



# CHAPTER 1: PREPAREDNESS FOR MASS FATALITIES

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## INTRODUCTION

In disaster situations, the State and its authorities are responsible not only for being prepared to effectively provide immediate assistance to disaster victims and to maintain basic services following an event. It is also the State's responsibility to attend to the handling and final disposal of dead bodies resulting from the disaster, regardless of their number.

In many cases, management of human remains has not been given the attention it deserves, and has even been disregarded. It is important to clarify that the priority is to assist disaster survivors and to maintain basic services, but we cannot overlook the recovery of dead bodies.

This chapter aims to provide a general overview of the authorities' obligations in dealing with this issue. The State must assume the leading role in the entire process, that is, to organize health services, legal services, forensic services, and the other actors involved in managing dead bodies. Without neglecting resources destined for the living, there must be an integrated plan to serve the needs of the dead. One must always keep in mind that the way corpses are managed has a significant impact on the wellbeing of surviving family members.

## COORDINATING INSTITUTIONS

The management of dead bodies involves a series of activities that begin with the search for corpses, in situ identification of the body, transfer to the facility that serves as a morgue, delivery of the body to family members, and assistance from the State for final disposal of the body in accordance to the wishes of the family and following the religious and cultural norms of the community. It requires the involvement of a diverse team of people, including rescue personnel, forensic medicine experts, prosecutors, police, administrative personnel, psychologists, support teams for the personnel who are directly handling the bodies, representatives from nongovernmental and international organizations, as well as community volunteers.

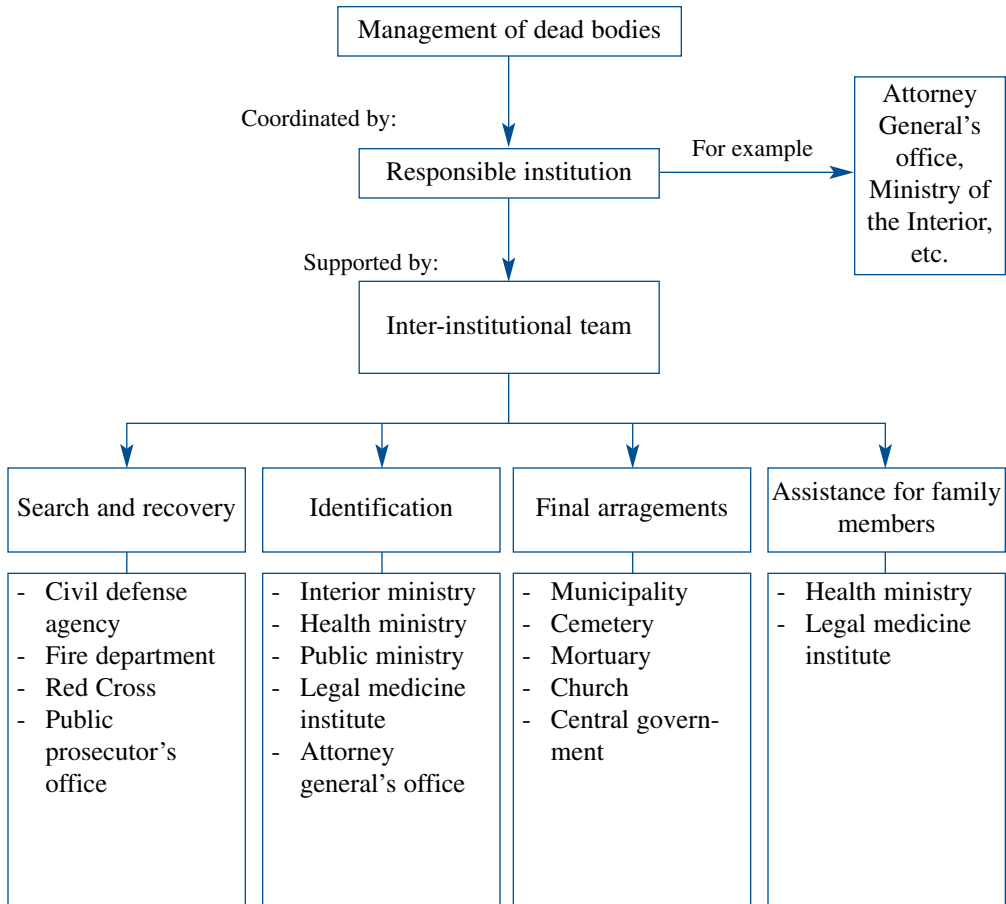
There should be adequate coordination among all of the actors to avoid misuse of resources or duplicated efforts. To that end, one of the tasks of the Emergency Operations Committee of a country should be the management of dead bodies in disaster situations. If this function is not assigned by law to an institution that is a member of the Emergency Committee, the responsible institution should be specified (for example, the public attorney's office, the public ministry, judicial branch, health ministry, etc.)

The responsible institution should coordinate other institutions in their respective tasks related to handling the dead. The services of all relevant institutions, including psychological counseling for relatives, should be immediately available (on a daily, uninterrupted basis) after a disaster strikes. Typically, this coordinating role falls to the attorney general's office, judicial entity, or another public agency responsible for a State's internal security. Failure to provide this coordination will negatively affect the entire process of managing dead bodies during a disaster.

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To cite an example, an aviation accident occurred in one of the countries in this Region on a holiday. The public offices were closed, and there was no one in the registry office to help with the legalities of identifying the bodies and providing death certificates. It was necessary to wait until the next business day to complete necessary legal transactions.

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**Table 1.1. Administrative structures for management of dead bodies**

## Duties

The most important task is to coordinate work among the different institutions. The activities outlined below will facilitate this coordination:

- ◆ *Provide effective leadership.* A law or regulation should clearly specify the coordinating institution. Lacking this, the Emergency Operations Committee must assign this function to an appropriate institution. Moreover, it is essential that everyone involved understand his or her responsibilities.

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For example, following the aviation accident in Chachapoyas, Peru, the Public Prosecutor's Office led the process of recovering bodies, as stipulated by law.<sup>1</sup>

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<sup>1</sup> Judith Maguina Romero, Medical Examiner, Instituto de Medicina Legal (Legal Medicine Institute) of Peru.

- ◆ *Create a governing body.* The governing body includes representatives from all of the relevant agencies, and is the best way to ensure coordination among them.
- ◆ *Determine intervention priorities.* These priorities may change according to the type of disaster and the actual situation.

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For example, following the landslide caused by the Casitas Volcano in Nicaragua, the condition of the terrain made it difficult to recover the bodies, and posed a hazard to rescue personnel. The decision was made to wait to recover the bodies until conditions improved.<sup>2</sup>

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- ◆ *Prevent duplicated efforts* and ensure that all needs are met. Each institution should have a specific task in the process.
- ◆ *Communicate effectively* among institutions and with the community. The governing body should use the necessary communications media. Official spokespersons are responsible for providing information about bodies that have been recovered and identified. During an emergency, the first 24 hours are critical, so a quick response is necessary. A realistic assessment should be made of the situation and communicated to the media and to the general public: not providing this information gives rise to rumors and misrepresentation of the actual situation. Official spokespersons play a critical role in the management and credibility of the information provided; they should be experienced in dealing with the media and, when possible, be members of the Emergency Operations Committee.
- ◆ *Develop uniform procedures.* Common standards and guidelines should encompass the entire process. These protocols or guidelines should be applied from the moment the corpse is located, through the process of identification and delivery of the body to the family. They should also address procedures to be followed in psychological and legal aspects following the tragedy (see Chapter 2).

## Preparation of the plan

In general, plans to manage mass fatalities in disaster situations should accomplish the following.

- ◆ Assess the current situation, taking into account:
  - Human resources who are trained and available to handle, identify, and dispose of the bodies;
  - Financial resources budgeted for emergency management and the funds designated for managing dead bodies;
  - Logistical resources and materials.
- ◆ Identify possible emergency scenarios, considering:

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<sup>2</sup> Zacarías Duarte, Forensic physician, Instituto de Medicina Legal de Nicaragua.

- Types of disasters that are most common in a region, and probable number of associated fatalities;
  - Access to resources at the time of the emergency, including volunteers for the recovery of bodies, refrigerated containers to serve as temporary morgues, space for burial of the dead, and availability of extra-budgetary funds.
- ◆ Determine features of administration for disaster response such as the institutions and officials involved in decision-making and establishment of a special committee to oversee management of dead bodies. The plans should not be highly detailed, since situations change according to the type of disaster. Expect the unexpected, and allow for a certain amount of improvisation.
  - ◆ Subdivide the plan into independent components. Effective response does not require all specialized personnel (for example, morgue administrators) to be familiar with all aspects of the plan.
  - ◆ Circulate the plan widely. Everyone involved in handling dead bodies should be familiar with this plan, especially with sections relating to his or her role during an emergency. The plan requires continual training, particularly regarding teamwork rather than in the professional proficiency of individual team members.
  - ◆ Conduct periodic exercises to test the plan. Failure to carry out simulation exercises can nullify the validity of the best of abstract plans.
  - ◆ Use basic demographic and epidemiologic data provided by the country's Emergency Operations Center as supporting material.

## TECHNICAL PROGRAMS

When planning for the management of dead bodies, identification of bodies, epidemiologic surveillance and disease control, training, and simulations must be considered, as outlined below.

### Body identification

The Department of Legal Medicine plays a fundamental role in this area. As detailed in Chapter 2, forensic or medicolegal institutes have protocols for identifying and preserving bodies, certifying deaths, and transporting bodies locally and internationally (when necessary). Good performance in this area requires superior teamwork between the medicolegal, public prosecutor (or comparable officials), judiciary and health entities.

### Epidemiologic surveillance and disease control

The type of disaster determines the levels of morbidity and mortality of the affected population. As part of the epidemiologic surveillance system it is advisable to

institute warning mechanisms with the list of possible illnesses related to each type of disaster; establish a simple system for gathering data; and launch special programs such as vector control and treatment of gastrointestinal disease or nutritional disorders. This response cannot be improvised, and it is the responsibility of the Epidemiology Department and the health services to be prepared to confront these issues in an emergency situation.

It should be noted that in areas where certain diseases are endemic, the disposal of bodies may become a priority. However, even in such cases the presence of dead bodies should not be considered an important public health risk. There is little evidence to suggest that human or animal corpses are a risk in areas that are not endemic for certain diseases (see Chapter 3).

## Training

All institutions involved in management of dead bodies should introduce basic training programs. Personnel should receive specific instruction on different aspects of handling dead bodies, including: search and recovery techniques; public hygiene of the population at risk; and social, cultural, religious, legal, and psychological characteristics of the community. Institutions should offer ongoing training in disaster management topics that relate to their respective areas of responsibility.

Lack of training can have negative consequences for the authorities and personnel charged with managing the bodies. For example, hurried forensic work done without sufficient expert staff and in hazardous situations can have long-term effects. Insufficient documentation about the bodies and the scene, increased costs owing to the need to repeat the work, and loss of evidence or valuable information will generate distrust in the services.

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The importance of having adequate resources in mass casualty situations can be demonstrated by a case in Colombia when an ambush by insurgents resulted in the deaths of 62 soldiers in the El Billar area of Caquetá in March 1988. The bodies were transferred to the closest army base and underwent autopsy by a single physician. An unexploded grenade was found hidden in one of the bodies, so the site had to be evacuated while specialists were summoned to defuse the device. Death certificates were expedited for certain victims who were identified by their fingerprints, and these bodies were returned to family members. Because of doubts as to the identities of the deceased, the remains of 14 individuals were exhumed after seven months. Second autopsies were conducted, dental records requested, and DNA samples were taken. The bodies had been buried and covered by large amounts of sawdust, and their preservation was remarkable considering the tropical climate. Eighteen months after the battle it was possible to identify all of the victims through genetic sampling.

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The availability of technical infrastructure, experienced investigation and forensic teams, and preparation will produce markedly different results. An

example of this was the investigation of an attack made on the exclusive El Nogal club in Bogotá in February 2003, when a car bomb exploded in the garage of the building. Thirty six victims were identified, a team rapidly carried out complete autopsies, and the bodies were delivered to families. The main difficulty reported in this case was lack of coordination among institutions. Methods used in a “unified command” structure were proposed as a solution to the problem

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Training should not be limited to the institutions directly involved in managing dead bodies. It may be even more important for professional training institutions (universities, schools, etc.) to include topics about disaster preparedness and response in their regular programs or as part of continuing education programs.

All sectors should be encouraged to develop research protocols in their respective fields. This would help to identify factors that would improve disaster management or the effects of the disaster on the population.

## Simulations

Simulations should be carried out with the participation of authorities and operative personnel. These exercises are the only way to keep plans up-to-date, especially during the long periods when there are no emergency situations. Types of exercises are outlined below:

- ◆ *Table-top exercises* use scenarios illustrated in print or on computers. Their objective is to improve coordination, share information, and test decision-making processes.
- ◆ *Field exercises* test a disaster plan in simulated field conditions. These exercises cannot realistically reproduce the dynamics and chaos of actual disasters, but they are very helpful in revealing errors that inevitably occur, the lack of coordination, or shortcomings in the simulated response. A critical evaluation at the conclusion of the exercise is essential. A perfectly executed field simulation is one that reveals many defects in the disaster plan.
- ◆ *Training exercises* aim to provide specific skills to technical personnel (for example, search and rescue personnel might receive training in recovering and handling dead bodies, body identification, and providing psychological assistance to families). A perfectly executed training exercise is one that results in the flawless repetition of a specific task under any circumstances.

## RELATIONS WITH THE COMMUNITY

Following a major disaster, the need for search and rescue, first aid, and body recovery is likely to be so great that the organized relief services will be able to deal with only a small fraction of the demand. Most immediate help will come from uninjured survivors. Improvement in the quality and availability of immediate first aid



services depends on increased training and preparation obtained through specialized agencies (for example, through courses taught to volunteers by fire brigades).

An information center must be established to respond to the questions of family members and friends of the missing or dead. This center should have sufficient staff so that it can operate around the clock.

Priority must be given to victim identification, which is becoming an increasingly specialized issue. Every attempt should be made to identify the bodies at the site where they are found. Tags should be attached to the bodies that provide the name (if known), approximate age, sex, and location of the body (see Chapter 2). These tags should be standardized and designed in advance as part of the national disaster plan. Health personnel should be completely familiar with their proper use.

Adequate mortuary space and services must be available, as well as sites for the final disposal of bodies.

## RELATIONS WITH THE MEDIA

The media play an important role in providing critical information to the affected population and to national and international audiences in the event of a disaster. It is essential that authorities and media practitioners share an understanding of the objectives of information dissemination, as well as their respective roles in the disaster. Managing information about fatalities is of particular importance in this regard. As part of national disaster planning, it is important to hold regular meetings or seminars between the members of the media and disaster managers to clarify these roles and responsibilities and to emphasize the ethical and moral obligations to provide accurate and timely information.

The following recommendations have been adapted from the chapter written by R. Elliott Churchill in the book *The Public Health Consequences of Disasters*.<sup>3</sup>

### Questions commonly asked after a disaster

- ◆ What happened?
- ◆ When and where did it happen?
- ◆ How many victims were there? Who were the victims??
- ◆ What caused the disaster?
- ◆ What are you doing to take care of the situation?
- ◆ When will recovery operations begin?
- ◆ Who is in charge of recovery operations?

### Guidelines for the official spokesperson

- ◆ Do not give names of the dead until next of kin have been officially notified.

<sup>3</sup> R. Elliott Churchill, "Effective Media Relations" in Eric K. Noji, ed. *The Public Health Consequences of Disasters*, (New York: Oxford University Press, 1997; pp. 126-128).

- ◆ Avoid speculation and personal opinion.
- ◆ Always tell the truth. If you do not know the answer to a question, admit it.
- ◆ Prepare a brief written statement about the situation and provide it to media representatives (include background information, photographs, and audio-tapes or videotapes if appropriate).
- ◆ Do not give exclusive interviews. Schedule a press conference with all the media representatives and give them all the same information at the same time. If you are going to read a prepared statement and not answer questions until later, say so at the beginning of the conference.
- ◆ Be as accessible as possible to take follow-up questions from the media so they don't think you are avoiding them.
- ◆ Stay calm.

## Proactive approach to media relations for the official spokesperson

- ◆ Do not wait for the media representatives to contact you. Study the patterns and type of reporting done in your area and determine which media seem to be the best informed, the most responsible, and the most effective, and contact them. Begin with one representative and contact others after you have gained some experience.
- ◆ Write and state clearly and consistently not only the facts, but the message you want to convey.
- ◆ Explain in each interview the importance of the issues you have discussed and how they fit into the general context of public health practices.
- ◆ Do what you can to maintain an image of sincerity, experience, and candor.
- ◆ Respond to the media when they contact you. They remember who helps them and who does not.

## CONCLUSIONS

Handling and identifying dead bodies that result from a disaster should not be viewed as isolated actions but should be included as an integral part of disaster response.

Preparedness should begin by ensuring that the institution or authority responsible for coordinating all aspects of managing dead bodies is a member of the Emergency Operations Committee. If the law does not designate the responsible institution, the Emergency Operations Committee should delegate this function to the most competent institution. In the majority of countries this responsibility falls to the public prosecutor's office or the justice department.

The most important goals of the program are to coordinate work between different institutions by means of effective leadership. A governing body will assist with determining priorities for intervention in accordance with the kind of disaster, and fostering effective communication with the population through the media.

When developing the disaster plan, existing resources and level of preparedness must be assessed in terms of the type of disaster most likely to occur and the number and kind of victims that might result.

In the first minutes and hours after a major event, organized relief services may be overwhelmed by the needs for search and rescue, first aid, and recovery of dead bodies. Most immediate help will come from uninjured survivors. Improvement in the quality and availability of immediate first aid services depends on training and preparation obtained through specialized institutions.

The communications media play an important role in disaster situations since they provide critical information to both national and international audiences. National authorities must effectively deliver information to members of the media through official spokespersons, thereby limiting misleading reports and rumors.

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