

DISASTERS

PREPAREDNESS AND MITIGATION IN THE AMERICAS



Issue No. 82

News and Information for the International Disaster Community

October 2000

Health: A Bridge to Peace in Colombia

Violence has displaced much of the rural population of Colombia's 40 million inhabitants. In its search for safer places to live, the internally displaced population (IDP) has lost its income and compromised access to health services. In the last four years, the number of displaced persons has grown at an alarming rate and each day affects a much broader geographical area. In Colombia, the size of the internally displaced population increased from 89,000 in 1995 to as many as 288,000 by the end of 1999 (figures from CODHES, Consultoría para los Derechos Humanos y el Desplazamiento).

Equity is a major issue in the debate over access to health services. Depending on the source of information, between 500,000 and 2 million persons have been deprived of access to health care, a

benefit that the remainder of Colombia's population has been able to maintain. This number includes those displaced by violence. By mid-1999, the situation had deteriorated to the point that forced migration had overwhelmed approximately 100 of the 1,090 Colombian municipalities. The number also includes those who may not have been displaced, but who live in such an insecure environment that health care providers have evacuated the area, resulting in the further disruption of health services.

Other difficulties arise when IDPs resettle in areas that were already plagued with problems—lack of access to potable water or inadequate shelter. The health services, which were not designed to suddenly absorb such an increase in demand,

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Hurricane Keith



The strongest hurricane to hit the Caribbean this year, Hurricane Keith had a serious impact on the health sector in Belize, proving once again the need to protect critical health facilities and improve post-disaster epidemiological surveillance. See full report on page 4.

News from PAHO/WHO

L I D E R E S



The LIDERES course involved more than classroom time.

Here, participants meet with community leaders from towns near the Tungurahua volcano.

There is no doubt that a great deal of knowledge—both practical and scientific—resides among the disaster community in Latin America and the Caribbean. However, in many countries the primary contribution of these professionals has been in the form of technical expertise: assessing damages to health infrastructure, setting up disease surveillance systems or updating emergency plans. By contrast, those at the very highest level of decision making often lack specialized technical knowledge about

disasters, accounting for the fact that some important decisions, particularly those concerning disaster mitigation, are left untaken.

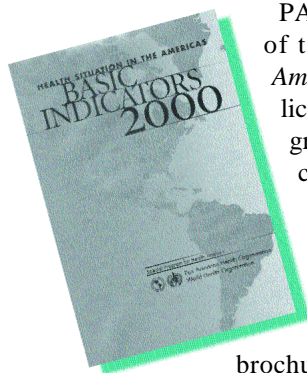
To bridge this gap, PAHO held the first of what will become an annual course—LIDERES—in September in Quito, Ecuador. The course was directed at top-level professionals with broad experience in disaster situations from a wide variety of organizations and sectors (health ministries, national disaster offices, the Red Cross, financing institutions, UN and other cooperation agencies).



Thirty participants from 18 countries in the Americas and Europe gathered for two and a half weeks to focus on the managerial aspects of disasters and risk reduction. The participants examined areas such as geographic information systems (GIS), resource mobilization, project formulation, the use of the Internet and other technologies in disasters, mental health, transparency in emergency supply management, complex emergencies, and others.

The regional LIDERES 2001 course will be held next June in San Jose, Costa Rica. Similar courses focusing on specific geographic regions of the Americas are planned to take place in Ecuador and Argentina. Further updates on the LIDERES initiative will be available through this newsletter, on our web site and by e-mail. If you would like more information on LIDERES, contact curso-lideres@paho.org.

Basic Health Indicators 2000



PAHO has just published the latest edition of the brochure *Health Situation in the Americas: Basic Indicators 2000*. This publication contains the most up-to-date demographic, mortality and socioeconomic indicators essential for characterizing the health situation of countries of the Americas. This information is also used as an important resource in collective actions for disaster planning and humanitarian assistance. This

brochure is a summary of a more comprehensive database compiled and maintained as part of PAHO's Core Health Data Initiative. This year's issue along with the last three are available at www.paho.org/ (search for basic indicators). For more information e-mail: sha@paho.org.

PAHO/WHO Deliver Workshops in Nepal

This is the second year that the Health Sector Contingency Planning Workshop, designed by PAHO, was given in Kathmandu and Pokhara, Nepal.

These two workshops were planned jointly by PAHO's office in Barbados, by WHO's Southeast Asia Regional Office and WHO Nepal, with the support of the Nepalese Ministry of Health. One of the most important outputs of these workshops was a proposal for emergency response procedures for Nepalese organizations at the central, regional and district levels. Once finalized, these procedures will form part of the Nepalese Health Sector Contingency Plan Against Earthquakes.

For more information contact: vanalphd@cpc.paho.org.

Other Organizations

CAT Project Models Costs of Disasters

The Natural Catastrophes and Developing Countries (CAT) Project is part of a research partnership with the World Bank's Disaster Management Facility and the Swiss Reinsurance Company. The CAT team is developing four case studies on the impacts of natural disasters on the economies of Argentina, Honduras, Nicaragua, and Mozambique. The long-term objective is to build a planning tool that can assist developing countries to evaluate options to prevent, mitigate, or transfer the costs of natural catastrophes.

Visit the CAT website at <http://www.iiasa.ac.at/Research/CAT/index.html> for descriptions of the projects and more.

UNOPS: Post-Conflict Managers' Guide Published

The UN Office for Project Services (UNOPS) has published a guide for project managers carrying out rehabilitation and reconstruction in countries recovering from wars or natural disasters. The manual, *Operational Guide: Rehabilitation and Social Sustainability*, draws on experiences from the past decade in more than 20 countries, using a variety of specialized agencies both within the UN and otherwise. To order this publication e-mail: PeriP@unops.org or fax (41-22) 917-8060.

Reducing Vulnerability to Natural Disasters in Urban Latin America

The 10th International Congress of Latin American and Caribbean Studies will take place 26-29 June 2001 in Moscow. The workshops at this meeting will focus on several multidisciplinary themes including: vulnerability and poverty, past experience and lessons learned in natural disasters and environmental degradation in relation to the increase in vulnerability.

For more information visit: www.cricyt.edu.ar/congresos, e-mail: congreso-ila@mtu-net.ru or Fax: 7 (095) 953-4070.

The NLM and CRID Join Forces to Improve Access to Information on Health and Disasters



CRID, the Regional Disaster Information Center, with support from the U.S. National Library of Medicine, has begun a new project to improve access to health and disaster information sources in two highly disaster-prone countries: Honduras and Nicaragua.

With a view to sustaining these activities in the future, the project has selected university libraries in these two countries as priority centers to gather and disseminate technical and scientific disaster and

health information. The centers will be strengthened in three areas:

- Internet connectivity and basic computer resources
- Training, carried out at both the NLM and at the CRID in Costa Rica
- The creation of special disaster and health information services (full-text documents, databases, training material, etc.)

Because these information services will be provided and accessed through the Internet, there will be other important direct and indirect benefits, not only for the two target countries:

- Access to powerful NLM information resources will be promoted and facilitated through a special website, especially for information on toxicology and environmental health.
- Training material will be published in Spanish on information management and its use, adapted to the realities and needs of users in Central America.
- All documents and information sources gathered and selected under this project will be available on-line and free of charge. For example, a substantial number of the existing documents in CRID (presently available only in hard copy) will be available on the Internet, benefiting not only Honduras and Nicaragua, but also all interested countries.

This is the first specific project that NLM is supporting in Central America. By channeling support through the Regional Disaster Information Center, CRID will be strengthened in terms of capabilities and technical resources. The Center also has the technical support of the Center for Public Service Communications, which has extensive experience in the use of telecommunications in emergencies and disasters. PAHO, which is already one of CRID's major partners, is deeply committed to supporting the project both technically and administratively, and will perform an importation liaison function with NLM. For more information, write to the editor of this newsletter (see address on page 8).





Member Countries



SUMA's Future Discussed at Inter-Agency Meeting

SUMA is making history. More than 40 designers and users of the Supply Management System (SUMA) met in San Jose, Costa Rica to talk about future developments in the field of supply management. Those who have used SUMA, together with representatives of international organizations such as UNICEF, WFP, OCHA, WHO, ICRC and MSF, reviewed the history of SUMA and mapped its future. The meeting resulted in broad consensus on several main points, namely that:

- generally, SUMA is useful for managing supplies in emergency settings (complex or natural disasters around the world, as demonstrated within and outside the Americas);
 - the SUMA System has potential in non-disaster times to serve as an "entry-level" inventory management tool in health facilities and other organizations that cannot afford some of the sophisticated commercial off-the-shelf systems available on the market today;
 - SUMA's software must be taken to the next level of technological sophistication and that connectivity and compatibility with various platforms must be stressed;
 - the time has come for a collective interagency ownership of SUMA so that it becomes a true coordination mechanism at the global level. The participants called on WHO and OCHA to join forces and take the lead in this effort.
- For more information contact suma@paho.org.

Plan for Education and Disaster Reduction in Costa Rica

In September, the National Emergency Commission of Costa Rica presented a National Plan for Disaster and Risk Reduction to the Ministry of Public Education and to municipal governments. The plan was developed to coordinate disaster prevention activities between the two agencies. As part of this plan, teachers will be trained in disaster reduction and emergency plans to be used in schools and regulations will be introduced for the design, construction or remodeling of educational facilities. A copy of the Plan may be obtained from CRID (see page 8).

BVI Opens Door to Formal Education In Disaster Management

The BVI Office of Disaster Preparedness, in collaboration with the BVI H. Lavity Stoult Community College, is developing an Associate Degree Programme in Disaster Management scheduled to begin Fall 2001. There will be two technical

(cont. on page 5)

Hurricane Keith Strikes Belize in the Worst Hurricane to Date of the 2000 Season



Tropical depression No. 15 of the 2000 hurricane season became a tropical storm (Keith) on September 29, and by October 1 had been upgraded to a category IV hurricane as it approached Corozal Town in Belize. Hurricane Keith hovered over the islands of San Pedro and Caye Caulker for approximately 72 hours, and also affected the northern part of the Belize, Orange Walk and Corozal Districts, where it was downgraded to tropical storm on October 2.

More than 26 inches of rainfall were reported in Belize and storm surges of 1-2 feet were experienced in the coastal areas as Keith moved in a westerly direction to the state of Campeche in Mexico.

The Ministry of Health activated its Hurricane Plan on September 29 and deployed an assessment team. By October 10, teams comprised of a medical doctor, a public health nurse, a public health inspector and a vector control officer had visited 71 communities to provide essential health services and to complete needs assessment. The health of at least 72,092 was at high risk as a direct impact of Hurricane Keith.

Disease Surveillance Needed

Although there was no evidence of any outbreak situation in the country, the population living in flooded areas will be at high risk of potential outbreaks of diseases, particularly dengue fever, malaria, hepatitis A, cholera, leptospirosis, and gastroenteritis. However, this can be prevented by stepping up existing public health programs, particularly vector control, water quality monitoring and treatment, public health education and epidemiological surveillance. Even though the cayes suffered the greatest infrastructure damage, from a public health point of view, the cayes are not at high risk of outbreaks, and the biggest challenge remains inland where extensive flooding has isolated rural communities. It was important to establish post disaster epidemiological surveillance in the affected communities for early detection of outbreaks, and develop contingency outbreak control plans. Regular epidemiological surveillance system had to be intensified and restored as soon as possible.

Critical Facilities

Safe drinking water is always a critical issue in the aftermath of a disaster. Hurricane Keith seriously affected water supply systems. The islands and four districts were completely flooded, washing dumpsites, sewers, lagoons and excreta from latrines and septic tanks into residential areas. This also caused contamination of wells used by the residents for drinking purposes.

The damage to Belize's Central Medical Laboratory and Blood Bank was substantial. The facility lost all its reagents, and 20% of its supplies because of power failures and flooding. Fifty percent of the units of blood in stock were rendered useless due to the power failure. Equipment was also malfunctioning or damaged as a result of Hurricane Keith, some of it essential to maintaining laboratory services.

Mental Health

The impact of Hurricane Keith on the mental health of the affected population is yet to be determined. Despite the substantial damage caused by the hurricane, the general picture was that of hope and optimism according to health personnel interviewed, and the clinical picture was one of relative well being, within the normal parameters of human reactions to a disaster. The socioeconomic conditions will be of particular importance in this respect, as people move from "survival" to "normal" modes of functioning.

The full text of the reports prepared by PAHO/WHO, the Ministry of Health, the National Emergency Management Organization and others is available on PAHO's web site at www.paho.org/disasters/.



options in the program: Emergency Management and Public Health. The Emergency Management option will include first responder operations, oil spill response, mitigation, technical rescue and response and recovery. The Public Health option will include water sanitation, vulnerable populations, epidemiology, mass casualty management and international assistance and relief supply management. The program may incorporate a virtual learning system to allow persons throughout the Caribbean to participate without leaving their countries.

More information at: www.bvidac.com or e-mail: sdabreo@cswnet.com.

Central American Project on Vulnerability Reduction in the Health Sector

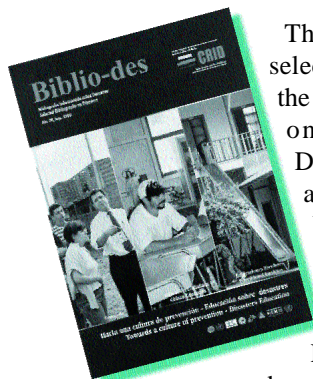
It has been more than two years since Hurricane Mitch left a path of death and destruction in Central America. The most immediate effects on public health were dramatic, and the subject of a publication in the PAHO's series Disaster Chronicles (see the insert on publications with this issue). However, many serious problems linger far after the most dramatic images have receded from the public's memory or the front pages of newspapers. Since April of this year, four of the hardest-hit countries in Central America—Honduras, Nicaragua, El Salvador and Guatemala—have begun a project to reduce their physical and institutional vulnerability to disasters. The project will strengthen the ability of the health sector to take steps to lessen the impact of disasters on health, particularly the capacity of the health sector at the local level. It will also concentrate on making health infrastructure such as hospitals and clinics less vulnerable by creating awareness, training and disaster mitigation measures. Another primary focus will be at the community level, where leaders will be targeted with materials and tools to prepare for and deal with potential disasters. Disaster professionals in these countries are supporting local departments of the Ministries of Public Health to carry out activities in the selected communities. In Nicaragua, for example, the assistant directors of 17 local health systems, known as SILAIS, and other employees of the Health Ministry took the OFDA course on Damage Evaluation and Needs Assessment. Epidemiologists from the same SILAIS took a postgraduate course on disasters of the Center of Health Investigation and Education. Evaluations of communication and educational systems have been carried out in both Honduras and Nicaragua to give a basic understanding of the needs and resources available for training and dissemination activities in the communities.

This project is scheduled to run through December 2001. For more information on these and other activities, please e-mail pedcor@sol.racsa.co.cr.



Review of Publications

Biblio-des 2000 Focuses on Disasters and Education



The September 2000 version of Biblio-des, a selected bibliography on disasters published by the CRID, is now available. This issue focuses on the Hemispheric Education Plan for Disaster Reduction, and “Education, Youth and Disasters”, the Global Campaign of the UN International Strategy for Disaster Reduction (ISDR).

The publication is divided into three sections: Curricula, Citizen Education and Educational Facilities. The citations presented are a selective sample of the works available on each subject at CRID. For more information please contact: email: crid@crid.or.cr or fax: (506) 231-5973.

Humanitarian Principles Training: Coordinator's Guide

UNICEF recently published a CD-ROM, Humanitarian Principles Training: A Child Rights Protection Approach to Complex Emergencies. The CD-ROM contains all the training materials necessary to conduct a workshop on this topic, including how to:

- adopt a child rights-based approach to programming in complex emergencies;
- analyze the characteristics of complex emergencies in order to better understand the causes of conflict and the dilemma that arise;
- learn about international legal and ethical standards in providing humanitarian assistance and protecting children in armed conflicts.

Contact opscen@unicef.org or fax (212) 326-7037 attention of the Project Officer, Humanitarian Principles.

Manual for Logistical Management

PAHO is circulating a preliminary version of a practical new manual on humanitarian supply management. We are interested in receiving comments, critiques and suggestions for improvement from as wide a variety of “actors” as possible to ensure that this publication meets the widest range of needs and will be used as broadly as possible. Comments must be received by 15 January 2001, when the manual is scheduled to go to print. The manual is online at www.disaster.info.desastres.net/ or request a copy from the Editor of this Newsletter.

ELECTRONIC RESOURCES

All publications of the Disaster Research Center (DRC) of the University of Delaware, not copyrighted by others, can now be downloaded from its website: www.udel.edu/DRC.

The Red Cross of El Salvador's website contains up-to-date information on contacts, projects and the latest on emergencies affecting the country: <http://www.cruzrojahumanidad.org/elsalvador/>.

The Disaster Communications Handbook, a publication of the International Telecommunication Union, is now available in English, Spanish and French at: http://www.itu.int/ITU-D-StGrps/SGP_1998-2002/SG2/Documents/DocList.htm.

Internet information skills for medics: <http://omni.ac.uk/vts/medic/index.htm>. This site offers simple yet comprehensive tutorials for students and teachers for making the best use of Internet resources.

An OAS vulnerability assessment of designated shelters in Grenada is available online at: <http://www.oas.org/en/cdmp/document/schools/vulnasst/gre.htm>.

Information on the Masters Degree Program in Disaster Medicine and Medical Disaster Management, offered by the European Centre for Disaster Medicine (CEMEC) in collaboration with WHO, is available at: <http://www.dismedmaster.com/>.

Although out of print, the publication Disaster Response: Principles of Preparation and Coordination is now available free of charge at: <http://www.coe-dmha.org/dr/flash.htm>.

A Bridge to Peace in Colombia

(from page 1)

are taxed beyond their limit. And although the Colombian Health System offers access to health care for all of its population, it requires each person to be properly identified. This is one of the reasons that only a limited number of displaced persons benefits from health care—fear of further becoming a target for armed groups has made anonymity the best means of protection.

Inequities are further exacerbated when NGOs (local and international), religious groups, universities, private associations, armed groups and international organizations are all providing some type of health care, using significantly different criteria. It can happen that one particular segment of the displaced population has been targeted to receive assistance, while the surrounding population, living in similar conditions but falling beyond the scope of a particular project, does not benefit from the same attention.

Up to now, the areas where the greatest inequities existed were well within the borders of Colombia. However, this is now an issue along the borders of the five surrounding countries: Venezuela, Ecuador, Peru, Brazil and Panama where Colombians are looking for a safer place to live. This is fueling passions and anger at all levels, and making the peace process even more cumbersome. Should we be able to reverse that situation, health would be a definite bridge to peace. This is not an impossible task but requires a significant reorientation in the approach to improving access to health services, for example.

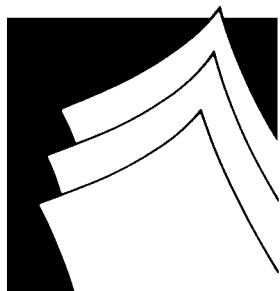
The government, NGOs and international agencies have taken a number of steps to reduce inequities. One approach involves improving conditions for health care workers in these circumstances, in accordance with ICRC guidelines. Another is to ensure that all health partners work along the same lines so that, for example, a mayor of a small municipality facing one of the above-described situations could count on a minimum of human resources to provide the minimum acceptable health standards for the entire population. The need to exchange information more readily, whether over the Internet, at face-to-face meetings, or through other means, is not only one way to provide access to health care more equitably, it is also a vital part of the peace process, since it forces opposing parties to find solutions to the essential and common needs of human beings.



Several factors conspire to reduce access to basic health services for Colombia's IDPs, while the rest of the population has not been similarly

It is unacceptable for any country to face the deterioration of its entire health care system. However, it is worse to witness such a rapid increase in inequities. It is urgent that all players—national and international—acknowledge this fact and make every effort to join forces to ensure that health care is provided to everyone, regardless of the group to which an individual belongs. It is through these displays of solidarity, and by reducing the more appalling inequities, that not only will health improve, but will also represent a strong bridge for peace. □

affected. This inequity has increased tensions among all parties involved in the peace process. Improving equity in health will help reduce tensions and serve as a bridge for peace.



Selected Bibliography

The articles listed in this section may be of interest to health professionals and others responsible for disaster preparedness, mitigation and relief. They have been reproduced and recently added to the collection of articles available from the Editor of this Newsletter. A complete list of reprints is available upon request. Please quote the reference code listed to the left of the publication title when requesting articles.

- B.6** de Ville de Goyet, Claude, "Stop propagating disaster myths," *Prehospital and Disaster Medicine*, pp 9-10, 1999.
- B.7** CEPAL/BID, "A matter of development: How to reduce vulnerability in the face of natural disasters," p 46, March, 2000.
- B.8** Banco Interamericano de Desarrollo, Departamento de Desarrollo Sostenible, "Hurricane Mitch: Women's needs and contributions," p 15, 1999.
- B.9** Baverstock, Keith F., "Public health response to radiation emergencies and the role of the Helsinki Project Office," *REMPAN 97*, pp 96-105, 1997.
- B.10** Lillibridge, Scott R., "Managing the environmental health aspects of disasters: Water, human excreta, and shelter," *The Public Health Consequences of Disasters*, pp 65-78, 1997.
- C.1** Gerrity, Ellen T. and Flynn, Brian W., "Mental health consequences of disasters," *The Public Health Consequences of Disasters*, pp 101-121, 1997.

Disasters: Preparedness and Mitigation in the Americas is the Newsletter of the Emergency Preparedness and Disaster Relief Coordination Program of the Pan American Health Organization, Regional Office for the Americas of the World Health Organization. The reported events, activities and programs do not imply endorsement by PAHO/WHO, nor do the statements made necessarily represent the policy of the Organization. The publication of this Newsletter has been made possible through the financial support of the International Humanitarian Assistance Division of the Canadian International Development Agency (IHA/CIDA), the Office of Foreign Disaster Assistance of the U.S. Agency for International Development (OFDA/AID), and the Department for International Development of the U.K.

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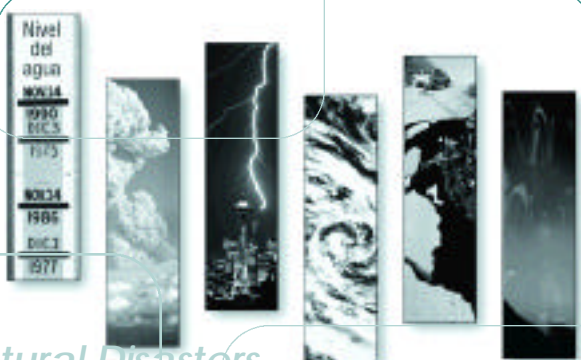
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Disaster Mitigation

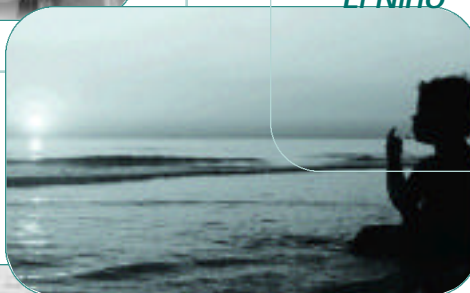


Natural Disasters



Public Health

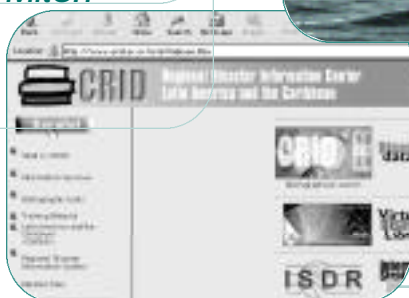
El Niño



Hurricane Mitch



Chemicals



Humanitarian Supplies



www.paho.org/disasters

For many years, the publication of books, manuals and other training materials has been one of the hallmarks of PAHO's Emergency Preparedness and Disaster Relief Coordination Program. We see them as basic, indispensable tools for the transfer of knowledge and the exchange of experiences and ideas that help the health sector to face more successfully the many challenges of disaster prevention, mitigation, and response. They are also the key inputs for the thousands of training activities carried out year after year in the hemisphere by PAHO/WHO and its partners in disaster reduction.

In this brochure, you will find constant references to our World Wide Web site. This reflects the enormous value of the Internet as a medium for the dissemination of information. However, everyone who works in the hectic world of disaster reduction suffers, to some extent, from "information overload," a surfeit of data of fleeting or unclear worth. At PAHO, therefore, we have not given in to the temptation of using electronic media as the sole vehicle for distributing technical information to our readers.

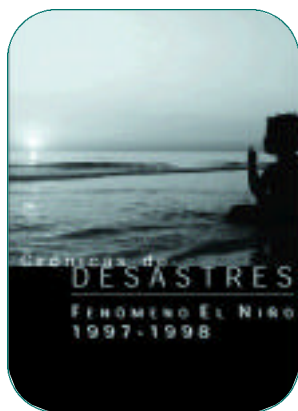
One key reason—valid in and of itself—is that many of you are still "not wired"—without access to the Internet—at least some of the time. It is our responsibility not to exclude you from access to technical information you might find essential. We also continue to think that

the advantages of physical books are many. We do not agree with the soothsayers who predict the imminent demise—or at least the increasingly poor health—of printed matter. To the contrary, not only are digital books not considered a threat, we consider them an ally in the promotion of reading—yes, even the reading of ink on paper!

Our main challenge remains twofold. On the one hand, to try to publish what our users need; but also, to be sufficiently innovative and creative to ensure that that material will reach them at the right moment, through the most useful medium, whatever that happens to be. In the next newsletter we will publish a survey in which you, our readers, tell us how well you think we are meeting your needs, and what else you would like from us.

This brochure, highlights the most relevant publications of the last two years. They reflect technical priorities that we hope are also those of our target audience. As you will see on page 4, there are several ways of obtaining these publications, and they are all also available electronically at:

<http://www.paho.org/disasters>. Please write to us at disaster-publications@paho.org, or at the address on page 4.



EL NIÑO PHENOMENON 1997-1998

2000, 294 pp. ISBN 92 75
32318 6
(Spanish only) US\$20.00

The fact that we are between El Niños, is no reason to ignore the unusually severe occurrence that affected many parts of the world in 1997-1998 and review the lessons learned so that we can be prepared for the next episode.

This book provides a technical and institutional review of the impact of the last El Niño phenomenon on our hemisphere's health sector and shows how severely it hit practically all of Latin America. Its duration and intensity caused tremendous losses and required an immense outlay of resources for response and reconstruction.



HURRICANES GEORGES AND MITCH

1999, 400 pp.,
ISBN 92 75 32277 5
(Coming soon in English)
US\$20.00

Two of the most devastating hurricanes of the past few decades to strike the Caribbean and Central America, severely affecting the population. This chronicle of events includes eight national reports and several annexes. It describes the facts in detail

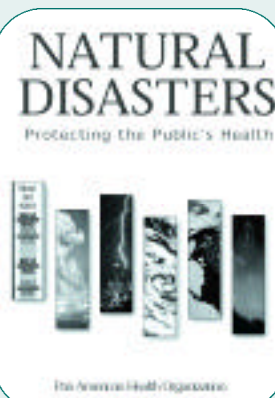
and above all, it analyzes the impact of these disasters and the response by the health sector in the countries most affected, bringing together between the covers of a single book many valuable lessons for the future.



THE EARTHQUAKE OF AIQUILE COCHABAMBA, BOLIVIA

2000, 101 p., ISBN 9978 41 368 5
(Spanish only) US\$10.00

The earthquake that struck Aiquile-Cochabamba, Bolivia, in May 1998 was one of the most severe in the recent history of that South American nation and posed a formidable challenge to the authorities involved in responding to the event and rehabilitating the devastated areas. This document focuses especially on environmental health experiences and issues.



NATURAL DISASTERS : PROTECTING THE PUBLIC'S HEALTH

(Also available in Spanish)
2000, 131 p., ISBN 92 75 315752
US\$22.00/18.00 in Latin America
and the Caribbean

"... very well written, clearly presented, and well documented—an excellent addition to the literature on natural disasters and a 'must have' resource for individuals involved in disaster preparedness. I highly recommend it."

FIVE STARS

—David Prichard, Ph.D. (University of New England)
Doody Reviews

This publication outlines the health sector's role in reducing the impact of disasters, laying out a framework that an administrator can rely on to make effective decisions in managing the health sector's activities to reduce the consequences of disasters. It describes the overall effects of disasters on health, highlighting myths and realities, and summarizes how the health sector must organize itself to cope with disasters. The book emphasizes the multisectoral nature of disaster preparedness and sets forth guidelines for preparing health sector disaster plans, means of coordination, and special technical programs before a disaster hits. The book also includes ground-breaking information on the management of supplies in a disaster.

The book is primarily aimed at health sector professionals who participate in disaster preparedness, response, and mitigation. Disaster management has become such an intersectoral enterprise, however, that anyone interested in disaster mitigation will find this a useful primer. Public health students and professors also can rely on this book in formal and informal courses.

(To obtain this book write to paho@pmds.com or visit: <http://publications.paho.org>)



THE EARTHQUAKE OF CARIACO, VENEZUELA

1999, 57 p. ISBN 9978 40 863 0
(Spanish only) US\$10.00

In July 1997, a significant earthquake hit the state of Sucre in Venezuela. This book reconstructs the events and describes the impact of the disaster and the response by the local and national health sector to an emergency which is almost a classic example of the problems that occur in the management of a sudden-impact disaster.

A v a i l a b l e s o o n . . .

- THE EFFECTS OF THE DECEMBER 1999 RAINS IN VENEZUELA (SPANISH ONLY)
- LOGISTICS MANUAL FOR EMERGENCY SUPPLY MANAGEMENT
- STRESS MANAGEMENT IN DISASTERS
- INSIGHT INTO THE CONCEPT OF STRESS
- HURRICANE MITCH: A LOOK AT TRENDS FOR REDUCING RISK

THE CONSEQUENCES OF DISASTERS ON PUBLIC HEALTH

Eric K. Noji (Editor)

2000, 461 pp., .

ISBN 92 75 32332 1

(Spanish only) US\$25.00

"...very well documented, it provides excellent information on the causes, history, frequency, duration and consequences of the largest and most frequent disasters in the world. A volume that will be of great usefulness in the library of all those who are involved in the disaster field."

~James L. Mills Jr., *International Journal of Mass Emergencies and Disasters*, Nov. 1998, Vol. 16, No. 3, pp. 375-376

PAHO has just published the Spanish translation of this important work, originally published in English by Oxford University Press in 1997. The book offers a close look at the causes of disasters and their consequences for public health, and aims to help improve disaster prevention, monitoring and response policies. It relies on epidemiology as a basic tool for disaster analysis and control. The authors—almost all of them officials of the United States Centers for Disease Control—take advantage of their many years of experience to provide the reader with in-depth technical descriptions of the main types of disasters, both natural and complex. The book offers a variety of examples and the chief findings of epidemiological surveys on the effects of disasters on public health. They pay special attention to prevention and control measures and offer recommendations that public health officials will find highly useful.

This is an essential reference work for health professionals who must make decisions concerning disaster preparedness, mitigation and response, and in general for all those interested in reducing the often devastating impact of disasters on public health.

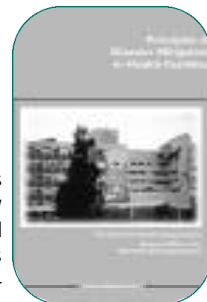


PRINCIPLES OF DISASTER MITIGATION IN HEALTH FACILITIES

2000, 130 p., ISBN 92 75 32304 6

(Also available in Spanish) US\$22.00

This new book combines and updates several documents published previously by PAHO. It guides the reader in the design and implementation of vulnerability assessments and, above all, in the application of disaster mitigation measures in health facilities. The mitigation procedures described are both structural and non-structural, and include steps that can be taken to improve the management and internal organization of a hospital in order to reduce risk. The book includes many useful experiences from Latin America and the Caribbean, including mitigation measures and studies, and is targeted at a diverse public interested in the planning, operation, maintenance, and care of hospitals and other health facilities.



LESSONS LEARNED IN LATIN AMERICA ON DISASTER MITIGATION IN HEALTH FACILITIES: COST-EFFECTIVENESS ASPECTS

1997, 116 p., ISBN 92 75 32217 1

(Spanish only) US\$22.00

This book explains how to carry out a cost/benefit analysis of the application of various disaster mitigation measures in hospitals and health centers, and includes practical examples of highly successful experiences from hospitals across Latin America and the Caribbean. It is of special interest to health sector managers and decision-makers.



NATURAL DISASTER MITIGATION IN DRINKING WATER AND SEWERAGE SYSTEMS: GUIDELINES FOR VULNERABILITY ANALYSIS

1998, 110 p., ISBN 92 75 32250 3

(Also available in Spanish) US\$22.00

Vulnerability analysis provides a simple methodology for evaluating natural and other hazards prevalent in any given region and the damage they may cause to the components of drinking water and sanitary sewerage systems. Depending on what such an assessment reveals, mitigation measures can be defined, as well as emergency response procedures in the event of a disaster. These guidelines are aimed chiefly at engineering and technical personnel working with drinking water and sewerage services.



MANUAL FOR MITIGATING NATURAL DISASTERS IN RURAL DRINKING WATER SYSTEMS

1998, 86 p., ISBN 40 491 0

(Spanish only) US\$18.00

This book focuses on drinking water supply systems in rural areas, whose characteristics and organization are different from those in urban areas. It describes the general characteristics of these systems, the most common natural hazards to which they are exposed in Latin America and the Caribbean, and the likely impact of these hazards. It explains a key method for vulnerability analysis and the procedures for applying it, including practical examples.



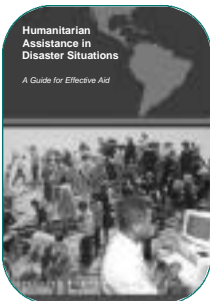
CD-ROM DISASTER MITIGATION IN HEALTH FACILITIES

ISBN 92 75 32332 1

(Spanish only- coming soon in
English) US\$40.00

The purpose of this CD-ROM is to disseminate PAHO's most significant documents on hospital disaster mitigation and make it easier to find the texts most relevant in any given situation. Two new PowerPoint slide presentations on disaster mitigation in health facilities are included, covering both structural and non-structural aspects, to provide the knowledge needed to apply specific mitigation measures. Two technical scripts accompany the slides and have been especially designed as training support. The CD-ROM also includes additional full-text publications on the same subject.

Other PUBLICATIONS



HUMANITARIAN ASSISTANCE IN DISASTER SITUATIONS : A GUIDE FOR EFFECTIVE AID
1999, 20p., ISBN 92 75 32301 1
(Also available in Spanish) US\$6.00

This publication provides practical advice and recommendations for donors and recipients of emergency assistance on how to ensure that such aid is as effective as possible in helping the population affected by natural or complex disasters. Its basic assumption—which has been amply tested and verified in case after case—is that humanitarian assistance should always be based on an assessment of the real needs of the affected population. The guide combines and updates several publications that PAHO has produced over the past 15 years.

MENTAL HEALTH FOR DISASTER VICTIMS : MANUAL FOR WORKERS

Raquel E. Cohen
A joint publication by PAHO/WHO and
Editorial El Manual Moderno
1999, 75 pp., ISBN 92 75 32273 2
(Also available in Spanish) US\$18.00

GUIDE FOR INSTRUCTORS

1999, 148 pp.,
ISBN 92 75 32274 0
(Also available in Spanish) US\$18.00

Mental healthcare in disaster situations is one of the most significant and yet most often ignored issues in caring for populations affected by natural or complex disasters. These two books provide technical material that should help to compensate for this lack and put back mental health on the disaster response agenda. Dr. Raquel Cohen, a leading expert in this field, has employed pedagogic and practical criteria to produce these volumes, which should be of use both to health workers involved in an emergency situation and instructors who must provide training to communities or health workers.

CD-ROM "PREVENTION, PREPAREDNESS AND RESPONSE TO DISASTERS CAUSED BY CHEMICAL PRODUCTS"
(Spanish only) US\$25.00

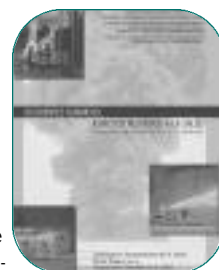


This CD combines visual presentations with full-text documents on the most relevant aspects of chemical accidents in Latin America and the Caribbean. Produced with a familiar Web page-like format, the disk includes not only technical documents but also several reference sections that guide the reader in the search for significant sources of additional information on the Internet. This material can also be found on the Web at
<http://www.disaster.info.desastres.net/quimicos/>

CHEMICAL ACCIDENTS : HEALTH-RELATED ASPECTS – A GUIDE FOR PREPAREDNESS AND RESPONSE

ISBN 92 75 32332 1
(Spanish only) US\$22.00

Produced by PAHO in 1998, this book is the result of a joint effort by several international organizations and contains three documents: a General Guide, aimed at contributing to the design of effective policies in this area; Practical Guides, which discuss preparedness and response aspects in greater detail, and a Final Summary that includes a check list of basic planning and implementation measures in this field.



RADIATION : BEFORE, DURING, AND AFTER RADIOLOGICAL EMERGENCY SITUATIONS

1999, 22 pp., OPS/HEP/99/37
(Spanish only) US\$10.00

PAHO has just translated this technical reference document and adapted it for Latin America and the Caribbean. Originally published in English by WHO, it's designed to improve the response to this type of accident and is especially directed to local authorities. It is a useful reference volume for developing educational plans, preparedness measures, response plans, and mitigation programs for nuclear or radiological accidents.



VIRTUAL DISASTER LIBRARY

US\$40 This is the first edition of an electronic collection published in 1999 on CD-ROM and on the Web. It contains more than 270 full-text technical documents, in English and Spanish, about disaster preparedness, mitigation, or response, including all PAHO publications on disasters since 1977 and every issue of the Disasters: Preparedness and Mitigation in the Americas newsletter.

A simple search engine allows you to find the information you need by subject, title or keyword. You will enjoy easy, permanent and free access to all of this material, and you will be able to print and distribute any documents that interest you.

PAHO and WHO are already preparing a new, expanded edition of this collection, which will also include the most important publications on disasters and emergencies by WHO, the International Federation of Red Cross and Red Crescent Societies (IFRC), the International Committee of the Red Cross (ICRC), and the United Nations High Commissioner for Refugees (UNHCR). The new edition will be available in January 2001. Meanwhile, the current version can be consulted at:

<http://www.vdl-bvd.desastres.net>

HOW TO REQUEST THIS MATERIAL

Requests from Latin America and the Caribbean should be sent to the Regional Disaster Information Center:

CRID, Apartado Postal 3745-1000, San José, Costa Rica

Fax: (506) 231-5973

crid@crid.or.cr

www.crid.or.cr

www.disaster.info.desastres.net/crid

Requests from other countries should be addressed to:

Emergency Preparedness and Disaster Relief Coordination Program

Pan American Health Organization

Regional Office of the World Health Organization

525 Twenty-third Street, N.W.,

Washington, D.C. 20037, U.S.A.

disaster-publications@paho.org

All of these publications are available online at:

www.paho.org/disasters