













Final End-of-Biennium 2018-2019 and Strategic Plan 2014-2019 Assessment Report

Category 5: Health Emergencies

Table 1. Category 5 Programmatic Summary

Program area	Rating 2014-2015	Rating 2016-2017	Rating 2018-2019	Output indicator rating	Outcome indicator rating
5.1 Infectious hazard management	n/a	n/a		4/5 achieved 1/5 partially achieved	1/1 no rating
5.2 Country health emergency preparedness and the International Health Regulations (2005)	n/a	n/a		3/7 exceeded 2/7 achieved 1/7 partially achieved 1/7 not achieved	1/2 exceeded 1/2 no rating
5.3 Health emergency information and risk assessment	n/a	n/a		2/3 exceeded 1/3 not achieved	1/1 achieved
5.4 Emergency operations	n/a	n/a		3/9 exceeded 6/9 achieved	1/1 exceeded
5.5 Emergency core services	n/a	n/a		2/6 exceeded 3/6 achieved 1/6 not achieved	1/1 exceeded
5.6 Disaster risk reduction and special projects	n/a	n/a		2/5 exceeded 2/5 achieved 1/5 partially achieved	1/1 partially achieved
5.7 Outbreak and crisis response				5/5 exceeded	1/1 achieved
Category 5 summary				17/40 exceeded 17/40 achieved 3/40 partially achieved 3/40 not achieved	3/8 exceeded 2/8 achieved 1/8 partially achieved 2/8 no rating

 Met expectations  Partially met expectations

Note: The rating of program areas for 2014-2015 and 2016-2017 was done using the original programmatic structure of the Strategic Plan 2014-2019. The rating for 2018-2019 follows the 2017 amended version of the Strategic Plan.

Overview of the Category

Category 5 focuses on strengthening country capacities in prevention, risk reduction, preparedness, surveillance, response, and early recovery in relation to all types of human health hazards that may result from emergencies or disasters. Particular attention is given to capacities that come under the requirements of the International Health Regulations (IHR) 2005. Work in this category aims to strengthen hazard-specific capacity building in relation to a range of diseases with the potential to cause outbreaks, epidemics, or pandemics, as well as in relation to chemical and radiologic emergencies, natural hazards, and conflicts. It considers the human security approach to building coherent intersectoral policies to protect populations and empower people to increase community resilience against

critical and pervasive threats. In addition, this category includes coordinated international health assistance to help Member States of the Pan American Health Organization (PAHO) respond to emergencies when required.

With 85% of output indicators and 67% of outcome indicators rated as exceeded or achieved during the 2018-2019 biennium, Category 5 is considered to have met expectations. All seven program areas have demonstrated significant progress and achievements, though three of them only partially met expectations. The category had 80% budget implementation and 99% of available funds implemented (combined for base and special programs and emergencies segments of the Program and Budget).

A major effort for the category and the Organization as a whole during the biennium was supporting the response to the situation in Venezuela and associated humanitarian problems within that country and the neighboring countries of Brazil, Colombia, Ecuador, Guyana, Peru, and Trinidad and Tobago. While this situation brought many challenges, it also provided an opportunity to advance on aspects of the program of work, particularly the control and prevention of epidemic- and pandemic-prone diseases, with an emphasis on vaccine-preventable diseases, as well as a wider agenda on mass migration and health. Among the highlights were mobilization of over US \$34 million¹ to support the preparedness and response efforts; deployment of over 120 staff and experts on multidisciplinary technical field missions, including missions through the Global Outbreak Alert and Response Network (GOARN); organization of regional and subregional workshops on various related technical topics; and convening of a high-level ministerial meeting on mass migration and health.

During 2018-2019, the Pan American Sanitary Bureau (PASB) continued its collaboration with Member States to improve their disaster management capacities within the context of the plans of action for disaster risk reduction and coordination of humanitarian assistance. PASB also supported national response operations following disease outbreaks, migration crises, floods, volcanoes, social unrest and violence, and chemical contamination in 27 countries and territories.

Programmatic Implementation by Outcome

5.1 Infectious Hazard Management

Overview

This area of work aims to support countries in the surveillance, prevention, and control of high-risk diseases with pandemic and epidemic potential (e.g., viral hemorrhagic fevers, influenza and coronaviruses, arthropod-borne viruses, and bacterial diseases). It does so through forecasting, characterization of diseases and infectious risks, and development of evidence-based strategies to predict, prevent, detect, and respond to infectious hazards. This includes developing and supporting prevention and control strategies, tools, and capacities for high-threat infectious hazards; establishing and maintaining expert networks to leverage international expertise to detect, understand, and manage new or emerging high-threat infectious hazards; as well as providing PASB support for the management of the Pandemic Influenza Preparedness Framework.

Main Achievements

- In the External Quality Assessment Program (EQAP) for arboviruses, the average concordance with expected results increased by almost 20% in 2018-2019 over 2017-2018. This most recent EQAP for arboviruses also saw

¹ All dollar amounts are US dollars unless otherwise indicated.

an increase in the number of participating laboratories and countries, from 14 laboratories in 14 countries in 2017-2018 to 22 laboratories in 21 countries in 2018-2019 (Argentina, Bahamas, Barbados, Belize, Bolivia, Brazil, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, Guyana, Honduras, Jamaica, Mexico, Nicaragua, Panama, Peru, Suriname, Uruguay, and Venezuela). These results demonstrate the benefit of PAHO technical cooperation related to training and implementation of reference methods and procedures, as countries have both improved the quality and widened the scope of their laboratories' detection capacities.

- During the biennium, for the first time, Dominica successfully conducted molecular diagnosis for dengue, chikungunya, Zika, and yellow fever; Ecuador, through the National Institute of Public Health Research (INSPI) in Guayaquil, was able to detect Mayaro virus as differential diagnosis for chikungunya; and Bolivia was able to detect a new strain of arenavirus. Support from PAHO was instrumental in all three cases. Laboratories in five countries (Colombia, Costa Rica, Ecuador, Panama, and Venezuela) were also trained and strengthened to detect viral equine encephalitis.
- Thanks in part to guidance and support from PAHO, three national laboratories (Bolivia, Dominican Republic, and Haiti) received World Health Organization (WHO) designation as National Influenza Centers and strengthened their national capacities to detect, characterize, and respond to novel influenza viruses. National capacities for pandemic influenza were also strengthened by actions in 21 Caribbean countries and territories to enhance capacity in influenza surveillance and preparedness. This was the first such initiative for the Caribbean subregion and will foster closer collaboration among this group of countries and territories, along with more robust influenza surveillance and reporting.
- Laboratory diagnosis and detection capacities to respond to emerging and reemerging viral pathogens in the Region have been strengthened. At least 30 laboratories in 26 countries have capacity for molecular detection of arboviruses (endemic or emerging), including new laboratories in the Caribbean that improved their laboratory surveillance capacity in 2018 (Bahamas, Belize, Dominica, Guyana, Jamaica, and Suriname). Technical support was provided to the Caribbean Public Health Agency (CARPHA) and United Nations Office for Project Services for the construction of a new building to house the CARPHA laboratory and offices and Trinidad and Tobago's National Public Health Laboratory and Blood Bank. In addition, representatives from seven countries (Belize, Cuba, Guatemala, Haiti, Panama, United States of America, and Venezuela) were trained in implementation of guidelines and algorithms for Mayaro virus and yellow fever; Chile was supported in the integrated surveillance and characterization of meningococcal disease; El Salvador was supported to strengthen early detection and characterization of a new antimicrobial-resistant pattern of *N. meningitidis* Y; and in the Chiapas corridor of southern Mexico, PASB is collaborating in an ongoing molecular characterization of DENV-2 strains. PASB also supported efforts by four countries (Argentina, Brazil, Peru, and Suriname) to strengthen laboratory networks, epizootic and epidemic surveillance, clinical management guidance, and geographic risk assessments in line with the IHR. A new PAHO/WHO Collaborating Center on Laboratory Quality Management was designated, the Instituto de Diagnóstico y Referencia Epidemiológicos (InDRE) in Mexico.
- No confirmed cases of cholera have been reported in Haiti since January 2019, a positive step in the direction of eliminating cholera from the island of Hispaniola. PAHO provided continuous support to the Haitian government in epidemiology, surveillance, laboratory, infection prevention and control (IPC), resource mobilization, and vaccination.
- Guidelines and tools were finalized to strengthen country capacities for health emergencies and disasters, such as the laboratory protocol for investigation of immune response associated with co-infection of dengue virus serotype 2 (DENV-2) and other flaviviruses and guidance for patient care and monitoring of meningococcal diseases. PAHO and external academic and scientific partners (including Imperial College London, University of Minnesota, UNICEF Office of Innovation, government of Colombia, US Centers for Disease Control and

Prevention, and other PAHO/WHO Collaborating Centers) developed a tool for mechanistic modeling in yellow fever and implemented a project in digital epidemiology to improve the capacity for epidemic intelligence. Additionally, the Laboratory Group of the WHO Eliminating Yellow Fever Epidemics (EYE) strategy adapted the Laboratory Diagnosis of Yellow Fever Virus Infection guideline, which PAHO developed in 2018, for the global yellow fever guideline that was approved in 2019.

- PASB supported eight countries (Dominican Republic, Ecuador, Guyana, Haiti, Jamaica, Suriname, Trinidad and Tobago, and Venezuela) to develop/adapt infection prevention and control guidelines, including on standard and transmission-based precautions, sterilization and disinfection of medical devices, and environmental cleaning.

Challenges

- Limited national policies on quality management and biosafety/biosecurity for laboratories affect the mandatory application of the established minimum requirements.
- The availability and systematic distribution of reagents and supplies for laboratory surveillance, confirmation, and timely detection of emerging viruses is insufficient due to high costs for shipping and complex customs procedures that have led to loss of kits and panels.
- Implementation of healthcare-associated infections (HAI) surveillance systems has been challenging due to *a)* lack of understanding of HAI surveillance as another surveillance system, and *b)* inadequate laboratory capacity for this purpose (human resources, reagents, data linkage, early response system for detection of multidrug-resistant organisms). Lack of funds and dedicated personnel to scale up the IPC agenda affects implementation of IPC as a public health policy at the national level, and thus also at the local levels (both district and health care facility levels).
- Monitoring and verifying cholera elimination in Haiti faces obstacles in light of already reduced funding from donors for surveillance and laboratory activities starting in 2020. Elimination of cholera in Haiti will only be achieved if no confirmed cases are reported for three consecutive years, counting from January 2019.

Lessons Learned

- The increase in suspected hantavirus cases in several countries (Argentina, Bolivia, Colombia, Panama, and Paraguay) highlights the need to strengthen surveillance and laboratory preparedness for hemorrhagic viruses in the Region, including a careful evaluation of biosafety issues.
- Networking with the PAHO/WHO Collaborating Centers and other partners like CARPHA is key to building laboratory capacity and strengthening the early detection and surveillance of emerging pathogens.
- The collaboration of the epidemiologic/laboratory components of influenza surveillance with regulators and risk communicators can provide more holistic support to countries as they prepare for the next influenza pandemic.
- Maintaining a stock of laboratory reagents and critical (non-infectious) material at PAHO Headquarters and at its warehouse in Panama has been an efficient and effective approach to ensure rapid distribution to the countries when necessary.

5.2 Country Health Emergency Preparedness and the International Health Regulations (2005)

Overview

The aim of this area of work is to ensure that all countries have capabilities for all-hazards health emergency and disaster risk management, including the core capacities needed to fulfill their responsibilities under the IHR 2005. These cover national legislation, policy, and financing; coordination and National Focal Point (NFP) communications; surveillance and risk communication; preparedness and response; infection prevention and control; human resources; and laboratory capacity building and networking.

Main Achievements

- The average regional scores registered in the Americas for 12 of 13 IHR core capacities are above the global average scores, as per the State Party Annual Reports submitted to the 72nd World Health Assembly in 2019. The exception is for the core capacity on health service provision. For all 13 core capacities, the average regional scores are close to or above 60%, with the lowest average score (54%) for radiation emergencies and the highest average score (76%) for IHR coordination and National IHR Focal Point functions.
- The Incident Command System (ICS) was introduced in hospitals in all Central American countries. PAHO trained 98 facilitators in seven countries, who will replicate this methodology in their respective countries.
- Selected guidelines and tools were finalized to strengthen country capacities to cope with health emergencies and disasters. They included the Health Sector Multi-Hazard Response Framework; the Preparedness Index for Health Emergency and Disasters; Heatwaves and Health: Actions to Be Taken; guidelines for Disability Inclusion in Hospital Disaster Risk Management (INGRID-H), emphasizing people with disabilities and indigenous populations; and the Guidance Document on Migration and Health.
- Eight countries designed and/or implemented the organizational and functional structure of risk management units in the ministries of health with the support of PAHO (Belize, Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, Nicaragua, and Panama).

Challenges

- The status of the core capacities across subregions in the Americas remains heterogeneous. While North America consistently has the highest average subregional scores, the Caribbean is the subregion accounting for most core capacities with the lowest average scores (legislation and financing, zoonotic events and the human-animal interface, surveillance, human resources, risk communication, points of entry, chemical events, radiation emergencies).
- There is a need to shift the perception of the IHR from “an end in themselves” to a tool for strengthening health systems and the essential public health functions (corresponding to core capacities detailed in the IHR). Member States require appropriate national legal frameworks to support and enable implementation of their obligations and rights under the IHR.
- Many local health stakeholders do not always sufficiently perceive rampant violence as a threat to operations of the health services. This hinders the strategic prioritization of corrective measures aimed at improving access to health services in areas prone to violence in El Salvador, Guatemala, and Honduras.

- There is a lack of or limited integration of disaster risk management programs with epidemiology programs within national health authorities across the Region.
- Many countries do not have formal or official policies for health emergencies, which limits systematic capacity building for the health sector.
- Increased measles activity has underscored challenges faced by national authorities in trying to manage acute public health events involving conveyances and/or travelers.

Lessons Learned

- The IHR constitute a tool to support the continuous, intrinsically dynamic, intersectoral process of public health preparedness. Given the introduction of the revised tool for submission of the State Party Annual Report to the World Health Assembly, caution is needed in interpreting the scores of individual States Parties, since the first submission using the revised tool does not allow for appraisal of the States Parties' abilities to further build or maintain core capacities. Moreover, considering the overall advanced status of core capacities in the Region, substantial further progress is unlikely to be observed in coming years, and in some cases this might be explained on the basis of the specific risk profiles of individual States Parties.
- A country-tailored support approach, instead of the one-size-fits-all approach promoted at global level, should be used to advance the institutionalization of IHR core capacities and ensure that a culture of continuous improvement drives public health preparedness. This has been demonstrated by capacity-building activities that PASB has supported in key countries, such as Bolivia, Nicaragua, and Suriname, as well as by joint activities implemented between PAHO and the International Atomic Energy Agency.
- The relevance of the IHR as a tool to ensure global health security will be enhanced if States Parties become more versed and comfortable in using the PAHO and WHO Governing Bodies as forums to exert their rights under the IHR and hold each other mutually accountable.
- Organizational delays in providing conceptual guidance to States Parties have the potential to undermine the relevance of the IHR as a tool to ensure global health security, and can lead to duplication of efforts and non-efficient use of resources at national level.
- Synergies between the IHR 2005 and the Sendai Framework for Disaster Risk Reduction 2015-2030 (reflected in the regional Plan of Action for Disaster Risk Reduction 2016-2021) should be leveraged in order to enhance core capacities and overall preparedness of the health sector.

Cross-cutting Themes

- Two publications have been disseminated in English and Spanish: Guidance Note on Health Disaster Risk Management with Indigenous Peoples, and Improving Health Disaster Risk Management with Indigenous Peoples (a methodology using simulation exercises). The Indigenous Knowledge and Disaster Risk Reduction Network was officially launched in Seattle, Washington, and a strategic work plan was developed with the concurrence of leaders from North, Central, and South American countries.
- Within the framework of INGRID-H, a methodology for ensuring that hospital emergency response plans incorporate the needs of persons with disabilities was launched in 2018. Training and/or assessment of health facilities took place in Chile, Ecuador, Mexico, and Peru.

5.3 Health Emergency Information and Risk Assessment

Overview

This program area aims to provide timely and authoritative situation analysis, risk assessment, and response monitoring for all acute public health events and emergencies. PASB, as the Regional Contact Point for IHR, continuously develops its ability to coordinate regional efforts to strengthen activities for the systematic detection, verification, and risk assessment of events, including capacity-building training, coordination, and dissemination of accurate and timely information for all potential public health events of international concern and acute public health events.

Main Achievements

- PAHO maintained 24/7 coverage for urgent communications from Member States and PAHO/WHO Representative (PWR) Offices and for issuance of alerts to Member States on public health threats. Between 1 January and 31 December 2019, 63 Epidemiological Alerts and Updates were shared with Member States, mainly related to vaccine-preventable diseases. The PAHO Epidemiological Alerts and Updates continue to be the authoritative source of publicly available information for outbreaks and epidemics in Venezuela. Information on 24 events in the Region of the Americas was disseminated to Member States and their IHR NFPs through the Event Information Site (EIS), including events related to dengue, diphtheria, hantavirus pulmonary syndrome, histoplasmosis, malaria, measles, *P. aeruginosa*, *Salmonella* Newport, and yellow fever; 10 events were published in the WHO Disease Outbreak News. Additionally, 257 events were recorded in the Event Management System (EMS), with rapid risk assessments documented for all of them; 755 new natural hazards events were monitored, with 190 updates issued.
- There was a reduction in the time between the estimated onset of public health events and the point at which WHO first received information on these events, from 33 days in 2018 to 20 days in 2019. Additionally, there was an increase in the proportion of requests for verification responses received within the time required by the IHR (24 hours), from 39% (14/36) in 2018 to 43% (20/47) in 2019.
- Participation of the IHR NFPs as the source of first information for substantiated public health events increased from 54% (31/57) of the total detected in 2017 to 67% (45/67) in 2018. For 31 acute public health events for which information should have been shared within 48 hours of assessment, 80% (25/31) were shared by PAHO/WHO within that time.
- All Member States completed the annual confirmation of National IHR Focal Points, with high responsiveness results for the first biannual communication test: 31/35 responded to the email test, and 32/35 were reached by phone.

Challenges

- Obtaining accurate data from the countries affected by the intensifying migratory flow from Venezuela has been difficult, especially regarding the health situation of the migrant population and their main needs for emergency and long-term care.
- Delays persist in national-level processes for revision of information prepared for dissemination in Member States through the IHR channels. Many times, the revision/approval of prepared texts for dissemination is also submitted to high-level officials in Member States, and this affects the turn-around time. For instance, during 2019 only 43% of requests for verification received a response within the 24-hour window set by the IHR.

- Timely information sharing with and from Member States encountered challenges, mainly due to the lack of substantiated information that warrants an EIS posting.
- Some countries have not adequately prioritized the improvement, modernization, and automation of epidemiologic data collection mechanisms and data management structures.

Lessons Learned

- Use of surveillance data, especially when employing geographic information system products, supports better decision making and quick field responses to epidemic-prone disease outbreaks.
- There is a need to improve and build on the multiple data tools and systems being used on the ground by national health authorities (local and central systems) to avoid duplication of efforts related to surveillance and data management.
- Guidance should be developed about the minimum information products required internally and externally for major outbreaks.
- On-the-job training and service fellowship for IHR NFP personnel at PAHO and multilateral missions can play a significant role in encouraging and achieving the exchange of IHR-related information between the Organization and Member States and between Member States themselves.

Cross-cutting Themes

- Gender-disaggregated data were collected and used for the preparation of information products, such as situation reports, public health situation analyses, and epidemiological updates related to emergencies, including outbreaks of yellow fever in Brazil, diphtheria in Haiti and Venezuela, and measles in Venezuela, among others. The information was used for targeting control strategies, such as social mobilization and vaccination.

5.4 Emergency Operations

Overview

This program area provides support to countries to ensure that emergency-affected populations have access to an essential package of life-saving health services. PAHO continues to enhance its systems and processes to ensure a more predictable and effective response to health emergencies. Three key aspects of this effort are *a)* strengthening the Organization's own operational capacities; *b)* expanding and strengthening international capacities for emergency response through partnership; and *c)* supporting national authorities to coordinate the international response to health emergencies in their countries.

Main Achievements

- A new logistics system (SISTOK) has been implemented and is being used successfully in Venezuela, in the context of an extremely challenging sociopolitical environment and associated security, transportation, and logistical restrictions.
- There is an updated roster of standby partners who can provide support during emergency operations. During 2018-2019, a new agreement was established with Direct Relief for joint emergency response operations. This partnership and previously established ones have been important in responding to the health situation associated with migration in Venezuela and neighboring countries. During the biennium, PAHO continued cooperation and joint response interventions with key partners, including the United Nations Office for

Coordination of Humanitarian Affairs (OCHA), International Committee of the Red Cross, International Federation of Red Cross and Red Crescent Societies (IFRC), International Organization for Migration, and UN Refugee Agency (UNHCR).

- The regional response team roster was augmented. National focal points for Emergency Medical Teams (EMTs) were designated in 23 Member States, and 122 experts are part of the regional roster of EMT coordinators from 35 countries and territories. Thirty-nine countries and territories have introduced the EMT initiative at national level, and 10 national EMTs and 23 international nongovernmental organizations (NGOs) are enrolled in a mentoring process to achieve the WHO Global EMT Classification. In July 2018, Team Rubicon USA received the Global EMT classification from WHO for their EMT Type 1 Mobile. This is the first NGO in the Americas to receive this designation and the third EMT in the Region to qualify. In September 2019, the Barbados Defense Force was classified as an EMT Type 1 Fixed, becoming the first team in the Caribbean and the first military unit in the Region to qualify. In total there are six verified EMTs in the Region, in Barbados, Costa Rica, Ecuador (3), and the United States (NGO). Twelve countries implemented the CICOM (EMT Medical Coordination and Information Cell) methodology during regional exercises, contingencies, and/or emergencies (Bahamas, Bolivia, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, Guadeloupe, Haiti, Nicaragua, and Peru). Additionally, the regional response team has a roster of 172 experts to respond to health emergencies in the technical areas of emergency coordination, administration and program management, health services, epidemiology, water, sanitation, and hygiene (WASH), logistics, information and communications, mental health, and civil engineering. The Inter-American Humanitarian Health Assistance Network (IHHAN) was developed and a framework for its regional implementation was established with the participation of five countries (Brazil, Chile, Colombia, Panama, and Peru). When activated, the IHHAN network facilitates agile emergency response through faster deployment of human resources as well as medical supplies and equipment.
- National capacities for coordination of health emergency operations were strengthened in priority countries. Chile, the Dominican Republic, and Haiti have strengthened capacity for the establishment and operation of health emergency operations centers (EOC), including the development of operational procedures. PAHO also provided technical expertise to Colombia, Nicaragua, Panama, Peru, and Venezuela to review and strengthen their health emergency coordination mechanisms to better address ongoing situations (mass migration, sociopolitical unrest) and to prepare for mass gathering events (especially the pope's visit to Panama, which drew an estimated 700,000 participants, 300,000 from outside the country).
- Certification was granted to at least two mass casualty management multisectoral response teams in eight countries and territories in the Caribbean, with 500 people trained (Barbados, Grenada, Guyana, Jamaica, Saint Lucia, Suriname, Trinidad and Tobago, and Turks and Caicos).

Challenges

- Logistic and human resource capacity was strained when responding to multi-country emergencies such as the Venezuela crisis and its spillover to neighboring countries.

Lessons Learned

- The creation of alliances, relationships based on trust, and partnerships with national counterparts, NGOs, and other United Nations (UN) agencies is critical to ensure uninterrupted response operations when traditional sourcing and distribution channels are constrained or overwhelmed.
- The effective implementation of the Incident Management System (IMS) at country level requires full involvement of PAHO staff at all levels and their better familiarization with the IMS.

Cross-cutting Themes

- Building on existing policies and practices, the cross-cutting themes of gender, equity, human rights, and ethnicity were applied throughout the work of this program area, including in training activities and in the development of policies and guidelines. Revision and updates of the Mass Casualty Management System Course Manual in 2019 incorporated the cross-cutting themes of gender and equity.

5.5 Emergency Core Services

Overview

The core services area is responsible for implementing capacities, policies, procedures, and systems that are standardized across the Organization and able to support effective management and sustainable staffing and financing of the emergencies program. Interoperability and consistency during coordinated emergency response efforts are promoted through partnership. This area of work encompasses administration, communications, resource mobilization and grant management, strategic planning, financial and human resources management, security, and staff health and well-being.

Main Achievements

- The number of staff positions for the Health Emergencies Program increased by 25% at regional level (from 58 to 73 positions) and by 220% at country level (from 5 to 16 positions); 47 positions at regional level and two at country level are presently occupied. PAHO/WHO has been complementing the staff positions with consultants to ensure operational coverage in PWR Offices, particularly in the 16 health emergencies priority countries. In total, counting both staff and consultants, 66 of 80 personnel are presently working at country office level and 81 of 113 are assigned to the regional level (54 in Washington, DC, and 27 decentralized to the field).
- Over \$71.5 million was mobilized in new voluntary contributions for Category 5 in 2018-2019, including \$31 million for base programs and \$40.5 million for inter-programmatic interventions for emergency response throughout the Latin American/Caribbean Region.

Challenges

- Ensuring financial sustainability and stability is an ongoing challenge for the health emergency program as it strives to deliver on country priorities.
- The uncertain funding situation has affected the recruitment for key health emergencies positions at country level.
- Prolonged large-scale emergencies, such as the current mass migration affecting multiple countries, diverts resource mobilization efforts away from base programs. This is further complicated by the limited staff available to support resource mobilization and by a shift in donors' interest and investments from development toward humanitarian interventions.

Lessons Learned

- Strengthening decentralized trained staff for resource mobilization and communication, through a network of experts, is necessary to scale up resource mobilization efforts and ensure more sustainable engagement of donors and partners.

5.6 Disaster Risk Reduction and Special Projects

Overview

PAHO coordinates implementation of the Plan of Action for Disaster Risk Reduction 2016-2021, which aims to protect the lives of patients and health workers, shield health equipment and supplies from disasters, and ensure that the health services continue operating effectively during and after emergencies and disasters in order to save lives, reduce disabilities, and enable the health sector to fulfill its continuing responsibilities. PASB works with countries to implement special projects on safe hospitals, smart hospitals, and internally displaced populations, among others, to build their capacity to protect the physical, mental, and social well-being of their populations and recover rapidly from emergencies and disasters. A special project on highly vulnerable countries focuses on strengthening national leadership and sustained capacity of the health sector to build resilience.

Main Achievements

- Eighteen health facilities in four countries have been “smartened,” with improved resilience to disasters and reduced impact on the environment (Dominica, Grenada, Saint Lucia, and St. Vincent and the Grenadines). Another six facilities are in the process of being retrofitted, 10 are in tender for retrofitting, and 17 are in the design phase. In total, 430 health facilities have been assessed using the Smart Hospitals Toolkit (Hospital Safety Index and Green Checklist) in 14 Caribbean countries. Technical expertise and guidance was provided to 12 countries to implement elements of the Smart Hospital initiative through training of evaluators in the use of the toolkit. Of the facilities targeted for retrofitting, four serve special-needs groups (homes for youth/aged/mentally ill). One facility serves strategically important health facilities (i.e., central medical stores) that are responsible for holding health supplies for the entire country.
- Hospital safety was enhanced in Haiti: 17 emergency service hospitals were evaluated, and 223 personnel were trained in triage and emergency case management.
- Updated Hospital Safety Index (HSI) guidelines were published in Spanish and English, incorporating lessons learned from almost 10 years of application in the Region. Fifty participants from 18 countries were trained in two Hospital Safety Index instructor courses (version 2) delivered in South America (Peru) and Central America (Panama). Use of this tool will continue helping countries ensure that health facilities can provide services during and after an emergency.

Challenges

- Delays in meeting milestones for the Smart Hospital Project occurred due to the catastrophic impact of the 2017 hurricane season, which resulted in diversion of resources and attention to more immediate response and recovery interventions.
- Capacity limitations of construction companies affected the Smart Hospital Project. These included issues procuring and moving supplies and materials throughout the Caribbean as well as continued increase in price for retrofitting works due to the general price increase of construction materials and services, both within the Region and globally. For example, cement has shown a steady price increase since 2015 and is now 18.5% more expensive than it was at the early stages of the project. Prices are predicted to continue to rise, not only because of international tensions between various developed countries, but also due to the lack of resources and stocks available on the open market.

Lessons Learned

- Following mounting delays in the retrofitting of health facilities, PAHO has identified contingency and mitigation measures, such as contracting specialized personnel, to speed up implementation rates without compromising the quality of the works.

5.7 Outbreak and Crisis Response

Overview

This program area works with countries to ensure that emergency-affected populations have access to an essential package of life-saving health services.

Main Achievements

- Since the start of the biennium, the Organization achieved timely and appropriate deployment of experts and/or supplies, within 48 hours of onset or request for support, to all emergencies with potential health impacts in the Region. These occurred in 29 countries and territories and included, extended operations in response to the Venezuelan sociopolitical crisis and its health effects, such as outbreaks of measles, diphtheria, and malaria, as well as the migrant crisis and associated health effects in Brazil, Colombia, Ecuador, Guyana, Peru, Suriname, and Trinidad and Tobago, linked to the Venezuelan sociopolitical situation. Additional emergencies requiring response included acute neurological syndrome in Peru; dengue outbreaks in Honduras, Jamaica, and Nicaragua; floods in Bolivia and Paraguay; hemorrhagic fever cases caused by arenavirus and landfill overflow in the Alpacoma region of Bolivia; tornados in Cuba; malaria cases in the Darién region of Panama; severe acute respiratory infections in Guyana; yellow fever in Brazil; Guillain-Barré syndrome in Peru; and the Volcán de Fuego eruption in Guatemala. Response operations continued for Hurricanes Maria and Irma in Anguilla, Antigua and Barbuda, Bahamas, British Virgin Islands, Cuba, Dominica, Dominican Republic, Haiti, Saint Martin, and Sint Maarten, and Turks and Caicos. Response operations also addressed health effects resulting from severe drought caused by a prolonged heat wave in Guatemala; health effects arising from vaccine-derived poliovirus type 1 (VDPV1) and type 3 (VDPV3), identified in water reservoirs from two municipalities in Guatemala; Hurricane Dorian in the Bahamas; D8 measles outbreak in Argentina (not related to the outbreaks in Venezuela and neighboring countries); deadly intoxications due to adulterated alcoholic products in Costa Rica; deteriorating security and political conditions in Haiti; and social unrest and violence in Bolivia, Chile, Honduras, and Nicaragua.
- PAHO supported the WHO response to Cyclone Idai in Mozambique, facilitating the mobilization of one program management and procurement expert. During the biennium, the Organization's prepositioned strategic stock of medicines and supplies located in Panama was used in major emergency operations, reducing the time needed for essential medicines and supplies to reach the beneficiary populations.
- Since January 2018, over 1,454 static maps have been produced (including 667 for epidemic diseases, 282 for natural hazards, and 161 for the migration crisis in South America, among others), along with 52 interactive maps. Three cartographic datasets have been updated.
- During the biennium, 68 reports on various emergencies were issued. They included 20 situational reports (dengue, yellow fever, measles); one biannual public health situation analysis (Venezuela and bordering countries); 17 public health situation analyses (12 for Venezuela and bordering countries, four for Volcán de Fuego in Guatemala, and one for a dam break in Brazil); and 30 flash updates. The flash updates dealt with Venezuela and bordering countries, dengue in the Americas (highlighting Honduras and Brazil), measles, arenavirus in Bolivia, floods in Paraguay and Venezuela, fires (in Bolivia, Brazil, Paraguay, and Peru), and Hurricane Dorian.

- Approximately \$40.5 million has been mobilized since the start of the current biennium to support emergency response operations.

Challenges

- There is a high demand for life-saving services and medicines to cope with the complex emergency related to the health crisis in Venezuela and its spillover to neighboring countries. Establishment of partnerships to satisfy this demand has proven challenging due to current legal constraints from the Organization and the inability to arrive at solutions to mitigate potential institutional risks.
- Procurement and logistical challenges affected the response to complex, ongoing emergencies. Low availability and scarcity of medicines at global level made it difficult to meet the high demand for certain medicines associated with large-scale emergencies in the Americas. Notwithstanding this demand, PAHO requires a relatively low volume of purchases compared to some other organizations, making our orders unattractive to current certified suppliers and resulting in extended sourcing time frames. Some suppliers manufacture required medicines, supplies, and equipment only on demand, with an estimated production time frame of three to six months. Moreover, the political situation in the affected countries impedes the importation and distribution of procured goods. Interagency Emergency Health Kits, as officially defined, lack the necessary medicines and supplies to treat chronic diseases in emergencies.

Lessons Learned

- Innovation and investment in new technologies has proven key to overcoming difficulties in information management and activity implementation in the context of high-complexity emergency operations such as the response to the Venezuela situation.

Cross-cutting Themes

- Gender-disaggregated data continued to be collected and used for the preparation of information products, such as situation reports, public health situation analyses, and epidemiological updates, in emergencies and disasters.
- Ongoing emergency operations continued to prioritize the needs and vulnerabilities of indigenous populations, and of mothers and children, with a view to protecting their health, human rights, and culture. This approach has proven critical in response to health needs in the populations affected by high-morbidity and high-mortality outbreaks in the border areas of Brazil, Colombia, and Venezuela.

Budget Implementation

**Table 2. Category 5 Budget Implementation Summary
(US\$ millions)**

Program area	Approved PB 18-19	Available for implementation	Implementation	Available for implementation as % of approved PB	Implemented as % of approved PB	Implemented as % of available for implementation
5.1 Infectious hazard management	13,800,000	12,863,296	12,712,013	93%	92%	99%
5.2 Country health	16,600,000	11,109,290	10,911,592	67%	66%	98%

emergency preparedness and the IHR (2005)						
5.3 Health emergency information and risk assessment	6,500,000	5,726,151	5,653,044	88%	87%	99%
5.4 Emergency operations	8,200,000	6,428,519	6,128,146	78%	75%	95%
5.5 Emergency core services	6,300,000	3,687,272	3,686,188	59%	59%	100%
5.6 Disaster risk reduction and special projects	5,000,000	1,731,538	1,676,763	35%	34%	97%
TOTAL – Base programs	56,400,000	41,546,067	40,767,746	74%	72%	98%
5.7 Outbreak and crisis response	22,000,000	28,881,044	28,726,638	131%	131%	99%
Smart hospitals	25,000,000	12,970,765	12,948,678	52%	52%	100%
TOTAL - Special programs and emergencies	47,000,000	41,851,809	41,675,316	89%	89%	100%
GRAND TOTAL	103,400,000	83,397,876	82,443,062	81%	80%	99%

Budget Implementation Analysis

- Category 5 had an approved budget for base programs of \$56.4 million, representing 9% of the total approved budget for base programs of \$619.6 million. Funding for this category was \$41.5 million, or 74%, which left a gap of \$14.9 million. Implementation was \$40.8 million, or 98% of the available funds for implementation. The unimplemented funds will be carried over into 2020-2021 biennium.
- Implementation of funding available ranged from 95% through 100% across the program areas. When compared against approved budget levels, however, most of the program areas in this category had funding shortfalls: Program Area 5.4 had 78%, 5.2 had 67%, 5.5 had 59%, and 5.6 had 35%. Indeed, Program Area 5.6, disaster risk reduction, was the lowest-funded program area in the whole Program and Budget, despite having been chosen as one of the Organization’s top priorities for the biennium. Program Areas 5.2 and 5.6 focus on developmental interventions and are highly dependent on voluntary contributions. However, with the prolonged large-scale emergencies in the Region, there was a shift in donors’ interest and investments from development toward humanitarian interventions, as well as a required shift in the focus of the category’s personnel to resource

mobilization for Outbreak and Crisis Response (OCR). This resulted in the significant overfunding of Program Area 5.7 and underfunding of Program Areas 5.2 and 5.6. Additionally, the core grant agreement with the US Agency for International Development (USAID) that normally provides notable funding for Program Areas 5.2, 5.5, and 5.6 ended in May 2019, and while a new agreement was set to begin in September 2019, funds were not received until 2020. This category was also affected by the cash flow situation faced by the Organization in 2019, which caused a delay or freeze on recruitments.

- Compared to previous biennia, Category 5 achieved an improved distribution of base funds across the regional (59%), country (39%), and subregional (2%) levels. Still, a substantial fraction of the regional funds are used to directly support country-level activities, including several regional staff who are decentralized to the field.
- Special Programs and Emergencies, which includes OCR and the Smart Hospital Project (SHP), had a combined approved budget of \$47 million. The funds available for OCR and SHP were \$28.9 million and \$13 million, respectively. The funding for OCR was 131% of the approved amount, while for SHP it was 52%, after amounts were carried over to the new biennium. During planning for the 2018-2019 biennium, it was forecast that \$25 million would be spent on the SHP, and financing of this program reached \$19 million. However, due to the limited capacity of construction companies and the catastrophic impact of the 2017 hurricane season, which resulted in diversion to priorities related to immediate response and recovery interventions, significant delays were experienced. These translated to lower spending forecasts for the project and associated fund disbursements from the donor, resulting in lower than planned funding and implementation rates. The unimplemented funds were to be carried over to the 2020-2021 biennium.
- The Category 5 program of work benefited from a substantial increase in flexible budget funds allocated to the regional and country levels for activities and short-term positions. This included flexible funds received directly from the WHO Health Emergencies Programme (WHE): 59% (\$25.6 million) of funds assigned to the category were flexible funds, with 39% (\$9.92 million) of this amount coming directly from WHE. The WHE contribution is one of the positive outcomes of the reform of WHO work in health emergency management.

Resource Mobilization

- During the biennium, over \$71.5 million in voluntary contributions was mobilized for the category for disaster/emergency preparedness, risk reduction, and emergency response. This included several multiyear awards. Donors included the UK Department for International Development (DFID), US Centers for Disease Control and Prevention (CDC), USAID, Global Affairs Canada, European Union, New Zealand, Spain, Switzerland, Brazil, and the UN Central Emergency Response Fund (CERF). The WHO Pandemic Influenza Preparedness Framework and WHO Contingency Fund for Emergencies also provided support.

Recommendations

- Establish strategic partnerships that can help PAHO deliver on its mandate to support Member States' efforts to save lives, reduce suffering, and guarantee continuity of health services in complex emergencies, such as the one that currently exists in Venezuela and neighboring countries.
- Champion the Smart Hospital Project during meetings with high-level policy makers (prime ministers, ministers, permanent secretaries, chief medical officers, etc.).
- Provide conceptual guidance and technical cooperation to States Parties to frame core capacities detailed in Annex 1 of the IHR as essential public health functions, including planning and financing, while promoting

implementation of the IHR in national legislation. Similar advocacy should be conducted in appropriate high-level forums at regional and subregional levels.

- Continue to support the strengthening of emerging pathogen laboratory networks to ensure strong regional capacity for detection, alert, and response in accordance with the IHR.
- Invest further in establishing robust communication bridges between technical and decision-making levels in States Parties.
- Invest in the documentation and verification of cholera elimination in Haiti.
- Prioritize and reframe the IHR core capacities as a tool for intersectoral public health preparedness.
- Promote the incorporation of planning for the management of health emergencies, including epidemics, in disaster risk management systems.

Detailed Assessment by Program Area

<p>Program Area 5.1: Infectious Hazard Management</p> <p>OUTCOME: Countries’ capacities strengthened to build resilience and adequate preparedness to mount a rapid, predictable, and effective response to major epidemics and pandemics</p> <p>OCM Indicator Assessment: 1/1 no rating</p> <p>OPT Indicator Assessment: 4/5 achieved, 1/5 partially achieved</p>	<p>Rating: Met expectations</p>
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Assessment of outcome indicators

OCM #	OCM Indicator Text	Baseline 2013	Target 2019	Assessment Rating
5.1.1	Number of countries and territories with installed capacity to effectively respond to major epidemics and pandemics	6/35	35/35	No rating

As a result of a formal global consultative process held in 2018, a revised version of the tool for submitting the State Party Annual Report to the World Health Assembly (WHA) was introduced in 2019. It includes 13 revised capacities comprising 24 indicators.²

States Parties Annual Reports submitted to the World Health Assemblies between 2011 and 2018 showed steady improvements or plateauing of the average regional scores for all core capacities. However, because of the introduction of the revised tool—which entails a partial redefinition of the 13 core capacities previously considered, a different set of indicators, a five-point scale for measuring each indicator, and a focus on “access” to core capacities as opposed to merely developing/maintaining them in each country—it is not possible at this stage to analyze trends in core capacities scores at regional, subregional, and national levels against the 2013 baseline.

In the context of the Ebola Preparedness Framework, technical cooperation was provided to strengthen surveillance and laboratory diagnosis and detection capacity in response to outbreaks in the Region, such as the chikungunya, Zika, and yellow fever viruses. Updated flowcharts for these diseases were produced to strengthen surveillance based on laboratory evidence.

Assessment of output indicators

² World Health Organization. International Health Regulations (2005) State Party Self-Assessment Annual Reporting Tool. Geneva: WHO; 2018.
<https://bit.ly/2XX5Gjh>

OPT #	OPT Title	OPT Indicator Text	Baseline 2017	Target 2019	Assessment Rating
5.1.1a	Countries enabled to strengthen capacity to prevent and control high-threat infectious hazards	Number of strategies in place at PAHO for deployment and use of the most effective package of control measures, including management and logistics for stockpiles	5	10	Achieved
<p>The 10 strategies developed and in place are for influenza, yellow fever, filoviral diseases, plague, cholera, SARS-CoV, hantaviruses, emerging arboviruses, leptospirosis, and meningococcal diseases.</p> <p>During the biennium, PASB also provided technical guidance to the office of the UN Special Envoy for Haiti on cholera epidemiology, laboratory surveillance strengthening, and characterization of areas to be covered by the oral cholera vaccination campaign.</p>					
5.1.1b	Countries enabled to strengthen capacity to prevent and control high-threat infectious hazards	Number of countries and territories with strategies in place to detect and respond to high-threat infectious hazards, with a focus on arboviruses	15	23	Achieved
<p>Twenty-three countries achieved the indicator. One country partially achieved the indicator.</p> <p>Six laboratory assessments were performed in 2018, in Barbados, Bolivia, Brazil, Jamaica (2), and Paraguay; two were performed in 2019, in the Bahamas and the Dominican Republic. Twenty-seven laboratories in 22 countries participated in the External Quality Assessment Program (EQAP) for yellow fever molecular detection. Critical material for viral diagnosis and detection was purchased and distributed to 10 countries: Bahamas, Barbados, Bolivia, Costa Rica, Guyana, Haiti, Honduras, Mexico, Paraguay, and Suriname. Additionally, molecular detection capacity was upgraded with new PCR machines in two national laboratories, in Costa Rica and the Dominican Republic. A yellow fever algorithm has been adopted and implemented in the Region, and will also provide the basis for developing the WHO global algorithm.</p>					
5.1.2	Expert networks enabled to detect, characterize, and manage new or emerging high-threat infectious hazards	Number of countries and territories with access to established expert networks and national laboratory policies to support prediction, detection, prevention, control, and response to emerging and high-threat pathogens	5	10	Achieved
<p>Ten countries achieved the indicator.</p> <p>The Instituto de Diagnóstico y Referencia Epidemiológicos (InDRE) in Mexico was officially designated in November 2018 as the new PAHO/WHO Collaborating Center on Laboratory Quality Management. Its cross-cutting expertise will support the development of quality and safe public health laboratory networks for the diagnosis, characterization, and containment of emerging and high-threat pathogens in the Region. PAHO provided laboratory supplies to InDRE Mexico to support molecular characterization of DENV-2 in Chiapas, Mexico.</p> <p>A curriculum on biosafety and biosecurity was developed by the Collaborating Center at InDRE Mexico. PAHO conducted national training on biosafety/biosecurity and training/certification on safe transport of infectious substances in 32 states of Mexico.</p>					

A revised WHO training course, Infectious Substances Shipping Training, was promoted in the Region for the recertification of laboratory personnel (safe transport of infectious samples, IHR requirement).

An investigation of the meningococcal disease outbreak caused by *N. meningitidis* Y resistant to penicillin and ciprofloxacin was conducted in El Salvador in collaboration with Instituto Adolfo Lutz in São Paulo, Brazil (strain characterization).

5.1.3	Countries enabled to improve capacities for surveillance, preparedness, and response to epidemic and pandemic threats, with a specific focus on implementing the Pandemic Influenza Preparedness Framework	Number of countries and territories with an operational surveillance and response system for influenza and other respiratory viruses	18	23	Partially achieved
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Nineteen countries achieved the indicator. Ten countries partially achieved the indicator.

In 2019, the 10 countries with partial achievement submitted either virologic or severe-acute respiratory infection (SARI) data, but not both, in a timely manner for at least 40% of epidemiological weeks (EWs). However, although their remaining data submissions were not timely, they subsequently submitted the pending data for the remaining weeks in 2019 on average between a few hours and two weeks after the reporting deadline of Friday 3:00 pm.

Two countries did not achieve the indicator. In 2019, both countries did not report virologic or SARI data in a timely manner for at least 40% of EWs. Although their remaining data submissions were not timely, they subsequently submitted pending data for 2019 on average between a few hours and two weeks after the reporting deadline of Friday 3:00 pm.

A number of countries implemented actions related to this indicator:

- Two countries (Argentina and Trinidad and Tobago) participated in WHO training on laboratory quality management and biosafety training. The training piloted a novel approach to achieving the goal of pandemic preparedness and response through capacity strengthening.
- Bolivia and the Dominican Republic received training on rapid response to outbreaks and pandemics.
- Results of laboratory samples from 12 countries were analyzed and contributed to the annual vaccine composition for the Region. This was significant, as the Region developed its own phylogenetic analyses for the Vaccine Composition Meeting.

5.1.4	PAHO capacity enhanced for modeling and forecasting the risk of emerging high-threat pathogens, including those at the human-animal interface	Number of tools implemented for modeling and forecasting the risk of emerging high-threat pathogens, including those at the human-animal interface	n/a	1	Achieved
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A forecasting model interface was developed with the International Research Institute for Climate & Society (IRI) at Columbia University. The tool is called Maproom and is available for *Aedes*-borne transmission (R_0) suitability. A training on use of the tool for public health decision making for staff in PAHO Headquarters and selected countries is planned for 2020-2021.

<p>Program Area 5.2: Country Health Emergency Preparedness and the International Health Regulations (2005)</p> <p>OUTCOME: Countries have an all-hazards health emergency risk management program for a disaster-resilient health sector, with emphasis on vulnerable populations</p> <p>OCM Indicator Assessment: 1/2 exceeded, 1/2 no rating</p> <p>OPT Indicator Assessment: 3/7 exceeded, 2/7 achieved, 1/7 partially achieved, 1/7 not achieved</p>	<p>Rating: Partially met expectations</p>
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Assessment of outcome indicators

OCM #	OCM Indicator Text	Baseline 2013	Target 2019	Assessment Rating
5.2.1	Number of countries and territories that meet or exceed minimum capacities to manage public health risks associated with emergencies	19	36	Exceeded
Forty-three countries and territories achieved the indicator.				
5.2.2	Number of States Parties meeting and sustaining International Health Regulations (2005) core capacities	6/35	35/35	No rating
<p>As a result of a formal global consultative process held in 2018, a revised version of the proposed tool for submitting the State Party Annual Report to the WHA was introduced in 2019. It includes 13 revised capacities comprising 24 indicators.³ In 2019, 33 (94%) of the 35 States Parties in the Region of the Americas submitted their Annual Reports to the 72nd World Health Assembly.</p> <p>States Parties Annual Reports submitted to the World Health Assemblies between 2011 and 2018 showed steady improvements or plateauing of the average regional scores for all core capacities. However, because of the introduction of the revised tool—which entails a partial redefinition of the 13 core capacities previously considered, a different set of indicators, a five-point scale for measuring each indicator, and a focus on “access” to core capacities as opposed to merely developing/maintaining them in each country—it is not possible at this stage to analyze trends in core capacities scores at regional, subregional, and national levels against the 2013 baseline, or to assess States Parties’ abilities to sustain core capacities.</p>				

³ World Health Organization. International Health Regulations (2005) State Party Self-Assessment Annual Reporting Tool. Geneva: WHO; 2018.
<https://bit.ly/2XX5Gjh>

Assessment of output indicators

OPT #	OPT Title	OPT Indicator Text	Baseline 2017	Target 2019	Assessment Rating
5.2.1a	Countries enabled to monitor and evaluate their capacities for health emergency preparedness and IHR	Number of states parties completing annual reporting on the International Health Regulations (2005)	33	35	Not achieved
<p>Thirty-three States Parties achieved the indicator. Two States Parties did not complete the annual report.</p> <p>The submission of the State Party Annual Report (SPAR) to the World Health Assembly is the only mandatory component of the four that constitute the IHR Monitoring and Evaluation Framework. In 2017, 33/35 States Parties submitted their SPAR to the 70th WHA (indicated as “Baseline 2017”); in 2018, 31/35 States Parties submitted their SPAR to the 71st WHA; and in 2019, 33/35 States Parties submitted their SPAR to the 72nd WHA.</p> <p>States Parties in the Americas participated actively in formal global consultations held in 2018 for the revision of the tool used to submit the IHR State Party Annual Report to the World Health Assembly, and 25 States Parties have used the revised tool. Exercises for the completion of the State Party Annual Report were facilitated by PASB at national level in Argentina and Nicaragua and elicited several suggestions for the future improvement of the tool.</p>					
5.2.1b	Countries enabled to monitor and evaluate their capacities for health emergency preparedness and IHR	Number of countries with core capacities evaluated	3	9	Partially achieved
<p>Eight countries achieved the indicator.</p> <p>The joint external evaluation (JEE) is one of the three voluntary components of the IHR Monitoring and Evaluation Framework. Considering the specificities of the Region, PAHO has been leading the work at global level for implementation of voluntary external evaluations in Small Island Developing States (SIDS). For example, a meeting was held in Washington, DC, in 2018 to review and update the JEE document and make it relevant to SIDS, with experts from PAHO (Washington, DC, and Office for the Eastern Caribbean Countries); WHO Headquarters and WHO Western Pacific Regional Office; Public Health England; the Netherlands; and US Department of Health and Human Services.</p> <p>PASB participated in the 8th The Netherlands’ IHR Network Conference, Curaçao, 5-7 June 2019, and this revived multi-partner efforts to adapt the JEE process and tool to SIDS. PASB also organized a training on the methodological approach to after-action reviews and simulation exercises for States Parties and territories in the Caribbean subregion.</p>					
5.2.1c	Countries enabled to monitor and evaluate their capacities for health emergency preparedness and IHR	Number of countries with national action plans developed for strengthening capacities	0	10	Exceeded
<p>Eleven countries achieved the indicator. Thirteen countries partially achieved the indicator.</p> <p>PAHO has carried out different country missions to support IHR application, implementation, and compliance, for example in Argentina, Belize, Canada, Dominican Republic, Grenada, Haiti, Nicaragua, Peru, and Venezuela.</p>					

The lack of a baseline for this indicator relates to the position, formally expressed by States Parties in the Region, that the heterogeneity across countries requires a flexible approach to planning national activities around State Party compliance with IHR provisions, going beyond the model of a dedicated “IHR Plan.” The 2019 target was developed by taking into account the historical trends of State Party Annual Reports submitted to the WHA. Achievement is defined as a score of 80% or above on indicator C1.2, “Financing for the implementation of IHR capacities,” in the SPAR submitted to the 72nd WHA in 2019. This question is included in the revised format proposed by the WHO Secretariat for submission of the SPAR, published in May 2018.

It should be noted that in 2017, 29 countries responded positively to question 5.1.1.2: “Has a national plan to meet the IHR core capacity requirements been developed?” This question was included in the State Party Annual Report that was submitted to the 70th World Health Assembly, using the format proposed by the WHO Secretariat at that time (no longer available on the WHO website). The 29 countries were Antigua and Barbuda, Argentina, Barbados, Brazil, Canada, Colombia, Costa Rica, Cuba, Dominica, Dominican Republic, Ecuador, El Salvador, Grenada, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Peru, Saint Lucia, Saint Vincent and the Grenadines, Suriname, Trinidad and Tobago, United States of America, Uruguay, and Venezuela.

5.2.2a	Countries enabled to strengthen capacities for all-hazards health emergency preparedness and IHR	Number of countries and territories having in place all-hazards emergency risk management and preparedness critical capacities	6	17	Exceeded
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Twenty countries and territories achieved at least four of the five criteria for the indicator. Five achieved all five criteria, and 15 achieved four criteria. Nine countries and territories partially achieved the indicator by meeting at least three criteria.

Several countries have advanced or consolidated their critical capacities. Some of the achievements at the end of the biennium are as follows:

- 13 countries and territories have evaluated disaster risk in the health sector.
- 43 countries have institutionalized emergency and disaster risk management at ministries of health; 20 countries and territories have an official coordination office or unit with full-time staff and a budget dedicated to disaster risk management in the health sector; 10 countries have an established office or unit, although they do not have the necessary resources to operate; and another 13 countries and territories have an office, unit, or focal point for other matters that has also been tasked with this responsibility.
- 30 countries and territories have a national committee on health emergencies for the coordination and implementation of disaster risk reduction in the country. Five are in progress.
- 28 countries have a national plan for response to health emergencies; six of these plans have been updated or validated, approved, and tested within the past two years.

5.2.2b	Countries enabled to strengthen capacities for all-hazards health emergency preparedness and IHR	Number of countries and territories that have conducted simulation exercises or after-action review	0	10	Exceeded
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Thirty-three countries and territories achieved the indicator.

With PASB support, seven countries and territories carried out after-action reviews, for yellow fever in Brazil and for Hurricanes Irma and Maria in the Caribbean (Anguilla, Antigua and Barbuda, British Virgin Islands, Dominica, Sint Maarten, and Turks and Caicos).

PASB supported virtual participation in a worldwide simulation exercise on global pandemic influenza in Brazil, Canada, Chile, Jamaica, Mexico, and United States of America, as well as one multi-country exercise (Aruba, Belize, Curaçao, Guyana, Saba, Saint Kitts and Nevis, Sint Eustatius, Sint Maarten, and Suriname). The Ministry of Health of Brazil created a working group to support the design and implementation of simulation exercises.

The lack of a baseline for this indicator relates to changes made to the format and questions of the SPAR after the 70th World Health Assembly in 2017. The 2019 target was developed by taking into account the historical trends of State Party Annual Reports submitted to the WHA. Achievement is defined as a score of 100% on at least one of three indicators, C8.1, C8.2, and C8.3, in the SPAR submitted to the 72nd WHA in 2019. These indicators are included in the revised format proposed by the WHO Secretariat for the submission of the SPAR, published in May 2018.

It should be noted that 32 countries would have been considered to have achieved this indicator in 2017, based on information extrapolated from the replies to questions 4.1.1.4, 4.1.1.5a, 5.1.1.4a, and 5.1.1.9 included in the SPAR submitted to the 70th WHA, according to the format proposed by the WHO Secretariat at that time (no longer available on the WHO website).

5.2.3	Standing capacity to respond to emergencies and disasters related to any hazard, including outbreaks and conflicts, and to lead networks and systems for effective humanitarian action	Number of PAHO/WHO Representative Offices that meet minimum readiness criteria	13	27	Achieved
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Twenty-seven PWR Offices achieved the indicator: Argentina, Bahamas, Barbados, Belize, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Suriname, Trinidad and Tobago, Uruguay, and Venezuela.

Analysis of the survey on PWR Office readiness was completed. Results indicate that all PWR Offices have achieved the minimum level of preparedness. However, some areas of improvement were identified: these included continuous training of PAHO/WHO readiness focal points and broader dissemination of contingency plans and business continuity plans within the PWR Offices.

The Strategic Tool for Assessing Risks (STAR) was presented to PAHO health emergency focal points in PWR Offices in a virtual meeting; the document and its training package were translated. Among other things, this tool helps PWR Offices apply an evidence-based approach to risk assessments and identify the major health threats.

Different tools have been created and are being distributed to support emergency operations centers in PWR Offices. These include the Information Management Dashboard, which simplifies visualization of information in situation rooms, as well as training materials, such as a puzzle that facilitates understanding of the coordination mechanisms in the country.

5.2.4	Standing capacity to provide secretariat support for implementation of the International Health Regulations (2005)	Number of national focal points supported in implementation of the International Health Regulations (2005)	26	35	Achieved
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PAHO continuously supports National Focal Points in all 35 States Parties of the Region. During the biennium:

- PAHO supported all 35 countries in facilitating functional communication channels between the 35 IHR NFPs. The PAHO NFPs Knowledge Network is supporting implementation of all IHR articles related to NFPs.

- PAHO conducted multilateral missions to Antigua and Barbuda, Bahamas, Dominica, Saint Vincent and the Grenadines, and Trinidad and Tobago to strengthen the functioning of their National IHR Focal Point offices. Activities included the development and/or updating of standard operating procedures (SOPs) for the NFP, encompassing event-based surveillance and risk assessment components.
- NFPs in Argentina, Belize, Brazil, and Trinidad and Tobago participated in event-based surveillance and risk assessment activities, over one or two weeks, carried out by the WHO IHR Regional Contact Point for the Americas (PASB).
- Direct technical cooperation was provided to the Dominican Republic, Ecuador, and Venezuela to strengthen IHR NFP capacity in surveillance and information management, including early warning.
- PASB supported the NFPs in Ecuador and Peru to revise their SOPs for multisectoral coordination capacity, as part of the IHR capacity requirement.
- A Multilateral IHR NFP Strengthening Workshop Toolkit was developed and implemented in five Caribbean countries: Antigua and Barbuda, Bahamas, Saint Kitts and Nevis, Saint Lucia, and Saint Vincent and the Grenadines.

<p>Program Area 5.3: Health Emergency Information and Risk Assessment</p> <p>OUTCOME: PAHO capacities strengthened for timely situation analysis, risk assessment, and response monitoring of all major health threats and events</p> <p>OCM Indicator Assessment: 1/1 achieved OPT Indicator Assessment: 2/3 exceeded; 1/3 not achieved</p>	<p>Rating: Partially met Expectations</p>
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Assessment of outcome indicators

OCM #	OCM Indicator Text	Baseline 2013	Target 2019	Assessment Rating
5.3.1	Percentage of acute public health events for which a risk assessment is completed within 72 hours	60%	100%	Achieved
All 257 events (100%) recorded in the Event Management System (130 events in 2018 and 127 in 2019) had a risk assessment completed within 72 hours.				

Assessment of output indicators

OPT #	OPT Title	OPT Indicator Text	Baseline 2017	Target 2019	Assessment Rating
5.3.1	Standing capacity to detect, verify, and assess the risk of potential and ongoing health emergencies	Average number of days between Event Management System (EMS) and Event Information Site (EIS) posting for detected acute events of international public health importance	10	2	Not achieved
<p>The average number of days between EMS and EIS posting was 11 days for all EMS events with EIS postings in 2019 (10 events). This is a decrease from the average of 15 days (9 events) recorded in 2018, but is still over the target of two days.</p> <p>Factors hindering achievement of the target include the time taken to review EIS postings across all levels of the Organization, delays in receiving substantiated information from States Parties, and the evolving nature of events, which may take time to reach a point that warrants an EIS posting.</p> <p>The following actions were undertaken toward achieving the target:</p> <ul style="list-style-type: none"> • Guidelines for EIS events were developed and rolled out regionally. • Reasons for the 15-day delay in 2018 were identified and engagement with WHO was undertaken, resulting in the improvement from 2018 to 2019. 					
5.3.2	Mechanisms in place to ensure organizational capacity to monitor all ongoing health emergency operations	Percentage of events for which a core set of health indicators is agreed for monitoring (outcome, risk, or health coverage) and for	80%	90%	Exceeded

		which health service mapping has been initiated within two weeks of grading			
<p>Indicators were defined for monitoring and reported in situation reports and public health situation analysis for 100% of emergencies and disasters occurring during the biennium.</p> <p>In 2018 these events included outbreaks of yellow fever, measles, diphtheria, and cholera, the health situation in Venezuela and bordering countries, and the Volcán de Fuego eruption in Guatemala. Interactive maps and 966 static maps were also produced (including 350 on yellow fever, 161 related to Venezuela, and 111 on natural hazards, among others).</p> <p>In 2019, 488 static maps (317 on epidemic diseases, 171 on natural hazards) and 52 interactive maps were produced. Three cartographic datasets were updated.</p>					
5.3.3	Mechanisms in place to ensure organizational capacity to report on all ongoing health emergency operations	Percentage of public health hazards/events/acute crises for which relevant operational and epidemiological information is publicly available to decision makers, in any format, starting within one week of grading or of the Event Information Site (EIS) posting	75%	90%	Exceeded
<p>Epidemiological, cohort, and special analyses are performed on a regular basis to inform public health situation analyses and situation reports that are disseminated. This occurred in 100% of public health hazards/events/acute crises during the biennium.</p> <p>During 2018, the following information products were prepared and distributed:</p> <ul style="list-style-type: none"> • 33 Epidemiological Alerts and Updates • 16 postings on the Event Information Site (EIS) • 6 situation reports on the measles outbreak in Brazil • 6 situation reports on the yellow fever outbreak in Brazil • 1 situation report on the Volcán de Fuego eruption in Guatemala • 4 public health situation analyses on the Volcán de Fuego eruption in Guatemala • 12 public health situation analyses on Venezuela and bordering countries • Situation reports on cholera and diphtheria in Haiti <p>During 2019, the following information products were prepared and distributed for both officially graded and non-graded emergencies:</p> <ul style="list-style-type: none"> • 30 Epidemiological Alerts and Updates, mainly related to preventable immune diseases • PAHO Epidemiological Alerts and Updates continue being the authoritative source of publicly available information on outbreaks and epidemics in Venezuela • 16 postings on EIS, disseminating information to Member States and their IHR NFPs on events involving dengue, diphtheria, hantavirus pulmonary syndrome, histoplasmosis, malaria, measles, <i>P. aeruginosa</i>, <i>Salmonella</i> Newport, and yellow fever • 7 postings on the WHO Disease Outbreak News site, dealing with hantavirus in Panama, hantavirus in Argentina, dengue in Jamaica, yellow fever in Brazil (twice), resistant <i>P. aeruginosa</i> in Mexico, and yellow fever in Bolivia • 9 situation reports (dengue, yellow fever, measles) 					

- 1 biannual public health situation analysis (Venezuela and bordering countries)
- 1 public health situation analysis (Brazil dam break)
- 30 flash updates, dealing with Venezuela and bordering countries, dengue in the Americas (highlighting Honduras and Brazil), measles, arenavirus in Bolivia, floods in Paraguay and Venezuela, fires (in Bolivia, Brazil, Paraguay, and Peru), and Hurricane Dorian

At the same time, Epidemiological Alerts and Bulletins were published on an ongoing basis and made publicly available for all the aforementioned diseases.

Program Area 5.4: Emergency Operations

OUTCOME: Improved access of emergency-affected populations to an essential package of life-saving health services

OCM Indicator Assessment: 1/1 exceeded

OPT Indicator Assessment: 3/9 exceeded, 6/9 achieved

**Rating:
Met
expectations**

Assessment of outcome indicators

OCM #	OCM Indicator Text	Baseline 2013	Target 2019	Assessment Rating
5.4.1	Percentage of countries and territories providing an essential package of life-saving health services in all graded emergencies	50%	75%	Exceeded

The Venezuela crisis and the Brazil yellow fever outbreak were the two officially graded emergencies in the Region during the biennium. However, countries and territories responding to emergencies meeting the Grade 2 criteria were also considered during the assessment of this indicator. These included emergency operations related to migration from Venezuela to neighboring countries, in Brazil, Colombia, Ecuador, Guyana, Peru, Suriname, and Trinidad and Tobago; tornados in Cuba; Volcán de Fuego eruption and health effects resulting from severe drought caused by a prolonged heat wave in Guatemala; social unrest and violence in Nicaragua; floods in Bolivia; chemical contamination in Chile; Hurricane Dorian in the Bahamas; dengue outbreaks in Honduras and Nicaragua; and cholera and diphtheria outbreaks in Haiti.

During the reporting period, 15 of 16 countries (94%) with emergencies meeting Grade 2 or Grade 3 criteria were able to provide an essential package of life-saving health services during all emergency events occurring in their national territories (Bahamas, Bolivia, Brazil, Chile, Colombia, Cuba, Ecuador, Guatemala, Guyana, Haiti, Honduras, Nicaragua, Peru, Suriname, and Trinidad and Tobago). The countries succeeded in leveraging the capacities of their national systems and resources to implement a rapid response providing preventive, curative, palliative, and/or rehabilitative life-saving health services directly to affected populations. Essential services provided by PAHO according to the standards of the Emergency Response Framework included health emergency coordination, procurement and distribution of essential supplies and equipment, humanitarian health logistics management, deployment of rapid response teams and surge personnel, opening of emergency offices in the field, and resource mobilization.

Due to the deteriorating health situation in Venezuela, PAHO supported national authorities in coordinating operations with other health partners and humanitarian actors in the field, including national NGOs, to provide life-saving services directly to the population and restore access to health services in the absence of a fully functioning health system.

Assessment of output indicators

OPT #	OPT Title	OPT Indicator Text	Baseline 2017	Target 2019	Assessment Rating
5.4.1a	Incident management established for coordinated action in all graded and protracted health emergencies	Percentage of graded health emergencies in which an incident management system is established at country level within 72 hours	100%	100%	Achieved
<p>The Venezuela crisis and the Brazil yellow fever outbreak were the two officially graded emergencies in the Region during the biennium. An Incident Management System was established and made operational in Venezuela for the humanitarian problem related to sociopolitical issues. Incident Management Systems were also established in Brazil for issues related to mass migration and the yellow fever outbreak, and in the Bahamas for Hurricane Dorian.</p>					
5.4.1b	Incident management established for coordinated action in all graded and protracted health emergencies	Percentage of graded health emergencies in which a strategic response plan is developed with partners within 30 days	80%	100%	Achieved
<p>The Venezuela crisis and the Brazil yellow fever outbreak were the two officially graded emergencies in the Region during the biennium. However, 100% of emergencies meeting the criteria for Grade 2 had a strategic response plan developed with partners within 30 days. These emergencies included the humanitarian problem related to sociopolitical issues in Venezuela; the yellow fever outbreak in Brazil; tornados in Cuba; Volcán de Fuego eruption and health effects resulting from severe drought caused by a prolonged heat wave in Guatemala; social unrest and violence in Nicaragua; floods in Bolivia; chemical contamination in Chile; Hurricane Dorian in the Bahamas; and dengue outbreaks in Nicaragua and Honduras.</p> <p>The development of strategic response plans for these emergencies was informed by regular meetings, working groups, and coordination with national and local health authorities and with various organizations working in the field. These included, among others, IFRC, UNICEF, OCHA, UNHCR, World Food Program (WFP), UN Women, PLAN International, Save the Children, Spanish Agency for International Development Cooperation (AECID), United Nations Population Fund (UNFPA), International Organization for Migration (OIM), Food and Agriculture Organization (FAO), and Direct Relief.</p>					
5.4.2a	Standing capacity to assist and coordinate the implementation of health operations to agreed standards through partner and WHO operational networks	Percentage of newly graded events for which a joint operations plan is developed with partners within 30 days	80%	100%	Achieved
<p>100% of emergencies meeting the criteria for Grade 2 had a joint operations plan developed with partners within 30 days: the humanitarian problem related to sociopolitical issues in Venezuela; yellow fever outbreak in Brazil; tornados in Cuba; Volcán de Fuego eruption and health effects resulting from severe drought caused by a prolonged heat wave in Guatemala; social unrest and violence in Nicaragua; floods in Bolivia; chemical contamination in Chile; Hurricane Dorian in the Bahamas; and dengue outbreaks in Nicaragua and Honduras.</p> <p>The development of joint operation plans for these emergencies was achieved through regular meetings, working groups, and coordination with national and local health authorities and with several organizations working in the affected countries. These included, among others, IFRC, UNICEF, OCHA, UNHCR, WFP, UN Women, PLAN, Save the Children, AECID, UNFPA, OIM, FAO, and Direct Relief.</p>					
5.4.2b	Standing capacity to assist and coordinate the implementation of health operations to agreed standards through partner and WHO operational networks	Number of GOARN partners supporting alert, risk assessment, and response to public health events and emergencies	25	30	Exceeded

There are currently 35 GOARN partners supporting alert, risk assessment, and response to public health events and emergencies in the Region.					
5.4.2c	Standing capacity to assist and coordinate the implementation of health operations to agreed standards through partner and WHO operational networks	Number of standby partners available to provide deployments in support of emergency operations	3	5	Exceeded
<p>The following are currently available to provide deployments in support of emergency operations: six standby partners and six verified EMTs, in Barbados, Costa Rica, Ecuador (3), and United States of America (an NGO), as well as 33 EMTs in process of classification (includes 10 national EMTs from Argentina, Barbados, Chile, Colombia, Cuba, Mexico, Peru, and Uruguay, and 23 NGOs from Barbados, Canada, and United States of America).</p> <p>During 2018, agreements with Direct Relief, UNHCR, and Logística Humanitaria were maintained to support the deployment of equipment, supplies, and medicines to affected countries. In addition, PAHO initiated negotiations with three new organizations to establish standby partnership during emergencies and disasters: Project Hope, Proyecto Esperanza, and RET International. Agreements are due to be signed in early 2020. The Asociación Interamericana de Ingeniería Sanitaria (AIDIS) is also ready to support WASH-related actions, including assessment and evaluation in health care facilities affected by emergencies and disasters.</p> <p>The agreement with White Helmets was renewed to enable cooperation in the areas of preparedness, humanitarian assistance, and logistics systems.</p>					
5.4.2d	Standing capacity to assist and coordinate the implementation of health operations to agreed standards through partner and WHO operational networks	Percentage of country Health Clusters with a dedicated, full-time Health Cluster Coordinator	50%	100%	Achieved
<p>100% of the active health clusters in the Region have a dedicated, full-time health cluster coordinator. As of December 2019, two countries have active health clusters: Colombia and Venezuela.</p> <p>Colombia's health cluster has been active since 2006. The Ministry of Health and PAHO/WHO co-lead the cluster. There are currently 59 partners in this cluster, including 30 international NGOs, nine national NGOs, 11 UN agencies, seven national authorities, and two donors. The cluster has four subnational hubs in Cúcuta, Riohacha, Arauca, and Ipiales, targeting 980,000 of the 4.5 million people in need throughout the country. The three objectives targeted during 2019 for the health sector are improving access to health services in remote and vulnerable communities; strengthening mental health, sexual and reproductive health, and maternal-child care in targeted areas; and increasing the national capacities of health authorities to provide uninterrupted health services during complex emergencies.</p> <p>In Venezuela, the health cluster was activated in 2019. PAHO leads the cluster. There are currently 23 partners in this cluster, including three international NGOs, 11 national NGOs, eight UN agencies, and one national authority. The cluster is targeting 1.2 million of the 2.8 million people in need identified throughout the country.</p>					
5.4.2e	Standing capacity to assist and coordinate the implementation of health operations to agreed standards through partner and WHO operational networks	Number of emergency medical teams verified and/or mentored at regional level	5	15	Exceeded
There are currently six verified EMTs and 33 additional EMTs that are in the mentoring process to achieve WHO classification.					

EMTs classified and available for deployment are the EMT Type 1 Fixed from Costa Rica, the EMT Type 2 and Specialized Surgical Cell from Ecuador, the EMT Type 1 Mobile from the NGO Team Rubicon USA, and the EMT Type 1 Fixed from the Barbados Defense Force. The 33 EMTs in process of classification that may be deployed to provide surge capacity and to satisfy demand for specialized health services during emergencies and disasters are from Argentina, Barbados, Canada, Chile, Colombia, Cuba, Mexico, Peru, United States of America, and Uruguay.

5.4.3	Standing capacity to provide supplies and logistical services and operational support for all graded and protracted health emergencies	Percentage of emergency events for which operational support and supplies are provided within one week	100%	100%	Achieved
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100% of emergency events occurring during the year received operational support and supplies, including emergency personnel deployment, within 48 hours of onset or request for support. This included emergencies in 21 countries in the Americas (Argentina, Bahamas, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Ecuador, Guatemala, Guyana, Haiti, Honduras, Jamaica, Nicaragua, Panama, Paraguay, Peru, Suriname, Trinidad and Tobago, and Venezuela).

This was possible due to the presence of PAHO personnel, including disaster focal points in PWR Offices, complemented by the rapid mobilization of subject matter experts from PAHO Headquarters, Member States, and partners. PWR Office focal points are deployed immediately to perform assessments and provide support to national authorities in the development of action plans, as well as to coordinate the most urgent actions. Experts from the regional office, Member States, and partners are deployed within 48 hours after receipt of a request for emergency deployment.

The rapid deployment of supplies, equipment, and medicines was achieved by prepositioning essential items in the three PAHO warehouses located in Panama (UNHCR, Logística Humanitaria, and Instituto Gorgas), the PWR Office in Barbados, and the regional office.

5.4.4	Country capacity improved to develop policies and intersectoral actions for addressing humanitarian response in health	Number of guidance documents developed to address priority health humanitarian aid policy/technical gaps, in collaboration with partners	n/a	1	Achieved
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In 2019, PAHO finalized and published the Guidance Document on Migration and Health. This document is the result of extensive inter-programmatic work to address the humanitarian health gaps related to migrants. The guidance document serves as a resource for Member States to address the public health and health system challenges related to migration, including the promotion and protection of the health of migrants throughout their migration process. It aims to support the integration of the health needs of migrants into national health policies, strategies, and programs, to protect not only the health of this population but also that of the host population. The guide is expected to contribute to the overall protection of the health and well-being of the peoples of the Americas, both host and migrant populations, recognizing that no one must be left behind.

The guidance document sets out the following five strategic lines of action:

- Strengthen health surveillance, information management, and monitoring
- Improve access to health services for the migrant and host populations
- Improve communication and exchange of information to counter xenophobia, stigma, and discrimination
- Strengthen partnerships, networks, and multi-country frameworks to understand the status and promote and protect the health of migrants
- Adapt policies, programs, and legal frameworks to promote and protect the health and well-being of migrants

<p>Program Area 5.5: Emergency Core Services</p> <p>OUTCOME: PAHO Health Emergencies Program well-resourced and efficient to support national health emergency programs</p> <p>OCM Indicator Assessment: 1/1 exceeded</p> <p>OPT Indicator Assessment: 2/6 exceeded, 3/6 achieved, 1/6 not achieved</p>	<p>Rating: Met expectations</p>
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Assessment of outcome indicators

OCM #	OCM Indicator Text	Baseline 2013	Target 2019	Assessment Rating
5.5.1	Percentage of core requirements funded by PAHO/WHO core resources or multiyear funding agreements	n/a	50%	Exceeded
<p>75% of funding for Category 5 was provided by flexible core resources and multiyear funding agreements with USAID Office of US Foreign Disaster Assistance, US Department of Health and Human Services, US Centers for Disease Control and Prevention, Global Affairs Canada, and Brazil.</p>				

Assessment of output indicators

OPT #	OPT Title	OPT Indicator Text	Baseline 2017	Target 2019	Assessment Rating
5.5.1a	Standing capacity to effectively manage and administer the Health Emergencies Program	Percentage of core budget available at midpoint of biennium	75%	75%	Not achieved
<p>71% (approximately \$40 million) of the PAHO Program and Budget 2018-2019 for Category 5 (\$56.4 million) funded from flexible funds and voluntary contributions was available at the midpoint of the biennium (December 2018). This included approximately \$25.5 million of combined PAHO and WHO Health Emergencies flexible funds.</p> <p>Before the end of the first quarter of 2019, just over 75% of core budget funds was available.</p>					
5.5.1b	Standing capacity to effectively manage and administer the Health Emergencies Program	Percentage of graded and protracted emergencies in which initial funding of up to \$500,000 is made available within 24 hours of grading	100%	100%	Achieved
<p>Initial funding for all PAHO-declared emergencies meeting the Grade 2 criteria was made available from the two PAHO emergency funds, as required. These emergencies included diphtheria outbreaks in Venezuela and Haiti; yellow fever outbreaks in Brazil and Venezuela; and the Venezuela sociopolitical crisis and spillover into neighboring countries.</p>					
5.5.1c	Standing capacity to effectively manage and administer the Health Emergencies Program	Percentage of graded and protracted emergencies in which PAHO rapid response teams are deployed within 72 hours of decision to deploy	75%	75%	Achieved
<p>During 2018-2019, PAHO mobilized 78 international experts to support 13 emergencies. This included:</p> <p>In 2018:</p>					

- WHO Ebola response in Democratic Republic of Congo: one expert in infectious hazard management to support Ebola vaccination.
- Landfill overflow in Bolivia: two environmental engineers for needs assessment and response coordination.
- Floods in Bolivia: one expert in coordination and emergency management.
- Threatening pollutants in the Quintero and Puchuncavi municipalities in Chile: two experts in epidemiological investigation and crisis communications.
- Hurricane Maria in Dominica: one expert mission extended to August 2018 to support logistics, coordination, and information management.
- Volcán de Fuego eruption in Guatemala: two experts to support the Incident Management Systems and conduct a study on long-term impact of volcanic ash on public health.
- Sociopolitical crisis in Honduras: one expert mobilized to support the Ministry of Health in conducting a needs assessment.
- Yellow fever outbreak in Brazil: two experts mobilized twice to support the Ministry of Health in health information management and immunization.
- Venezuela response operations in 2018: a total of 28 international experts deployed to Venezuela, Colombia, and Guyana to support a wide variety of technical areas, including detection, verification, and response to diphtheria; molecular diagnosis of yellow fever; surveillance and clinical management of diphtheria; infection prevention and control clinical management; logistics; administration and program management; cold chain establishment and maintenance; immunizations; surveillance and risk assessment; epidemiologic information management; Incident Management System; and procurement.

In 2019:

- WHO Ebola response in Democratic Republic of Congo: one PAHO staff in the role of chief of staff and strategic partners coordinator for the response in Goma.
- WHO Cyclone Idai response in Mozambique: one PAHO staff to provide support procurement and logistics.
- Civil unrest in Haiti: one expert in logistics deployed to support activities under the Program for Essential Medicines and Supplies (PROMESS).
- Potential hemorrhagic fever outbreak in Bolivia: one expert deployed for investigation purposes.
- Venezuela response operations in 2019: a total of 17 international experts deployed to Venezuela, Colombia, and Guyana to support a wide variety of technical areas, including detection, verification, and response to diphtheria; molecular diagnosis of yellow fever; surveillance and clinical management of diphtheria; infection prevention and control clinical management; logistics; administration and program management; cold chain establishment and maintenance; immunizations; surveillance and risk assessment; epidemiologic information management; Incident Management System; and procurement.
- Hurricane Dorian in the Bahamas: a total of 17 international experts deployed to support a wide variety of technical areas, including program management and administration; mental health and psychosocial support; environmental health support; procurement; vector control; health systems and services; epidemiologic information management; health emergency information and risk assessment; infection hazard management; information management; media and communication; water and sanitation and environmental health; multimedia; and EMT support.

Deployments included either internationally recruited consultants and staff or PAHO personnel stationed in the affected countries. In all cases, PAHO had personnel on the ground within 72 hours of the decision to deploy.

5.5.1d	Standing capacity to effectively manage and administer the Health Emergencies Program	Percentage of roster targets filled with internal and external preapproved roster members	50%	75%	Exceeded
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The consolidated minimum roster target is at least 84 internal and external preapproved members, broken down into the technical areas listed below. The number of current preapproved members is 172. Therefore, 205% of roster targets were filled as of December 2019.

- Emergency coordination: Minimum 10. Current: 19 (190%)

<ul style="list-style-type: none"> • Administration: Minimum 10. Current: 11 (110%) • Health systems: Minimum 5. Current: 2 (40%) • Epidemiology: Minimum 10. Current: 21 (210%) • Water and sanitation: Minimum 10. Current: 25 (250%) • Logistics: Minimum 10. Current: 30 (300%) • Information management and communications: Minimum 5. Current: 22 (440%) • Mental health: Minimum 10. Current: 37 (370%) • Vector control: Minimum 4. Current: 1 (25%) • Civil engineering and architecture: Minimum 5. Current: 4 (80%) 					
5.5.2	Standing capacity to disseminate health emergencies communications and secure sustainable financing in an accurate and timely manner	Number of donors financially supporting the PAHO Health Emergencies Program through voluntary contributions over \$1 million per biennium	5	6	Achieved
<p>Support in the amount of \$1 million or more was available from the following donors for the work of the Health Emergencies Program during the 2018-2019 biennium (excludes funding for emergency response):</p> <ul style="list-style-type: none"> • US Centers for Disease Control and Protection • USAID Office of US Foreign Disaster Assistance • Global Affairs Canada • UK Department for International Development • European Union • WHO Pandemic Influenza Preparedness Framework 					
5.5.3	Standing capacity to provide effective leadership, planning, and performance management of the Health Emergencies Program	Percentage grade obtained in the annual Emergency Program Performance Assessment	n/a	70%	Exceeded
<p>The annual Emergency Program Performance Assessment was completed for 2018 (100% of results on track) and 2019 (82.5% of results achieved).</p> <p>In the context of ongoing reform of the WHO Health Emergencies Programme, the Independent Oversight and Advisory Committee (IOAC) presented its first report to the WHO Governing Bodies in January 2019 for the period May 2018 to May 2020, and its seventh report to the WHO Governing Bodies in January 2019. WHO established the IOAC for the WHE Programme to guide the development of the new program, monitor the work of WHO in outbreaks and emergencies, and provide oversight. PAHO is not mentioned in the report, but some of the opportunities and challenges identified by the IOAC with respect to WHE are also relevant to PASB. The Organization has made significant progress in developing the work of the new PAHO Health Emergencies Department (PHE) since it was established in September 2016, building on established systems and processes in place over the last 42 years. Progress has been especially notable in relation to structure (including budget and human resources), incident management, risk assessment, partnerships, and IHR, particularly with regard to PAHO performance in outbreaks and emergencies at country level. Efforts continue in PAHO to implement measures to address identified challenges, considering the results of lessons learned exercises conducted following significant outbreaks and disasters.</p>					

<p>Program Area 5.6: Disaster Risk Reduction and Special Projects</p> <p>OUTCOME: Countries have an all-hazards health emergency and disaster risk reduction program for a disaster-resilient health sector</p> <p>OCM Indicator Assessment: 1/1 partially achieved</p> <p>OPT Indicator Assessment: 2/5 exceeded, 2/5 achieved, 1/5 partially achieved</p>	<p>Rating: Partially met expectations</p>
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Assessment of outcome indicators

OCM #	OCM Indicator Text	Baseline 2013	Target 2019	Assessment Rating
5.6.1	Number of countries and territories implementing disaster risk reduction interventions in the health sector that increase community resilience	11	35	Partially achieved
<p>Twenty-eight countries achieved the indicator.</p> <p>During the biennium, PAHO provided ongoing support to countries to strengthen their capacity to reduce disaster risk in the health sector. This included the development of guidelines and tools, including the Health Sector Multi-Hazard Response Framework; Preparedness Index for Health Emergency and Disasters; Heatwaves and Health: Actions to Be Taken; Guidance Document on Migration and Health; guidelines for Disability Inclusion in Hospital Disaster Risk Management (INGRID-H), emphasizing people with disabilities and indigenous populations; and Updated Hospital Safety Index (HSI) guidelines in Spanish and English, incorporating lessons learned from almost 10 years of application in the Region.</p>				

Assessment of output indicators

OPT #	OPT Title	OPT Indicator Text	Baseline 2017	Target 2019	Assessment Rating
5.6.1	Countries enabled to improve the safety and security of integrated health services networks	Number of countries and territories that include safe hospital criteria in the planning, design, construction, and operation of health services	22	27	Achieved
<p>Twenty-five countries and territories achieved the indicator. Six countries partially achieved the indicator.</p> <p>An updated second version of the Hospital Safety Index (HSI) guidelines, a key set of tools to assess health facilities, was published in Spanish and English. Fifty participants from 18 countries in South America and Central America were trained. The tool has also proved useful in emergency situations: for example, in Venezuela it was used to prioritize hospitals in the response to the sociopolitical crisis, and in Haiti, it was used to assess hospitals damaged after the October 2018 earthquake.</p>					

To improve the level of inclusion of people with disabilities in emergency and disaster risk management in the health sector, particularly in the preparation and response of hospitals to emergencies and disasters, a methodology known as INGRID-H was developed and is being applied in 23 hospitals in four countries (Chile, Ecuador, Mexico, and Peru).

The operation of health services was also improved with the introduction of the Incident Command System (ICS) for hospitals in all Central American countries. PAHO trained facilitators in all countries, who will replicate this methodology in their respective countries.

5.6.2a	Countries enabled to strengthen capacities for all-hazards disaster and emergency risk reduction for health	Number of countries and territories that have evaluated disaster and emergency risk in the health sector	0	19	Partially achieved
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Thirteen countries and territories achieved the indicator. Eight countries partially achieved the indicator.

PAHO worked with countries to support a process for identifying hazards, vulnerabilities, and risk assessment capacity in each country. Based on this analysis, plans or other provision for multi-hazard response should follow. A document to guide the elaboration of these plans was finalized in late 2018 and published in early 2019 under the title Health Sector Multi-Hazard Response Framework. The framework aims to improve the capacity of countries to manage their response to emergencies and disasters in a more efficient and timely manner. It facilitates an operational model that makes it possible to identify response activities, taking into account all existing hazards, and to carry out those activities within a national framework based on the organization of the health sector.

5.6.2b	Countries enabled to strengthen capacities for all-hazards disaster and emergency risk reduction for health	Number of countries and territories with full-time staff assigned to disaster and emergency risk reduction	16	22	Exceeded
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Thirty countries achieved the indicator. Eleven countries and territories partially achieved the indicator.

During the biennium, PAHO supported at least eight countries to design and develop the organizational and functional structure for disaster risk management units in the national health authority.

5.6.2c	Countries enabled to strengthen capacities for all-hazards disaster and emergency risk reduction for health	Number of countries and territories that have a sectoral mechanism for coordination, implementation, and monitoring of disaster and emergency risk management for health	22	29	Exceeded
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Thirty countries and territories achieved the indicator. Five countries partially achieved the indicator.

Thirty countries and territories have a national committee for the coordination, implementation, and follow-up of emergency and disaster risk management in the health sector. In five countries, the formation of the national committee for emergencies and disasters in the health sector is in progress.

In 33 countries, the national emergency and disaster risk management policy covers aspects related to risk reduction, preparedness, and response; 26 countries have incorporated aspects of disaster recovery.

5.6.3	Countries enabled to implement most feasible climate-smart and safety standards	Number of countries and territories that include criteria for disaster mitigation and	3	10	Achieved
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	in selected health facilities to improve their resilience and reduce their impact on the environment	for adaptation to climate change in the planning, design, construction, and operation of health services			
<p>Ten countries and territories achieved the indicator. Five countries partially achieved the indicator.</p> <p>Belize, British Virgin Islands, Dominica, Grenada, Guyana, Jamaica, and Saint Lucia are target countries in the Smart Hospital Project and are therefore implementing related activities within this context. Eighteen health facilities in four countries have been “smartened.”</p> <p>As part of the response to Hurricane Irma, PAHO completed “smart” interventions in several facilities in the British Virgin Islands in 2018. An assessment using the HIS and a green checklist was conducted at Mount St. John’s Medical Centre in Antigua and Barbuda, and the implementation of climate-smart interventions began at the end of 2018.</p> <p>The Smart Hospital initiative has expanded to South America (Colombia, Ecuador, and Peru) through a tripartite project between PAHO, the Inter-American Development Bank, and the Andean Health Agency (ORAS). Other countries in South America have also expressed interest.</p>					

<p>Program Area 5.7: Outbreak and Crisis Response</p> <p>OUTCOME: All countries adequately respond to threats and emergencies with public health consequences</p> <p>OCM Indicator Assessment: 1/1 achieved</p> <p>OPT Indicator Assessment: 5/5 exceeded</p>	<p>Rating: Met expectations</p>
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Assessment of outcome indicators

OCM #	OCM Indicator Text	Baseline 2013	Target 2019	Assessment Rating
5.7.1	Percentage of countries and territories that have demonstrated adequate response to an emergency from any hazard with a coordinated initial assessment and a health sector response plan within 72 hours of onset	100% (2015)	100%	Achieved
<p>The Venezuela crisis and the Brazil yellow fever outbreak were the two officially graded emergencies in the Region during the biennium. However, countries and territories responding to emergencies meeting the Grade 2 criteria were also considered during the assessment of this indicator. These emergencies included the humanitarian problem related to sociopolitical issues in Venezuela; yellow fever outbreak in Brazil; tornados in Cuba; Volcán de Fuego eruption and health effects resulting from severe drought caused by a prolonged heat wave in Guatemala; social unrest and violence in Nicaragua; floods in Bolivia; chemical contamination in Chile; Hurricane Dorian in the Bahamas; dengue outbreaks in Honduras and Nicaragua; and cholera and diphtheria outbreaks in Haiti. An adequate response with a coordinated initial assessment and a health sector response plan within 72 hours of onset were provided in all of these emergencies.</p>				

Assessment of output indicators

OPT #	OPT Title	OPT Indicator Text	Baseline 2017	Target 2019	Assessment Rating
5.7.1	Countries enabled to prevent and control outbreaks in all emergencies and disasters with public health consequences	Percentage of grade 2 and 3 emergencies in which PASB meets the performance standards related to Infectious Hazard Management (IHM)	n/a	70%	Exceeded
<p>100% of Grade 2 and Grade 3 emergencies met PASB performance standards related to IHM.</p> <p>One Grade 2 emergency was declared in Brazil in relation to the yellow fever outbreak. There were also measles and diphtheria outbreaks in Venezuela and neighboring countries within the context of the ongoing migration crisis in South America; dengue outbreaks in Honduras, Nicaragua, and Jamaica; acute neurological syndrome in Peru; hemorrhagic fever cases caused by arenavirus in Bolivia; severe acute respiratory infections in Guyana; Guillain-Barré syndrome in Peru; D8 measles outbreak in Argentina not related to the outbreaks in Venezuela and neighboring countries; and cholera and diphtheria outbreaks in Haiti.</p> <p>All these emergencies were responded to and monitored in accordance with Emergency Response Framework performance standards, including:</p> <ul style="list-style-type: none"> • Monitoring and sharing relevant information for decision making 					

<ul style="list-style-type: none"> • Activation of surge capacity to ensure appropriate policy advice and technical expertise to health authorities and partners to establish and implement a program of work to respond to the emergency • Promotion and monitoring the implementation of national or international protocols, health standards, methodologies, tools, and best practices 					
5.7.2	Countries enabled to increase access to essential health services in all emergencies and disasters with public health consequences	Percentage of grade 2 and 3 emergencies in which PASB meets the performance standards related to Country Health Emergency Preparedness and IHR (CPI)	n/a	70%	Exceeded
<p>The Venezuela crisis and the Brazil yellow fever outbreak were the two officially graded emergencies in the Region during the biennium. However, relevant CPI performance standards were implemented in all emergencies meeting the Grade 2 criteria, including the humanitarian problem related to sociopolitical issues in Venezuela; yellow fever outbreak in Brazil; tornados in Cuba; Volcán de Fuego eruption and health effects resulting from severe drought caused by a prolonged heat wave in Guatemala; social unrest and violence in Nicaragua; floods in Bolivia; chemical contamination in Chile; Hurricane Dorian in the Bahamas; dengue outbreaks in Honduras and Nicaragua; and cholera and diphtheria outbreaks in Haiti.</p>					
5.7.3	Countries enabled to strengthen surveillance and health information in all emergencies and disasters with public health consequences	Percentage of grade 2 and 3 emergencies in which PASB meets the performance standards related to Health Emergencies Information and Risk Assessment (HIM)	n/a	70%	Exceeded
<p>The Venezuela crisis and the Brazil yellow fever outbreak were the two officially graded emergencies in the Region during the biennium. However, relevant HIM performance standards were implemented in all emergencies meeting the Grade 2 criteria, including the humanitarian problem related to sociopolitical issues in Venezuela; yellow fever outbreak in Brazil; tornados in Cuba; Volcán de Fuego eruption and health effects resulting from severe drought caused by a prolonged heat wave in Guatemala; social unrest and violence in Nicaragua; floods in Bolivia; chemical contamination in Chile; Hurricane Dorian in the Bahamas; dengue outbreaks in Honduras and Nicaragua; and cholera and diphtheria outbreaks in Haiti.</p> <p>Examples of actions include:</p> <ul style="list-style-type: none"> • Issuing initial internal situation report (Sitrep) within first 72 hours after the emergency declaration • Establishing/strengthening early warning and response within the first 10 days after emergency declaration • Establishing a monitoring framework for the response 					
5.7.4	Effective coordination and health operations support provided in all emergencies and disasters with public health consequences	Percentage of grade 2 and 3 emergencies in which PASB meets the performance standards related to Emergency Operations (EMO)	n/a	70%	Exceeded
<p>The Venezuela crisis and the Brazil yellow fever outbreak were the two officially graded emergencies in the Region during the biennium. However, relevant EMO performance standards were implemented in all emergencies meeting the Grade 2 criteria, including the humanitarian problem related to sociopolitical issues in Venezuela; yellow fever outbreak in Brazil; tornados in Cuba; Volcán de Fuego eruption and health effects resulting from severe drought caused by a prolonged heat wave in Guatemala; social unrest and violence in Nicaragua; floods in Bolivia; chemical contamination in Chile; Hurricane Dorian in the Bahamas; dengue outbreaks in Honduras and Nicaragua; and cholera and diphtheria outbreaks in Haiti.</p> <p>The following actions were taken, among others:</p>					

- Safety and security of all staff was ensured through the update and activation where necessary of cascade calls.
- All graded emergencies have an active country Incident Management Team (IMT) with assigned critical functions, with an overall support from the Regional IMT located at PAHO Headquarters.
- Rosters were activated to support surge capacity in functional areas during the emergency.
- PAHO convened ongoing health sector meetings, and a health cluster meeting in Colombia, in its role as Health Leader Agency. This has allowed the development of strategic response plans and joint operations plans, as well as a more effective and coordinated response.
- All emergencies benefited from timely published situation reports and public health situation analysis for coordination and decision making.

Operations support and logistics procurement plans have been developed to expedite distribution of essential supplies and equipment to populations at risk, especially during complex emergencies such as the health situation in Venezuela and neighboring countries.

5.7.5	Implementation of OCR programme management in all emergencies and disasters with public health consequences	Percentage of grade 2 and 3 emergencies in which PASB meets the performance standards related to Emergency Core Services	n/a	70%	Exceeded
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The Venezuela crisis and the Brazil yellow fever outbreak were the two officially graded emergencies in the Region during the biennium. However, relevant Emergency Core Services performance standards were implemented in all emergencies meeting the Grade 2 criteria, including the humanitarian problem related to sociopolitical issues in Venezuela; yellow fever outbreak in Brazil; tornados in Cuba; Volcán de Fuego eruption and health effects resulting from severe drought caused by a prolonged heat wave in Guatemala; social unrest and violence in Nicaragua; floods in Bolivia; chemical contamination in Chile; Hurricane Dorian in the Bahamas; dengue outbreaks in Honduras and Nicaragua; and cholera and diphtheria outbreaks in Haiti.

The following actions were taken, among others:

- Contingency Fund for Emergencies (CFE) funds were requested and allocated to implement the regional response to the emergencies, as well as to bridge critical funding gaps. PAHO also made funds available from its Epidemic Emergency Fund and PAHO Emergency Disaster Fund to kick-start response operations.
- Global donor alerts were published, and about \$40.5 million was mobilized from key donors for emergencies in 2018-2019.