention and surveillance measures are a key part of the strategy. **Controlling communicable diseases** is an ongoing process which requires constant vigilance against new pathogens as well as diseases existing in the community. Certain diseases such as tuberculosis, meningitis and malaria, which are difficult to control in normal circumstances, become particularly hard to manage after emergencies.

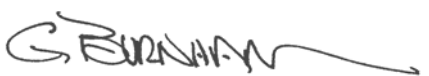
In chapter eight, the key points of **water, sanitation and hygiene in emergencies** in emergencies are covered by *Catherine Frazer*. Few factors affect the lives of those in emergency situations more than water, shelter and sanitation. Of the epidemic diseases occurring in disaster situations most are related in some way to disruptions in a population's equilibrium with the environment. Basic standards have been widely agreed upon and there is considerable evidence the implementation of these services in emergencies is effective. Prompt and vigorous attention to environmental health issues is needed to prevent elevated rates of illness and death in emergencies. Public health workers need to know the basics of controlling environmental risks and providing for human needs, even if they do not have an engineering background.

Much of the resources in many emergencies are allocated to the purchase and delivery of food. **Food and nutrition** are discussed by *June Luis-Pierre* in chapter nine. Without careful attention to nutritional status, illness and death rates can rise in populations displaced from their livelihoods. Measurement and monitoring of individual and population nutritional status, making decisions about therapeutic and supplementary feeding programs and establishing food distribution systems are all critical components when providing emergency services. Mortality data can be collected during nutrition surveys. Micronutrient deficiencies may occur silently unless there is adequate surveillance and awareness by policymakers of micronutrient deficiency problems. Food distribution can also affect local economies in surrounding areas, if not managed carefully. Estimating quantities, scheduling transport, storage and setting up distribution centres requires detailed understanding of the management of commodities.

In chapter ten, *Saade Abdallah* reviews key **management principles** for setting up programs in emergency situations. Although some would think that planning for emergencies is not possible, it is during an emergency, more than any other time that skills in planning and management are needed. The management cycle starts with an assessment and continues through problem identification, considering alternative solutions, selecting and implementing an approach and ends in evaluating and reassessing population needs and program results. Using a logical framework, or 'log frame' approach, is useful for planning and sequencing activities for the management of relief activities. This approach has now become standard for many organizations in the planning process.

Annex one and two contain the references from each of the chapters for **further reading and glossary**.

We hope this revised and updated text will continue to be of benefit to emergency management personnel worldwide and help to improve the public health services provided to populations affected by disasters.



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