

CHAPTER 2.

STRUCTURING HEALTH DISASTER MANAGEMENT

The role of disaster professionals in Latin America and the Caribbean has changed considerably over the last 30 years. Up to the 1970s, their actions were mostly limited to the disaster aftermath, or disaster response. However, the ministries of health and other governmental and nongovernmental organizations of the Region, recognizing that a number of relief operations were poorly coordinated, started to work on disaster preparedness to provide better humanitarian assistance to their populations.

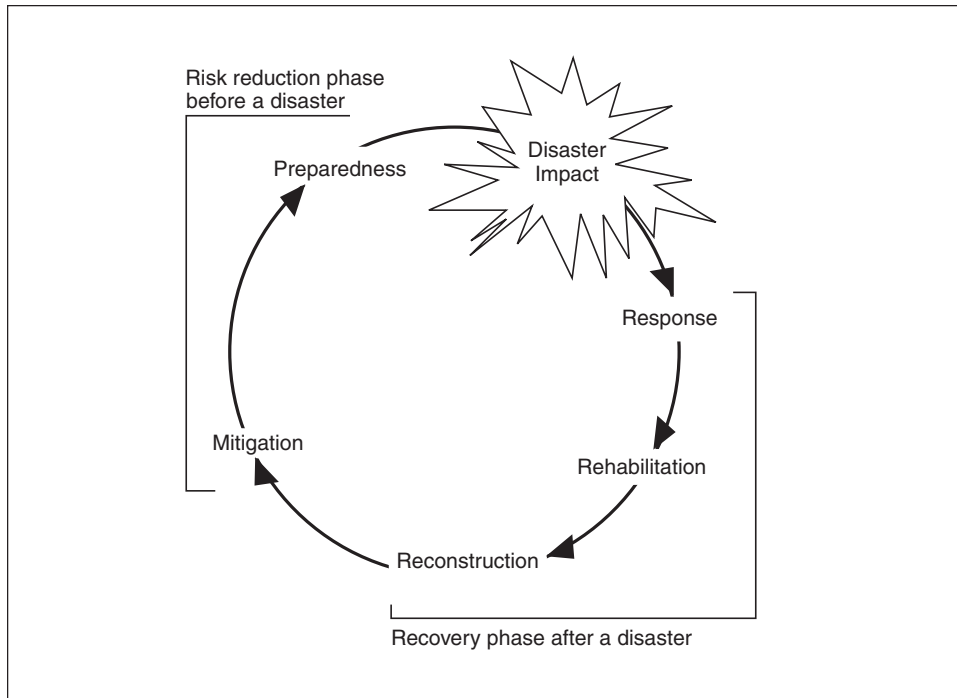
Following the devastation caused by the 1985 earthquake in Mexico City, and with particular concern for the losses suffered in hospitals, regional authorities acknowledged that not only did the population need assistance in the disaster aftermath, but they deserved to have a less vulnerable health system. With existing technology it is possible, at a reasonable cost, to greatly reduce the susceptibility of a system to the effects of a hazard. This approach was strongly reinforced by the U.N. General Assembly's designation of the 1990s as the "International Decade of Natural Disaster Reduction," and spurred concerted efforts in the Region to implement disaster mitigation programs.

There are three fundamental aspects of disaster management:

- disaster response,
- disaster preparedness, and
- disaster mitigation.

These three aspects of disaster management correspond to phases in the so-called "disaster cycle" (see Figure 2.1).

Activities in the aftermath of disaster include response, rehabilitation, and reconstruction. Chapter 5 of this book concentrates on the coordination of health activities in the emergency period and some aspects of rehabilitation. There will be few references to reconstruction. During the reconstruction phase, the coordination mechanism, project approval, and other decisions are taken in an environment that is much closer to the "normal" situation. Time is no longer the most important factor. The reconstruction period provides an opportunity to implement the health sector's disaster mitigation programs and to initiate or reinforce disaster preparedness programs (see Chapters 3 and 4).

FIGURE 2.1. Management sequence of a sudden-onset disaster.

NATIONAL DISASTER MANAGEMENT AGENCIES

Many Latin American and Caribbean countries have developed national disaster management agencies to coordinate activities involved in disaster preparedness, mitigation, response, and rehabilitation. These organizations are usually assigned to the ministries of defense or interior, or their national equivalent.

Disaster preparedness and mitigation have few immediately visible benefits, and until a major catastrophe occurs, the results are hidden. The establishment of national disaster management agencies is a complex and slow process, requiring consistent political and public support. Legislation is required to ensure the continuity of these agencies and to guarantee their funding. Despite these difficulties, institutionalized disaster management programs are the only long-term solutions to reducing the vulnerability of all sectors of society to disasters.

While the health sector can do a great deal on its own to improve its ability to respond in a disaster situation, it is impossible to reduce the impact of hazards without the involvement of public works, financing, education, housing, and other sectors. The health sector should take the lead in promoting the institutionalization of a national disaster management agency and will benefit from decisions taken to reduce vulnerability in other sectors. For example, a strictly enforced building code will reduce the numbers of homes and other structures damaged by an earthquake, and consequently reduce the number of casualties needing treatment.

NATIONAL HEALTH DISASTER MANAGEMENT PROGRAM

The health sector in Latin America and the Caribbean has been working to reduce its vulnerability to disasters by establishing national health disaster management programs. Responsibilities of such programs encompass the entire health sector, and not only the ministry of health. The program must play the leading role in promoting and coordinating prevention, mitigation, preparedness, response, and early rehabilitation activities related to health. The scope of the program is a multi-hazard one, including all large-scale emergencies regardless of their origin (natural disasters, chemical or radiation accidents, civil conflicts, violence, etc.).

As part of preparedness activities, the health disaster program should ensure that disaster plans are in place and up-to-date (see Chapter 3). To test these plans, simulation exercises involving the health and other sectors must be conducted on a regular basis.

Activities related to mitigating the effects of disasters (see Chapter 4) require the inclusion of mitigation measures in all ministry of health programs (development of new services, construction or remodeling of facilities, and maintenance programs for hospitals and other health facilities). Vulnerability reduction also must be promoted for services that affect health, especially in water supply and sewerage systems. Finally, mitigation activities require the development of construction standards and norms to ensure that health facilities will resist potential hazards.

Finally, during the disaster response phase, the health disaster management program coordinates all health sector activities to reduce the loss of life and property and protect the integrity of health services (see Chapters 5 through 13).

Regional and Local Responsibilities

This chapter focuses on responsibilities of the health disaster management program at the national or central level, but the same principles apply to the heads of disaster programs at provincial or regional levels as well as in epidemiology and environmental health departments, hospitals, social security institutions, water services, and NGOs.

HEALTH DISASTER COORDINATOR

Establishing a single focal point for coordination of disaster-related health activities ensures the optimal use of health resources available to the ministry of health, social security agency, armed forces, and the private sector. A full-time Health Disaster Coordinator should be designated, and, as in the case of most Latin American and Caribbean countries, assigned to the highest level of the ministry of health (e.g., in the advisory unit of the Minister or Vice-Minister), or to the Director-General of Health, especially when that division has operational responsibilities for emergency health care.

The Health Disaster Coordinator is responsible for the development of the health sector's disaster preparedness, mitigation, and prevention programs. The characteristics of his/her duties have evolved in recent years in Latin America and the Caribbean from those of a low-profile troubleshooter to a multifaceted skilled professional responsible for leading the national health disaster management program.

As can be seen from the functions described in Box 2.1, the responsibilities of the national health disaster management program are complex. Most programs now have one person specialized in response and preparedness and another assigned to disaster mitigation.

Coordination of all components—public and private—of the health sector requires that a standing, advisory committee be established. Coordinated by the Health Disaster Coordinator, the committee includes health sector specialists (epidemiology, environmental health, hospital administration) and representatives of major government agencies providing health services, the Red Cross, NGOs, as well as representatives of the international community involved in health activities. The committee meets on a regular basis to take operational decisions and to coordinate their agencies' activities regarding humanitarian assistance.

ASSESSING RISK

To appropriately orient the activities of the disaster management program, the Health Disaster Coordinator must have an understanding of the risks (hazard and vulnerability) present in the country under his or her responsibility. Hazard probability and vulnerability of systems change constantly, depending on scientific information and development processes of the country (for example, growth of cities, changes in building codes, and installation of new industries). The activities of the preparedness and mitigation subprograms are heavily dependent on risk assessment. The main elements to be taken into account for those subprograms are described in Chapters 3 and 4, respectively.

The identification of risks posed by natural hazards and those caused by human activity requires collaboration of the health sector with the scientific community (seismologists, meteorologists, social scientists); environmental specialists; engineers; urban planners; fire brigades; private industry; and in the case of complex emergencies, political entities.

There are certain rules for estimating risk (see Chapter 4), but the level of risk that is deemed tolerable is less precise and is dependent on factors such as cultural and social patterns, public and political awareness, and financial constraints. The Health Disaster Coordinator must understand what is considered acceptable risk to determine priorities in the disaster management program.

TRAINING

Training in all components of the disaster management program is necessary if activities are to be properly implemented. The failures in disaster mitigation, preparedness, and response are largely due to the gaps that exist between different professions and a lack of specific training for health care and public health personnel. Many health professionals have never received training, experienced a disaster situation, or participated in disaster management activities. Professionals employed in other sectors such as public works, financing (involved in construction of health facilities), foreign affairs, or the national disaster management agency (humanitarian assistance) should be aware of disaster preparedness and mitigation issues as they relate to the health sector.

BOX 2.1. The National Health Disaster Management Program.

The program's areas of responsibility are promotion, establishment of standards, training, and coordination with other institutions and sectors, as outlined below.

Promotion

- Health and social aspects and benefits of disaster management with other sectors, including the private sector;
- Inclusion of disaster reduction into development activities of other programs and divisions of the ministry of health and other health sector institutions; and
- Public education through mass media and health educators.

Establishment of standards

- Building and maintenance standards for health facilities in disaster prone areas, taking into consideration mitigation and preparedness measures;
- Norms for contingency planning, simulation exercises, and other preparedness activities in the health sector;
- Lists of essential drugs and supplies for emergencies; and
- Standardized telecommunication protocols.

Training

- In-service training of health personnel (from disaster prevention to response);
- Promotion of disaster management in the curricula of undergraduate and graduate schools in health sciences (such as schools of medicine, nursing, and environmental health); and
- Inclusion of health related topics in disaster management training for other sectors (e.g., planning and foreign affairs).

Collaboration with other institutions and sectors

- The national disaster management agency or other agency with multisectoral responsibility;
- Disaster focal point or commission in other sectors (e.g., national disaster management agency, legislature, foreign affairs division, public works departments, NGOs);
- Disaster programs in the health sector in and outside the country, particularly in neighboring countries or territories; and
- Relief organizations at the national or international level (bilateral and UN agencies, NGOs).

In the event of disaster, the program is responsible for:

- Mobilization of the health response; and
- Providing advice and coordinating operations on behalf of the head of the health sector (minister of health), and supporting the health response in case of large-scale emergencies resulting from natural, technological, or man-made disasters.

The health disaster management program is responsible for promoting ongoing training in health disaster management. The two main approaches to accomplishing this are: (a) continuous training at the institutional level, and (b) academic training provided by a large variety of institutions at the undergraduate and graduate levels or through continuing education.

EVALUATION OF THE HEALTH DISASTER MANAGEMENT PROGRAM

Health disaster management programs are evaluated based on the objectives and functions that have been specifically assigned to it.¹ However, the three indicators that follow are useful for evaluation and can be adapted.

Evaluation of the Preparedness Program

- Date of last review of the national and regional disaster plans of the ministry of health and water system authority;
- Annual disaster exercise, test of disaster plan.

Evaluation of Mitigation Measures

- Percentage of health facilities and water supply and sewerage system having undergone vulnerability study;
- Percentage of critical health facilities and water supply and sewerage system that will remain functional after disasters.

Evaluation of the Training Program

- Number of persons with specialized disaster management training;
- Number of hours of disaster management training available at the undergraduate and postgraduate levels.

¹See Pan American Health Organization, Emergency Preparedness Program, *Guidelines for Assessing Disaster Preparedness in the Health Sector* (Washington, D.C., 1995).