



DISASTERS

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Preparedness and Mitigation in the Americas

September 2019 Issue 129



Patient being evacuated from Rand Memorial Hospital in the city of Freeport, Grand Bahama, in a United States Navy helicopter.

Humanitarian aid and reestablishment of health services: a priority in Bahamas in the wake of Hurricane Dorian

Hurricane Dorian, a category 5 storm, and the strongest on record in northwestern Bahamas, made landfall on 1 September at Elbow Cay (Grand Abaco).

The 295-kilometer-an-hour winds, high surf, and intense rain and flooding caused by the hurricane had devastating consequences for water and communications systems and, most importantly, for health facilities, significantly affecting care and provision of services to the population.

Before, during, and after the emergency, the Pan American Health Organization (PAHO) deployed its Disaster Response Team, providing 20 experts on support, logistics, civil-military coordination, information management, epidemiological surveillance, mental health, incident management, and water and sanitation.

As of 20 September, Dorian is estimated to have caused over US\$7 billion in property damage, including damage to

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Editorial

Safe hospitals in Mexico: an example in health disaster risk reduction

On 21 December 2009, the United Nations General Assembly designated 13 October as International Day for Natural Disaster Reduction in an effort to motivate governments and the general public to take the necessary steps to minimize risks and the occurrence of disasters, in particular those related to climate

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A doctor from the Samaritan's Purse EMT cares for an infant at the group's field unit. The EMT was supporting Rand Memorial Hospital in Free Port, Grand Bahama, that was affected by floods caused by Hurricane Dorian.

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Humanitarian aid and reestablishment of health services: a priority in Bahamas in the wake of Hurricane Dorian

thousands of dwellings. Some 76,000 people were affected, with 1,889 housed in ten shelters. The death toll has risen to 52, but the figure is expected to increase as waters recede. The fate of at least 1,300 missing people will become known as places that have been impossible to reach become accessible, and as search and rescue operations continue. In New Providence, 8,000 people were evacuated, and 2,000 remain in shelters.

Massive flooding and the foreseeable damage to water, sanitation, and health infrastructure are currently the priority of

the government of Bahamas and PAHO technical assistance. The population is at serious risk of diseases transmitted by unsafe water, as well as and vector-borne diseases such as dengue and malaria.

According to reports from health facilities, four of the 12 clinics on Grand Bahama are in operation, while one is partly functional, four not functional, and three destroyed. Seven of the eight clinics on Abaco are functional. Although one clinic was destroyed, it continues to provide services at a nearby beach home.

The Rand Memorial Hospital on Grand

Bahama suffered a serious loss of equipment and supplies, and required not only a major cleaning but also complete disinfection after the flood. Seventy nurses and three emergency physicians work at the hospital.

“Our priority concerns are to reestablish access to essential health services and ensure uninterrupted delivery of medical care, to guarantee water quality in the affected communities and at the health centers, and to restore proper hygiene and sanitation,” said Ciro Ugarte, Director of the PAHO Health Emergencies Department. He explained that an international appeal

for US\$3.5 million has been issued, US\$1.3 million of which is earmarked to reestablish the delivery of medical care; US\$500,000 for surveillance, detection, and management of disease outbreaks; US\$800,000 for access to safe water, emergency sanitation, and vector control; and US\$671,000 for information management, coordination of humanitarian assistance, and response to the most urgent needs that may arise.

Health workers have had difficulty reaching their units and have made extraordinary efforts to meet the high demand for health services. As part of the response effort, facilities were obtained for surgeons, anesthesiologists, pathologists, midwives, family doctors, psychiatrists, and emergency nurses working in shifts. Psy-

chological support has been required for these workers, as well as lodging.

Health workers in New Providence—the most populous island in Bahamas—and on other unaffected islands were waiting to be transported to Grand Bahama and Abaco to relieve professionals exhausted after days of intense work. Only emergency services were functioning at Princess Margaret Hospital in New Providence.

In addition, a medical information and coordination cell was established in the disaster zone. Among its activities, it activated several emergency medical teams (EMTs): Samaritan Purse (a type 2 EMT), located near Rand Memorial Hospital; Rubicon (a type 1 mobile EMT), deployed on Harbour Island; Heart to Heart Interna-

tional (a type 2 EMT) on Treasure Cay and at Marsh Harbour; and Humanity First (a type 1 fixed EMT) at Marsh Harbour.

The coordination and care work of the United Nations system, principally under PAHO responsibility, are working in close collaboration with the Ministry of Health of Bahamas, the National Emergency Management Agency (NEMA), the Caribbean Disaster Emergency Management Agency (CDEMA), the Caribbean Public Health Agency (CARPHA), and other actors such as the Multinational Caribbean Coordination Cell (MNCCC), which includes CDEMA and military personnel from the Netherlands, Canada, Britain, and the United States, along with the Royal Bahamas Defence Force. 🌐



Manuel Cruz, an architect with the PAHO/WHO Regional Response Team, inspecting the Fox Town Community Clinic, accompanied by the clinic's managers.

Safe hospitals in Mexico: an example in health disaster risk reduction

change. In 2016, the United Nations Secretary General launched the “Sendai Seven” campaign to promote seven goals, one by one, over the campaign’s seven year duration. The 2019 goal, Goal D, is to “substantially reduce disaster damage to critical infrastructure and disruption of basic services, among them health and educational facilities, including through developing their resilience by 2030.”

In this context, we return to the “Hospitals Safe from Disasters” initiative launched at the Second World Conference on Disaster Reduction (Kobe, Japan, 2005). The greatest impact of this initiative has been in its use as an indicator of reduced physical and functional vulnerability in health facilities under normal conditions, and before, during, and following an adverse event.¹

The Region of the Americas experienced 2,870 natural disasters between 1985

and 2019, affecting over 331 million people; 2,712,257 suffered injury and 392,578 died. The cost of the resulting damage totaled US\$1,367,506,390.²

Many of the deaths occurred because the health systems were not prepared for effective response. Health services infrastructure was subject to continuing damage, which left the affected population unable to access care. Response capacity and preparedness were poor.

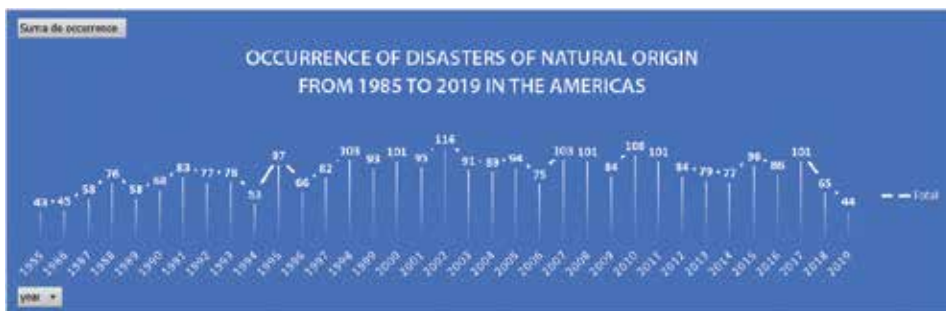
According to the Economic Commission for Latin America and the Caribbean (ECLAC), damage to health services infrastructure was responsible for losses of over US\$3.12 billion in the countries of the Americas over a period of 15 years. Indirect losses are estimated to be considerably greater, with increased health costs for millions of people who went without medical care for an extended period.

We now know that over half the Region’s health facilities are located in areas at risk of exposure to a variety of natural phenomena.³

It is important to emphasize that disaster risk reduction is a systematic effort by countries, supranational agencies, civil society organizations, and local communities to analyze the factors that cause these disasters and reduce them.⁴

For the Americas and for much of the world, Mexico is an example of the progress that can be made by determined technical work specifically focused on preparedness for major disasters, such as that conducted in the country over three decades.

In the earthquakes of September 1985, of the 2,831 buildings that suffered structural collapse, 50 were medical care units. Between the General Hospital of Mexico and the Hospital Juárez de México facilities alone, 1,200 beds were lost.⁵ The National Disaster Prevention Center (CENAPRED) calculates that 2,035 secondary care beds and 3,261 tertiary care beds were lost in Mexico City in 1985, which is equivalent to approximately 29% of the 17,965 beds available before the disaster. ECLAC estimated the death toll at 26,000; the Civil Registry of



1 United Nations International Strategy for Disaster Reduction Risk (UNISDR), Hospitals Safe from Disasters [Internet], Geneva: EIRD; 2008 [accessed 28 August 2019]. Available at: <https://www.unisdr.org/2009/campaign/pdf/wdrc-2008-2009-information-kit.pdf>.

2 Centre for Research on the Epidemiology of Disasters. EM-DAT The international disaster database [Internet]. Bruselas: School of Public Health Université catholique de Louvain Clos Chapelle-aux-Champs; 2017 [cited 1 September 2019]. Accessed at: <http://www.emdat.be/Database>.

3 Knowledge Center on Public Health and Disasters. Disaster risk reduction in the health sector. Cost-benefit analysis of disaster mitigation in health services. [Internet], Washington D.C.: 2014 [accessed October 2019]. Available at: http://www.saludydesastres.info/index.php?option=com_content&view=category&layout=blog&id=135&Itemid=658&lang=en.

4 United Nations Office for Disaster Risk Reduction (UNDRR). What is disaster risk reduction? [Internet]. 2019. Available at: <https://www.unisdr.org/who-we-are/what-is-drr>.

5 Documentation and Archives Center of the Secretariat of Health. El Terremoto de México de 1985. Efectos e Implicaciones en el Sector Salud. México. Valdés Olmedo C, Martínez Narváez G. Available at: <http://cidbimena.desastres.hn/pdf/spa/doc7499/doc7499-contenido.pdf>.

Mexico City estimated 12,000. Over 1,000 deaths, including deaths of health workers,⁶ are estimated to have occurred inside of health care facilities.

In September of 2017, 32 years later, the earthquakes that hit Mexico caused only 396 deaths, none of them in health care facilities. Moreover, although health sector infrastructure was affected, only 952 beds were made unavailable (2.9% of 34,022 beds). There were no structural collapses of hospitals and, although seven did suffer structural damage, they fulfilled one of the Safe Hospital principles: protecting the lives of their occupants.^{7,8}

A comparison of the two events based on ECLAC data shows losses of close to US\$4 billion in 1985, equivalent to US\$9 billion in today's currency considering exchange and inflation rates, while total damage in 2017 was US\$6 million, according to EM-DAT (The International Disasters Database).⁹ Cost-benefit analysis of mitigation strategies varies according to the type of adverse event, building type, and timeliness of intervention, since the sooner safety measures are taken in a health facility the more cost-effective they prove.

The inclusion of earthquake safety measures (antiseismic structures) can

increase overall construction cost by 2-4% (for infrastructure and equipment), while the cost of reinforcing existing facilities for earthquake resistance can average 8-15% of a facility's total cost.¹⁰


As the "Safe Hospital" initiative has progressed, hospitals have come to be seen as a part of the national strategic infrastructure for emergency and disaster response. Based on the initiative's positive impact in the Region, PAHO now promotes hospital construction based on more stringent regulations and requirements that consider geographical location, incorporating climate adaptation and mitigation elements, following a standard design to ensure that they are accessible to everyone, and implementing a risk management program as soon as they begin operation.¹¹

This has facilitated successful piloting of the "resilient hospital" concept in designated health facilities. In addition, discussions now focus on the evolution of health systems effective commitments to users and workers, and comprehensive care that includes a focus on persons with disabilities.¹²

A new definition accompanies this conceptual change. A resilient hospital is a health facility whose services remain accessi-

ble and function to their maximum capacity with the same infrastructure during and immediately after the onset of an emergency or disaster of any origin, magnitude, intensity, or sequelae, by expanding the capacity of the facility's critical services, reducing its carbon footprint impact, and including persons with disabilities in risk management.¹³

This resiliency approach gives a facility the ability to resist, assimilate, adapt to, and recover from the impact of an adverse event in a timely and efficient way by both preserving and restoring its structures and functions through comprehensive risk management, while effectively implementing the multi-hazard approach, multi-sectoral action, inclusion of persons with disabilities, and multicultural focus as described in the Sendai Framework for Disaster Risk Reduction 2015-2030.¹⁴

For this reason, we promote continued construction of stronger health systems and safe, smart, and resilient hospitals. 

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6 Secretaría de Salud (SSA). 1985. El terremoto del 19 de septiembre. [Internet]. Mexico. 2018. [Consulted 6 September 2019]. Available at: <https://www.gob.mx/salud/75aniversario/articulos/1985-el-terremoto-del-19-de-septiembre>.

7 Secretaría de Salud (SSA) Informe sobre las acciones realizadas ante el sismo del 19 de septiembre. [Internet]. Mexico. 2017. [Consulted 6 September 2019]. Available at: <https://www.gob.mx/salud/prensa/informe-sobre-las-acciones-realizadas-ante-el-sismo-del-19-de-septiembre>.

8 Centro de Estudios Demográficos Urbanos y Ambientales [Center of Urban and Environmental Demographic Studies]. Los Sismos de Septiembre y la Salud en México. Frenk J, González MA, Sepúlveda J. Estudios demográficos y urbanos. 1987;2(1):121-39. [consulted 29 August 2019]. Available at : <https://estudiosdemograficosyurbanos.colmex.mx/index.php/edu/article/view/619> doi. org/10.24201/edu.v2i1.619.

9 Economic Commission for Latin America and the Caribbean (ECLAC/CEPAL) – Environment and Development Series, No. 157. Assessment of the effects of disasters in Latin America and the Caribbean, 1970-2010. Omar Bello, Laura Ortiz. A United Nations José Luis Samaniego Publication. ISSN 1564-4189. September 2014. Santiago, Chile.

10 Knowledge Center on Public Health and Disasters. Disaster risk reduction in the health sector. Cost-benefit analysis of disaster mitigation in health services. [Internet], Washington D.C.: 2014 [accessed October 2019]. Available at: http://www.saludydesastres.info/index.php?option=com_content&view=category&layout=blog&id=135&Itemid=658&lang=en.

11 Plan of Action for Disaster Risk Reduction 2016-2021, adopted by the 55th Directing Council of the Pan American Health Organization (PAHO).

12 Terminology on Disaster Risk Reduction. [Internet]. 1st ed. Geneva: International Strategy on Disaster Risk Reduction; 2017 [cited 27 September 2017]. Available at: http://www.unisdr.org/files/7817_UNISDRTerminologyEnglish.pdf.

13 Nueva etapa, hospital seguro y resiliente. Cruz Vega F, Elizondo Argueta S, Sánchez Echeverría J, Loria Castellanos J, Cortes Meza H. Arch Med Urgen Mex Vol 10 No. 1, January April 2018 pp. 27 – 30

14 United Nations Office for Disaster Risk Reduction (UNISDR), "Sendai Framework" [Internet], Washington, D.C.: UNISDR; 2015 [consulted 11 June 2017]. Available at: https://www.unisdr.org/files/43291_sendaiframeworkfordrren.pdf.

Heat waves: Is the health sector prepared?

Heat waves mostly kill people already at risk, such as those with acute and chronic illnesses who take medication, but also people who engage in outdoor activities (sports or work), and even children and elderly people who spend time in vehicles or outdoors during the hottest parts of the day.

According to the World Health Organization and the World Meteorological Organization, a heat wave is defined as an

unusually hot period lasting at least three days that impacts human beings and natural systems.

Although not a disaster that causes damages on the scale of a major earthquake or hurricane, a heat wave affects health, agriculture, and livestock, and tends to occur at the same time as electric power outages, forest fires, and drought, which have consequences for food production

and livelihoods, creating disruptions in a society's operation. According to the United States Centers for Disease Control and Prevention, heat waves cause more deaths than other natural disasters.

After the mega-heat wave that hit 16 European countries in 2003, causing an estimated 70,000 deaths, there has been an increase in the magnitude, duration, and intensity of heat waves at the global level. This has also led to a sharp increase in the demand for ambulances and emergency services, as was seen in Japan in July 2019, where a heat wave caused 57 deaths and 18,000 hospital visits in a one-week period.

In 2019, alerts have been issued in Argentina, Bahamas, Bolivia, Brazil, Canada, and the Dominican Republic, among other countries in the Region of the Americas, and heat waves are predicted for the summer of 2019-2020 in the southern hemisphere that may increase heat stress on the population, potentially causing health problems.

The heat waves with the greatest impact in the Americas were in Brazil in 2010, with a death toll of 737 over 10 days, and in Argentina, where 1,877 people died in three heat waves between December 2013 and February 2014. These events lasted an average of 6.1 days and led to massive power outages.

Heat can cause severe symptoms such as heat exhaustion and heat stroke (a condition in which inability to control high body temperature causes hot, dry skin and loss of consciousness). Most deaths are due to



a worsening of cardiopulmonary, kidney, endocrine, and psychiatric diseases. Mild symptoms include swelling in the legs, rashes on the neck, cramps, headache, irritability, lethargy, and weakness.

Response to heat depends on an individual's adaptability. Serious consequences appear suddenly, so it is very important to be attentive to alerts and recommendations from local authorities.

However, the health sector has limited capacity to respond to extreme heat waves affecting the Region. Health workers are not familiar with this risk, nor are they trained to prevent and manage illnesses caused by heat. Health facilities lack drugs, supplies, medical supplies, and equipment. Their protocols do not include heat-related illness as a differential diagnosis, and there is little public awareness of this risk, which leads to failure to take self-care measures such as staying in cool places and avoiding the sun.

Given this threat, the Pan American Health Organization prepared a guide to help the countries of the Americas develop contingency plans for heat waves. The guide provides recommendations that health-sector and meteorological agencies can follow to ensure better preparedness and response to this hazard, thereby promoting health, preventing adverse effects on people, and saving lives.

The guide and communication materials are available at: <http://bit.ly/pahoheatwave>. 

Evidence Aid: How does the creation of networks linking researchers and health professionals help combat the Ebola outbreak?

The Democratic Republic of the Congo (DRC) is at a critical point in managing the recent outbreak of Ebola virus disease (EVD). Institutions such as the World Health Organization (WHO) are allocating resources to mitigate the outbreak. A contribution by Evidence Aid provides support in the form of an online resource (www.evidenceaid.org/Ebola) that summarizes and translates evidence from systematic reviews of current practices and interventions related to this viral disease.


After the most recent and fatal EVD outbreak (in West Africa in 2014-2015) a considerable number of research studies were published. However, access to research at the global level for people providing medical care or for those assisting in the humanitarian sector is a problem. The information is often published in journals that are not available to the public, and reports are scattered so that they are difficult to find and to assimilate for use.

The Evidence Aid Ebola collection currently offers 37 systematic reviews. These are summarized, labeled (for easy search engine recovery), and translated into French and Spanish (thanks to collaboration by Translators without Borders) for wider geographical distribution.

The collection is continually updated (most recently on 4 July 2019) and has been revised twice since its creation in 2014 as a response to the 2013 outbreak. The majority of the systematic reviews included are on seroprevalence and diagnostic techniques, possible drugs, vaccines, and various analyses of the causes and effects that EVD has had in the affected countries.

The subjects (available since 9 July 2019) on which Evidence Aid has identified systematic reviews are listed as: Epidemiology (7); Health workers and Ebola (5); Health systems and outbreak management/surveillance (10); Patient management (8); Persistence and seroprevalence studies (4); Pregnancy and Ebola (2); and Research in Ebola settings (1).

The objective of Evidence Aid is to promote the use of solid evidence on systematic reviews in the humanitarian sector. Evidence Aid saves lives by advocating use of the best evidence, and has been successful in disseminating the Ebola collection in the DRC through the African Index Medicus (AIM), which is part of WHO.

The collection will be expanded even further to include updated studies on EVD to provide assistance in managing the current DRC outbreak as well as future outbreaks. 

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Global meeting of Emergency Medical Teams discusses strategic actions to strengthen the initiative

Thailand was the site of the third Global Meeting of Emergency Medical Teams (EMTs), which dealt with setting priorities, developing minimum standards of action in operational terms, possible collaboration with other initiatives, and strengthening EMT capacities at the local, national, and regional levels. Over 500 participants attended the meeting, including 55 from the Region of the Americas.

The meeting was a platform for the six regional EMT secretariats, along with representatives and delegates of other nongovernmental organizations (NGOs), to discuss key matters and strategy for the progress of the EMT initiative. The main forum was attended by the Member States, and the plenary sessions focused on their efforts in two specific areas: implementing the medical information and coordination cell (CICOM) methodology and strengthening local response and regional EMT networks.

In relation to CICOM, there was discussion of the need to develop virtual and technological tools that facilitate information sharing and decision-making to guarantee early and safe medical care, improve coordination between ministries of health and EMTs, facilitate request/acceptance processes for accelerated EMT deployment, and map regional and national capacities (including EMTs, other response teams, and health care facilities).

Standardized online training platforms and/or programs will be developed to train professionals on the principles, technical aspects, and abilities required to be part of an EMT; to strengthen regional and/or national mechanisms and tools that facilitate early warning and information sharing among the Member States; and to create applications for the management of standardized electronic medical records that optimize the management of information in EMTs, especially in response to disease outbreak scenarios.

The regional group for the Americas was represented by the focal points of the Member States, as well as NGOs and key members from Argentina, Bolivia, Brazil, Canada, Chile, Colombia, Costa Rica, Cuba, Ecuador, Jamaica, Haiti, Mexico, and the United States. 📍



Dominican Republic

Authorities receive training in health emergency response in the multi-hazard framework

The Ministry of Public Health, with the support of the Pan American Health Organization, conducted a workshop on “Development of an operational model for managing health emergency response with a multi-hazard approach, within the national response framework and focusing on the organization of the health sector.”

During the workshop, the participating authorities developed and updated their respective emergency response mechanisms using the multi-hazard approach. This approach is innovative in that it addresses issues common to different types of emergencies, reducing duplication of efforts, plans, and resources.

They also created a road map for participating institutions to work on their operational health emergency response model within the multi-hazard framework in ways that are coherent with their national realities.

The workshop included representatives of the Ministry of Public Health, National Health Services, Emergency Operations Center (EOC), Civil Defense, Red Cross, Ministry of Agriculture, Ministry of Environment, and Armed Forces.

The three-day training was provided by the Health Emergencies Department team from PAHO Headquarters in Washington, D.C., composed of Dr. Juan Carlos Sánchez, consultant; advisors Alex Camacho, Roberta Andraghetti, and Enrique Pérez; and, as national counterpart, Dr. Martín Acosta, PAHO’s national consultant in the Dominican Republic.

The workshop was opened by Vice Minister of Health Public Dr. Héctor Quezada, representing the Minister of Public Health, Dr. Rafael Sánchez Cárdenas, and by Dr. Hans Salas, PAHO Advisor on Disease Prevention and Control, representing Dr. Alma Morales, PAHO Representative in the Dominican Republic. 📍



Barbados

Barbados team classified by WHO as the first Emergency Medical Team in the Caribbean

The Barbados Defense Force (BDF) achieved the verification of the World Health Organization (WHO) as the first International type 1 Fixed Emergency Medical Team (EMT), in the Caribbean. As a team of military origin, it also became the first of its kind in the Americas to achieve this recognition from WHO.

The WHO verification process is a peer review of an EMT's capability to ensure that a medical team can provide internationally accepted minimum standards of safe clinical care in emergencies. Ten international experts, led by PAHO personnel, participated in the verification, evaluating the


team's procedures as well as assessing the skills and equipment necessary for the international deployment of a type 1 Fixed EMT.

The BDF EMT is capable of operating from a fixed structure, providing clinical care for up to 100 outpatients a day for seven days a week, with a wide range of health services that includes triage, first aid, stabilization and remission of serious injuries.

Since the beginning of 2018 PAHO, along with the assigned mentors, supported the BDF EMT in achieving this milestone. The mentoring team consisted of clinical and logistics experts from the Costa Rican Social Security Fund EMT, classified globally

as a EMT Type 1, and a surgical expert from Argentina.

As part of the pre-verification, the team deployed to St. Vincent and the Grenadines, and participated in the "Tradewinds" regional exercise, conducted from 16 to 21 June, to test the standard operating procedures (SOPs) of their type 1 EMT.

The BDF EMT will be able to quickly respond in case of emergencies and disasters in the Caribbean and to deploy in time to meet the immediate health needs of the affected populations. This is the fourth EMT to receive this designation in the Region of the Americas. 

The Smart Health Facilities project enters its second phase of implementation



Completed modernization work at the Chateaubelair Hospital in Saint Vincent and the Grenadines, 19 February 2019.

In May 2019, Phase II of the Smart Health Care Facilities began its fourth year of implementation with notable achievements. More than 1,000 people from seven countries are beneficiaries of the Caribbean Action Plan on Health and Climate Change, which will increase resiliency to disasters and reduce health facilities' carbon footprint and environmental impact.

The plan, financed by the Department for International Development (DFID) of the United Kingdom, has increased the capacity to evaluate medical care facilities in the Caribbean region and improved resistance to disaster impacts by employing smart (safe and ecological) construction standards. Also, a road map was created for future investments.

These achievements were aided by the development of a smart hospitals tool, the online publication of technical materials, and the creation and distribution of a disaster contingency plan template for health centers.

Personnel have been trained in evaluating the Hospital Safety Index (HSI) and

the Green Checklist, which covers conservation of water and electricity, planning for contingencies, a baseline evaluation tool, the CARCEP comparative energy evaluation tool, market commitments with local contractors, and training of auxiliary staff.

With the updating of the HSI and the Green List training in three countries, preparedness numbers are expected to increase until the end of the project. The ambitious objective is to adapt 50 health care facilities in a region that experienced 17 storms in 2017 (10 of which became hurricanes, six of them major hurricanes).

Designs to modernize 25 of the 50 facilities have been completed, and work has been done in 11 of these facilities. A University of Florida case study on the role of economic information in decision-making related to medical care, which includes data on the Smart Health Care Facilities project, indicated that ministries of health prefer multiple small investments. It was also discovered that this increases facilities' ability

to function interdependently in disaster response and that it improves access to the health system. Now in the middle phase of its cycle, the project is devoted to accelerating the design and modernization of the 50 medical care facilities.

The capacity of this project to provide more protection against disasters and climate change for the countries in and outside of the Region will continue as external relationships are formed.

To date, all the beneficiary countries (Belize, Dominica, Grenada, Guyana, Jamaica, Saint Lucia, and Saint Vincent and the Grenadines) have created road maps for future investments. In addition, the British Virgin Islands, Sint Maarten, Fiji, Paraguay, and Peru have decided to implement smart standards at some level.

The project was presented by Saint Lucia at the World Health Assembly and it was adopted by WHO. 🌐



Saint Lucia's Prime Minister inaugurated the Desrousseaux Health Center after completion of modernization work, on 9 November 2018. In June 2019 three other similar health centers were completed.

Response to the Zika virus epidemic

December 2015 – 2016

This report, which covers the period from December 2015 to December 2016, describes the response of the Pan American Health Organization (PAHO is the Regional Office for the Americas of the World Health Organization) to the Zika virus (ZIKV) epidemic in the Americas, and describes some of the achievements made during this period.



More information at: <http://bit.ly/zikaRespAmer15-16>.

Health sector multi-hazard response framework

This document was developed in response to the expressed desire of the Member States of the Pan American Health Organization to improve their health emergency and disaster response preparedness. This is in accordance with the general objectives of the Sendai Framework for Disaster Risk Reduction 2015-2030 and with the commitment of the PAHO Member States to applying, implementing, and meeting the International Health Regulations (IHR).

More information at: <http://bit.ly/mrfra>.

Influenza and other respiratory virus surveillance systems in the Americas, 2017

This publication is a compilation of information on the existing surveillance systems for respiratory viruses in the countries of the Region of the Americas. It is an updated version of the 2014 publication entitled “Influenza and other respiratory virus surveillance systems in the Americas, 2014.” The 2016-2017 version has two sections: Regional Analysis, and Country Analyses. The regional

section includes regional data, maps showing the existing capacities in the Region, and the frequency with which data are reported to FluID and FluNet. The country-specific section includes epidemiological surveillance information and laboratory information.

More information at: <http://bit.ly/issy2017>.

Guidance document on migration and health

This document was developed as resource for the Member States in addressing the migration-related challenges facing public health and health systems, including health promotion and the protection of migrants throughout the migratory process. It also is designed to help integrate the health needs of migrants in national policies, strategies, and programs in order to protect not only the health of this population, but also the health of the receiving population.

More information at: <http://bit.ly/migrhealth>.

Hospital Safety Index guide for evaluators and evaluation forms

The guide for evaluators, used to determine the hospital safety index, provides a step by step explanation of how to use the checklist, and explains how the evaluation can be used to classify structural and nonstructural safety, and a hospital’s emergency and disaster management capacity. The results of the evaluation can be used to calculate a facility’s hospital safety index. The hospital safety index can be applied not only individually, but also collectively, either to a network of public or private hospitals or to an administrative or geographical area.

More information at: <http://bit.ly/hsindex2>.

Guidelines for surveillance of Zika virus disease and its complications

This guide seeks to orient implementation of Zika virus disease surveillance. It is based on the experience acquired in the current epidemic in the Region of the Americas. The document provides a general, though not exhaustive, guide to surveillance activities. Each country will need to adapt it to its

own capacities, epidemiological situation, and health system. The guide also includes a brief clinical description of the disease, its neurological manifestations, and congenital Zika virus syndrome, based on available information, with a view to correctly reporting suspected cases. Case definitions and

laboratory detection and diagnosis procedures are proposed.

More information at: <http://bit.ly/guivzika>.

Upcoming Events

6th International Conference on Disaster Management and Human Health Risk: Reducing Risk, Improving Outcomes

25-27 September 2019/Ancona – Italia

<https://www.wessex.ac.uk/conferences/2019/disaster-management-2019>






These conferences began in response to the need for academics and professionals to share knowledge and experiences on how to handle the growing risk of natural and human-made disasters. It is important to understand the nature of these global risks in order to develop strategies to prepare for such events, and to plan effective disaster management responses.


Consultative workshop on local disaster risk reduction strategies

1-2 October 2019/Korea

<https://www.preventionweb.net/go/67282>

The United Nations Office for Disaster Risk Reduction (UNDRR) is collaborating with partners to help national and local governments accelerate action to develop disaster risk reduction strategies at the national and local levels by 2020. Among other things, the workshop aims to: evaluate progress on reaching the goal in the Asia-Pacific region, identify challenges, and take advantage of the experiences and lessons of the UNDRR and associated organizations.

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