

LESSONS LEARNED AFTER HURRICANES GEORGES AND MITCH: THE IMPORTANCE OF COLLECTING AND DISSEMINATING INFORMATION

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1. Introduction:

Disasters caused by natural phenomena are well known events in the Americas, earthquakes, floods, landslides, volcanic eruptions, and hurricanes have caused serious loss of lives, health, and major damages in the infrastructure and the productive apparatus of the Region for many years. Referring to hurricanes only, of the 10 that caused greatest mortality since 1492, six occurred in this century. Of the 216 hurricanes registered since 1492 that resulted in over 25 deaths, 90 (42%) were registered in this century.

Clearly, records have greatly improved over the years, and we now deal with more complete and accurate information. It is also obvious that population growth and its greater concentration in dangerous and vulnerable places has been equally large. This growth has not necessarily been accompanied by measures that reduce the population's vulnerability to these natural phenomena.

It is also interesting to note that, despite current modern and updated surveillance and monitoring systems for tropical storms, as well as the sophisticated communications media and dissemination of information, there are still a high number of deaths and damage in the countries.

A brief analysis of this situation leads us to conclude that there are many reasons why these damages still occur. On the one hand, the ever-increasing social vulnerability of populations; that is, there are broad groups living in a state of poverty and located in poorly constructed dwellings in dangerous or insecure areas, and who do not have access to health and education systems or early warning systems. Invariably, it is this population which suffers the most damage incurred by the natural phenomena. On the other hand, few governments give priority to nationally organized natural disaster reduction programs.

2. Preparedness:

Many efforts have been made at the national as well as the international level in order to develop multisectoral disaster preparedness programs. From the 1970s, the national systems of Civil Defense were strengthened and the Pan American

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Health Organization (PAHO) initiated a technical cooperation program with a view to organizing health administration programs for disasters in the countries.

The objectives of these programs were very specific:

- a) To strengthen the institutional capability in the ministries of health, trying to ensure the presence of an office in charge of the Disasters Program with defined functions, appropriate personnel and its own budget, and established plans in disaster situations.
- b) To train personnel, both at central and local levels and on-site, in order to have a sufficient national group to respond technically in emergencies.

With a view to fulfilling these objectives, general and specialized courses were developed; important educational material was produced, specifically aimed at the decision-making and technical levels.

The purpose was always to have a national capability, able to respond effectively during the crucial phase following a disaster, considering that international humanitarian assistance is slow in arriving, responds usually with unrequested or useless supplies, or creates confusion through lack of coordination or lack of knowledge as to the needs.

Mitigation:

Beginning at the end of the 1980s, in addition to the preparedness programs, work oriented towards disaster mitigation has been developed for health care facilities (hospitals, health centers, etc) and for water distribution systems. The purpose is to ensure that these vital structures remain functioning and provide services when the need is greatest, that is, immediately after a disaster.

Studies on vulnerability and risk are being developed in several Latin American and Caribbean hospitals and some of them are applying corrective measures, both from a structural as well as nonstructural and functional standpoint. It is important to point out that PAHO is promoting governments and the international financial community to include reinforcement and safety measures both in the post-disaster retrofitting as well as in new construction.

3. Response:

Some of the measures described were put into effect after Hurricanes Georges and Mitch. In each affected country, there was a national organization in charge of coordinating the response. In the health sector, the Ministries with support from PAHO, mobilized their disaster-trained personnel. For both hurricanes, the health sector's response was directed to the following fields:

- Search and rescue
- Urgent medical care, including emergency drugs and supplies provision damage assessment
- Epidemiological surveillance and disease control
- Vector control
- Water and latrine supply
- Sanitation measures in settlements
- Health education at the community level.

Lessons Learned:

As in previous disasters, we found problems and learned lessons for the future. Some of these lessons are:

Emergency Medical Care

Hurricanes Georges and Mitch caused varying levels of damage to infrastructure and equipment in health facilities. Despite this, no massive demand for emergency medical care for trauma or surgical patients arose. On the other hand, increased care was required to treat contusions, injuries, conjunctivitis, acute respiratory infections, diarrheal diseases and other pathologies.

Medical care in the first hours or days after the disaster was met at the local level, most frequently without the possibility of external assistance, but ultimately by mobilizing teams from the regional and central level of the affected countries themselves. Some foreign medical teams that arrived to offer support to the affected country, required logistical and technical support to carry out activities. This places an additional burden on the health institutions during the most critical time of the response. However, medium-term cooperation from foreign team's—cooperation that responds to needs identified by the affected governments—proved its usefulness.

Countries and organizations should only send medical teams or health workers at the request of the affected country. They should also provide their own logistical and technical support, and coordinate their activities with the national health authorities, taking advantage of PAHO/WHO experience.

Great efforts have been made in the planning, training, and organization of medical care at the institutional level in the event of a disaster. However, coordination by local, regional, and national institutions must be improved, and better use made of the limited available resources.

Health authorities, together with the other institutions of the health sector and in cooperation with PAHO/WHO, should strengthen preparation, dissemination and implementation of disaster preparedness and mitigation measures and hospital

emergency plans, under the framework of "Safe Hospitals." Hospital plans should take into account structural, nonstructural and organizational components.

Psychosocial Aspects

Adverse effects on the affected population's mental health in all affected countries were observed after Hurricanes Georges and Mitch. This was especially eminent among children, who received limited service from the health sector. In addition, the social communications sector was not active enough in disseminating information to the general public on maintaining and recovering good mental health.

Therefore, plans for disaster care at all levels must include aspects that reduce the vulnerability of the population to psychosocial risks caused by disasters. These plans should cover adults and children, include specific actions for particularly vulnerable groups, and provide appropriate technical orientation for social communicators.

In addition, PAHO/WHO and other specialized agencies should support the efforts of affected countries to evaluate their experiences in psychosocial care in disaster situations in order to support the integration of new programs within and between the countries of Latin America, including the adaptation and dissemination of educational materials existing in this field.

Communicable Diseases

Hurricane Mitch had a direct impact on the increase of enteric diseases - particularly cholera - due to the widespread and devastating destruction of drinking water and sewerage systems. Added to this was the 'pre-existing' social deterioration, cross-border migration, the set up of temporary shelters with limited water and sewerage facilities, and the endemic presence of cholera in Central America.

Because of these threats, the health sector must encourage the civil society to actively work with the sector to improve disease surveillance systems and water and food control, as well as to strengthen the laboratory network to achieve adequate and timely diagnosis of cases.

More than three months after Hurricanes Georges and Mitch, no significant increase in vector-borne diseases in the affected countries have been noted. This could be attributed to the characteristics of the phenomena themselves or to vector control measures. However, it would be important for PAHO/WHO to convene a group of experts and support studies on the use of biological pesticides, taking into consideration environmental protection and public health.

It has been proven that the limitations in generating, reporting, and consolidating epidemiological information worsen in disaster situations. Substantial differences exist between medical records and the notification of cases, especially in temporary shelters, thus hindering the generation and exchange of technical information in this field.

The corresponding levels of the health sector should strengthen routine epidemiological reporting systems and increase the laboratory diagnostic capability in order to guarantee that they will adjust to and be fully operational in the event of a disaster, providing the appropriate information in the shortest possible time for epidemiological surveillance and communicable disease control.

In addition, there was a need to identify a centralized mechanism for communicable disease reporting at all levels and to implement a national center for epidemiological information and vaccines.

Basic Drinking Water and Sanitation

The aqueducts, systems and infrastructure of the drinking water and sanitation sector were severely affected by the hurricanes. Unfortunately, there were no vulnerability studies on these systems prior to the disaster.

As a result, it is concluded that this sector's institutions should initiate or finalize vulnerability studies on their facilities, and include this component in sectoral reconstruction projects. The results of these vulnerability studies should be used for the short-term implementation of disaster mitigation measures. The development of pilot projects was suggested to evaluate the effectiveness of these measures.

Community participation is vital for the response measures of this sector. As a result, it is recommended that the sectoral institutions lead a community training process, in coordination with the education sector, local NGOs, and the appropriate international organizations, on the use of participatory methodologies and appropriate materials. In addition, national authorities should include a strong health education component in every drinking water and sanitation project.

Food and Nutrition

There was a lack of clear guidelines at the operational and national level on how to proceed with the food and nutritional aspects of disasters, particularly with regard to the special needs of vulnerable groups such as children under two years of age, pregnant women and nursing mothers and others. Where guidelines did exist, they were not adequately applied.

Therefore, it was recommended that international organizations support governments and the civil society to develop and implement national policies on

food and nutrition as well as contingency plans for emergency situations. Parallel to this, and with support from the World Food Program, countries should prepare lists of essential foods and supplemental goods that are easy to obtain in emergency situations. They should also assist the national coordinating body to clearly define the period in which free food assistance will be provided and promote the implementation of productive and/or reconstruction activities.

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We can conclude indicating that despite the progress achieved in certain sectors as that of the health, a great deal remains to make in the field of Disaster preparedness, mitigation, and prevention. These aspects should be developed not only in the countries prone to disaster but equally at the donors country level, NGOs, United Nations system, regional and subregional organizations, in order to improve the training of all and thus to ensure a better coordinated response in the future. It is also important to incorporate the ideas of mitigation and safety into the reconstruction plans in the future.

Efforts such as the publication of this very specialized BIBLIODES on Hurricanes and the collection and dissemination of updated information on these and other disasters by the Regional Disaster Information Center (CRID) is a step toward correcting the gaps and deficiencies encountered in previous disasters.