

## FINAL RECOMMENDATIONS

The following recommendations are a summary of the main activities mentioned in this book that are required to make the management of corpses more effective.

The Pan American Health Organization promotes the dissemination of these recommendations to all authorities, agencies and institutions involved in the management of dead bodies.

- ◆ Define within the Emergency Operations Committee, the institution that will coordinate all processes related to the management of corpses.
- ◆ Determine rapidly (within the first 24 hours) the magnitude of the event, the available resources, and the most urgent needs.
- ◆ Have a single official spokesperson to provide information concerning the tasks of recovery, identification, and location of victims.
- ◆ Notify family members of the death or disappearance of victims in a clear, orderly, and individualized manner.
- ◆ Facilitate access to the bodies for the persons concerned, and provide all possible assistance in final disposition of the body.
- ◆ Bury the corpses in a way that will allow later exhumation. The use of common graves or mass cremations should be avoided in all circumstances.
- ◆ Ensure that there is a plan for the psychological and physical care for the relief workers. Handling a large number of corpses can have an enormous impact of the health of the working team.
- ◆ Burial of bodies in common graves or the use of mass cremation is unnecessary and a violation of the human rights of the surviving family members.
- ◆ Emphasize that, in general, the presence of exposed corpses poses no threat of epidemics. The corpse has a lower risk for contagion than an infected living person. The key to preventing disease is to improve sanitary conditions and to educate the public.
- ◆ Avoid subjecting relief workers and the general population to mass vaccination campaigns against diseases that are supposedly transmitted by dead bodies.
- ◆ Respect the cultural beliefs and religious norms of the affected populations; when the religious beliefs of the deceased are unknown, respect those of the community where the tragedy occurs.
- ◆ The identification of a large number of corpses is a technical challenge that can be met regardless of the number of victims if the authorities act in accordance with specific procedures. Failure to follow these procedures can result in legal consequences in that survivors might present claims of material and moral damages.

## MYTHS AND REALITIES OF MANAGEMENT OF DEAD BODIES IN DISASTERS

**Myth:** Disasters cause random deaths.

**Reality:** Disasters have the most serious effect on vulnerable (high-risk) geographical areas which is where the poorest populations generally settle.

**Myth:** The fastest way to dispose of dead bodies and to avoid the spread of disease is to bury them in mass graves or cremate them, a process that will relieve the population.

**Reality:** The population will be reassured and can better bear the pain from the loss of loved ones when they follow their beliefs and carry out religious rituals, and know that there is a possibility of identifying and recovering the bodies.

**Myth:** After a disaster, dead bodies always cause epidemics.

**Reality:** Dead bodies do not cause epidemics in cases of disasters.

**Myth:** It is better to restrict information concerning the magnitude of the tragedy.

**Reality:** Restrictions on information promote distrust in the population, resulting in inappropriate behaviors and even violence.

**Myth:** It is impossible to identify large numbers of dead bodies after a tragedy.

**Reality:** There are always methods that allow the identification of bodies or body parts.

**Myth:** DNA technology for the identification of corpses is still not accessible for the majority of countries because of its high cost and the highly technical processes needed.

**Reality:** DNA profiling is rapidly becoming an identification tool that is accessible for all countries. Furthermore, in cases of major disasters, the majority of countries can provide support with economic and technological resources, among them, DNA technology.

# GLOSSARY

**Anthropology:** the study of the human being in terms of distribution, origin, classification of races, physical characteristics, environment and social and cultural relationships.

**Armed conflict:** Clash on issues of government or territory in which the two parties, one of which is the government of a State, use armed force in confrontations that lead to the deaths of at least 25 people.<sup>1</sup>

**Autopsy:** Medical examination of a corpse, by which a specialist determines the cause and manner of death.

**Body recovery:** Measures taken to locate bodies, remove them from a disaster site, and identify them.

**Casket or coffin:** General terms for the box used to bury a body.

**Collective grave:** Burial of dead in an orderly process, preserving the individuality of every body, and maintaining identification with each body.

**Common or mass grave:** Indiscriminate burial of more than two bodies in the same hole. No identification is made of the bodies buried.

**Corpse removal or recovery:** Complex procedure that consists of the survey and examination of bodies at a disaster site, and the transfer of the bodies and body parts.

**Cremation:** Process that reduces a corpse and its coffin to ashes and small bone fragments with the use of intense heat. The heat evaporates the water, burning the soft tissues, and reduces the bones to 4-8 pounds of ash and fragments.<sup>2</sup>

**Criminology:** Application of scientific techniques to collect and analyze physical evidence in criminal cases.

**Death certificate:** Documented proof of the death of someone; a legal instrument which includes the victim's name, age, sex, the cause and manner of death, the hour and date of death, and the name of the professional who confirms the death. In theory, no one can be considered dead until the respective death certificate is issued.

**Death:** Legal definition of death is the complete loss of function of the cerebral neo-cortex and brain stem.

**Dental chart:** Record of teeth used for the purpose of identification.

**Disaster:** A serious disruption of the functioning of society, causing widespread human, material or environmental losses, which exceed the ability of affected society to cope using only its own resources. Disasters are often classified according to their cause (natural or man-made).

**Disaster preparedness:** Activities and measures taken in advance of an event to ensure effective response to the impact of hazards, including rescue, relief, and rehabilitation.

**Disaster prevention:** Activities designed to prevent or minimize the adverse impact of hazards presented by natural or technological disasters.

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1 Strand H, Wihelmsen L, Gleditsch NP, *Armed conflict dataset codebook*. Oslo, Nicaragua: PRIO.

2 Iserson K, *Death to Dust: What Happens to Dead Bodies?* (Tucson, Arizona: Galen Press; 1994).

**Disaster response:** Actions carried out after a disaster to give relief to the survivors and diminish the impact of the disaster.

**Disaster expert:** Specialist in different disciplines devoted to the study of disasters. These include different branches of engineering, medicine, veterinary medicine, geography, seismology, meteorology, cybernetics, physics, and mathematics, among others.

**Disaster plan:** Organization of response to a given event in a region, and preventive measures that are based on the study of hazards and vulnerability in a specific location.

**Early warning (for disease surveillance):** System established to report, in a timely fashion, whether an affected area presents a complex of symptoms of illnesses. Data collected form the basis for a more thorough investigation, and, if necessary, specific control measures are implemented.

**Embalming:** Procedure using chemicals and disinfectants to preserve a body for more than 72 hours after death.

**Emergency Operations Center (Health):** Coordinating entity for disaster management in the health sector.

**Emergency Operations Center:** Entity that coordinates activities related to the preparedness, mitigation, response, and rehabilitation in cases of disaster. It usually is under the Ministry of Defense, Ministry of the Interior, or their national equivalents.

**Emergency Operations Committee:** Group of institutions that coordinates the components of disaster preparedness, mitigation, response, and rehabilitation in the health sector and that makes operational decisions. It is comprised of health sector specialists (epidemiology, environmental health, hospital administration, etc.), and representatives from principal government agencies responsible for the health services, the Red Cross, NGOs, and the international community.

**Endemic:** Characteristic of a place or region. In epidemiology it is the usual number of cases of a disease that occur in given population in a given time.

**Epidemic:** Disproportionate increase in the number of cases of a disease in a locality or region.

**Epidemiologic surveillance:** A notification system that makes it possible to identify disease outbreaks and to rapidly implement necessary control measures. In disaster situations a local surveillance system is based on the recognition of disease symptoms and should be faster and more flexible than the surveillance used in normal conditions.

**Exhumation:** Removal of a body from its grave; usually done to carry out examination or to bury it in another place.

**Forensic hemogenetics:** Forensic method that has become one of the most important tools for the task of corpse identification. It includes determination of blood type from the classic ABO and Rh systems, studies of the human leucocyte antigen (HLA), and DNA profiling.

**Forensics:** Application of scientific knowledge to legal problems.

**Funeral:** Rite of passage that has two connotations: for the deceased it is the transition between life and death (conceived as “heaven,” “spiritual world,” or “afterlife”), and for the survivor it implies the loss of the deceased and corresponding roles and status, as well as the assumption of new roles.

**Hazard:** A threatening event, or the probability of occurrence of a potentially damaging phenomenon within a given time period and area.

**Health:** Health is a state of complete physical, mental, and social well-being, and not simply the “absence of disease or infirmity.”

**Human-induced disaster:** A disaster that results from human action. Examples are: transportation accidents, chemical accidents, terrorism, armed conflict, forest fire, etc.

**Interment:** Burial and lay or religious ceremonies that accompany it.

**Mass burial:** See common grave.

**Mass cremation:** Process of cremating more than one body at the same time.

**Mitigation:** Measures undertaken to limit the adverse impact of natural hazards.

**Morgue:** Place where bodies are temporarily deposited until final disposal is decided on.

**Mourning:** Period in which an individual expresses grief over the death of someone. He or she assimilates, understands, and overcomes the loss, and rebuilds his or her life. It is a normal process that should not be hurried, ignored, or regarded as an illness.

**Myth:** Belief that is ingrained in the psyche of a population over time. It is usually a result of distortions of religious norms, superstition, or simple observation of an apparent reality.

**Natural disaster:** A sudden, major upheaval of nature, causing extensive destruction, death and suffering among the stricken community, and which is not due to man's action. Some natural disasters can be of slow origin (e.g., drought or flooding), and can be caused or aggravated by man's action (e.g., as a result of deforestation).

**Niche:** Space for the placement of a corpse.

**Pandemic:** Increase in the number of cases of a disease in a broad geographical region, which affects an exceptionally high proportion of the population.

**Person:** Legal definition: entity able to acquire or have legal rights and contracting obligations.

**Post-traumatic stress:** Psychological syndrome that appears as a delayed reaction to exceptionally threatening or catastrophic events.

**Religion:** Set of formally established doctrines of faith.

**Risk:** The probability of harmful consequences, or expected losses (deaths, injuries, property, livelihoods, economic activity disrupted or environment damaged) resulting from interactions between natural or human-induced hazards and vulnerable conditions.

**Rite of passage:** Ceremony that facilitates important transitions in human life.

**Rite/ritual:** Symbolic use of movements and body gestures to express and ascribe meaning to a social situation. It begins as spontaneous response to a given situation to satisfy needs that people cannot articulate.

**Sacred ground:** Area where it is impossible to remove the human remains following a disaster (burial by landslides, building collapse or other similar circumstances), and declared by authorities to be sacrosanct. This also refers in general terms to cemeteries.

**Simulation exercise:** Participants perform some or all of the actions of a process that imitate the actions taken in the event of a disaster (for example, field simulation).

**Situation room:** Real or virtual space where the information that is obtained from a disaster site is collected and used to optimize decision-making and actions in response to an emergency.

**Somatometry:** Measurement of a corpse (for example, height, size of the foot, length of the limbs, etc.).

**Speleology:** Science of discovery and exploration of natural caves.

**Superstition:** Belief resulting from a poor understanding of religious norms; a mixture of sociocultural factors, scientific facts and, even, science-fiction.

**Thanatology:** Scientific study of death.

**Tomb:** Grave.

**Transitory preservation:** Process that attempts to preserve the condition of a corpse during the first 24 to 72 hours after death.

**Universal vulnerability:** Concept that precludes any type of training or previous preparation to completely eliminate the possibility that a person who works with disaster victims and the dead will be affected by symptoms of post-traumatic stress or other psychological disorders.

**Unresolved grief:** Incomplete grief or mourning due to disasters that result in many fatalities, or the disappearance of family members. It implies the interruption of life of an individual and his or her family, involving social, economic and political dimensions.

**Vigil/wake:** Practice of accompanying, or “watching” the body before its burial, either in its home or at a funeral establishment. Its aim is to make a difficult situation more bearable, and when the coffin is open, to see a person’s body for the last time.

**Vulnerability:** The conditions determined by physical, social, economic, and environmental factors or processes, which increase the susceptibility of a community to the impact of hazards.

**Worship:** Devotion toward someone or something.

**Zoonosis:** Disease or infection of animals that can be transmitted to humans.



## Area on Emergency Preparedness and Disaster Relief Coordination

In 1976, the Pan American Health Organization created this Area in response to a call by the Member Countries to establish a technical unit to strengthen health sector disaster preparedness, response and mitigation activities.

Since then, the Area's main objective has been to support the health sector to strengthen their national disaster preparedness programs and its interaction with all the sectors involved in disaster preparedness. This support has been channeled to the countries of Latin America and the Caribbean in three principal areas:

In **disaster preparedness**, in addition to constant promotion of a strong health disaster preparedness program, PAHO regular activities include training (through hundreds of courses and workshops) and the preparation and distribution of training materials (books, slides and videos).

**Disaster mitigation** is just as important. An investment in disaster preparedness can be rendered useless if hospitals or health centers cannot withstand the impact of a disaster and collapse at exactly the moment they are most needed. PAHO promotes and supports the inclusion of disaster mitigation in natural disaster reduction programs and legislation.

In **disaster response**, PAHO works with the affected countries to identify and assess damages and needs, carry out epidemiological surveillance, monitor drinking water, mobilize international relief, and manage humanitarian supplies. PAHO has established the Voluntary Emergency Relief Fund that collects money to support post-disaster activities.

The Area also has several special technical projects: Disaster Mitigation in Hospitals and Drinking Water Systems; Humanitarian Supply Management System; Use of the Internet for Disasters and Emergencies; and the Regional Disaster Information Center (CRID).

### Offices of the Area on Emergency Preparedness

#### Headquarters

525 Twenty-third Street, N.W.  
Washington, D.C. 20037, USA  
Tel. (202) 974 3520  
Fax: (202) 775 45 78  
disaster@paho.org  
www.paho.org/disasters/

#### Central America

Apartado Postal 3745  
San José 1000, Costa Rica  
Tel. (506) 224 6690  
Fax (506) 224 7758  
pedcor@sol.racsa.co.cr

#### The Caribbean

P.O. Box 508  
Bridgetown, Barbados  
Tel. (246) 436 6448  
Fax (246) 436 6447  
disaster@cpc.paho.org

#### South America

Apartado Postal 17-07-8982  
Quito, Ecuador  
Tel. (593-2) 2 460 274  
Fax (593-2) 2 256 174  
pedecu@ecu.ops-oms.org  
www.disaster-info.net/PED-Sudamerica/



**World  
Health  
Organization**

## **Department for Health Action in Crises**

The principal objective of the WHO Health Action in Crises is to reduce avoidable loss of life, burden of disease and disability in crises in crisis-prone and crisis-affected countries.

Along with other international organizations and NGOs, WHO works with local authorities, civil society and international partners in responding to the health aspects of crises. We strive for optimal performance, by all concerned, in these key areas, that reflect WHO's key functions in a crisis:

- Measuring ill-health and promptly assessing health needs of populations affected by crises, identifying priority causes of ill-health and death;
- Supporting Member States in coordinating action for health;
- Ensuring that critical gaps in health response are rapidly identified and filled;
- Revitalizing and building capacity of health systems for preparedness and response.

When others cannot fill gaps, WHO's rapid response will bring together expertise in epidemic control, logistics, security coordination and management. They will be combined with mobile teams provided by the UN as a whole (by UNICEF, UNFPA, UNDP, UNHCR, IOM, and WFP, in particular). They will empower the UN Country Teams to better address the health aspects and crises.

At all levels of WHO, whether it be in Country Offices, Regional Offices, and Headquarters, the WHO network for Health Action in Crises (HAC/EHA) serves as a convener and conduit. It provides information and services, and mobilizes partners to agree on standards and courses of action.

For more information contact:

**Department for Health Action in Crises**

**World Health Organization**

20 Avenue Appia

1211 Geneva 27, Switzerland

crises@who.int

<http://www.who.int/disasters>