

# Annual Report 2020

## Universal Health and the Pandemic – Resilient Health Systems

Jamaica, Bermuda, and  
the Cayman Islands



**PAHO**



Pan American  
Health  
Organization



World Health  
Organization  
REGIONAL OFFICE FOR THE  
Americas

PAHO/JAM/21-0001

© Pan American Health Organization, 2021  
Some rights reserved. This work is available under license [CC BY-NC-SA 3.0 IGO](https://creativecommons.org/licenses/by-nc-sa/3.0/)

Photos: © PAHO (except where indicated)

The Pan American Health Organization (PAHO) was founded in 1902 and is recognized as the independent specialized health agency of the inter-American system, under the Charter of the Organization of American States. In 1949, PAHO agreed to serve as the Regional Office for the Americas of the World Health Organization (WHO), a specialized agency of the United Nations system. Acting in its capacity as WHO's Regional Office, PAHO participates actively in the United Nations Country Team, collaborating with other agencies, the funds and programmes of the United Nations system, and with the United Nations Resident Coordinator to contribute to the achievement of the Sustainable Development Goals at country level. For nearly 120 years, PAHO has developed recognized competence and expertise, providing technical cooperation to its Member States to fight communicable and noncommunicable diseases and their causes, to strengthen health systems, and to respond to emergencies and disasters throughout the Region of the Americas.

Given PAHO's dual legal status and the difficulty of disaggregating PAHO from WHO activities, this Annual Report reflects both PAHO and WHO activities in the Americas as related to technical cooperation in 2020. Approximately 80% of PAHO's technical cooperation in health in the Region of the Americas is funded by PAHO's own quota and voluntary contributions, as an inter-American organization. The remaining 20% of PAHO's integrated biennial budget includes WHO-funded activities. Further detailed financial information for this Annual Report can be found in the Financial Summary section.

## Mission

To lead strategic collaborative efforts among Member States and other partners to promote equity in health, to combat disease, and to improve the quality of, and lengthen, the lives of the peoples of the Americas.

## Vision

To be the major catalyst for ensuring that all the peoples of the Americas enjoy optimal health and contribute to the well-being of their families and communities.

## Values



**EQUITY**  
Striving for fairness and justice by eliminating differences that are unnecessary and avoidable.



**EXCELLENCE**  
Achieving the highest quality in what we do.



**SOLIDARITY**  
Promoting shared interests and responsibilities and enabling collective efforts to achieve common goals.



**RESPECT**  
Embracing the dignity and diversity of individuals, groups, and countries.



**INTEGRITY**  
Assuring transparent, ethical, and accountable performance.



# Contents

<b>Forewords</b> .....	<b>2</b>	<b>Environment and Health</b> .....	<b>28</b>
<b>PAHO Technical Cooperation with Jamaica, Bermuda, and the Cayman Islands</b> .....	<b>3</b>	<b>Health throughout the Life Course</b> .....	<b>30</b>
<b>Health Emergencies and     Building Resilience</b> .....	<b>4</b>	<b>Financial Summary</b> .....	<b>32</b>
<b>Health Systems and Services</b> .....	<b>11</b>	<b>Special Initiatives</b> .....	<b>33</b>
<b>Communicable Diseases</b> .....	<b>20</b>	<b>Looking Ahead</b> .....	<b>34</b>
<b>Noncommunicable Diseases</b> .....	<b>23</b>		
<b>Mental Health</b> .....	<b>26</b>		

## Forewords



The year 2020 will be remembered as the year that tested everyone's resilience. By December, in the Americas, more than 33 million people had been infected with COVID-19 and more than 800,000 persons had died. The devastating loss of life is accompanied by an economic downturn that continues to affect everyone and threatens to derail the achievement of the Sustainable Development Goals.

The year of the COVID-19 pandemic has shed light on inequities and the barriers to universal health. Some of them – low-paid work, the informal economy, overcrowded housing, lack of social protection, and limited access to health services – have made vulnerable populations even more susceptible to COVID-19. The disease has exposed both the barriers to universal health and the profound need for it.

The pandemic has also demonstrated that the health sector acting alone cannot achieve universal health. We need leadership, good governance, the private sector, and civil society. Academia and industry must work with government to produce and share technologies, including diagnostics, therapeutics, and vaccines, as well as digital innovation. Development partners must facilitate coordination for disease surveillance, information sharing, and the response to health emergencies. Financial sectors must help make available the resources needed to ensure that health systems are adaptable, responsive, and inclusive while they address the needs of the entire population. The pandemic has irrefutably proved that we need everyone to be engaged for health and well-being that leaves no one behind.

This year, PAHO's technical cooperation has focused not only on helping countries to respond to the pandemic but also on safeguarding progress toward universal health. This Annual Report reviews our contributions and achievements and reinforces PAHO's core mission, through our focus on the country level, recognizing that progress toward sustainable development hinges on improved health at the local and national level.

Dr. Carissa F. Etienne  
Director of the Pan American Health Organization



The COVID-19 pandemic tested national health systems, transformed traditional ways of work, and created new opportunities to improve the delivery of health care. These developments required the Country Office to leverage relationships developed before the pandemic to provide effective technical guidance and capacity-building to inform national health responses. Jamaica, Bermuda, and the Cayman Islands confirmed their first cases of COVID-19 on 10, 18, and 19 March, respectively. However, they had commenced preparedness for any possible introduction of the novel coronavirus in early January 2020 in response to notifications by the Pan American Health Organization (PAHO) Headquarters, following identification of SARS-CoV-2 on 7 January 2020. Significant health outcomes were accelerated, including improving the diagnostic capacity of the ministries of health served by the Country Office.

The team at the Country Office also adapted to doing things differently, in keeping with COVID-19 protocols. The Country Office transformed from a hub of activity to a quiet zone as employees embraced teleworking and virtual meetings. The continued commitment of the team to deliver positive health outcomes during this seminal year ensured that we achieved strategic and tactical collaboration with all those served by the Country Office.

This annual report outlines PAHO's contributions, achievements, challenges, and projections for Jamaica, Bermuda, and the Cayman Islands.

Dr. Bernadette Theodore-Gandi  
PAHO Representative in Jamaica, Bermuda, and the Cayman Islands



# PAHO Technical Cooperation with Jamaica, Bermuda, and the Cayman Islands

The work of the Country Office is informed by the PAHO/WHO Country Cooperation Strategy (2017–2022). Technical cooperation is, therefore, critical to protect and safeguard past achievements in health and capacity-building to face new challenges relating to the achievement of the Sustainable Development Goals.

A consultative process inclusive of an evidence-based and a results-focused approach ensures the Country Office builds the resilience of health systems, promotes health and well-being throughout the life course, and responds to health emergencies in the country and territories served.

**“ PAHO has really stepped up to the table and provided the leadership necessary for smaller countries in their COVID-19 responses. ”**

Dr. Hon. Christopher Tufton  
Minister of Health and Wellness, Jamaica





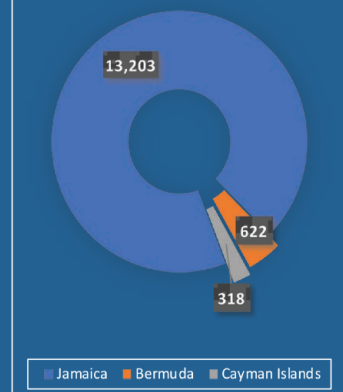
## Health Emergencies and Building Resilience

The year 2020 was marked by the focus on tackling the COVID-19 pandemic. The Country Office adhered to the guidance of the World Health Organization (WHO) COVID-19 Strategic Preparedness and Response Plan (SPRP), and the Health Emergency and Disaster Management Framework, particularly in developing the PAHO COVID-19 Preparedness and Response Plan for Jamaica, Bermuda, and the Cayman Islands. The plan charted the way for national health sector responses, emphasizing surveillance and laboratory diagnosis using a national health emergency framework and points of entry, which served as hubs for information sharing and limiting cross-border transmission of SARS-Cov-2.

The year 2020 was also the penultimate year of implementing the Plan of Action for Disaster Risk Reduction 2016–2021 (POA for DRR), which resulted in Jamaica achieving all six objectives within the four strategic lines of action of the POA for DRR. These included maintaining an up-to-date strategic risk assessment and improving the security of integrated health services networks, as the Smart Health Care Facilities project advanced to the stage of major retrofitting to ensure safety and climate change resilience before, during, and after disasters. In each instance, technical cooperation initiatives enhanced capacities for International Health Regulations (IHR) (2005) and the overarching multihazard, multisector approach for pandemic preparedness and response.

COVID-19 and its impact on the health sector exposed new vulnerabilities and opportunities to bolster health systems.

**COVID-19 Infections as at 31 December 2020**





## Integrated COVID-19 Pandemic Preparedness and Response

The rapid transmission of SARS-CoV-2 globally and the resulting impact on the health sector and economies worldwide exposed the strengths and weaknesses of health systems while recognizing gains from pandemic preparedness and capacity-building within the IHR (2005).

Jamaica, Bermuda, and the Cayman Islands confirmed their first cases of COVID-19 in March 2020. By 31 December 2020, Jamaica had confirmed 13,203 cases, with a crude case fatality rate of 2.3%, while Bermuda and the Cayman Islands had had 622 and 318 confirmed cases, and a 1.6% and 0.6% crude case fatality, respectively. Surges in cases and deaths in

2020 threatened to overwhelm the capacity of the health systems to provide care. There was an unprecedented level of suspension of health programmes and services with re-purposing of health facilities and diversion of health staff to the COVID-19 response. Shortages of critical medical equipment and supplies for personal protection and respiratory support challenged service delivery, leading to the introduction of new strategies and plans across sectors. These included establishing quarantine and isolation facilities with public health in tandem with social measures such as lockdowns to reduce transmission.

PAHO/WHO had previously supported countries to craft

pandemic influenza preparedness and response plans in the 2000s. Capacity-building with training and country assessments had also been completed for SARS-CoV, Ebola, chikungunya, Zika, and influenza. These efforts formed the basis for developing COVID-19 plans with guidance from the WHO COVID-19 SPRP.

In early 2020, the Country Office activated its Emergency Operations Centre (EOC) in sync with the Incident Management System structures at PAHO Headquarters. The Country Office led the United Nations system's health response coordination in the country and territories supported, including the Government of Jamaica's

collaboration with partners for donations to the health sector. PAHO was also the implementing agency for eight partners that funded projects and maximized gains by pooling resources and utilizing PAHO's procurement system for emergencies to provide critical laboratory and medical equipment and supplies, personal protective equipment (PPE), and risk communication materials.

As the global authority on health, technical guidance was provided as a member of the National Disaster Risk Management Council, which is chaired by the Prime Minister of Jamaica. PAHO's involvement also enhanced the preparation, introduction, and deployment of





COVID-19 vaccines, and support with utilizing the Revolving Fund and liaising with the COVAX facility. The Country Office remains embedded in Jamaica's Ministry of Health and Wellness (MOHW) EOC, providing daily technical guidance and support.

All PAHO technical cooperation for health emergencies was re-directed to support COVID-19 preparedness and response, including implementation of the Plan of Action for DRR 2016–2021 and capacity-building for IHR (2005).

**The main highlights and milestones achieved include:**

- Country-level coordination, planning and monitoring:

execution of 10 grants for COVID-19 response totaling over US\$ 3.5 million, with 25 hospitals and 15,000 healthcare workers benefitting.

- Risk communication and community engagement: development of four culturally appropriate videos, including How to Safely Breastfeed during COVID-19 (with access on the PAHO website and an online video-sharing and social media platform), and COVID-19 Home Quarantine and Isolation.
- Laboratory: training to introduce molecular detection capacity for diagnosis of COVID-19 at Jamaica's National Influenza Centre

and National Public Health Laboratory in February 2020; and at private laboratories in Bermuda and the Cayman Islands which provide testing for the health services. There was also ongoing provision of laboratory supplies for Jamaica.

- Points of entry: technical support for assessments of capacities at 10 points of entry in keeping with IHR (2005), and upgraded isolation and quarantine areas installed or retrofitted by owners and operators.
- Capacity-building: training and sensitization of 20,000 healthcare workers and other frontline workers in areas including surveillance,

infection prevention and control, laboratory capacity-strengthening clinical management, Go.Data for contact-tracing IHR (2005) monitoring and evaluation framework, mass casualty management system, incident command system, and the virtual Medical Information and Coordination Cell and its integration into health emergency operations centres.

**Main challenges for the COVID-19 response include:**

- The prolonged nature of the response has resulted in fatigue of workers in health care, critical sectors, and the general public.





© Ministry of Health and Wellness, Jamaica

- There are limited resources to ensure rapid and durable scale-up of containment measures to sustain gains in prevention and control of transmission.
- Centralized direction and coordination of health sector responses through health emergency operations centres need to be strengthened.
- Monitoring and evaluation of the response are needed to determine priorities.
- Public-private partnerships should be broadened to augment critical aspects of the response and routine programmes.

**Next steps include:**

- Prepare COVID-19 strategic plan for health sector response and recovery.

- Strengthen health systems to respond to COVID-19, while maintaining essential health services.
- Implement risk communication and community engagement strategies to support priorities and enhance behaviour change.
- Enhance supply chains for life-saving modalities, therapeutics, and vaccines.
- Procurement and deployment of vaccines, in particular for vulnerable groups.
- Strengthen pandemic preparedness for the health sector and across sectors, in keeping with the IHR (2005) and other global and regional imperatives.

The effects of scaling down essential health services need

to be analyzed and negative impacts reversed, with support to return to the gains in health in the shortest possible time frame. Inequalities created or worsened affecting health outcomes will also need to be addressed to protect the vulnerable and previously marginalized persons.

## Building Resilience for Healthcare Facilities

Jamaica is at risk for severe impact from multiple emergencies and disasters, including hurricanes, earthquakes, floods, and new and emerging diseases, which have been observed with increasing scale and frequency

in the region over the last decade. These events negatively impact the health of the population and constitute a major challenge for countries in protecting people's health.

Jamaica's MOHW operates 314 health centres and 26 hospitals, which are expected to remain operational during and after emergencies and disasters. Assessments of 78 health facilities utilizing the PAHO Smart Toolkit – Hospital Safety Index (HSI) and Green Checklist (GC) in the period 2017–2019 revealed that none achieved the required Safe and Green standards, where an HSI score of A indicates that facilities would be deemed likely to continue functioning in disaster



# SMART HEALTH CARE FACILITIES IN THE CARIBBEAN PROJECT – PHASE II

**PROJECT DURATION:** June 2015 to June 2020

**TARGET COUNTRIES AND TERRITORIES:** Belize, Dominica, Grenada, Guyana, Jamaica, Saint Lucia, and Saint Vincent and the Grenadines

situations and able to protect the life of their occupants. Of the facilities assessed, 41% achieved a B and 59% a C for safety – structural, nonstructural, and functional areas, which indicate that there are increased safety risks.

The average Green Checklist score was 29%, while the standard is a minimum score of 70%.

The PAHO Safe, Smart Hospitals initiative, developed in the Caribbean, has been accepted and utilized by WHO and countries worldwide as the methodology

**The PAHO Safe, Smart Hospitals Initiative has been accepted and utilized as the methodology and standard for resilient healthcare facilities.**

and standard for resilient healthcare facilities. The use of the PAHO Smart Toolkit to assess facilities and determine the HSI and GC scores provides valuable information to guide the priorities for ensuring appropriate standards

for construction, retrofitting, and incorporation of recommendations in related programmes at ministries of health. Technical support has been provided to achieve institutionalization

of this initiative as a MOHW priority programme, with a budget and the ability to attract partner funding.

The POA for DRR 2016–2021 includes Safe, Smart Hospitals as one of its four strategic lines of action with ongoing support guided by the monitoring and evaluation framework with annual determination of gaps and needs to achieve stated objectives.

To facilitate this, PAHO continues to partner with the United Kingdom Foreign, Commonwealth and Development Office (FCDO) and is implementing Phase II of the Smart Health Care Facilities in the Caribbean Project, from May 2015 – May 2021 in seven Caribbean countries. Jamaica has benefitted since June 2016 and is at the stage of retrofitting and smart interventions to enhance resilience of facilities. The PAHO/

Canada Caribbean Disaster Risk Management programme – Health Sector project 2016–2022 supported the implementation of smart healthcare facility assessments in six additional Caribbean countries. PAHO collaborated with both partners to enhance the pool of evaluators in Jamaica through capacity-building with training of persons in 2018 to assess at least 70 facilities. Climate change adaptation partnerships have also utilized the Safe, Smart Hospitals methodology to increase the number of facilities assessed. Safe, Smart Hospitals is integral to outbreak and COVID-19 pandemic preparedness and response, with sustainable services guaranteed. The use of the concept was furthered with PAHO developing a shelter



guide for the Caribbean in the context of COVID-19.

PAHO convened an FCDO Project Steering Committee meeting in December 2020 with critical decision-making on the way forward in the context of COVID-19 and selection of Santa Cruz Health Centre as the next facility for retrofitting to smart standards. Mandeville Health Centre will also receive smart interventions based on availability of funds.

**PAHO continues to implement Phase II of the Smart Healthcare Facilities.**

The main milestones were linked to the advancement of the project to the stage of retrofitting and smart interventions, with over 259,000 persons to benefit from Smart facilities:

- Award of 10 contracts for works at 10 health centres;
- Started major retrofitting at two health centres – Port Antonio and St. Ann’s Bay in November 2020 and December 2020, respectively, for a duration of eight months;
- Launched retrofitting works at the Port Antonio Health Centre in December 2020;
- Scheduling for start of smart interventions at eight health centres in early 2021, focusing on enhancement of roofs and windows, and green upgrading

of water and energy supply, and developing or upgrading of contingency and conservation plans.

Two additional facilities were assessed using the HSI and GC tool bringing the total number to 148 out of 150 facilities (99%).

The prolonged nature of the COVID-19 pandemic has significantly delayed the rollout of the Smart Healthcare Facilities programme, which requires in-person visits to health facilities for HSI and GC assessments, retrofitting, monitoring, and interactions with staff and community members. Public health and social measures limited movements in general

for the year, and specifically at facilities where service delivery continued with increased risk of contact with persons with COVID-19. It is planned to complete works at all facilities in 2021.



## Smart Healthcare Facilities



(Left to right) Hon. Daryl Vaz, Minister of Science, Energy and Technology (centre) on a tour of the Port Antonio Health Centre after the launch ceremony, with Dr. the Honorable Christopher Tufton, Minister of Health and Wellness, and Mrs. Ann-Marie Vaz, Member of Parliament.

“ By investing in water retention and renewable energy, the efficiencies translate to reduced operating costs and the money can be saved for frontline patient care. ”

His Excellency Asif Ahmad, British High Commissioner to Jamaica

### CUMBERLAND HEALTH CENTRE RENOVATION RITCHES DIVISION, CLARENDON Constructed in 2009



The launch of major retrofitting works at the Port Antonio Health Centre in December 2020 was a major milestone for Jamaica, as this represented the first facility to advance to this stage of the Smart Healthcare Facilities programme.

Remarks made at the event encapsulated the expected outcomes of the smart project.

Minister of Health and Wellness, Dr. the Honorable Christopher Tufton said, “Today’s effort at putting in place an overhauling of this facility is timely, because it provides us with an opportunity to reset the resilience of our public health infrastructure, to reset the capacity of our people through

training, so that we can adjust and become more relevant to the challenges that we face as a country”.

British High Commissioner to Jamaica, His Excellency Asif Ahmad, reiterated that, “Retrofitting the way that it is being undertaken here is value

“ Overhauling of this facility is timely because it provides an opportunity to reset the resilience of our public health infrastructure. ”

Dr. Hon. Christopher Tufton  
Minister of Health and Wellness, Jamaica

for money, because by investing in water retention, renewable energy and everything else, the efficiencies actually translate into reduced operating costs, and the money that is being saved can be used by the health centre for frontline patient care.”

Parish Manager, Portland Health Services, Joan Robinson McPherson, expressed gratitude to the Government and the donors, and emphasized that, “I am happy because it means an upgrade in the facility in terms of improvement in infrastructure. The improvements also include

going green, so there will be a reduction in the overall operational cost, the electricity bill will be reduced, the water bill will be reduced, so I am really happy for it, and I am sure that the clients will really benefit from it.”



## Health Systems and Services

In a very challenging year marked by the response to the COVID-19 pandemic, there was important progress in critical areas for strengthening the health system in Jamaica. The technical collaboration included developing a new model of care for prevention and management of noncommunicable diseases (NCDs), based on primary health care, as well as advancing information systems for health. The development of a national policy of research for health, as well as the capacity-building on leadership for nurses of Jamaica was made through establishing dynamic and broad collaboration networks at national and regional level. Finally, progress on strengthening health financing through the implementation of results-based management by the MOHW and the regional health administration initiated in 2020 will be critical both for strengthening the health system and the economic recovery of Jamaica.

PAHO made important progress toward strengthening the health system in Jamaica.



## Integrating Health Services

Jamaica's fragmented health system is being transformed and reoriented to provide person centered health services, particularly important to tackle NCDs, but also to ensure effective response to the current COVID-19 pandemic. This transformation of the health systems is being implemented at a time when 1 in 3 Jamaicans have hypertension; 1 in 8 are living with diabetes; and 1 in 2 are overweight or obese. Furthermore, 4 out of every 10 Jamaicans are expected to suffer from a mental illness, while the suicide rate is approximately 2.1 per 100,000.

Jamaica established the Health System Strengthening Project in 2019, with an investment of US\$ 100 million

over five years, through an Inter-American Development Bank (IDB) loan. PAHO has provided technical support in the development of the National Policy of the Model of Care for NCDs and the implementation of the pilot programme in 11 primary health centres and three hospitals, from Ocho Rios in the north, to Lionel Town in the south. The new model of care is based on the Integrated Health Service Delivery Network (IHSDN), ensuring coordination between health centres and hospitals into the same network.

The project aims to improve the health of Jamaica's population by strengthening comprehensive

policies for the prevention of NCD risk factors and for the implementation of a chronic care model, with improved access to strengthened and integrated primary and hospital services networks that provide more efficient and quality health services.

The development of a new model of care for NCDs becomes critical in the response to the COVID-19 pandemic, with special focus on the most vulnerable groups, including persons with chronic diseases.

PAHO provided technical support to the MOHW in the development of the National Policy of the Model of Care for NCDs. The new model

of care aims to strengthen development of primary health care-based health systems, and thus enable a health services delivery that is more accessible, equitable, efficient, of higher technical quality, and that better satisfies citizens' expectations.

The main milestones in the development of the model of care are:

- Support the design and planning of the model of care for NCDs, including development of pilots in 11 health centres and three hospitals in selected parishes of Jamaica.
- Support the development of the model of care for violence against women and





girls, funded by the EU-UN Spotlight initiative.

- Provide technical support to the MOHW in the reorganization of the health services for the COVID-19 response.

Since March 2020, due to the pandemic, Jamaica has faced significant disruptions to essential health services to persons living with NCDs, who are also at increased risk of becoming severely ill with COVID-19. The interprogrammatic approach has proved key to ensuring access to health services for persons with NCDs, particularly in the current COVID-19 context. The model of care contributes to the required

resilience of the health system to the shocks imposed by the pandemic.

## Strengthening Information Systems for Health

The second component of the project of the MOHW on health system strengthening aims to advance the information system for health with functionalities in patient registration, medical health records, laboratory, outpatient scheduling, pharmacy, and other relevant services, and its rollout in three health networks.

Strengthening the information system for health (IS4H) is critical

to ensure the data required to inform decision-making processes at the different levels of the health systems, including policymakers, healthcare managers, health professionals, and patients.

The main milestones of the technical support to the MOHW include the following:

- Establishment of the IS4H Steering Committee to ensure effective governance and guide current and future investment in IS4H. The Steering Committee is an interministerial group, which includes the key stakeholders for the development and implementation of the National Strategy on IS4H. It leads the development of the National Strategy on IS4H;

- Development of maturity level of IS4H assessment and IS4H functional assessment to inform the National Strategy on IS4H. The assessments of the MOHW, with the technical support of PAHO, were funded by the IDB loan and completed in March 2020;

The digital transformation of the health systems will bring societies closer to universal health.

- The integration of the International Classification of Diseases in the information system for health;



- The implementation of the surveillance application Go.Data for strengthening the national COVID-19 monitoring, tracking, and tracing system, in coordination with the MOHW and WHO.

The National Strategy on IS4H is currently being developed through a virtual consultation process with the key stakeholders. This activity is a component of the MOHW project for health system strengthening, funded by the IDB loan.

The digital transformation of health systems brings important benefits for steering the reform of health services toward universal health. However, it also brings risks that need to be

tackled by the MOHW, including data privacy. As a proactive step, PAHO has supported the MOHW in the development of guidelines to ensure data privacy and promote trust of the public in the information system.

## Strengthening Health Financing Policies toward Universal Health

The health system has been challenged by the decreasing fiscal space. Public health expenditure in Jamaica remains below levels recommended to achieve universal health. Currently, public expenditure on health represents 3.47% of gross domestic

product; however, international experience has shown that 6% of gross domestic product is a useful benchmark and a necessary condition to achieve universal health.

As it is unlikely that there will be additional resources available for social spending, it is increasingly important to improve the management of public finances to focus on strategic priorities and maximize service delivery outcomes.

PAHO with the MOHW, Ministry of Finance and Public Service, and Ministry of Education, in collaboration with the IDB, UNICEF, United Nations Development Programme, and the World Bank, has established a joint

project in Jamaica for achieving greater efficiency, effectiveness, and equity in public investments, ensuring that “no one is left behind.” The project is funded by United Nations Sustainable Development Goals Fund.

The joint project provides a unique opportunity for strengthening the collaboration with the Ministry of Finance and Public Service, which will be key for the implementation of the Sustainable Development Goals (SDGs) project, as well as promotion of constructive policy dialogue on health financing between the MOHW and the Ministry of Finance and Public Service.

The joint project will strengthen the public finance management



capacity of the Ministry of Finance and Public Service and the MOHW, thereby ensuring a more efficient, effective, and equitable resource allocation toward Vision for Health 2030 of the MOHW.

This increased capacity, together with diagnostic budget analyses and the development of financial simulation models and budget tracking systems, will enable the reprioritization of funds to services that affect the most deprived and vulnerable populations.

The economic impacts of the COVID-19 pandemic in the Jamaican economy include a decline in government

revenues due to emergency health expenditures as well as supporting social and economic expenditures, and lower inflows from tourism and remittances, negatively impacting the country's balance of payments.

The Government also introduced/implemented several tax and economic stimulus measures in response to the economic and social fallout from COVID-19, including a multipronged economic package valued at approximately J\$10 billion, and tax measures amounting to J\$15 billion.

The joint project's implementation plan provides an opportunity for increased

advocacy and technical support for protecting future public investments in education and health related outcomes for children, toward sustaining economic growth and building resilience to socioeconomic shocks through efficiency, equity, and effectiveness.

## Advancing a National Policy on Research for Health

In spite of the important progress on strengthening research for health, there is still a major gap in the application of research findings to systematically improve the operational elements of

the health system. Therefore, the MOHW's national policy will create a national coordination mechanism to govern critical aspects of research. Furthermore, it is anticipated that greater levels of collaboration and efforts will be made to infuse the findings of research into the development agenda.

PAHO with the MOHW has provided technical support for the development of a national policy on research for health. The policy aims to develop a governance framework that ensures the conduct and coordination of research to strengthen the health system and support national planning.





Specifically, the governance structure should streamline the role of the MOHW, the National Advisory, and the leadership of other research-based institutions that currently reside outside the direct purview of the MOHW. The policy must incorporate arrangements for the establishment and maintenance of the highest level of ethical conduct in keeping with international guidelines and partners.

The financing of research is another critical component for the sustainability of a national research agenda. This policy will seek to develop a national framework to guide the disbursement of funds received by public institutions to ensure

continued alignment with the national agenda.

The main highlights of the technical collaboration between PAHO and the MOHW on research for health include:

- Developed the concept note for the development of the National Policy on Research for Health for submission to the Cabinet;
- Provided technical cooperation in the development and implementation of national policy research, and promoted research on the health system's response to the COVID-19 pandemic;
- Ensured an integrated approach to technical support relating to the health system's COVID-19 pandemic response;

- Establishment of the Essential Research Group for COVID-19 to improve health coordination of COVID-19 and inform the decision-making process. The Essential Research Group promotes the development of research priorities on health systems by strengthening partnerships with the Planning Institute of Jamaica, the University of the West Indies (UWI), and other universities and research centres in Jamaica in the response to the COVID-19 pandemic;
- Supported the participation of the MOHW in the global solidarity trial and modelling for projection of COVID-19 cases.

The COVID-19 pandemic has revealed the critical role of

health research to inform the decision-making process of the MOHW in these challenging times. The MOHW has therefore strengthened its capacity to develop research through broad collaboration with universities, research centres, and other sectors.

Based on the concept note developed, PAHO will provide further support to the MOHW in the development of the national policy for health research and capacity-building on knowledge translation.





## Strengthening Human Resources for Health

PAHO/WHO declared 2020 the International of the Year of the Nurse and Midwife. Jamaica has an estimated shortage of 3,000–4,000 nurses to achieve universal health by 2030. The MOHW celebrates the work of nurses and advocates for increased investments in the nursing profession. A key challenge identified by the MOHW is the need to equip and empower nurses and midwives as leaders, practitioners and advocates in health. Therefore, PAHO with the MOHW, in collaboration with a hemispheric collaboration between the PAHO/WHO Collaborating Centers on Nursing at the University of Miami and UWI have developed a new virtual training course on leadership for nurses in Jamaica.

The launch of the PAHO Virtual Training on Nursing and Midwifery Leadership, a 20-week curriculum offered through the PAHO Virtual Campus of Public Health, was celebrated via an online teleconferencing platform on 30 November.

“Amid this unprecedented pandemic, the timing is critical for a course that will offer a clear and accessible path to transformational leadership for nurses in the Caribbean,” said Cindy L. Munro, University of Miami, School of Nursing and Health Studies (SONHS).

Calling the UWI “a truly amazing partner,” Munro emphasized the significance of building





their hemispheric alliance in the spotlight of the WHO-designated Year of the Nurse and Midwife, and the spectre of COVID-19. The course will empower nurses and midwives in the Caribbean region, she said, by “enhancing understanding of nursing leadership and management principles that can be employed in clinical practice.”

PAHO/WHO has facilitated the use of the PAHO Virtual Campus and the collaboration between the PAHO/WHO Collaborating Center of the UWI School of Nursing and the PAHO/WHO Collaborating Center of University of Miami, SONHS, as well as coordinated with the MOHW regarding the selection

of nurses and midwives to be engaged in the leadership course. A minimum of five tutors from the UWI School of Nursing were partnered with the University of Miami for capacity-building in online tutoring for leadership development of nurses and midwives. Once it has developed capacity in Jamaica, the UWI will further lead the online tutoring course in Jamaica and the Caribbean.

“If complexity doesn’t describe our current environment, I don’t know what would,” Munro said. Offering the example of how the PAHO/WHO Collaborating Center of University of Miami, SONHS pivoted in the wake of COVID-19, Munro said, “We

were left, as many institutions were, with teaching our students remotely with very, very little prior notice.” Although the school’s emergency response plan had been developed with natural disasters such as hurricanes in mind, it provided the critical foundation SONHS needed to rapidly realign and reorient a wide range of resources and services in the pandemic.







## Strengthening Health Systems and Services in Jamaica

It is 8 a.m. and a long line has formed down the outside of the St Ann Bay health centre. A large group huddle against the wall to catch the fast-disappearing shade. Everyone has something in common – they all have diabetes. People know this because it is Wednesday, one of only two days per month that doctors are available to see clients with diabetes.

The rise of NCDs in Jamaica has meant a dramatic rise in the number of people seeking assistance from regional health centres and hospitals. NCDs such as cardiovascular disease, diabetes, and chronic lower respiratory disease are the leading cause of death and continue to be a major public health burden in Jamaica due to the lifelong treatment and care needed to address these chronic conditions.

In Jamaica, 70% of all deaths are due to one of the four major NCDs (cancer, lung disease, diabetes, and heart disease), while many more people will continue to live with lifelong disability due to complications as a result of an NCD, requiring regular contact with health centres.

Health centres face multiple challenges such as a lack of personnel, inadequate infrastructure, and outdated information systems, which have led to reduced quality of care, especially for those with chronic conditions. The rise in NCDs has forced a redesign in how health facilities are built and staffed, and in how they communicate with citizens, and in how health centres and hospitals communicate with one another.



## An Integrated Approach

PAHO is assisting the MOHW in creating a new integrated model of care where the person is central to the design and operation of the health system. Developed more than two decades ago, the chronic care model is a widely adopted approach to improving ambulatory care that has guided clinical quality initiatives around the world.

Jamaica has established a project for health system strengthening with an investment of US\$ 100 million over five years, which aims to increase the capacity of selected health centres and hospitals to provide comprehensive health promotion, disease prevention, and treatment to meet the specific needs of individuals in the community through tailored infrastructure upgrades to facilities, linked information systems, and developing standardized levels of care.

The pilot programme will include 14 health facilities (11 primary health centres and three hospitals) located in a corridor between Ocho Rios in the north and Lionel Town in the south.

The new care model is a comprehensive system for organizing chronic disease care within the IHSDN, ensuring coordination between health centres and hospitals in the same network. Network integration will allow functionalities in patient registration, health records, laboratory, outpatient scheduling, pharmacy, and other relevant services. The implementation of innovative technologies in telehealth, such as remote specialist consultation from clinics and general hospitals, will also be possible.



While many activities were cancelled due to COVID-19, PAHO supported countries and territories to build national capacity for detection, surveillance, and infection control.

## Communicable Diseases

Several activities scheduled for 2020 were postponed due to the COVID-19 response. However, PAHO supported Jamaica, Bermuda, and the Cayman Islands to improve their national capacity for detection, surveillance, and infection control.

The human resources at the PAHO and the MOHW were dedicated to responding to COVID-19. Communicable diseases' main counterparts at the MOHW (surveillance, National Public Health Laboratory [NPHL], environmental health; and HIV / tuberculosis [TB] resources) were diverted to the response of COVID-19, postponing many other activities. COVID-19 had a high impact on surveillance of communicable diseases in general, as well prevention, testing, and treatment strategies at HIV/TB programmes. Environmental health programmes, including vector control personnel, were also allocated to respond to COVID-19. Outside of a pandemic situation there are already conflicting priorities, and, in this instance, COVID-19 competed for the human resources in PAHO and the MOHW.

Main projects postponed:

- Monitoring and evaluation of the implementation plan for the HIV programme;
- National Strategic Plan MOHW endorsement;
- Antimicrobial resistance national action plan.





## Vector Control Strategy Implementation

Jamaica has a high burden of vector-borne diseases. In 2019, there was a dengue outbreak with 7,555 reported cases and 24 deaths. At that time, there was not a National Vector Control Strategy implemented at country level.

### PAHO supported Jamaica to develop a National Vector Control Strategy.

To that end, PAHO supported Jamaica to develop and align its National Vector Control Strategy with the regional strategy.

In 2020, PAHO supported the prioritization and activities for implementation of the National Vector Control Strategy. An implementation plan was elaborated and disseminated in a 2-day workshop with PAHO's participation. With the arrival of COVID-19 in Jamaica, activities agreed and prioritized in the vector control implementation plan were postponed.

### End Tuberculosis in Jamaica

Jamaica is a very-low-burden country for TB, with 64 cases reported in

2019. However, there are key groups where more efforts to find cases of TB need to be implemented. Jamaica has accepted implementation of the End TB Strategy. As part of the End TB Strategy, PAHO supported the NPHL through the donation of one GeneXpert module system and desktop computer and 2,000 test cartridges for detection of *Mycobacterium tuberculosis* complex and rifampicin resistance, to foster and support the implementation of the WHO/PAHO recommendation of molecular diagnostic of TB and TB antimicrobial resistance.

PAHO also proceeded with a revision of a surveillance system and TB programme assessment to guide further intervention with the goal of eliminating TB. The Organization has also supported the following:

- Revision of the TB programme and surveillance, with recommendation for improvement of surveillance beyond TB;
- Updated surveillance system from a paper-based system to a digital-based one;
- Updated diagnostic methods by use of molecular diagnostic to facilitate identification of cases.





© Ministry of Health and Wellness, Jamaica

## Strengthen Laboratory Capacity for Detection of SARS-CoV-2

Jamaica's National Influenza Centre was the first laboratory in country to be trained in detection of SARS-CoV-2, followed by the NPHL. A month before the introduction of COVID-19 in Jamaica, the National Influenza Centre and NPHL were trained and had supplies donated by PAHO to start SARS-CoV-2 detection based on WHO/PAHO protocols.

The aim now is to create and maintain the country's capacity for detection of SARS-CoV-2. Changes and new methodologies available for detection of SARS-CoV-2 have also created a constant need for updated training and the provision of supplies.



© Ministry of Health and Wellness, Jamaica



© Ministry of Health and Wellness, Jamaica



# Noncommunicable Diseases

## Increasing Tobacco Control Measures

Worldwide, tobacco kills over 8 million persons each year and is an important risk factor for NCDs. In 2017, 19.4% of adolescents in Jamaica between 13 and 17 years of age reported current use of a tobacco product. In that same year, 15% (26% male, 5% female) of Jamaicans over the age of 15 years reported current use of tobacco products, and 50% of lifetime cigarette smokers had started smoking by age 19. The tobacco industry targets the young through the Internet and social media, encouraging them to become lifelong committed smokers.

With the passage of the Tobacco Control Regulations of 2013, Jamaica achieved smoke-free public spaces and pushed tobacco

companies to place pictorial health warnings on tobacco packets. By increasing taxes on cigarettes, the cost of cigarettes will increase resulting in reduced cigarette consumption, particularly among the young. The enactment of a total ban on tobacco advertising, promotion, and sponsorship (TAPS) and use of mass-media campaigns are additional interventions that, if implemented along with the other measures currently in place, will see Jamaica receiving a fivefold return on investment in terms of lives saved, productivity gains, and averted medical costs over a 15-year period. The introduction of a Comprehensive Tobacco Control, including a ban on TAPS and measures to prevent interference from the tobacco industry in policymaking in all sectors, will also

PAHO is supporting Jamaica in the preparation of its Comprehensive Tobacco Control legislation.





see Jamaica being more compliant with the Framework Convention on Tobacco Control (FCTC) in general, and specifically with Articles 13 and 5.3.

These measures have also been shown to reduce the demand and consumption of tobacco products in the general population.

In July 2020, PAHO collaborated with the MOHW and the Jamaica Coalition for Tobacco Control to host a two-day virtual sensitization session that addressed the strategies used by the tobacco industry to influence policy, including efforts to present themselves as good corporate citizens.

The team at PAHO also supported the Tobacco Control team at the

MOHW by reviewing and providing feedback on the Comprehensive Tobacco Control Legislation of 2020, which was tabled in Parliament in December 2020.

The Joint Select Committee of Parliament has invited organizations, members of the public, and interested entities to make submissions on the Bill before it is passed. It is expected that the tobacco industry will seek to mount challenges and arguments in a bid to reduce the impact and effectiveness of the Tobacco Control Bill in its current form.

### PAHO has submitted a joint statement with the FCTC Secretariat in support of the Tobacco Control Bill.

PAHO has submitted a joint statement with the FCTC Secretariat in support of the Tobacco Control Bill. Through its partners, PAHO will fund the services of a legal technical officer to research, review, and provide prompt responses to any challenges to the Bill that may be mounted to delay its passage.

A concurrent social media campaign will be launched to promote the legislation and to counteract the efforts of the industry to reduce its effectiveness. There will also be the greater efforts to conduct provider training and make smoking-

cessation services more widely available.

### Increasing the Evidence Base for Front-of-package Warning Labels

**N**CDs are the leading cause of mortality and disability in Jamaica, accounting for 80% of deaths.

Making the situation even more dire at this time is the fact that people with underlying health conditions, including NCDs, have a higher risk of severe COVID-19 disease, and are more likely to die from the virus.





Unhealthy eating is one of the main modifiable risk factors for NCDs. Healthier choices by consumers would result in a decrease in nutrition-related diseases and, by extension, a reduction in health care costs.

Front-of-package labelling (FOPL) on foods has been shown to help consumers to evaluate product healthfulness and make healthier choices.

In Jamaica, PAHO supported the initiation of a research project being carried out by the University of Technology Jamaica, in collaboration with the MOHW, to evaluate the efficacy of different FOPL schemes. This will provide the first such evidence from the Caribbean, adding to the body of evidence from research conducted elsewhere.

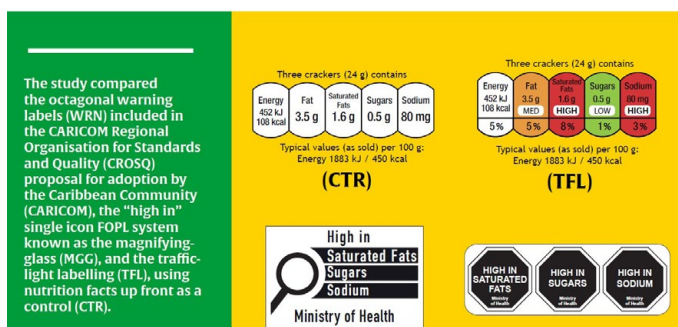
The research is timely, as PAHO is supporting the CARICOM Regional Organisation for Standards and Quality, which is currently revising the CARICOM standard for labeling of prepackaged foods, with the new inclusion of FOPL, with the labelling scheme to be decided.

The bulk of the data has been collected, and will be analyzed to determine the FOPL system that best enables consumers to identify foods with high levels of the nutrients critical to health, and foods that are least harmful to health, and influence their purchase intentions.

collectors and the data collection were hindered by restrictions put in place in the country.

The budget was reconfigured to allow for the purchase of PPE in order to facilitate administration of questionnaires. Following adaptation of the methodology and retraining of interviewers, the data collection could commence.

The project was planned prior to the COVID-19 pandemic, and following the onset of the pandemic, the training of data

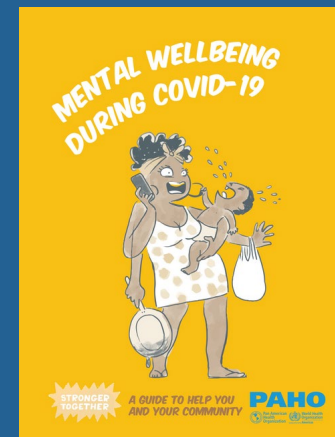




## Mental Health

In spite of the many challenges that were experienced during this year, the national mental health programme rose to the occasion and strengthened significantly the mental health and psychosocial support offered to various sectors of the population, including to healthcare workers, older persons, and educators in schools.

In Jamaica, 18% of adolescents between 13 and 17 years had attempted suicide, and 25% had seriously considered attempting it in the previous 12 months.



PHYSICALLY  
ASSISTANT  
DURING



## Meeting Adolescent Mental Health Needs

Half of all mental health disorders start by age 14 and often go undiagnosed for up to 10 years. Adolescence is a crucial time for mental health promotion, prevention, early identification, and intervention as most of these conditions can be successfully treated. In Jamaica, 18% of adolescents between 13 and 17 years had attempted suicide, and 25% had seriously considered attempting it in the previous 12 months; 23.9% reported having been bullied within the previous 30 days, and only 31.1% of the adolescents reported that their parents or guardians understood their problems or worries most of the times or always.

Mental Health Literacy in Schools is an evidence-based programme

developed by the researchers of TeenMentalhealth.org that has been successfully implemented in several school districts in Canada along with several low- and middle-income countries. The programme equips teachers, students, and “go-to educators” to understand how to optimize and maintain good mental health, to understand mental disorders and their treatments, to decrease stigma, and to increase health-seeking efficacy.

The “Teen Hub” located in the Transportation Centre in Kingston is considered a nontraditional access point for the delivery of adolescent health services and is identified as a best practice in Jamaica. Adolescents visit to access educational services, conflict

resolution, sexual and reproductive health and mental health services, some skills training, and to socialize.

In June 2020, PAHO collaborated with TeenMentalhealth.org and the Ministries of Health and Education in Jamaica to train 46 health and education officers as trainers to implement the Mental Health Literacy in Schools programme in schools across Jamaica. The training was conducted remotely using the Virtual Campus of Public Health.

A situational analysis was completed documenting the mental health and life skills development interventions delivered by the United Nations agencies and other organizations within Jamaica.

PAHO donated 18 tablet computers for use by the adolescents who access services at the Teen Hub, and by the Child and Adolescent Mental Health Officers to improve their data management and to facilitate greater their access to adolescents in communities that have need of their care. This was funded through a grant from the Global Action Plan for Healthy Lives and Well-being for All.

With the delay in the return to face-to-face classes due to the COVID-19 pandemic, the rollout of the Mental Health Literacy in Schools programme was deferred. However, some adolescents were reached via the Teen Hub and the Child and Adolescent Mental Health staff from the MOHW.



## Environment and Health

### Support for the WHO/UN-Habitat report on safely treated wastewater and water, sanitation, and hygiene in Jamaica

PAHO coordinated the collection of data for the WHO/UN-Habitat report on Sustainable Development Goal (SDG) Indicator 6.3.1 (Proportion of domestic and industrial wastewater flows safely treated) under Target 6.3, which calls for: "By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally."

Jamaica reported that a total of 90,100 million m<sup>3</sup> of household wastewater was generated (26.3% sewers, 28.6% septic tanks, and 45.0% other sanitation).



## Skin-lightening

Jamaica has a high burden of use of skin products with mercury for skin-lightening. Enhanced legislation governing the importation and selling of skin products with mercury, the implementation of testing capacity for detection of mercury contents on skin products, and increasing public awareness will assist in reducing the use of these dangerous products.

A key milestone was Jamaica becoming one of the three countries part of Global Elimination of Mercury from Skin Lightening Cosmetics Focusing on Asia, Africa, and the Caribbean Region,

2019–2021. The challenge is therefore the implementation of country capacity for detection and controlled sales in a multi-agency effort that is well coordinated.







## Health throughout the Life Course

Maternal mortality ratios in Jamaica have not changed significantly over the past 20 years and currently stand at 86 per 100,000 live births. While most pregnancies and births are uneventful, around 15% of all pregnant women will develop a potentially life-threatening complication that requires skilled care, or even major obstetrical intervention, in order to survive. The leading causes of death during pregnancy are postpartum haemorrhage and pregnancy-induced hypertension.

Maternal mortality ratios in Jamaica have not changed significantly over the past 20 years and currently stand at 86 per 100,000 live births.





## Saving the Lives of Mothers in Jamaica

PAHO is committed to supporting Jamaica in its efforts to achieve SDG Target 3.1, which is to reduce the maternal mortality ratio to less than 70 per 100,000 live births by 2030.

Adequate training of healthcare providers and the appropriate use of simple but life-saving devices and uterotonic medications can significantly reduce the mortality from postpartum haemorrhage. In 2019, the Latin American Center for Perinatology, the PAHO specialized agency for perinatal health, conducted training in the induction of labour and management of postpartum haemorrhage for healthcare providers in 2019

and introduced several devices that can be used to deliver good-quality obstetric care.

This was followed by the development of protocols for the management of postpartum haemorrhage, and revised maternal health record books and antenatal registers.

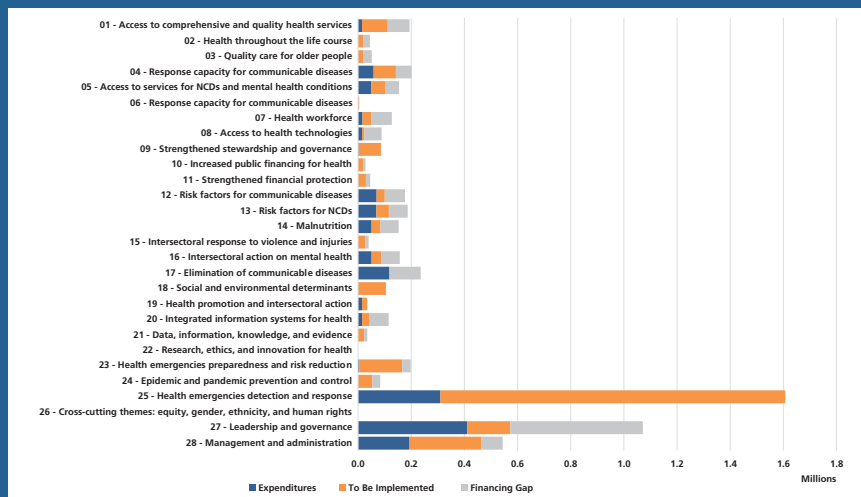
At the Annual Maternal Health Review, held on 18 February 2020, two obstetric management protocols were launched focused on the management of postpartum haemorrhage and the induction of labour. These management protocols will provide ongoing guidance to the health professionals in their efforts to deliver good-quality

obstetric care. The revised maternal health record book and antenatal registers were also launched and presented to the teams by Dr. Bernadette Theodore-Gandi, PAHO/WHO Representative in Jamaica, Bermuda, and the Cayman Islands.

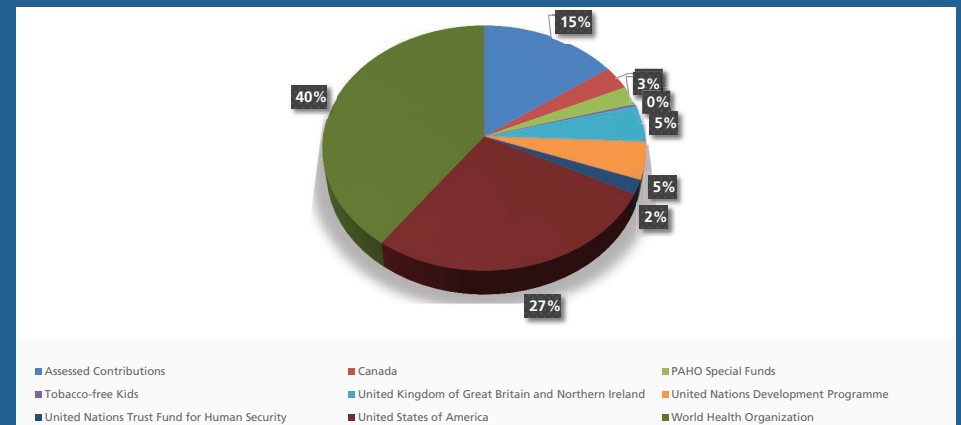
With the high levels of staff mobility, it is likely that many of the persons who were trained at the various healthcare facilities may leave within the short term. It is therefore important to establish a system of scheduled re-trainings for new and continuing staff, and to include these evidence-based methods in the pre-service training curricula.

# Financial Summary

## Funding categories and finance flow



The above chart provides a more detailed breakout of the outcome key figures relating to expenditures by (funds obligated), funds to be implemented, and the financing gap for all programme areas in the Biennial Work Plan 2021–2022. However, due to the COVID-19 pandemic, the bulk of the expenditure was directed toward health emergencies detection and response (US\$ 1.6 million), of which US\$ 761,000 has been implemented. Other important categories that constitute most of the funds allocated and obligated include: access to comprehensive and quality health services – US\$ 174,000 (US\$ 30,000 implemented); response capacity for communicable diseases – US\$ 192,000 (US\$ 65,000 implemented); access to services for NCDs and



mental health – US\$ 154,000 (US\$ 64,000 implemented); health workforce – US\$ 112,000 (US\$ 33,000 implemented); increase public financing for health – US\$ 179,000; risk factors for communicable diseases – US\$ 194,000 (US\$ 83,000 implemented); malnutrition – US\$ 135,000 (US\$ 65,000 implemented); intersectoral action on mental health – US\$ 140,000 (US\$ 64,000 implemented); elimination of communicable diseases – US\$ 216,000 (US\$ 128,000 implemented); social and environmental determinants – US\$ 105,000 (US\$ 3,000 implemented); integrated information systems for health – US\$ 104,000 (US\$ 30,000 implemented); and health emergencies preparedness and response – US\$ 187,000 (US\$ 5,000 implemented).

All other categories that are included in the Biennial Work Plan were allocated smaller amounts based on the prioritization of expenditure toward the COVID-19 mitigation efforts.



## Special Initiatives

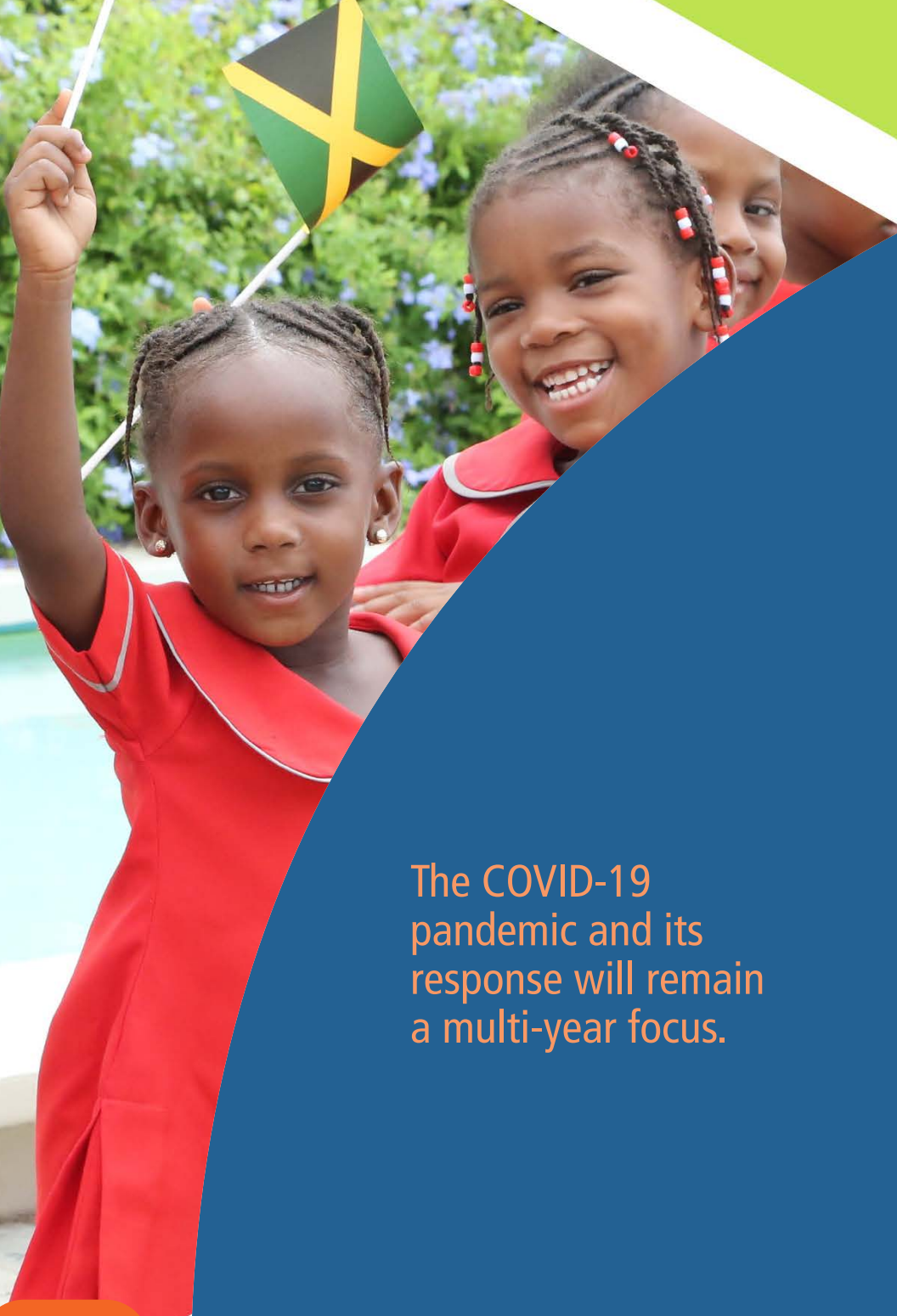
---

The Country Office continues to support Jamaica's Ministry of Health and Wellness in the achievement of its 10-Year Strategic Plan – Vision for Health 2030. The plan is in keeping with the country's Vision 2030 development plan and the SDGs to support universal health care.

The Country Office has made a formal request to the Government of Jamaica for a national voluntary contribution to expand its work in support of national health outcomes. The Government of Jamaica and its Ministry of Health and Wellness will revert with a decision on this request in 2021.

The Country Office continues to support Jamaica's Ministry of Health and Wellness in the achievement of its 10-Year Strategic Plan – Vision for Health 2030.





The COVID-19 pandemic and its response will remain a multi-year focus.

## Looking Ahead

The COVID-19 pandemic and its response will remain a multi-year focus.

Amid rising cases among their populations, the country and territories served by the Country Office have continued their implementation of COVID-19 restrictions on travel, entertainment, and population movement to stem the spread of the coronavirus. However, health officials are hopeful about access to a vaccine to support a national vaccine programme to protect the most vulnerable in society.

In 2021, there will be new opportunities for work to bolster the health systems and services in each country and territory as their recovery relies on the health of the nation. The Country Office remains committed to delivering strategic and tactical technical advice, and to building the capacity of local health institutions.

---

Pan American Health Organization  
8 Gibraltar Hall Road  
University of the West Indies Campus  
Kingston 7, Jamaica  
Tel.: +876 9700016

[www.paho.org](http://www.paho.org)

**PAHO**



Pan American  
Health  
Organization



World Health  
Organization  
REGIONAL OFFICE FOR THE Americas



PAHOWHO



PAHOWHO



OPSPAHO



PAHOTV