The Earthquake in Ecuador: Significant damage to health facilities; emergency medical teams deployed

On 16 April 2016, one of Ecuador’s worst disasters—a magnitude 7.8 earthquake—left 663 dead and nine missing. As of mid-May, 7,633 families, or 28,775 people, remained in shelters. The earthquake also affected many potable water systems. In the first 72 hours, 6,274 persons received medical attention. The earthquake affected six provinces along Ecuador’s Pacific coast: Esmeraldas, Manabí, Santa Elena, Guayas, Santo Domingo de los Tsáchilas and Los Ríos. However, the provinces of Manabí and the south of Esmeraldas were the most affected.

The region’s health infrastructure was dealt a serious blow, particularly in 12 cantons in Manabí and Esmeraldas. Thirty-nine health facilities, which include health centers and basic and general hospitals and those providing specialized services, were damaged and 20 were unable to continue functioning. Despite the damage to the health infrastructure, medical care continued to be provided in mobile units, tents, or through services that were relocated to other facilities.

Editorial

WHO Emergency Reform

Over the years, epidemics and natural disasters have claimed a high number of lives and have had a major impact on society. For countries affected by these events and for international actors as well, the critical challenge lies in the difficulty of managing these large-scale events. The 2014 epidemic of Ebola in West Africa, and its subsequent spread to several nations in Europe, the United States, and other countries, caused global alarm and highlighted...
Editorial

**WHO Emergency Reform**

the need to make substantive changes to the way the World Health Organization (WHO) carries out its alert and emergency response operations for outbreaks and disasters. To this end, WHO, United Nations agencies, and other international organizations, conducted evaluations that reached the same conclusion: a new WHO Health Emergencies Program was needed.

**A New WHO Health Emergencies Program**

On 25 May 2016, during the 69th meeting of the World Health Assembly, member countries approved one of the most important reforms since WHO was created in 1947, establishing the new Health Emergencies Program. This decision will generate substantial changes—both in terms of the Organization’s work and its culture—when it comes to dealing with health emergencies. It calls for establishing one single program, with a workforce, budget, standards and processes, and clear lines of authority.

The new Health Emergencies Program adds operational capacity to WHO’s work in outbreaks and humanitarian emergencies to complement its traditional technical and normative roles. The new program is designed to deliver rapid, predictable, and comprehensive support to countries and communities as they prepare for, face, or recover from emergencies caused by any type of hazard to human health, whether disease outbreaks, natural or man-made disasters or conflicts.

**Position of the Region of the Americas**

In a joint statement, the delegations representing Latin American and Caribbean countries at the World Health Assembly expressed satisfaction with the progress made on this issue and their support for WHO’s new Health Emergencies Program. They also acknowledged that since 1976, their WHO regional office for the Americas (the Pan American Health Organization) has had a Department of Emergency Preparedness and Disaster Relief, a “proven mechanism that has effectively responded to emergencies and disasters in the region of the Americas, within the framework of WHO.”

These countries also noted that their support for the new WHO Health Emergencies Program is “with the understanding that the PAHO program will continue to fully respond to the needs of member states in the Americas, working and coordinating, as appropriate, with the WHO Program.”

**The Pan American Health Organization and the WHO Emergency Reform**

In the context of the WHO Emergency Reform, PAHO will functionally align its work with the new WHO Health Emergencies Program. It will also expand collaboration between PAHO and WHO to identify a greater number of experts ready and able to be mobilized to and from the Americas in emergency situations and will share the financing of these response operations.

PAHO will also continue to deploy its staff and the Regional Response Team (registered and trained by the Organization) to support the member states of both the World Health Organization and the Pan American Health Organization.

The WHO Emergency Reform complements PAHO’s vision, which seeks to achieve a health sector that has sufficient capacity, is led nationally, and sustained to ensure that member states have the resilience to protect the physical, mental and social wellbeing of their communities, and that they are able to rapidly recover from the impact of health emergencies and disasters.
The Ministry of Public Health used the international standards for minimum requirements and classification of Emergency Medical Teams, promoted by WHO/PAHO (read the guidelines at http://bit.ly/1SNgc5V) for the coordination and deployment of national and international emergency medical teams. To execute this operation, an Emergency Medical Teams Information Cell (CICOM) was set up in Quito’s ECU 911 Emergency Center, under the responsibility of the International Cooperation Department of the Ministry of Health. The CICOM helped to organize the deployment of EMTs to the disaster-affected areas of the country, optimize the work of health responders, and improve the quality of information regarding health coverage. Ecuador is the first country in the Americas to put this coordination mechanism to the test.

The Ministry of Health set up two staging areas in Quito and Manta to register and control the movement of medicines and medical supplies into and out of the warehouses, using the LSS/SUMA system. Rapid Response Teams were activated, a health situation room was set up, and an epidemiological surveillance system was put in place in shelters and temporary camps. Integrated Healthcare and Primary Healthcare teams were also deployed to the most affected areas. Potable water was distributed in shelters using tanker trucks, mobile water treatment plants and bottled water.

The Ministry of Public Health, the Red Cross, universities, and national and international NGOs immediately addressed mental healthcare needs. Action was taken to control, prevent and address violence and behavioral disorders, and counseling was provided for disaster victims who lost family members and property. A psychosocial support strategy, oriented toward ‘caring for the caregivers,’ was developed.

The Pan American Health Organization’s regional headquarters and the country office for Ecuador also mobilized staff to support the Ministry of Health’s earthquake response, especially in humanitarian coordination, damage assessment (particularly with regard to health infrastructure) and needs analysis, coordination of emergency medical teams, and logistical supply management. PAHO/WHO also continues to work closely with national authorities on epidemiological surveillance, restoration of health services, immunizations, mental health, and communication and information management.

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<th>Level 1* EMTs</th>
<th>Level 2** EMTs</th>
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* Level 1: Outpatient initial emergency care of injuries and other significant health care needs. ** Level 2: Inpatient acute care, general and obstetric surgery for trauma and other major conditions.

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**The Earthquake in Ecuador:** Significant damage to health facilities; emergency medical teams deployed

In the most affected areas (the cantons of 24 de Mayo, Bolívar, Chone, Flavio Alfaro, Jama, Manta, Paján, Portoviejo, Puerto López, Rocafuerte, Sucre, Esmeraldas and Guayaquil’s metropolitan district) the situation in health facilities is as follows:

**Hospitals**
- Damaged: 15
- Unable to function: 6

**Health Centers**
- Damaged: 24
- Unable to function: 14

Twelve of the 15 hospitals in cantons located in the province of Manabi were damaged.

In the Spotlight

Dr. Gina Tambini, PAHO/WHO Representative in Ecuador and Jerónimo Venegas, chief of operations of the LSS/SUMA system, review contents of the warehouse at the Ministry of Public Health Staging Center in the city of Manta.

Interior of the Bahia de Caraquez hospital in the province of Manabi, Ecuador.
Caribbean Health Facilities Take the Next Step: Smart Hospitals

Hospitals that are not only disaster resilient but also climate-friendly are Smart Hospitals

Building on PAHO’s Safe Hospitals Initiative, national stakeholders in the Caribbean are rallying around a new initiative to make hospitals ‘smart,’ shifting away from a traditional disaster response model to one that proactively incorporates climate adaptation, mitigation measures, and preparedness to reduce the impact of disasters on health. At the same time, the health sector, one of the heaviest consumers of energy, is striving to reduce its environmental footprint. Healthcare facilities are ‘smart’ when they link their structural and operational safety with green interventions, at a reasonable cost-to-benefit ratio.

Under the umbrella of the UKAid/DFID-funded Smart Hospitals Initiative, PAHO developed several instruments to guide countries as they prepare to tackle the challenge of making their hospitals not only safe but also environmentally friendly.

- A **Smart Hospitals Toolkit** has been developed for hospital administrators, health disaster coordinators, health facility designers, engineers and maintenance staff to conserve resources, cut costs, increase efficiency in operations, and reduce carbon emissions. This Toolkit is comprised of:
  - **Hospital Safety Index**, which many countries are currently using to help ensure that new or existing health facilities are disaster-resilient.
  - **A Smart Hospital Baseline Assessment Tool (BAT)** to collect reliable and detailed information on a health facility’s age; physical condition; quality of construction; structural, non-structural and mechanical integrity; and compliance with current building, fire and electrical codes; the building’s performance and operations and how it measures up against current code, regulatory requirements and zoning regulations. These are important factors to consider in the audit of any facility.
  - **A Green Checklist**, adapted from existing green building rating systems to the Caribbean context, which covers both the building itself and the facility’s operations.

- A methodology for a **cost/benefit analysis**, to help decision makers make informed decisions about whether or not (or to what degree) to invest in measures to make their health facilities ‘smart.’

- A **model policy**. While there is broad support for the principles of smart health facilities, there are very few actual policies at the national level that call for a shift away from a traditional disaster response model to one that proactively seeks to minimize the health impact of a disaster through climate adaptation, mitigation and preparedness. This model policy aims to guide the health sector in developing its own policy on smart health facilities, a policy that forms an integral part of the health agenda of PAHO’s Member States; is backed by earmarked resources in the national budget; and counts on committed leadership at the highest level of government.

- A **model annex** to accompany national building standards and codes that focuses on sustainable construction of
new health facilities. It considers two main issues: a) adaptation of the structure and infrastructure to climate change-related phenomena, and b) mitigating the effects of climate change through informed design and construction.

In May 2015 the Pan American Health Organization received approval from UKAid/DFID in the amount of £8.3 million to retrofit several health facilities each in Grenada, St. Lucia, St. Vincent and the Grenadines, and Dominica. Given the importance of this project and its ability to establish a platform for linking disaster risk reduction and climate change, in September 2015 the Prime Minister of the UK announced additional funding to extend the project to include Belize, Guyana and Jamaica and increase support in existing target countries. The UKAid Climate and Environmental Advisor, Simone Banister, explained how the funding will be utilized: “It is expected that by 2020, a total of 50 health facilities in these countries will be safer and greener, and more than 600 will be assessed, with the findings documented for future improvements in an online database. The bulk of the UK funds will be used for refurbishment work to ensure that health facilities across the seven Caribbean countries are better able to withstand multiple natural disasters and climate variability. This will include strengthening roofs and structures, installing hurricane shutters and improving storm drainage, access and fire safety, installing energy and water conservation devices, etc. Technical support will be provided to ensure that appropriate disaster response plans and equipment are in place for each facility and maintenance and conservation procedures are established and utilized.” Special attention will also be paid to transfer of knowledge and to increase capacity and public awareness in the targeted countries with an intensive public relations and training strategy already in place.

For more in-depth information and to download these tools and other material, visit the PAHO Smart Hospitals website at: [http://goo.gl/DMTEHZ](http://goo.gl/DMTEHZ).
Emergency Medical Teams (EMT): Standards and Minimum Requirements

Strengthening classification and coordination mechanisms for emergency medical teams in disaster response

Following the January 2010 earthquake in Haiti, a large number of medical teams arrived on site and lives were saved. Despite this laudable humanitarian response, too many medical teams arrived unprepared. In December of that year, PAHO/WHO convened an expert meeting in Cuba to identify the minimum requirements and streamline the application process, acceptance and coordination of international medical teams in order to improve efficiency and speed up their deployment. Read the full report at: http://bit.ly/25FbLQN.

That meeting set the groundwork for the global initiative now known as ‘Emergency Medical Teams.’ These teams are composed of health professionals (medical staff, nurses, physiotherapists, paramedics, etc.) that provide direct care to disaster-affected populations and also support local health systems. They work under global guidelines that define the minimum standards and requirements for the teams. Consult these guidelines at http://bit.ly/1SNgc5V.

In the Americas, a Plan of Action for the Coordination of Humanitarian Assistance (click on http://bit.ly/1rr26aL and scroll down to document CD53/12 in the section on Working Documents) guides the countries’ work in this important area:

- Preparing procedures for requesting, accepting and receiving EMTs.
- Coordinating the integration of EMTs into health EOCs.
- Maintaining a regional roster of EMT coordinators, forming national-level EMTs, and developing mechanisms to register both national and international teams.
- Streamlining immigration, customs and logistics procedures to facilitate the deployment of EMTs.
- Supporting national and regional workshops for EMT coordination.

Most recently, in December 2015, 150 participants from governments (more than 30 Member States); civil society and the private sector (over 40 teams); and international organizations met for a global meeting in Panama to discuss a number of issues relating to the current implementation and ongoing development of the EMT initiative. Read the report of this meeting at: http://bit.ly/1SVHXJG. Follow the latest news on EMTs on Twitter, at #EMTAMERICAS and on the web at www.paho.org/disasters/emt.
Engaging Indigenous Peoples in Disaster Risk Reduction

In September 2014, PAHO and the Pacific Northwest Border Health Alliance (a cross-border and cross-jurisdictional public health preparedness and response network in the Pacific Northwest of the U.S. and Canada) convened a Hemispheric Consultation on Engaging Indigenous Peoples in Disaster Risk Reduction. The region-wide dialogue yielded consensus on a number of strategies for moving this initiative forward, including: participation and partnerships; education and raising awareness; legislation; disaster risk reduction and preparedness plans; and the use of traditional knowledge. The participants (from 11 countries in the Americas) endorsed recommendations for action for national authorities, indigenous populations and the international community, which have been compiled into the report “Recommendations for Engaging Indigenous Peoples in Disaster Risk Reduction.” Read the complete report and recommendations at: http://bit.ly/1qRczzf.

Following the meeting, one of the participants, Cecilio Solís, Director of the Indigenous Federation of Corporations and Local Communities, met with with 30 leaders of indigenous communities in the northeast Sierra Madre region of the state of Puebla, Mexico, to complete questionnaires and share experiences related to hazards in the region. This led to the development of a disaster risk management plan, with a focus on flash floods and landslides. The project has two principal components:

• Development of community preparedness and emergency response plans to:
  » Address basic concepts of disaster preparedness and risk reduction.
  » Raise awareness among leaders of the importance of community organization for sudden-onset floods and landslides.
  » Develop a matrix of phenomena and hazards affecting their community.
  » Develop community risk maps.

• Risk Communication: Radio messages on disaster prevention were recorded, addressing hydrometeorological (floods, flash floods, cyclones) and geological (landslides) phenomena, in seven indigenous languages: Nahuatl, Totonac, Tarahumara – Mayan, Tzeltal, Tlapanec, and Mazateco. Cartoon booklets were also prepared to educate children on the issue of unstable slopes and potential landslides.

In addition to training and empowering community leaders to play a key role in emergency preparedness and response, the workshop also strengthened ties between the local populations and national and international agencies such as Mexico’s National Disaster Prevention Center (CENAPRED), Civil Protection of the State of Puebla, the National Emergency Medical System, and UNDP’s Risk Reduction Program in Mexico.
Peru Updates its National Policy on Safe Hospitals

Peru’s Ministry of Health, working with EsSalud, the Health Social Security Service; the Health Department of the Armed Forces and Police; and the private sector, updated the nation’s Safe Hospitals Policy to cover a five-year period, through 2021. The update of this strategic document followed a thorough review of the progress achieved during the previous five-year Plan of Action (2010-2015) at national meetings with health service providers.

Peru has used the Hospital Safety Index to evaluate 90% of the hospitals belonging to the Ministry of Health and EsSalud. Based on these assessments, measures have been implemented to improve safety conditions, primarily in non-structural components and in the hospital’s functionality. Vulnerability assessments were conducted in 14 Ministry of Health hospitals in metropolitan Lima and six EsSalud facilities nationwide. EsSalud is preparing pre-investment studies to replace five of these hospitals, which the Hospital Safety Index rated as category C: a health facility where the lives and safety of occupants are deemed at risk during disasters.

Similar progress was made in developing the capacity of 730 health professionals from the Ministry of Health and 91 from EsSalud to apply the Hospital Safety Index; update design standards in primary care facilities, hospitals and other health facilities to meet safe hospitals criteria; incorporate non-structural safety measures; and in the use of base isolation and seismic trigger systems, as part of the National Building Code.

The updated Safe Hospitals Policy is pending approval at the national level. In the interim, work will continue to reduce disaster risk in health facilities and ensure their operational continuity at maximum capacity, in the same facility, during and after disasters. For more information contact Dr. Celso Banbären, PAHO/WHO at bambarec@paho.org.

Ecuador: Pilot Project on Incident Command Systems in Hospitals

The Ministry of Public Health of Ecuador, with support from PAHO/WHO, has trained a cadre of instructors to initiate a pilot Incident Command System in three health facilities. The Hospital Incident Command System is a tool for the optimal organization of all available resources, under one common system and plan of action. PAHO/WHO and technical staff in Ecuador adapted this methodology to Latin American countries and validated it in hospitals in Peru, Costa Rica, Colombia and other countries in the Region.

The pilot projects began in Ecuador in late 2015 with the training of 38 potential instructors from 29 public and private hospitals located in the country’s nine administrative divisions. For Santiago Tarpues, Disaster Management Advisor at the Ministry of Public Health, “this system operationalizes hospital emergency plans and promotes a coordinated response by hospital staff.” Subsequently, an Incident Command System was set up in three hospitals: in the Latacunga provincial hospital in the area surrounding the Cotopaxi volcano; in the Ambato General Hospital, which responds to health situations caused by the Tungurahua volcano; and the Abel Gilbert Ponton Hospital in Guayaquil, a referral hospital that may deal with a range of adverse events in the coastal region of Ecuador.

A six-month action plan was developed in these three hospitals. Activities include:

- Conducting an Incident Command System course for all hospital EOC staff.
- Developing protocols and incident action plans.
- Selecting triage sites and identifying staging areas.
- Establishing emergency response teams.
- Allocating administrative, financial and support functions.
- Testing the plan through simulation exercises and drills.

The accumulated experience gained will be applied to pilot projects in an expanded number of hospitals in Ecuador. For more information, contact Dr. Roddy Camino, PAHO/WHO, caminorod@paho.org.
Bolivia Establishes Country Humanitarian Team

Bolivia is the tenth country in the Americas to form a Humanitarian Country Team (HCT). The HCT is a mechanism to consolidate channels of communication; improve working relationships among diverse actors; and improve the management and analysis of information, including reporting and distribution. Although the primary responsibility for coordinating humanitarian assistance rests with national authorities, if international humanitarian assistance is required, a U.N. Humanitarian Coordinator will coordinate the efforts of humanitarian organizations (both U.N. and non-U.N.).

“The HCT enjoys high confidence for its ability to support the government to respond to any emergency, where everyone contributes his or her own abilities, knowledge and experience,” stated Mauricio Ramirez, U.N. Resident Coordinator in Bolivia. Added Oscar Cabrera, Deputy Minister of Civil Defense, “The HCT represents the support the State requires to fill the gaps that the government cannot cover, when so required.”

With the formation of a Humanitarian Country Team, PAHO/WHO and the Bolivian Red Cross reactivated the country’s Thematic Health Group—the technical arm of the HCT for emergency health matters. Key functions of the health group include: consolidating information on institutional resources (human, material and logistical); preparing terms of reference for the Sectoral Platform; and coordinating the inter-institutional response to the Zika virus. For more information, contact: Fabiola Michel, PAHO/WHO, michelif@paho.org.

Brazil: Unified Health System Strengthens Emergency and Disaster Management

With a view to enhancing the planning process and strategies to strengthen the Unified Health System’s (SUS) emergency and disaster response, the Department of Environmental Health Surveillance and Occupational Health of Brazil’s Ministry of Health has developed national plans and strengthened hazard-specific contingency plans for floods, drought and emergencies caused by chemical, biological, radiological and nuclear agents.

The International Health Regulations (IHR) and the incorporation of the priorities and goals set in the Sendai Framework for Disaster Risk Reduction, with particular emphasis on a multi-hazard approach, guide the work of the Ministry of Health with the different levels of SUS management and other stakeholders. This provides appropriate and timely support to the States and Municipal Secretaries of Health in disaster preparedness and response.

To achieve this goal the Ministry of Health and the Oswaldo Cruz Foundation initiated a project called “Multi-Risk.” The first step was to conduct a diagnosis of the disaster preparedness and response capacity of Brazil’s 26 states and their capitals and the Federal District. Data was collected from state health departments and civil protection staff. The questionnaire, completed through interviews, included 44 indicators and 46 sub-indicators, defined using technical information from the Ministry of Health; the United Nations Office for Disaster Risk Reduction (UNISDR); the Office for the Coordination of Humanitarian Affairs (OCHA), the Red Cross and PAHO/WHO.

Phase two of the project is underway and pilot interventions are being carried out in seven states and 15 municipalities to develop multi-hazard emergency plans that take into account the unique characteristics of each state. The results will be used to develop a guide for drafting emergency preparedness and response plans to reduce public health risks in disaster situations that will include disease surveillance, health promotion and health care.
DIMRC: Improving Access to Disaster Health Information

This is the first of a series of articles about the many resources that the U.S. National Library of Medicine’s Disaster Information Management Research Center (DIMRC) makes available to the disaster community. This first article provides an overview of the Center.

The United States National Library of Medicine (NLM), the world’s largest biomedical library, has a long history of providing health information, training, and tools in response to all types of disasters and public health emergencies. NLM promotes information management and access to health information resources as key components of disaster medicine and public health. The establishment of the Disaster Information Management Research Center (DIMRC) in 2008 reflects NLM’s commitment to this national and international priority. The core purpose of DIMRC is to develop and provide access to health information resources and technology for disaster preparedness, response, and recovery. The Center’s intent is to connect people to quality disaster health information and foster a culture of community resiliency.

DIMRC has made significant strides in the collection and dissemination of disaster health information, making it more readily available to first responders, crisis managers, health professionals, and the public.

DIMRC coordinates all of NLM disaster-related activities, including:

- The collection, organization, and dissemination of health information for all stages of preparedness, response, and recovery to natural, accidental, or deliberate disasters.
- Training and support for librarians to act as Disaster Information Specialists in meeting their communities’ needs. This includes developing core competencies, curriculum, and certification (administered by an association or university).
- Development, promotion, and training of disaster and emergency health resources (online and mobile) for health professionals and the public.
- Disaster-related informatics research and development projects both at NLM and through grants to other institutions.
- Development of innovative communications, training and other technologies and methodologies to support disaster preparedness and response.
- Collaboration with other government agencies involved in disaster health and medicine to ensure information needs receive adequate attention in planning for disasters and in providing education and training for responders.
- Planning and training for continuity of operations of libraries, including eight Regional Medical Libraries, and the 5,800 member-libraries of its National Network of Libraries of Medicine.

DIMRC also coordinates outreach and training on the use of NLM resources by disaster personnel and assists and collaborates with the international disaster information community. Other activities include:

- Publishing results from its own research and development activities.
- Promoting NLM partnerships with hospitals and libraries as collaboration models to enhance community disaster resilience.
- Promoting and supporting the development of an international network of disaster information centers in the Americas and the Caribbean (RELACIGER – www.relaciger.org)

NLM and PAHO have collaborated for many years in a variety of international projects, including the development of the RELACIGER network, enhancing the access to biomedical literature from the Pan American region, and more. For more information about DIMRC, please visit their website at http://disasterinfo.nlm.nih.gov or contact Stacey Arneson at arneses@mail.nih.gov.
Publications and Information Resources

All DIMRC information resources are available via the website http://disasterinfo.nlm.nih.gov

Some of the NLM/DIMRC resources for disaster and emergency personnel include:

- **Hazardous Materials Tools**: (Haz-Mat) and Chemical, Biological, Radiologic, and Nuclear (CBRN)
  - WISER, the Wireless Information System for Emergency Responders (http://wiser.nlm.nih.gov) also available as a mobile application for Android and iOS.
  - REMM, the Radiation Event Medical Management System (http://remm.nlm.gov), also available as a mobile app.
  - CHEMM, Chemical Hazard Emergency Medical Management (http://chemm.nlm.nih.gov), now included in the WISER app.

- **Subject Guides**
  - Disaster Health series with numerous resources on disaster topics and specific incidents for health professionals, such as up-to-date resources about the Zika virus and Ebola (https://disasterinfo.nlm.nih.gov/dimrc/disasters.html).
  - MedlinePlus, with nearly 40 subject pages on all-hazards topics for the public, in English and Spanish (http://medlineplus.gov).

- **Disaster Medicine and Public Health Literature**
  - Disaster Lit: The resource guide for disaster medicine and public health, with links to over 10,000 online publications, including guidelines, reports, websites, fact sheets, and training materials. More than 100 resources from the Pan American Health Organization are available in Disaster Lit. (http://disasterlit.nlm.nih.gov).
  - PubMed, with more than 40,000 biomedical journal articles on disaster topics from 5,000 journals, including more than 20 journals exclusively on disaster and emergency medicine (http://pubmed.gov).
  - The NLM catalog with well over 1,000 publications on disaster topics related to medicine.

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**In Memory of Julie Leonard**

PAHO/WHO, together with many in the international disaster community, was deeply saddened to learn of the passing of Julie Leonard, our USAID/OFDA colleague of more than 15 years. Many of us had worked closely with Julie as a partner and a strong supporter of humanitarian efforts in this Region—during the aftermath of the earthquake in Haiti, following Hurricane Ivan in Grenada, and in so many other difficult situations. Julie’s legacy will be her generosity of spirit and ability to make a difference to so many people. We were privileged to have known her, worked side by side with her, and shared her commitment to improving the lives of those affected by disasters.
Upcoming Events


This year’s program focuses on inclusive resilience strategies and adaptation planning, financing the resilient city, measuring and monitoring progress, resource management, and more.

6th International Disaster and Risk Conference Davos 2016
August 28-1 September 2016, Davos, Switzerland. International Disaster Research Centre. http://idrc.info

IDRC Davos 2016 contributes to the post-Sendai process and will cover cross-cutting themes such as resilience; urban and underlying risks; mega catastrophes; sustainable development; climate change adaptation; and more.

CONCEPTOS in Emergency Medicine 2016 (CONCEPTOS 2016)
1-3 September 2016, Santiago, Chile. University of Chile. http://urgenciauc.cl/Concepts

The symposium will cover a wide variety of emergency medicine topics of interest to the medical community. On the clinical side, issues ranging for poisoning to sepsis to severe trauma in children; on the public health side, topics ranging from emerging vector-borne diseases to severe infections in HIV patients.

6th International Conference on Building Resilience 2016: Building Resilience to Address the Unexpected

The annual International Building Resilience Conference series brings together researchers, educators and industry practitioners involved in natural hazards and disaster resilience across the globe.

Habitat III
17-20 October 2016, Quito, Ecuador. https://www.habitat3.org/

Habitat III is a United Nations conference on housing and sustainable urban development.