

Disasters

Preparedness and Mitigation in the Americas



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World Conference on Disaster Reduction - Kobe, Japan Safe Hospitals: what better indicator of overall disaster vulnerability reduction?

Thousands of lives were lost in the January 2001 earthquake in Gujarat, India; close to 200,000 injured persons required medical care. In Bam, Iran last December, another devastating earthquake killed 26,271 people and seriously injured thousands. In both of these locations, health infrastructure was virtually destroyed or knocked out of commission.

By comparison, Mexico City may have been more fortunate in the 1985 earthquake, because not all the nation's hospitals were damaged or destroyed. Yet, in the affected hospitals, devastation was tremendous. Images of the collapse of a 12-story tower of the Juarez Hospital left nothing to the imagination. In the city's public sector hospitals alone, 4,400 hospital beds were lost. The 900 lives lost at these sites included a substantial number of medical and health personnel, many of whom had participated in mass casualty management training. This tragedy is often cited in Latin America as the tipping point—a point at which a critical mass came to acknowledge that it was no longer acceptable to continue investing in disaster preparedness training if the infrastructure in which health personnel worked was not safe from disasters.

Levels of Protection

Reducing the vulnerability to disasters of any construction involves distinct levels of protection: Protecting *lives*, the most basic level, ensures that occupants can evacuate a building in time and is applicable to any construction. Hospitals, however, present a singular challenge. Unlike many other buildings, they are occupied 24



hours a day, and in disaster situations, this round-the-clock population is difficult to evacuate.

Protecting the *investment* preserves a higher level of physical protection and is directed to costly infrastructure and equipment. Again, hospitals rank among the highest on the scale of expensive investments.

Operational protection, the most stringent level, is reserved for those facilities that must—at any cost—remain not only standing but functioning: power stations, water systems, security facilities and hospitals are among the limited number of facilities that must

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**Pan American
Health
Organization**



Regional Office of the
World Health Organization

Partnerships to Strengthen Disaster Reduction Activities in the Americas

PAHO/WHO has forged partnerships with three organizations—CARE, UNICEF, and the University of Geneva—for collaborative activities related to disaster reduction in the health sector. A Letter of Agreement with the NGO CARE calls for incorporating health topics related to risk management and emergency response into CARE's training of trainers programs in municipalities in Guatemala, Nicaragua, Honduras and El Salvador. Participants will form local training teams to replicate the training at the local level with community leaders and health volunteers. A Memo of Understanding with UNICEF's Regional Office for the Americas and the Caribbean outlines areas for collaboration including: combined training; joint rapid assessment missions; the development and utilization of the Logistic Support System and SUMA and the preparation of mutual contingency plans. The principal objective of a Letter of Understanding signed with the University of Geneva is to improve professional development needs. PAHO and the University will cooperate in identifying

candidates for the master's degree in humanitarian action offered by the University of Geneva and will work to create a network of professionals to maintain contact between graduates from the master's program and participants of disaster-related PAHO/WHO courses.



“Water and Disasters” October 2 to Mark Inter-American Water Day

Each October since 1992, Latin America and the Caribbean have celebrated the Inter-American Water Day. This year, on October 2, the Region will borrow from the 2004 World Water Day, celebrated in March, with the theme “Water and Disasters.” In the Americas, emphasis will be placed on the importance of water when it comes to protecting health in disaster situations and the need for water service providers, as well as health service providers, to incorporate risk management into their day-to-day administrative tasks.

The burden of disease associated with inadequate or poorly-managed water resources is increased in disaster situations. WHO states that “almost two billion people – one-third of humanity – were affected by natural disasters in the last decade of the 20th century, 86% of them by floods and drought. There are high rates of suffering and death in populations affected by natural and manmade disasters, mainly due to common illnesses made life-threatening by crisis conditions.”

All countries are invited to begin preparing to mark this day, which will be celebrated close to the UN World Disaster Reduction Day (October 13). Several regional organizations are sponsoring events. More information is available on the web site of the Pan American Center for Sanitary Engineering and Environmental Sciences www.cepis.ops-oms.org/cepis/e/bvsadiaa.php or from WHO at www.who.int/ (search on “water and disasters.”)

Other Organizations

Other Organizations

What's New at CRID?



If you haven't visited the Regional Disaster Information Center (CRID) lately, some new features are waiting for you.

CRID has developed a series of InfoPacks on frequently requested topics. Currently, there are InfoPacks on earthquakes, floods, hurricanes and drought. The InfoPacks bundle together different types of information about each topic. For example, click on the earthquake InfoPack and here is what you will find: an overview fact sheet on earthquakes with a list of safety measures; a section containing examples of public information pamphlets on dealing with earthquakes; online access to the full text of many interesting documents on earthquakes from CRID's collection (grouped by themes such as health care, lessons learned reports, emergency plans and more); contact information for institutions and agencies deal-

ing with earthquakes in the Americas; and links to global web sites with some of the best earthquake information.

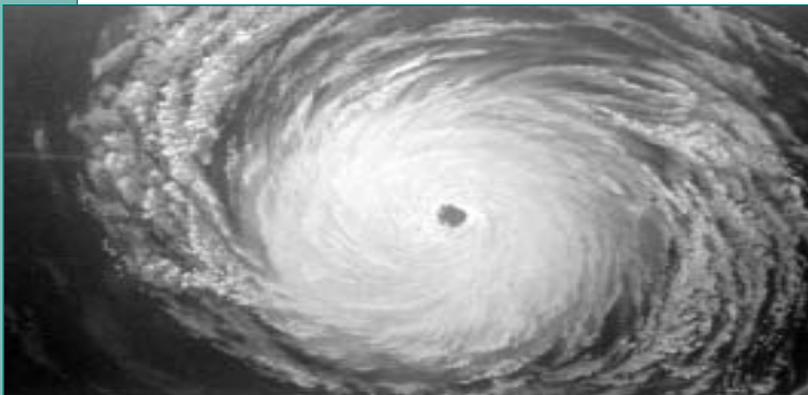
Did you know that now more than 3,000 documents and publications have been converted to digital format? Previously, a search of the CRID database would turn up a reference (or sometimes a short summary) of documents matching the search query. Users then had to request that CRID send a hard copy by mail. Now, those who want instant access to the full text of articles and publications can search through the "electronic documents" collection (see Information Services on the CRID home page).

Visit the CRID home page at www.crid.or.cr (and click on the "English" button) to learn about all of CRID's bibliographic tools and information services.



You have a choice!

How would you like to receive your disaster news? You can cut down on paper and opt to read this newsletter in HTML or PDF format (we'll let you know when it's up on the web). Or you can continue to receive your print copy and be notified when the electronic version is up. Let us know which you prefer. Write to disaster-newsletter@paho.org. Check out the HTML version of this newsletter at www.paho.org/disasters (click on Newsletter in the right hand column).



2004 Hurricane Season is Here

The Atlantic Hurricane season officially started on 1 June. Some experts have predicted a season of above-average activity. This year's hurricanes will be named: Alex, Bonnie, Charley, Danielle, Earl, Frances, Gaston, Hermine, Ivan, Jeanne, Karl, Lisa, Matthew, Nicole, Otto, Paula, Richard, Sharey, Tomas, Virginie and Walter.

Member Countries

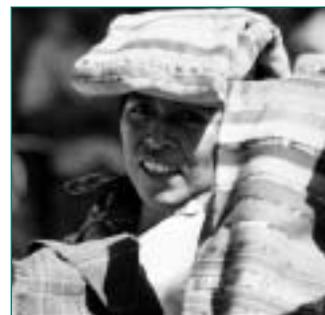
University Commission for Disasters Sets Two-year Work Plan

The Central American University Commission for Disaster Education is made up of representatives from universities in all Central American countries. This group has been working for many years to strengthen the disaster curriculum of faculties of health-related disciplines and has been supported by PAHO in this process. However, the Commission itself called for and financed their most recent meeting in Costa Rica, where they met to approve the Commission's regulations which call for curriculum standardization and common goals for education in risk management and disaster response in Central America. To step up the focus on risk management, the Commission designed a work plan for the next two years. The principal areas in which they will concentrate efforts include: research, education, project preparation, coordination and communications. For more information contact Carlos Roberto Garzon at garzonca@cor.ops-oms.org.



Peru Approves Health Disaster Plan

The President of Peru has enacted into law a national Emergency Preparedness and Disaster Response Plan for the Health Sector, which establishes policies, strategic objectives and activities that the Ministry of Health, the Social Security System, the Armed Forces, the police and others must incorporate into their institutional plans. The preparation of the plan was based on a risk assessment that identified emerging and reemerging hazards and evaluated the capacities and vulnerabilities of the health sector. This Plan provides a detailed diagnosis of natural and manmade hazards that pose a threat to the health of Peruvians. The Plan is on the Ministry of Health web site at www.minsa.gob.pe/ogdn. For more information contact Dr. Celso Bambaren: cbambarena@minsa.gov.pe.



Serious Flooding Impacts Haiti and the Dominican Republic

Haiti

Beginning in late May, heavy rains and flooding affected an estimated 25,000 people in southeastern Haiti who were already living in dire conditions following the recent political crisis. The village of Fonds Verrettes was almost completely washed away by the floods and the lower part of Mapou disappeared under four meters of water. Although roads were destroyed and there was no communication with the affected area, assessment teams managed to arrive fairly quickly, thanks to logistical and helicopter support from the Multinational Interim Force (MIF).

Joint teams from Médecins sans Frontières, Médecins du Monde, the International Committee for the Red Cross and the Federation of Red Cross Societies quickly launched medical and psychosocial interventions, while NGOs such as OXFAM prepared water and sanitation programs. Although the acute emergency phase has now passed, many rehabilitation needs remain.



Health centers, homes and schools need to be repaired or even rebuilt in a safer area, while the population needs assistance to restore their lives and livelihoods.

The disaster revealed weak points in terms of the response: the dependence on the logistics of the MIF; the weak national infrastructure; and the late positioning/deployment of UN and humanitarian actors in the field.

Flooding in Nicaragua

During the last week of June, a tropical wave produced heavy rains in Nicaragua, causing floods and extensive damage, particularly in the Autonomous



Departments of the North and South along the country's eastern Atlantic coast and in the Department of Matagalpa, all of which were declared to be in a state of emergency. At least 25 people died and more than 3,000 families were affected. A PAHO health team in Nicaragua carried out three assessment missions to the affected areas

with the Ministry of Health to evaluate the impact of the floods. Among the greatest needs in the health sector were: medicines and medical supplies to meet needs for a three-month period; basic sanitation and potable water (portable chlorine generating equipment, plastic containers to store drinking water, multifamily latrines and household water filters); vector control and the ability to mobilize health brigades to meet the needs of the affected population.



Mobile Emergency Care Service in Brazil

The president of Brazil has signed a decree creating a Mobile Emergency Care Service, known as SAMU/192. SAMU/192 is a Ministry of Health service that forms part of the Brazilian government's Emergency Care National Policy. The system was created to

reduce deaths, the length of hospital stays and the consequences of a delayed response. By the end of 2004, this service is expected to reach 118 million people in 1,700 municipalities. To achieve this goal the Ministry of Health of Brazil will invest US\$100 million to set up 132 SAMU/192 Centers and purchase 1,480 basic ambulances and intensive care mobile units. More information on SAMU/192 at: <http://dtr2001.saude.gov.br/samu/index.htm>

In June, representatives of the Ministries of Health of the Dominican Republic and Haiti, PAHO/WHO and the Red Cross Societies from both countries held a meeting along the border. This was followed by a workshop to improve joint strategies for future interventions in the border region. The UN system is currently looking into ways to improve inter-agency and inter-country information sharing, analyze logistics capacity on both sides and reinforce prevention and early warning systems.

Dominican Republic

The same heavy rains that affected Haiti raised the water level of the Jimaní River; homes were swept away, utility lines cut and rescuers prevented from reaching the hardest-hit regions. Civil defense officials helped to evacuate families to higher ground. The hospital in Jimaní was flooded and patients were transferred to another facility. A few of the potential public health risks from this disaster included changes in existing patterns of morbidity, changes in the ecosystem due to vectors, population displacement and deterioration in drinking water and basic sanitation systems and health infrastructure. The most pressing tasks involved strengthening the capacity of the provincial health authorities and health centers to deal with potential disease outbreaks common to this type of disaster and implementing health promotion, information, education and communication initiatives directed at the population in temporary shelters and those living in affected areas.



Publications and Multimedia

P u b l i c a t i o n s a n d M u l t i m e d i a



Return to Happiness: Psychoaffective Recovery of Children Affected by Disasters and Armed Conflict

This manual, produced by UNICEF Colombia, provides a methodology for the psychosocial recovery of boys and girls who are or have been the victim of displacement due to violence. This methodology is part of a UNICEF project called “The Return to Happiness,” and outlines ways to identify psychological problems, suggests recommendations on how to talk with children and provides guidelines for instructors and trainers to plan weekly activities and keep files to monitor each boy and girl’s recovery.



Request copies of this publication from Gladys Hauck at ghauck@unicef.org.

El Salvador Recovers — Health Sector Actions After Hurricane Mitch

El Salvador was one of the Central American countries affected by Hurricane Mitch and over the last four years, has undertaken a significant number and

variety of activities to reduce the health sector’s vulnerability to disasters. This publication chronicles El Salvador’s journey in community preparedness, mental health, institutional strengthening, risk maps, safe hospitals and water

supply systems and much more. This book includes lessons learned that can be applied to the management of any type of disaster. For copies of the publication (Spanish only) write to jjenkins@els.ops-oms.org. Download copies at http://desastres.ops.org.sv/tc/el_salvador_se_levanta/index.pdf



Manual on Risk Management System for Chemical Emergencies



CETESB, Brazil’s Institute for Science and Technology for Environmental Health and a WHO Collaborating Center, has prepared organizational development guidelines, including the structure necessary to design strategies to prevent, prepare and respond to chemical emergencies. This guide, available in Spanish and Portuguese, is directed to public and private agencies and is the result of CETESB’s experience over a 25-year period in chemical emergencies and the development of contingency plans.

The manual is divided into three parts: section one provides the context for establishing a system, providing an overview of major chemical accidents worldwide that caused a serious environmental impact; part two discusses planning for the system, including an analysis of existing legislation and an analysis of public and private sector agencies involved in producing, storing, handling and disposing of chemicals; part three contains references and the annexes. Contact CETESB at edsonh@cetesb.sp.gov.br to order print copies of the manual or download a copy at www.cetesb.sp.gov.br/emergency/emergencia.asp.



Safe Hospitals: what better indicator of overall disaster vulnerability reduction?

(from page 1)

remain operational immediately after a disaster. Emergency lifesaving treatment simply cannot wait. If a hospital collapses or is rendered useless, many lives can and will be lost. Hospitals may be the only social facility with high marks in all categories.

The most recent earthquakes in Turkey, India, Algeria, Iran and Morocco are eliciting a groundswell of support for disaster mitigation—calling on countries to pay as much attention to preserving the structural and functional integrity of their infrastructure as to preparing human resources to deal with the aftermath of disasters. The UN General Assembly has called on the International Strategy for Disaster Reduction (ISDR) to organize a World Conference on Disaster Reduction. The Conference, which will be held in Kobe Japan in January 2005, will review the past decade's progress on the Yokohama Strategy and Plan of Action for a Safer World (1994) and define remaining challenges, critical needs and opportunities.

The time is at hand for countries worldwide to demonstrate their commitment to a concrete topic, and no topic is more appealing to both the social and economic sectors than hospital vulnerability reduction.

Reducing Vulnerability in Hospitals: lessons learned

Latin America and the Caribbean have advanced significantly in reducing their overall vulnerability to disasters. The contribution of the health sector to this multisectoral effort has been acknowledged by all. Efforts to reduce structural, non-structural and functional vulnerability in health facilities have served as a model and a catalyst for other sectors. They are also case studies in terms of success and limitations in protecting critical facilities:

- Protecting the functionality of complex structures requires a proven methodology and techniques. Tools, such as the methodology promoted by the World Bank and the WHO Collaborating Center on Disaster Mitigation, have been



tested and are available to all (see page 2 of the Supplement).

- Low and middle-income countries have demonstrated, through pilot projects, that it is possible to significantly reduce the vulnerability of existing health infrastructure to disasters with technical and financial resources already at hand. However, this is not the most economical route, as retrofitting existing facilities can cost 15-30% (or more) of the cost of the construction.
- Surprisingly, including disaster reduction as criteria at the earliest stage of site selection, design and construction of new facilities—the most economical route—has not been as readily accepted by key decision makers as would have been expected.

In brief, the challenge is not a lack of health or engineering knowledge, but one of political commitment at the multisectoral level; in other words, a perfect candidate for the attention of the world leaders at the Kobe World Conference (WCDR).

Safe Hospitals: a WCDR goal and indicator of success

Recently, WHO, through its regional office for the Americas, organized intercountry meetings to review where the Region stands in terms of disaster vulnerability in the health sector. Based on this status report, a forward-looking strategy was proposed to guide regional efforts through 2015.

Vulnerability reduction depends on many factors and sectors. Although completely reducing a country's overall vulnerability is not feasible by 2015, efforts and funds should be directed to improving critical social facilities where some degree of progress has been made since the Yokohama World Conference in 1994 and further success is within reach. The degree of protection built into the design of new health facilities is a sensitive indicator of political commitment to overall disaster reduction across sectors.

Recommending that hospitals safe from disasters be designated as a target and a global indicator for measuring multisectoral disaster reduction is an opportunity for all—not just for the health sector.

Selected Bibliography



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