

# Disasters

## Preparedness and Mitigation in the Americas



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### Editorial

## When the Displaced Cross Borders: The Case of Darien, Panama



Colombia and bordering countries: massive population displacement resulting from the armed conflict. According to official figures, 868 people left their homes each day in 2002 because of the conflict; 189 homes were abandoned. These figures are countrywide; official data reports 967 affected municipalities this past year.

In addition to the effects of the conflict inside Colombia itself, another concern has emerged: just how many Colombians have crossed borders into neighboring countries to escape the armed conflict and how are they faring?

In the case of the Province of Darien, Panama, along Colombia's northern border, the first wave of displaced persons began to cross the border into Panama in 1996. Since most of the border area is jungle, the places in which refugees could settle were limited (Jaque, Alto Tuirá, Punuza, Boca de Cupe, Yape, Yaviza, El Real, Pinogana and Sambu). Although the number of people crossing the border from Colombia into Panama

*(continued on page 7)*

## Hospital Disaster Planning Course Now on CD-ROM



**W**ithin the overall health system, hospitals have an essential function in disaster situations: they frequently find themselves at the heart of the response efforts and are usually the natural place to which the population turns to meet their immediate health needs. The emergency situation surrounding hospitals can provoke an internal crisis, posing a risk to the health of patients, the infrastructure itself, equipment and the hospital's ability to function. Hospitals must have solid plans to identify and reduce risks if they are to face disasters, both external and internal.

*(more on page 6)*

Panama, a country of contrasts. At right, the capital, Panama City. To the left, scenes from along the Colombia-Panama border.

**T**he breakdown in talks and the negotiation process between the Colombian Government and insurgent groups in February 2002 has seriously exacerbated a recurring problem for



Pan American  
Health Organization  
Regional Office of the  
World Health Organization

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## The Newsletter Survey: Results and Changes

In response to the survey, we received almost 700 evaluations with a number of very good suggestions. During its 20 years of publication, the fundamental purpose of this Newsletter has been to encourage people to communicate horizontally, across borders, about important disaster issues of common interest. The Newsletter is not meant to be a scientific journal; rather its aim is to briefly inform people about relevant topics and events in Latin America and the Caribbean and serve as an impetus to initiate dialogue and learn more. This is why we try to include a website and/or e-mail address in our articles. One common suggestion from subscribers was to include more information on a variety of topics, including mental health, education and complex emergencies. We will take this into account in future Newsletters and you will notice that one of the front page articles in this issue deals with the displaced population in Colombia that is spilling across borders into neighboring countries.

Over 65% of those responding expressed interest in receiving an electronic version of the newsletter. As a result, we will now e-mail the Newsletter in PDF format to those who wish to receive it. This should reduce delivery time (another common concern) by about three weeks. If you would like to receive the Newsletter electronically and have not yet been added to the list, write to [disaster-newsletter@paho.org](mailto:disaster-newsletter@paho.org).

We appreciated your valuable input and suggestions. You can still complete the survey online at: [www.paho.org/english/ped/newsletter.htm](http://www.paho.org/english/ped/newsletter.htm).

## Healthy Housing is also Disaster-Resistant in El Salvador

PAHO/WHO's Office in El Salvador recently published the story of the construction of the Villa Centenario, an example of healthy housing that is also earthquake resistant. In the wake of the January and February 2001 earthquakes that seriously affected virtually every public sector in El Salvador, the Villa is based on a PAHO prototype, designed to correct deficiencies in basic housing in rural areas. The complex of 100 houses provides safe low-cost housing in an environment that takes into account basic health necessities such as safe running water and storage, proper sanitary facilities, screened doors and windows and other features, in addition to its earthquake resistance.

The Government of El Salvador awarded the national Medal for Civil Protection to the Villa Centenario. The Spanish-language publication is available on PAHO's web at [www.paho.org/spanish/ped/villa\\_cent.htm](http://www.paho.org/spanish/ped/villa_cent.htm) and [www.ops.org.sv/](http://www.ops.org.sv/). For print copies, contact Dr. Jorge Jenkins, PAHO/WHO El Salvador, at [jjenkins@els.ops-oms.org](mailto:jjenkins@els.ops-oms.org).

## Field Hospitals: Is the Investment Worth It ?



PAHO/WHO

PAHO has initiated a project to assess the comparative advantages and disadvantages of field hospitals in post-disaster situations and prepare guidelines on requesting or sending them in the aftermath of natural disasters.

Often, hospitals are evacuated following a disaster, whether or not the circumstances justify it. This has left many people who prior to the disaster had access to health care, suddenly without medical attention.

However, an increasing number of health professionals are questioning this common practice. The hidden cost of

field hospitals may be considerable and they are not the only solution to rapidly providing health care. Field hospitals are sent to save lives—but they arrive days or weeks after the disaster, long after the most life-threatening injuries have been dealt with. Once in the country, they remain in place for weeks (or even years), thus presenting the added burden of maintaining a temporary health facility.

Since little is known concerning the real benefits that field hospitals represent, an in-depth analysis of the use of field hospitals in the aftermath of disasters will yield the key elements decision makers need to evaluate their appropriateness. More in future issues of this Newsletter.

## UNICEF supports humanitarian management system in Africa



WHO, I. Pluut

UNICEF Representatives from 25 African countries and from Denmark, together with delegates from WHO's Regional Office for Africa, attended a UNICEF-supported Regional Workshop on Logistics and Emergencies/Supply Management in Gambia, West Africa from 27 October-1 November. One of the objectives of the workshop was to get to know information management tools such as SUMA and other logistics systems used by UNICEF and the German development cooperation agency (GTZ).

The July issue of the newsletter mentioned ongoing interagency collaboration in the field of humanitarian logistics. Specifically, WHO, PAHO, OCHA and WFP are looking at ways to establish, at the global level, a platform to exchange information among existing logistical support systems and develop a standard tool for the common classification of emergency supplies. UNICEF's rich experience in humanitarian logistics will make the agency a key partner in these global efforts. UNHCR is also contributing to this effort.

The workshop provided an ideal scenario to test the recently launched English and French versions of SUMA and was particularly helpful because the participants had a great deal of experience in highly demanding and complex emergencies in which logistics play a central role, and thus were able to offer excellent suggestions.

For more information, contact Isis Pluut at [pluute@who.int](mailto:pluute@who.int).

## Grants for Disaster Risk Reduction

The ProVention Consortium, a global coalition of governments, international organizations, academic institutions, the private sector and civil society organizations aimed at reducing the impact of disasters in developing countries, is sponsoring a competitive forum to support innovative disaster risk management projects.

Students and young professionals from developing countries are invited to propose creative projects and ideas. Proposals may include research projects, professional internships or professional development programs. Applications will be screened by a jury consisting of ProVention Consortium partners. Awards will be made to proposals with the potential of making a significant contribution to the field. The selected projects will be awarded a maximum grant of US\$5000 and must be completed within six months of award under the guidance of a faculty advisor or mentor who is a disaster professional. Deadline for submission is February 28, 2003. More information is available at: [www.proventionconsortium.org](http://www.proventionconsortium.org). Send proposals by e mail to: [DMF@worldbank.org](mailto:DMF@worldbank.org).

## GDIN 2003 Conference to be Held in Washington, D.C.

GDIN, the Global Disaster Information Network, is a not-for-profit, independent association of nations, organizations, and professionals from all sectors of society including NGOs, industry, academia, governments, and international organizations with an interest in sharing disaster information.

This next GDIN conference, intended to help disaster managers discover innovative approaches to developing and sharing disaster information, will be held November 4-7 2003 in Washington D.C. Conference sessions will cover GIS and remote sensing; emergency telecommunications; infectious diseases; NGOs and community needs; technological developments; disaster managers' needs; information management; research developments; education disaster recovery; UN humanitarian relief operations and more. Visit [www.gdin.org](http://www.gdin.org) for details and to register.

# Member Countries

## Barbados Hosts Mitigation Seminar

Last September, 65 participants from 23 countries and international, regional and national organizations participated in a seminar in Barbados on the Design of Health Facilities to Resist Natural Hazards. The seminar was designed to:

- Sensitize hospital designers about the need to protect health facilities from natural hazards in the Caribbean.
- Provide basic knowledge about the design of health facilities, with particular reference to earthquakes and hurricanes.
- Develop technical recommendations in support of an intended hospital design manual.
- Provide government technical officers with the knowledge and tools to facilitate procurement and monitoring of consulting services for capital works projects in the health sector, with emphasis on mitigating the effects of earthquakes and hurricanes

The seminar was, by and large, technical in nature and intended primarily for architects, engineers and other technical persons drawn from both the public and private sector of the English-speaking Caribbean who are involved in the design and construction of health facilities or the supervision of projects involving such work. Seminar participants examined technical characteristics of hazards and engineering and architectural policies, practices, methods and techniques. Seminar outputs will help to develop design and construction standards specifically for health facilities.

Participants indicated that the knowledge gained would help them to design health-care facilities so that they continue to function with little degradation in efficiency in times of major earthquakes and hurricanes. Donor and other agencies present also reiterated their commitment and determination to continue efforts to influence the inclusion of sound mitigation practices in the design and construction of health facilities to resist natural hazards.

Documents and presentations from the seminar are available online at: [www.disaster-info.net/carib/hospitalseminar.htm](http://www.disaster-info.net/carib/hospitalseminar.htm)

## Moyogalpa, Nicaragua and Santa Ana, Costa Rica Display Spirit of Pan-Americanism

Neighboring municipalities in Nicaragua (Moyogalpa) and Costa Rica (Santa Ana) used the framework of “Technical Cooperation Among Countries: Panamericanism in the 21st Century” to develop and carry out joint emergency preparedness activities. In September, a small delegation from Moyogalpa—the mayor, the director of a health center and a government delegate—traveled to Santa Ana to exchange local experiences, especially regarding progress in promoting collaboration among institutions and in the use early warning systems. At the end of November, the municipality of Moyogalpa hosted a visit from its Costa Rican counterparts with whom they shared the methodology for local health emergency plans and a strategy for community collaboration.

Following the second visit, all parties met to evaluate the experience, which they deemed to be very positive. In addition to allowing the municipal authorities and leaders in both countries to become acquainted, it allowed them to learn from the experiences of neighbors who share similar vulnerabilities and histories.

In a follow up step in the coming months, the two municipalities will work together to identify joint activities. For more information contact Steven de Vriendt, [devriens@nic.ops-oms.org](mailto:devriens@nic.ops-oms.org).



Dr. Ronnie Avendaño, Director of the Health Center and Apolinar Cruz, community leader in front of a mural in the meeting center.

## Radio Dramas Bring to Light Disaster

Lately, when rural communities gather around the radio in Central America, not only do they enjoy a good time, but they also learn more about reducing the impact of disasters on their families and surroundings.

Several international organizations have joined forces to produce the Spanish-language radio drama called Hurricane Season (Tiempo de Huracanes). An initiative of PAHO, the International Organization for Migration (IOM) and the International Strategy for Disaster Reduction (ISDR), in collaboration with CEPREDENAC, the





## The Reventador Volcano Erupts in Ecuador



PAHO/WHO, R. Perez

Quito, the capital of Ecuador, covered in ash following the eruption of the Reventador volcano.

After 26 years of lying dormant, the Reventador volcano, located in a remote area 100 km. east of Quito, Ecuador, erupted suddenly last November. A cloud of ash covered a 200 km. by 100 km. area and volcanic debris leveled nearby roads, bridges and houses and filled river banks. No deaths or injuries were directly attributed to the eruption, although 9,000 residents of communities near the volcano were affected.

On the morning of 4 November, Quito awoke to find the city covered in a dense gray dust, paralyzing public and private sector activities. The ash caused air quality levels to reach the hazardous range.

The eruption and resulting ash fall paralyzed drinking water and electric services and communication systems in communities in neighboring areas. Water supply and sanitation systems, especially in rural areas, were severely affected because most water catchment areas and sources are close to the surface and not covered.

Health response teams from the provinces of Napo, Sucumbios and Pichincha who had previously received training in damage and needs assessment, were quickly mobilized. "During that week, we had been going over potential emergency scenarios that could arise because of several volcanos in Ecuador and the El Niño phenomenon, and we were able to quickly activate health teams. This helped the Ministry of Health to play a leading role in the response in the affected area," said Dr. Patricio Ampudia of the Ministry of Health.

Hospital emergency rooms and health centers in the affected provinces primarily treated patients with respiratory infections, multiple trauma, conjunctivitis, gastroenteritis—all above normal epidemiological levels.

Among the lessons learned from this emergency was the importance of quick and efficient coordination among disaster institutions and the need for all provinces and communities to have updated disaster preparedness, mitigation, prevention and response contingency plans. At a December panel discussion of the health sector's response, representatives of the sector's principal institutions in Ecuador recognized that the response was coordinated and efficient, however, they asked for UN support to improve management and coordination among institutions and avoid duplication of efforts.

## Disaster Preparedness Messages

drama unfolds through the stories of four communities, each with a different level of disaster preparedness, before, during and after floods brought on by a hurricane.

Each story is made up of five 20-minute installments and takes place in the present. In story 1, Señorita Julia, the town's school-teacher, finds herself in a community that lacks grassroots organization and is dangerously unaware of the natural hazards and risks it faces. Rio Amarillo (story 2) tells of an ill-prepared mining town that suffers the indirect effects of a hurricane and learns the importance of reducing its vulnerability. Bahía Azul (story 3) is a coastal town devastated by a hurricane that puts to the test the community's response capacity and heightens the importance of pre-disaster coordination. Finally, La Esperanza (story 4) tells the story of a well-prepared community that escapes the indirect effects of the

hurricane relatively unscathed only to later discover factors that place the community at great risk, obliging them to make a radical decision about relocating the town.

In Central America, the radio is the most widespread communications medium, particularly in rural areas. More than 45 local radio stations have joined forces to broadcast the radio drama. The campaign is coordinated by the Centro de Comunicación Voces Nuestras. For more information, please contact the ISDR's Regional Office for Latin America at [eird@eird.org](mailto:eird@eird.org) or visit the web site for a more complete description (in Spanish) of the project: [www.eird.org/](http://www.eird.org/) (click on Radionovela).



# Publications and Multimedia

Publicaciones y Multimedia



## The Role of Laboratories and Blood Banks in Disaster Situations Now on CD-ROM

### Hospital Disaster Planning Course Now on CD-ROM

(from page 1)

This course provides a tool to guide disaster managers particularly hospital managers, through the planning process. This material is the result of a lengthy and participatory process. Over time, the documents have been improved, thanks to dozens of practical recommendations. It is expected that this ongoing process will enrich and improve the content.

After completing the course, participants should be able to: conduct an initial analysis of the principal threats the hospital faces, both internally and externally; make a preliminary diagnosis of the hospital's vulnerability and resources available to respond to a disaster; prepare a hospital disaster plan; carry out a simulation of the plan and formulate recommendations to improve it.

The course is structured around eight lessons and divided into several modules or working documents: lesson plans or instructor's guide; participant's workbook; visual aids in PowerPoint™ format; evaluation forms and reference material. Spanish only; request copies from CRID (see page 8). To request additional information about the course, please write to: [asantand@ecu.ops-oms.org](mailto:asantand@ecu.ops-oms.org).



This CD contains the 2001 PAHO technical publication of the same name, which reviews the primary functions of laboratories and blood banks in disaster situations and the measures they can take to be better prepared. It also contains a PowerPoint™ presentation that can be used for training purposes in courses and workshops and a script to accompany the audiovisual material. For copies, write to [disaster-publications@paho.org](mailto:disaster-publications@paho.org).

### Slide Series Enter the Digital Age

For more than 20 years, PAHO has produced slide series on a variety of disaster-related topics to support regional training initiatives. These slide programs, however, were difficult and costly to duplicate and distribute. After evaluating if the material remains technically valid in 2003, PAHO has converted part of this collection to digital format, available on CD-ROM:

- Pre-hospital Medical Care and Hospital Medical Care
- Mental Health in Disaster Situations
- Seguridad Hospitalario (Hospital Security; Spanish only)
- Manual for Bacteriological Analysis of Natural Water Supply Sources in Disaster Situations
- Terremotos y Hospitales (Earthquakes and Hospitals, parts 1 and 2; Spanish only)
- The Risk and Resource Map
- Manejo de Cadáveres en Situaciones de Desastre (Management of Cadavers in Disasters; Spanish only)
- Simulacros Hospitalarios para Situaciones de Desastre (Hospital Simulations in Disasters; Spanish only)
- Earthquake in Mexico

A limited number of copies is available from the CRID (see page 8).



### Health Disaster Preparedness: Guide for the Local Population

Experience has shown that disaster preparedness is just as important, or more so, at the local level as it is at the national level. During disasters, it is the affected communities themselves that have the need and responsibility to act as first responders.

This publication has been prepared for health personnel and members of local emergency committees to offer guidelines and directives on health sector disaster preparedness. Among the essential elements to take into consideration is the presence of a health sector representative on the local emergency committee and the local level emergency health plan—a basic tool for preparedness in the health sector. In order to put the guide's recommendations into practice, communities should adapt them to their own particular situation.

In Spanish only. A limited number of copies is available from the CRID (see page 8).



## The case of Darien, Panama

(from page 1)



PAHOWHO, C. Garzon

**It is commonly believed that the number of people in permanent movement along the border because of the armed conflict may be much higher than official figures indicate.**

decreased after 1996, a gradual increase was observed again in 2002. In November, official data reported the presence of 230 families, or 830 people, broken down as follows: 20% between 0-4 years of age, 39% between 5-17, 19% between 18-59, and 4% aged 60 and over. The gender distribution was 47% female and 53% male.

The national organization in Panama that oversees the current situation has classified the displaced population in Darien into two categories. The first group is comprised of people under “temporary humanitarian protection.” A majority, nearly 90%, falls into this category. The second group includes those who have already obtained refugee status, a mere 5% of the population. The remaining 5% either recently arrived and are in the process of identification or have not yet been registered by the

area’s rivers and are therefore dependant on the availability of boats with out-board motors to cover the distances between settlements. The hospitals in Cupe and Jaqué are the institutions most called on to provide health services to the displaced Colombian population, however, the segment of the population recognized as under “temporary humanitarian protection” is allowed only limited mobility, which makes it difficult to access more complex health services if needed.

Official 2001 data from Panama’s Ministry of Health revealed that the five principal causes of morbidity were influenza, common cold, urinary tract infection, diarrheal disease and intestinal parasitosis. In November 2002, an epidemiological survey was carried out to compare current perceptions of morbidity with earlier data. The data from the

P a n a m a n i a n authorities. It is commonly believed that the number of people in permanent movement along the border because of the armed conflict may be much higher than official figures indicate. However, the rough topography of the border region and the presence of the national authorities has limited census efforts in the area.

Delivering health services in the Province of Darien is difficult given the terrain described. For the most part, health workers must navigate the

November 2002 study coincided in large measure, as the leading causes were reported as colds, diarrheal disease, fever, headache and parasitosis.

The problem of population displacement continues to be difficult to approach and solve given the nature of the armed conflict in Colombia. The fact that the number of Colombians who have crossed the Panamanian border may be greater than the official count represents a major challenge to the delivery of services in a region with serious geographic and economic limitations. In addition, according to first-hand reports from the area, support offered by international organizations to the displaced population—both material and economic—can generate inequities between this group and national residents in the Province of Darien who do not receive similar support.

The earlier question, how many Colombians have crossed borders into neighboring countries to escape the armed conflict and how are they faring, has no easy answer. What is certain is that given the dismal near-term prospects for resolving the conflict, the displaced population will continue to require support to meet basic health needs.

**Just how many people have crossed borders into neighboring countries to escape the armed conflict and how are they faring?**

# Selected Bibliography

S e l e c t e d B i b l i o g r a p h y

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.

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